

# COMPSCOPE™ MEDICAL BENCHMARKS FOR TEXAS, 15TH EDITION

*Carol A. Telles*

WC-14-46  
October 2014

## TABLE OF CONTENTS

<a href="#"><u>Summary of Major Findings for Texas</u></a>	<a href="#"><u>3</u></a>
<a href="#"><u>How to Use This Analysis</u></a>	<a href="#"><u>7</u></a>
<a href="#"><u>Major Findings Slides</u></a>	<a href="#"><u>10</u></a>
<a href="#"><u>Data and Methods</u></a>	<a href="#"><u>41</u></a>
<a href="#"><u>Finding the Data You Want: Quick Reference Guide to Figures and Tables</u></a>	<a href="#"><u>51</u></a>
<a href="#"><u>List of Common Abbreviations and Symbols</u></a>	<a href="#"><u>187</u></a>
<a href="#"><u>Glossary</u></a>	<a href="#"><u>190</u></a>
<a href="#"><u>References</u></a>	<a href="#"><u>195</u></a>
<a href="#"><u>Technical Appendix</u></a>	

## Print Options

Click on a button to open a print dialog box set to print the indicated section of the study.

Entire Document – includes State Report & Technical Appendix

State Report

Summary of Major Findings

Slide Presentation

Data and Methods

Figures

Tables

Technical Appendix

Note to Reader: While we do our best to ensure that the product is fully functional for all users, there may be rare cases where user computer settings reduce the functionality. We would appreciate these instances being brought to our attention.

COPYRIGHT © 2014 BY THE WORKERS COMPENSATION RESEARCH INSTITUTE  
ALL RIGHTS RESERVED. NO PART OF THIS BOOK MAY BE COPIED OR  
REPRODUCED IN ANY FORM OR BY ANY MEANS WITHOUT WRITTEN PERMISSION  
OF THE WORKERS COMPENSATION RESEARCH INSTITUTE.

**ISBN 978-1-61471-851-2**

PUBLICATIONS OF THE WORKERS COMPENSATION RESEARCH INSTITUTE  
DO NOT NECESSARILY REFLECT THE OPINIONS OR POLICIES  
OF THE INSTITUTE'S RESEARCH SPONSORS.

## SUMMARY OF MAJOR FINDINGS FOR TEXAS

In this 15th edition of the CompScope™ Medical Benchmarks study, we report that [medical payments per claim](#) in Texas changed little in 2012 (evaluated as of 2013). This study examines medical costs, prices, and utilization in Texas and compares them with 15 other states. The study also examines how these metrics of medical costs and care have changed following the Texas reforms. The CompScope™ Medical Benchmarks study continues to monitor the impact of the series of reforms focused on medical costs, particularly [House Bill \(HB\) 7](#) in 2005. HB 7 impacted both prices and utilization of medical care as the various provisions were implemented beginning in late 2005. With the exception of the pharmacy closed formulary, which became applicable for all claims September 1, 2013, the data we report likely reflect nearly all of the effects of HB 7 provisions, including certified medical networks and the required use of treatment guidelines.

The major findings from the study are as follows:

- [Medical payments per claim changed little](#) in Texas from 2011 to 2012. Several factors contributed to that result: [little change in prices paid for professional services](#) (which had been growing rapidly since 2007), [stable hospital payments per service](#), a continued decrease in the [percentage of hospital inpatient episodes with surgery](#), and a [decrease in visits per claim for chiropractic care](#).
- [Texas medical payments per claim were lower](#) than the typical study state following the series of reforms. There were two main reasons for that result: prices paid for some medical care were still lower than typical despite large increases, and there were large decreases in utilization of medical care. Injured workers in Texas received more medical services than injured workers in other states for some key services, such as chiropractic care and neurological/neuromuscular testing.

Medical payments per claim in Texas changed little from 2011 to 2012 (evaluated in 2013). From 2007 to 2012, [medical payments per claim in Texas grew](#) about 4 percent per year, more slowly than in half of the 16 study states. [Growth in Texas medical payments per claim varied](#) from year to year since 2007, influenced by changes in prices and utilization of medical care. Texas medical payments per claim increased less than 3 percent from 2011 to 2012, similar to the growth in the 16-state median.

One of the key contributing factors to the slower growth in medical payments per claim from 2011 to 2012 in Texas was [little change in prices](#). A decrease in utilization of nonhospital medical care was also a factor.

Prior to the reforms in 2001 and 2005, Texas medical payments per claim were the highest of the study states, but in recent years they were [lower than typical](#). In general, [payments for nonhospital care were typical](#), while payments for hospital outpatient and inpatient care were lower than the 16-state median.

### CHANGES TO TEXAS PRICES

The transition to Medicare, as required by legislation, resulted in fee schedule rate increases for all Texas providers.<sup>1</sup> Despite the increases, [Texas was still mostly lower than the typical study state](#) for nonhospital

<sup>1</sup> The Texas Medicare-based professional service fee guideline took effect August 1, 2003, not only changing the reimbursement amounts for individual categories of services, but also adopting, by reference, Medicare's billing rules and

prices paid for specialty care, hospital outpatient payments per service for radiology and physical medicine services, and hospital payments per episode of inpatient care.

[Growth in prices paid for nonhospital services](#), as reported in *WCRI Medical Price Index for Workers' Compensation, Sixth Edition (MPI-WC)*, reflects increases in fee schedule rates, stemming from the transition to Medicare in 2008 and subsequent updates to Medicare reimbursement in 2010 and 2012 (Yang and Fomenko, 2014). From 2007 to 2012, [prices paid for professional services grew](#) about 7 percent per year in Texas, more than in other study states. [Nonhospital prices paid in Texas increased](#) from 2010 to 2011 across nearly all service groups but were fairly stable since then for most services. The elimination of voluntary (non-certified) networks as of January 1, 2011, could also be a factor in recent prices paid, as discounts on reimbursement were no longer allowed except for care provided within certified networks. As might be expected following the ban on non-certified networks, the [percentage of payments for medical care in networks](#) overall decreased from 54 percent in 2009 to 18 percent in 2011 and 22 percent in 2012. Similar decreases were observed for all providers in 2011. To [illustrate the potential impact](#) of the elimination of non-certified networks, we compared changes in prices paid and the fee schedule rate for a small number of commonly-billed Common Procedural Terminology (CPT) codes from 2010 to 2013. The illustration suggests that, generally, prices paid did increase faster than the fee schedule rates.

Even with the significant increases, [overall nonhospital prices paid](#) in Texas were 9 percent higher than the 25-state median in 2013, but there was some [variation by service group](#). Prices paid were higher than typical for primary care (office visits and physical medicine services) but somewhat lower for specialty care, such as major surgery and radiology services (Yang and Fomenko, 2014). In 2013, nearly [two-thirds of established patient office visits](#) in Texas were billed for CPT 99213, an office visit of low to moderate severity involving medical decision making of low complexity. CPT 99213 was the most frequently billed established patient office visit code in most states, but the percentage of office visits billed to that code was higher than typical in Texas. States with a higher percentage of established patient office visits billed as CPT 99213 tended to have higher prices paid. States with lower prices tended to bill CPT 99214 more often. Compared with the typical billing pattern, in Texas, established patient [office visits were billed more often for CPT 99213](#). One important factor likely underlying this billing behavior was that prices paid for office visits in Texas were higher than typical. For example, the average price paid for CPT 99213 in Texas was 32 percent higher than the 16-state median. Texas, like other states, has seen a shift to billing more complex office visits. The [shift in Texas](#), however, was largely from the codes with the lowest complexity (CPT 99211 and 99212) to codes of low to moderate complexity, especially CPT 99213. The shift continued even as prices paid increased (related to fee schedule increases). In the median state, the [shift was more towards CPT 99214](#), particularly in states with lower prices paid.

A recent Workers Compensation Research Institute (WCRI) study, *A New Benchmark for Workers' Compensation Fee Schedules: Prices Paid by Commercial Insurers?*, benchmarked prices paid under group health as an alternative to Medicare as a reference point for workers' compensation fee schedules (Fomenko and Victor, 2013). The study found that the [median workers' compensation price paid](#) in Texas for professional services for a common knee arthroscopy (CPT 29881) was 24 percent higher than the price paid

---

payment policies. Effective March 1, 2008, fee schedule changes were enacted for professional services, and fee schedules were enacted for hospital outpatient and hospital inpatient care. Fee guidelines for ambulatory surgery centers (ASCs) were implemented September 1, 2008. Since then, Texas reimbursement for medical services has followed changes in Medicare.



under group health, among the lowest price differential of the states studied. For a common established patient office visit (CPT 99213), the median workers' compensation price paid in Texas was 21 percent higher than the price paid under group health, a larger difference than in many states.

Following the shift to the Medicare reimbursement approach beginning in March 2008, Texas experienced an [increase in hospital outpatient payments per service](#). However, this increase was partly offset by a decline in the number of services per claim. In 2012, however, outpatient payments per service were stable, as were services per claim. Although several services showed an increase in payments per service immediately after the transition to Medicare, [payments for treatment/operating/recovery room services](#) continued to rise by double digits through 2011. In 2012, growth for this service moderated, increasing less than 4 percent—an important factor in the little change in overall hospital outpatient payments per service. [Overall, payments per service](#) for many hospital outpatient services were typical after the Texas fee schedule change. [Payments for many services remained lower](#) than typical, especially for radiology services. A recent WCRI study [compared hospital outpatient facility payments](#) made under workers' compensation with payments under group health for surgical episodes. The study, *Comparing Workers' Compensation and Group Health Hospital Outpatient Payments* (Fomenko, 2013), found that Texas payments under workers' compensation were 43 percent higher than group health for shoulder surgical episodes and 28 percent higher for knee surgical episodes. The [difference in payments between the two payors](#) was close to the middle of the 16 states.

Texas experienced rapid [growth in hospital payments per inpatient episode](#) after the 2008 transition to Medicare reimbursement, especially for surgical claims through 2010. In 2011, however, growth for nonsurgical episodes drove the growth in payments per inpatient episode. In 2012, nonsurgical episodes continued to drive the growth in hospital payments per inpatient episode. After 2008, the [percentage of claims with inpatient care](#) in Texas was fairly stable, while there was a [continuing decrease](#) in the percentage of claims with inpatient episodes with surgery. For low back cases with disc conditions (a relatively homogenous group of cases), there was a [continuing significant shift from inpatient to outpatient surgery](#). In 2007, about 52 percent of low back disc case surgeries were performed in an outpatient setting, increasing to 73 percent in 2012. Over that same period, the percentage of low back disc cases with surgery also increased through 2011 but much more moderately.

Hospital payments per inpatient episode were still lower than typical in Texas after the fee schedule increase. The average [hospital payment per inpatient episode](#) for 2011 claims with an average 24 months of experience was just under \$21,000 in Texas, which was 34 percent lower than the 16-state median.

## CHANGES IN UTILIZATION RELATED TO REFORMS AND OTHER FACTORS

A combination of factors beginning in late 2005, such as the mandatory use of treatment guidelines and utilization review, the introduction of certified networks, preauthorization for physical and occupational therapy services, and an increased payor focus on utilization since about 2002, led to a [large decrease in the utilization of nonhospital care](#). In 2012, [decreases in utilization continued](#), mainly driven by [fewer visits per claim for chiropractors](#). However, Texas was still higher than typical for some metrics, such as [chiropractic use](#) and [neurological/neuromuscular testing](#).

Texas continued to have higher-than-typical use of chiropractic services, despite large decreases. [Decreases](#) in the percentage of claims with chiropractic treatment and the percentage of all medical payments for chiropractic treatment resumed in 2011 and 2012, following three years of little change in those metrics.

Even with the decrease, Texas still had among the highest [percentages of claims with chiropractic care](#)—13 percent compared with the median of 7 percent. The number of [visits per claim for chiropractic care](#) continued to decrease in 2011. At an average of 10 visits per claim to chiropractors in 2012, Texas was lower than typical of the study states.

## **FINDINGS FOR TEXAS FROM WCRI STUDIES CONCERNING ASCs**

[Findings from other recent WCRI studies](#) help to inform policymakers and system stakeholders about ambulatory surgery center (ASC) facility payments. ASC facility [payments for common knee](#) and [shoulder surgeries](#) were lower than typical in Texas, as reported in the WCRI study, *Payments to Ambulatory Surgery Centers* (Savych, 2014). A related WCRI study, *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*, found that facility payments for outpatient surgeries were lower in Texas when done in ASCs than in hospital outpatient settings for [common knee surgeries](#) and for [shoulder surgeries](#), a reflection of [different fee schedule rates](#) (Savych, 2014). The study also found that Texas had a [lower percentage of common outpatient surgeries done in ASCs](#) than many states.

# INTRODUCTION AND HOW TO USE THIS ANALYSIS

This is the 15th edition of an annual series of analyses that benchmarks the performance of the Texas workers' compensation system. This study focuses on the costs, prices, and utilization of medical care received by injured workers. It examines these medical services in the aggregate and by type of provider and type of medical service. Related WCRI studies benchmark state fee schedules and worker outcomes. A companion study to this annual series benchmarks income benefits, claim costs, use of different types of benefits, litigiousness, timeliness of payment, etc. (CompScope™ Benchmarks, 2013). This annual series focuses on the performance of the benefit delivery system, and does not address insurance markets, pricing, or regulation.

The unit of analysis in the CompScope™ benchmarking series is the individual workers' compensation claim, so most results are reported on a per claim basis. Therefore, changes in claim frequency do not directly factor into the measures we report, but we do discuss the percentage of claims with a particular service or provider when appropriate.

These benchmarks provide dual perspectives:

- How the Texas system performance metrics have changed over time (trends), using claims that arose between October 2006 and September 2012, usually with an average of 12, 24, and 36 months of experience.
- How Texas compares with other states—specifically with 15 other mostly large states that were selected because they are geographically diverse, represent a range of system features, and represent the range of states that are higher, medium, and lower on costs per claim. The average medical payment per claim in the median state in this group is similar to the median among all U.S. states (see [“Data and Methods”](#)).

Texas underwent multiple rounds of significant legislative and regulatory changes since 2001. The most recent data we report likely reflect nearly all of the [effects of provisions under House Bill \(HB\) 7](#), which was passed in 2005. The bill's provisions focused mainly on managing medical care and included the establishment of certified medical networks, the required use of treatment guidelines for medical care outside of certified networks, required utilization review, preauthorization of physical/occupational therapy services, and reimbursement for medical care based on Medicare. One change not yet fully reflected in the data is the closed formulary for pharmaceuticals, effective September 1, 2011, for new claims and September 1, 2013, for claims occurring prior to September 1, 2011.

## HOW TO USE THIS BENCHMARKING REPORT

The format of this edition of the CompScope™ Medical Benchmarks study is designed to make the findings easily accessible and still provide a rich and detailed set of benchmarks for those who want to drill down beneath the major findings.

- For those who want to get quickly to the bottom line, there is a short narrative [summary of major findings](#) and a [slide presentation](#) on major findings. The slides provide explanatory figures and charts, along with interactive links to the more detailed figures and tables that underlie the highlighted major

findings.

- For those who want to drill down on a specific issue, the narrative summary and slide presentation both have links from each finding or slide to the underlying detailed tables and graphs.
- For those who are not familiar with the CompScope™ benchmarking studies, there is an “[Information for First-Time Users](#)” section to provide detail about the key benchmarks we analyze, the data we use and the adjustments we make, and some presentational explanations.
- For those seeking a wide-ranging reference book to address the questions of interest, there are many detailed tables and graphs that are available for browsing or through links in the “[Quick Reference Guide to Figures and Tables](#).”
- For those who are interested in the medical management approaches used in each state, [Tables 5](#) and [6](#) summarize the medical cost containment strategies in place in 2014.
- The data and methods are fully described in a [Technical Appendix](#) that is attached to this report as a separate document. This report also contains a short summary of the *Technical Appendix* entitled “[Data and Methods](#).”

Note: Each page of this report contains a “Back to Previous View” button which allows the reader to click on a link to another section and then return to the original page, eliminating the need for bookmarking.

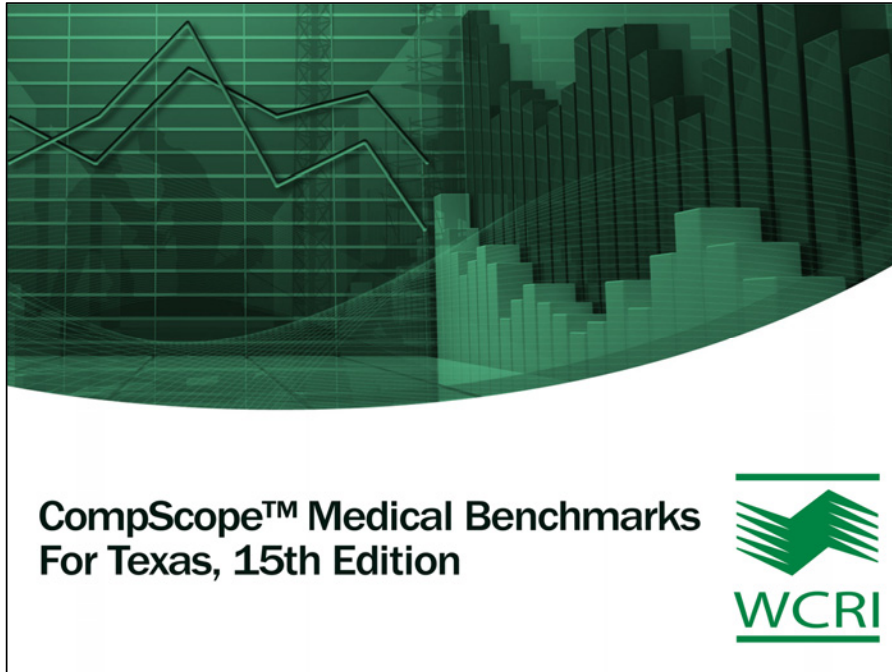
## INTRODUCTION TO MAJOR FINDINGS SLIDES

The following pages are a slide discussion of *CompScope™ Medical Benchmarks for Texas, 15th Edition*. The slides highlight the major findings discussed in the summary of major findings for Texas and provide explanatory figures and charts. The notes to the right of some slides provide additional technical or substantive information pertinent to that slide. For example, the notes might contain links to external summaries of legislation or workers' compensation agency reports, a reference to a related figure or table, or an explanation of a relevant workers' compensation system feature. References to source information and definitions of key terms or abbreviations are located below the slide to which they apply. To view the notes, references, and/or definitions, the document magnification on your computer may need to be set at 100 percent or lower. Please note that the slides are also interactive, linking to other areas of this report where useful. For example, bar charts generally link to the box plot figures that contain the numbers underlying the chart. Links are indicated by underlining.

When describing the performance of a state in this report, we generally use the criteria and key terms in the chart below. Words used to describe an increase include *growth* and *rise*. Words used to describe a decrease include *fall*, *drop*, and *decline*. For some measures, such as those based on percentages of payments and percentages of claims, often specific numeric criteria are not used to apply the characterization of a state's value relative to the median, as the distributions of states' values on different percentage measures are often subject to different degrees of variation. Instead, we apply the characterization by reviewing where each state's value falls relative to other states in the overall distribution. A characterization is assigned after taking into consideration the magnitude of the values, the range and clusters of states' values, and the homogeneity or heterogeneity of the overall distribution.

### Key to Terms Used in Report

Multistate Values	Comparison with Median State	
Higher	More than 10 percent above median	
Lower	More than 10 percent below median	
Typical or close to	Within 10 percent above or below median	
Trends	Change in Cost Measures (annual average percentage)	Change in Frequency Measures (annual average percentage points)
Very rapid increase	+9% and higher	+4 points and higher
Rapid increase	+6% to 8.9%	+2 to 3.9 points
Moderate increase	+3% to 5.9%	+1 to 1.9 points
Flat, little change	+2.9% to -2.9%	+0.9 to -0.9 points
Moderate decrease	-3% to -5.9%	-1 to -1.9 points
Rapid decrease	-6% to -8.9%	-2 to -3.9 points
Very rapid decrease	-9% and lower	-4 points and lower



The following pages are a slide discussion of *CompScope™ Medical Benchmarks for Texas, 15th Edition*. The slides highlight the major findings and provide explanatory figures and charts. Please note that the slides are also interactive, linking to other areas of this study where useful.

## Outline Of Report Content

- Summary of major findings
- Slide presentation of major findings
- Summary of data and methods
- Information for first-time users of this report
- List of other WCRI studies of interest for Texas
- Scope of CompScope™ multistate benchmarks
- Tables and figures: multistate comparisons & trends
- References
- Glossary
- Detailed data and methods: Technical Appendix

## Key Findings For Texas From CompScope™ Medical Benchmarks

- Little change in medical payments per claim in 2012
  - Little change in prices
  - Decrease in utilization of nonhospital care, especially in visits per claim for chiropractic care
- Medical payments per claim lower than typical after series of reforms
  - Prices lower than typical for some services despite increases
  - Lower % of care in networks reflects voluntary network ban
  - Utilization higher for some services after large decreases

© Copyright 2014 WCRI. All Rights Reserved.

3

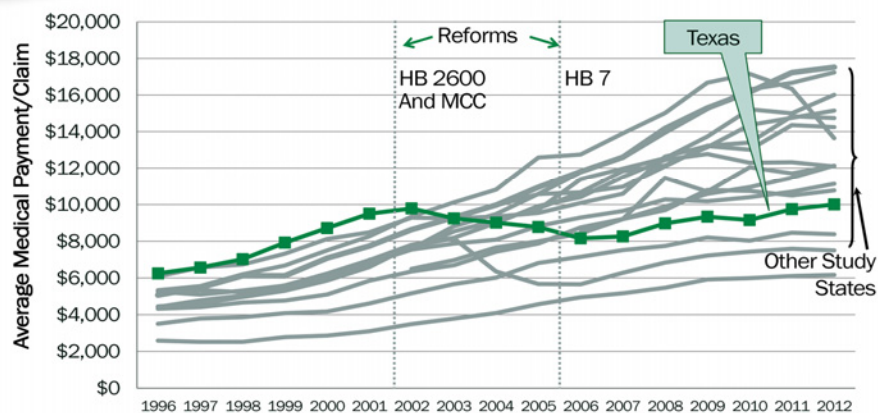


### Definitions:

**Utilization:** The combination of number of visits per claim, number of services per visit, and the resource intensity of services provided.

**Nonhospital:** Also known as professional services. Services provided outside of a hospital setting. Providers of nonhospital services include physicians, chiropractors, and physical/occupational therapists. Other nonhospital providers include nurses, clinical social workers, and other ancillary practitioners.

## Texas Medical Payments Per Claim Lower Than Typical After Series Of Reforms



Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix And Wages

© Copyright 2014 WCRI. All Rights Reserved.

4

This chart shows the trend in total medical payments per claim with more than seven days of lost time at 12 months of experience in each of the study states. Texas is highlighted.

Medical payments per claim in Texas were highest of the study states and growing fastest prior to the series of reforms.

In recent years, Texas medical payments per claim were lower than the typical study state.

HB 2600 had various implementation dates beginning in 2002. See HB 2600 Implementation Matrix: [http://www.house.state.tx.us/media/pdf/committees/reports/78interim/business\\_appendix1.pdf](http://www.house.state.tx.us/media/pdf/committees/reports/78interim/business_appendix1.pdf).

See <http://www.tdi.texas.gov/wc/dwc/legisupdate.html#hb7> for a summary of HB 7 prepared by the Texas Workers' Compensation Commission.

### Key and definition:

**HB:** House bill.

**MCC:** Medical cost containment; includes fees for bill review, case management, utilization review, and preferred provider networks. System participants note an increased payor focus and effort on cost containment.



## HB 7 (2005) Impacted Both Prices And Utilization Of Medical Care In Texas

- Full impact likely observed in 2012/13 claims
  - Preauthorization for PT/OT services (12/2005)
  - Health care networks (1st network certified 3/2006)
  - Adoption of evidence-based treatment guidelines (5/2007)
  - Required use of utilization review (2007)
  - Fee schedule increases reflect transition to Medicare (3/2008 and after)
- Not yet reflected or fully reflected in report data
  - Closed formulary for pharmaceuticals effective 9/1/2013 for existing claims (9/1/2011 for new claims)
- HB 473 (2007) eliminated informal networks 1/1/2011

© Copyright 2014 WCRI. All Rights Reserved.

5



A summary of HB 7 prepared by the Texas Workers' Compensation Commission can be found at <http://www.tdi.texas.gov/wc/dwc/legisupdate.html#hb7>.

The Texas Department of Insurance (TDI) estimates that, as of February 1, 2012, roughly 35 percent of new injuries (occurring between June 1, 2010, and May 31, 2011) were treated by certified networks: [http://www.tdi.texas.gov/reports/wc\\_reg/documents/2012\\_report\\_card.pdf](http://www.tdi.texas.gov/reports/wc_reg/documents/2012_report_card.pdf).

For detail on fee schedule changes in 2008, see

<http://www.tdi.texas.gov/wc/fee/documents/mfginfo.pdf>.

In 2007, the legislature passed HB 473, which required that, effective January 1, 2011, voluntary and informal networks be dissolved or become certified by the TDI.

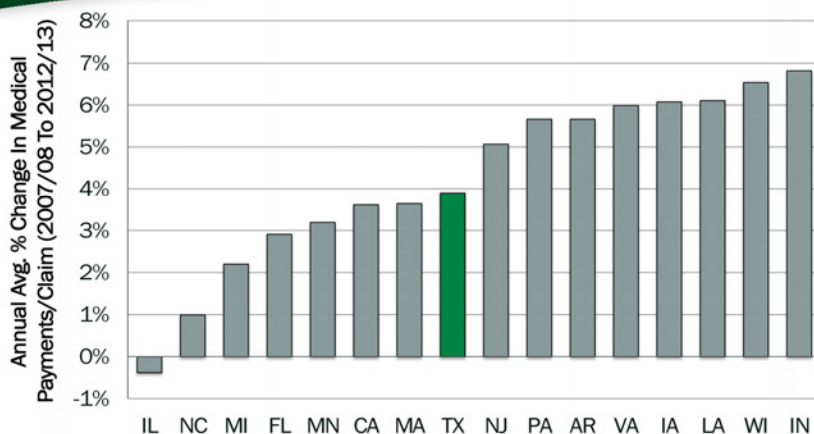
For information on the closed formulary, see

<http://www.tdi.state.tx.us/wc/rules/adopted/documents/aorx1210.pdf>.

Key: **HB**: House bill; **PT/OT**: Physical/occupational therapist.

**Naming convention (example 2012/13):** The first year (2012) is the injury year, which we define as claims arising from October 1, 2011, through September 30, 2012; the second year (13) is the maturity of the claim (experience through March 31, 2013). This indicates 2012 claims at an average maturity of 12 months. We denote other injury year/evaluations similarly.

## TX Medical Payments/Claim Grew More Slowly Than Many Other Study States



Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

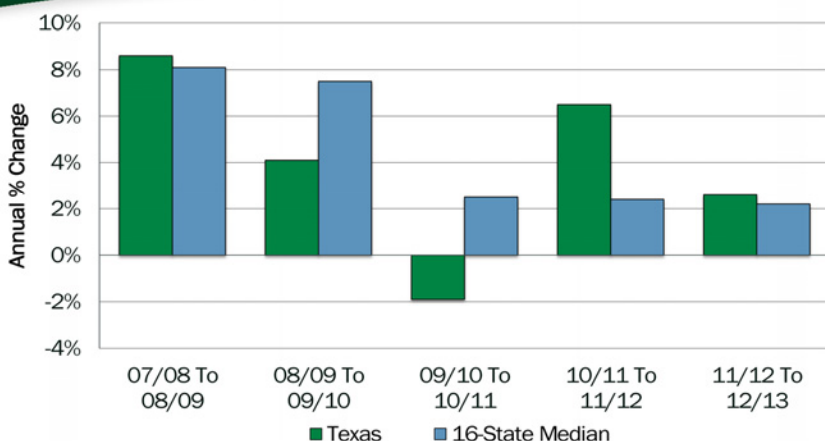
6



This chart shows the annual average percentage change in medical costs per claim in each study state from 2007/08 to 2012/13. The nearly 4 percent per year growth in Texas was less than in half of the study states.



## Little Change In Texas Medical Payments Per Claim In 2012, As In 16-State Median



Change In Average Medical Payments Per Claim With More Than 7 Days Of Lost Time With Expenses, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

7



This chart shows the annual percentage change in medical payments per claim in Texas compared with the median of the 16 study states.

Growth in Texas medical payments per claim varied from year-to-year since 2007/08, influenced by changes in prices and utilization of medical care. Texas medical payments per claim increased less than 3 percent from 2011/12 to 2012/13, similar to the growth in the median.

## Factors That Contributed To Slower Growth In Texas Medical Payments/Claim

- Little change in prices paid for professional services
  - Prices had been increasing rapidly after 2007, the result of fee schedule increases tied to Medicare updates as required under legislation, and the 2011 ban on voluntary networks
- Stable hospital payments per service, driven in part by slower growth for treatment/operating/recovery room
- Continued decrease in % of inpatient episodes with surgery
- Decrease in utilization of nonhospital services, especially visits per claim for chiropractic care

© Copyright 2014 WCRI. All Rights Reserved.

8



## Little Change In Prices: Main Reason For Slower Growth In TX Medical Costs/Claim

Change In Medical Cost Components In Texas	2007/08 To 2011/12 (AAPC)	2011/12 To 2012/13
<u>Nonhospital Payments/Claim</u>	5.3%	0.1%
<u>Prices Paid (index)</u>	8.7%	<b>0.5%</b>
<u>Utilization (index)</u>	-0.8%	-2.9%
<u>Hospital Outpatient Payments/Claim</u>	2.0%	-0.8%
<u>Payments/Service</u>	6.2%	<b>-0.3%</b>
<u>Services/Claim</u>	-3.9%	-0.5%
<u>Hospital Payments/Inpatient Episode</u>	5.0%	5.1%

Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

9



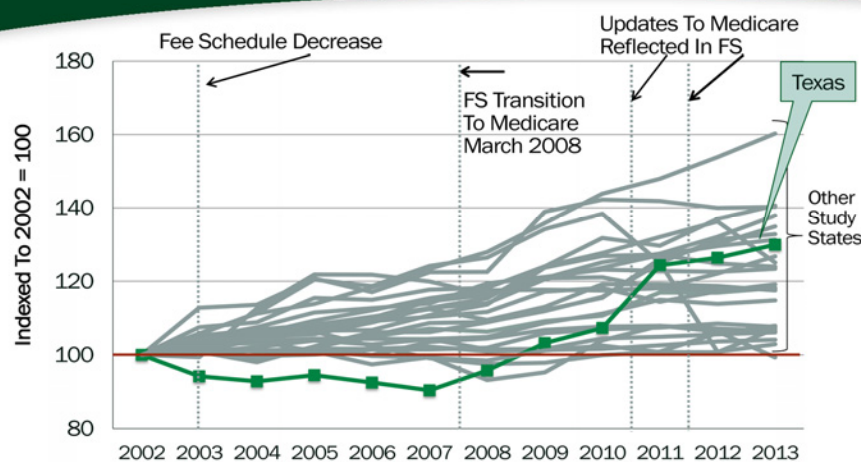
This chart compares the annual average percentage change in medical cost components in Texas for two periods: the annual average percentage change from 2007/08 to 2011/12 and the change from 2011/12 to 2012/13.

Little change in prices paid mainly drove the relative stability in Texas medical costs per claim from 2011/12 to 2012/13. For example, prices paid for nonhospital services increased less than 1 percent in 2012/13, in contrast to growth of nearly 9 percent per year from 2007/08 to 2011/12. Payments per service for hospital outpatient care showed a similar change—stable payments in 2012/13, following annual growth of 6 percent per year from 2007/08 to 2011/12.

A nearly 3 percent decrease in utilization of nonhospital care also contributed to the stable medical costs per claim in 2012/13.

Key: **AAPC:** Annual average percentage change.

## TX Prices Paid For Nonhospital Care Fairly Stable Since 2011, After Large Increases



Prices Paid For Nonhospital (Professional) Services In Calendar Year 2002 To 2013 (January Through June)  
Source: WCRI Medical Price Index For Workers' Compensation, Sixth Edition (2014)

© Copyright 2014 WCRI. All Rights Reserved.

10



This graph shows the trend in nonhospital prices paid in each of the 25 states studied in *WCRI Medical Price Index for Workers' Compensation, Sixth Edition*, with Texas highlighted.

Prices paid are indexed to 2002 as the base year in each state, so this graph does not show relative comparisons of actual prices paid. Rather, the graph shows where Texas was after more than 10 years of price increases and decreases, relative to the increases and decreases in other states.

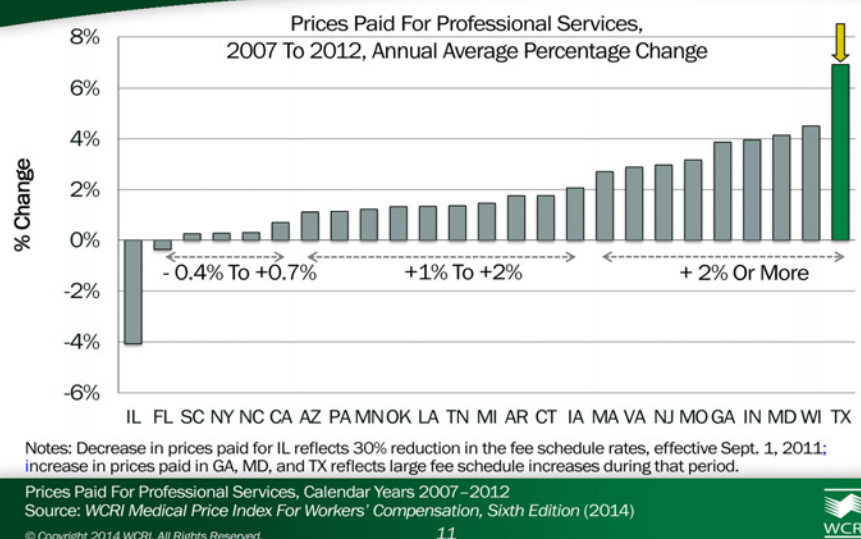
Generally, prices paid for nonhospital services have been fairly stable since 2011, following large increases since 2008.

The decrease in Texas following the 2003 fee schedule changes is evident, as is the increase in 2008 after the transition to Medicare. Increases in prices paid in 2011 and 2012 reflect changes in the fee schedule stemming from updates to Medicare.

**Key and definition:** **FS:** Fee schedule; **Nonhospital services:** Services provided outside of a hospital setting. Providers of nonhospital services include physicians, chiropractors, and physical/occupational therapists. Other nonhospital providers include nurses, clinical social workers, and other ancillary practitioners.

Source: Yang and Fomenko. 2014. *WCRI Medical Price Index for Workers' Compensation, Sixth Edition (MPI-WC)*.

## Prices Paid In TX Grew More Than Other Study States From 2007 To 2012, But...



This graph shows the annual average percentage change in prices paid for professional services between 2007 and 2012.

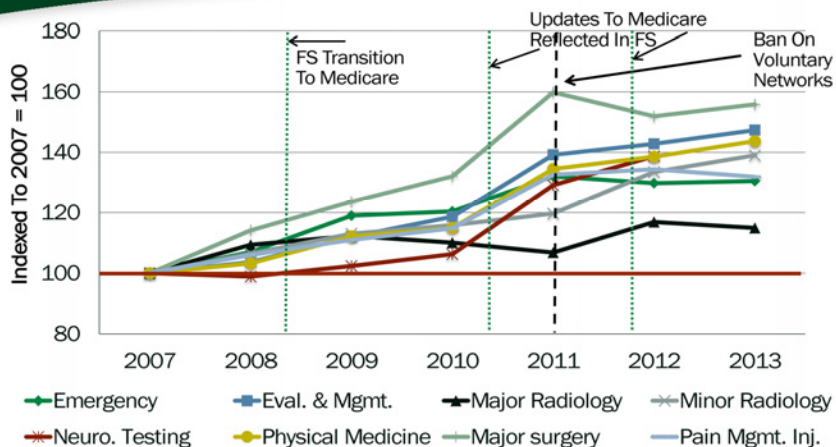
During that period, prices paid for professional services in Texas grew nearly 7 percent per year, more than in other study states. The main reason for the growth in prices paid in Texas was increases in the fee schedule rates, tied to changes in Medicare reimbursement.

Prices paid may reflect network discounts and/or other price negotiations between the payors and medical providers.

The elimination of voluntary or informal provider networks, effective January 1, 2011, may have contributed to growth in prices after that date, as discounts under those types of networks were no longer available.

Source: Yang and Fomenko. 2014. *WCRI Medical Price Index for Workers' Compensation, Sixth Edition (MPI-WC)*.

## Little Recent Change In TX Prices Paid For Most Professional Services, Esp. In 2013



Prices paid increased for most services from 2010 to 2011, based on updates to Medicare reflected in the fee schedule in March 2010. That update was based on changes in Medicare, mostly in RVUs. Fee schedule increases in 2012 were consistent with January 2012 Medicare updates and resulted in growth in prices paid for some services, specifically major radiology, minor radiology, and neurological and neuromuscular testing. Prices paid for other nonhospital services were fairly stable in 2012. Prices paid were mainly stable in 2013.

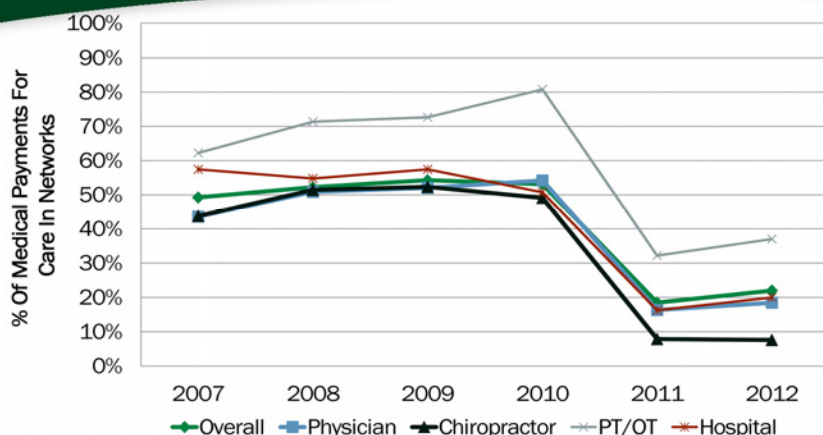
Service Group	% Change		
	2010 To 2011	2011 To 2012	2012 To 2013
Emergency	10%	-2%	1%
Eval. & Mgmt.	17%	3%	3%
Major Radiology	-3%	9%	-2%
Minor Radiology	3%	12%	4%
Neuro. Testing	21%	7%	n/a
Physical Medicine	17%	3%	4%
Major Surgery	21%	-5%	3%
Pain Mgmt. Inj.	15%	1%	-2%

**Key and definitions:** **Esp.:** Especially; **FS:** Fee schedule; **Eval. & Mgmt.:** Evaluation & management services (office visits); **Major radiology:** Includes computerized tomography (CT) scans and magnetic resonance imaging (MRIs); **Minor radiology:** Includes X rays and ultrasounds; **Neuro. Testing:** Neurological and neuromuscular testing, such as F-wave studies; **Physical medicine:** Physical medicine and chiropractic care; **Major surgery:** Invasive surgical procedures, such as arthroscopic surgeries and laminotomies; **Pain Mgmt. Inj.:** Pain management injections, including injection procedures that are commonly used for pain management, such as epidural or steroid injections on nerve roots and muscle for lumbar, sacral, cervical, or thoracic areas; **RVU:** Relative value unit.

Source: Yang and Fomenko. 2014. *WCRI Medical Price Index for Workers' Compensation, Sixth Edition (MPI-WC)*.



## Decrease In % Of Network Participation Reflects Elimination Of Informal Networks



Note: Use of non-certified (voluntary) networks was prohibited in Texas effective January 1, 2011.

Services Rendered Within Calendar Year, Based On Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix.

© Copyright 2014 WCRI. All Rights Reserved.

13



Key: **PT/OT**: Physical/occupational therapist.

Effective January 1, 2011, informal or voluntary networks were no longer allowed in Texas.

On this chart, we show the trend in the percentage of medical payments for care in networks by type of provider in Texas. This measure is based on identification of network care provided by the data sources. We calculate this percentage as the total payments to providers for medical care rendered within a health care network divided by the total payments to providers for all medical care, in and out of networks.

Overall (green line), the percentage increased from about 49 percent in 2007 to 54 percent in 2009, and then decreased to 18 percent in 2011 and 22 percent in 2012. Similar decreases were observed for all providers in 2011.

In addition to fee schedule increases related to Medicare changes, the elimination of the voluntary networks was likely a factor in the recent growth in prices paid.

## Illustration: TX Prices Paid Grew More Than FS, Likely Reflects Vol. Network Ban

Nonhospital Services	Change From 2010 To 2013	
CPT Code	Price Paid*	Fee Schedule Rate*
99213 (E&M)	27%	18%
99214 (E&M)	27%	16%
97110 (PM)	28%	19%
97140 (PM)	30%	19%
29827 (Surgery)	23%	10%
29881 (Surgery)	7%	-5%

\*Reflects single statewide rates for Texas by averaging the 8 sub-state fee schedules and Medicare rates, using the percentage of employed persons in each sub-state region as weights.

Fee Schedule Increases In March 2010 And January 2012 Based On Changes In Medicare Prices Paid To Nonhospital Providers In Calendar Year

© Copyright 2014 WCRI. All Rights Reserved.

14



Key: **FS**: Fee schedule; **Vol.**: Voluntary; **CPT**: Current Procedural Terminology; **E&M**: Evaluation and management services (office visits); **PM**: Physical medicine and chiropractic care.

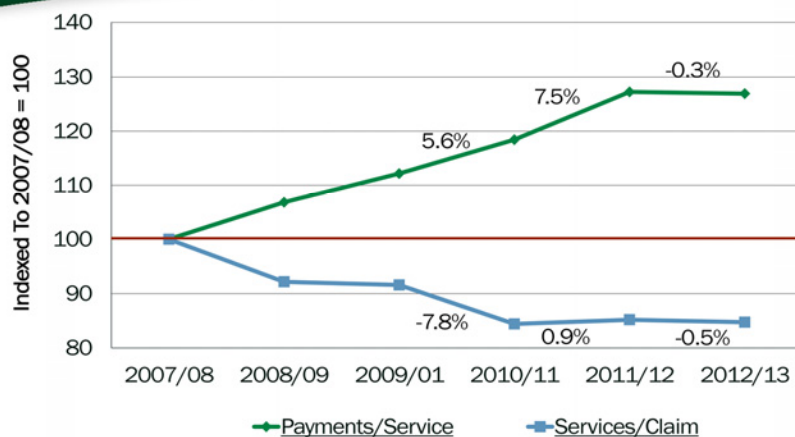
**Definitions**: **CPT 99213**: Established patient office visit, low-moderate severity, 15 min; **CPT 99214**: Established patient office visit, moderate-high severity, 25 min.; **CPT 97110**: Therapeutic procedure; **CPT 97140**: Manual therapy techniques; **CPT 29827**: Arthroscopic rotator cuff repair; **CPT 29881**: Arthroscopic knee surgery.

Effective January 1, 2011, discounted fee contracts for voluntary or informal networks were eliminated in Texas. From this policy change, we might expect to see prices paid increasing faster than increases in the rates allowed under the fee schedule because of the elimination of discounts.

We compared changes in prices paid and the fee schedule rate for a small number of commonly-billed CPT codes from 2010 to mid-2013. The illustration suggests that prices paid did increase faster than the fee schedule rates.

This information may be indicative of some effect on prices from the elimination of the voluntary networks. However, it does not account for any shift to more services being provided through a certified network and/or different discounts within certified networks than under voluntary networks. A broader, more complete analysis over a longer timeframe would be needed to assess the impact of the policy change.

## Rise In TX Outpatient Payments/Service Reflects FS And Updates; Stable In 2012



Hospital Outpatient Services, Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix  
© Copyright 2014 WCRI. All Rights Reserved.

15



Key: **FS:** Fee schedule.

This graph breaks down the trend in Texas hospital outpatient payments per claim into the components, average payment per service and services per claim.

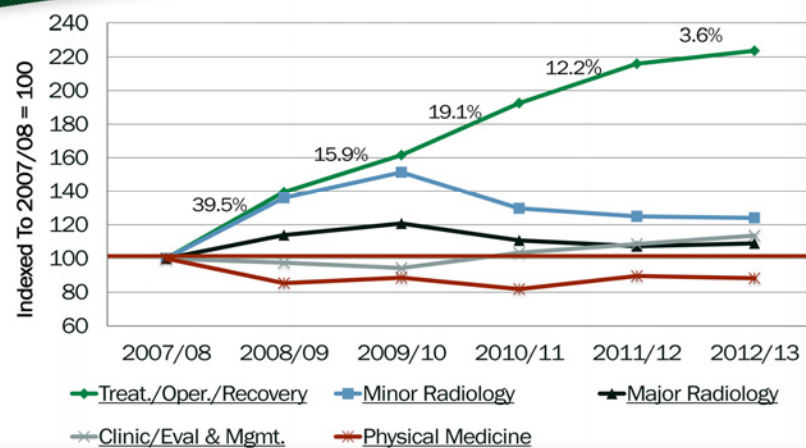
The trend in these metrics is indexed to 2007/08 (set at 100). This represents how the value in each year changed relative to the value for 2007/08.

An increase in payments per service in Texas from 2009/10 to 2010/11 was offset by a decrease in the number of services per claim. From 2010/11 to 2011/12, payments per service grew rapidly, related to the fee schedule update in March 2010. From 2011/12 to 2012/13, payments per service and services per claim were stable.

Figure 73 shows the annual average percentage or percentage point change in hospital outpatient metrics, including payments per claim, payments per service, and services per claim.

For hospital outpatient services, because the revenue codes often used in hospital billing are too broadly defined to support a robust marketbasket of services and an estimate of the relative intensity of services, we use the average payment per service and number of services per claim. See the [Technical Appendix](#) for more details.

## Rapid Growth In TX Treatment/Operating Room Payments/Service Slowed In 2012



Payments Per Service, Hospital Outpatient Services, Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix  
© Copyright 2014 WCRI. All Rights Reserved.

16



Key:

**Treat./Oper./Recovery:** Treatment/operating/recovery room services.

**Clinic/Eval. & Mgmt.:** Clinic/Evaluation and management.

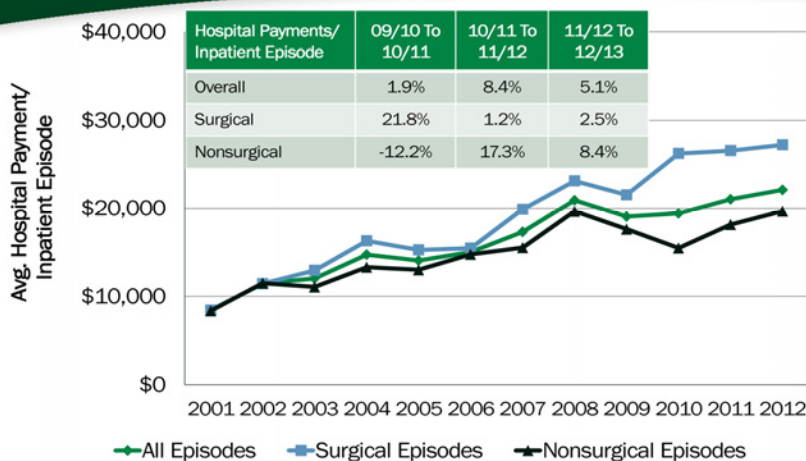
This chart shows the trend in the average hospital outpatient payment per service in Texas by type of service for claims at an average 12 months of experience. The trend in these metrics is indexed to 2007/08 (set at 100).

Payments per service decreased or were fairly stable for most services. An exception was treatment/operating/recovery room services, which increased more than 20 percent per year on average through 2011 after the 2008 fee schedule change. Growth moderated in 2012, increasing less than 4 percent.

The fee schedule set reimbursement at 200 percent of Medicare (130 percent when separate reimbursement for implantables is sought). Previously, hospital outpatient services were reimbursed on a fair and reasonable basis.

Texas had a lower-than-typical percentage of claims with treatment/operating/recovery room services in 2012/13 (19.8 percent in Texas compared with 24.8 percent in the median state). The percentage of overall medical payments for hospital outpatient treatment/operating/recovery room services was slightly higher than typical—10.2 percent in Texas compared with 8.6 percent in the 16-state median for 2012/13 claims.

## Hospital Costs For Inpatient Nonsurgical Episodes Drove Growth Since 2010 In TX



Claims With > 7 Days Of Lost Time At 12 Months Of Experience With Hospital Inpatient Episodes, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

17



Notes: Effective March 2008, reimbursement for inpatient care was set at 143 percent of Medicare, 108 percent when separate reimbursement for implantables is sought by the facility or implant surgical provider.

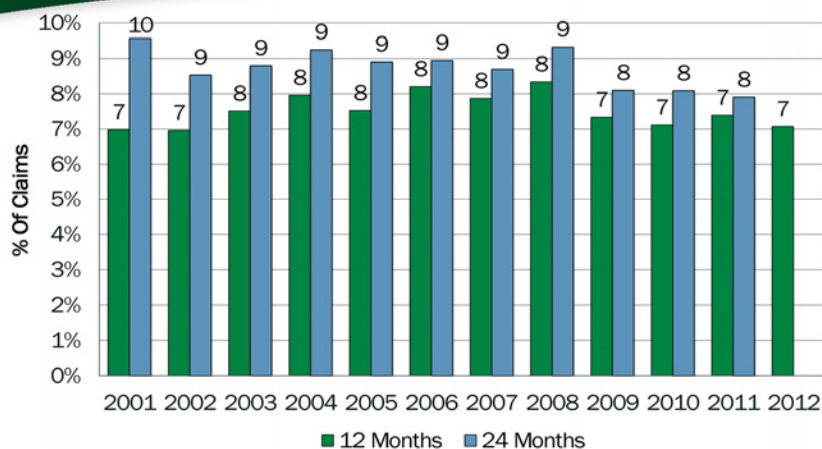
On this chart we show the trend in the average hospital payment per inpatient episode overall and for surgical and nonsurgical cases in Texas.

From 2009/10 to 2010/11, hospital payments per inpatient episode changed little overall, reflecting a nearly 22 percent increase in payments per surgical episode, offset by a 12 percent decrease in nonsurgical episodes. The percentage of claims with inpatient care was fairly stable after 2008 and the percentage of hospital inpatient episodes with surgery was stable from 2009 to 2010.

From 2010/11 to 2011/12, overall hospital payments per inpatient episode increased more than 8 percent, driven by nonsurgical cases (17 percent). That pattern continued in 2012/13, but the rates of growth were not as large, with growth of 5 percent overall and 8 percent for nonsurgical cases.

The variability in hospital payments per inpatient surgical episode and nonsurgical episode could be due in part to a change in the mix and severity of underlying medical conditions. If, for example, less severe surgical cases shifted from inpatient to outpatient, those remaining as inpatient would be on average more severe. We see evidence of this in low back disc cases.

## Little Change In Texas % Of Claims With Inpatient Episodes Of Care After 2008



Claims With Hospital Inpatient Episodes As A Percentage Of Claims With > 7 Days Of Lost Time, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

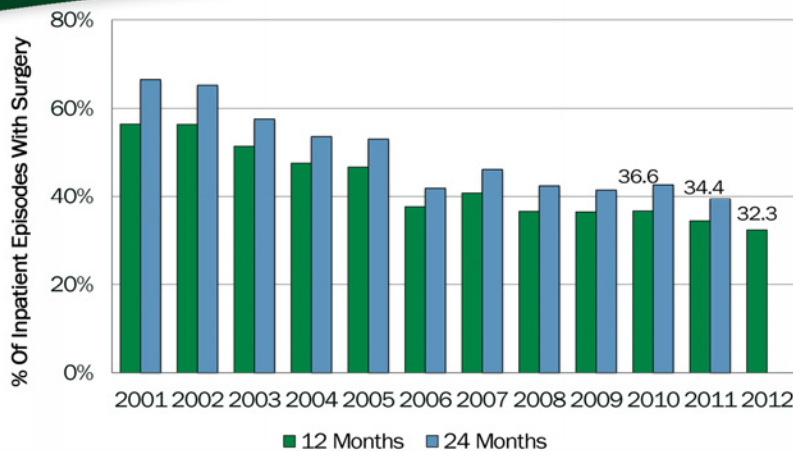
18



This chart shows the percentage of claims with more than seven days of lost time with inpatient episodes of care for cases at 12 and 24 months of experience. There was little change since 2009, when the percentages decreased one point from 2008.



## TX Decrease In % Of Hospital Inpatient Episodes With Surgery Continued In 2012



Claims With > 7 Days Of Lost Time With Hospital Inpatient Episodes, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

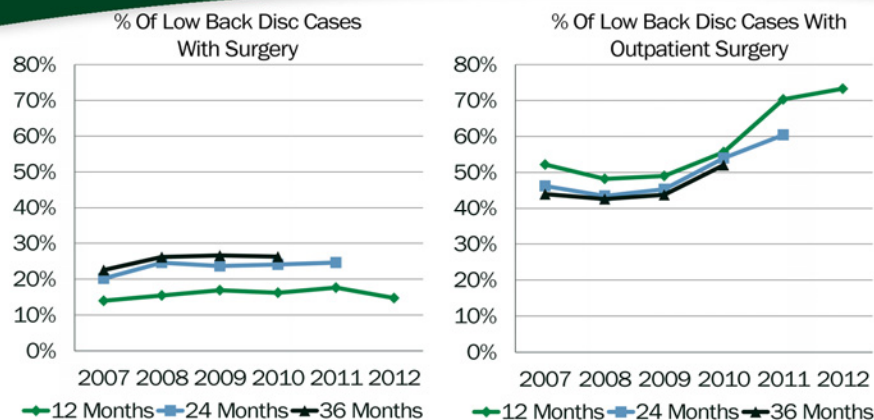
19



This chart shows the percentage of hospital inpatient episodes with surgery for cases at 12 and 24 months of experience.

Note that the overall surgery rate, including inpatient and outpatient/ambulatory surgery center surgery (as a percentage of claims with more than seven days of lost time) decreased slightly, from 28.7 percent in 2007/08 to 26.3 percent in 2012/13. A similar pattern of small decreases was observed for claims at 24 months of experience, suggesting that the decreases at 12 months were not due to a delay in surgery.

## Low Back Disc Cases: Rise In % Cases With Surgery Until 2012, Shift To Outpatient



Note: Low back disc cases are defined as low back claims with at least half of the medical dollars spent on a set of seven disc-related ICD-9 codes; the most frequent codes included are 722.10 and 724.40.

Low Back Cases With Disc Conditions, Claims With > 7 Days Of Lost Time, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

20



For low back cases with disc conditions (a relatively homogenous group of cases), there was a continuing significant shift from inpatient to outpatient surgery.

In 2007/08, about 52 percent of low back disc case surgeries were performed in an outpatient setting, increasing to 73 percent in 2012/13 (shown in the graph on the right). The remainder of the low back disc cases with surgeries were performed in an inpatient setting. That is, 48 percent of low back disc surgeries were performed on an inpatient basis in 2007/08, decreasing to 27 percent in 2012/13.

Over that same period, the percentage of low back disc cases with surgery also increased through 2011, but much more moderately (shown in the graph on the left).

Key: ICD: International Classification of Diseases.

## Key Findings For Texas From CompScope™ Medical Benchmarks

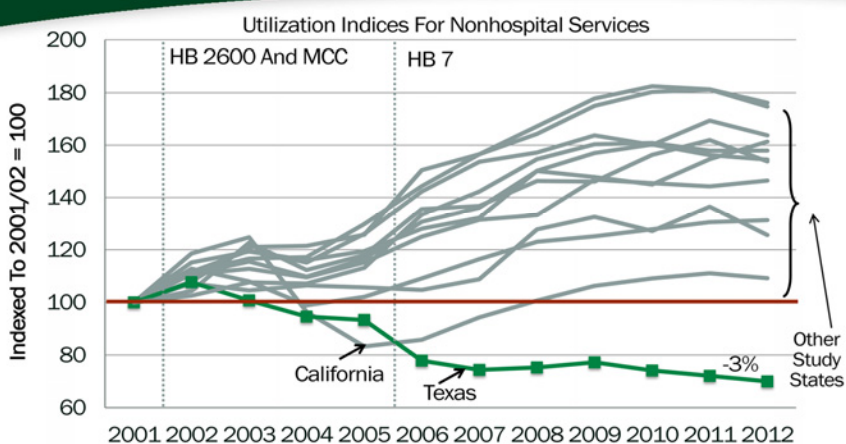
- Little change in medical payments per claim in 2012
  - Little change in prices
  - ➔ Decrease in utilization of nonhospital care, especially in visits per claim for chiropractic care
- Medical payments per claim lower than typical after series of reforms
  - Prices lower than typical for some services despite increases
  - Lower % of care in networks reflects voluntary network ban
  - Utilization higher for some services after large decreases

© Copyright 2014 WCRI. All Rights Reserved.

21



## Utilization Of Nonhospital Services Still Decreasing In Texas



Claims With &gt; 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

22



This chart shows the trend in utilization of nonhospital services in each of the study states for claims with more than seven days of lost time at 12 months of experience.

By utilization, we mean the combination of number of visits per claim, number of services per visit, and the resource intensity of the services provided.

Note that utilization is indexed to 2001/02 as the base year. Utilization of nonhospital medical services was significantly higher in Texas than in other study states in that year. From 2011/12 to 2012/13, utilization in Texas decreased about 3 percent.

A major factor in the decrease in utilization of nonhospital care since 2002 was an increased payor focus on utilization of chiropractic care in particular. Provisions of HB 7 also contributed to decreases in utilization beginning in late 2005, including preauthorization for PT/OT services (December 2005), introduction of health care networks (first network certified in March 2006), and required use of treatment guidelines for non-network care and utilization review (May 2007).

Key:

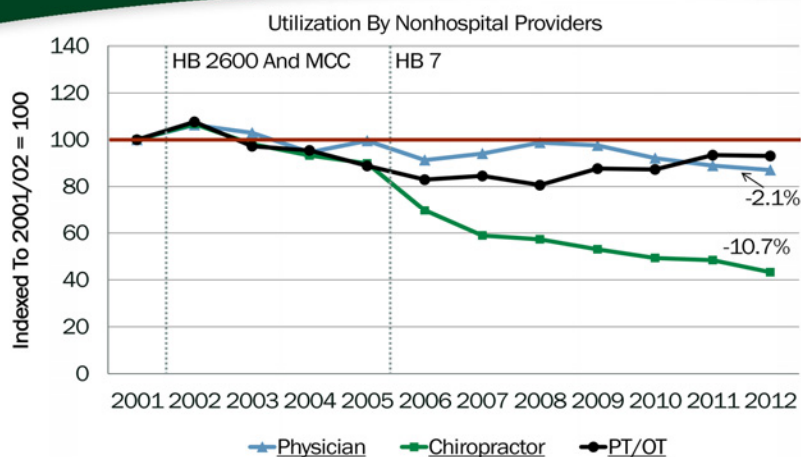
**HB:** House bill.

**MCC:** Medical cost containment. System participants note an increased payor focus and effort on cost containment.

**PT/OT:** Physical/occupational therapist.



## Further Decrease In Utilization Of Care Provided By Chiropractors In 2012



Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

23



This chart shows the trend in utilization of nonhospital services by provider type for claims with more than seven days of lost time at 12 months of experience.

Utilization is indexed to 2001/02 as the base year. Utilization decreased fairly steadily for all three nonhospital providers from 2002/03 to 2007/08 or 2008/09 and continued to decrease for chiropractors. From 2011/12 to 2012/13, utilization decreased 10.7 percent for chiropractors and was fairly stable for physicians (2.1 percent decrease) and physical/occupational therapists.

Prior to HB 2600, HB 7, and the increased payor focus on management of medical costs, Texas was a notably high state with respect to utilization of chiropractic care.

With decreases in the number of visits per claim, Texas has become lower than typical for that measure (see Figure 7).

Key:

**HB:** House bill.

**MCC:** Medical cost containment. System participants note an increased payor focus and effort on cost containment.

**PT/OT:** Physical/occupational therapist.

## Chiropractor Visits Mainly Drove 2012 Decrease In Nonhospital Utilization For TX

Nonhospital Providers	% Change 2011/12 To 2012/13	
	Visits Per Claim	Services Per Visit
Overall	-1.9%	0.3%
Physicians	1.1%	0.8%
Chiropractors	-15.8%	-2.3%
Physical/Occupational Therapists	-1.1%	1.3%

Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

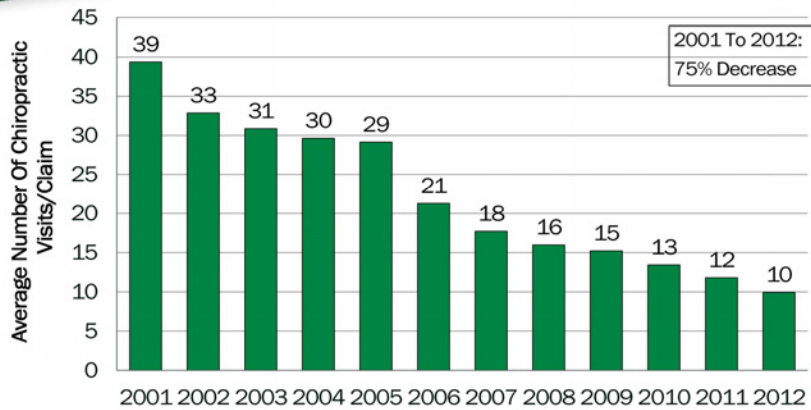
24



This chart shows the change in number of visits per claim and services per visit for nonhospital providers overall and by provider type.

A decrease in visits per claim for chiropractors mainly drove the decrease in utilization for nonhospital care from 2011/12 to 2012/13.

## Further Decrease In Number Of Visits Per Claim To Texas Chiropractors In 2012



Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

25

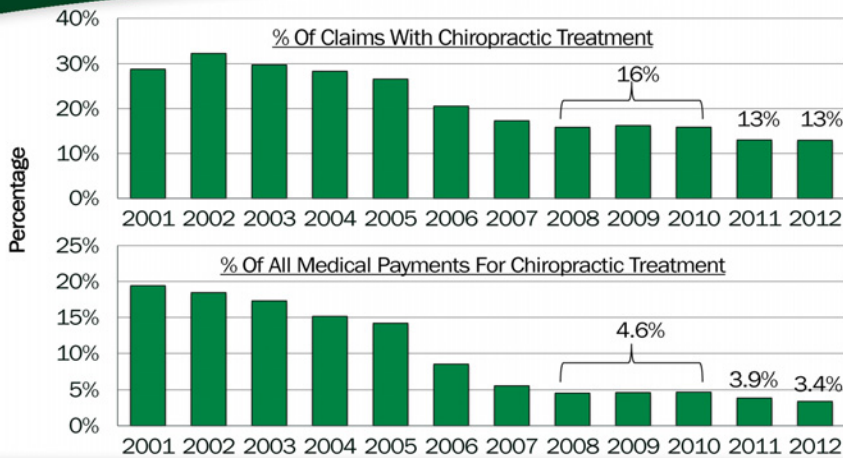


The most significant decreases in visits to chiropractors occurred from 2001 to 2002 (decreasing from nearly 39 visits per claim to 33), from 2005 to 2006 (decreasing from about 29 visits per claim to 21), and from 2006 to 2007 (decreasing from 21 to 18).

System stakeholders indicate that, beginning in 2002, there was increased payor effort and focus placed on containing medical costs through prospective and retrospective utilization review and increased denials of care.

House Bill 7 provisions likely also had an effect, including required preauthorization of physical and occupational therapy medicine services, the introduction of health care networks, and the required use of treatment guidelines.

## TX Chiropractic Care: Decreases In % Of Claims And Payments Resumed In 2011



Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

26



The top chart shows the percentage of claims with chiropractic treatment and the bottom chart shows the percentage of overall medical payments for chiropractic treatment. There were steady decreases in both measures from 2002 to 2008, several years of little change, and then further decreases from 2010 to 2011.

## Some Shift In Mix Of Chiropractic Physical Medicine Services Billed In TX Since 2007

% Of Chiropractic Physical Medicine Services Billed (by CPT Code)	2007	2012	% Point Change	2007 Price	2012 Price
97110: Therapeutic procedure	38%	44%	+6 ppt	\$30	\$43
97140: Manual therapy	10%	10%	Same	\$29	\$41
97750: Physical performance test or measurement, with written report	3%	9%	+6 ppt	\$84	\$97
98940: Chiropractic manipulative treatment, spinal, 1–2 regions	10%	6%	-4 ppt	\$39	\$73
98941: Chiropractic manipulative treatment, spinal, 3–4 regions	3%	1%	-2 ppt	\$37	\$52
97545: Work hardening, initial 2 hours	1%	3%	2 ppt	\$67	\$73
97546: Work hardening, each additional hour	5%	9%	4 ppt	\$44	\$51

Claims With > 7 Days Of Lost Time, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

27



Key:

**CPT:** Current Procedural Terminology.

**ppt:** Percentage points.

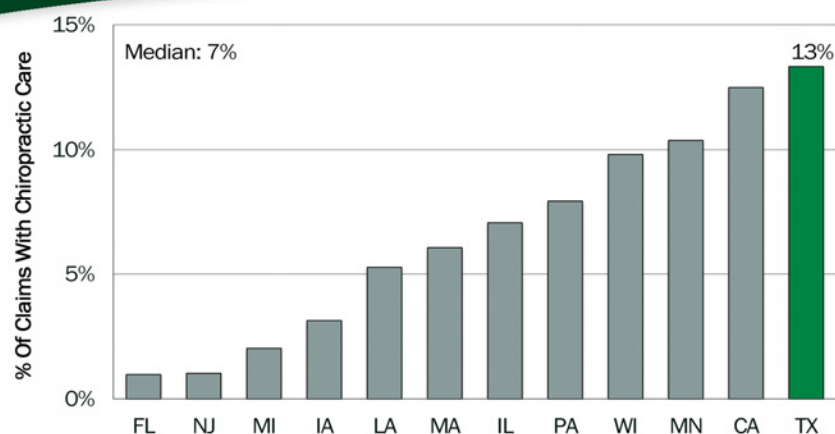
This chart shows the changes in some physical medicine services commonly billed by chiropractors between 2007 and 2012.

Note that physical medicine services accounted for the vast majority of services billed by chiropractors (over 90 percent). The selected CPT codes represented about 70 percent of physical medicine services billed by chiropractors in 2007 and 80 percent in 2012.

We observe some shift in the mix of physical medicine services billed from 2007 to 2012. Billing increased for 97110 (therapeutic procedure), 97750 (physical performance test or measurement, with written report), and work hardening services (97545 and 97546). Over the period, billing decreased for chiropractic manipulative treatment (98940 and 98941).

We also show the average price by CPT code in 2007 and 2012. Prices paid increased 40 percent or more for some services, but much less for others.

## Despite Decrease, Texas % Claims With Chiropractic Care Among Highest



2012/13 Claims With > 7 Days Of Lost Time, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

28



Despite the decreases we just saw, 13 percent of injured workers were treated by chiropractors in 2012/13 in Texas, among the highest of the study states.

Payments to chiropractors as a percentage of all medical payments were highest in Texas, at 3.7 percent, compared with 1 percent in the median of the study states (see Figure 5).

Several states are employer choice states and thus less likely to choose chiropractic care: Iowa, Michigan (for the first 10 days; changed to 28 days effective December 2011), New Jersey, and Pennsylvania (for 90 days if panel posted).

Several states have limits on chiropractic care: California, Florida, Massachusetts, and Minnesota.

We have excluded Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures because of small cell sizes.

It should be noted that the chiropractor's scope of practice varies from state to state, and that may be a factor in the utilization of chiropractic care.



## Little Change In Utilization Of Nonhospital Services In 2012, Except Neuro. Testing

Texas Nonhospital Services	% Or ppt Change 2011/12 To 2012/13		
	Visits/ Claim	Services/ Visit	% Of Claims
<u>Pain Management Injections</u>	0.7%	-3.1%	-0.6 ppt
<u>Physical Medicine</u>	-2.1%	1.2%	0.0 ppt
<u>Evaluation &amp; Management</u>	-0.5%	-0.4%	0.2 ppt
<u>Major Radiology</u>	0.8%	0.3%	-1.1 ppt
<u>Minor Radiology</u>	-0.6%	0.0%	-0.1 ppt
<u>Neurological/Neuromuscular Testing</u>	-4.2%	-12.4%	-1.3 ppt
<u>Major Surgery</u>	-0.7%	-0.3%	-1.1 ppt

Claims With > 7 Days Of Lost Time At 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

29



This chart shows the percentage change in number of visits per claim and services per visit from 2011/12 to 2012/13 by type of nonhospital service, along with the change in the percentage of claims that received each service.

There was little change in utilization of nonhospital services for most of the service groups shown. The exception was neurological/neuromuscular testing, with decreases in each of the metrics shown.

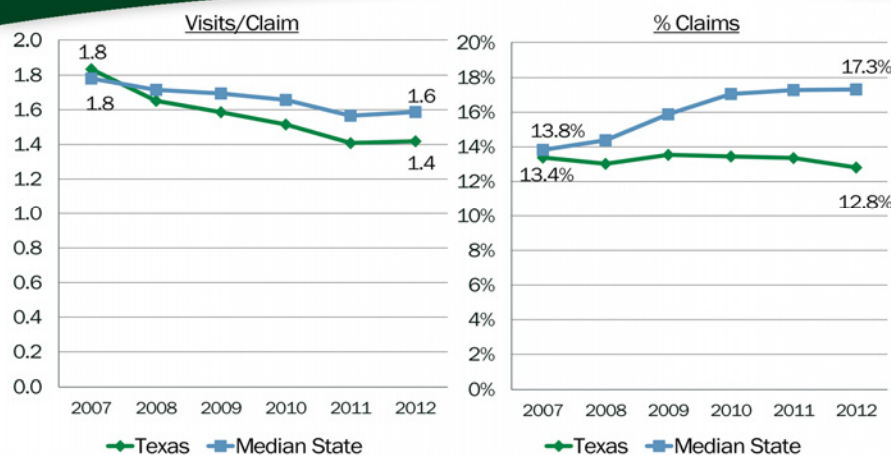
Trends in the percentage of claims receiving specific services are shown in [Figures 54, 57, 60, 63, 66, and 69](#).

Key:

**Neuro. Testing:** Neurological and neuromuscular testing, such as F-wave studies

**ppt:** Percentage points.

## Avg. Visits/Claim With Pain Management Injections Decreased In TX, % Claims Stable



Claims With Pain Management Injections; Claims With > 7 Days Of Lost Time at 12 Months Of Experience, Not Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

30



This chart compares the average number of visits per claim and the percentage of claims for which pain management injections were administered in Texas and in the median study state.

During the study period, the percentage of claims with pain management injections was fairly stable in Texas, in contrast to all other study states which showed growth of 2 to 6 points from 2007 to 2012 (see [Figure 63](#)).

The number of visits per claim for pain management injections decreased in Texas, similar to the decrease in the median study state.

## Key Findings For Texas From CompScope™ Medical Benchmarks

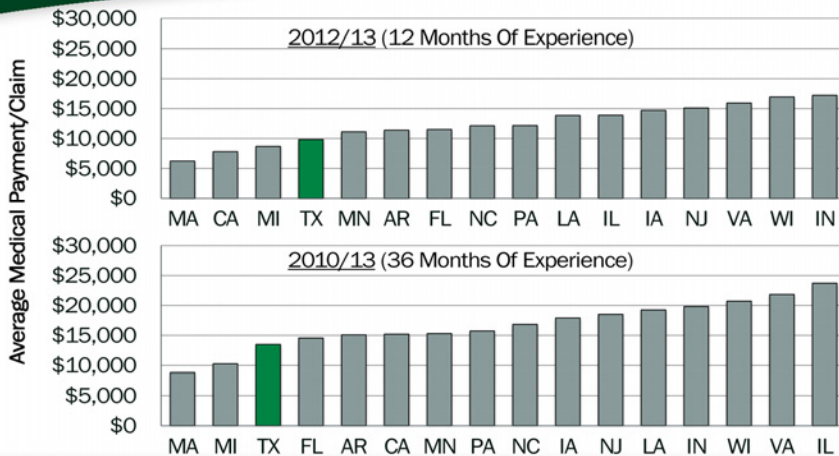
- Little change in medical payments per claim in 2012
  - Little change in prices
  - Decrease in utilization of nonhospital care, especially in visits per claim for chiropractic care
- ➔ Medical payments per claim lower than typical after series of reforms
  - Prices lower than typical for some services despite increases
  - Lower % of care in networks reflects voluntary network ban
  - Utilization higher for some services after large decreases

© Copyright 2014 WCRI. All Rights Reserved.

31



## Texas Average Medical Payment Per Claim Lower Than Typical



Claims With &gt; 7 Days Of Lost Time, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

32



This chart shows the average medical cost per claim in Texas at different claim maturities.

The top chart shows that for claims at an average 12 months of experience, the average medical cost per claim in Texas, at \$9,847, was 19 percent lower than the median of the 16 study states. See [Figure 2](#).

The bottom chart shows that for claims at 36 months of experience, the average medical cost per claim in Texas, at about \$13,500, was 17 percent lower than the 16-state median. See [Figure 3](#).

## Payments Per Claim For TX Nonhospital Care Typical, Lower For Hospital Care

Medical Cost Components	Texas	16-State Median	% Difference
<u>Nonhospital Payments/Claim</u>	\$6,733	\$6,577	2%
<u>Prices Paid</u> (index)	102	100	2%
<u>Utilization</u> (index)	98	100	-2%
<u>Hospital Outpatient Payments/Claim</u>	\$3,519	\$5,068	-31%
<u>Payments/Service</u>	\$242	\$243	-1%
<u>Services/Claim</u>	14.6	21.6	-33%
<u>Hospital Payments/Inpatient Episode (2011/13 claims)</u>	\$20,991	\$31,859	-34%

2012/13 Claims With > 7 Days Of Lost Time, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

33



This table compares Texas with the 16-state median on the key components of medical costs per claim.

Medical payments per claim were typical in Texas for nonhospital care and lower for hospitals. The lower hospital outpatient payments per claim and lower hospital payments per inpatient episode were the main reason for lower-than-typical medical payments per claim in Texas.

Note that in Texas, 65 percent of payments went to nonhospital providers, a larger share than in most other study states (see [Figure 4](#)).

**Definition: Utilization:** Incorporates several aspects of medical care: number of visits per claim, number of services per visit, and resource intensity of services provided. Another dimension is the percentage of claims that received a specific service.

## Impact Of Texas Fee Schedule Increases

- **Nonhospital:** Prices paid were generally higher than typical for primary care, lower for specialty care
- **Hospital outpatient:** Payments per service were typical overall, but still lower than typical for many services after the change to Medicare APC in 2008
- **Hospital inpatient:** Texas still lower than typical despite large increase

© Copyright 2014 WCRI. All Rights Reserved.

34



In *WCRI Medical Price Index for Workers' Compensation, Sixth Edition (MPI-WC)*, the authors report that overall prices paid for nonhospital services in Texas were 9 percent higher than the median of the 25 states in the study in 2013, but that varied by service type (Yang and Fomenko, 2014).

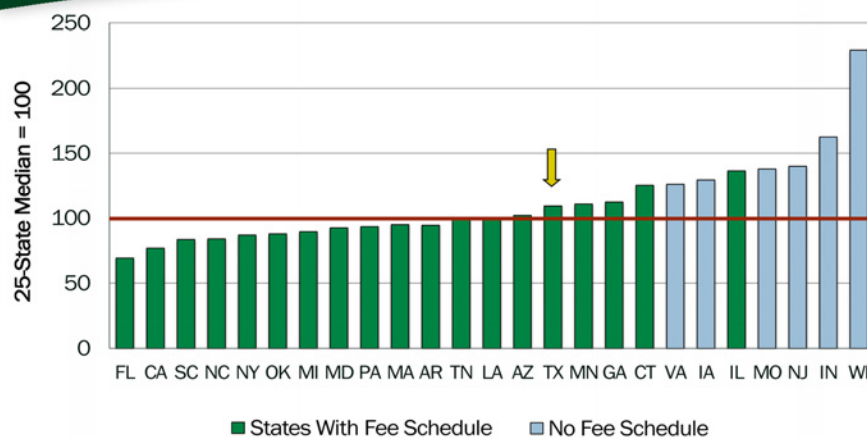
As of March 2008, reimbursement for outpatient services is set at 200 percent of Medicare; it is 130 percent when separate reimbursement for implantables is sought by the facility or implant surgical provider. Previously, hospital outpatient services were reimbursed on a fair and reasonable basis.

As of March 2008, reimbursement for inpatient care is set at 143 percent of Medicare, 108 percent when separate reimbursement for implantables is sought by the facility or implant surgical provider.

**Key and definition: APC:** Ambulatory payment classification; a payment methodology developed by Medicare to reimburse outpatient hospital and ambulatory surgery center services and procedures. The methodology categorizes visits according to clinical characteristics and typical resource use, as well as the costs associated with the diagnoses and procedures performed.



## TX Prices Paid For Nonhospital Services 9% Higher Than 25-State Median In 2013



Prices Paid For Nonhospital Services Rendered In 2013 (January Through June)  
Source: WCRI Medical Price Index For Workers' Compensation, Sixth Edition (2014)

© Copyright 2014 WCRI. All Rights Reserved.

35



A recent WCRI study, *WCRI Medical Price Index for Workers' Compensation, Sixth Edition*, compared prices paid for nonhospital services in 25 states, including Texas. Note that the prices paid reflect any provider discounts.

This chart illustrates prices paid to nonhospital providers in Texas compared with the median of 25 states. The median state is shown as the solid line set at 100. A bar above the line means higher prices paid than the median state and below the line means lower prices.

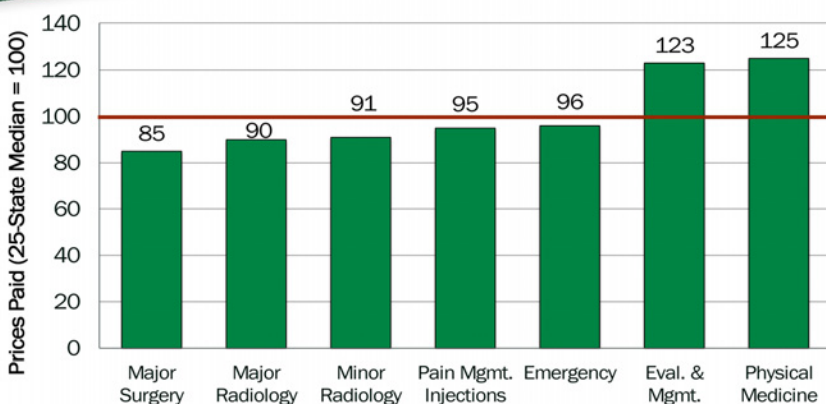
Nonhospital prices paid in Texas were fairly similar to the median of the 25 states, 9 percent higher.

Among the 25 states, Indiana, Iowa, Missouri, New Jersey, Virginia, and Wisconsin do not regulate reimbursement for medical services through a fee schedule.

**Definition: Nonhospital providers:** Include physicians, chiropractors, and physical/occupational therapists.

Source: Yang and Fomenko. 2014. *WCRI Medical Price Index for Workers' Compensation, Sixth Edition (MPI-WC)*.

## Texas Prices Paid Higher For Office Visits, PM; Lower To Typical For Other Services



Prices Paid For Nonhospital Services Rendered In 2013 (January Through June)  
Source: WCRI Medical Price Index For Workers' Compensation, Sixth Edition (2014)

© Copyright 2014 WCRI. All Rights Reserved.

36



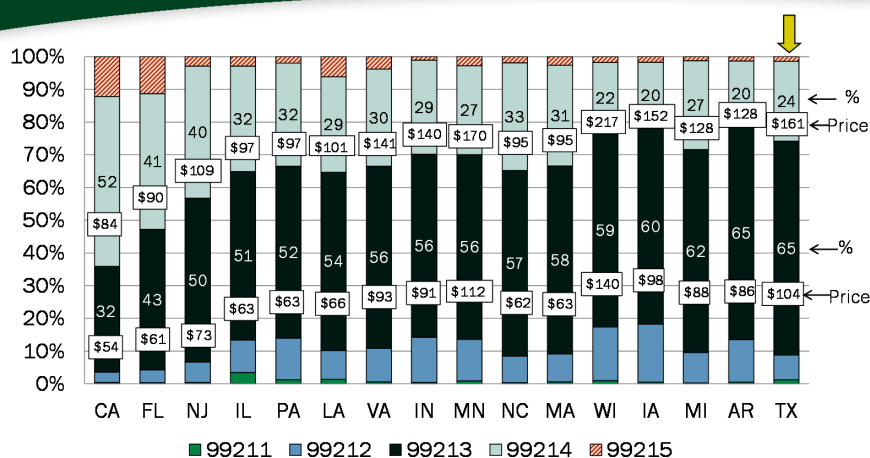
Also from *WCRI Medical Price Index for Workers' Compensation, Sixth Edition*, this chart shows how prices paid for key nonhospital services in Texas compared with those in the median state, set at 100.

For most nonhospital services, prices paid in Texas were typical of, or lower than, those in the median of the 25 states in the study. The exceptions were evaluation and management (office visits) and physical medicine services. Texas had higher-than-typical prices paid for these services.

**Key: PM:** Physical medicine; **Pain Mgmt. Injections:** Pain management injections; **Eval. & Mgmt.:** Evaluation and management (office visits).

Source: Yang and Fomenko. 2014. *WCRI Medical Price Index for Workers' Compensation, Sixth Edition (MPI-WC)*.

## Nearly Two-Thirds Of Texas Established Patient Office Visits Coded As 99213



Percentage Of All Nonhospital Established Patient Office Visits By CPT Code In Calendar Year 2013

© Copyright 2014 WCRI. All Rights Reserved.

37



This chart shows the frequency of billing for established patient office visits by CPT code.

In 2013, 65 percent of office visits in Texas were billed for CPT 99213, an office visit of low to moderate severity involving medical decision-making of low complexity. CPT 99213 was the most frequently-billed established patient office visit code in most states, but the percentage of office visits billed to that code was higher in Texas than in most states.

Note that states with a higher percentage of established patient office visits billed as CPT 99213 tended to have higher prices paid. States with lower prices tended to bill CPT 99214 more often. The price differential between CPT 99213 and CPT 99214 across states ranged from 45 to 56 percent.

**Key: CPT:** Current Procedural Terminology.

**Definitions:** **CPT 99211:** Established patient office visit, minimal severity, medical decision making may not require the presence of a physician; **CPT 99212:** Established patient office visit, limited/minor severity, straightforward medical decision making; **CPT 99213:** Established patient office visit, low-moderate severity, medical decision making of low complexity; **CPT 99214:** Established patient office visit, moderate-high severity, medical decision making of moderate complexity; **CPT 99215:** Established patient office visit, moderate-high severity, medical decision making of high complexity.

## Moderate Complexity Office Visits Billed Most Often In TX, Higher Prices Paid

Established Patient Office Visits In 2013	Texas		16-State Median	
	% Of Services	Prices Paid	% Of Services	Prices Paid
CPT 99211	1.3%	\$30	0.6%	\$29
CPT 99212	7.4%	\$62	9.7%	\$51
CPT 99213	65.4%	\$104	56.0%	\$79
CPT 99214	24.5%	\$161	29.5%	\$118
CPT 99215	1.4%	\$210	2.3%	\$163

Prices Paid For Office Visits In 2013

© Copyright 2014 WCRI. All Rights Reserved.

38



This table shows the frequency of different types of office visits for established patients, from the least complex to the most complex, billed in Texas and in the 16-state median. The table also shows the prices paid for each code in Texas and the median state.

Compared with the typical billing pattern, office visits of moderate complexity were billed more often in Texas.

About 65 percent of the office visits in Texas were billed for CPT 99213 in 2013, significantly higher than the 56 percent in the 16-state median.

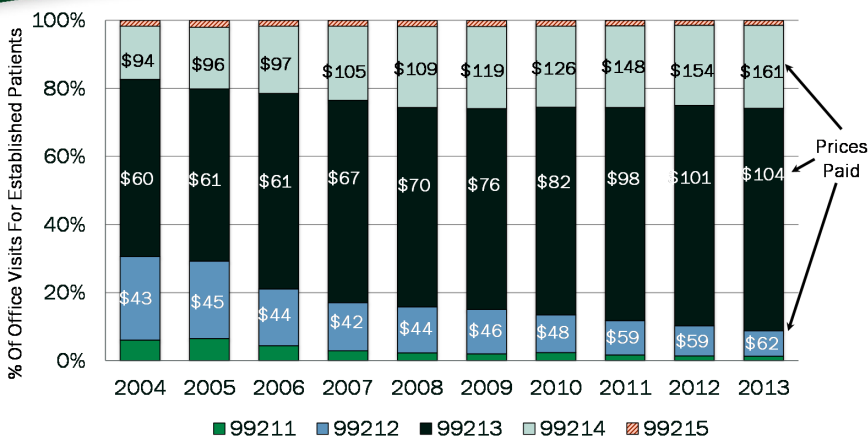
One important factor underlying this billing behavior was that prices paid for office visits in Texas were higher than typical. For example, the average price paid for an established patient office visit with low to moderate severity (CPT 99213) in Texas was 32 percent higher than the 16-state median.

**Key: CPT:** Current Procedural Terminology.

**Definitions:** **CPT 99211:** Established patient office visit, minimal severity, medical decision making may not require the presence of a physician; **CPT 99212:** Established patient office visit, limited/minor severity, straightforward medical decision making; **CPT 99213:** Established patient office visit, low-moderate severity, medical decision making of low complexity; **CPT 99214:** Established patient office visit, moderate-high severity, medical decision making of moderate complexity; **CPT 99215:** Established patient office visit, moderate-high severity, medical decision making of high complexity.



## Over Time, CPT 99213 Billed More Often In Texas, Even As Prices Paid Grew



Percentage Of All Nonhospital Established Patient Office Visits By CPT Code In Calendar Years 2004–2013

© Copyright 2014 WCRI. All Rights Reserved.

39



Over time, more low to moderate complexity office visits were continuously billed more frequently in Texas, even as prices paid increased (related to fee schedule increases).

This chart shows the mix of different types of services billed among office visits for established patients, with the average price for each procedure listed on the segment of the bar, in Texas over time.

In 2004, 52 percent of all established patient office visits were billed for the CPT 99213. Over the study period, the percentage continued to increase to 65 percent in 2013, coming largely from a decrease in the percentage of visits billed as CPT 99212.

The price for CPT 99213 increased 73 percent from \$60 in 2004 to \$104 in 2013. Growth in prices paid largely reflects fee schedule increases tied to changes in Medicare, particularly in 2008 and 2011.

**Key: CPT:** Current Procedural Terminology.

**Definitions:** **CPT 99211:** Established patient office visit, minimal severity, medical decision making may not require the presence of a physician; **CPT 99212:** Established patient office visit, limited/minor severity, straightforward medical decision making; **CPT 99213:** Established patient office visit, low–moderate severity, medical decision making of low complexity; **CPT 99214:** Established patient office visit, moderate–high severity, medical decision making of moderate complexity; **CPT 99215:** Established patient office visit, moderate–high severity, medical decision making of high complexity.

## Shift To More Complex Codes Also Seen In Other Study States, But To CPT 99214

% Of Services For Established Patient Office Visits Billed	Texas			16-State Average		
	2007	2013	Change (ppt)	2007	2013	Change (ppt)
CPT 99211	3%	1%	-2	1%	1%	0
CPT 99212	14%	7%	-7	14%	10%	-4
CPT 99213	60%	65%	+5	57%	56%	-1
CPT 99214	22%	24%	+2	25%	30%	+5
CPT 99215	2%	1%	-1	2%	2%	0

Column totals may not add up to 100 due to rounding.

© Copyright 2014 WCRI. All Rights Reserved.

40



As shown in this table, similar trends of billing for more complex office visits with higher prices were also observed in other study states. The shift in Texas, however, was largely from the codes with the lowest complexity (CPT 99211 and 99212) to codes of low to moderate complexity, especially CPT 99213. In the median state, the shift was more towards CPT 99214.

One factor that may contribute to the predominant use of CPT 99213 in Texas is that reimbursement for higher level office visits requires documentation to justify the billing code.

**Key: CPT:** Current Procedural Terminology; **ppt:** Percentage points.

**Definitions:** **CPT 99211:** Established patient office visit, minimal severity, medical decision making may not require the presence of a physician; **CPT 99212:** Established patient office visit, limited/minor severity, straightforward medical decision making; **CPT 99213:** Established patient office visit, low–moderate severity, medical decision making of low complexity; **CPT 99214:** Established patient office visit, moderate–high severity, medical decision making of moderate complexity; **CPT 99215:** Established patient office visit, moderate–high severity, medical decision making of high complexity.

## Texas Nonhospital Prices Paid Under WC Higher Than Under Group Health

Median Prices Paid In 2009 In Texas	Workers' Compensation (WC)	Group Health (GH)	WC Prices Paid Over GH (%)	Medicare Rate	WC Prices Paid Over Medicare (%)
Common Knee Arthroscopy (29881)	\$919	\$738	24%	\$579	59%
Common Office Visit (99213)	\$81	\$67	21%	\$59	37%

Note: Texas implemented a double-digit fee schedule increase for a common office visit (CPT 99213) from 2009 to 2012.

Group health data include copays and deductibles.

Source: A New Benchmark For WC Fee Schedules: Prices Paid By Commercial Insurers? (2013)

© Copyright 2014 WCRI. All Rights Reserved.

41



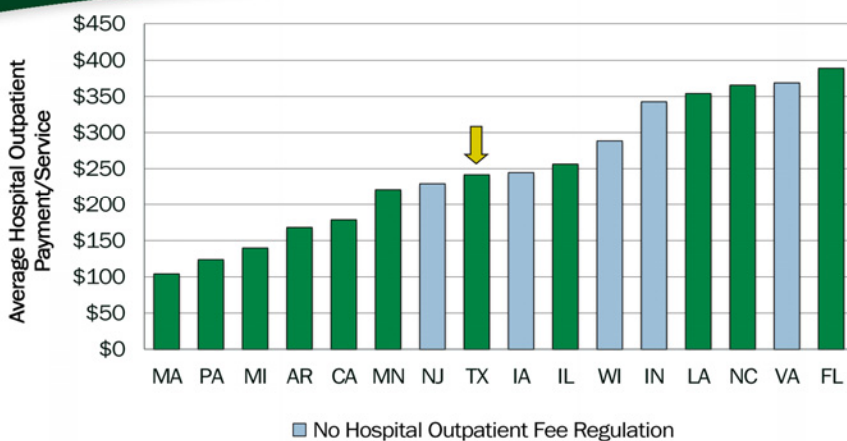
Another WCRI study, *A New Benchmark for Workers' Compensation Fee Schedules: Prices Paid by Commercial Insurers?*, benchmarked prices paid under group health as an alternative to Medicare as a reference point for workers' compensation fee schedules.

The study compared the prices paid by workers' compensation payors, commercial insurers, and Medicare in 22 states in 2009. The analysis focused on the median price paid for five common surgeries and four common established patient office visits using specific CPT codes. Here we show one comparison from each of those categories.

Key: **CPT:** Current Procedural Terminology.

Source: Fomenko and Victor. 2013. *A New Benchmark for Workers' Compensation Fee Schedules: Prices Paid by Commercial Insurers?*

## Texas Hospital Outpatient Payments Per Service Typical Overall, But...



2012/13 Claims With > 7 Days Of Lost Time, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

42



At an average of \$242, hospital outpatient payments per service in Texas were typical of the study states. However, payments per service varied by service type.

## Texas Payments For Many Outpatient Services Still Lower Than Typical

Average Hospital Outpatient Payments Per Service	Texas	16-State Median	% Difference
Major Radiology	\$582	\$1,266	-54%
Minor Radiology	\$106	\$205	-49%
Physical Medicine	\$50	\$67	-26%
Clinic/Evaluation & Management	\$143	\$115	24%
Treatment/ Operating/ Recovery Room	\$2,619	\$2,147	22%

2012/13 Claims With > 7 Days Of Lost Time, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

43



This chart compares Texas with the 16-state median on average hospital outpatient payments per service, by type of service.

Although the shift to the Medicare APC reimbursement approach led to a significant increase in hospital outpatient payments per service, Texas was still lower than typical for many services, especially for radiology services. By contrast, Texas was higher than the 16-state median for clinic evaluation and management and treatment/operating/recovery room services.

For hospital outpatient services, because the revenue codes often used in hospital billing are too broadly defined to support a robust marketbasket of services and an estimate of the relative intensity of services, we use the average payment per service and number of services per claim. See the [Technical Appendix](#) for more details.

See [Figures 75–81](#) for the annual average percentage change in hospital outpatient payments per service from 2007/08 to 2012/13.

Key: **APC:** Ambulatory payment classification.

## TX Hospital Outpatient Payments Under WC Higher Than For Group Health

Texas Hospital Outpatient Payments In 2008	Workers' Compensation (WC)	Group Health (GH)	WC/GH Difference (%)
Shoulder Surgical Episodes	\$6,920	\$4,853	43%
Knee Surgical Episodes	\$4,997	\$3,918	28%

Note: Texas changed the type of fee regulation in 2008.

Group health data include copays and deductibles.  
Source: *Comparing Workers' Compensation And Group Health Hospital Outpatient Payments* (2013)

© Copyright 2014 WCRI. All Rights Reserved.

44



A recent WCRI study, *Comparing Workers' Compensation and Group Health Hospital Outpatient Payments*, focused on average payments for hospital outpatient services attributable to a set of relatively homogenous surgical episodes. The study compared hospital outpatient payments incurred by workers' compensation and group health for treatment of similar shoulder and knee surgical cases in 16 states.

This study provides an alternative benchmark—commercial insurance (group health) reimbursement levels. Group health has some important advantages as a benchmark for workers' compensation payments: (1) it is the largest provider of health insurance in the U.S., and (2) it reflects what providers are willing to accept in order to be eligible to see a large share of patients. The major limitation is that group health rates are proprietary, competitive information of commercial insurers.

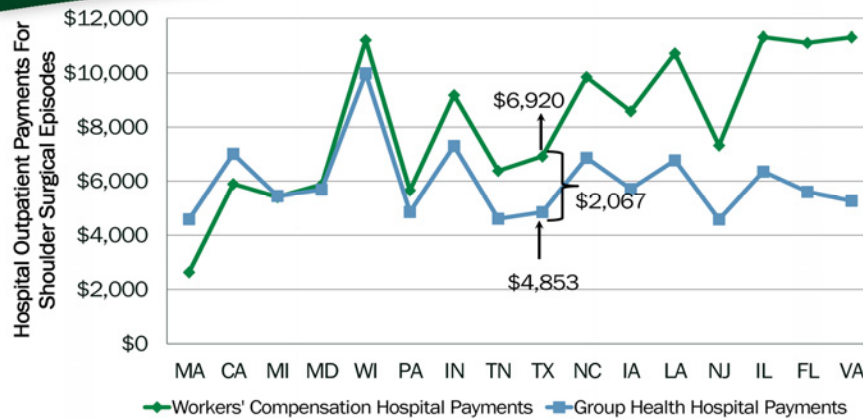
In March 2008, Texas enacted an APC-based fee schedule with reimbursement rates for hospital outpatient services set at 200 percent of Medicare, 130 percent when separate reimbursement for implantables is sought by the facility or implant surgical provider. Previously, hospital outpatient services were reimbursed on a *fair and reasonable* basis.

Key: **APC:** Ambulatory payment classification.

Source: Fomenko. 2013. *Comparing Workers' Compensation and Group Health Hospital Outpatient Payments*.



## TX WC Outpatient Payments 43% Higher Than Group Health For Shoulder Surgeries



Note: Texas changed the type of fee regulation in 2008. Group health data include copays and deductibles.

Workers' Compensation And Group Health Hospital Outpatient Payments For Shoulder Surgical Episodes, 2008  
Source: Comparing Workers' Compensation And Group Health Hospital Outpatient Payments (2013)

© Copyright 2014 WCRI. All Rights Reserved.

45



Here, also from *Comparing Workers' Compensation and Group Health Hospital Outpatient Payments*, we show how the 16 states compare on hospital outpatient payments incurred by workers' compensation and group health for treatment of similar shoulder surgical cases.

The order of the states shown is based on the workers' compensation and group health percentage difference—43 percent for Texas, about in the middle of the 16 states.

In March 2008, Texas enacted an APC-based fee schedule with reimbursement rates for hospital outpatient services set at 200 percent of Medicare, 130 percent when separate reimbursement for implantables is sought by the facility or implant surgical provider. Previously, hospital outpatient services were reimbursed on a *fair and reasonable* basis.

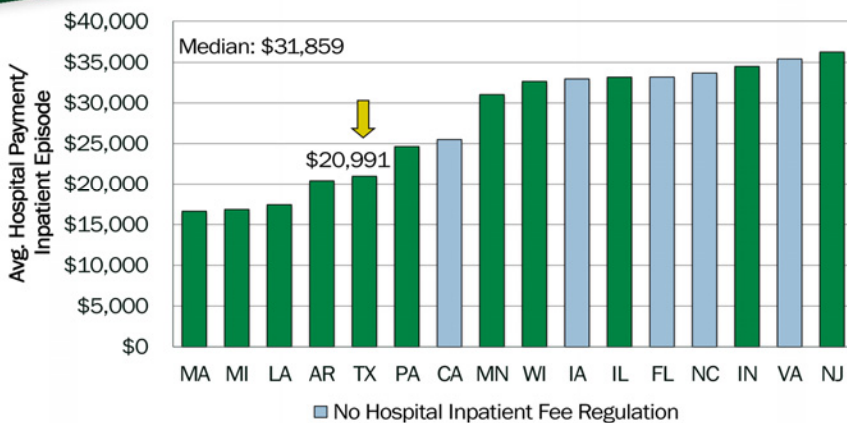
Key:

**WC:** Workers' compensation.

**APC:** Ambulatory payment classification.

Source: Fomenko. 2013. *Comparing Workers' Compensation and Group Health Hospital Outpatient Payments*.

## Texas Hospital Payments Per Inpatient Episode Lower Than Many Study States



2011/13 Claims With > 7 Days Of Lost Time, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

46



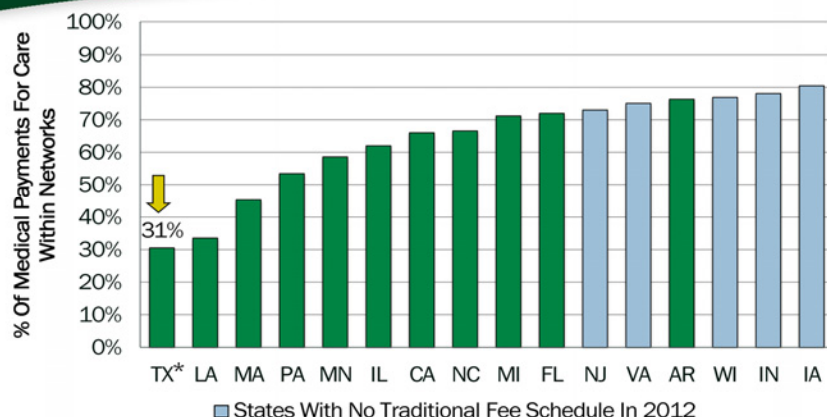
At \$20,991, the average hospital payment per inpatient episode was 34 percent lower than the 16-state median and among the lowest of the study states for 2011 claims at an average 24 months of experience.

The 16 study states represent a mix in terms of inpatient payment regulation—per diem, by diagnosis-related group (DRG), or discounted charges—so that could be one factor underlying these results. See [Table 6](#). Another factor could be the mix of cases that were treated in the inpatient setting. Note that hospital inpatient reimbursement is not regulated in five states (Indiana, Iowa, New Jersey, Virginia, and Wisconsin). Another factor could be the mix of cases that are treated in the inpatient setting.

[Figure 27](#) shows the average hospital payment per inpatient episode for 2011 cases at 24 months of experience. A case receiving inpatient care may have one or more episodes of care.

The percentage of claims with payments to a hospital and the percentage of overall medical dollars paid to hospitals were also lower in Texas than in the typical study state (see [Table 4](#)).

## Lower % Medical Payments For Network Care Reflects Elimination Of Vol. Networks



\* Use of non-certified (voluntary) networks was prohibited in Texas effective January 1, 2011.

Claims With > 7 Days of Lost Time, Calendar Year 2012

© Copyright 2014 WCRI. All Rights Reserved.

47



This chart shows the percentage of overall medical payments to a health care provider rendered within a health care network in 2012. This measure is based upon identification of network care provided by the data sources. We calculate this percentage as the total payments to providers for medical care rendered within a health care network divided by the total payments to providers for all medical care, in and out of networks.

States that do not regulate reimbursement for medical care through a traditional fee schedule tend to use medical networks frequently as a way to help control medical costs.

At 31 percent, Texas had a lower percentage of medical payments for care in networks than other states. Beginning January 1, 2011, use of non-certified (voluntary) networks was prohibited in Texas—an important factor in these results. Also, the Texas Department of Insurance reports that medical costs for networks decreased beginning in 2011, while non-network costs increased. See [http://www.tdi.texas.gov/reports/wc\\_reg/documents/2013\\_report\\_card.pdf](http://www.tdi.texas.gov/reports/wc_reg/documents/2013_report_card.pdf).

Key: **Vol.:** Voluntary.

## TX % Of Payments For Network Care Much Lower Than Typical: Vol. Network Ban

Provider Type	Texas	Median Of FS States	Median Of Non-FS States
Physician	29%	54%	71%
Chiropractor	12%	29%	35%
Physical/Occupational Therapist	48%	65%	74%
Hospital	29%	72%	87%

Note: Use of non-certified (voluntary) networks was prohibited in Texas effective January 1, 2011.

Percentage Of Medical Payments For Care Within Networks, Claims With > 7 Days Of Lost Time In Calendar Year 2012, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

48



This table shows the percentage of medical payments made for care in networks by type of provider in Texas compared with the median of the study states without a fee schedule and the median of the states with a fee schedule in 2012.

The percentages in Texas were lower than the median of the fee schedule states for all providers. See [Figure 29](#). Beginning January 1, 2011, use of non-certified (voluntary) networks was prohibited in Texas.

Among the 16 states, Iowa, Indiana, New Jersey, Virginia, and Wisconsin do not regulate payments for medical care through a fee schedule.

States with fee schedules include Arkansas, California, Florida, Illinois, Louisiana, Massachusetts, Michigan, Minnesota, North Carolina, Pennsylvania, and Texas.

Key:

**Vol.:** Voluntary.

**FS:** Fee schedule.

## Utilization For Some Nonhospital Services Still Higher In Texas Than Typical

Metrics Of Nonhospital Utilization	Texas	16-State Median	% Or ppt Difference
Avg. Number Of <u>E&amp;M Visits/Claim</u>	8.1	6.5	26%
% Of Claims With <u>Neurological/ Neuromuscular Testing</u>	12.5%	9.1%	3.4 ppt
Avg. Number Of <u>Neurological/ Neuromuscular Testing Visits/Claim</u>	1.5	1.2	21%

2012/13 Claims With > 7 Days Of Lost Time, Adjusted For Injury/Industry Mix

© Copyright 2014 WCRI. All Rights Reserved.

49



Despite large decreases in utilization of some nonhospital services after the series of reforms, Texas was still higher than typical for some metrics.

For example, the average number of visits per claim for evaluation and management services in Texas decreased from 11 in 2002 to about 8 in 2006, with little further change. In 2012, Texas was 26 percent higher than the median of the 16 states, or about 1.5 visits more on average.

Similarly, the percentage of claims with neurological/neuromuscular testing services in Texas decreased steadily from about 28 percent in 2001 to 11.4 percent in 2012 (not adjusted for injury and industry mix). In 2012, Texas still had a higher percentage of claims with such services compared with the median study state. The number of visits per claim for neurological/neuromuscular testing was also higher in Texas than typical.

Key:

**E&M:** Evaluation and management services (office visits).

**ppt:** Percentage points.

## Findings For Texas From Recent WCRI Studies Concerning ASCs

- ASC facility payments lower than typical
- Facility payments for outpatient surgeries lower in ASCs than hospitals: reflects different fee schedule rates by setting in Texas
- ASCs less likely to participate in networks than hospital outpatient providers
- Lower % of TX common outpatient surgeries done in ASCs than many states

© Copyright 2014 WCRI. All Rights Reserved.

50



Key: **ASC:** Ambulatory surgery center.



## TX Has Different Fee Schedule Rates For ASC And Hospital Outpatient Surgeries

Illustrative Fee Schedule Rates For Texas As Of July 1, 2011*	ASC	Hospital Outpatient	% Diff.
Knee Arthroscopy (APC 41, CPT 29881)	\$2,621	\$4,622	-43%
Shoulder Arthroscopy (APC 42, CPT 29826)	\$4,237	\$7,471	-43%
Shoulder Arthroscopy, Rotator Cuff Repair (APC 42, CPT 29827)	\$4,237	\$7,471	-43%

\* Texas fee schedule rates reflect the weighted average of the rates for different areas in Texas.

Source: *Comparing Payments To Ambulatory Surgery Centers And Hospital Outpatient Departments* (2014)

© Copyright 2014 WCRI. All Rights Reserved.

51



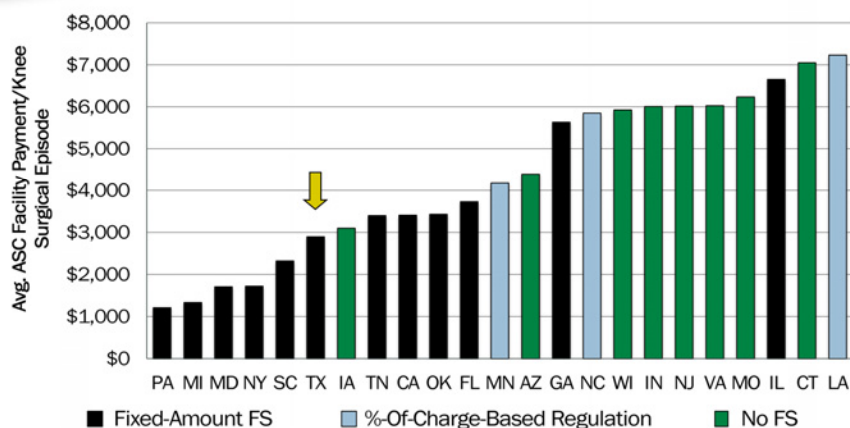
Texas uses a fixed-amount fee schedule approach for ASCs and hospital outpatient surgeries, but sets lower fee schedule rates for ASC procedures.

Texas follows Medicare rules for payments for ASCs and hospital surgeries. Starting in 2008, Medicare introduced a system where ASC and hospital outpatient surgeries follow similar payment approaches, but fee schedule rates for ASC surgeries are set lower than payments for hospital outpatient surgeries.

Key: **ASC:** Ambulatory surgery center; **Diff.:** Difference; **APC:** Ambulatory payment classification; **CPT:** Common Procedural Terminology.

Source: Savych. 2014. *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*.

## ASC Payments For Knee Surgery Higher In States With No FS Or % Charges: TX Lower



Average ASC Facility Payment For Surgical Episodes With CPT 29881 (Knee Arthroscopy) As A Primary Procedure In 2011; Source: *Payments To Ambulatory Surgery Centers* (2014)

© Copyright 2014 WCRI. All Rights Reserved.

52



A recent WCRI study, *Payments to Ambulatory Surgery Centers*, examined payments for commonly used outpatient surgeries performed at ASC settings for a group of homogenous surgical episodes in 2011.

Here we show how ASC facility payments compared for surgical episodes involving a knee arthroscopy (CPT 29881) as a primary surgical procedure.

Average ASC payments for outpatient surgeries were typically higher in states without fee schedules or states where reimbursement was based on a percentage of charges. Along with Indiana, states without fee schedules include Arizona, Connecticut, Iowa, Missouri, New Jersey, Virginia, and Wisconsin.

Key: **ASC:** Ambulatory surgery center; **FS:** Fee schedule; **CPT:** Common Procedural Terminology.

Notes: California reduced fee schedule rates for ASC facility fees, effective January 2013.

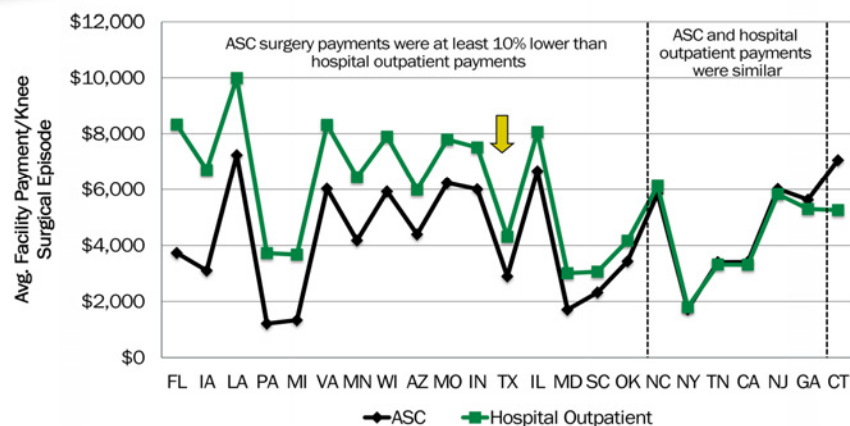
Illinois reduced fee schedule rates for ASC facility fees, effective September 2011.

Indiana introduced a first-time hospital fee schedule, effective July 1, 2014.

North Carolina froze its charges for outpatient services, effective February 2013. Frozen rates were further cut in April 2013. Legislation enacted in May 2013 requires development of hospital reimbursement based on Medicare methodology; no time frames were specified.

Source: Savych. 2014. *Payments to Ambulatory Surgery Centers*.

## Facility Payments For Outpatient Knee Surgery Lower In TX ASCs Than Hospitals



Average Facility Payment For Surgical Episodes With CPT 29881 (Knee Arthroscopy) As A Primary Procedure In 2014; Source: *Comparing Payments To ASCs And Hospital Outpatient Departments* (2014)

© Copyright 2014 WCRI. All Rights Reserved.

53



Key: **ASC**: Ambulatory surgery center; **CPT**: Common Procedural Terminology.

Notes: California reduced fee schedule rates for ASC facility fees, effective January 2013.

Illinois reduced fee schedule rates for ASC facility fees, effective September 2011.

Indiana introduced a first-time hospital fee schedule, effective July 1, 2014.

North Carolina froze its charges for outpatient services, effective February 2013. Frozen rates were further cut in April 2013. Legislation enacted in May 2013 requires development of hospital reimbursement based on Medicare methodology; no time frames were specified.

Source: Savych. 2014. *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*.

A recent WCRI study, *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*, examined ASC and hospital outpatient facility payments for common knee and shoulder surgeries performed in calendar year 2011.

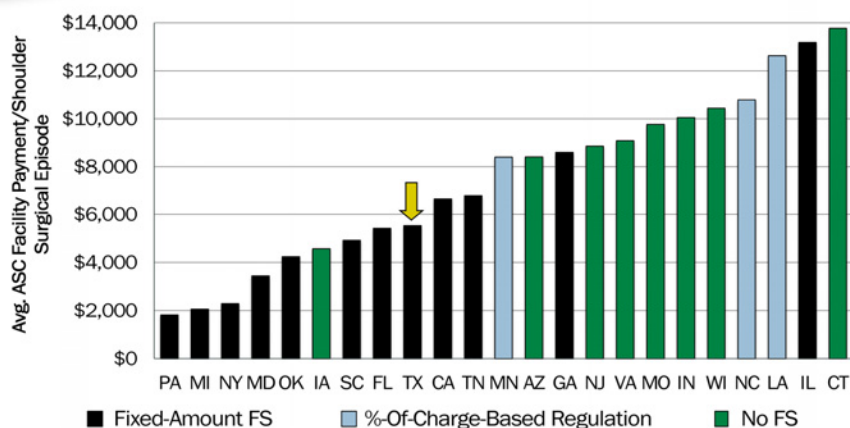
Here we show how ASC and hospital outpatient facility payments compared for surgical episodes involving a knee arthroscopy (CPT 29881) as a primary surgical procedure.

The order of the states shown is based on the ASC/hospital outpatient difference. Payments for outpatient knee surgery in Texas were 33 percent lower in ASCs.

Texas follows Medicare rules for payments for ASCs and hospital surgeries, which sets lower fee schedule rates for ASC surgeries than for hospital outpatient.

Network participation in Texas was lower in ASCs (15 percent) than in hospital outpatient (26 percent) for knee surgeries. Texas banned the use of voluntary or informal networks effective January 1, 2011.

## ASC Payment For Shoulder Surgery Higher In States With No FS, % Charges: TX Lower



Average Facility Payment For Surgical Episodes With CPT 29826 (Shoulder Arthroscopy) As A Primary Procedure In 2011; Source: *Payments to Ambulatory Surgery Centers* (2014)

© Copyright 2014 WCRI. All Rights Reserved.

54



Key: **ASC**: Ambulatory surgery center; **FS**: Fee schedule; **CPT**: Common Procedural Terminology.

Notes: California and New York had much higher rates of shoulder arthroscopies than other study states.

California reduced fee schedule rates for ASC facility fees, effective January 2013.

Illinois reduced fee schedule rates for ASC facility fees, effective September 2011.

Indiana introduced a first-time hospital fee schedule, effective July 1, 2014.

North Carolina froze its charges for outpatient services, effective February 2013. Frozen rates were further cut in April 2013. Legislation enacted in May 2013 requires development of hospital reimbursement based on Medicare methodology; no time frames were specified.

Source: Savych. 2014. *Payments to Ambulatory Surgery Centers*.

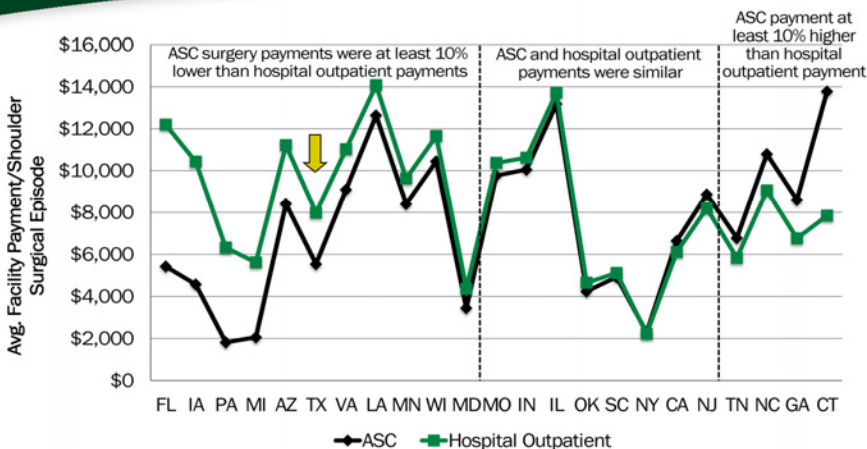
A recent WCRI study, *Payments to Ambulatory Surgery Centers*, examined ASC and hospital outpatient facility payments for common knee and shoulder surgeries performed in calendar year 2011.

Here we show how ASC facility payments compared for surgical episodes involving a shoulder arthroscopy (CPT 29826) as a primary surgical procedure.

Average ASC payments for outpatient surgeries were typically higher in states without fee schedules or states where reimbursement was based on a percentage of charges. Along with Indiana, states without fee schedules include Arizona, Connecticut, Iowa, Missouri, New Jersey, Virginia, and Wisconsin.



## Facility Payments For Outpatient Shoulder Surgery Lower In TX ASCs Than Hospitals



Average Facility Payment For Surgical Episodes With CPT 29826 (Shoulder Arthroscopy) As A Primary Procedure In 2014; Source: *Comparing Payments To ASCs And Hospital Outpatient Departments* (2014)

© Copyright 2014 WCRI. All Rights Reserved.

55



Key: **ASC**: Ambulatory surgery center; **CPT**: Common Procedural Terminology.

Notes: California and New York had much higher rates of shoulder arthroscopies than other study states.

California reduced fee schedule rates for ASC facility fees, effective January 2013.

Illinois reduced fee schedule rates for ASC facility fees, effective September 2011.

Indiana introduced a first-time hospital fee schedule, effective July 1, 2014.

North Carolina froze its charges for outpatient services, effective February 2013. Frozen rates were further cut in April 2013.

Legislation enacted in May 2013 requires development of hospital reimbursement based on Medicare methodology; no time frames were specified.

Source: Savych. 2014. *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*.

A recent WCRI study, *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*, examined ASC and hospital outpatient facility payments for common knee and shoulder surgeries performed in calendar year 2011.

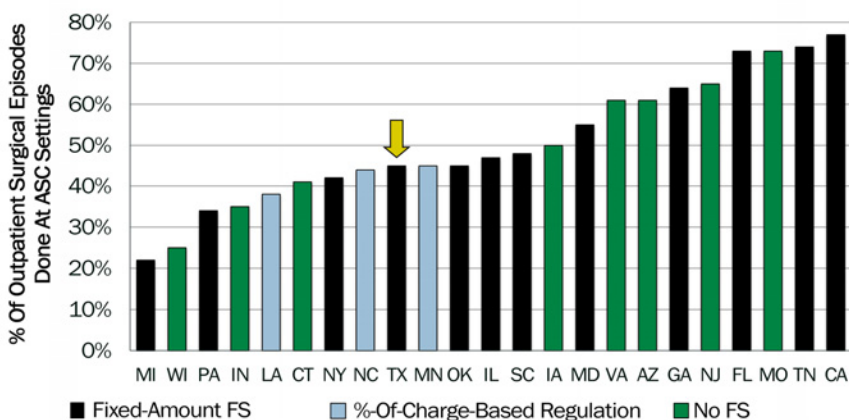
Here we show how ASC and hospital outpatient facility payments compared for surgical episodes involving a shoulder arthroscopy (CPT 29826) as a primary surgical procedure.

The order of the states shown is based on the ASC/hospital outpatient difference. Payments for outpatient shoulder surgery in Texas was 31 percent lower in ASCs.

Texas follows Medicare rules for payments for ASCs and hospital surgeries, which sets lower fee schedule rates for ASC surgeries than for hospital outpatient.

Network participation in Texas was much lower in ASCs (4 percent) than in hospital outpatient (30 percent) for shoulder surgeries. Texas banned the use of voluntary or informal networks effective January 1, 2011.

## Lower % Of Common Outpatient Surgeries Done In ASCs In TX Than In Many States



Percentage Of Common Knee And Surgical Episodes Conducted In ASC Settings In 2011  
Source: *Comparing Payments To Ambulatory Surgery Centers And Hospital Outpatient Departments* (2014)

© Copyright 2014 WCRI. All Rights Reserved.

56



Key: **ASC**: Ambulatory surgery center; **FS**: Fee schedule; **CPT**: Common Procedural Terminology.

Notes: California reduced fee schedule rates for ASC facility fees, effective January 2013.

Illinois reduced fee schedule rates for ASC facility fees, effective September 2011.

Indiana introduced a first-time hospital fee schedule, effective July 1, 2014.

North Carolina froze its charges for outpatient services, effective February 2013. Frozen rates were further cut in April 2013. Legislation enacted in May 2013 requires development of hospital reimbursement based on Medicare methodology; no time frames were specified.

Source: Savych. 2014. *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*.

A recent WCRI study, *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*, examined payments for commonly used outpatient surgeries performed at ASC settings for a group of homogenous surgical episodes in 2011. The study also reported the percentage of common knee and shoulder outpatient surgical episodes conducted at ASC settings.

This chart shows the percentage of common knee and shoulder outpatient surgical episodes (CPT 29881, 29826, or 29827) done in an ASC setting. Texas, at 45 percent, was in the middle group of states.

Note that there was wide variation across the states and no clear relationship to the reimbursement approach. Differences in some states may stem partly from fee schedule rules, which may create incentives to provide ASC surgeries.

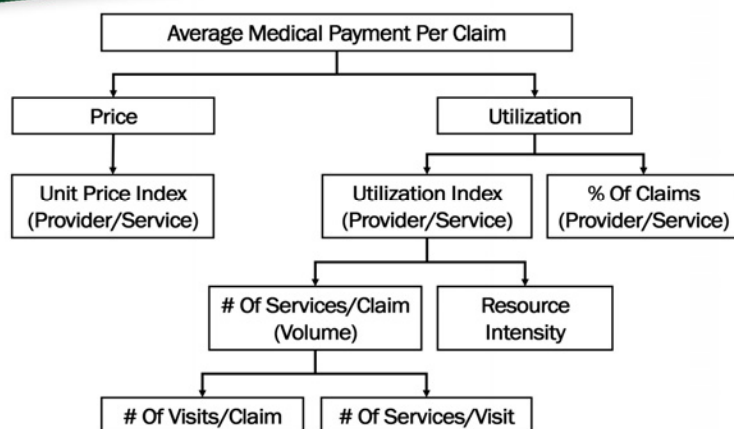
## Further Information For The Texas CompScope™ Medical Benchmarks Reader

© Copyright 2014 WCRI. All Rights Reserved.

57



## Average Medical Payment Per Claim: A Function Of Price And Utilization



© Copyright 2014 WCRI. All Rights Reserved.

58



The diagram shows the analytic framework for cost and utilization comparisons. The average medical payment per claim is the sum of medical payments made for each claim that involves at least one medical service divided by the number of claims with at least one medical service. The medical payment per claim is a function of the prices paid for services multiplied by the number of services per claim. Prices are measured using a price index that holds utilization constant, rather than a simple measure of the total payments divided by the number of services. Utilization is also measured as an index and is a function of the number of services per claim as well as the resource intensity of the services provided.

See the "Data and Methods" section entitled "Analytic Framework" and the *Technical Appendix*, Section 1, "Conceptual Framework" for further details.

## Data And Methods In This Study

- Data reasonably representative of state experience
  - 73% of TX indemnity claims; 39–73% across all 16 states
- Meaningful interstate comparisons
  - Definitions harmonized across states and data sources
  - Adjusted for differences in injury/industry mix
  - Adjusted for differences in waiting periods (claims with > 7 days of lost time)
- Trends shown are unadjusted numbers
- Analysis focuses on cases with different maturities (12, 24, and 36 months of experience) to capture phenomena that occur earlier and later in a claim
- See the *Technical Appendix* for more detail

© Copyright 2014 WCRI. All Rights Reserved.

59



## Scope Of CompScope™ Multistate Benchmarks

### CompScope™ Medical

- Medical costs
- Medical prices
- Utilization of services
- By provider type
- By service type

### CompScope™

- Benefit amounts
- Timeliness
- Medical costs
- Disability duration
- Defense attorney involvement
- Vocational rehabilitation use
- Benefit delivery expenses

© Copyright 2014 WCRI. All Rights Reserved.

60



#### Definitions:

**Medical costs:** Average medical payments per claim overall, by provider type, and by service type.

**Medical prices:** Actual prices paid (reflects negotiated discounts).

**Utilization:** (1) Percentage of claims with a specific provider type or service type; (2) utilization per claim is the composite of the number of visits per claim, number of services per visit, and the resource intensity of services provided.

**Provider type:** Physician, chiropractor, physical or occupational therapist, hospital, and other.

**Service type:** Ten major service categories, such as evaluation and management, radiology, and physical medicine.

## Other WCRI Studies Of Interest For Texas

- [CompScope™ Benchmarks, 14th Edition \(2013\)](#)
- [Interstate Variations in Use of Narcotics, 2nd Edition \(2014\)](#)
- [Longer-Term Use of Opioids, 2nd Edition \(2014\)](#)
- [Payments to Ambulatory Surgery Centers \(2014\)](#)
- [Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments \(2014\)](#)
- [WCRI Medical Price Index \(annual\)](#)
- [The Prevalence and Costs of Physician-Dispensed Drugs \(2013\)](#)
- [A New Benchmark for WC Fee Schedules: Prices Paid by Commercial Insurers? \(2013\)](#)
- [Comparing WC and Group Health Hospital Outpatient Payments \(2013\)](#)
- [Hospital Outpatient Cost Index for Workers' Compensation \(2013\)](#)

© Copyright 2014 WCRI. All Rights Reserved.

61



### Sources:

Telles. 2013. *CompScope™ Benchmarks for Texas, 14th Edition*.  
 Thumula, Wang, and Liu. 2014. *Interstate Variations in Use of Narcotics, 2nd Edition*.  
 Wang. 2014. *Longer-Term Use of Opioids, 2nd Edition*.  
 Savych. 2014. *Payments to Ambulatory Surgery Centers*.  
 Savych. 2014. *Comparing Payments to Ambulatory Surgery Centers and Hospital Outpatient Departments*.  
 Yang and Fomenko. 2014. *WCRI Medical Price Index for Workers' Compensation, Sixth Edition (MPI-WC)*.  
 Wang, Liu, and Thumula. 2013. *The Prevalence and Costs of Physician-Dispensed Drugs*.  
 Fomenko and Victor. 2013. *A New Benchmark for Workers' Compensation Fee Schedules: Prices Paid by Commercial Insurers?*  
 Fomenko. 2013. *Comparing Workers' Compensation and Group Health Hospital Outpatient Payments*.  
 Fomenko and Yang. 2013. *Hospital Outpatient Cost Index for Workers' Compensation, 2nd Edition*.

## DATA AND METHODS

This section contains a short summary of data and methods used in this report. More detail can be found in the [Technical Appendix](#). This analysis uses data from 22 data sources, including a broad array of national and regional insurers, claims administration organizations, state funds, and self-insured employers. The data are collected in the Detailed Benchmark/Evaluation (DBE) database, which includes over 8.5 million claims that are reasonably representative of the entire system in each of the 16 states, including all market segments: self-insurance, residual market, voluntary insurance, and state funds. These data include 73 percent of Texas indemnity claims in 2012/2013 (39 to 73 percent of the claims from each state). Note that 2012/2013 refers to claims with injuries arising from October 1, 2011, through September 30, 2012, with experience through March 31, 2013—an average of 12 months' maturity.

We used a variety of techniques to increase the comparability of the measures from state to state, including (1) standardizing definitions of variables that state regulators might have defined differently from state to state; (2) standardizing the reporting on cases with more than seven days of lost time to control for differences in state waiting periods for income benefits; and (3) adjusting for interstate differences in injury and industry mix. Interstate differences in the performance measures, therefore, should largely reflect variations in system features and in the practices and behavior of system participants.

### DATA LIMITATIONS

Some limitations remain in the data, and we highlight the major ones here. The data come from the medical bill review systems of data contributors. Not all claims contain complete bill review information, and claims with a substantial amount of missing bills were excluded from the analysis. The remaining claims were screened for bias, and data from entire data sources were dropped from specific metrics if the data were biased on that measure.

To assess the representativeness of the large samples used in the analysis for each state, we compared the cost measures from the samples with the cost measures reported by rating bureaus in each state. We also compared selected metrics with measures reported by the National Academy of Social Insurance (NASI). Because some data sources were then dropped due to specific bias in certain medical price or utilization metrics, we also validated the cost measures that resulted after such adjustments in the samples.

In Texas, the claims with complete bill review data made up 61 percent of the claims in the state for nonhospital metrics and 33 percent of claims for hospital metrics. However, we found that those claims are a good representation of the entire group of claims in Texas.

The services used in the price and utilization index values generally account for 80 percent of payments overall. For a few important services, the data do not allow us to break the payment into price and utilization metrics, because the units of services are not consistently reported or the group of services is inherently heterogeneous. Where we encountered this data problem, we report the average payment per visit instead of separating out price and utilization. The most important such services are anesthesia, supplies and equipment, special reports, and miscellaneous other and unknown services.



## IS THE MEDIAN COMPScope™ MEDICAL BENCHMARKS STATE TYPICAL OF ALL STATES IN THE NATION?

This CompScope™ Medical Benchmarks report frequently compares the value for the state being analyzed with the median, or *typical*, state in the study. For the report to be most useful, it must meet two conditions. First, the states included should span the full range of states that have higher, lower, and medium average medical costs per claim. Second, the cost measures in the median report state should be similar to those in the median state nationwide.

We chose the 16 states included in the study in part because they are geographically diverse. Together they represent a significant share of the U.S. population, a wide range of industries, and a variety of benefit structures and other system features. Further, the 16 states represent the full range of states nationally, according to costs per claim. WCRI found that the average developed incurred medical cost per claim in the median of the CompScope™ states was quite similar to the national median—0.6 percent higher than the median of all states reported by the National Council on Compensation Insurance, Inc. (NCCI) in its *Annual Statistical Bulletin* (2012–2014, Exhibit XI). As a result, when this benchmarking report presents comparisons between the average medical cost per claim and the median of the CompScope™ states, they are substantially similar to comparisons with the national median.

## STATES WITH AND WITHOUT WORKERS' COMPENSATION MEDICAL FEE SCHEDULES

As of the period covered by this report (through March 2013), 42 states nationally had medical provider (nonfacility) fee schedules in place. Illinois enacted a medical fee schedule in February 2006, and WCRI has been monitoring the impacts of and changes to that fee schedule on medical costs and utilization. Separate studies may directly analyze the impact of the fee schedule on various workers' compensation measures. In this edition of the CompScope™ Medical Benchmarks study, which covers medical services delivered through the first quarter of 2013, 5 of the 16 states did not have traditional provider fee schedules—a higher proportion of states than is found nationally.<sup>1</sup> Of the 11 states with fee schedules as of July 2011, 2 states (Illinois and Texas) set fees higher than the median of all fee schedules, 3 states (Arkansas, Louisiana, and Minnesota) set fees that were fairly close to the median, and the rest (California, Florida, Massachusetts, Michigan, North Carolina, and Pennsylvania) set fees lower than the 42-state median overall. Effective in September 2011, the Illinois workers' compensation fee schedule rates for all types of medical services were reduced by 30 percent across the board.

Among states with fee schedules, the CompScope™ Medical Benchmarks study contains a group of states with relatively lower fee schedules for evaluation and management and for physical medicine, compared with the 42-state median.

[Table 7](#) shows the workers' compensation fee schedule as a percentage above the state Medicare fee schedule (premium over Medicare) for the states with fee schedules as of July 2011 (Fomenko and Liu, 2012). States included in this study are highlighted in bold. As of July 2011, 11 of the study states had workers' compensation fee schedules, ranging from 1 percent below Medicare in California and Massachusetts to 136

---

<sup>1</sup> One of those five, Wisconsin, uses a database of charges. Iowa, Indiana, New Jersey, and Virginia are the other states without fee schedules.

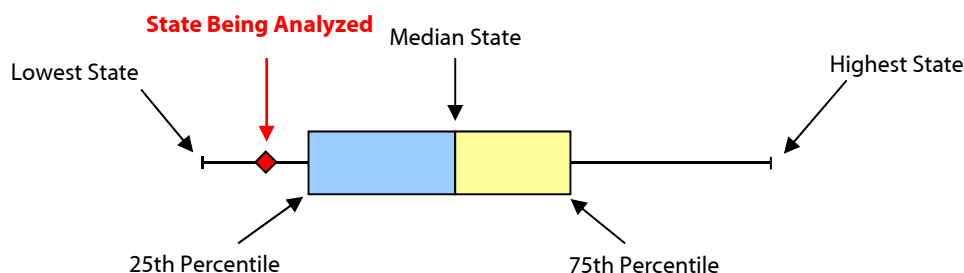
percent above Medicare in Illinois.<sup>2</sup> In Florida and North Carolina, fees were less than 25 percent above Medicare. In Pennsylvania, the fee schedule was 27 percent above Medicare, and the fee schedule was 34 percent above Medicare in Michigan. In Louisiana, the fee schedule was 48 percent above Medicare, and the fee schedules were 56 percent above Medicare in Arkansas and Minnesota. The Texas fee schedule was 65 percent above Medicare. In all the states in Table 7, including the 11 CompScope™ Medical Benchmarks study states with fee schedules, the premiums over Medicare varied significantly across service categories. Nine states—Maryland, Michigan, Montana, North Dakota, South Carolina, Texas, Utah, Washington, and West Virginia—set rates that resulted in the premium over Medicare being relatively the same for each of the service groups.

## READING BOX PLOTS

This document uses a powerful presentation tool called a box plot. Although it might initially look complicated, the box plot is relatively easy to read and very informative. The box plots divide the data into quartiles, or fourths. This section explains how to read a box plot. A video explanation appears on the WCRI website at [http://www.wcrint.org/videos/video\\_box\\_plots6.html](http://www.wcrint.org/videos/video_box_plots6.html).

A box plot presents a large amount of comparative information and allows the reader to see relationships among measures when several box plots appear on a page. The diagram below shows the six pieces of information contained in a box plot. The *whisker*—the horizontal line extending from the left and right sides of the box—shows the full range of values (for example, average total cost per claim) in the 16 study states, from the lowest state on the left to the highest state on the right. The vertical line inside the box represents the 16-state median (between the 8th and 9th state); in other words, an equal number of study states (8) appear above and below that value. The left edge of the box represents the 25th percentile (between the 4th and 5th state). The right edge of the box represents the 75th percentile (between the 12th and 13th state). The 4 states whose values are the lowest among the 16 states are on the left end of the whisker (the line extending from the left edge of the box). The 4 states whose values are in the second-lowest group are between the median and the left edge of the box. Similarly, the 4 states whose values are the highest among the 16 states are on the right end of the whisker (the line extending from the right edge of the box). The 4 states that are in the second-highest group are between the median and the right edge of the box. The diamond, representing the value for the state being analyzed, shows where that state lies relative to other states in the study.

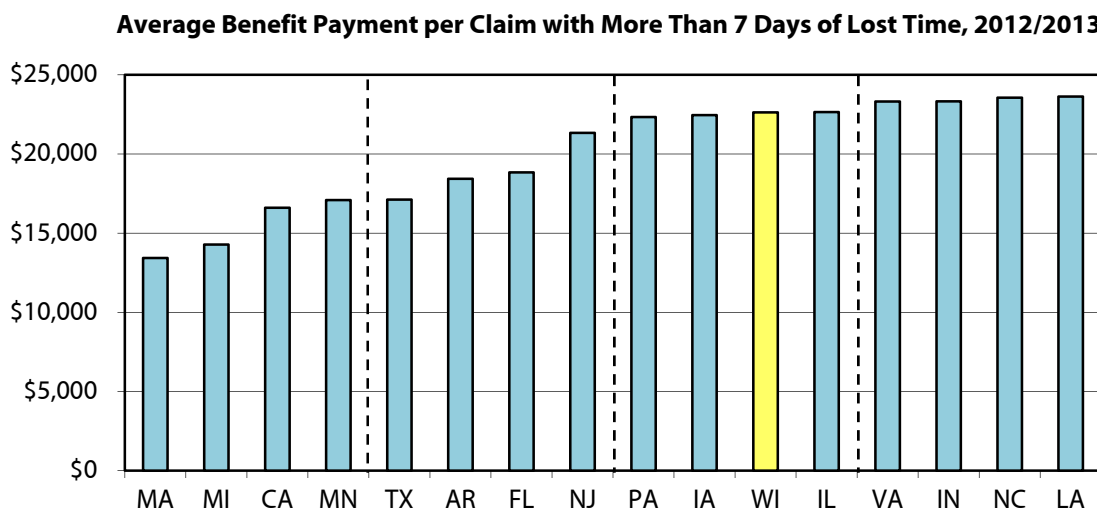
### Understanding a Box Plot



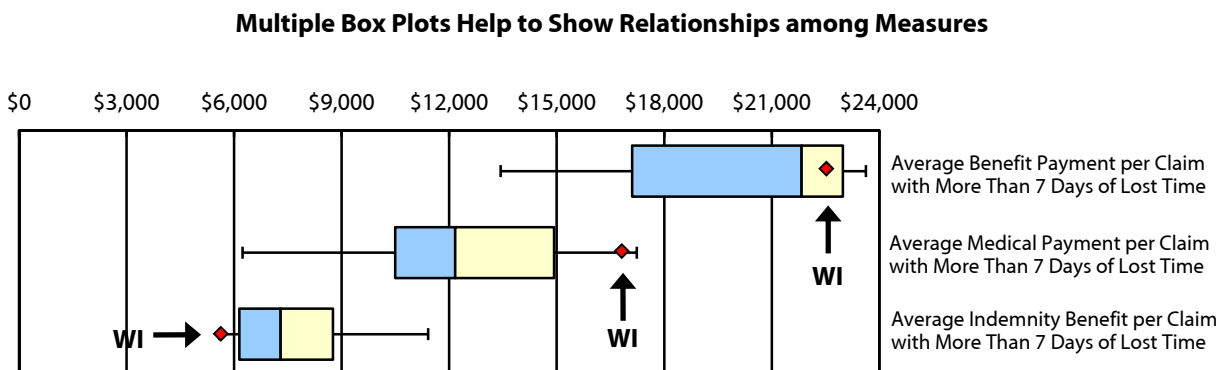
<sup>2</sup> In Illinois, fee schedule revisions effective for services delivered on or after September 1, 2011, reduced reimbursement by 30 percent and (effective January 1, 2012) reduced the number of geozip areas from 29 to 4 for nonhospital providers and to 14 for hospital providers.



Some readers may find it useful to see how information in a typical bar chart is translated into a box plot. The bar chart below shows the average benefit payment per claim with more than seven days of lost time. The dotted vertical lines appearing from left to right represent the 25th percentile, the median, and the 75th percentile, respectively.



The box plot below shows three box plots; the top box plot is based on the preceding bar chart and illustrates the same information as the bar chart does, presented as it would appear for a report focusing on Wisconsin.



Notice the following:

- The lowest state, Massachusetts, is at the left end of the whisker.
- The highest state, Louisiana, is at the right end of the whisker.
- The median falls between New Jersey and Pennsylvania.
- The 25th percentile falls between Minnesota and Texas.
- The 75th percentile falls between Illinois and Virginia.
- The diamond is Wisconsin, between the median and the 75th percentile of the 16 states.

Box plots are particularly useful in showing relationships among various performance measures. The set of box plots on the previous page, for example, shows that Wisconsin is between the median and the 75th percentile of the 16 states for the average paid benefit per claim with more than seven days of lost time (the top box plot). We also see that this result occurs because underlying measures counterbalance each other. Wisconsin had an average paid medical benefit per claim with more than seven days of lost time that was higher than many of the 16 study states (the middle box plot). However, the average indemnity benefit per claim with more than seven days of lost time in Wisconsin was among the lowest of the 16 states (the bottom box plot).

Box plots also show clearly how much variability there is across states—the longer the whisker or the box associated with a given measure, the greater the variability for that measure. A state that is a marked outlier (positioned at or close to the end of a long whisker) on a performance measure for which there is otherwise little variability (i.e., showing a narrow box and a short opposite whisker) may be especially noteworthy.

[Figure 1](#) depicts the overall structure and format of the information provided in this report. The measures in the figure are further broken down by provider type, including hospital and nonhospital providers, and by major service group. A detailed list of the service groups can be found in [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#). The utilization of medical services per claim shown in Figure 1 is broken down into the components of volume of services billed and resource intensity. Likewise, the figure shows the volume of services as measured by the number of visits per claim and services per visit. Another component of utilization, the percentage of involvement of a given provider and/or service, is shown separately.

Interstate comparisons of prices paid and price trends are based on comparisons of specific service prices paid across states and over time rather than comparisons of average prices paid within service or provider groups. These measures are accurate depictions of price trends and level comparisons that are unaffected by differences in service mix. The prices paid for nonhospital services are quite precise because they are based on individual Current Procedural Terminology (CPT) code payments. Price comparisons for hospital outpatient services, however, are less precise because they use coding structures that are more broadly defined. For example, a hospital outpatient physical medicine service may be a modality or procedure, or a set of modalities or procedures, so we report an average payment per service for hospital outpatient services.

We also report on the percentage of claims that involve specific providers and/or services. This is one distinct measure of utilization. However, the utilization index is an index of *utilization per claim*. It is composed of both the volume of services billed per claim and the resource intensity of those services. We therefore assign weights to services based on the relative resources associated with delivering those services. The benchmark comparisons of both price and utilization are defined as indices in which the median state is 100. An index of 120 means that the state's utilization or prices paid are 20 percent higher than the median state, and an index of 80 means the state's utilization or prices paid is 20 percent lower than the median state.

We have categorized hospital services as either inpatient or outpatient. We conducted detailed analyses of payments per service and services per claim for outpatient hospital services; for inpatient services, we measured payments per inpatient episode. Further information on the methods we used to create these measures is provided in the [Technical Appendix](#).

## TERMS WE USE TO DESCRIBE PERFORMANCE

In characterizing an individual state's performance with respect to the median of the study states, we often use the terms *higher*, *lower*, and *typical of*, or *close to*. *Higher* means more than 10 percent above the median of

the 16 states, *lower* means more than 10 percent below the median of the 16 states, and *typical* or *close to* means within 10 percent above or below the median of the 16 states.

When describing trends, or how performance in a state has changed over time, we typically report annual average change—percentage changes for cost measures and percentage point changes for other measures that are themselves expressed as a percentage, such as chiropractic claims as a percentage of claims with more than seven days of lost time. To avoid unnecessarily subjective characterizations, we use consistent criteria for selecting adjectives that describe growth trends. [Table 1](#) shows the categories and terms we use throughout the study. We recognize that the criteria and terms we use are somewhat arbitrary. However, we believe that it is important to use a consistent approach, and adhering to a disclosed framework helps us to accomplish that.

### **NAMING CONVENTION FOR ANALYSIS SETS OF CLAIMS**

We applied a naming convention for pairs of accident years and evaluation dates to uniquely describe the set of claims used in our analysis. The first year is the year in which the injury occurred, and the second year is the maturity of the claim. For example, 2012/2013 refers to claims with injuries arising from October 1, 2011, through September 30, 2012, with experience through March 31, 2013—an average of 12 months' maturity. We denote other injury year/evaluations similarly.

## INFORMATION FOR FIRST-TIME USERS

This section is intended to provide detail about the key benchmarks we analyze, the data we use and adjustments we make, and some presentational issues for new CompScope™ Medical Benchmarks users. This background information should help those who have not used the study before to better understand the objectives and scope of the report, what it contains and why, how the measures are constructed, and how the information it contains can be used.

### THE COMPScope™ MEDICAL BENCHMARKS

Benchmarks of system performance can be powerful tools for public officials and system stakeholders working to maintain and/or improve their systems, because the tools can be used to monitor the effects of legislative, regulatory, judicial, and behavioral changes. We present various measures in several areas:

- Average medical payments per claim and by provider type and service category
- Medical prices paid
- Utilization of services and the components—visits per claim, services per visit, and resource intensity of services provided

These measures offer policymakers and stakeholders a comprehensive look at key aspects of medical costs in the workers' compensation system on a consistent and regular basis.

The unit of analysis in the CompScope™ benchmarking series is the individual workers' compensation claim, so most results are reported on a per claim basis. Costs per claim are a function of the overall costs divided by the number of claims. Therefore, claim frequency does not directly factor into the measures we report. As reported by rating bureaus, however, claim frequency in many states has been steadily declining over the past decade or so. At the same time, injury severity appears to have increased, as indicated by a steady rise in the average cost per claim in many study states. In some states, insurance rates have declined while average cost per claim has been growing. Generally this results from the fact that total workers' compensation system dollars are lower because of the decline in the number of claims, but the average cost per claim is increasing. The insurance premium rates factor in the decline in frequency.

The results of the key performance measures are provided for several claims bases. These include all claims, claims with more than seven days of lost time, and claims with specific types of services (e.g., physical medicine). Each measure may be useful for addressing different questions. For example, the broadest measure—the average total medical cost per all paid claims (total medical costs per claim)—is the composite of all of the underlying cost components and offers an overall characterization of a state's medical costs as higher than, lower than, or typical of the study states as a group. However, we focus much of our analysis on claims with more than seven days of lost time for several reasons. Using a subset of claims with more than seven days of lost time offers more appropriate and meaningful interstate comparisons because it adjusts for the cost impact of different waiting periods for income benefits across states. Also, these claims account for the great majority of system costs and are the focus of much of the public policy debate.



## DATA USED IN THIS REPORT

We chose the states included in the study for a variety of reasons, including (1) representation of higher, lower, and medium costs per claim; (2) larger-than-average populations; (3) diverse benefit structures and other system features; (4) availability of funding sources within each state; and (5) geographic diversity. The states included in the study represent nearly 60 percent of all workers' compensation benefits paid nationwide.

The sample data for this 15th edition include over 8.5 million claims from the systems of 22 data sources (national and regional insurance companies, claims administration organizations, and state funds) in the 16 study states. Along with information on the injured worker and claim characteristics, we receive information on all payment transactions for each claim, including the amount paid, date paid, period covered, what the payment was for, and to whom the payment was made (for example, the worker or a medical provider). The data were provided to us under an agreement which limits WCRI use of the data to specified research purposes. The data remain the property of the data provider. We employed a variety of safeguards to maintain the security and confidentiality of the data, including encrypting all worker- and employer-identifying information.

The sample data include claims from all market segments in each state, including the voluntary market, residual market, self-insurers, and state funds (where applicable). To insure that the sample data are representative of the full insurance market, we weighted our sample claims to represent the population proportion of the insurance market segment in each state. The state datasets contain substantial portions of the claims in the population of all study states and are large enough to support detailed analysis. For example, for 2012, the [database contains 39 to 73 percent of the indemnity claims in each state](#), 28 to 61 percent in the medical dataset.

Given that workers' compensation claims typically change in terms of costs and/or characteristics, or *develop* over several years, the CompScope™ benchmarks provide snapshots of system performance at various points in time to address the trade-off between timely information and complete information. Generally, the multistate comparisons for medical costs focus on claims at an average 12 months of experience. But for hospital inpatient payments and surgery, we show claims at an average 24 months of experience because this provides a more meaningful comparison. For most measures, we show trends for claims at an average 12 months of experience to show the results for the most recent year. The injury year for the CompScope™ benchmarks includes claims from the fourth quarter of the prior year and the first, second, and third quarters of the named injury year. For example, injury year 2012 includes claims arising from October 1, 2011, through September 30, 2012.

## COMPARABILITY OF COMPScope™ BENCHMARKING MEASURES

We use a number of adjustments to make the medical data meaningful for interstate comparisons. Our goal is to create a similar set of claims for analysis to reduce the differences across states that have clouded the usefulness of some interstate comparisons. To do that, we standardized the data using common terms to classify them, created a subset of claims with more than seven days of lost time, and controlled for injury and industry mix. Those adjustments yield performance measures that are much more likely to reflect differences across states in system design or implementation, or differences in the behavior of system participants—those elements that must change in order to effect change in the performance results we

observe. More detailed discussion of each of these adjustments summarized below can be found in the [Technical Appendix](#), along with estimations of the effects of the various adjustments.

To ensure valid comparisons across states and over time, we constructed variables that, to the fullest extent possible, reflect definitions common to the data sources and across states. To accomplish this, we mapped definitions from data sources or states to a set of standard definitions for payment transactions, injury groups, and industry categories.

Differences in the waiting period for indemnity benefits across states directly affect the ratio of medical-only to indemnity claims and measures of claim frequency, and thus affect the comparability of the measures. Waiting periods in the 16 states we studied vary from three days to five days to seven days. To increase the validity of the interstate comparisons, we focused much of our analysis on the subset of claims with more than seven days of lost time.

We enhanced the comparability of the performance measures for interstate comparisons by applying adjustments to control for the state differences in injury and industry mix—also referred to as case-mix adjustment. Workers in certain industries are at a greater or lesser risk of injuries, and those injuries are more or less likely to be severe. Based on our classifications of 12 injury groups and 7 industry categories, we adjusted the sample of claims in each state so that the claim distribution across injury and industry categories looks the same across the states. To accomplish this, we (1) determined the distribution of claims by injury and industry category for the pooled sample of all 16 states and for the sample claims in each state, (2) compared the sample distribution in each state with the pooled state distribution and calculated a unique set of injury and industry weights for each state, and (3) used those weights to adjust the sample claims in each state in calculating the performance measures so that the measures reflect a constant injury and industry mix across the states.

## **OTHER DEFINITIONAL/PRESENTATIONAL ISSUES**

We often compare an individual state's performance with that of the median of the study states. We use the median of the 16 states rather than the mean (average) because it offers a comparison in which 50 percent of the states are always equal to or higher than the median and 50 percent of the states are always equal to or lower than the median. The mean is more sensitive to extreme high or low values than is the median.

Lump-sum payments to close out future obligations are rarely separated into medical and indemnity components in the data. To achieve consistency in the treatment of lump-sum payments among the data sources and to develop measures that are comparable across states, we grouped the lump-sum medical payments with other lump-sum payments, reporting them in total as indemnity payments. The current requirements of Medicare Set-Aside Arrangements might suggest that companies are or will become increasingly able to extract the medical component of settlements. We will continue to monitor any changes in data reporting that allow us to modify our current approach in constructing the lump-sum settlement measure.

The trends we report are based on data weighted to represent the full insurance market in the state. However, we did not adjust the trends for the interstate differences in injury and industry mix. The unadjusted numbers used in the trend analysis provide the most relevant information on how the system performance changed in each state over time. We do recognize, however, that many study states have experienced considerable changes in injury and industry mix over time. We factored these into our trend analysis whenever we believed the effect of these changes in the external factors could be a significant part of

the trends.

Further, we have not adjusted the trends for changes in wages. Some researchers use a wage growth approach or a general index approach to control for inflation. However, because we focus more narrowly on workers' compensation medical costs and services, we have taken a different approach. Our medical price index reflects the change in prices paid for a marketbasket of nonhospital services specific to workers' compensation and reflects inflation to some extent. These nonhospital services are provided in the majority of cases and typically represent at least half of the overall medical dollars. When we observed little change in prices paid, we factored that into any discussion of a change in medical payments per claim.

The trend figures in the report show the cumulative change in the levels for each year (relative to the base year), rather than showing the actual levels for a measure. For the state which is the focus of a report, we connect the change points for each year with a line. The downward or upward lines show declines or acceleration in growth relative to the base year. A change point below zero on the vertical axis indicates a decrease. Similarly, a change point above zero means an increase. The tables accompanying each trend figure also show the year-to-year percentage change, in addition to the cumulative change for the measure.

## **MEDICAL COST CONTAINMENT STRATEGIES IN 2014**

One factor that can influence medical payments per claim is the regulated use of various tools to help control medical costs, such as choice of provider, medical fee schedules, utilization review, and treatment guidelines. [Tables 5](#) and [6](#) summarize the medical cost containment strategies in place in each state in 2014. In Texas, for example, the worker can select the treating provider, but must select the provider from within a medical provider network if one has been established. The worker can change providers with Division of Workers' Compensation approval using stated criteria and can change once within a medical provider network, but subsequent requests are subject to network approval. Medical prices, including pharmacy, are regulated. The 2005 legislation (House Bill 7) mandated preauthorization and concurrent review, as well as the use of treatment guidelines. House Bill 7 also required implementation of a closed formulary for pharmaceuticals, which became effective September 1, 2011, for new claims and September 1, 2013, for claims occurring prior to September 1, 2011.

# QUICK REFERENCE GUIDE TO FIGURES AND TABLES

## PART 1: INTERSTATE COMPARISONS

## PART 2: INTRASTATE TRENDS

### PART 1: INTERSTATE COMPARISONS

(FIGURES ARE FOR CLAIMS WITH 12 MONTHS OF MATURITY; FIGURES FOR CLAIMS WITH 24 OR 36 MONTHS OF MATURITY ARE NOTED)

Measures	Overall	Nonhospital Providers (physicians, chiropractors and PT/OTs)			Hospital Providers			
		Overall	By Provider Type	By Service Group	Overall	Hospital Outpatient Services		Hospital Inpatient Services
						Overall	By Service Group	
Average medical payment per claim	<a href="#">Figure 2</a> <a href="#">Figure 3</a> (36 mos.)	<a href="#">Figure 4</a>	<a href="#">Figure 5</a>	<a href="#">Figure 9</a>	<a href="#">Figure 4</a> <a href="#">Figure 17</a>	<a href="#">Figure 17</a> <a href="#">Figure 18</a>	<a href="#">Figure 18</a>	<a href="#">Figure 17</a>
Usage (percentage of claims)		<a href="#">Figure 4</a>	<a href="#">Figure 5</a>	<a href="#">Figure 10</a>	<a href="#">Figure 4</a>	<a href="#">Figure 17</a>	<a href="#">Figure 19</a>	<a href="#">Figure 17</a>
Percentage of medical costs		<a href="#">Figure 4</a>	<a href="#">Figure 5</a>	<a href="#">Figure 11</a>	<a href="#">Figure 4</a>		<a href="#">Figure 20</a>	
Average price /payment per service		<a href="#">Figure 6</a>	<a href="#">Figure 6</a>	<a href="#">Figure 12</a>		<a href="#">Figure 21</a>	<a href="#">Figure 22</a>	
Utilization/services (per claim)		<a href="#">Figure 6</a>	<a href="#">Figure 6</a>	<a href="#">Figure 13</a>		<a href="#">Figure 21</a>	<a href="#">Figure 23</a>	
Visits per claim		<a href="#">Figure 7</a>	<a href="#">Figure 7</a>	<a href="#">Figure 14</a>			<a href="#">Figure 24</a>	
Services per visit		<a href="#">Figure 7</a>	<a href="#">Figure 7</a>	<a href="#">Figure 15</a>			<a href="#">Figure 25</a>	
Resource intensity		<a href="#">Figure 7</a>	<a href="#">Figure 7</a>	<a href="#">Figure 16</a>				
Payments for network care	<a href="#">Figure 29</a>	<a href="#">Figure 29</a>	<a href="#">Figure 29</a>		<a href="#">Figure 29</a>			

### OTHER FIGURES AND TABLES

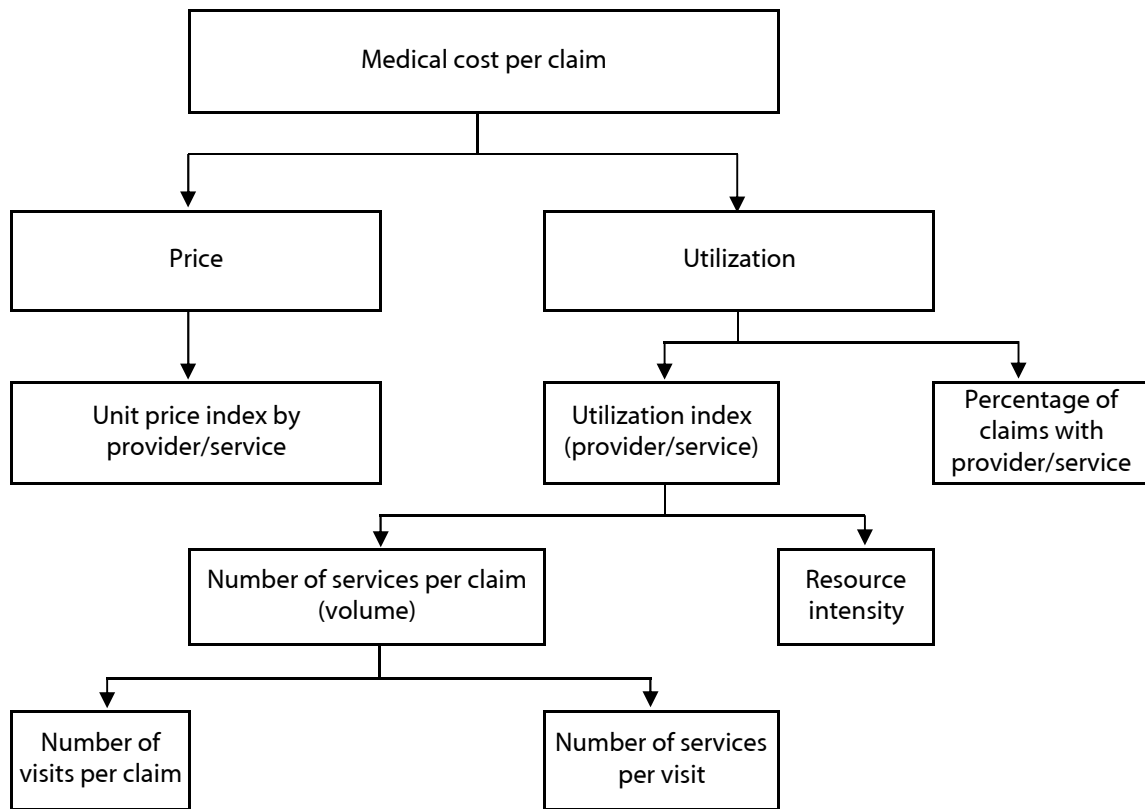
Medical Price and Utilization: Analytic Framework	<a href="#">Figure 1</a>
Physical Medicine Services by Provider Type: Payments, Price, and Utilization	<a href="#">Figure 8</a>
Comparison of Visit Costs for Outpatient Services (hospital vs. nonhospital)	<a href="#">Figure 26</a>
Payments to Hospitals per Inpatient Episode (surgical vs. nonsurgical)	<a href="#">Figure 27</a> (24 months)
Average Total Medical Payment per Episode for Surgical Low Back Cases with Disc Conditions	<a href="#">Figure 28</a> (24 months)
Criteria for Characterizations of Performance Used in This Report	<a href="#">Table 1</a>
Comparing Texas with Other States: Selected Performance Measures, 2012/2013 Claims with More Than 7 Days of Lost Time	<a href="#">Table 2</a>
Percentage of Overall Medical Payments by Provider and Service Type for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)	<a href="#">Table 4</a>
Summary of Medical Cost Containment Strategies, 2014	<a href="#">Table 5</a>
Medical Cost Containment Strategies, 2014	<a href="#">Table 6</a>
Workers' Compensation Premiums over Medicare by Service Group, July 2011	<a href="#">Table 7</a>
Percentage of Services and Average Prices for New- and Established-Patient Office Visit CPT Codes in all States, Calendar Year 2012	<a href="#">Table 8</a>
Average Physical Medicine Payment per Claim and Other Metrics by All Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)	<a href="#">Table 9</a>
Total Costs per Claim and Components	<a href="#">Table 10</a>

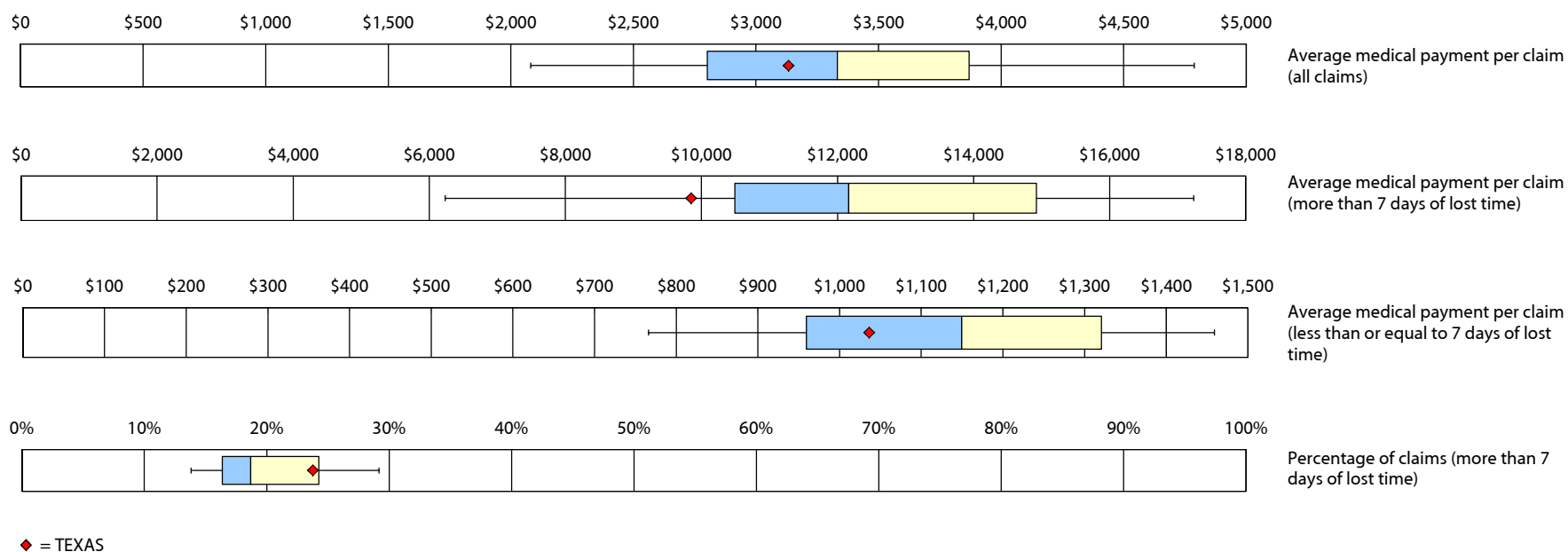
*continued*



**PART 2: INTRASTATE TRENDS**

Measures	All Providers, All Services	Nonhospital Providers (physicians, chiropractors and PT/OTs)	Hospital Providers		
			Overall	Outpatient	Inpatient
Average medical payment per claim, all paid claims	<a href="#">Figure 30</a>				
<b>Claims with more than 7 days of lost time</b>					
Average medical payment per claim, percentage of claims, and percentage of payments	<a href="#">Figure 31</a>	<a href="#">Figure 32</a>	<a href="#">Figure 33</a>	<a href="#">Figure 73</a>	<a href="#">Figure 72</a>
Prices/payments per service		<a href="#">Figure 34</a>		<a href="#">Figure 73</a>	
Utilization/services per claim and components		<a href="#">Figure 35</a>		<a href="#">Figure 73</a>	
<b>Average medical payment per claim, prices, utilization, and components, by provider type</b>					
Physician		<a href="#">Figures 36–41</a>			
Chiropractor		<a href="#">Figures 42–47</a>			
Physical/occupational therapist		<a href="#">Figures 48–53</a>			
<b>Average medical payment per claim, prices/payments per service, utilization/services per claim, and components, by service group</b>					
Evaluation and management		<a href="#">Figures 54–56</a>		<a href="#">Figure 79</a>	
Major radiology		<a href="#">Figures 57–59</a>		<a href="#">Figure 75</a>	
Minor radiology		<a href="#">Figures 60–62</a>		<a href="#">Figure 76</a>	
Pain management injections		<a href="#">Figures 63–65</a>			
Physical medicine		<a href="#">Figures 66–68</a>		<a href="#">Figure 78</a>	
Major surgery		<a href="#">Figures 69–71</a>			
Treatment/operating/recovery room				<a href="#">Figure 74</a>	
Laboratory/pathology				<a href="#">Figure 77</a>	
Emergency				<a href="#">Figure 80</a>	
Payments for network care	<a href="#">Figure 81</a>	<a href="#">Figure 81</a>	<a href="#">Figure 81</a>		
<b>OTHER FIGURES AND TABLES</b>					
Trends in Texas: Selected Performance Measures, Not Adjusted for Injury and Industry Mix, Claims with More Than 7 Days of Lost Time				<a href="#">Table 3</a>	

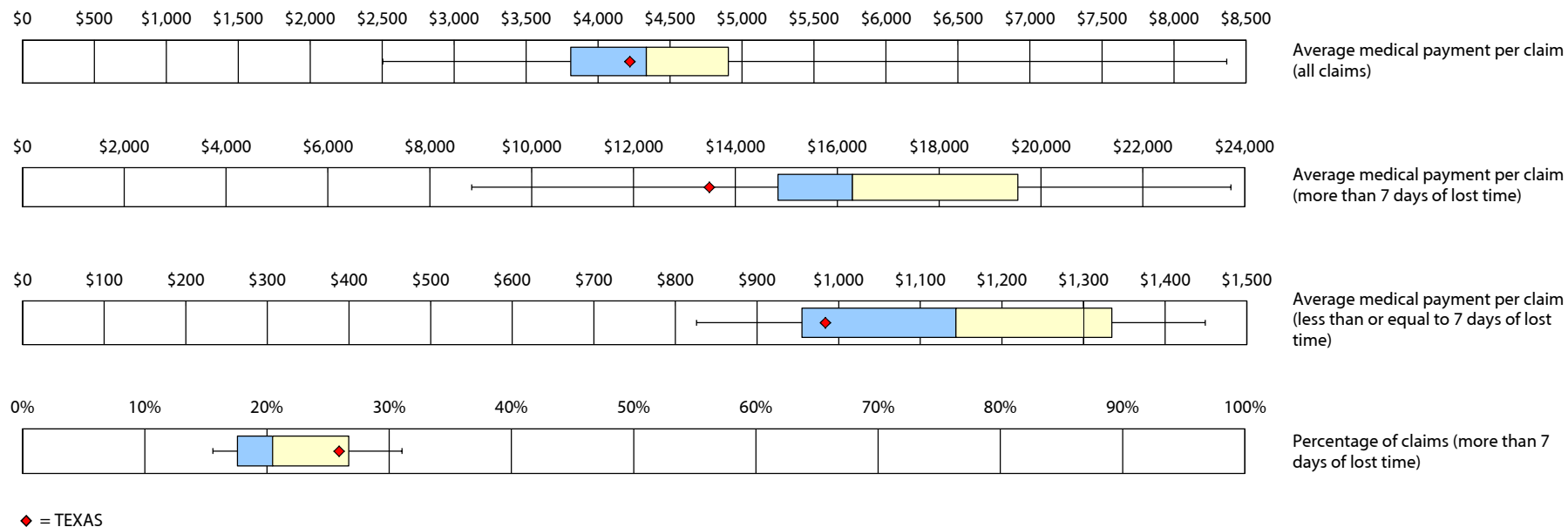
**Figure 1 Medical Price and Utilization: Analytic Framework**

**Figure 2 Average Medical Payment per Claim, 2012/2013 (12 months)****Table for Figure 2: Average Medical Payment per Claim, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Average medical payment per claim (all claims)	\$2,521	\$2,702	\$3,550	\$3,589	\$4,570	\$3,504	\$4,051	\$2,362	\$2,080	\$2,901	\$2,996	\$4,788	\$3,159	\$3,132	\$3,699	\$4,038	\$3,332
Average medical payment per claim (more than 7 days of lost time)	\$11,404	\$7,831	\$11,519	\$14,723	\$13,912	\$17,234	\$13,886	\$6,236	\$8,695	\$11,137	\$12,151	\$15,127	\$12,182	\$9,847	\$15,947	\$16,980	\$12,167
Average medical payment per claim (less than or equal to 7 days of lost time)	\$1,000	\$920	\$1,246	\$1,223	\$1,151	\$1,302	\$1,340	\$766	\$838	\$1,089	\$829	\$1,393	\$1,148	\$1,036	\$1,347	\$1,459	\$1,150
Percentage of claims (more than 7 days of lost time)	15%	26%	22%	18%	27%	14%	22%	29%	16%	18%	19%	25%	18%	24%	16%	17%	19%
Percentage of claims (less than or equal to 7 days of lost time)	85%	74%	78%	82%	73%	86%	78%	71%	84%	82%	81%	75%	82%	76%	84%	83%	81%

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

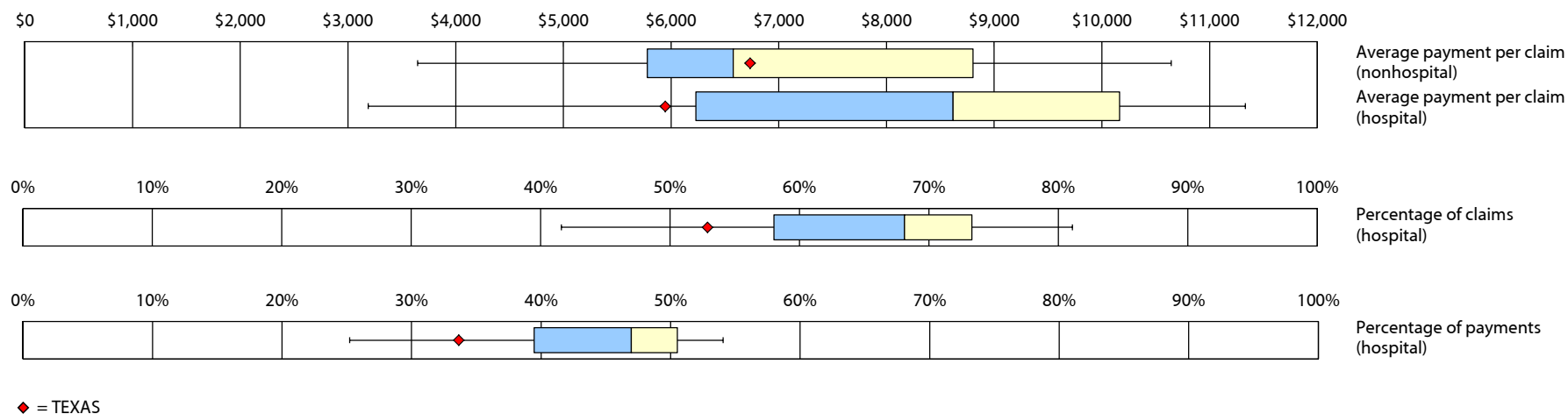
**Figure 3 Average Medical Payment per Claim, 2010/2013 (36 months)****Table for Figure 3: Average Medical Payment per Claim, 2010/2013 (36 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Average medical payment per claim (all claims)	\$3,344	\$4,857	\$4,493	\$4,348	\$8,368	\$4,211	\$5,526	\$3,242	\$2,504	\$3,678	\$4,320	\$6,240	\$3,941	\$4,221	\$4,953	\$4,689	\$4,334
Average medical payment per claim (more than 7 days of lost time)	\$15,094	\$15,202	\$14,573	\$17,907	\$23,729	\$19,825	\$19,266	\$8,822	\$10,268	\$15,303	\$16,844	\$18,516	\$15,750	\$13,488	\$21,853	\$20,722	\$16,297
Average medical payment per claim (less than or equal to 7 days of lost time)	\$971	\$940	\$1,246	\$1,145	\$1,449	\$1,329	\$1,360	\$826	\$842	\$1,034	\$834	\$1,316	\$1,142	\$984	\$1,364	\$1,340	\$1,144
Percentage of claims (more than 7 days of lost time)	17%	27%	24%	19%	31%	16%	23%	30%	18%	19%	22%	29%	19%	26%	18%	17%	20%
Percentage of claims (less than or equal to 7 days of lost time)	83%	73%	76%	81%	69%	84%	77%	70%	82%	81%	78%	71%	81%	74%	82%	83%	80%

Note: 2010/2013 refers to claims arising from October 1, 2009, through September 30, 2010, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.



**Figure 4 Payments to Hospital and Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 4: Payments to Hospital and Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

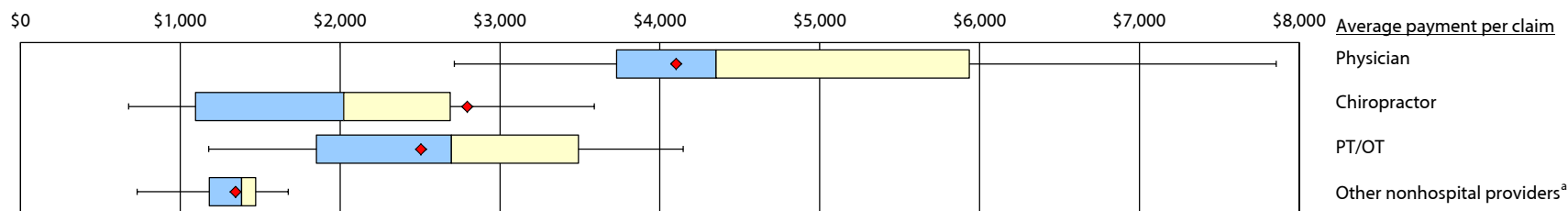
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Average payment per claim (nonhospital)	\$5,253	\$5,961	\$6,422	\$6,815	\$9,519	\$9,417	\$7,227	\$3,647	\$4,591	\$5,656	\$5,900	\$10,644	\$6,402	\$6,733	\$8,189	\$9,780	\$6,577
Average payment per claim (hospital)	\$8,060	\$4,257	\$9,389	\$9,831	\$7,704	\$11,331	\$9,776	\$3,188	\$5,735	\$8,569	\$10,498	\$8,666	\$6,513	\$5,946	\$10,926	\$10,964	\$8,617
Percentage of claims (hospital)	70%	42%	48%	77%	67%	69%	66%	81%	74%	68%	60%	56%	77%	53%	68%	72%	68%
Percentage of payments (hospital)	53%	25%	44%	54%	36%	46%	48%	43%	49%	52%	52%	35%	48%	34%	48%	46%	47%
Percentage of claims (nonhospital)	99%	99%	99%	98%	97%	98%	99%	97%	97%	96%	99%	99%	99%	99%	99%	99%	99%
Percentage of payments (nonhospital)	47%	73%	54%	45%	63%	52%	51%	55%	50%	47%	47%	65%	50%	65%	51%	54%	52%
Average payment per claim (unclassified provider) <sup>b</sup>	\$372	\$415	\$420	\$1,176	\$1,200	\$1,744	\$691	\$378	\$605	\$360	\$489	\$439	\$921	\$469	\$562	\$809	\$526
Percentage of claims (unclassified provider) <sup>b</sup>	14%	20%	18%	13%	13%	15%	16%	8%	15%	19%	13%	9%	15%	15%	13%	14%	14%
Percentage of payments (unclassified provider) <sup>b</sup>	1%	2%	2%	1%	1%	2%	1%	2%	2%	1%	1%	0%	3%	1%	1%	1%	1%

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013. The average payment per claim reported by type of provider or service group is computed based on claims having that provider or receiving that service.

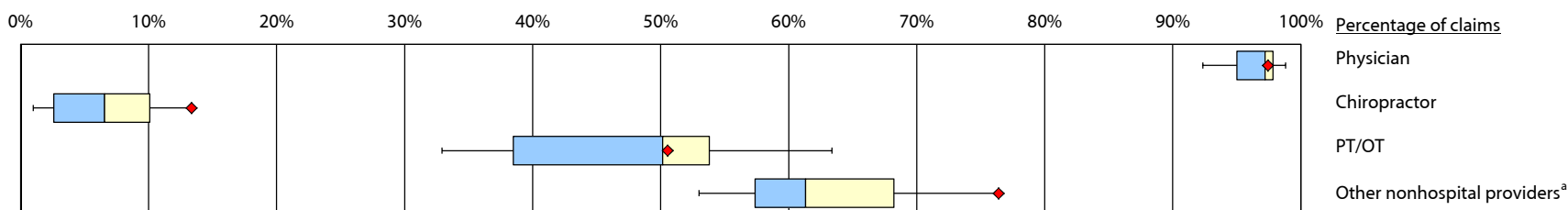
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>b</sup> Eight to 20 percent of claims involve at least one payment to providers that could not be classified because of missing data. Payments to unclassified providers typically make up only between 0 and 3 percent of medical payments.

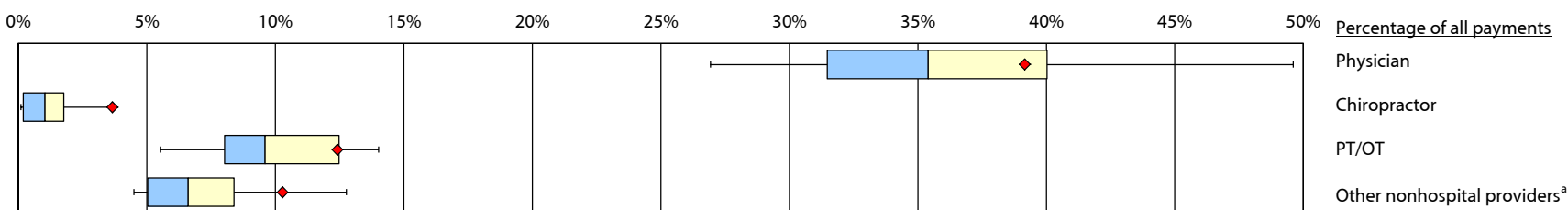
**Figure 5a Payments to Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



**Figure 5b Percentage of Claims with Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



**Figure 5c Percentage of Payments to Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



◆ = TEXAS

*continued*

**Table for Figures 5a–c: Payments, Percentage of Claims, and Percentage of Payments to Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR <sup>b</sup>	CA	FL	IA	IL	IN <sup>b</sup>	LA	MA	MI	MN	NC <sup>b</sup>	NJ	PA	TX	VA <sup>b</sup>	WI	16-State Median <sup>c</sup>
<b>Physician</b>																	
Average payment per claim	\$3,548	\$4,141	\$4,419	\$5,003	\$6,529	\$6,805	\$4,562	\$2,715	\$2,804	\$4,284	\$3,909	\$7,856	\$3,534	\$4,102	\$5,344	\$7,711	\$4,351
Percentage of claims	98%	98%	99%	97%	95%	98%	97%	93%	95%	92%	98%	98%	96%	97%	98%	95%	97%
Percentage of all payments	31.2%	49.6%	36.9%	32.4%	42.1%	37.2%	31.8%	39.3%	29.5%	33.9%	30.9%	47.2%	26.9%	39.2%	33.1%	40.8%	35.4%
<b>Chiropractor<sup>d</sup></b>																	
Average payment per claim	n/a	\$1,114	\$1,200	\$677	\$3,590	n/a	\$2,581	\$1,013	\$1,075	\$2,034	n/a	\$2,191	\$3,390	\$2,795	n/a	\$2,012	\$2,023
Percentage of claims	n/a	13%	1%	3%	7%	n/a	5%	6%	2%	10%	n/a	1%	8%	13%	n/a	10%	7%
Percentage of all payments	n/a	1.7%	0.1%	0.1%	1.7%	n/a	1.0%	1.0%	0.2%	1.8%	n/a	0.1%	2.1%	3.7%	n/a	1.1%	1.0%
<b>PT/OT</b>																	
Average payment per claim	\$1,862	\$1,178	\$1,670	\$2,761	\$4,145	\$3,536	\$2,867	\$1,534	\$2,632	\$1,843	\$2,056	\$3,222	\$3,445	\$2,506	\$3,557	\$3,796	\$2,696
Percentage of claims	35%	59%	61%	41%	50%	52%	49%	36%	44%	35%	55%	63%	51%	51%	53%	33%	50%
Percentage of all payments	5.8%	8.5%	8.6%	7.6%	14.0%	10.3%	10.1%	8.6%	12.8%	5.5%	9.1%	12.5%	13.9%	12.4%	11.9%	6.9%	9.6%
<b>Other nonhospital providers<sup>a</sup></b>																	
Average payment per claim	\$1,498	\$1,488	\$1,435	\$1,136	\$1,397	\$1,279	\$1,676	\$731	\$1,021	\$1,024	\$1,226	\$1,370	\$1,438	\$1,346	\$1,515	\$1,456	\$1,384
Percentage of claims	71%	67%	67%	61%	53%	62%	69%	53%	61%	56%	70%	55%	60%	76%	61%	59%	61%
Percentage of all payments	9.5%	12.8%	8.3%	4.7%	5.2%	4.5%	8.5%	6.3%	7.0%	5.8%	7.0%	4.9%	6.9%	10.3%	6.3%	4.8%	6.6%

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> Other nonhospital providers include physicians' assistants, nurses, counselors, medical equipment suppliers, etc.

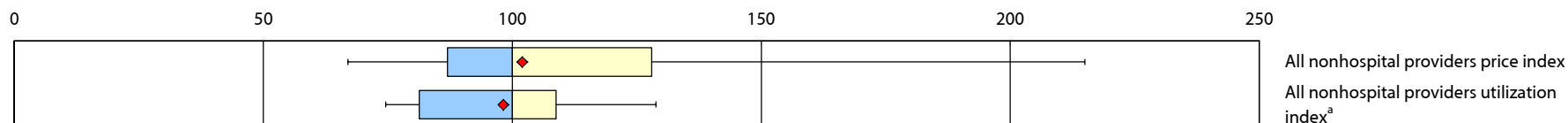
<sup>b</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures at the claim level are too small to support an interstate comparison.

<sup>c</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

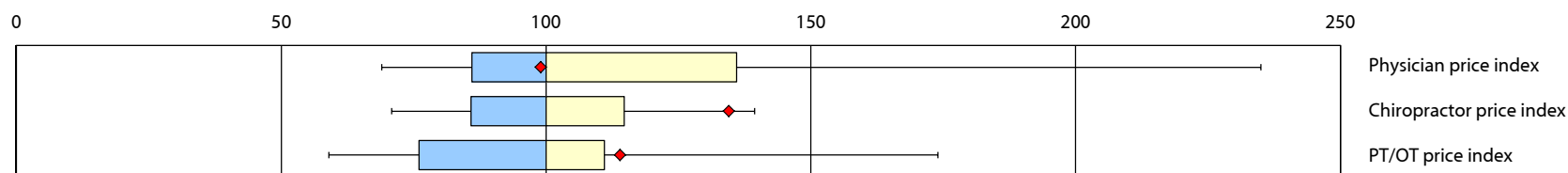
<sup>d</sup> The numbers shown in the noted service and/or provider groups in Florida, Iowa, Louisiana, Michigan, and New Jersey should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

Key: n/a: not available; PT/OT: physical/occupational therapist.

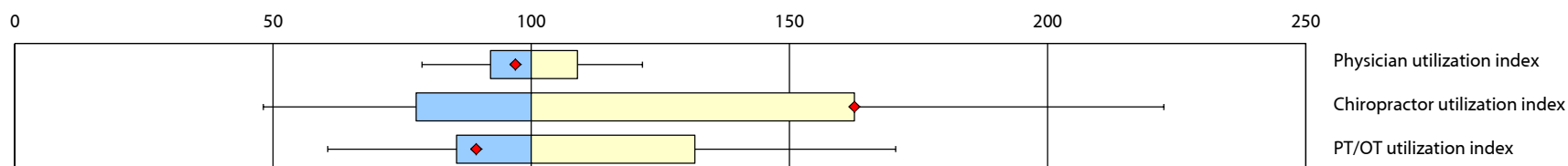
**Figure 6a Price and Utilization Indices<sup>a</sup> for Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



**Figure 6b Price Index for Nonhospital Providers for Claims with More Than 7 Days of Lost Time, Calendar Year 2012**



**Figure 6c Utilization Index<sup>a</sup> for Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



♦ = TEXAS

*continued*



**Table for Figures 6a–c: Price and Utilization Indices<sup>a</sup> for Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR <sup>b</sup>	CA <sup>c</sup>	FL	IA	IL	IN <sup>b</sup>	LA <sup>d,e</sup>	MA	MI	MN	NC <sup>b</sup>	NJ	PA	TX	VA <sup>b</sup>	WI	16-State Median <sup>f</sup>
<b>All nonhospital providers</b>																	
Price index	92	72	67	128	129	154	98	90	87	106	76	148	87	102	118	215	100
Utilization index	77	102	109	83	129	102	93	75	93	75	106	124	128	98	109	80	100
<b>Physician</b>																	
Price index	94	76	69	134	137	163	98	101	86	110	81	168	87	99	126	235	100
Utilization index	89	116	106	92	122	109	98	79	94	86	103	109	112	97	102	93	100
<b>Chiropractor</b>																	
Price index	n/a	79	78	92	106	n/a	118	71	95	102	n/a	111	98	135	n/a	139	100
Utilization index	n/a	78	100	48	207	n/a	n/a	100	77	139	n/a	100	222	163	n/a	99	100
<b>PT/OT</b>																	
Price index	90	59	65	117	109	134	100	64	93	103	65	100	87	114	105	174	100
Utilization index	86	61	104	95	149	100	n/a	100	119	65	118	138	171	89	132	85	100
<b>Other nonhospital providers<sup>g</sup></b>																	
Price index	102	68	63	137	101	128	112	65	84	111	84	99	78	87	116	196	100
Utilization index	107	110	132	78	113	102	107	73	98	97	93	93	106	198	92	81	100

Notes: The price index is based on calendar year 2012 prices. The utilization index is based on 2012/2013 claims. 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> Throughout the report, the utilization indices measure the volume and resource intensity of services provided per claim involving a given provider or service. Another component of utilization, the percentage of claims involving a given provider or service, is discussed separately. The price and utilization indices do not include comparisons of some nonhospital services, such as anesthesia, special reports, laboratory, supplies and equipment, unclassified services, and other services such as ambulance, home health care, etc., because billing codes are too broadly defined to make accurate price and utilization comparisons. The price and utilization indices are based on the eight service groups listed in the tables for Figures 12 and 13, which together make up 51–74 percent of the nonhospital payments depending on the state.

<sup>b</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures at the claim level are too small to support an interstate comparison.

<sup>c</sup> For California, the number of services per visit for providers of physical medicine may be somewhat understated, and prices somewhat overstated, relative to other states, because some physical medicine services are billed in 30-minute increments rather than the standard 15 minutes.

<sup>d</sup> Physical medicine codes in Louisiana are billed using state-specific PT/OT codes. Although many of these codes can be directly mapped to standard physical therapy services, some cannot. Specifically, those for therapeutic exercises and activities cannot be directly mapped. We only include those codes that can be directly mapped in the price analysis. In Louisiana, this means that the percentage of physical medicine payments included in the price analysis is less than the 82–98 percent found in other states. In Louisiana, the price analysis of the physical medicine category (and the services provided by physical/occupational therapists and chiropractors) is based on 61 percent of the services (mostly modalities as opposed to therapeutic activities and exercises).

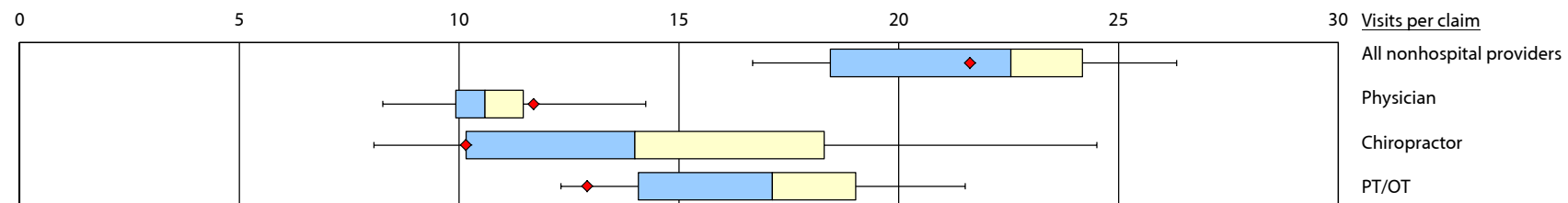
<sup>e</sup> Because not all services billed by Louisiana physical/occupational therapists and chiropractors are comparable to those in other states, and they are defined too broadly to be crosswalked, we are unable to compare the utilization index for these providers.

<sup>f</sup> 100 is the median state. An index of 120 means the state's price or utilization is 20 percent higher than the median state. An index of 80 means the state's price or utilization is 20 percent lower than the median state.

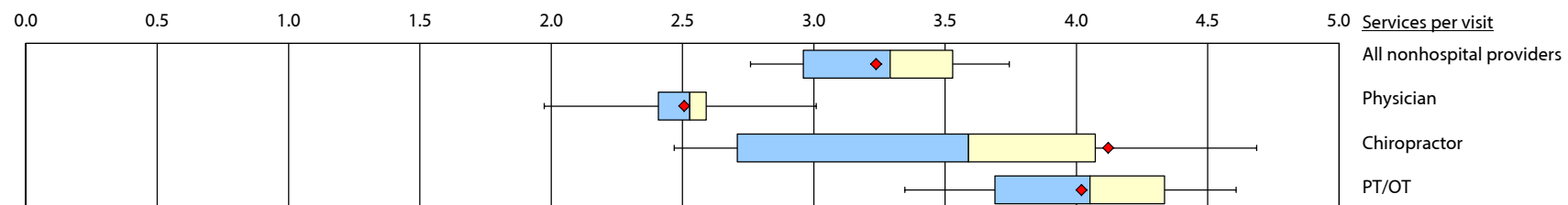
<sup>g</sup> We do not graphically display a price and utilization index for other nonhospital providers because they are made up of a mix of vastly different provider types, such as nurses, physicians' assistants, psychologists, etc.

Key: n/a: not available; PT/OT: physical/occupational therapist.

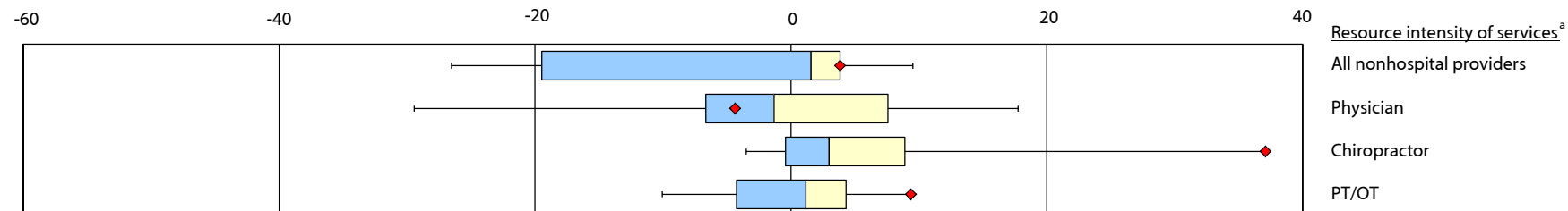
**Figure 7a Visits per Claim for Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



**Figure 7b Services per Visit for Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



**Figure 7c Resource Intensity of Services<sup>a</sup> for Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



♦ = TEXAS

continued

**Table for Figures 7a–c: Visits per Claim, Services per Visit, and Resource Intensity of Services<sup>a</sup> for Nonhospital Providers for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR <sup>b</sup>	CA <sup>c</sup>	FL	IA	IL	IN <sup>b</sup>	LA <sup>d</sup>	MA	MI	MN	NC <sup>b</sup>	NJ	PA	TX	VA <sup>b</sup>	WI	16-State Median <sup>e</sup>
<b>All nonhospital providers</b>																	
Number of visits per claim	18.0	25.0	23.6	18.9	26.3	21.4	23.7	16.7	19.9	17.1	23.5	24.7	25.8	21.6	23.6	17.1	22.6
Number of services per visit	3.0	3.4	3.3	2.9	3.7	3.2	3.5	2.8	3.2	2.9	3.4	3.6	3.7	3.2	3.5	2.8	3.3
Resource intensity of services <sup>a</sup> (percentage points)	3.2	3.3	2.4	5.1	-23.7	0.8	-26.5	3.9	-5.6	9.5	-7.4	-22.3	-22.2	3.8	-16.8	8.6	
<b>Physician</b>																	
Number of visits per claim	10.2	14.2	10.7	9.7	13.4	11.2	10.5	8.3	10.4	9.4	10.8	10.1	11.7	11.7	10.7	9.8	10.6
Number of services per visit	2.5	3.0	2.6	2.3	3.0	2.6	2.6	2.0	2.5	2.4	2.5	2.4	2.5	2.5	2.6	2.3	2.5
Resource intensity of services <sup>a</sup> (percentage points)	-4.6	-6.4	17.7	6.5	-29.4	-1.7	-0.9	9.8	-6.9	8.6	-0.7	13.1	-7.8	-4.4	-7.9	6.1	
<b>Chiropractor<sup>f</sup></b>																	
Number of visits per claim	n/a	9.5	11.4	8.1	20.8	n/a	17.4	15.7	12.7	18.3	n/a	10.0	24.5	10.2	n/a	15.3	14.0
Number of services per visit <sup>g</sup>	n/a	3.6	3.9	2.5	4.7	n/a	n/a	2.6	2.5	3.5	n/a	3.8	4.0	4.1	n/a	2.8	3.6
Resource intensity of services <sup>a</sup> (percentage points)	n/a	8.4	0.0	3.0	-3.5	n/a	n/a	9.4	7.7	-1.0	n/a	5.8	-0.3	37.1	n/a	-0.5	
<b>PT/OT</b>																	
Number of visits per claim	14.1	12.8	17.2	16.4	20.1	15.4	18.7	17.0	17.4	12.3	18.3	21.5	21.5	12.9	19.3	14.1	17.1
Number of services per visit <sup>g</sup>	4.1	3.7	3.8	3.7	4.5	4.1	n/a	3.7	4.1	3.3	4.2	4.3	4.6	4.0	4.5	3.7	4.1
Resource intensity of services <sup>a</sup> (percentage points)	-7.8	-6.4	2.8	0.9	4.3	0.5	n/a	4.3	2.6	5.1	1.2	-10.1	1.1	9.4	-4.2	1.9	
<b>Other nonhospital providers<sup>h</sup></b>																	
Number of visits per claim	6.4	7.1	7.2	6.2	6.3	6.6	8.3	5.5	5.8	5.5	7.4	5.8	6.1	6.5	7.2	5.3	6.4
Number of services per visit	1.6	1.9	1.9	1.7	1.8	1.6	1.8	1.5	1.6	1.7	1.7	1.8	1.8	1.9	1.7	1.7	1.7
Resource intensity of services <sup>a</sup> (percentage points)	7.0	-8.9	-17.3	-22.8	-6.8	28.1	0.0	18.4	-0.7	-4.3	25.2	32.0	3.8	74.5	21.2	-0.7	

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. A negative percentage point means that the service mix is less resource intensive than in other states and vice versa. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures at the claim level are too small to support an interstate comparison.

<sup>c</sup> For California, the number of services per visit for providers of physical medicine may be somewhat understated, and prices somewhat overstated, relative to other states, because some physical medicine services are billed in 30-minute increments rather than the standard 15 minutes.

<sup>d</sup> Because not all services billed by Louisiana physical/occupational therapists and chiropractors are comparable to those in other states, and they are defined too broadly to be crosswalked, we are unable to compare the number of services per visit or the resource intensity for these services and providers. As noted, the price index relies on services for which crosswalks can be accomplished.

<sup>e</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

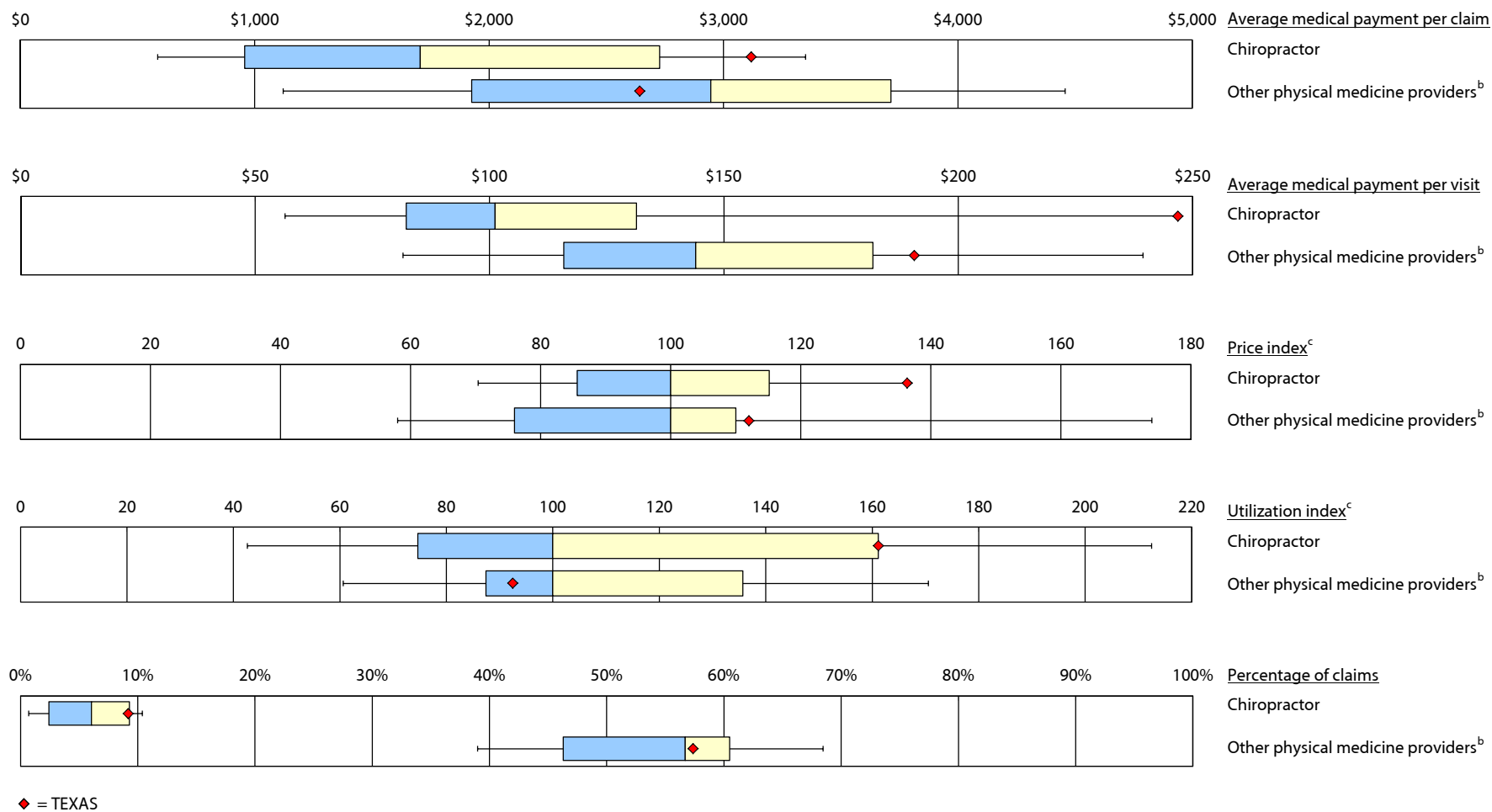
<sup>f</sup> The numbers shown in the noted service and/or provider groups in Florida, Iowa, Louisiana, Michigan, and New Jersey should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

<sup>g</sup> This includes billing for hot and/or cold packs (97010), which are not necessarily reimbursed in all states.

<sup>h</sup> We do not graphically display visits and services for other nonhospital providers because they are made up of vastly different provider types, such as nurses, physicians' assistants, psychologists, medical equipment suppliers, etc.

Key: n/a: not available; PT/OT: physical/occupational therapist.

**Figure 8 Comparison of Physical Medicine Providers<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



continued



**Table for Figure 8: Comparison of Physical Medicine Providers<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR <sup>d</sup>	CA	FL	IA	IL	IN <sup>d</sup>	LA <sup>e,f</sup>	MA	MI	MN	NC <sup>d</sup>	NJ	PA	TX	VA <sup>d</sup>	WI	16-State Median <sup>g</sup>
<b>Average medical payment per claim</b>																	
Chiropractor <sup>h</sup>	n/a	\$799	\$1,062	\$586	\$3,350	n/a	\$2,361	\$900	\$1,014	\$1,846	n/a	\$1,686	\$3,095	\$3,118	n/a	\$1,727	\$1,706
Other physical medicine providers <sup>b</sup>	\$1,910	\$1,121	\$1,672	\$3,074	\$4,458	\$3,844	\$2,926	\$1,508	\$2,965	\$1,940	\$2,144	\$3,276	\$3,634	\$2,643	\$3,794	\$3,936	\$2,946
<b>Average medical payment per visit</b>																	
Chiropractor <sup>h</sup>	n/a	\$87	\$85	\$72	\$166	n/a	\$133	\$56	\$80	\$99	n/a	\$130	\$118	\$247	n/a	\$103	\$101
Other physical medicine providers <sup>b</sup>	\$124	\$82	\$95	\$163	\$186	\$208	\$148	\$84	\$139	\$134	\$108	\$140	\$152	\$191	\$177	\$239	\$144
<b>Price index<sup>c</sup></b>																	
Chiropractor <sup>h</sup>	n/a	79	79	92	106	n/a	122	70	93	100	n/a	108	100	136	n/a	133	100
Other physical medicine providers <sup>b</sup>	90	58	65	117	109	135	101	63	92	102	64	99	88	112	105	174	100
<b>Utilization index<sup>c</sup></b>																	
Chiropractor <sup>h</sup>	n/a	62	98	43	200	n/a	n/a	89	75	131	n/a	112	212	161	n/a	91	100
Other physical medicine providers <sup>b</sup>	83	61	100	100	155	104	n/a	100	128	69	121	136	171	92	136	87	100
<b>Percentage of claims</b>																	
Chiropractor <sup>h</sup>	n/a	10%	1%	3%	7%	n/a	5%	6%	2%	10%	n/a	1%	7%	9%	n/a	9%	6%
Other physical medicine providers <sup>b</sup>	47%	68%	66%	45%	61%	60%	53%	39%	49%	43%	60%	66%	56%	57%	58%	40%	57%

Notes: The price index is based on calendar year 2012. The utilization index is based on 2012/2013 claims. 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The data reported here include services billed primarily under Current Procedural Terminology (CPT) codes 97xxx and/or chiropractic or osteopathic manipulations billed under 98xxx.

<sup>b</sup> Other physical medicine providers include other nonhospital providers, such as medical doctors, doctors of osteopathy, and physical/occupational therapists providing or billing for services.

<sup>c</sup> 100 is the median state. An index of 120 means the state's price or utilization is 20 percent higher than the median state. An index of 80 means the state's price or utilization is 20 percent lower than the median state.

<sup>d</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures at the claim level are too small to support an interstate comparison.

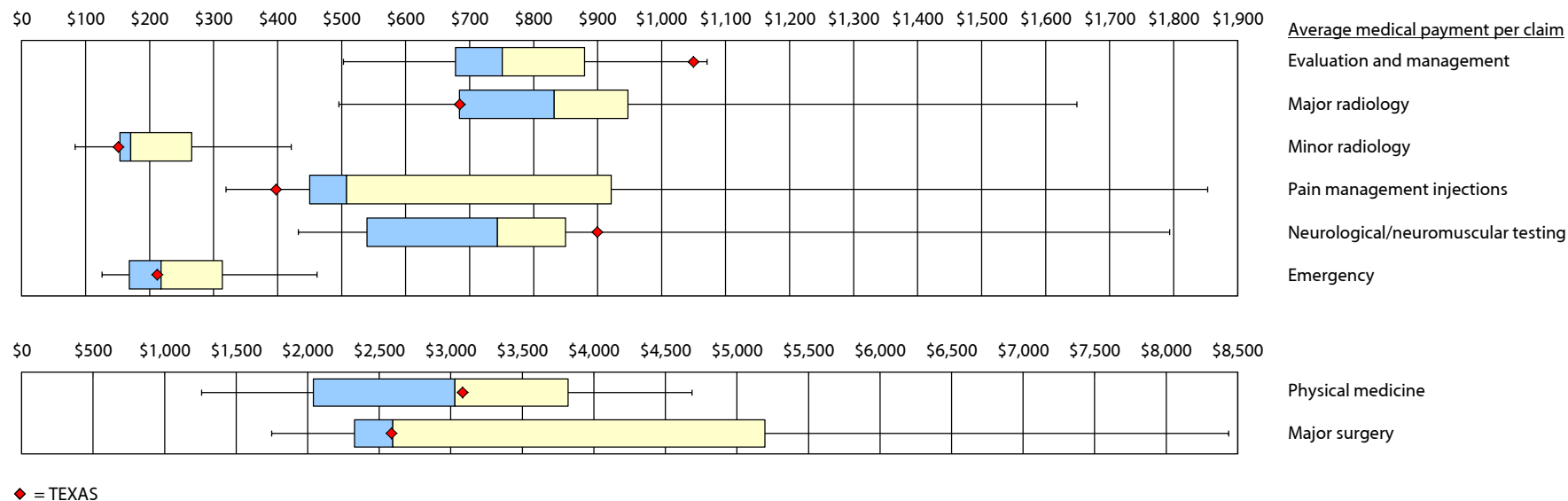
<sup>e</sup> Physical medicine codes in Louisiana are billed using state-specific PT/OT codes. Although many of these codes can be directly mapped to standard physical therapy services, some cannot. Specifically, those for therapeutic exercises and activities cannot be directly mapped. We only include those codes that can be directly mapped in the price analysis. In Louisiana, this means that the percentage of physical medicine payments included in the price analysis is less than the 82–98 percent found in other states. In Louisiana, the price analysis of the physical medicine category (and the services provided by physical/occupational therapists and chiropractors) is based on 61 percent of the services (mostly modalities as opposed to therapeutic activities and exercises).

<sup>f</sup> Because not all services billed by Louisiana physical/occupational therapists and chiropractors are comparable to those in other states, and they are defined too broadly to be crosswalked, we are unable to compare the utilization index for these providers.

<sup>g</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>h</sup> The numbers shown in the noted service and/or provider groups in Florida, Iowa, Louisiana, Michigan, and New Jersey should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

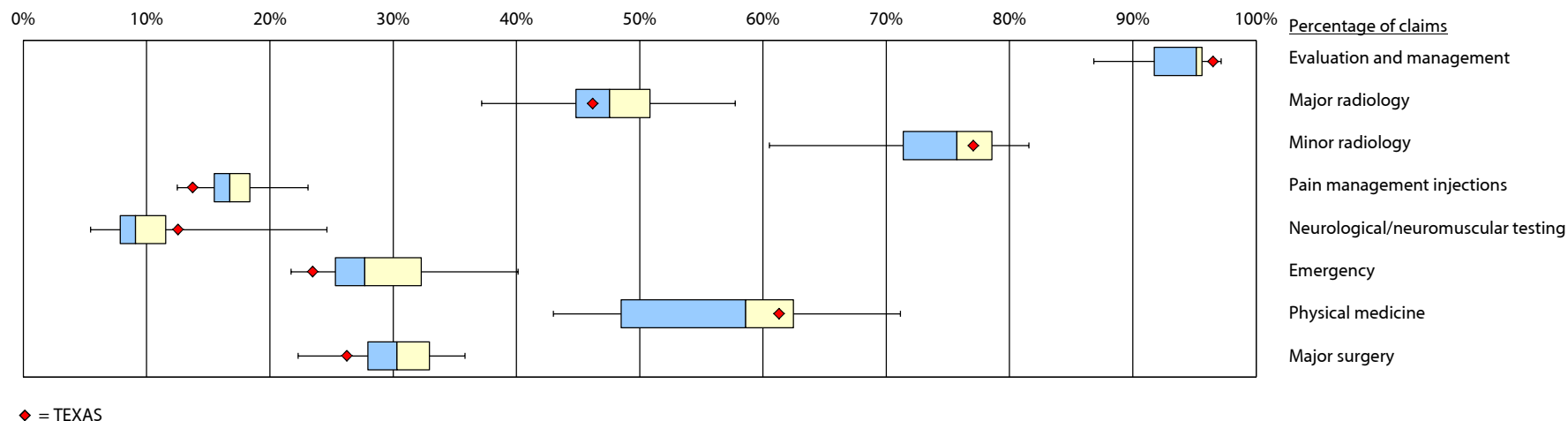
Key: n/a: not available; PT/OT: physical/occupational therapist.

**Figure 9 Payments for Nonhospital Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 9: Payments for Nonhospital Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average medical payment per claim</b>																	
Evaluation and management	\$606	\$1,001	\$740	\$734	\$681	\$766	\$762	\$574	\$675	\$841	\$503	\$902	\$687	\$1,050	\$857	\$1,071	\$751
Major radiology	\$693	\$741	\$652	\$930	\$939	\$1,081	\$981	\$496	\$552	\$956	\$937	\$761	\$684	\$685	\$903	\$1,649	\$832
Minor radiology	\$172	\$166	\$157	\$230	\$285	\$316	\$247	\$83	\$147	\$158	\$169	\$312	\$142	\$151	\$233	\$421	\$171
Pain management injections	\$509	\$365	\$454	\$755	\$1,040	\$974	\$846	\$507	\$320	\$446	\$457	\$1,719	\$495	\$398	\$868	\$1,853	\$508
Neurological/neuromuscular testing	\$531	\$613	\$449	\$800	\$929	\$751	\$792	\$509	\$548	\$789	\$432	\$1,286	\$591	\$899	\$736	\$1,794	\$743
Emergency	\$167	\$159	\$169	\$289	\$241	\$397	\$224	\$126	\$178	\$250	\$184	\$452	\$157	\$212	\$339	\$462	\$218
Physical medicine	\$1,937	\$1,259	\$1,704	\$3,030	\$4,685	\$3,865	\$3,027	\$1,503	\$3,007	\$2,143	\$2,161	\$3,304	\$3,908	\$3,083	\$3,827	\$3,814	\$3,029
Major surgery	\$2,108	\$2,066	\$2,470	\$3,618	\$5,749	\$5,445	\$2,604	\$4,945	\$1,749	\$2,298	\$2,524	\$8,436	\$2,354	\$2,586	\$3,932	\$7,692	\$2,595

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

**Figure 10 Percentage of Claims with Nonhospital Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 10: Percentage of Claims with Nonhospital Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

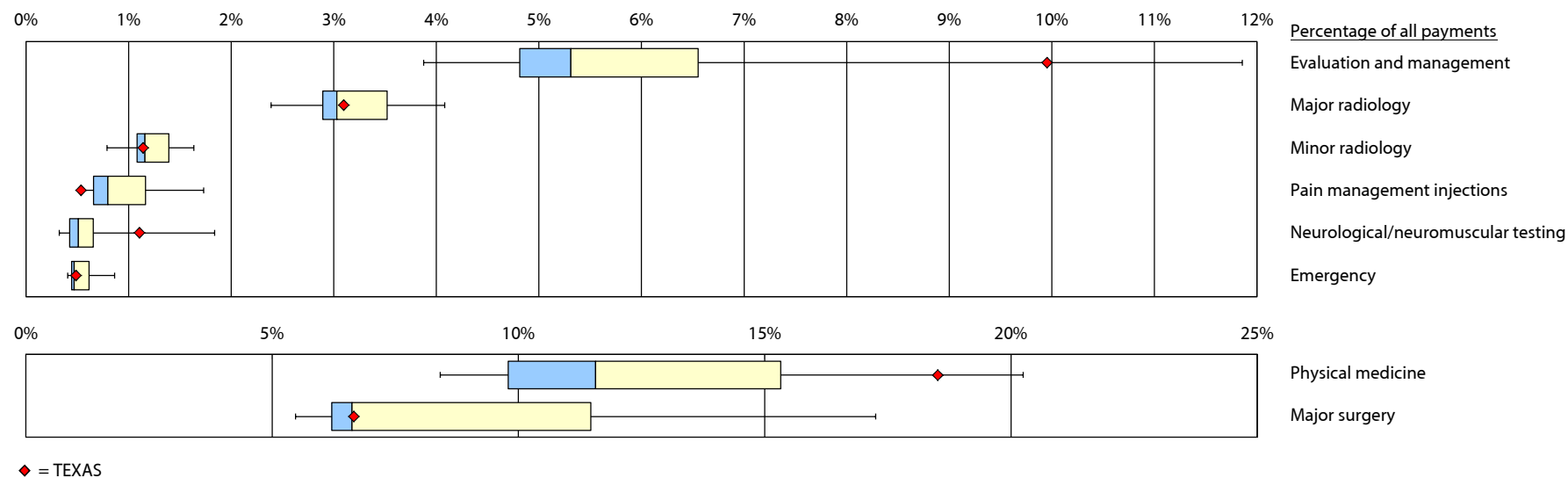
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of claims</b>																	
Evaluation and management	95%	97%	97%	92%	91%	95%	95%	87%	89%	89%	95%	96%	93%	97%	95%	93%	95%
Major radiology	49%	45%	58%	46%	46%	50%	49%	37%	45%	43%	51%	51%	56%	46%	51%	45%	48%
Minor radiology	81%	78%	82%	73%	72%	74%	79%	61%	71%	64%	80%	76%	75%	77%	78%	70%	76%
Pain management injections	16%	14%	18%	17%	17%	23%	19%	12%	17%	15%	18%	16%	19%	14%	18%	17%	17%
Neurological/neuromuscular testing	8%	25%	11%	8%	10%	13%	9%	5%	9%	7%	9%	8%	14%	13%	9%	7%	9%
Emergency	27%	23%	33%	24%	27%	26%	28%	32%	28%	22%	28%	31%	33%	23%	40%	32%	28%
Physical medicine	49%	71%	68%	48%	64%	61%	56%	43%	49%	48%	61%	66%	59%	61%	58%	47%	59%
Major surgery <sup>b</sup>	35%	25%	27%	35%	31%	36%	29%	22%	33%	29%	31%	30%	33%	26%	29%	31%	30%
Percentage of claims with other nonhospital services (not displayed) <sup>c</sup>	92%	97%	94%	86%	85%	91%	89%	74%	86%	83%	91%	88%	87%	97%	87%	85%	88%

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>b</sup> The percentage of claims with surgery is based on nonhospital providers (surgeons) billing the surgery.

<sup>c</sup> Other nonhospital services mainly include anesthesia, drugs, legal and special reports, supplies and equipment, miscellaneous services billed by stand-alone ambulatory surgical centers, and other miscellaneous defined medical and/or diagnostic services and testing.

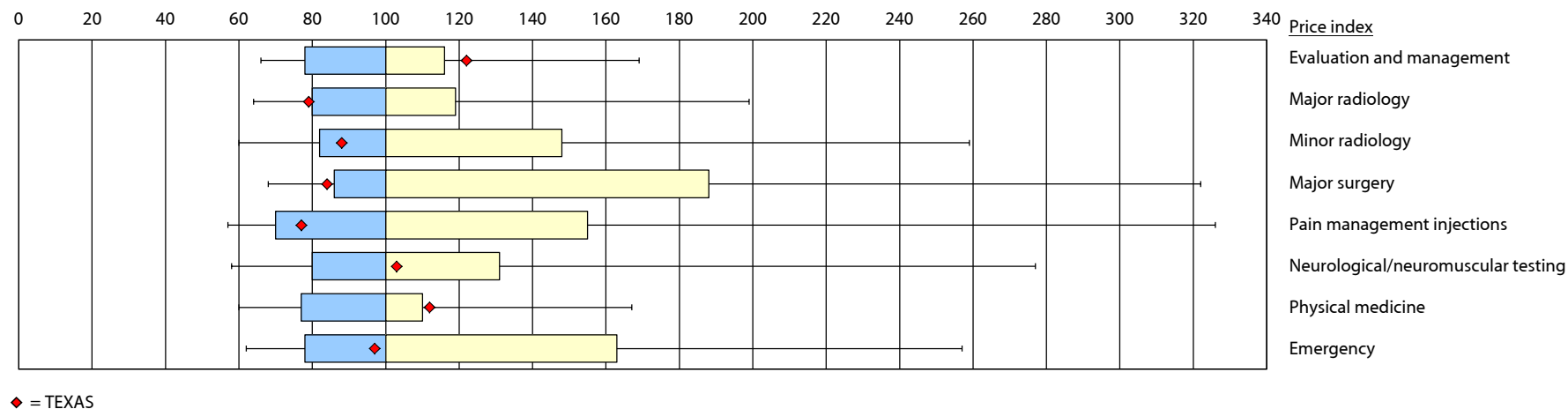
**Figure 11 Percentage of Medical Payments Made for Each Nonhospital Service Group for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 11: Percentage of Medical Payments Made for Each Nonhospital Service Group for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of all payments</b>																	
Evaluation and management	5.2%	11.9%	6.1%	4.6%	4.2%	4.1%	5.2%	7.8%	6.7%	6.4%	3.9%	5.4%	5.1%	10.0%	5.2%	5.6%	5.3%
Major radiology	3.0%	4.1%	3.2%	2.8%	2.9%	3.0%	3.5%	2.9%	2.7%	3.5%	3.9%	2.4%	3.0%	3.1%	2.9%	4.1%	3.0%
Minor radiology	1.2%	1.6%	1.1%	1.1%	1.4%	1.3%	1.4%	0.8%	1.2%	0.9%	1.1%	1.5%	0.8%	1.1%	1.2%	1.6%	1.2%
Pain management injections	0.7%	0.6%	0.7%	0.8%	1.2%	1.3%	1.1%	1.0%	0.6%	0.6%	0.7%	1.7%	0.8%	0.5%	1.0%	1.7%	0.8%
Neurological/neuromuscular testing	0.4%	1.8%	0.4%	0.4%	0.6%	0.5%	0.5%	0.4%	0.6%	0.5%	0.3%	0.7%	0.6%	1.1%	0.4%	0.7%	0.5%
Emergency	0.4%	0.5%	0.5%	0.5%	0.4%	0.6%	0.4%	0.6%	0.6%	0.5%	0.4%	0.9%	0.4%	0.5%	0.9%	0.8%	0.5%
Physical medicine	8.4%	11.0%	9.7%	9.6%	20.3%	13.2%	12.2%	10.1%	16.4%	8.9%	10.6%	13.4%	18.1%	18.5%	14.2%	9.9%	11.6%
Major surgery	6.6%	6.4%	5.6%	8.4%	12.0%	11.0%	5.5%	17.3%	6.4%	5.8%	6.3%	15.6%	6.1%	6.7%	7.3%	13.4%	6.6%
Percentage of all payments for other nonhospital services (not displayed) <sup>b</sup>	21%	35%	27%	16%	20%	17%	21%	14%	14%	20%	20%	23%	15%	24%	18%	16%	19.9%

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>b</sup> Other nonhospital services mainly include anesthesia, drugs, legal and special reports, supplies and equipment, miscellaneous services billed by stand-alone ambulatory surgical centers, and other miscellaneous defined medical and/or diagnostic services and testing.

**Figure 12 Price Index for Nonhospital Services, Calendar Year 2012****Table for Figure 12: Price Index for Nonhospital Services, Calendar Year 2012**

	AR	CA	FL	IA	IL	IN	LA <sup>a</sup>	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Price index</b>																	
Evaluation and management	100	70	75	119	81	112	87	78	102	134	66	100	79	122	113	169	100
Major radiology	96	79	64	141	120	131	109	80	94	119	104	79	88	79	111	199	100
Minor radiology	100	75	60	161	151	208	104	65	77	100	87	143	91	88	146	259	100
Major surgery	88	86	68	145	214	227	101	162	69	86	95	282	99	84	142	322	100
Pain management injections	107	58	63	163	147	179	118	82	59	93	78	249	57	77	127	326	100
Neurological/neuromuscular testing	90	97	65	138	116	168	92	58	78	110	63	162	82	103	123	277	100
Physical medicine	89	60	65	115	108	132	101	63	91	101	65	99	88	112	103	167	100
Emergency	78	79	66	145	143	199	103	62	86	116	78	257	79	97	182	243	100
All nonhospital services <sup>c</sup>	92	72	67	128	129	154	98	90	87	106	76	148	87	102	118	215	100

Note: The price index is based on calendar year 2012 prices.

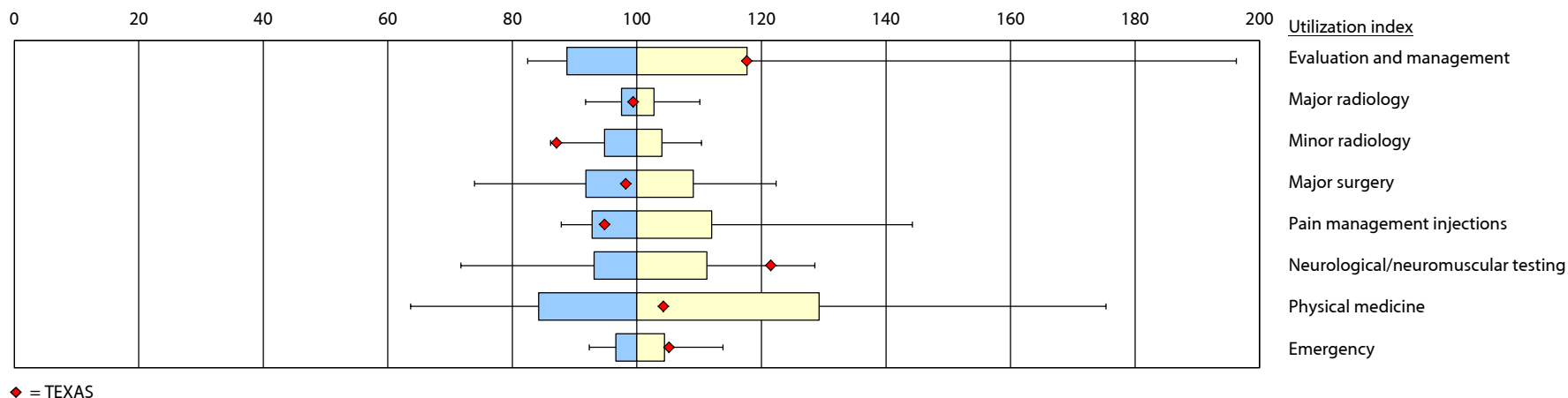
<sup>a</sup> Physical medicine codes in Louisiana are billed using state-specific PT/OT codes. Although many of these codes can be directly mapped to standard physical therapy services, some cannot. Specifically, those for therapeutic exercises and activities cannot be directly mapped. We only include those codes that can be directly mapped in the price analysis. In Louisiana, this means that the percentage of physical medicine payments included in the price analysis is less than the 82–98 percent found in other states. In Louisiana, the price analysis of the physical medicine category (and the services provided by physical/occupational therapists and chiropractors) is based on 61 percent of the services (mostly modalities as opposed to therapeutic activities and exercises).

<sup>b</sup> 100 is the median state. An index of 120 means the state's price is 20 percent higher than the median state. An index of 80 means the state's price is 20 percent lower than the median state.

<sup>c</sup> The price index does not include comparisons of some nonhospital services, such as anesthesia, special reports, laboratory, supplies and equipment, unclassified services, and other services (such as ambulance, home health care, etc.), because billing codes are too broadly defined to make accurate price and utilization comparisons. The price index is based on the eight service groups that together make up 51–74 percent of the nonhospital payments depending on the state.

Key: PT/OT: physical/occupational therapist.



**Figure 13 Utilization Index for Nonhospital Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 13: Utilization Index for Nonhospital Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA <sup>a</sup>	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Utilization index</b>																	
Evaluation and management	82	196	128	83	110	93	118	94	91	85	99	122	116	118	101	86	100
Major radiology	110	101	104	101	98	96	109	92	94	101	102	99	108	99	99	97	100
Minor radiology	96	103	109	95	102	95	110	86	109	87	103	98	102	87	105	94	100
Major surgery	74	93	110	90	122	109	100	109	81	94	102	121	88	98	102	100	100
Pain management injections	89	100	109	88	125	95	100	91	98	91	108	111	144	95	113	120	100
Neurological/neuromuscular testing	93	95	102	89	108	72	129	108	101	99	94	119	114	121	90	93	100
Physical medicine	82	64	98	96	158	102	n/a	96	126	76	118	133	175	104	134	85	100
Emergency	96	95	97	93	92	106	108	99	102	104	114	98	101	105	98	102	100
All nonhospital services <sup>c</sup>	77	102	109	83	129	102	93	75	93	75	106	124	128	98	109	80	100

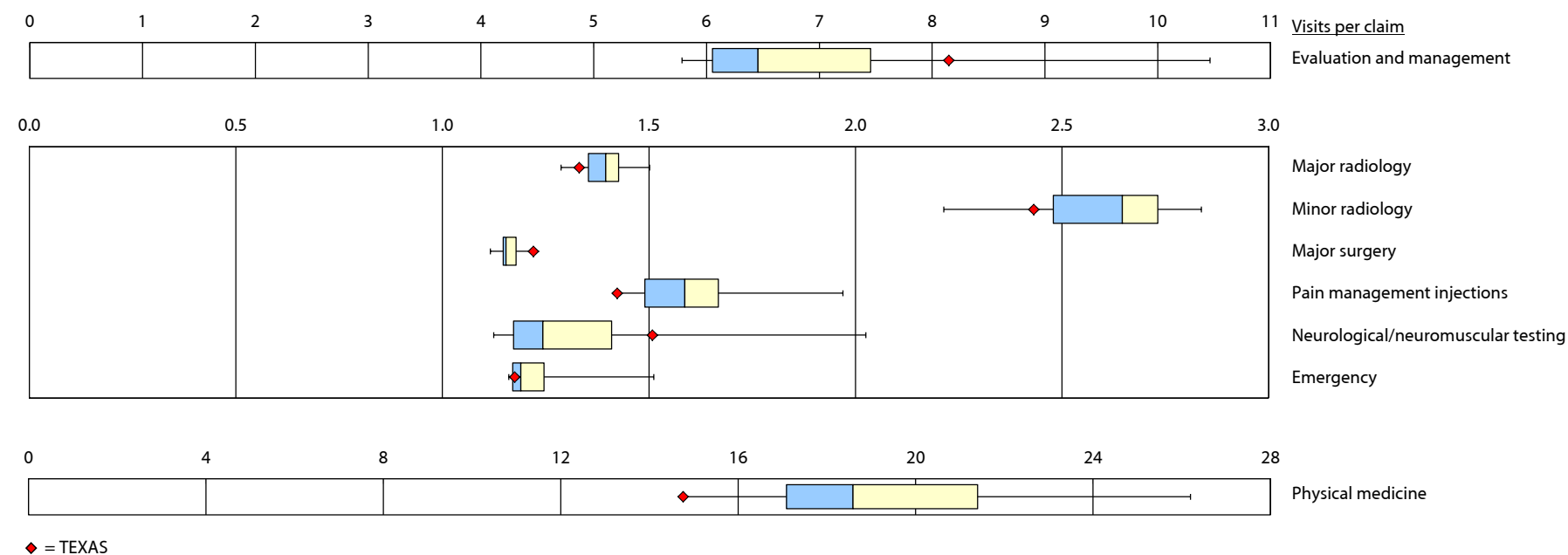
Notes: The utilization index is based on 2012/2013 claims. 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> Because unique codes are used for billing physical medicine services in Louisiana, and they are defined too broadly to be crosswalked with codes used with other states, we are unable to compare the utilization index for physical medicine services in Louisiana with those in other states.

<sup>b</sup> 100 is the median state. An index of 120 means the state's utilization is 20 percent higher than the median state. An index of 80 means the state's utilization is 20 percent lower than the median state.

<sup>c</sup> The utilization index does not include comparisons of some nonhospital services, such as anesthesia, special reports, laboratory, supplies and equipment, unclassified services, and other services (such as ambulance, home health care, etc.), because billing codes are too broadly defined to make accurate price and utilization comparisons. The utilization index is based on the eight service groups that together make up 51–74 percent of the nonhospital payments depending on the state.

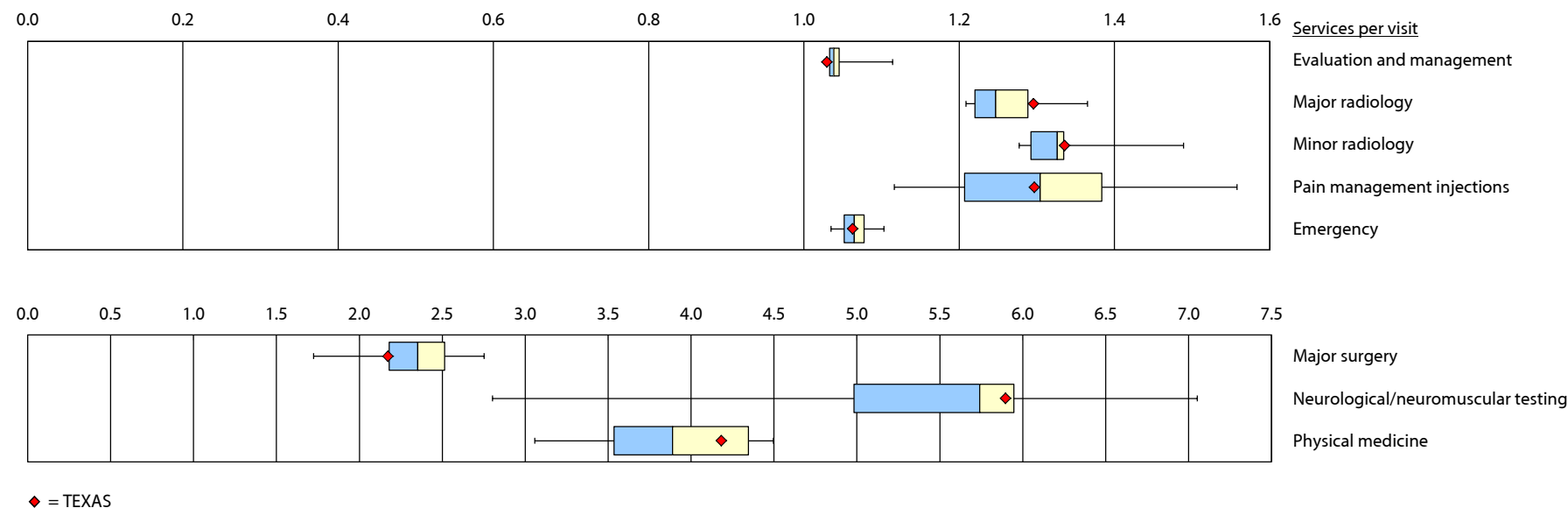
Key: n/a: not available.

**Figure 14 Visits per Claim for Each Nonhospital Service Group for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 14: Visits per Claim for Each Nonhospital Service Group for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Visits per claim</b>																	
Evaluation and management	5.8	10.5	7.0	6.0	7.3	6.2	7.6	6.3	5.9	6.0	6.4	7.2	7.7	8.1	6.5	6.1	6.5
Major radiology	1.4	1.4	1.4	1.4	1.4	1.4	1.5	1.3	1.3	1.4	1.4	1.4	1.5	1.3	1.4	1.3	1.4
Minor radiology	2.8	2.5	2.8	2.7	2.7	2.6	2.8	2.2	2.7	2.3	2.8	2.6	2.6	2.4	2.7	2.5	2.6
Major surgery	1.2	1.2	1.2	1.1	1.2	1.2	1.2	1.1	1.2	1.1	1.2	1.2	1.1	1.2	1.1	1.1	1.2
Pain management injections	1.6	1.4	1.7	1.6	1.7	1.5	1.5	1.4	1.6	1.4	1.6	1.6	2.0	1.4	1.8	1.7	1.6
Neurological/neuromuscular testing	1.2	1.8	1.2	1.1	1.7	2.0	1.2	1.2	1.2	1.2	1.3	1.3	1.3	1.5	1.3	1.2	1.2
Physical medicine	15.4	15.3	17.9	18.6	25.2	18.0	21.1	18.5	21.1	16.8	20.0	22.3	26.2	14.8	21.6	17.4	18.6
Emergency	1.2	1.3	1.5	1.2	1.4	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2	1.2

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

**Figure 15 Services per Visit for Each Nonhospital Service Group for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 15: Services per Visit for Each Nonhospital Service Group for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA <sup>b</sup>	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>c</sup>
<b>Services per visit</b>																	
Evaluation and management	1.03	1.11	1.07	1.05	1.04	1.04	1.03	1.03	1.03	1.03	1.04	1.03	1.04	1.03	1.05	1.04	1.04
Major radiology	1.37	1.23	1.24	1.28	1.21	1.21	1.32	1.23	1.21	1.31	1.27	1.21	1.24	1.30	1.25	1.26	1.25
Minor radiology	1.33	1.49	1.33	1.28	1.33	1.28	1.33	1.31	1.29	1.31	1.29	1.33	1.29	1.34	1.34	1.34	1.33
Pain management injections	1.17	1.56	1.41	1.12	1.47	1.21	1.34	1.31	1.20	1.19	1.22	1.36	1.45	1.30	1.32	1.28	1.30
Emergency	1.10	1.05	1.03	1.08	1.05	1.07	1.07	1.05	1.06	1.09	1.08	1.07	1.05	1.06	1.06	1.09	1.06
Major surgery	1.72	2.29	2.53	2.19	2.75	2.44	2.50	2.72	1.96	2.24	2.41	2.75	2.10	2.17	2.28	2.43	2.35
Neurological/neuromuscular testing	5.15	4.33	5.62	5.60	4.75	2.80	7.05	6.39	5.88	5.88	5.12	6.00	6.05	5.90	4.85	5.86	5.74
Physical medicine <sup>d</sup>	3.89	3.44	3.78	3.56	4.33	3.88	n/a	3.51	3.98	3.06	4.16	4.36	4.43	4.18	4.50	3.38	3.89

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

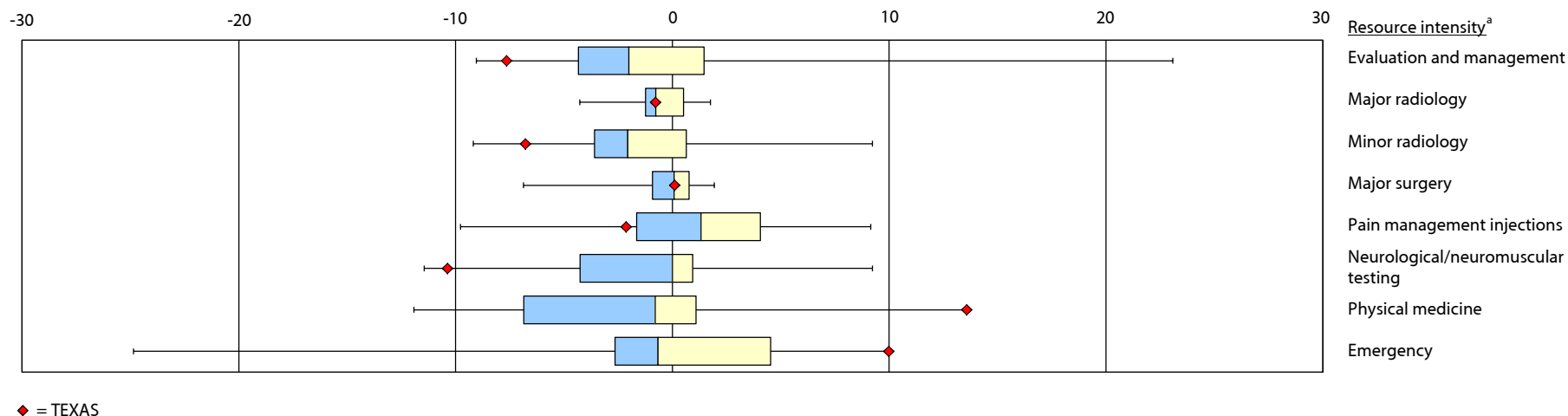
<sup>a</sup> In California, a maximum of four individual services per visit are reimbursed. In addition, some procedures are defined in 30-minute increments, rather than the more standard 15 minutes.

<sup>b</sup> Because unique codes are used for billing physical medicine services in Louisiana, and they are defined too broadly to be crosswalked with codes used with other states, we are unable to compare the services per visit for physical medicine services in Louisiana with those in other states.

<sup>c</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>d</sup> This includes billing for hot and/or cold packs (97010), which are not necessarily reimbursed in all states.

Key: n/a: not available.

**Figure 16 Resource Intensity<sup>a</sup> for Nonhospital Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 16: Resource Intensity<sup>a</sup> for Nonhospital Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA <sup>b</sup>	FL	IA	IL	IN	LA <sup>c</sup>	MA	MI	MN	NC	NJ	PA	TX	VA	WI
Evaluation and management	-4	23	17	-9	-2	-2	3	-2	0	-4	0	12	-4	-8	0	-8
Major radiology	-4	2	1	1	2	0	-1	-1	-1	-1	-2	-1	-1	-1	-2	0
Minor radiology	-9	-3	-3	-4	0	-2	-8	2	9	-2	-2	-1	2	-7	2	-2
Major surgery	0	-7	0	1	0	2	-6	-2	-1	1	1	1	0	0	2	0
Pain management injections	-1	-10	-7	4	4	0	2	0	-2	4	8	2	5	-2	-1	9
Neurological/neuromuscular testing	-1	-11	1	-1	-5	-9	9	1	2	1	1	9	1	-10	0	-3
Physical medicine	-8	-11	1	0	-1	-1	n/a	2	1	1	0	-12	-7	14	-6	-2
Emergency	-1	-12	-22	-2	-25	8	8	-1	8	0	-3	1	0	10	-1	2

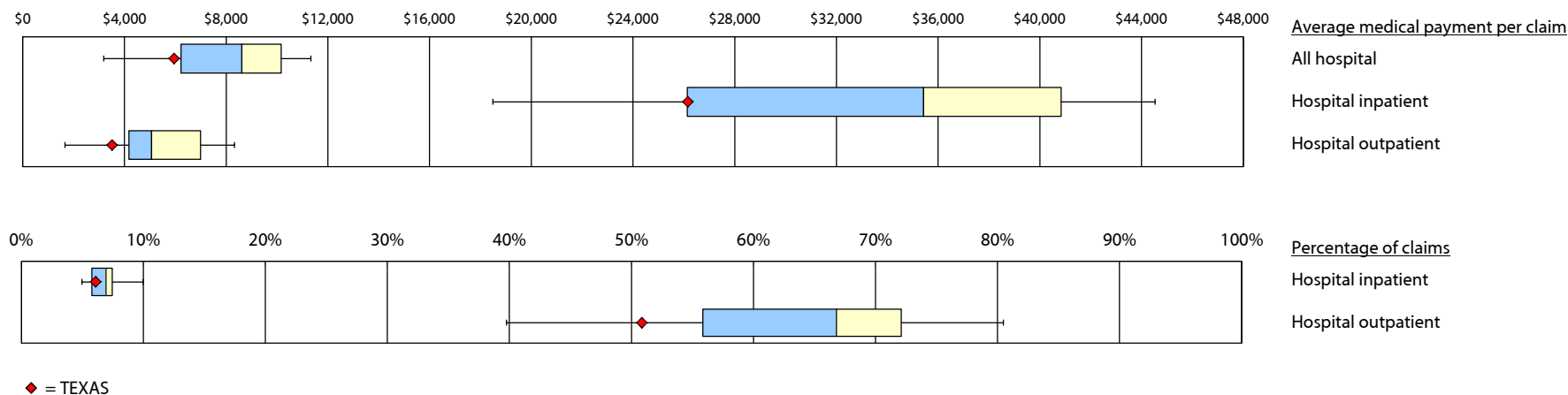
Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix, as indicated by whether the value reported on this measure for each service type is above or below zero. The resource intensity value reported for each state is the difference between the state's unweighted volume index and the state's utilization index. A state's unweighted volume is measured as the number of services per claim. A state's utilization is computed as the number of services per claim weighted by relative value units (RVUs). Both volume and utilization indices for a state are calculated by holding the 16-state median at 100. We do not report 16-state median values on resource intensity because this measure reflects the difference between the two indices. A positive value in resource intensity indicates that the mix of services in a state is more resource intensive relative to the median study state. A negative value in resource intensity indicates that the mix of services in a state is less resource intensive relative to the median study state. For example, if the utilization index for a type of service in a state is 120 and the volume index is 102, then the resource intensity value is 18. This suggests that when the relative intensity of resources involved in these services is not considered, the volume of these services in this state is similar to the median study state. However, when the relative intensity of resources is taken into consideration, the utilization of the services in this state is higher than the median study state. The factor that contributed to higher utilization in this state is the higher resource intensity of the services provided or billed. Note that the RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> In California, a maximum of four individual services per visit are reimbursed. In addition, some procedures are defined in 30-minute increments, rather than the more standard 15 minutes.

<sup>c</sup> Because unique codes are used for billing physical medicine services in Louisiana, and they are defined too broadly to be crosswalked with codes used with other states, we are unable to compare the resource intensity for physical medicine services in Louisiana with those in other states.

Key: n/a: not available.

**Figure 17 Payments for Hospital Inpatient and Outpatient<sup>a</sup> Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 17: Payments for Hospital Inpatient and Outpatient<sup>a</sup> Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

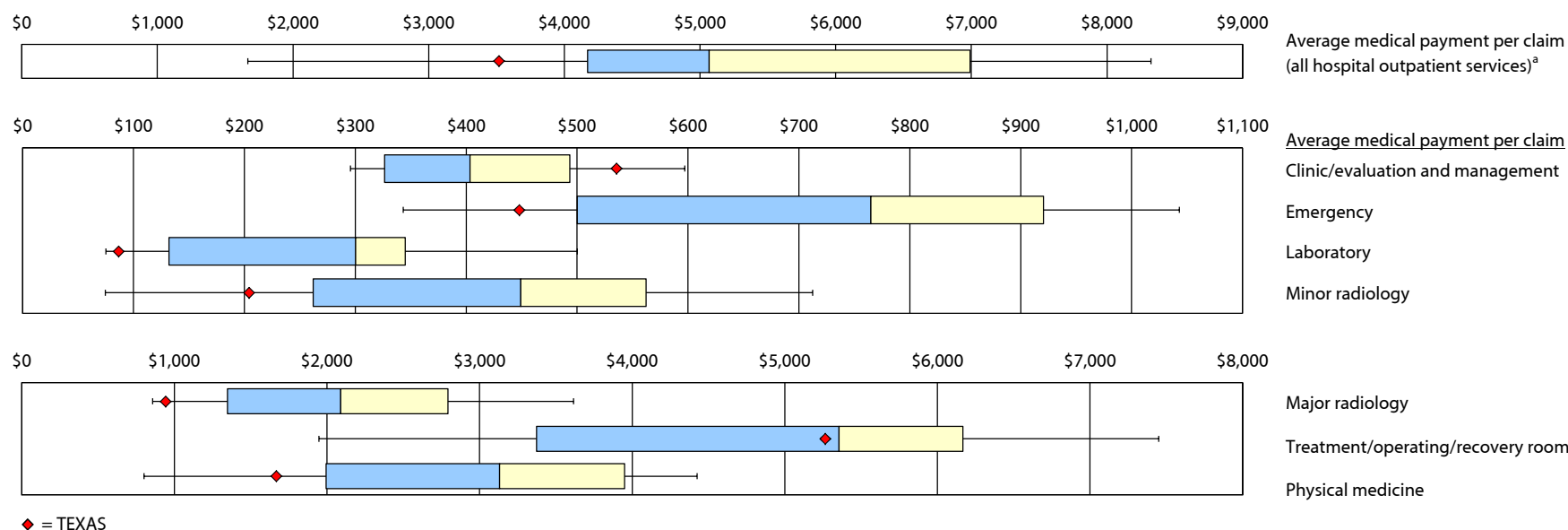
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
Average medical payment per claim (all hospital)	\$8,060	\$4,257	\$9,389	\$9,831	\$7,704	\$11,331	\$9,776	\$3,188	\$5,735	\$8,569	\$10,498	\$8,666	\$6,513	\$5,946	\$10,926	\$10,964	\$8,617
Average medical payment per claim (hospital inpatient)	\$26,267	\$26,110	\$41,022	\$39,304	\$31,403	\$44,526	\$18,541	\$21,755	\$18,491	\$35,840	\$40,851	\$42,817	\$35,009	\$26,158	\$38,982	\$40,813	\$35,425
Average medical payment per claim (hospital outpatient)	\$4,784	\$1,667	\$4,943	\$6,755	\$5,316	\$7,647	\$8,033	\$2,173	\$4,146	\$5,192	\$6,972	\$4,198	\$4,556	\$3,519	\$7,008	\$8,324	\$5,068
Percentage of claims (hospital inpatient)	10%	5%	7%	7%	6%	7%	8%	5%	7%	7%	6%	7%	7%	6%	8%	6%	7%
Percentage of claims (hospital outpatient)	69%	40%	45%	76%	66%	67%	67%	80%	73%	66%	58%	53%	77%	51%	66%	71%	67%

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital inpatient or outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.



**Figure 18 Payments for Hospital Outpatient Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 18: Payments for Hospital Outpatient Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Average medical payment per claim</b>																	
All hospital outpatient services <sup>a</sup>	\$4,784	\$1,667	\$4,943	\$6,755	\$5,316	\$7,647	\$8,033	\$2,173	\$4,146	\$5,192	\$6,972	\$4,198	\$4,556	\$3,519	\$7,008	\$8,324	\$5,068
Clinic/evaluation and management <sup>c</sup>	\$331	\$322	\$379	\$430	\$333	\$428	\$296	\$311	\$316	\$597	\$332	\$451	\$545	\$536	\$438	\$590	\$403
Emergency	\$582	\$343	\$960	\$787	\$685	\$919	\$755	\$517	\$483	\$821	\$922	\$973	\$461	\$448	\$1,043	\$775	\$765
Laboratory	\$207	\$75	\$500	\$315	\$285	\$408	\$377	\$126	\$133	\$276	\$343	\$338	\$131	\$87	\$347	\$330	\$300
Minor radiology	\$320	\$75	\$657	\$535	\$400	\$533	\$568	\$192	\$247	\$302	\$556	\$498	\$277	\$204	\$712	\$607	\$449
Major radiology	\$1,854	\$857	\$3,615	\$2,572	\$1,976	\$2,687	\$2,739	\$910	\$1,312	\$1,869	\$2,848	\$2,203	\$1,386	\$943	\$2,948	\$3,096	\$2,090
Treatment/operating/recovery room	\$3,397	\$3,352	\$6,156	\$6,180	\$5,762	\$6,966	\$7,450	\$1,947	\$3,202	\$5,087	\$5,445	\$4,115	\$3,278	\$5,265	\$6,052	\$6,753	\$5,355
Physical medicine	\$2,978	\$802	\$1,574	\$3,131	\$3,321	\$3,280	\$4,298	\$1,085	\$2,474	\$2,322	\$3,131	\$3,674	\$4,425	\$1,667	\$4,265	\$4,228	\$3,131
Average medical payment per claim for other hospital outpatient services (not displayed) <sup>d</sup>	\$1,775	\$611	\$2,072	\$1,903	\$1,784	\$2,498	\$2,632	\$512	\$1,235	\$1,942	\$3,030	\$1,739	\$1,374	\$691	\$2,766	\$2,186	\$1,844

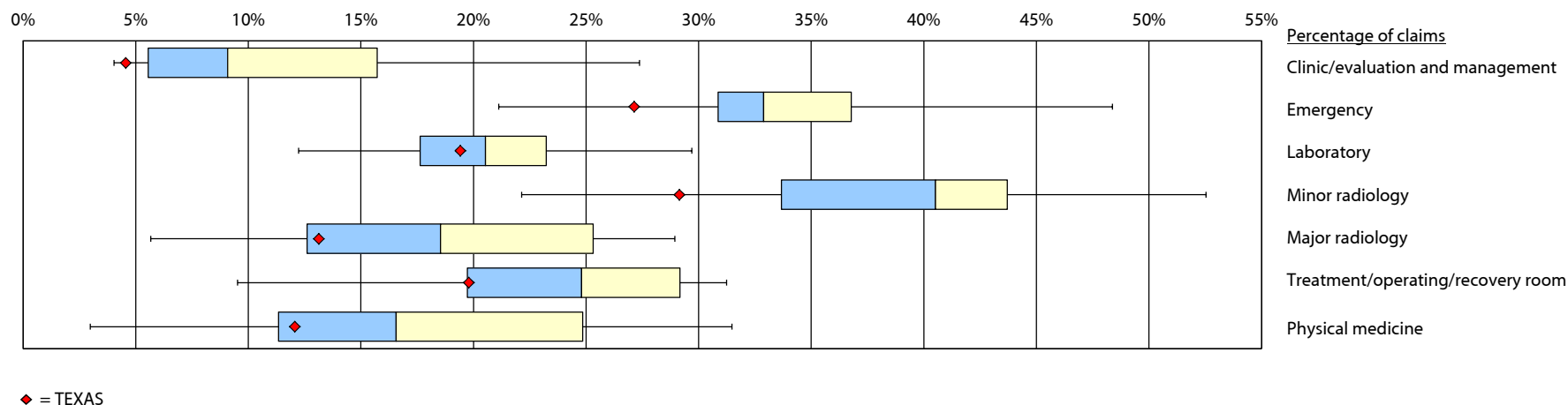
Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital inpatient or outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>c</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

<sup>d</sup> Other hospital outpatient services mainly include miscellaneous hospital ambulatory surgical care, supplies and equipment, hospital outpatient service undefined, hospital drugs/pharmaceuticals, and other miscellaneous defined medical and/or diagnostic services and testing.

**Figure 19 Percentage of Claims with Hospital Outpatient Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 19: Percentage of Claims with Hospital Outpatient Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of claims</b>																	
All hospital outpatient services <sup>b</sup>	68.5%	39.8%	45.5%	75.8%	65.7%	67.3%	67.3%	80.5%	72.9%	66.3%	58.4%	53.3%	77.0%	50.9%	65.8%	71.3%	66.8%
Clinic/evaluation and management <sup>c</sup>	6.6%	4.7%	6.7%	13.4%	16.2%	10.8%	4.0%	27.4%	15.3%	25.3%	7.3%	5.1%	21.1%	4.6%	6.0%	13.6%	9.1%
Emergency	36.1%	21.1%	30.4%	34.6%	32.3%	30.1%	37.4%	48.4%	33.5%	31.3%	32.0%	33.0%	38.4%	27.1%	41.8%	32.8%	32.9%
Laboratory	25.0%	12.2%	14.7%	20.7%	20.4%	22.2%	29.7%	19.1%	24.2%	15.1%	21.0%	18.0%	27.5%	19.4%	21.8%	17.2%	20.5%
Minor radiology	42.0%	22.1%	30.3%	46.5%	40.5%	37.6%	40.8%	52.3%	42.9%	34.8%	36.9%	32.6%	52.5%	29.1%	44.5%	40.5%	40.5%
Major radiology	24.9%	5.7%	8.4%	26.5%	16.9%	14.8%	18.3%	21.1%	28.9%	19.0%	12.1%	7.8%	25.7%	13.1%	18.8%	26.5%	18.5%
Treatment/operating/recovery room	24.6%	9.5%	9.9%	28.9%	21.6%	31.2%	30.0%	27.6%	31.2%	19.6%	25.0%	11.9%	27.4%	19.8%	22.8%	29.4%	24.8%
Physical medicine	22.9%	5.8%	3.0%	29.8%	15.2%	17.9%	14.9%	26.3%	23.9%	25.8%	10.6%	7.7%	22.5%	12.1%	12.1%	31.5%	16.6%
Percentage of claims for other hospital outpatient services (not displayed) <sup>d</sup>	49.3%	20.1%	32.7%	54.0%	50.0%	54.3%	52.4%	52.2%	55.2%	47.6%	46.7%	39.2%	54.7%	26.3%	47.4%	52.2%	49.7%

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

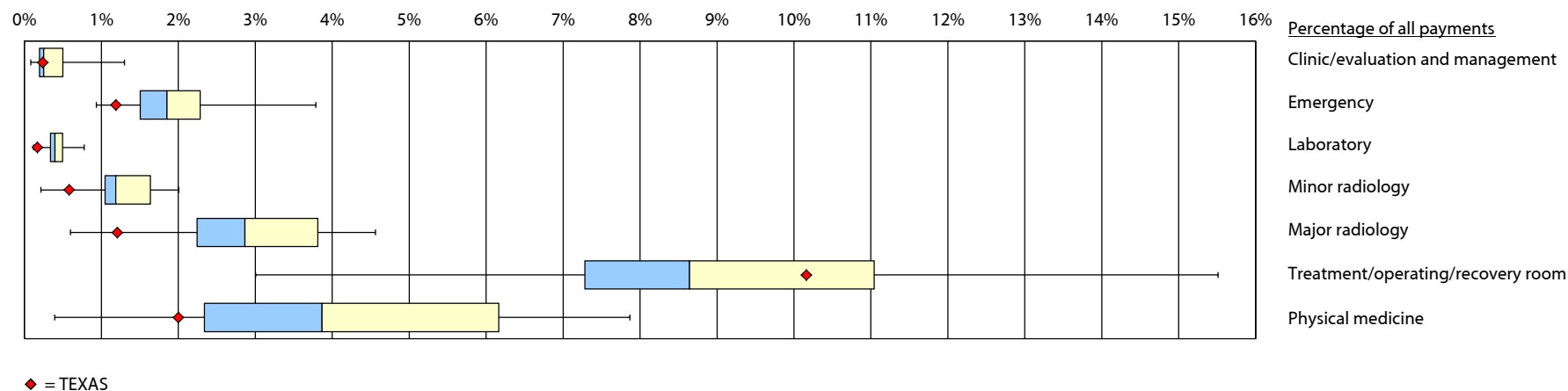
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>b</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital inpatient or outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>c</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

<sup>d</sup> Other hospital outpatient services mainly include miscellaneous hospital ambulatory surgical care, supplies and equipment, hospital outpatient service undefined, hospital drugs/pharmaceuticals, and other miscellaneous defined medical and/or diagnostic services and testing.

**Figure 20 Percentage of Medical Payments Made for Each Hospital Outpatient Service Group for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



**Table for Figure 20: Percentage of Medical Payments Made for Each Hospital Outpatient Service Group for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of all payments</b>																	
All hospital outpatient services <sup>b</sup>	29.2%	8.1%	18.9%	34.2%	23.6%	28.8%	37.6%	26.5%	33.6%	29.4%	32.8%	13.9%	27.8%	17.5%	29.3%	33.0%	29.0%
Clinic/evaluation and management <sup>c</sup>	0.2%	0.2%	0.2%	0.4%	0.4%	0.3%	0.1%	1.3%	0.5%	1.3%	0.2%	0.1%	0.9%	0.2%	0.2%	0.5%	0.3%
Emergency	1.9%	0.9%	2.5%	1.8%	1.5%	1.6%	2.0%	3.8%	1.8%	2.2%	2.4%	2.0%	1.5%	1.2%	2.8%	1.4%	1.9%
Laboratory	0.5%	0.1%	0.6%	0.4%	0.4%	0.5%	0.8%	0.4%	0.4%	0.4%	0.6%	0.4%	0.3%	0.2%	0.5%	0.3%	0.4%
Minor radiology	1.2%	0.2%	1.7%	1.7%	1.1%	1.1%	1.6%	1.5%	1.2%	0.9%	1.7%	1.0%	1.2%	0.6%	2.0%	1.4%	1.2%
Major radiology	4.1%	0.6%	2.6%	4.6%	2.3%	2.2%	3.5%	2.9%	4.2%	3.0%	2.8%	1.0%	2.8%	1.2%	3.5%	4.6%	2.9%
Treatment/operating/recovery room	7.4%	3.9%	5.1%	11.9%	8.4%	12.2%	15.5%	8.2%	11.1%	8.5%	11.0%	3.0%	7.1%	10.2%	8.8%	11.0%	8.6%
Physical medicine	6.1%	0.6%	0.4%	6.2%	3.4%	3.3%	4.4%	4.3%	6.5%	5.1%	2.7%	1.7%	7.9%	2.0%	3.3%	7.4%	3.9%
Percentage of all payments for other hospital outpatient services (not displayed) <sup>d</sup>	7.8%	1.6%	5.9%	7.1%	6.1%	7.7%	9.7%	4.1%	7.9%	7.9%	11.5%	4.6%	6.1%	2.0%	8.4%	6.5%	6.8%

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

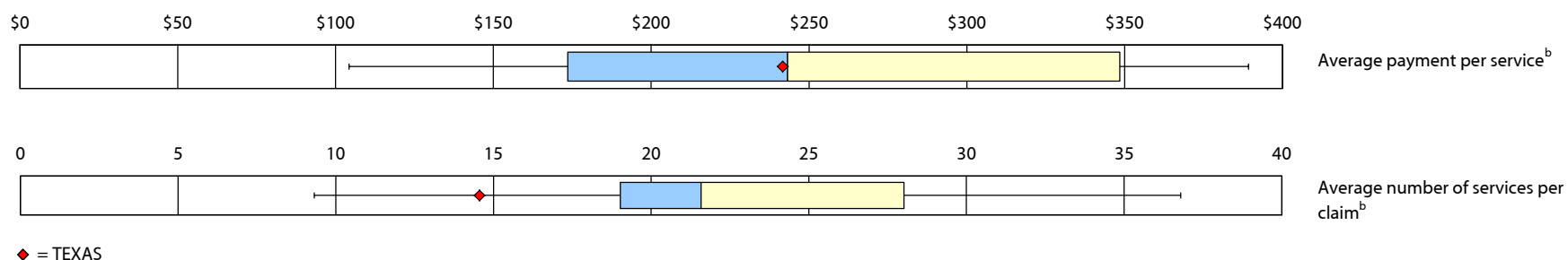
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>b</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital inpatient or outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>c</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

<sup>d</sup> Other hospital outpatient services mainly include miscellaneous hospital ambulatory surgical care, supplies and equipment, hospital outpatient service undefined, hospital drugs/pharmaceuticals, and other miscellaneous defined medical and/or diagnostic services and testing.

**Figure 21 Average Payment per Service and Average Number of Services per Claim for Hospital Outpatient Services<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**



**Table for Figure 21: Average Payment per Service and Average Number of Services per Claim for Hospital Outpatient Services<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

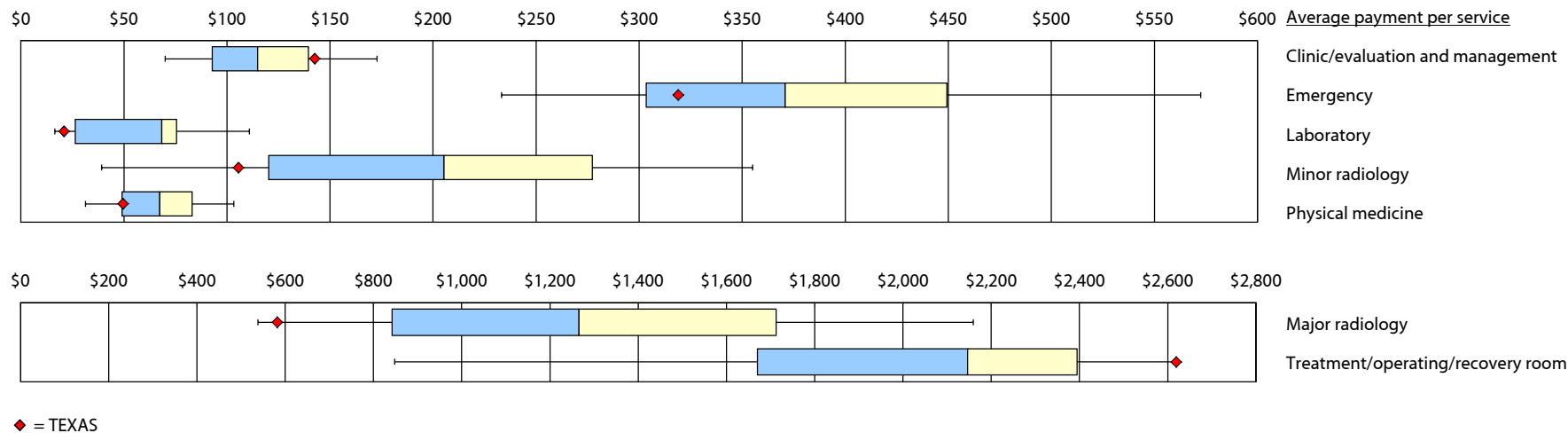
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>c</sup>
Average payment per service <sup>b</sup>	\$168	\$179	\$389	\$245	\$256	\$343	\$354	\$104	\$140	\$221	\$366	\$229	\$124	\$242	\$369	\$289	\$243
Average number of services per claim <sup>b</sup>	28.4	9.3	12.7	27.6	20.7	22.3	22.7	20.8	29.7	23.5	19.1	19.1	36.8	14.6	19.0	28.8	21.6

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>b</sup> For hospital outpatient services, because the revenue codes often used in hospital billing are too broadly defined to support a robust marketbasket of services and an estimate of the relative intensity of services, we report average payment per service and number of services per claim. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#) for more details.

<sup>c</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

**Figure 22 Average Payment per Service for Hospital Outpatient Services,<sup>a</sup> 2012/2013 (12 months)****Table for Figure 22: Average Payment per Service for Hospital Outpatient Services,<sup>a</sup> 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Average payment per service<sup>c</sup></b>																	
Clinic/evaluation and management <sup>d</sup>	\$102	\$70	\$123	\$143	\$95	\$125	\$104	\$77	\$90	\$139	\$91	\$137	\$107	\$143	\$140	\$173	\$115
Emergency	\$299	\$233	\$524	\$370	\$357	\$456	\$393	\$270	\$265	\$371	\$443	\$572	\$308	\$319	\$525	\$419	\$371
Laboratory	\$53	\$16	\$111	\$64	\$69	\$72	\$80	\$25	\$26	\$68	\$76	\$71	\$27	\$21	\$76	\$75	\$68
Major radiology	\$1,248	\$538	\$1,952	\$1,740	\$1,263	\$1,685	\$1,589	\$638	\$811	\$1,227	\$1,593	\$1,269	\$874	\$582	\$1,846	\$2,159	\$1,266
Minor radiology	\$169	\$39	\$350	\$213	\$198	\$270	\$277	\$92	\$111	\$150	\$276	\$277	\$130	\$106	\$355	\$290	\$205
Treatment/operating/recovery room	\$1,291	\$2,050	\$2,232	\$2,352	\$2,217	\$2,149	\$2,551	\$848	\$1,223	\$2,145	\$2,085	\$2,061	\$897	\$2,619	\$2,443	\$2,437	\$2,147
Physical medicine	\$57	\$34	\$39	\$76	\$78	\$90	\$86	\$31	\$49	\$73	\$81	\$50	\$62	\$50	\$98	\$103	\$67

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

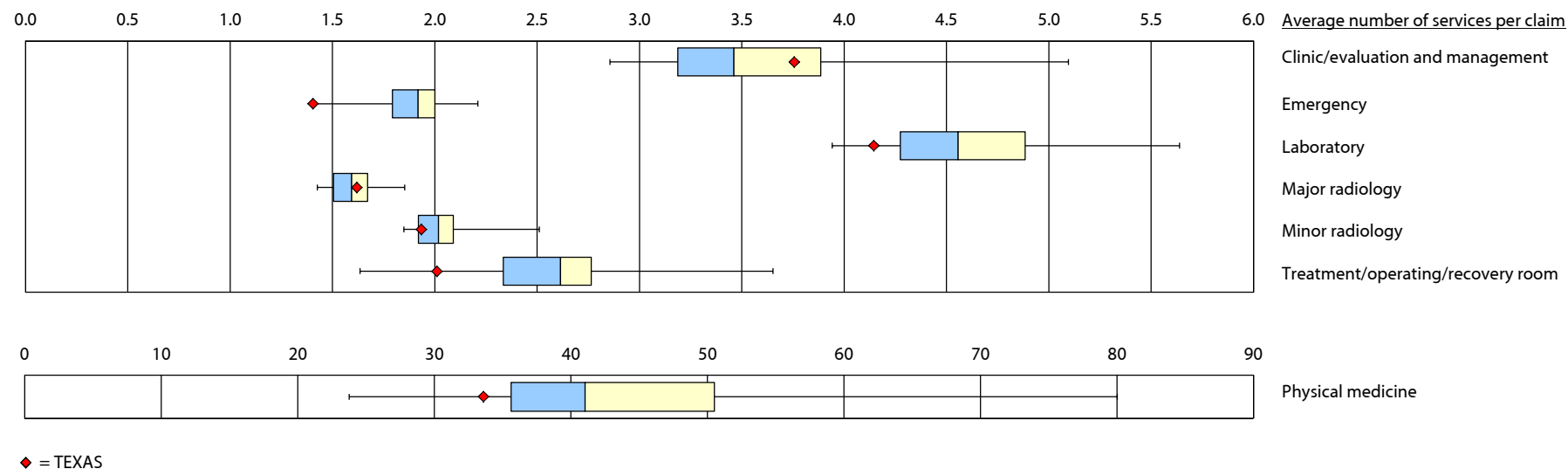
<sup>a</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>c</sup> For hospital outpatient services, because the revenue codes often used in hospital billing are too broadly defined to support a robust marketbasket of services, we report average payment per service. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#) for more details.

<sup>d</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.



**Figure 23 Average Number of Services per Claim for Hospital Outpatient Services<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 23: Average Number of Services per Claim for Hospital Outpatient Services<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Average number of services per claim<sup>c</sup></b>																	
Clinic/evaluation and management <sup>d</sup>	3.2	4.6	3.1	3.0	3.5	3.4	2.9	4.0	3.5	4.3	3.7	3.4	5.1	3.8	3.1	3.4	3.5
Emergency	1.9	1.5	1.8	2.1	1.9	2.0	1.9	1.9	1.8	2.2	2.1	1.8	1.5	1.4	2.0	1.8	1.9
Laboratory	3.9	4.6	4.5	4.9	4.1	5.6	4.7	5.1	5.2	4.1	4.5	4.8	4.8	4.1	4.5	4.4	4.6
Major radiology	1.5	1.6	1.9	1.5	1.6	1.6	1.7	1.4	1.6	1.5	1.8	1.8	1.6	1.6	1.6	1.4	1.6
Minor radiology	1.9	1.9	1.9	2.5	2.0	2.0	2.0	2.1	2.2	2.0	2.0	1.8	2.1	1.9	2.0	2.1	2.0
Treatment/operating/recovery room	2.6	1.6	2.8	2.6	2.6	3.2	2.9	2.3	2.6	2.4	2.6	2.1	3.7	2.0	2.5	2.8	2.6
Physical medicine	52.5	23.8	40.6	41.2	42.7	36.6	50.2	34.7	50.8	32.0	38.9	80.0	71.2	33.6	43.5	40.9	41.0

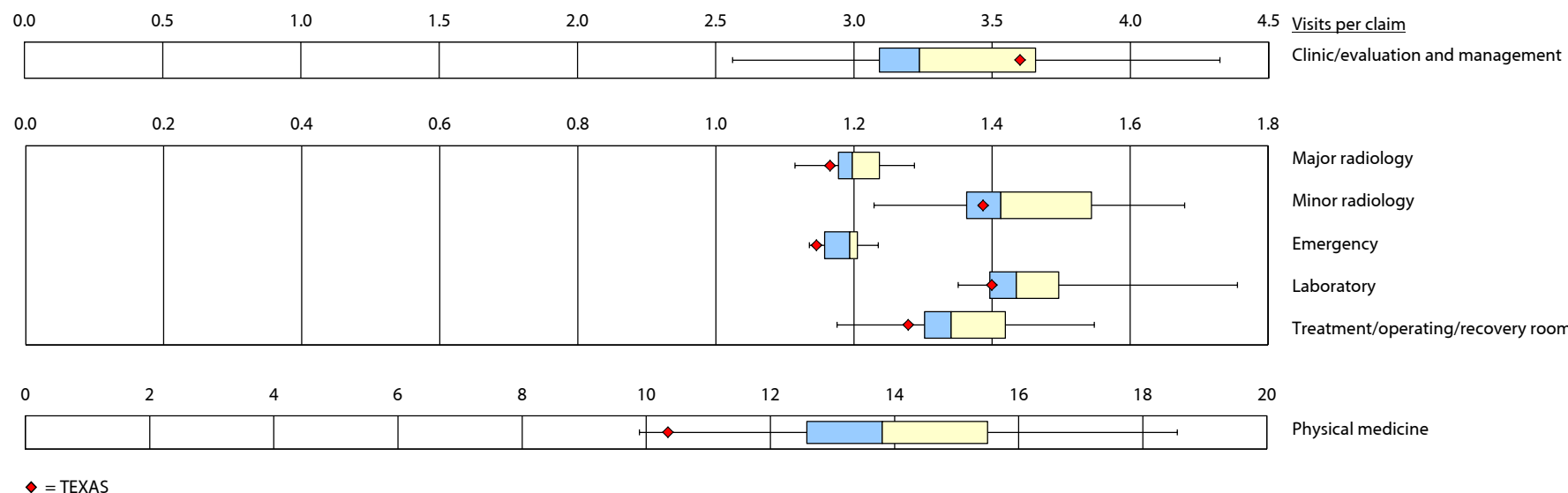
Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>c</sup> For hospital outpatient services, because the revenue codes often used in hospital billing are too broadly defined to support a robust estimate of the relative intensity of services, we report number of services per claim. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#) for more details.

<sup>d</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

**Figure 24 Visits per Claim for Each Hospital Outpatient Service Group<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 24: Visits per Claim for Each Hospital Outpatient Service Group<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

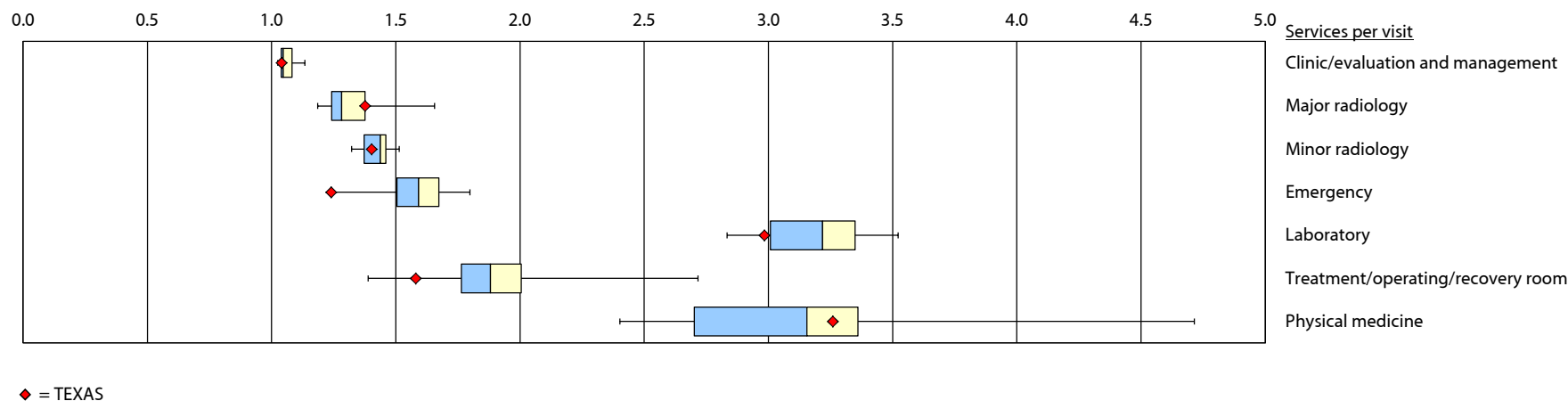
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Visits per claim</b>																	
Clinic/evaluation and management <sup>c</sup>	3.15	4.32	3.04	2.57	3.14	3.20	2.56	3.87	3.37	3.71	3.52	3.21	4.32	3.60	2.96	3.26	3.24
Major radiology	1.20	1.15	1.14	1.19	1.23	1.19	1.26	1.19	1.25	1.20	1.20	1.11	1.29	1.17	1.24	1.20	1.20
Minor radiology	1.35	1.33	1.23	1.68	1.41	1.41	1.41	1.57	1.49	1.53	1.38	1.24	1.60	1.39	1.43	1.55	1.41
Emergency	1.21	1.19	1.20	1.16	1.15	1.18	1.22	1.20	1.20	1.20	1.21	1.14	1.19	1.15	1.24	1.16	1.19
Laboratory	1.35	1.37	1.40	1.57	1.43	1.76	1.44	1.49	1.50	1.46	1.40	1.37	1.58	1.40	1.43	1.44	1.44
Treatment/operating/recovery room	1.45	1.18	1.34	1.48	1.29	1.55	1.38	1.39	1.33	1.34	1.31	1.18	1.33	1.28	1.36	1.45	1.34
Physical medicine	15.5	9.9	12.8	15.6	14.5	12.9	13.0	13.1	15.5	12.4	11.3	17.3	18.6	10.3	14.7	14.5	13.8

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>c</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

**Figure 25 Services per Visit for Each Hospital Outpatient Service Group<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 25: Services per Visit for Each Hospital Outpatient Service Group<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
Clinic/evaluation and management <sup>c</sup>	1.10	1.03	1.04	1.04	1.10	1.09	1.08	1.04	1.02	1.06	1.03	1.05	1.13	1.04	1.04	1.07	1.05
Major radiology	1.23	1.37	1.66	1.25	1.27	1.37	1.38	1.20	1.28	1.29	1.54	1.59	1.23	1.38	1.27	1.19	1.28
Minor radiology	1.40	1.44	1.51	1.51	1.44	1.42	1.45	1.33	1.45	1.32	1.47	1.51	1.32	1.40	1.44	1.34	1.44
Emergency	1.60	1.25	1.52	1.80	1.66	1.69	1.59	1.60	1.49	1.80	1.75	1.54	1.25	1.24	1.63	1.58	1.59
Laboratory	2.96	3.41	3.28	3.13	2.92	3.29	3.28	3.45	3.47	2.83	3.27	3.52	3.09	2.98	3.17	3.03	3.22
Treatment/operating/recovery room	1.85	1.39	2.06	1.78	1.98	2.07	2.03	1.66	1.97	1.76	1.97	1.77	2.72	1.58	1.82	1.91	1.88
Physical medicine	3.39	2.40	3.32	2.64	2.93	2.75	3.80	2.65	3.33	2.60	3.30	4.71	4.00	3.26	3.05	2.80	3.15

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> It is important to note that these are outpatient services where the provider is defined as a hospital. For the most part, hospital outpatient services do not include payments to stand-alone ambulatory surgical centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>c</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

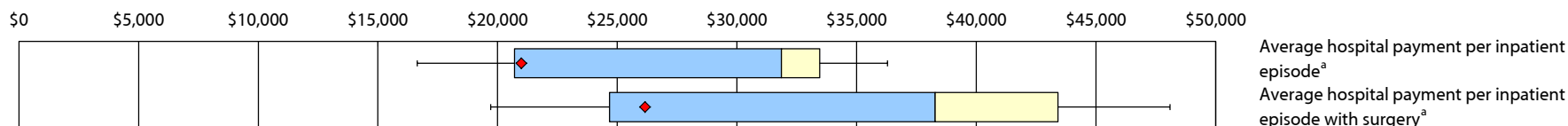
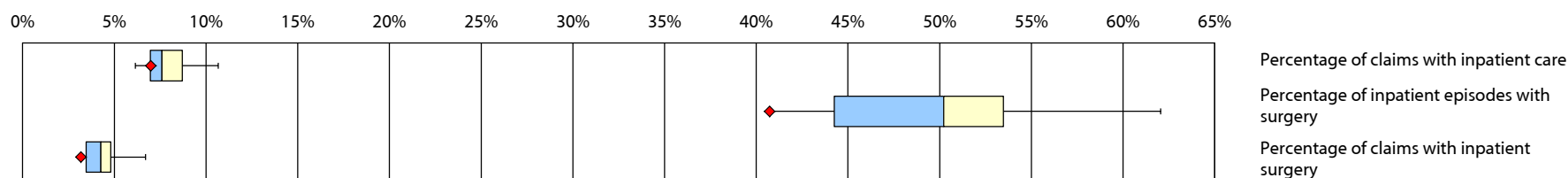
**Figure 26 Average Payment per Visit for Nonhospital and Hospital Outpatient Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)****Table for Figure 26: Average Payment per Visit for Nonhospital and Hospital Outpatient Services for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per visit, hospital outpatient</b>																	
Evaluation and management <sup>b</sup>	\$108	\$74	\$132	\$159	\$107	\$134	\$96	\$80	\$90	\$145	\$97	\$146	\$124	\$151	\$151	\$186	\$128
Major radiology	\$1,458	\$641	\$3,225	\$2,218	\$1,617	\$2,324	\$2,195	\$765	\$1,044	\$1,632	\$2,434	\$1,944	\$1,069	\$808	\$2,334	\$2,567	\$1,788
Minor radiology	\$245	\$56	\$528	\$328	\$285	\$385	\$400	\$122	\$162	\$206	\$405	\$392	\$170	\$148	\$509	\$389	\$307
Physical medicine	\$189	\$81	\$113	\$204	\$228	\$248	\$333	\$83	\$160	\$192	\$267	\$206	\$247	\$161	\$301	\$288	\$205
<b>Average payment per visit, nonhospital</b>																	
Evaluation and management	\$106	\$96	\$106	\$123	\$95	\$124	\$102	\$91	\$113	\$144	\$78	\$126	\$88	\$127	\$134	\$175	\$110
Major radiology	\$483	\$528	\$456	\$694	\$683	\$794	\$685	\$385	\$412	\$713	\$669	\$529	\$451	\$509	\$643	\$1,247	\$586
Minor radiology	\$62	\$66	\$56	\$84	\$107	\$119	\$87	\$38	\$54	\$67	\$62	\$121	\$53	\$61	\$86	\$169	\$67
Physical medicine	\$124	\$83	\$95	\$161	\$185	\$208	\$147	\$81	\$138	\$126	\$108	\$141	\$148	\$204	\$177	\$213	\$144

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

<sup>b</sup> The numbers shown in the noted service and/or provider groups in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

**Figure 27a Payments for Hospital Inpatient Surgical and Nonsurgical Episodes for Claims with More Than 7 Days of Lost Time, 2011/2013 (24 months)****Figure 27b Percentage of Claims with Hospital Surgical and Nonsurgical Episodes for Claims with More Than 7 Days of Lost Time, 2011/2013 (24 months)**

♦ = TEXAS

**Table for Figures 27a and 27b: Payments for Hospital Inpatient Surgical and Nonsurgical Episodes and Percentage of Claims with Hospital Surgical and Nonsurgical Episodes for Claims with More Than 7 Days of Lost Time, 2011/2013 (24 months)**

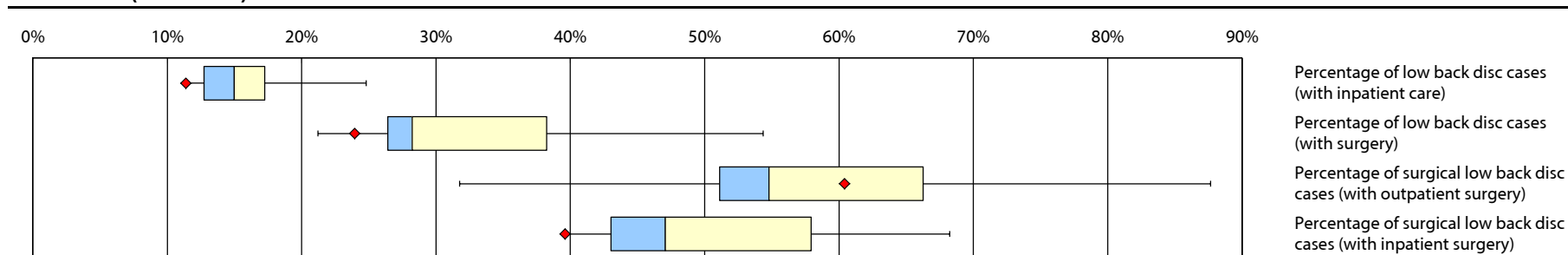
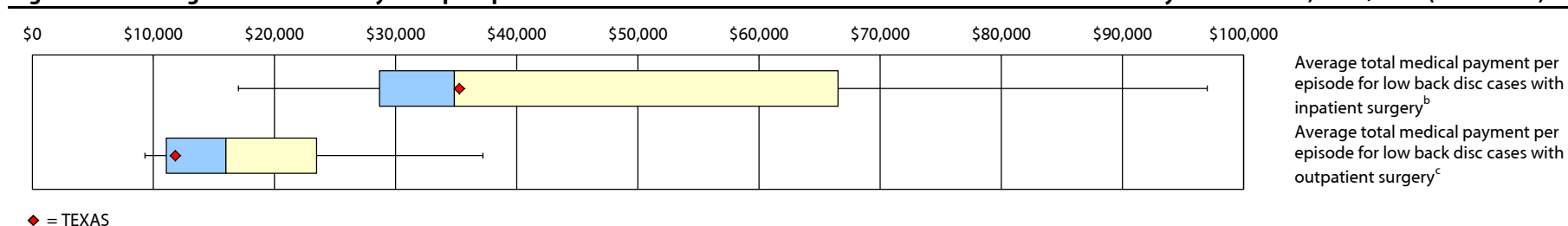
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
Average hospital payment per inpatient episode <sup>a</sup>	\$20,417	\$25,512	\$33,206	\$32,983	\$33,195	\$34,513	\$17,448	\$16,638	\$16,867	\$31,049	\$33,704	\$36,288	\$24,646	\$20,991	\$35,436	\$32,669	\$31,859
Average hospital payment per inpatient episode with surgery <sup>a</sup>	\$22,899	\$31,742	\$43,496	\$43,336	\$40,332	\$48,089	\$21,946	\$23,200	\$19,709	\$36,242	\$43,119	\$44,361	\$26,791	\$26,161	\$44,368	\$41,248	\$38,287
Percentage of claims with inpatient care	10.3%	6.4%	7.3%	8.9%	6.9%	7.3%	10.7%	6.1%	8.5%	9.9%	7.3%	7.8%	8.5%	7.0%	8.5%	6.2%	7.6%
Percentage of inpatient episodes with surgery	62%	45%	41%	44%	56%	41%	50%	45%	51%	55%	53%	52%	52%	41%	54%	48%	50%
Percentage of claims with inpatient surgery	6.7%	3.4%	3.6%	4.3%	4.2%	3.5%	5.8%	3.2%	4.9%	5.8%	4.3%	4.5%	4.7%	3.2%	4.6%	3.3%	4.3%

Note: 2011/2013 refers to claims arising from October 1, 2010, through September 30, 2011, evaluated as of March 30, 2013.

<sup>a</sup> In this report we identify hospital inpatient stays using revenue codes for room and board. We then use the service dates to construct hospital inpatient episodes which include one day before and one day after the hospital inpatient stay, and capture all hospital services provided during the inpatient episode. The payments captured include only the payments made to the hospital provider for services rendered during the inpatient stay (i.e., it excludes payments to surgeons, etc., billing separately from the hospital).

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.



**Figure 28a Percentage of Low Back Cases with Disc Conditions<sup>a</sup> with Surgery (inpatient and outpatient) and More Than 7 Days of Lost Time, 2011/2013 (24 months)****Figure 28b Average Total Medical Payment per Episode for Low Back Cases with Disc Conditions<sup>a</sup> with More Than 7 Days of Lost Time, 2011/2013 (24 months)****Table for Figures 28a and 28b: Percentage of Low Back Cases with Disc Conditions<sup>a</sup> with Surgery (inpatient and outpatient) and Average Total Medical Payment per Episode for Surgical Low Back Cases with Disc Conditions with More Than 7 Days of Lost Time, 2011/2013 (24 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	14-State Median <sup>d</sup>
<b>Low back cases with disc conditions<sup>a, e</sup></b>																	
Percentage of cases (with inpatient care)	n/a	14%	14%	n/a	16%	n/a	n/a	15%	24%	25%	n/a	17%	15%	11%	n/a	n/a	15%
Percentage of cases (with surgery)	n/a	21%	28%	54%	28%	39%	n/a	23%	31%	37%	43%	28%	27%	24%	33%	26%	28%
Percentage of surgical cases (with outpatient surgery)	n/a	42%	59%	88%	55%	84%	n/a	55%	32%	42%	82%	49%	53%	60%	55%	68%	55%
Percentage of surgical cases (with inpatient surgery)	n/a	58%	41%	n/a	45%	n/a	n/a	45%	68%	58%	n/a	51%	47%	40%	n/a	n/a	47%
Average total medical payment per episode for disc cases with inpatient surgery <sup>b</sup>	n/a	\$34,844	\$42,146	n/a	\$65,101	n/a	n/a	\$29,039	\$17,017	\$30,777	n/a	\$97,007	\$21,817	\$35,256	n/a	n/a	\$34,844
Average total medical payment per episode for disc cases with outpatient surgery <sup>c</sup>	n/a	\$10,220	\$16,171	\$16,507	\$26,298	\$24,893	n/a	\$10,321	\$9,312	\$13,162	\$15,808	\$37,195	\$13,134	\$11,803	\$22,025	\$25,707	\$15,990
Average hospital payment per episode for disc cases with inpatient surgery <sup>f</sup>	n/a	\$27,460	\$35,644	n/a	\$40,617	n/a	n/a	\$17,785	\$12,627	\$24,439	n/a	\$43,739	\$14,635	\$26,525	n/a	n/a	\$26,525

continued

**Table for Figures 28a and 28b: Percentage of Low Back Cases with Disc Conditions<sup>a</sup> with Surgery (inpatient and outpatient) and Average Total Medical Payment per Episode for Surgical Low Back Cases with Disc Conditions with More Than 7 Days of Lost Time, 2011/2013 (24 months)  
(continued)**

*Note:* 2011/2013 refers to claims arising from October 1, 2010, through September 30, 2011, evaluated as of March 30, 2013.

<sup>a</sup> Low back cases with disc conditions are defined as low back claims with at least half of the medical dollars spent on a set of seven disc-related ICD-9 codes; the most frequent ICD-9 codes included are 722.10 (displacement of lumbar intervertebral disc without myelopathy), and 724.40 (thoracic or lumbosacral neuritis or radiculitis, unspecified). The surgery is identified by a list of CPT codes for treating low back-related conditions; the most common surgery provided for those cases is a laminotomy (CPT code 63030). A surgical episode is defined around the date of the low back surgery, including one day before and one day after the surgery date.

<sup>b</sup> This is the cost of the surgical episode, including payments made to the hospital as well as to the surgeon or other nonhospital providers for services rendered during the inpatient stay.

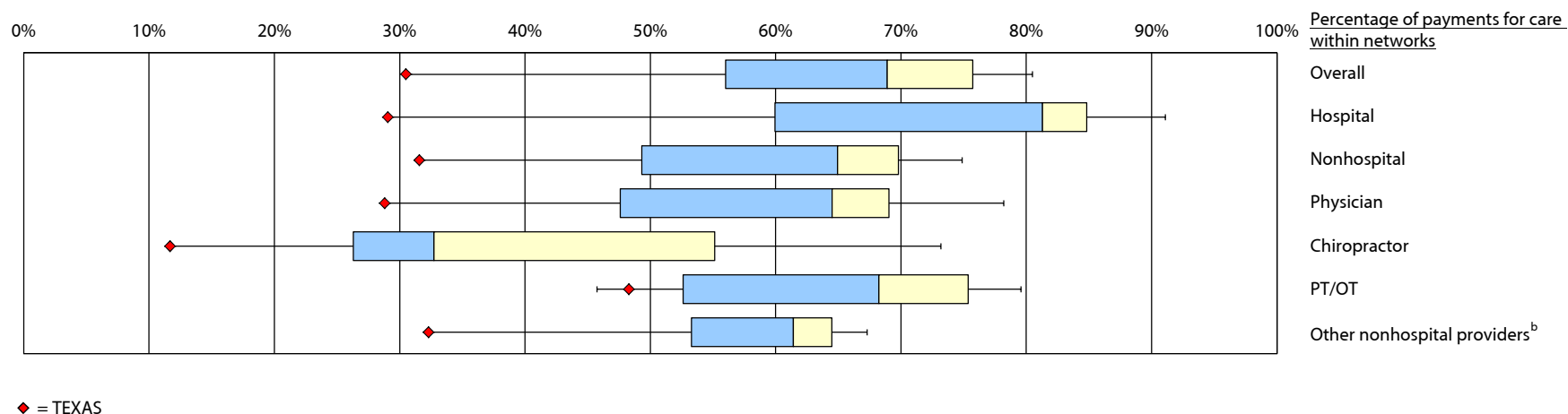
<sup>c</sup> This includes payments made to the hospital and nonhospital providers for services rendered during the outpatient surgical episode.

<sup>d</sup> The 14-state median is the average of the states ranked 7th and 8th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure. We show a 9-state median for the following measures: percentage of cases (with inpatient care), percentage of surgical cases (with inpatient surgery), average total medical payment per episode for disc cases with inpatient surgery, and average hospital payment per episode for disc cases with inpatient surgery.

<sup>e</sup> The numbers shown in Indiana, Iowa, Massachusetts, Minnesota, North Carolina, Virginia, and Wisconsin should be used with caution because of relatively small cell sizes (less than 100 claims). We have excluded numbers for Arkansas and Louisiana from all measures due to very small cell sizes. Iowa, Indiana, North Carolina, Virginia, and Wisconsin have been excluded for the following measures due to very small cell sizes (less than 50 claims): percentage of cases (with inpatient care), percentage of surgical cases (with inpatient surgery), average total medical payment per episode for disc cases with inpatient surgery, and average hospital payment per episode for disc cases with inpatient surgery.

<sup>f</sup> This includes only the cost of the surgical episode paid to the hospital for services rendered during the inpatient stay.

*Key:* ICD: International Classification of Diseases; CPT: Current Procedural Terminology; n/a: not available.

**Figure 29 Percentage of Medical Payments for Care Rendered in Networks<sup>a</sup> in Calendar Year 2012****Table for Figure 29: Percentage of Medical Payments for Care Rendered in Networks<sup>a</sup> in Calendar Year 2012**

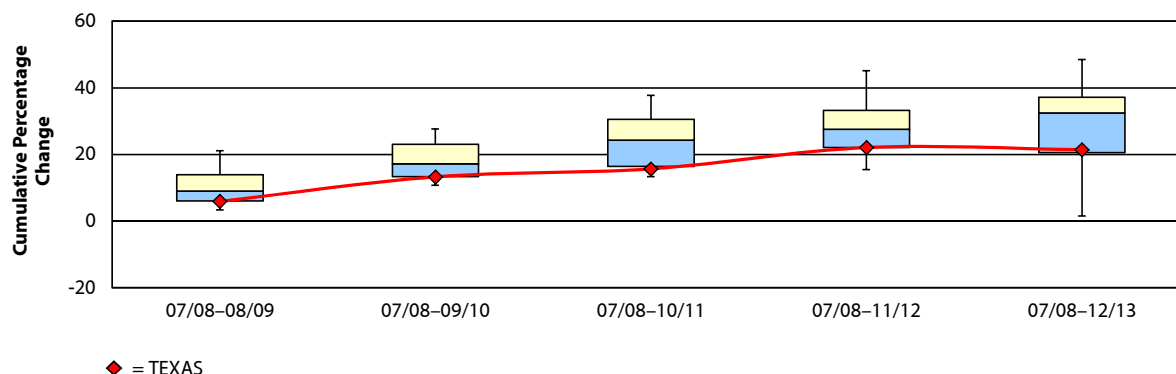
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>c</sup>
<b>Percentage of medical payments for care within networks</b>																	
Overall	76%	66%	72%	80%	62%	78%	34%	45%	71%	59%	67%	73%	53%	31%	75%	77%	69%
Hospital	83%	83%	83%	86%	81%	87%	32%	48%	80%	72%	67%	91%	53%	29%	89%	81%	81%
Nonhospital	71%	63%	67%	75%	53%	71%	37%	43%	65%	46%	68%	65%	55%	32%	65%	74%	65%
Physician	76%	67%	67%	77%	54%	71%	30%	36%	65%	45%	66%	61%	50%	29%	64%	78%	65%
Chiropractor	59%	64%	53%	56%	13%	45%	12%	26%	54%	27%	73%	26%	29%	12%	31%	35%	33%
PT/OT	67%	70%	77%	74%	50%	76%	46%	54%	69%	51%	79%	80%	65%	48%	71%	63%	68%
Other nonhospital providers <sup>b</sup>	64%	49%	59%	67%	56%	66%	46%	64%	59%	50%	65%	64%	59%	32%	64%	64%	61%

<sup>a</sup> The percentage of medical payments to different types of health care providers for care rendered within networks is based on identification of network care provided by the data sources.

<sup>b</sup> Other nonhospital providers include physicians' assistants, nurses, counselors, medical equipment suppliers, etc.

<sup>c</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the vertical line within the box of the box plot figure for a measure.

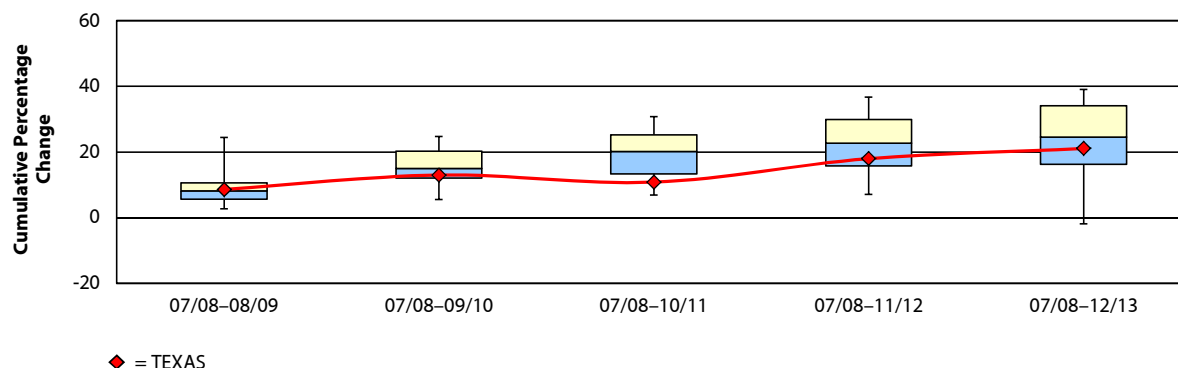
Key: PT/OT: physical/occupational therapist.

**Figure 30 Trend of Average Medical Payment for All Paid Claims (12 months)****Table for Figure 30: Trend of Average Medical Payment for All Paid Claims (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	21.2	9.1	6.5	15.0	10.1	15.1	18.8	5.6	5.7	7.2	10.5	3.4	9.0	5.9	6.1	12.9	9.0
2009/2010	21.9	17.9	11.5	27.6	24.5	27.5	20.7	11.2	13.4	20.0	14.4	10.8	16.5	13.3	14.7	24.2	17.2
2010/2011	35.2	25.9	17.1	28.6	29.9	37.8	22.7	14.3	15.9	25.7	13.4	22.8	18.6	15.7	31.3	31.5	24.3
2011/2012	29.8	31.7	22.0	41.4	24.9	45.1	34.8	15.5	22.1	25.2	15.7	30.3	25.2	22.1	30.8	38.2	27.5
2012/2013	34.6	32.9	25.8	39.8	1.6	48.5	33.1	17.1	19.7	30.0	14.5	33.1	32.0	21.5	39.8	42.5	32.4
Annual percentage change:																	
2007/2008 to 2008/2009	21.2	9.1	6.5	15.0	10.1	15.1	18.8	5.6	5.7	7.2	10.5	3.4	9.0	5.9	6.1	12.9	9.0
2008/2009 to 2009/2010	0.6	8.1	4.7	11.0	13.1	10.8	1.6	5.3	7.3	11.9	3.6	7.1	6.9	6.9	8.1	10.0	7.2
2009/2010 to 2010/2011	10.9	6.8	5.0	0.8	4.3	8.0	1.7	2.8	2.2	4.8	-0.9	10.9	1.8	2.1	14.5	5.9	4.5
2010/2011 to 2011/2012	-4.0	4.6	4.2	9.9	-3.8	5.3	9.9	1.1	5.4	-0.4	2.1	6.1	5.6	5.5	-0.4	5.1	4.9
2011/2012 to 2012/2013	3.7	0.9	3.1	-1.1	-18.7	2.3	-1.3	1.3	-1.9	3.8	-1.0	2.2	5.4	-0.5	6.9	3.1	1.8

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

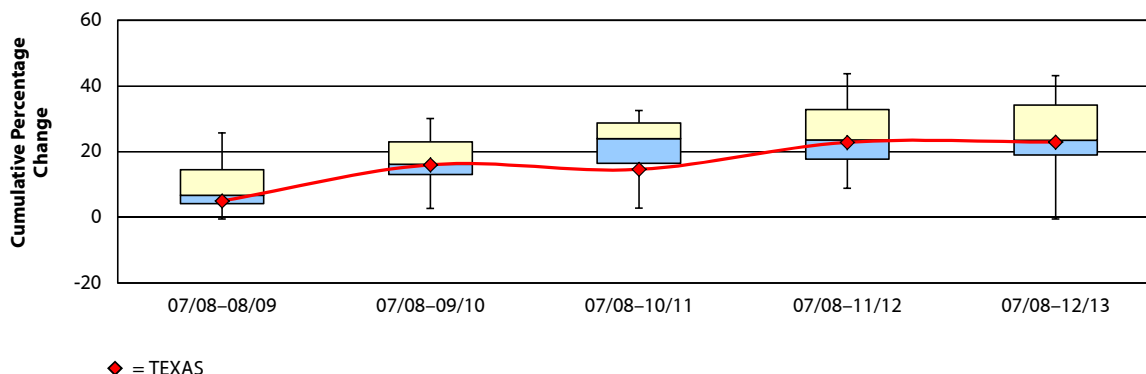
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 31 Trend of Average Medical Payment per Claim with More Than 7 Days of Lost Time (12 months)****Table for Figure 31: Trend of Average Medical Payment per Claim with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	24.5	8.8	6.5	10.2	8.0	12.5	19.3	5.9	3.0	5.3	8.2	2.7	7.3	8.6	4.8	11.0	8.1
2009/2010	16.3	15.0	5.5	20.5	19.9	21.4	24.8	14.6	9.2	17.2	11.0	11.1	14.8	13.0	14.7	21.3	14.9
2010/2011	30.8	18.4	7.8	22.1	23.4	28.3	22.8	15.9	6.8	16.7	6.9	21.4	18.9	10.8	27.2	29.9	20.2
2011/2012	27.2	20.9	10.9	35.2	17.5	36.7	35.5	18.1	12.6	14.0	7.1	24.7	24.5	18.0	25.3	32.7	22.7
2012/2013	31.7	19.4	15.4	34.3	-1.9	39.1	34.5	19.4	11.5	17.0	5.1	28.0	31.7	21.1	33.8	37.3	24.6
Annual percentage change:																	
2007/2008 to 2008/2009	24.5	8.8	6.5	10.2	8.0	12.5	19.3	5.9	3.0	5.3	8.2	2.7	7.3	8.6	4.8	11.0	8.1
2008/2009 to 2009/2010	-6.6	5.7	-1.0	9.4	11.0	7.9	4.6	8.3	6.0	11.3	2.5	8.2	7.0	4.1	9.4	9.3	7.5
2009/2010 to 2010/2011	12.5	2.9	2.2	1.3	2.9	5.7	-1.5	1.1	-2.1	-0.5	-3.7	9.2	3.5	-1.9	10.9	7.1	2.5
2010/2011 to 2011/2012	-2.8	2.1	2.9	10.8	-4.8	6.6	10.3	1.9	5.4	-2.3	0.2	2.7	4.7	6.5	-1.4	2.2	2.4
2011/2012 to 2012/2013	3.6	-1.2	4.0	-0.6	-16.5	1.7	-0.8	1.1	-1.0	2.7	-1.9	2.7	5.8	2.6	6.8	3.5	2.2

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 32 Trend of Average Payment per Claim to Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 32: Trend of Average Payment per Claim to Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

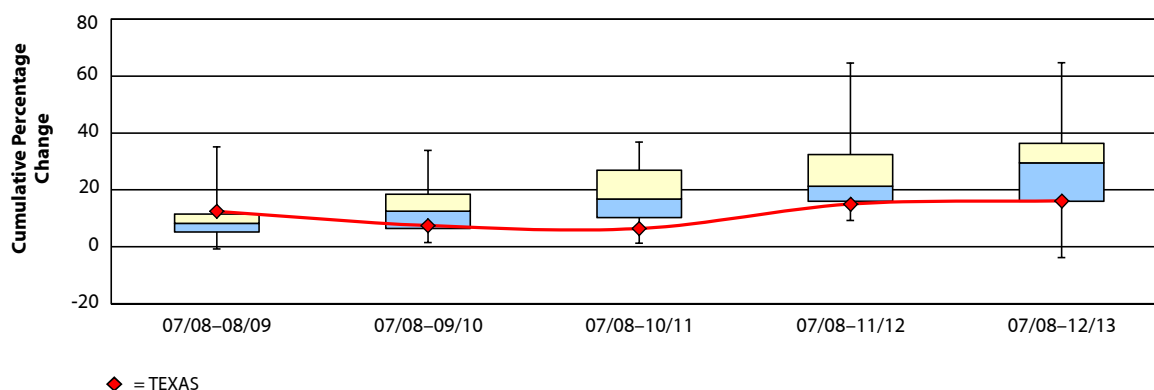
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	16.7	8.7	5.2	6.6	9.7	13.7	25.7	6.7	-0.6	2.0	15.3	3.4	6.8	5.0	2.6	15.3	6.7
2009/2010	16.4	15.1	5.2	12.2	23.3	18.1	30.2	27.8	2.7	10.1	22.7	13.9	14.6	16.0	16.3	25.8	16.1
2010/2011	19.5	18.4	10.3	22.7	30.0	25.6	25.3	28.8	2.8	9.7	25.2	28.8	18.9	14.6	29.9	32.6	23.9
2011/2012	15.3	22.5	13.4	31.4	20.2	37.1	43.8	25.1	10.2	8.9	22.1	34.3	24.3	22.8	26.5	34.8	23.6
2012/2013	21.1	21.8	16.9	26.1	-0.5	43.1	37.3	27.8	4.2	15.9	22.1	36.2	24.1	22.9	32.1	37.9	23.5
Annual percentage change:																	
2007/2008 to 2008/2009	16.7	8.7	5.2	6.6	9.7	13.7	25.7	6.7	-0.6	2.0	15.3	3.4	6.8	5.0	2.6	15.3	6.7
2008/2009 to 2009/2010	-0.3	6.0	-0.1	5.3	12.4	3.9	3.5	19.9	3.3	7.9	6.4	10.2	7.3	10.5	13.3	9.1	6.9
2009/2010 to 2010/2011	2.7	2.8	4.9	9.3	5.4	6.3	-3.7	0.7	0.1	-0.3	2.0	13.0	3.7	-1.2	11.7	5.4	3.3
2010/2011 to 2011/2012	-3.6	3.4	2.8	7.2	-7.5	9.2	14.7	-2.9	7.2	-0.8	-2.4	4.3	4.6	7.2	-2.6	1.6	3.1
2011/2012 to 2012/2013	5.0	-0.5	3.1	-4.1	-17.2	4.4	-4.5	2.2	-5.4	6.4	-0.1	1.4	-0.2	0.1	4.4	2.3	0.7

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.



**Figure 33 Trend of Average Payment per Claim to Hospitals for Claims with More Than 7 Days of Lost Time (12 months)**



**Table for Figure 33: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments to Hospitals for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	5.8	7.9	11.3	9.3	4.7	15.2	35.1	3.4	2.0	6.1	11.6	-0.8	6.5	12.5	10.0	8.6	8.3
2009/2010	9.1	8.1	4.7	22.7	15.4	21.2	33.9	5.4	5.5	15.8	11.9	1.5	13.1	7.4	13.1	25.3	12.5
2010/2011	36.8	9.6	12.8	24.4	16.7	19.4	33.6	7.4	1.3	20.1	11.4	11.0	16.8	6.4	29.5	30.9	16.8
2011/2012	35.6	19.9	22.6	42.4	17.0	33.6	64.6	11.8	9.2	18.2	12.0	19.3	29.6	15.0	23.5	31.3	21.2
2012/2013	51.6	18.3	35.1	36.7	-3.8	34.9	64.7	5.9	7.1	15.8	16.3	25.3	36.1	16.2	33.6	37.5	29.5
Annual percentage change:																	
2007/2008 to 2008/2009	5.8	7.9	11.3	9.3	4.7	15.2	35.1	3.4	2.0	6.1	11.6	-0.8	6.5	12.5	10.0	8.6	8.3
2008/2009 to 2009/2010	3.1	0.2	-6.0	12.3	10.3	5.2	-0.9	2.0	3.4	9.1	0.3	2.3	6.2	-4.5	2.9	15.3	3.0
2009/2010 to 2010/2011	25.4	1.4	7.8	1.4	1.1	-1.5	-0.2	1.9	-4.0	3.7	-0.5	9.4	3.2	-1.0	14.4	4.5	1.7
2010/2011 to 2011/2012	-0.9	9.4	8.7	14.5	0.3	11.9	23.2	4.1	7.9	-1.5	0.5	7.5	10.9	8.1	-4.6	0.3	7.7
2011/2012 to 2012/2013	11.9	-1.3	10.1	-4.0	-17.8	1.0	0.1	-5.3	-2.0	-2.1	3.9	5.1	5.0	1.0	8.2	4.7	1.0
<b>Percentage of claims with hospital provider involvement</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-0.3	0.1	-0.8	1.2	-1.1	0.4	1.7	1.6	2.7	0.7	-1.1	-2.5	-0.3	-0.9	-2.2	-1.1	-0.3
2009/2010	2.6	1.0	-2.6	0.1	-1.7	0.5	2.2	2.2	6.3	2.9	-3.6	-2.3	-1.2	-1.8	-2.6	-2.0	-0.5
2010/2011	-2.6	0.6	-5.0	0.6	-3.1	-1.2	-2.0	1.0	6.3	3.0	-4.6	-3.1	-2.1	-3.6	-1.8	-1.1	-1.9
2011/2012	0.7	-0.5	-6.1	0.7	-1.9	0.1	-1.8	2.1	5.7	3.6	-4.4	-4.7	-3.4	-1.9	-4.9	-0.3	-1.2
2012/2013	-2.2	-4.0	-7.3	-0.5	-4.3	-2.4	-4.1	1.2	4.4	1.7	-7.6	-5.4	-3.0	-2.7	-6.0	-1.4	-2.8
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.3	0.1	-0.8	1.2	-1.1	0.4	1.7	1.6	2.7	0.7	-1.1	-2.5	-0.3	-0.9	-2.2	-1.1	-0.3
2008/2009 to 2009/2010	2.9	0.8	-1.8	-1.1	-0.6	0.1	0.4	0.6	3.6	2.2	-2.5	0.1	-0.8	-0.9	-0.3	-0.9	-0.1
2009/2010 to 2010/2011	-5.2	-0.4	-2.3	0.5	-1.4	-1.7	-4.2	-1.1	0.0	0.2	-1.0	-0.8	-0.9	-1.7	0.8	0.9	-1.0
2010/2011 to 2011/2012	3.3	-1.1	-1.1	0.1	1.2	1.3	0.3	1.0	-0.6	0.5	0.3	-1.6	-1.3	1.7	-3.1	0.8	0.3
2011/2012 to 2012/2013	-2.9	-3.5	-1.2	-1.2	-2.4	-2.5	-2.3	-0.9	-1.3	-1.9	-3.3	-0.7	0.4	-0.7	-1.0	-1.2	-1.3

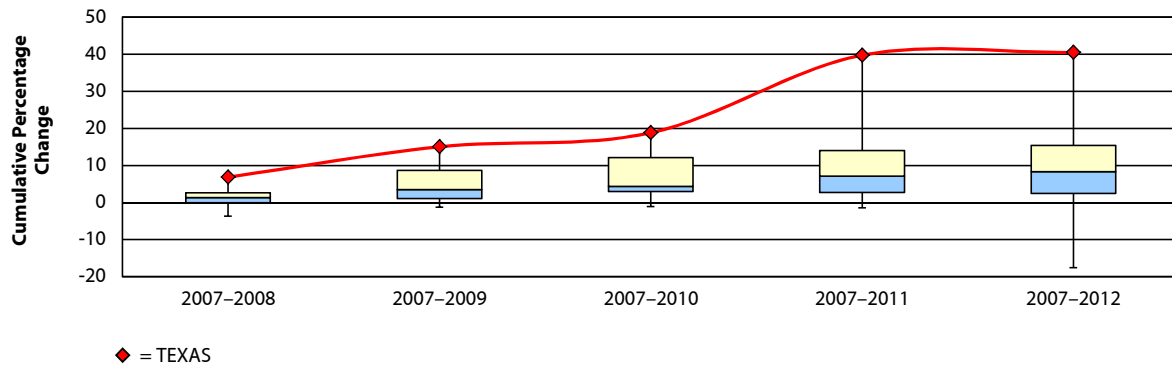
continued

**Table for Figure 33: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments to Hospitals for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made to hospital providers</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	0.3	-0.4	2.3	1.1	-2.0	0.7	3.3	-0.7	1.0	2.5	-1.0	-2.7	-1.1	2.1	-0.8	-1.5	0.0
2009/2010	3.1	-1.1	-0.1	2.5	-2.9	0.4	3.2	-4.6	2.7	2.7	-2.8	-4.0	-0.5	-2.9	-2.8	-0.5	-0.5
2010/2011	9.2	-2.0	-2.3	1.3	-3.8	-1.7	-1.2	-4.4	1.5	3.6	-4.9	-5.1	0.1	-3.6	-2.0	-0.6	-1.8
2011/2012	4.2	-0.1	0.1	4.3	-1.4	-0.8	0.6	-2.3	2.1	4.1	-4.3	-3.8	-1.3	-2.9	-3.7	-0.6	-0.7
2012/2013	5.4	-2.6	2.0	2.9	-2.9	-1.7	1.2	-3.8	1.8	1.8	-4.5	-2.9	1.7	-2.6	-3.6	0.2	-0.7
Annual percentage point change:																	
2007/2008 to 2008/2009	0.3	-0.4	2.3	1.1	-2.0	0.7	3.3	-0.7	1.0	2.5	-1.0	-2.7	-1.1	2.1	-0.8	-1.5	0.0
2008/2009 to 2009/2010	2.9	-0.8	-2.4	1.4	-0.9	-0.4	-0.1	-3.9	1.7	0.1	-1.8	-1.4	0.5	-5.0	-1.9	1.0	-0.6
2009/2010 to 2010/2011	6.1	-0.8	-2.2	-1.1	-0.9	-2.0	-4.4	0.2	-1.2	0.9	-2.1	-1.1	0.6	-0.7	0.7	0.0	-0.9
2010/2011 to 2011/2012	-5.0	1.9	2.5	3.0	2.4	0.9	1.8	2.1	0.6	0.5	0.6	1.3	-1.4	0.7	-1.7	0.0	0.8
2011/2012 to 2012/2013	1.1	-2.5	1.9	-1.4	-1.5	-0.9	0.7	-1.6	-0.2	-2.3	-0.2	0.9	3.0	0.3	0.1	0.8	0.0

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

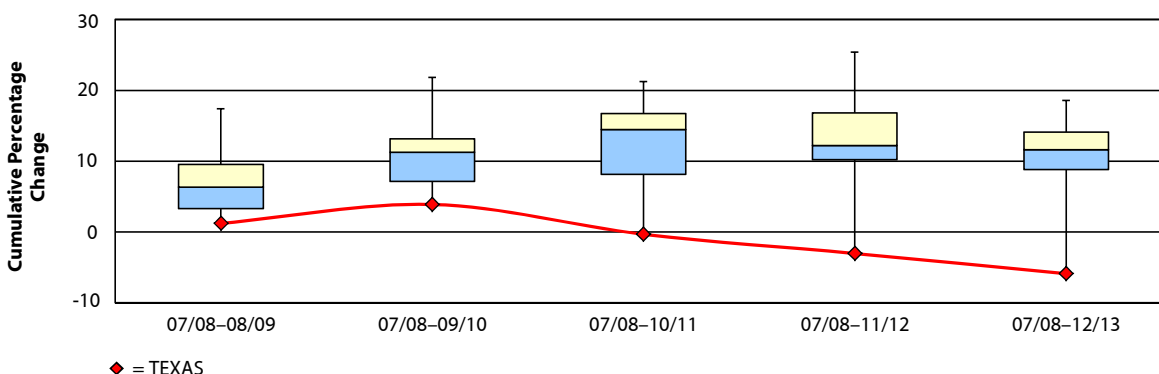
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 34 Trend of Prices for Nonhospital Providers****Table for Figure 34: Trend of Prices for Nonhospital Providers**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	-0.3	0.6	-3.7	-0.7	2.4	2.2	0.8	1.0	2.2	1.1	-0.5	0.3	1.9	6.9	-1.3	3.1	0.9
2009	1.0	0.6	-1.1	1.8	8.6	9.6	3.5	14.9	3.0	4.7	1.1	4.2	3.6	15.1	-1.3	8.7	3.5
2010	2.4	1.5	-1.1	4.4	10.1	15.3	3.8	16.8	4.3	5.6	1.7	8.3	3.5	18.8	3.8	14.1	4.3
2011	10.5	-1.4	-1.1	10.8	2.5	15.6	5.0	16.9	4.4	3.0	1.1	12.5	5.1	39.7	9.2	17.8	7.1
2012	10.4	-2.1	-1.2	8.3	-17.6	20.8	6.0	15.5	4.0	5.6	1.0	15.4	8.3	40.5	12.2	22.5	8.3
Annual percentage change:																	
2007 to 2008	-0.3	0.6	-3.7	-0.7	2.4	2.2	0.8	1.0	2.2	1.1	-0.5	0.3	1.9	6.9	-1.3	3.1	0.9
2008 to 2009	1.3	-0.1	2.6	2.5	6.1	7.2	2.7	13.7	0.8	3.6	1.7	3.9	1.7	7.7	0.1	5.4	2.7
2009 to 2010	1.4	1.0	0.1	2.5	1.4	5.2	0.3	1.6	1.2	0.8	0.6	4.0	-0.1	3.3	5.1	4.9	1.4
2010 to 2011	7.9	-2.9	0.0	6.2	-6.9	0.3	1.2	0.1	0.1	-2.4	-0.6	3.8	1.5	17.6	5.2	3.3	0.7
2011 to 2012	-0.1	-0.7	-0.2	-2.3	-19.6	4.5	1.0	-1.2	-0.4	2.5	-0.1	2.6	3.1	0.5	2.8	4.0	0.2

Note: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 35 Trend of Utilization of Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

**Table for Figure 35: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> of Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Utilization</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	14.4	6.7	5.7	7.0	6.8	10.3	17.4	1.4	1.3	3.3	13.6	5.9	5.0	1.2	3.3	8.7	6.3
2009/2010	16.5	12.7	7.5	6.8	13.6	8.6	21.8	11.7	5.5	4.2	18.7	8.8	11.8	3.9	10.8	12.7	11.3
2010/2011	20.1	15.7	9.8	14.3	16.6	6.5	16.9	10.7	3.2	1.9	21.2	14.7	15.2	-0.3	16.8	13.0	14.5
2011/2012	10.7	17.8	12.1	18.4	15.8	13.7	25.4	9.7	9.1	0.9	18.2	12.1	15.8	-3.0	12.3	11.0	12.2
2012/2013	6.7	15.8	12.8	12.5	12.5	18.6	15.4	11.4	5.5	2.1	16.8	11.5	11.7	-5.9	11.4	10.9	11.6
Annual percentage change:																	
2007/2008 to 2008/2009	14.4	6.7	5.7	7.0	6.8	10.3	17.4	1.4	1.3	3.3	13.6	5.9	5.0	1.2	3.3	8.7	6.3
2008/2009 to 2009/2010	1.8	5.6	1.7	-0.2	6.3	-1.5	3.8	10.2	4.1	0.8	4.5	2.8	6.5	2.6	7.3	3.7	3.7
2009/2010 to 2010/2011	3.1	2.7	2.1	7.0	2.6	-1.9	-4.1	-0.9	-2.2	-2.1	2.1	5.4	3.1	-4.0	5.4	0.3	2.1
2010/2011 to 2011/2012	-7.8	1.8	2.2	3.6	-0.7	6.7	7.3	-0.8	5.8	-1.0	-2.5	-2.3	0.5	-2.7	-3.9	-1.8	-0.8
2011/2012 to 2012/2013	-3.6	-1.7	0.6	-5.1	-2.9	4.3	-8.0	1.5	-3.3	1.2	-1.2	-0.5	-3.5	-2.9	-0.8	0.0	-1.4
<b>Visits per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	8.8	5.2	0.8	1.7	4.2	5.5	13.1	-0.3	-1.7	-4.4	9.2	4.2	3.7	-3.1	-2.2	7.5	3.9
2009/2010	14.1	11.9	6.6	1.8	10.6	5.9	17.7	6.1	3.3	3.3	14.7	9.4	10.6	1.0	5.0	9.1	7.8
2010/2011	10.1	14.9	8.6	6.5	11.5	7.7	12.8	3.8	1.4	2.0	16.1	12.1	12.5	-2.9	7.1	9.1	8.8
2011/2012	8.2	16.9	9.3	14.0	10.7	12.0	21.8	6.5	4.5	0.4	15.3	10.8	12.2	-5.9	4.8	6.1	10.0
2012/2013	7.2	15.5	9.5	9.4	6.1	11.5	14.4	5.9	2.1	-1.6	13.7	8.3	8.0	-7.7	6.9	3.3	7.6
Annual percentage change:																	
2007/2008 to 2008/2009	8.8	5.2	1.7	1.7	4.2	5.5	13.1	-0.3	-1.7	-4.4	9.2	4.2	3.7	-3.1	-2.2	7.5	3.9
2008/2009 to 2009/2010	4.9	6.4	0.2	0.2	6.2	0.4	4.1	6.3	5.1	8.0	5.0	5.1	6.6	4.3	7.4	1.5	5.0
2009/2010 to 2010/2011	-3.5	2.7	4.6	4.6	0.8	1.7	-4.2	-2.1	-1.9	-1.2	1.3	2.4	1.8	-3.8	1.9	0.0	1.0
2010/2011 to 2011/2012	-1.7	1.8	7.0	7.0	-0.7	4.0	8.0	2.6	3.1	-1.6	-0.7	-1.2	-0.3	-3.2	-2.1	-2.7	-0.5
2011/2012 to 2012/2013	-0.9	-1.2	-4.1	-4.1	-4.2	-0.5	-6.1	-0.6	-2.3	-2.0	-1.4	-2.3	-3.8	-1.9	1.9	-2.6	-2.2

*continued*

**Table for Figure 35: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> of Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

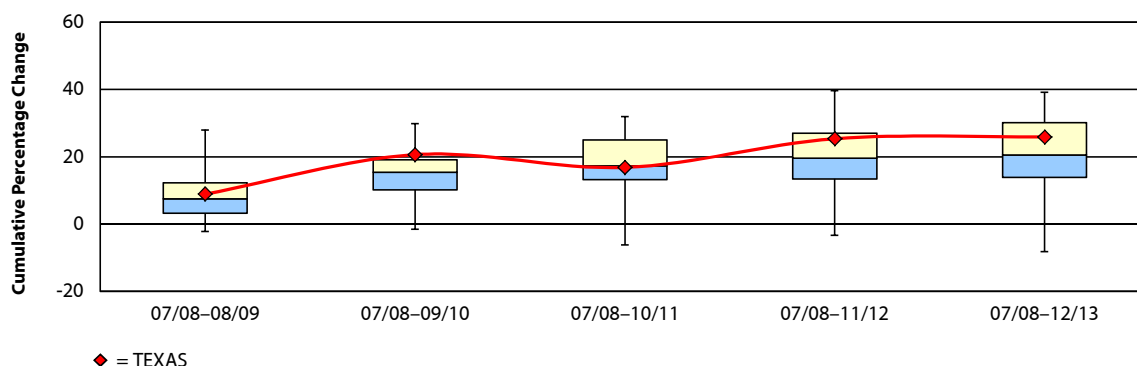
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Services per visit</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	4.8	1.9	2.9	0.6	4.1	4.2	2.5	-0.2	-0.4	-1.1	4.0	2.3	1.8	-1.2	4.5	5.0	2.4
2009/2010	6.6	2.8	3.6	2.4	6.6	3.7	3.0	0.4	-3.2	1.3	8.3	0.8	3.8	-2.4	6.8	5.2	3.3
2010/2011	2.6	4.3	5.9	5.4	5.4	2.4	5.0	0.9	-3.6	-1.8	7.0	0.8	5.8	-3.7	8.8	2.9	3.6
2011/2012	1.8	5.0	7.4	9.1	6.6	4.8	7.7	-1.1	-1.2	-1.7	7.4	1.1	6.7	-3.6	6.6	6.5	5.7
2012/2013	0.9	6.3	7.3	8.3	8.5	7.0	8.4	0.1	-1.0	-2.8	9.5	2.6	5.5	-3.4	7.4	8.7	6.7
Annual percentage change:																	
2007/2008 to 2008/2009	4.8	1.9	2.9	0.6	4.1	4.2	2.5	-0.2	-0.4	-1.1	4.0	2.3	1.8	-1.2	4.5	5.0	2.4
2008/2009 to 2009/2010	1.7	0.9	0.7	1.8	2.4	-0.5	0.5	0.6	-2.7	2.4	4.1	-1.5	1.9	-1.3	2.2	0.2	0.8
2009/2010 to 2010/2011	-3.8	1.5	2.2	2.9	-1.1	-1.2	2.0	0.6	-0.5	-3.0	-1.2	0.0	2.0	-1.4	1.8	-2.2	-0.3
2010/2011 to 2011/2012	-0.8	0.7	1.4	3.5	1.2	2.4	2.6	-2.0	2.5	0.1	0.4	0.4	0.8	0.1	-2.0	3.5	0.7
2011/2012 to 2012/2013	-0.8	1.2	-0.1	-0.7	1.8	2.1	0.6	1.2	0.2	-1.1	2.0	1.4	-1.1	0.3	0.8	2.1	0.7
<b>Resource intensity<sup>a</sup></b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-5.5	-0.9	-1.4	-1.4	-2.6	-2.8	2.2	2.6	2.4	3.1	-1.4	-0.4	-0.7	3.9	-0.7	-3.4	
2009/2010	-15.0	-1.7	-3.3	-3.0	-4.1	-4.7	-1.3	5.9	4.5	-4.4	-5.3	-1.1	-4.1	4.3	-1.7	-0.6	
2010/2011	-3.0	-3.6	-5.6	-5.0	-1.5	-5.3	-3.5	6.9	4.8	-3.7	-6.6	1.1	-5.4	4.4	-0.3	3.7	
2011/2012	-5.0	-4.2	-6.7	-13.8	-2.6	-7.5	-8.4	5.7	3.2	-2.8	-8.8	1.1	-5.7	4.2	-3.3	0.3	
2012/2013	-7.9	-5.5	-7.0	-11.8	-2.3	-8.5	-7.3	6.1	1.1	-2.0	-12.0	0.1	-3.7	2.9	-3.9	-2.8	
Annual percentage point change:																	
2007/2008 to 2008/2009	-5.5	-0.9	-1.4	-1.4	-2.6	-2.8	2.2	2.6	2.4	3.1	-1.4	-0.4	-0.7	3.9	-0.7	-3.4	
2008/2009 to 2009/2010	-7.8	-0.6	-1.8	-1.5	-1.2	-1.7	-3.2	3.0	2.0	-7.5	-3.3	-0.7	-3.1	0.3	-0.9	2.7	
2009/2010 to 2010/2011	9.5	-1.7	-2.0	-1.7	2.2	-0.5	-1.8	1.0	0.4	0.5	-0.9	2.1	-1.0	0.3	1.3	3.7	
2010/2011 to 2011/2012	-1.8	-0.4	-0.9	-7.2	-0.9	-1.7	-3.8	-1.0	-1.9	0.9	-1.9	0.0	-0.2	-0.1	-2.6	-3.0	
2011/2012 to 2012/2013	-2.7	-1.1	-0.2	0.9	0.2	-0.5	0.3	0.2	-1.8	0.7	-2.6	-0.8	1.5	-1.3	-0.5	-2.8	

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 36 Trend of Average Payment per Claim to Physicians for Claims with More Than 7 Days of Lost Time (12 months)**



**Table for Figure 36: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments to Physicians for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	17.3	7.7	7.3	5.3	8.0	12.1	27.9	5.2	-2.2	1.9	12.4	2.0	4.3	8.9	1.7	13.3	7.5
2009/2010	12.6	15.4	8.9	9.4	17.6	15.7	29.1	29.9	-1.6	5.3	15.7	13.6	10.9	20.6	15.4	23.5	15.4
2010/2011	14.9	14.4	12.0	17.7	21.7	20.1	24.6	31.9	-6.2	3.8	16.9	25.5	10.6	16.8	29.2	29.7	17.3
2011/2012	11.5	15.9	18.4	20.7	12.0	29.9	39.6	24.9	-3.3	2.9	14.7	30.7	15.3	25.4	25.4	28.6	19.5
2012/2013	13.1	16.0	22.9	18.3	-8.2	39.2	35.6	28.5	-8.0	12.4	15.4	33.4	14.6	25.9	29.4	30.9	20.6
Annual percentage change:																	
2007/2008 to 2008/2009	17.3	7.7	7.3	5.3	8.0	12.1	27.9	5.2	-2.2	1.9	12.4	2.0	4.3	8.9	1.7	13.3	7.5
2008/2009 to 2009/2010	-3.9	7.2	1.5	3.9	8.9	3.2	0.9	23.5	0.7	3.4	3.0	11.4	6.2	10.8	13.5	9.0	5.1
2009/2010 to 2010/2011	2.0	-0.9	2.8	7.6	3.5	3.8	-3.5	1.6	-4.7	-1.5	1.0	10.4	-0.3	-3.2	12.0	5.0	1.8
2010/2011 to 2011/2012	-3.0	1.3	5.8	2.5	-8.0	8.1	12.1	-5.3	3.1	-0.9	-1.9	4.2	4.3	7.3	-2.9	-0.9	1.9
2011/2012 to 2012/2013	1.4	0.1	3.7	-2.0	-18.0	7.2	-2.9	2.9	-4.8	9.3	0.6	2.0	-0.6	0.4	3.1	1.8	1.0
<b>Percentage of claims with physician involvement</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	0.1	0.0	0.4	-0.5	0.6	0.0	0.5	0.3	-0.3	-0.4	0.5	0.2	-0.1	0.5	0.3	0.9	0.3
2009/2010	-1.0	0.3	0.3	-0.5	0.7	-0.3	1.2	0.0	-1.9	0.8	0.0	-0.3	0.0	0.8	0.5	0.4	0.1
2010/2011	-0.1	0.2	0.4	1.0	0.4	-0.2	2.5	0.7	-1.7	0.1	0.4	0.0	0.3	0.3	0.1	0.3	0.3
2011/2012	-0.5	0.0	0.2	1.6	0.3	-0.1	2.8	-0.3	-1.1	-1.7	-0.2	0.2	-0.1	0.2	0.2	0.7	0.1
2012/2013	-0.1	0.0	0.4	1.6	0.0	-0.4	2.7	0.0	-1.5	-2.7	0.0	0.4	-0.1	0.1	0.2	0.2	0.0
Annual percentage point change:																	
2007/2008 to 2008/2009	0.1	0.0	0.4	-0.5	0.6	0.0	0.5	0.3	-0.3	-0.4	0.5	0.2	-0.1	0.5	0.3	0.9	0.3
2008/2009 to 2009/2010	-1.1	0.3	-0.1	0.0	0.1	-0.2	0.8	-0.4	-1.6	1.1	-0.5	-0.5	0.1	0.3	0.2	-0.5	-0.1
2009/2010 to 2010/2011	0.9	-0.1	0.1	1.5	-0.3	0.0	1.3	0.7	0.2	-0.7	0.4	0.3	0.4	-0.5	-0.4	-0.1	0.1
2010/2011 to 2011/2012	-0.4	-0.2	-0.2	0.6	-0.1	0.1	0.3	-0.9	0.7	-1.8	-0.5	0.1	-0.4	-0.1	0.1	0.5	-0.1
2011/2012 to 2012/2013	0.5	0.0	0.2	0.0	-0.2	-0.3	-0.1	0.2	-0.4	-1.0	0.2	0.2	0.0	-0.1	0.1	-0.5	0.0

continued

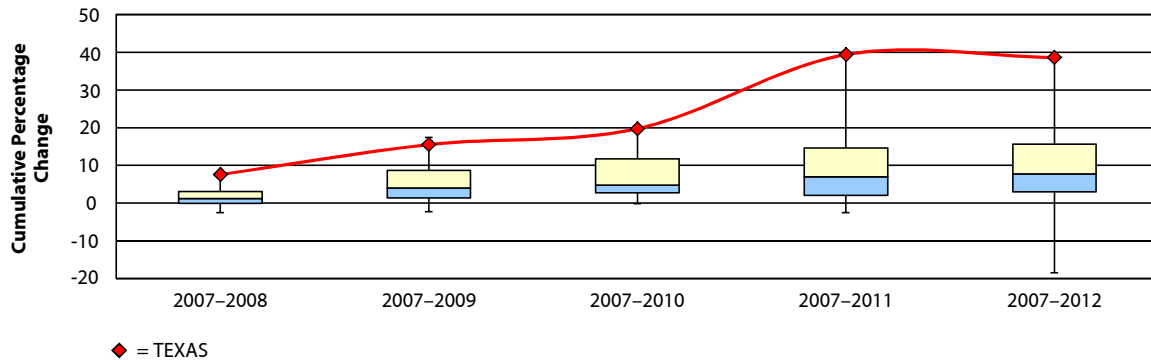


**Table for Figure 36: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments to Physicians for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made to physicians</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	0.1	-0.4	-0.5	-1.2	0.9	-1.1	-1.6	-0.1	-1.3	-2.1	0.0	1.4	0.3	0.3	0.4	0.6	-0.1
2009/2010	-3.4	0.9	1.4	-2.8	-0.1	-1.2	-2.3	4.2	-3.1	-3.3	-0.1	2.6	-0.4	3.4	1.7	-0.4	-0.3
2010/2011	-7.9	-0.5	1.9	-1.5	-0.4	-0.7	0.3	3.8	-3.8	-4.6	1.4	2.4	-1.5	2.8	1.3	-0.4	-0.4
2011/2012	-3.9	-3.0	1.0	-5.3	-2.2	-1.7	-1.2	2.0	-5.3	-5.1	1.0	1.6	-1.0	2.4	2.1	-1.3	-1.2
2012/2013	-5.7	-1.4	0.8	-3.6	-1.7	-0.6	-1.1	2.8	-5.6	-2.8	1.4	1.3	-2.8	2.3	1.7	-2.5	-1.3
Annual percentage point change:																	
2007/2008 to 2008/2009	0.1	-0.4	-0.5	-1.2	0.9	-1.1	-1.6	-0.1	-1.3	-2.1	0.0	1.4	0.3	0.3	0.4	0.6	-0.1
2008/2009 to 2009/2010	-3.5	1.4	1.9	-1.6	-1.0	-0.1	-0.6	4.3	-1.8	-1.3	-0.1	1.2	-0.7	3.0	1.3	-1.0	-0.4
2009/2010 to 2010/2011	-4.6	-1.5	0.5	1.2	-0.2	0.5	2.6	-0.3	-0.6	-1.3	1.5	-0.2	-1.1	-0.5	-0.4	-0.1	-0.3
2010/2011 to 2011/2012	4.0	-2.5	-0.9	-3.8	-1.8	-1.0	-1.4	-1.9	-1.5	-0.5	-0.4	-0.9	0.5	-0.4	0.8	-0.8	-0.9
2011/2012 to 2012/2013	-1.7	1.6	-0.2	1.8	0.4	1.1	0.0	0.8	-0.3	2.3	0.4	-0.3	-1.7	-0.1	-0.5	-1.2	-0.1

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

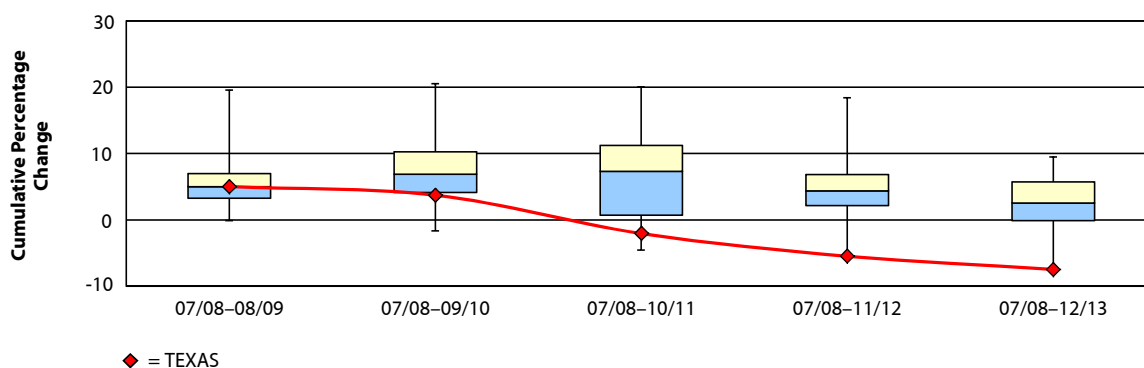
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 37 Trend of Physician Prices****Table for Figure 37: Trend of Physician Prices**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	0.1	0.5	-2.5	-1.0	3.0	3.5	0.6	1.5	3.2	0.8	-0.4	1.6	2.3	7.6	-0.3	3.5	1.2
2009	1.4	0.4	0.1	2.5	7.8	11.1	3.9	17.5	4.0	4.5	1.4	5.4	3.7	15.5	-2.3	9.5	4.0
2010	2.0	0.9	-0.2	4.3	8.8	17.0	4.8	18.5	4.8	5.5	2.2	8.7	3.9	19.7	3.2	14.6	4.8
2011	10.1	-2.5	1.2	9.1	2.0	17.1	5.1	19.0	4.8	2.2	1.6	12.1	5.5	39.4	8.5	18.0	7.0
2012	9.7	-2.9	0.2	7.2	-18.5	22.2	5.9	16.6	4.3	4.8	1.6	14.7	8.3	38.6	11.8	22.5	7.8
Annual percentage change:																	
2007 to 2008	0.1	0.5	-2.5	-1.0	3.0	3.5	0.6	1.5	3.2	0.8	-0.4	1.6	2.3	7.6	-0.3	3.5	1.2
2008 to 2009	1.3	-0.1	2.7	3.5	4.7	7.3	3.2	15.7	0.8	3.6	1.8	3.8	1.3	7.4	-2.1	5.8	3.4
2009 to 2010	0.6	0.5	-0.3	1.8	0.9	5.4	0.9	0.9	0.7	1.0	0.8	3.1	0.2	3.7	5.7	4.6	0.9
2010 to 2011	7.9	-3.4	1.4	4.5	-6.3	0.1	0.3	0.4	0.0	-3.2	-0.6	3.1	1.5	16.4	5.1	2.9	0.9
2011 to 2012	-0.3	-0.4	-1.0	-1.7	-20.1	4.4	0.7	-2.0	-0.5	2.6	0.0	2.3	2.7	-0.5	3.1	3.8	-0.2

Notes: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

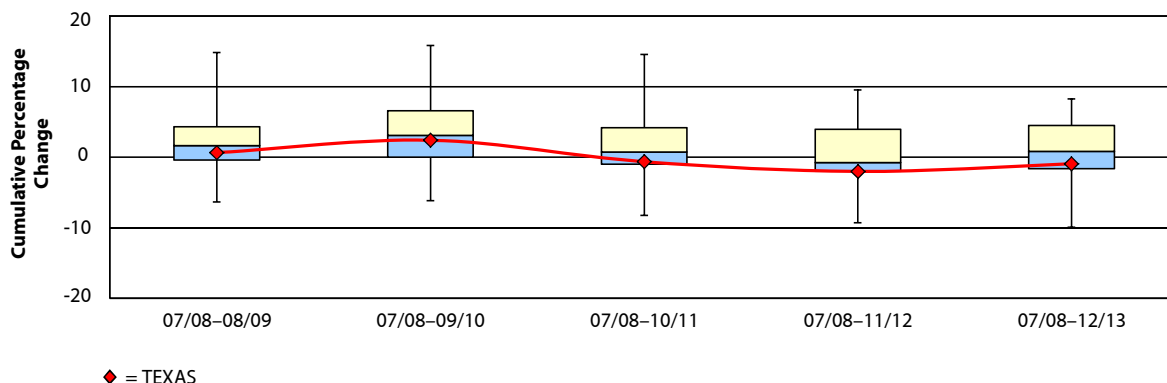
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 38 Trend of Physician Utilization for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 38: Trend of Physician Utilization for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	15.8	6.2	6.7	5.1	4.0	7.2	19.5	1.1	-0.1	3.2	9.6	4.6	3.4	5.0	1.9	5.1	5.0
2009/2010	14.5	13.4	6.1	2.8	7.4	4.5	20.5	9.1	2.9	-1.7	10.7	5.1	9.9	3.7	6.4	9.5	6.9
2010/2011	20.0	11.0	2.8	8.7	7.0	-1.3	12.8	11.4	-3.6	-4.5	6.3	7.2	7.5	-2.0	11.6	10.0	7.3
2011/2012	6.0	10.5	4.2	8.0	3.7	3.2	18.4	6.6	-2.2	-5.1	2.2	4.6	7.1	-5.5	2.1	4.6	4.4
2012/2013	1.1	8.8	4.0	2.6	-0.7	9.5	9.4	7.4	-6.2	-3.5	0.6	3.9	2.8	-7.5	2.0	2.6	2.6
Annual percentage change:																	
2007/2008 to 2008/2009	15.8	6.2	6.7	5.1	4.0	7.2	19.5	1.1	-0.1	3.2	9.6	4.6	3.4	5.0	1.9	5.1	5.0
2008/2009 to 2009/2010	-1.2	6.8	-0.6	-2.2	3.3	-2.5	0.8	7.9	3.1	-4.7	1.0	0.5	6.2	-1.2	4.4	4.2	0.9
2009/2010 to 2010/2011	4.9	-2.1	-3.1	5.7	-0.4	-5.6	-6.4	2.1	-6.3	-2.9	-3.9	2.0	-2.2	-5.6	4.9	0.4	-2.1
2010/2011 to 2011/2012	-11.7	-0.5	1.4	-0.7	-3.1	4.6	5.0	-4.3	1.4	-0.6	-3.9	-2.4	-0.4	-3.5	-8.4	-4.9	-1.5
2011/2012 to 2012/2013	-4.6	-1.5	-0.2	-5.0	-4.3	6.1	-7.6	0.7	-4.2	1.6	-1.6	-0.6	-4.0	-2.1	-0.1	-1.9	-1.8

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

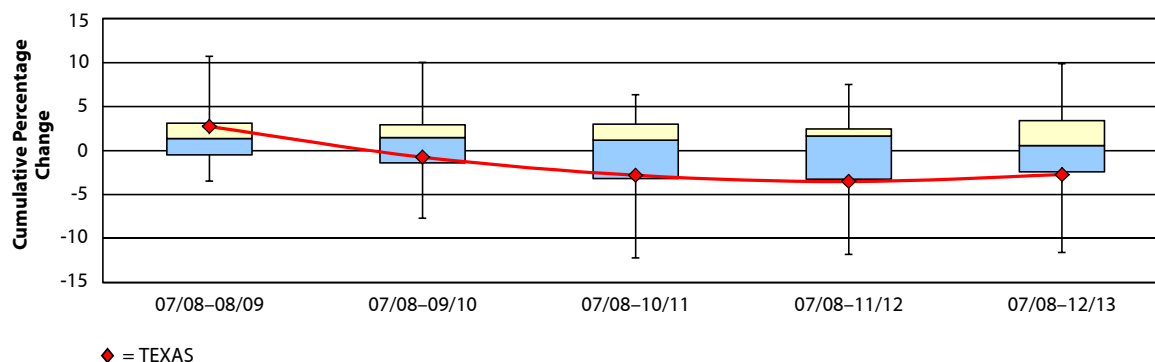
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 39 Trend of Physician Visits per Claim for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 39: Trend of Physician Visits per Claim for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	14.8	4.6	1.2	-0.6	2.0	3.3	11.0	-0.6	-3.6	-6.4	4.0	-0.2	2.8	0.6	-0.2	5.3	1.6
2009/2010	15.8	12.2	2.9	-3.7	3.5	3.3	9.5	-0.1	-3.5	-6.2	4.5	0.7	8.2	2.4	0.1	5.0	3.1
2010/2011	14.6	10.5	0.5	0.5	0.9	-1.3	3.6	2.6	-8.1	-8.3	-2.0	0.0	4.8	-0.7	3.8	4.6	0.7
2011/2012	4.7	8.1	0.1	5.2	-1.4	0.5	9.5	-1.6	-7.3	-9.3	-3.5	-0.2	3.2	-2.0	-1.8	-2.0	-0.8
2012/2013	7.1	8.2	3.4	2.5	-3.6	5.6	7.2	-0.8	-7.4	-9.9	0.2	1.4	1.4	-1.0	-0.1	-2.3	0.8
Annual percentage change:																	
2007/2008 to 2008/2009	14.8	4.6	1.2	-0.6	2.0	3.3	11.0	-0.6	-3.6	-6.4	4.0	-0.2	2.8	0.6	-0.2	5.3	1.6
2008/2009 to 2009/2010	0.9	7.3	1.7	-3.1	1.5	0.0	-1.4	0.6	0.1	0.2	0.5	0.9	5.3	1.7	0.2	-0.3	0.5
2009/2010 to 2010/2011	-1.1	-1.5	-2.3	4.3	-2.5	-4.5	-5.4	2.6	-4.8	-2.2	-6.2	-0.6	-3.1	-3.0	3.7	-0.4	-2.3
2010/2011 to 2011/2012	-8.6	-2.2	-0.4	4.7	-2.3	1.9	5.8	-4.1	0.9	-1.1	-1.6	-0.2	-1.6	-1.4	-5.4	-6.3	-1.5
2011/2012 to 2012/2013	2.2	0.1	3.3	-2.5	-2.2	5.1	-2.1	0.8	-0.1	-0.7	3.9	1.6	-1.7	1.1	1.8	-0.4	0.4

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

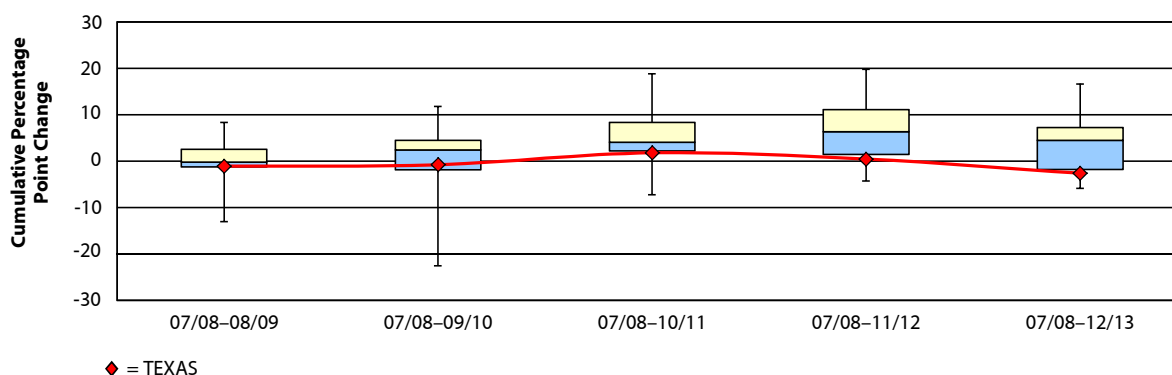
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 40 Trend of Physician Services per Visit for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 40: Trend of Physician Services per Visit for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	7.0	1.6	2.6	-1.4	3.9	0.8	10.7	-1.4	-3.5	-2.7	1.1	0.4	0.5	2.7	3.4	2.9	1.4
2009/2010	10.0	3.0	1.3	-1.4	4.2	0.1	4.8	-1.4	-7.7	-3.9	2.9	-2.9	2.1	-0.8	1.7	2.3	1.5
2010/2011	6.1	3.1	-0.6	2.5	1.9	-2.9	3.8	2.2	-12.2	-8.3	-3.4	-7.2	0.4	-2.8	6.4	2.9	1.2
2011/2012	1.8	2.0	2.6	2.6	2.2	-0.4	7.5	-1.9	-11.8	-6.1	-3.0	-5.1	2.3	-3.5	1.6	3.2	1.7
2012/2013	-0.8	3.2	5.6	-0.7	2.2	2.4	9.9	-5.1	-11.6	-7.1	1.8	-1.6	-2.1	-2.7	3.6	3.8	0.6
Annual percentage change:																	
2007/2008 to 2008/2009	7.0	1.6	2.6	-1.4	3.9	0.8	10.7	-1.4	-3.5	-2.7	1.1	0.4	0.5	2.7	3.4	2.9	1.4
2008/2009 to 2009/2010	2.8	1.4	-1.3	0.0	0.4	-0.7	-5.3	-0.1	-4.4	-1.2	1.7	-3.2	1.5	-3.4	-1.7	-0.5	-0.6
2009/2010 to 2010/2011	-3.6	0.0	-1.8	4.0	-2.2	-3.1	-1.0	3.7	-4.9	-4.6	-6.1	-4.4	-1.6	-2.1	4.6	0.6	-2.0
2010/2011 to 2011/2012	-4.1	-1.0	3.2	0.1	0.2	2.7	3.6	-4.0	0.5	2.3	0.4	2.2	1.9	-0.7	-4.5	0.3	0.3
2011/2012 to 2012/2013	-2.6	1.1	2.9	-3.2	0.0	2.7	2.2	-3.2	0.2	-1.0	4.9	3.7	-4.3	0.8	2.0	0.6	0.7

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

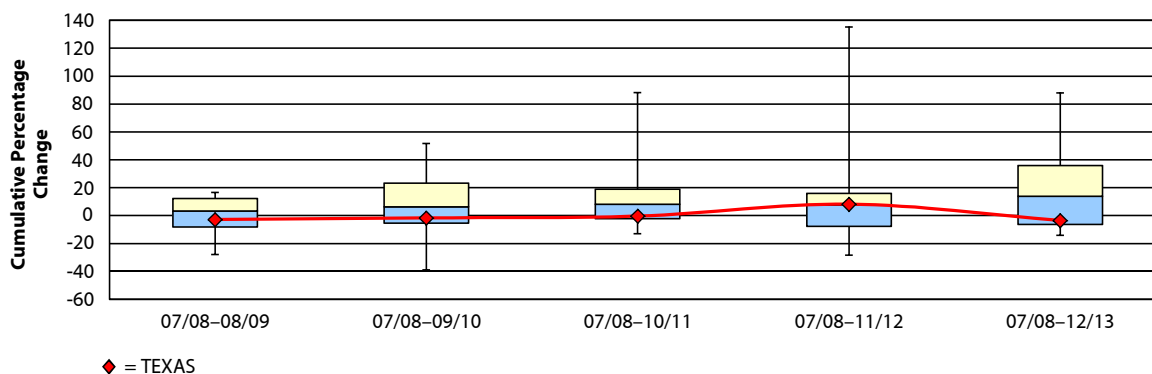
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 41 Trend of Physician Resource Intensity<sup>a</sup> for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 41: Trend of Physician Resource Intensity<sup>a</sup> for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI
Cumulative percentage point change from 2007/2008 to:																
2008/2009	-13.0	-2.4	1.8	1.9	-1.4	-0.1	-1.0	3.1	6.2	8.4	3.1	2.0	-0.3	-1.1	-2.2	-0.5
2009/2010	-22.6	-7.4	3.9	2.8	-0.6	-3.3	5.1	11.8	10.8	3.0	2.1	6.2	-3.0	-0.8	1.9	2.9
2010/2011	-7.2	-2.6	9.6	1.5	4.4	3.7	3.7	7.1	14.9	6.4	13.7	18.8	2.9	1.8	2.6	6.9
2011/2012	-4.2	1.8	10.4	-4.3	6.4	5.2	1.1	11.8	19.8	7.9	13.9	17.9	3.0	0.5	6.3	7.8
2012/2013	-5.9	-1.5	7.0	-2.1	5.2	1.5	-5.5	14.8	16.6	7.0	3.7	12.4	7.4	-2.6	3.5	6.8
Annual percentage point change:																
2007/2008 to 2008/2009	-13.0	-2.4	1.8	1.9	-1.4	-0.1	-1.0	3.1	6.2	8.4	3.1	2.0	-0.3	-1.1	-2.2	-0.5
2008/2009 to 2009/2010	-7.5	-4.5	2.0	1.0	0.8	-3.0	5.1	8.6	4.7	-5.2	-1.1	4.0	-2.5	0.3	4.0	3.2
2009/2010 to 2010/2011	12.0	3.8	5.7	-1.5	4.6	6.3	-1.0	-5.0	5.2	3.6	10.8	12.7	5.1	2.4	0.5	3.7
2010/2011 to 2011/2012	1.7	3.9	0.7	-5.4	2.0	1.4	-2.5	4.8	5.8	1.7	0.7	-0.5	0.2	-1.3	3.6	1.1
2011/2012 to 2012/2013	-1.7	-3.0	-3.6	1.7	-0.9	-4.1	-5.6	3.0	-3.0	-1.1	-11.2	-6.2	4.4	-3.2	-2.9	-0.8

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

**Figure 42 Trend of Average Payment per Claim to Chiropractors for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 42: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments to Chiropractors for Claims with More Than 7 Days of Lost Time (12 months)**

	AR <sup>a</sup>	CA	FL <sup>b</sup>	IA <sup>b</sup>	IL	IN <sup>a</sup>	LA <sup>b</sup>	MA	MI <sup>b</sup>	MN	NC <sup>a</sup>	NJ <sup>b</sup>	PA	TX	VA <sup>a</sup>	WI	12-State Median <sup>c</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	n/a	9.2	12.2	-27.9	10.1	n/a	14.2	-5.0	-9.1	-4.2	n/a	16.7	12.8	-2.8	n/a	-8.1	3.2
2009/2010	n/a	12.0	-4.2	-39.0	41.9	n/a	51.6	-8.7	10.1	23.2	n/a	2.4	15.2	-1.6	n/a	-10.2	6.2
2010/2011	n/a	13.0	4.6	-13.0	49.7	n/a	88.1	-1.4	7.7	8.6	n/a	85.3	18.9	-0.4	n/a	-4.9	8.1
2011/2012	n/a	7.0	10.9	-28.5	40.5	n/a	135.2	-7.8	-4.3	6.7	n/a	46.6	15.9	8.2	n/a	-9.6	7.6
2012/2013	n/a	-4.3	36.0	-10.4	11.2	n/a	75.9	-6.4	-14.1	16.7	n/a	88.0	31.8	-3.6	n/a	26.2	14.0
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	9.2	12.2	-27.9	10.1	n/a	14.2	-5.0	-9.1	-4.2	n/a	16.7	12.8	-2.8	n/a	-8.1	3.2
2008/2009 to 2009/2010	n/a	2.5	-14.6	-15.4	28.9	n/a	32.7	-3.9	21.2	28.5	n/a	-12.3	2.2	1.2	n/a	-2.3	1.7
2009/2010 to 2010/2011	n/a	0.9	9.2	42.8	5.5	n/a	24.0	8.0	-2.2	-11.8	n/a	81.0	3.2	1.3	n/a	5.9	5.7
2010/2011 to 2011/2012	n/a	-5.3	6.1	-17.8	-6.2	n/a	25.1	-6.5	-11.1	-1.7	n/a	-20.9	-2.5	8.6	n/a	-5.0	-5.2
2011/2012 to 2012/2013	n/a	-10.5	22.6	25.2	-20.9	n/a	-25.2	1.5	-10.2	9.4	n/a	28.2	13.7	-10.9	n/a	39.6	5.5
<b>Percentage of claims with chiropractor involvement</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	n/a	0.5	-0.4	0.3	0.1	n/a	0.1	-0.5	-0.5	0.0	n/a	-0.1	0.1	-1.4	n/a	0.2	0.1
2009/2010	n/a	1.6	-0.5	0.2	0.3	n/a	0.8	0.0	-0.1	-1.2	n/a	-0.4	0.3	-1.1	n/a	-0.3	0.0
2010/2011	n/a	4.0	-0.6	0.1	0.7	n/a	0.7	-1.2	-0.1	-0.8	n/a	-0.1	1.0	-1.4	n/a	0.1	0.0
2011/2012	n/a	4.7	-0.3	-0.5	1.0	n/a	1.2	-0.8	-0.2	-0.1	n/a	0.0	0.9	-4.3	n/a	-1.0	-0.2
2012/2013	n/a	4.7	-0.5	-0.8	-0.3	n/a	2.0	-1.3	-0.4	-1.2	n/a	-0.2	0.9	-4.3	n/a	0.0	-0.4
Annual percentage point change:																	
2007/2008 to 2008/2009	n/a	0.5	-0.4	0.3	0.1	n/a	0.1	-0.5	-0.5	0.0	n/a	-0.1	0.1	-1.4	n/a	0.2	0.1
2008/2009 to 2009/2010	n/a	1.1	-0.2	-0.1	0.2	n/a	0.7	0.5	0.4	-1.3	n/a	-0.3	0.2	0.4	n/a	-0.5	0.2
2009/2010 to 2010/2011	n/a	2.4	0.0	-0.1	0.4	n/a	-0.1	-1.2	-0.1	0.4	n/a	0.3	0.7	-0.4	n/a	0.4	0.1
2010/2011 to 2011/2012	n/a	0.7	0.2	-0.6	0.3	n/a	0.5	0.4	-0.1	0.7	n/a	0.0	0.0	-2.9	n/a	-1.1	0.1
2011/2012 to 2012/2013	n/a	0.0	-0.2	-0.3	-1.3	n/a	0.9	-0.5	-0.2	-1.1	n/a	-0.2	-0.1	-0.1	n/a	1.1	-0.2

continued



**Table for Figure 42: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments to Chiropractors for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR <sup>a</sup>	CA	FL <sup>b</sup>	IA <sup>b</sup>	IL	IN <sup>a</sup>	LA <sup>b</sup>	MA	MI <sup>b</sup>	MN	NC <sup>a</sup>	NJ <sup>b</sup>	PA	TX	VA <sup>a</sup>	WI	12-State Median <sup>c</sup>
<b>Percentage of medical payments made to chiropractors</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	n/a	0.1	0.0	-0.1	0.1	n/a	-0.1	-0.2	-0.1	-0.2	n/a	0.0	0.2	-1.0	n/a	-0.2	-0.1
2009/2010	n/a	0.3	-0.1	-0.1	0.4	n/a	0.2	-0.3	0.0	-0.1	n/a	0.0	0.1	-0.9	n/a	-0.3	0.0
2010/2011	n/a	0.7	-0.1	-0.1	0.5	n/a	0.4	-0.5	0.0	-0.3	n/a	0.1	0.3	-0.9	n/a	-0.3	0.0
2011/2012	n/a	0.5	0.0	-0.1	0.6	n/a	0.5	-0.5	-0.1	-0.2	n/a	0.0	0.2	-1.7	n/a	-0.4	-0.1
2012/2013	n/a	0.4	0.0	-0.1	0.2	n/a	0.5	-0.5	-0.1	-0.2	n/a	0.0	0.3	-2.2	n/a	-0.1	-0.1
Annual percentage point change:																	
2007/2008 to 2008/2009	n/a	0.1	0.0	-0.1	0.1	n/a	-0.1	-0.2	-0.1	-0.2	n/a	0.0	0.2	-1.0	n/a	-0.2	-0.1
2008/2009 to 2009/2010	n/a	0.2	0.0	0.0	0.3	n/a	0.2	-0.1	0.1	0.1	n/a	0.0	-0.1	0.1	n/a	-0.1	0.0
2009/2010 to 2010/2011	n/a	0.4	0.0	0.0	0.1	n/a	0.2	-0.1	0.0	-0.2	n/a	0.1	0.2	0.1	n/a	0.0	0.1
2010/2011 to 2011/2012	n/a	-0.1	0.0	-0.1	0.0	n/a	0.2	0.0	-0.1	0.1	n/a	0.0	-0.1	-0.8	n/a	-0.1	-0.1
2011/2012 to 2012/2013	n/a	-0.1	0.0	0.0	-0.4	n/a	-0.1	-0.1	0.0	0.0	n/a	0.0	0.1	-0.5	n/a	0.3	0.0

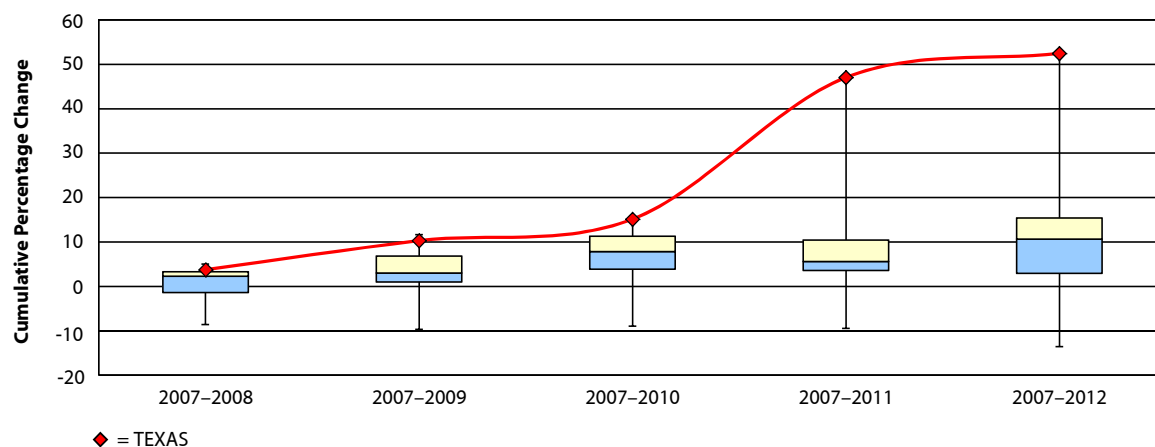
Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures are too small to support a trend analysis.

<sup>b</sup> The data in Florida, Iowa, Louisiana, Michigan, and New Jersey contain relatively few claims (less than 200) with chiropractic treatment, and the numbers may fluctuate from year to year. Therefore, the data should be used with caution.

<sup>c</sup> The 12-state median is the average of the states ranked 6th and 7th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 43 Trend of Chiropractor Prices****Table for Figure 43: Trend of Chiropractor Prices**

	AR <sup>a</sup>	CA	FL <sup>b</sup>	IA <sup>b</sup>	IL	IN <sup>a</sup>	LA <sup>b</sup>	MA	MI <sup>b</sup>	MN	NC <sup>a</sup>	NJ <sup>b</sup>	PA	TX	VA <sup>a</sup>	WI	12-State Median <sup>c</sup>
Cumulative percentage change from 2007 to:																	
2008	n/a	1.6	-8.6	3.4	3.3	n/a	5.0	0.4	3.0	1.5	n/a	-3.2	3.1	3.7	n/a	-3.7	2.3
2009	n/a	1.4	-9.7	8.7	11.6	n/a	3.5	2.4	0.7	4.9	n/a	2.5	3.9	10.3	n/a	0.0	3.0
2010	n/a	5.8	-9.0	12.6	13.3	n/a	8.3	7.8	3.8	7.8	n/a	10.1	3.9	15.1	n/a	1.3	7.8
2011	n/a	4.4	-9.5	16.9	3.2	n/a	9.9	3.9	-1.9	9.2	n/a	11.0	6.8	47.0	n/a	4.5	5.6
2012	n/a	3.4	-7.6	15.9	-13.5	n/a	10.9	5.6	2.5	11.4	n/a	14.9	10.4	52.4	n/a	18.8	10.7
Annual percentage change:																	
2007 to 2008	n/a	1.6	-8.6	3.4	3.3	n/a	5.0	0.4	3.0	1.5	n/a	-3.2	3.1	3.7	n/a	-3.7	2.3
2008 to 2009	n/a	-0.2	-1.2	5.2	8.1	n/a	-1.5	2.0	-2.3	3.4	n/a	5.9	0.8	6.3	n/a	3.8	2.7
2009 to 2010	n/a	4.3	0.8	3.6	1.5	n/a	4.6	5.2	3.1	2.7	n/a	7.4	0.0	4.4	n/a	1.3	3.4
2010 to 2011	n/a	-1.3	-0.5	3.8	-8.9	n/a	1.5	-3.6	-5.5	1.3	n/a	0.9	2.7	27.7	n/a	3.1	1.1
2011 to 2012	n/a	-1.0	2.1	-0.8	-16.2	n/a	1.0	1.6	4.6	2.0	n/a	3.4	3.4	3.7	n/a	13.7	2.1

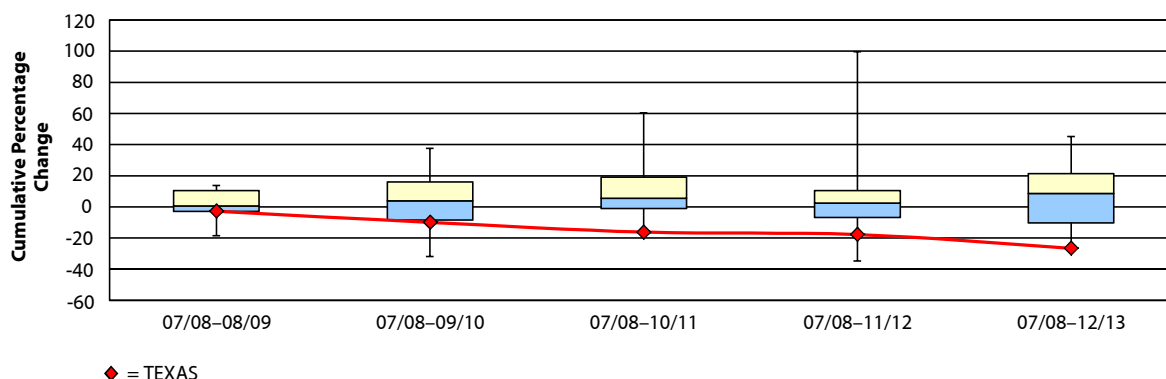
Notes: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures are too small to support a trend analysis.

<sup>b</sup> The data in Florida, Iowa, Louisiana, Michigan, and New Jersey contain relatively few claims (less than 200) with chiropractic treatment, and the numbers may fluctuate from year to year. Therefore, the data should be used with caution.

<sup>c</sup> The 12-state median is the average of the states ranked 6th and 7th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 44 Trend of Chiropractor Utilization for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 44: Trend of Chiropractor Utilization for Claims with More Than 7 Days of Lost Time (12 months)**

	AR <sup>a</sup>	CA	FL <sup>b</sup>	IA <sup>b</sup>	IL	IN <sup>a</sup>	LA <sup>b</sup>	MA	MI <sup>b</sup>	MN	NC <sup>a</sup>	NJ <sup>b</sup>	PA	TX	VA <sup>a</sup>	WI	12-State Median <sup>c</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	n/a	2.3	13.1	-18.5	7.1	n/a	8.7	-1.0	-12.0	-1.7	n/a	12.1	13.7	-2.7	n/a	-3.2	0.6
2009/2010	n/a	5.8	2.1	-32.0	23.1	n/a	37.5	-6.0	7.0	20.2	n/a	-9.8	11.7	-10.0	n/a	-7.2	4.0
2010/2011	n/a	6.9	4.4	-15.9	24.3	n/a	60.3	0.8	2.1	7.3	n/a	26.8	13.8	-16.2	n/a	-3.0	5.6
2011/2012	n/a	2.0	10.9	-34.7	23.5	n/a	99.7	-4.7	-4.0	2.7	n/a	9.8	8.4	-17.8	n/a	-9.0	2.4
2012/2013	n/a	-5.8	32.1	-14.9	25.6	n/a	45.1	-3.8	-17.3	12.1	n/a	17.1	16.5	-26.6	n/a	5.1	8.6
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	2.3	13.1	-18.5	7.1	n/a	8.7	-1.0	-12.0	-1.7	n/a	12.1	13.7	-2.7	n/a	-3.2	0.6
2008/2009 to 2009/2010	n/a	3.4	-9.7	-16.5	15.0	n/a	26.5	-5.0	21.6	22.2	n/a	-19.6	-1.8	-7.4	n/a	-4.2	-3.0
2009/2010 to 2010/2011	n/a	1.0	2.2	23.6	1.0	n/a	16.6	7.2	-4.6	-10.7	n/a	40.6	1.9	-7.0	n/a	4.5	2.0
2010/2011 to 2011/2012	n/a	-4.6	6.3	-22.4	-0.7	n/a	24.6	-5.5	-6.0	-4.2	n/a	-13.4	-4.7	-1.8	n/a	-6.1	-4.6
2011/2012 to 2012/2013	n/a	-7.6	19.1	30.4	1.7	n/a	-27.3	0.9	-13.9	9.1	n/a	6.6	7.4	-10.7	n/a	15.4	4.1

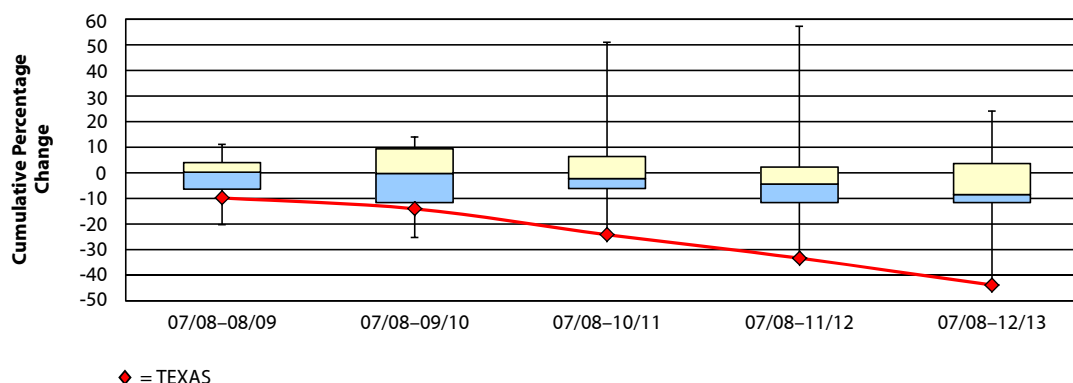
Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

<sup>a</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures are too small to support a trend analysis.

<sup>b</sup> The data in Florida, Iowa, Louisiana, Michigan, and New Jersey contain relatively few claims (less than 200) with chiropractic treatment, and the numbers may fluctuate from year to year. Therefore, the data should be used with caution.

<sup>c</sup> The 12-state median is the average of the states ranked 6th and 7th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 45 Trend of Visits per Claim to Chiropractors for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 45: Trend of Visits per Claim to Chiropractors for Claims with More Than 7 Days of Lost Time (12 months)**

	AR <sup>a</sup>	CA	FL <sup>b</sup>	IA <sup>b</sup>	IL	IN <sup>a</sup>	LA <sup>b</sup>	MA	MI <sup>b</sup>	MN	NC <sup>a</sup>	NJ <sup>b</sup>	PA	TX	VA <sup>a</sup>	WI	12-State Median <sup>c</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	n/a	3.5	7.9	-13.2	4.5	n/a	3.1	-3.1	-20.2	1.5	n/a	-1.2	11.1	-9.8	n/a	-2.1	0.2
2009/2010	n/a	9.1	-6.4	-25.3	9.6	n/a	10.1	-9.3	5.4	14.0	n/a	-20.5	5.6	-14.1	n/a	-5.8	-0.2
2010/2011	n/a	6.7	-18.3	-6.4	6.1	n/a	51.0	-5.8	-2.9	3.4	n/a	-6.0	7.8	-24.2	n/a	-1.6	-2.3
2011/2012	n/a	1.1	-4.1	-30.5	6.2	n/a	57.3	-5.8	-14.4	-3.8	n/a	-4.6	3.3	-33.4	n/a	-9.0	-4.4
2012/2013	n/a	-8.9	5.4	-13.5	1.0	n/a	24.1	-9.8	-17.5	1.8	n/a	-8.2	10.4	-43.9	n/a	-9.6	-8.6
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	3.5	7.9	-13.2	4.5	n/a	3.1	-3.1	-20.2	1.5	n/a	-1.2	11.1	-9.8	n/a	-2.1	0.2
2008/2009 to 2009/2010	n/a	5.4	-13.2	-14.0	4.8	n/a	6.8	-6.4	32.2	12.3	n/a	-19.6	-4.9	-4.7	n/a	-3.8	-4.3
2009/2010 to 2010/2011	n/a	-2.2	-12.7	25.4	-3.2	n/a	37.2	3.8	-7.9	-9.3	n/a	18.2	2.1	-11.8	n/a	4.5	0.0
2010/2011 to 2011/2012	n/a	-5.2	17.3	-25.8	0.1	n/a	4.2	0.0	-11.8	-6.9	n/a	1.5	-4.2	-12.1	n/a	-7.6	-4.7
2011/2012 to 2012/2013	n/a	-9.9	9.9	24.5	-4.9	n/a	-21.1	-4.3	-3.6	5.8	n/a	-3.7	6.9	-15.8	n/a	-0.6	-3.7

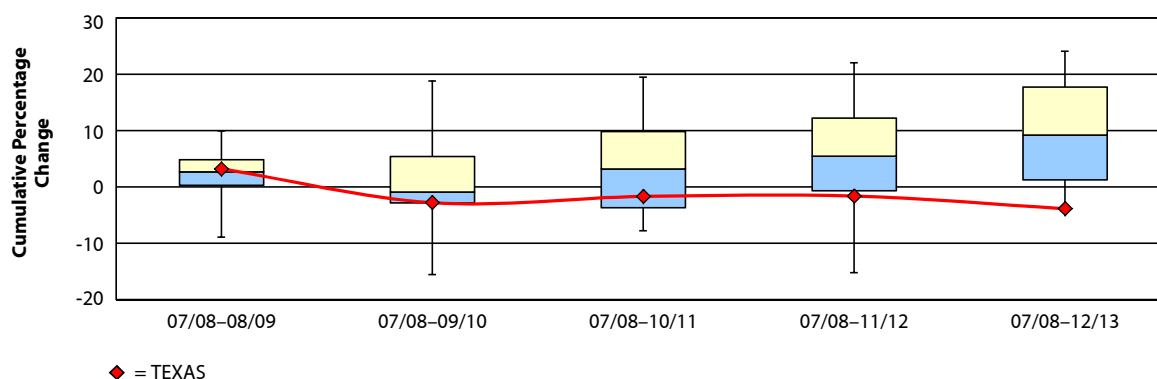
Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures are too small to support a trend analysis.

<sup>b</sup> The data in Florida, Iowa, Louisiana, Michigan, and New Jersey contain relatively few claims (less than 200) with chiropractic treatment, and the numbers may fluctuate from year to year. Therefore, the data should be used with caution.

<sup>c</sup> The 12-state median is the average of the states ranked 6th and 7th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 46 Trend of Services per Visit to Chiropractors for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 46: Trend of Services per Visit to Chiropractors for Claims with More Than 7 Days of Lost Time (12 months)**

	AR <sup>a</sup>	CA	FL <sup>b</sup>	IA <sup>b</sup>	IL	IN <sup>a</sup>	LA <sup>b</sup>	MA	MI <sup>b</sup>	MN	NC <sup>a</sup>	NJ <sup>b</sup>	PA	TX	VA <sup>a</sup>	WI	12-State Median <sup>c</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	n/a	2.1	6.0	-8.9	9.9	n/a	5.7	1.1	-0.8	-0.5	n/a	3.4	1.5	3.2	n/a	4.0	2.7
2009/2010	n/a	3.2	-2.7	-15.6	18.8	n/a	12.5	-2.9	-1.0	7.6	n/a	-3.2	2.5	-2.8	n/a	-0.8	-0.9
2010/2011	n/a	6.5	10.2	-7.8	15.0	n/a	19.5	-3.5	-6.6	2.6	n/a	9.4	3.8	-1.7	n/a	-3.9	3.2
2011/2012	n/a	6.8	11.2	-15.3	13.3	n/a	22.1	-5.5	7.3	4.1	n/a	15.5	3.0	-1.6	n/a	0.3	5.4
2012/2013	n/a	12.5	15.7	-0.3	24.1	n/a	23.3	-2.1	5.9	5.9	n/a	19.8	2.8	-3.9	n/a	14.0	9.2
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	2.1	6.0	-8.9	9.9	n/a	5.7	1.1	-0.8	-0.5	n/a	3.4	1.5	3.2	n/a	4.0	2.7
2008/2009 to 2009/2010	n/a	1.1	-8.2	-7.3	8.1	n/a	6.4	-4.0	-0.2	8.2	n/a	-6.3	1.0	-5.8	n/a	-4.6	-2.1
2009/2010 to 2010/2011	n/a	3.2	13.3	9.2	-3.2	n/a	6.2	-0.5	-5.7	-4.6	n/a	12.9	1.3	1.1	n/a	-3.2	1.2
2010/2011 to 2011/2012	n/a	0.3	0.9	-8.1	-1.5	n/a	2.2	-2.1	15.0	1.4	n/a	5.6	-0.7	0.1	n/a	4.4	0.6
2011/2012 to 2012/2013	n/a	5.3	4.1	17.6	9.5	n/a	1.0	3.5	-1.4	1.7	n/a	3.8	-0.2	-2.3	n/a	13.6	3.6

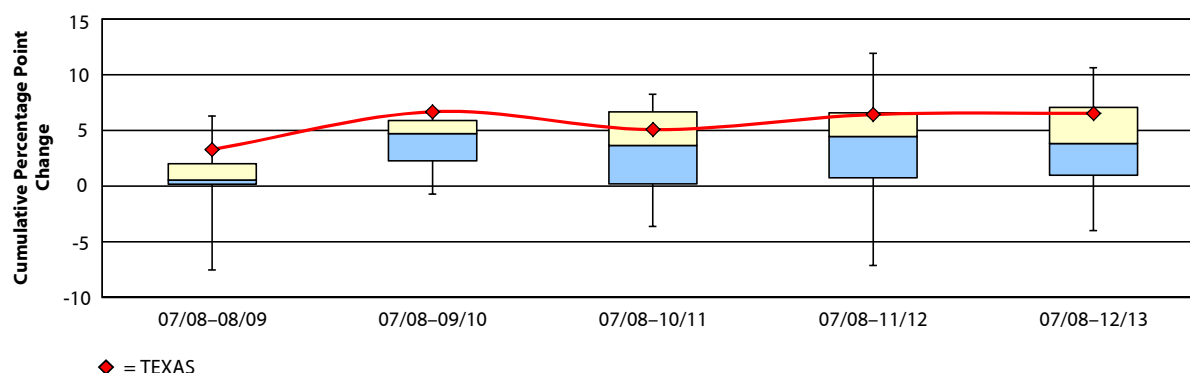
Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

<sup>a</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures are too small to support a trend analysis.

<sup>b</sup> The data in Florida, Iowa, Louisiana, Michigan, and New Jersey contain relatively few claims (less than 200) with chiropractic treatment, and the numbers may fluctuate from year to year. Therefore, the data should be used with caution.

<sup>c</sup> The 12-state median is the average of the states ranked 6th and 7th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 47 Trend of Resource Intensity<sup>a</sup> for Chiropractors for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 47: Trend of Resource Intensity<sup>a</sup> for Chiropractors for Claims with More Than 7 Days of Lost Time (12 months)**

	AR <sup>a</sup>	CA	FL <sup>b</sup>	IA <sup>b</sup>	IL	IN <sup>a</sup>	LA <sup>b</sup>	MA	MI <sup>b</sup>	MN	NC <sup>a</sup>	NJ <sup>b</sup>	PA	TX	VA <sup>a</sup>	WI
Cumulative percentage point change from 2007/2008 to:																
2008/2009	n/a	2.7	0.3	6.3	1.3	n/a	-0.8	0.2	0.5	0.6	n/a	-7.5	1.1	3.3	n/a	0.1
2009/2010	n/a	4.4	6.0	5.9	3.1	n/a	5.9	5.0	2.7	-0.7	n/a	5.7	-0.7	6.7	n/a	1.9
2010/2011	n/a	5.9	2.8	2.3	7.4	n/a	-1.0	8.2	7.6	-0.1	n/a	-3.6	0.4	5.1	n/a	4.5
2011/2012	n/a	6.1	2.8	6.7	8.3	n/a	11.9	5.7	1.1	0.4	n/a	-7.1	0.4	6.4	n/a	3.2
2012/2013	n/a	2.8	6.0	4.9	10.6	n/a	8.1	7.6	2.5	0.4	n/a	-4.0	-0.4	6.5	n/a	1.6
Annual percentage point change:																
2007/2008 to 2008/2009	n/a	2.7	0.3	6.3	1.3	n/a	-0.8	0.2	0.5	0.6	n/a	-7.5	1.1	3.3	n/a	0.1
2008/2009 to 2009/2010	n/a	1.6	5.1	0.9	1.5	n/a	6.3	4.9	2.4	-1.5	n/a	9.8	-1.6	3.9	n/a	1.8
2009/2010 to 2010/2011	n/a	1.5	-3.4	-8.0	3.5	n/a	-6.0	3.2	4.8	0.5	n/a	-13.7	1.0	-1.4	n/a	2.8
2010/2011 to 2011/2012	n/a	0.4	-0.2	6.0	0.8	n/a	8.2	-2.2	-6.4	0.4	n/a	-3.1	-0.1	1.8	n/a	-1.1
2011/2012 to 2012/2013	n/a	-3.0	2.5	-6.6	1.9	n/a	-0.3	2.1	1.6	-0.1	n/a	3.1	-0.8	1.0	n/a	-2.4

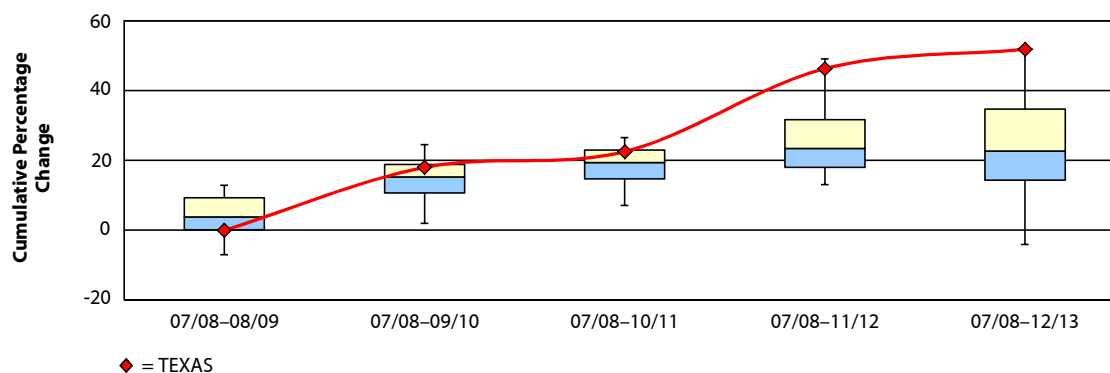
Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures are too small to support a trend analysis.

<sup>c</sup> The data in Florida, Iowa, Louisiana, Michigan, and New Jersey contain relatively few claims (less than 200) with chiropractic treatment, and the numbers may fluctuate from year to year. Therefore, the data should be used with caution.

Key: n/a: not available.

**Figure 48 Trend of Average Payment per Claim to PT/OTs for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 48: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments to PT/OTs for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	2.8	4.7	-0.3	9.8	0.9	8.8	11.3	5.7	-7.1	2.2	10.0	0.4	5.4	-0.1	-4.3	12.9	3.8
2009/2010	24.2	9.2	5.4	15.5	24.5	11.9	16.6	16.2	1.9	12.1	19.6	9.3	12.8	18.0	15.0	19.9	15.2
2010/2011	18.9	17.0	13.7	20.8	26.5	24.3	9.7	16.7	7.0	10.6	26.3	21.2	19.7	22.5	23.3	15.6	19.3
2011/2012	24.2	21.0	15.2	49.1	16.4	36.9	26.6	19.6	16.3	13.1	22.6	29.6	22.0	46.3	33.7	28.6	23.4
2012/2013	22.8	16.4	14.6	35.1	-4.1	37.6	14.1	22.5	11.8	13.3	24.5	34.2	22.5	51.9	32.1	39.1	22.6
Annual percentage change:																	
2007/2008 to 2008/2009	2.8	4.7	-0.3	9.8	0.9	8.8	11.3	5.7	-7.1	2.2	10.0	0.4	5.4	-0.1	-4.3	12.9	3.8
2008/2009 to 2009/2010	20.8	4.2	5.7	5.1	23.4	2.9	4.7	9.9	9.7	9.8	8.7	8.9	7.0	18.1	20.1	6.2	8.8
2009/2010 to 2010/2011	-4.2	7.1	7.8	4.7	1.6	11.1	-6.0	0.5	5.0	-1.4	5.6	10.9	6.1	3.9	7.2	-3.6	4.8
2010/2011 to 2011/2012	4.4	3.4	1.3	23.4	-7.9	10.1	15.4	2.4	8.6	2.3	-2.9	6.9	1.9	19.4	8.4	11.3	5.7
2011/2012 to 2012/2013	-1.2	-3.8	-0.5	-9.4	-17.7	0.5	-9.9	2.4	-3.8	0.2	1.6	3.6	0.4	3.8	-1.2	8.1	-0.2
<b>Percentage of claims with PT/OT involvement</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	2.4	0.9	3.5	-0.7	4.3	2.3	2.3	-0.7	3.6	1.5	7.0	3.8	0.9	-0.4	3.0	3.4	2.4
2009/2010	2.1	-0.7	5.3	0.4	5.3	4.5	6.4	4.5	4.1	5.3	9.9	5.7	3.5	0.8	3.4	3.0	4.3
2010/2011	4.2	4.2	6.1	5.3	8.8	6.4	7.5	2.8	6.2	7.4	13.8	7.2	5.7	2.2	4.4	5.7	5.9
2011/2012	3.8	7.4	5.8	6.7	8.8	8.1	7.2	3.8	7.6	6.3	14.5	6.3	6.6	1.6	5.0	6.9	6.6
2012/2013	2.8	6.4	6.5	6.7	9.5	8.8	5.8	3.4	8.5	5.8	12.4	5.6	5.3	2.0	5.6	6.2	6.0
Annual percentage point change:																	
2007/2008 to 2008/2009	2.4	0.9	3.5	-0.7	4.3	2.3	2.3	-0.7	3.6	1.5	7.0	3.8	0.9	-0.4	3.0	3.4	2.4
2008/2009 to 2009/2010	-0.3	-1.7	1.8	1.0	1.1	2.2	4.0	5.2	0.4	3.8	2.9	1.9	2.6	1.2	0.5	-0.4	1.5
2009/2010 to 2010/2011	2.1	5.0	0.8	5.0	3.4	1.9	1.1	-1.7	2.2	2.1	3.9	1.5	2.2	1.4	0.9	2.7	2.1
2010/2011 to 2011/2012	-0.4	3.1	-0.3	1.3	0.0	1.7	-0.3	1.0	1.3	-1.1	0.7	-0.9	0.9	-0.7	0.6	1.1	0.6
2011/2012 to 2012/2013	-0.9	-1.0	0.7	0.0	0.7	0.7	-1.4	-0.4	1.0	-0.5	-2.1	-0.7	-1.3	0.4	0.7	-0.7	-0.4

continued



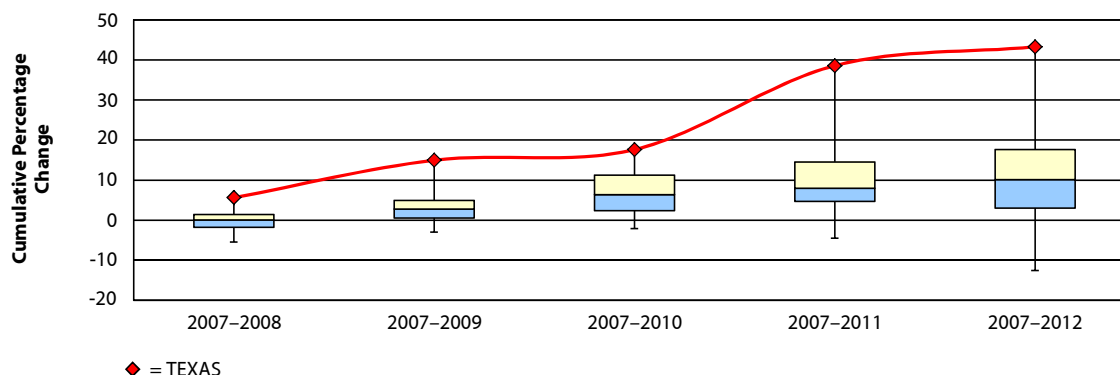
**Table for Figure 48: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments to PT/OTs for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made to PT/OTs</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-0.3	-0.1	-0.2	0.0	0.5	-0.1	-1.4	0.0	-0.1	0.0	0.8	0.8	0.5	-0.8	0.1	0.7	0.0
2009/2010	0.4	-0.5	0.8	-0.1	2.1	0.3	-0.5	1.0	0.5	0.7	1.7	1.3	1.0	0.7	1.2	0.4	0.7
2010/2011	-0.5	0.7	1.5	0.8	2.8	1.4	0.2	0.4	2.0	0.8	3.0	1.7	2.0	1.6	0.8	0.3	1.1
2011/2012	0.6	1.0	0.9	1.5	2.3	1.7	-0.1	1.0	2.4	0.9	3.0	1.6	2.3	2.5	2.5	1.1	1.5
2012/2013	0.0	0.6	0.6	1.3	2.7	1.5	-1.1	1.0	2.7	0.8	2.8	1.4	1.0	2.9	2.0	1.3	1.3
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.3	-0.1	-0.2	0.0	0.5	-0.1	-1.4	0.0	-0.1	0.0	0.8	0.8	0.5	-0.8	0.1	0.7	0.0
2008/2009 to 2009/2010	0.7	-0.4	1.0	0.0	1.6	0.4	0.9	1.0	0.6	0.7	0.8	0.5	0.5	1.5	1.1	-0.3	0.7
2009/2010 to 2010/2011	-0.9	1.2	0.7	0.8	0.7	1.1	0.7	-0.6	1.4	0.1	1.4	0.4	0.9	0.9	-0.4	0.0	0.7
2010/2011 to 2011/2012	1.1	0.2	-0.6	0.7	-0.5	0.3	-0.3	0.5	0.4	0.0	0.0	-0.1	0.3	0.9	1.6	0.8	0.3
2011/2012 to 2012/2013	-0.7	-0.3	-0.3	-0.2	0.4	-0.2	-1.0	0.0	0.3	-0.1	-0.2	-0.2	-1.3	0.4	-0.5	0.1	-0.2

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: PT/OT: physical/occupational therapist.

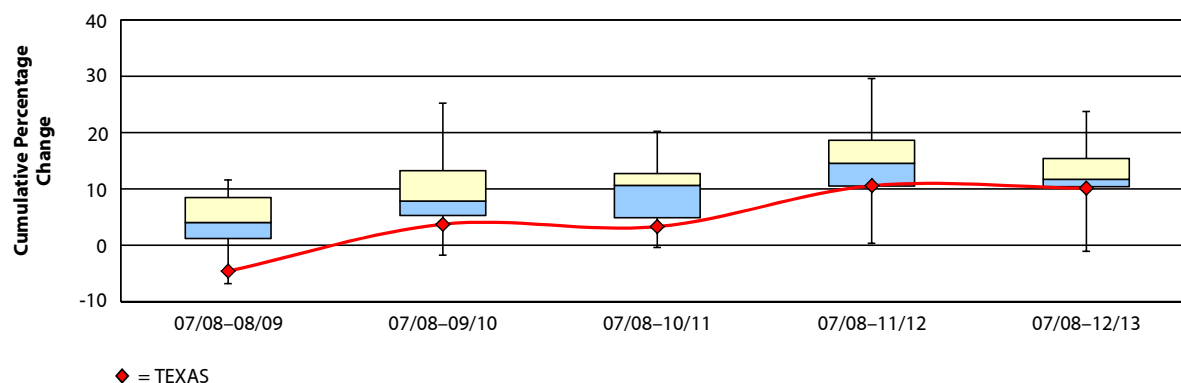
**Figure 49 Trend of PT/OT Prices****Table for Figure 49: Trend of PT/OT Prices**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	-1.0	0.4	-5.4	1.3	-0.4	-2.6	1.5	-0.6	0.9	1.5	-0.5	-5.2	0.6	5.6	-4.6	3.0	0.0
2009	1.6	0.3	-3.0	0.5	11.0	4.2	3.5	5.0	2.1	4.9	0.5	-0.7	3.6	15.0	2.1	6.7	2.8
2010	6.1	0.7	-2.1	6.7	16.0	11.4	1.4	11.0	5.2	4.8	0.8	7.2	3.4	17.6	7.2	14.1	6.4
2011	14.0	-0.5	-4.5	18.9	6.3	12.6	4.7	9.7	5.7	5.2	0.9	15.0	4.7	38.6	14.0	20.3	8.0
2012	14.7	-1.2	-3.9	14.8	-12.6	18.4	6.4	11.3	5.3	7.5	0.7	20.3	8.9	43.3	16.8	26.1	10.1
Annual percentage change:																	
2007 to 2008	-1.0	0.4	-5.4	1.3	-0.4	-2.6	1.5	-0.6	0.9	1.5	-0.5	-5.2	0.6	5.6	-4.6	3.0	0.0
2008 to 2009	2.6	-0.1	2.6	-0.7	11.4	7.0	1.9	5.7	1.1	3.3	1.0	4.7	3.0	8.9	6.9	3.6	3.1
2009 to 2010	4.4	0.4	0.9	6.2	4.5	6.9	-2.0	5.7	3.1	-0.1	0.3	8.0	-0.2	2.3	5.0	7.0	3.7
2010 to 2011	7.5	-1.2	-2.4	11.4	-8.4	1.1	3.3	-1.2	0.5	0.4	0.1	7.3	1.2	17.8	6.4	5.4	1.2
2011 to 2012	0.6	-0.7	0.6	-3.5	-17.7	5.1	1.6	1.5	-0.4	2.2	-0.2	4.6	4.0	3.4	2.5	4.9	1.6

Notes: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: PT/OT: physical/occupational therapist.

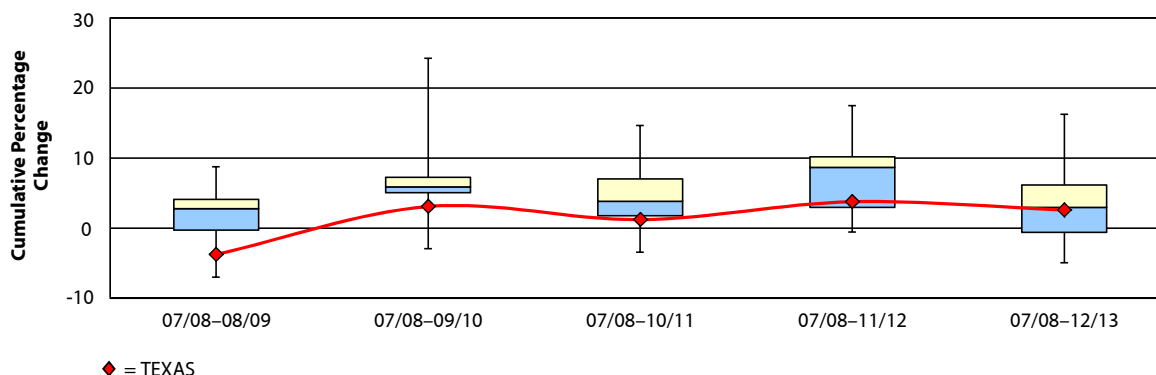
**Figure 50 Trend of PT/OT Utilization for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 50: Trend of PT/OT Utilization for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	7.0	4.0	2.5	11.6	0.8	10.4	10.5	4.5	-6.8	1.6	6.6	2.7	4.0	-4.6	-1.7	9.9	4.0
2009/2010	25.2	5.4	8.1	15.9	10.5	6.6	12.6	7.5	-1.8	1.7	13.9	6.4	5.2	3.7	11.3	15.4	7.8
2010/2011	10.3	12.0	20.3	13.4	10.9	10.4	9.8	6.4	0.3	-0.4	19.9	11.3	11.0	3.3	15.2	0.4	10.6
2011/2012	14.4	15.9	24.1	29.6	14.7	18.7	21.2	10.9	11.0	0.3	18.5	10.5	9.9	10.6	18.4	8.1	14.6
2012/2013	11.5	11.9	23.7	21.4	12.4	16.7	10.7	14.1	6.7	-1.1	20.4	11.1	8.8	10.1	13.5	10.8	11.7
Annual percentage change:																	
2007/2008 to 2008/2009	7.0	4.0	2.5	11.6	0.8	10.4	10.5	4.5	-6.8	1.6	6.6	2.7	4.0	-4.6	-1.7	9.9	4.0
2008/2009 to 2009/2010	17.0	1.3	5.5	3.8	9.7	-3.4	1.9	2.9	5.4	0.1	6.8	3.7	1.2	8.7	13.2	5.0	4.4
2009/2010 to 2010/2011	-11.9	6.3	11.2	-2.1	0.3	3.6	-2.5	-1.0	2.1	-2.1	5.3	4.5	5.5	-0.4	3.5	-13.0	1.2
2010/2011 to 2011/2012	3.8	3.5	3.2	14.3	3.4	7.5	10.3	4.2	10.7	0.8	-1.1	-0.7	-0.9	7.0	2.8	7.7	3.6
2011/2012 to 2012/2013	-2.6	-3.4	-0.3	-6.3	-2.0	-1.7	-8.6	3.0	-3.9	-1.4	1.6	0.5	-1.1	-0.4	-4.1	2.5	-1.6

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: PT/OT: physical/occupational therapist.

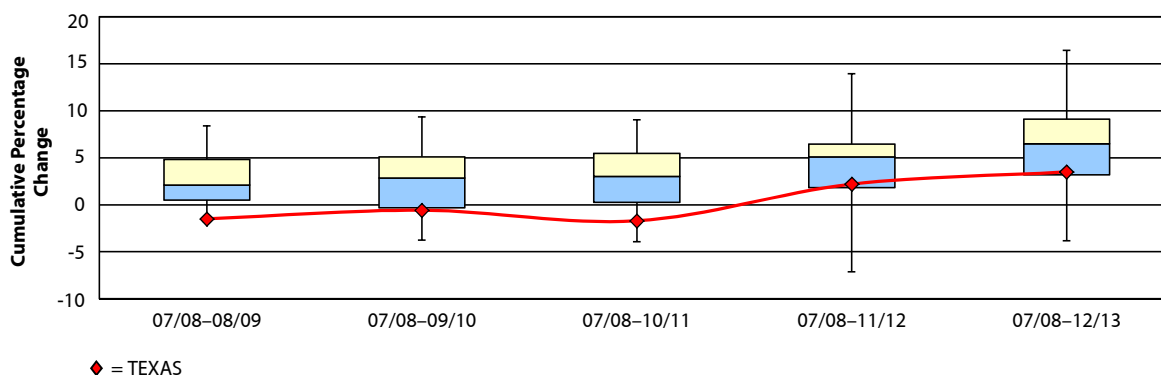
**Figure 51 Trend of Visits per Claim to PT/OTs for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 51: Trend of Visits per Claim to PT/OTs for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	4.5	2.8	0.7	7.8	0.9	3.2	8.8	2.8	-6.3	-1.3	5.3	2.8	2.2	-3.7	-7.0	3.7	2.8
2009/2010	24.2	5.0	7.6	5.2	5.9	-0.7	12.4	5.7	-2.9	6.9	10.2	6.9	5.9	3.1	6.7	5.8	5.9
2010/2011	2.0	5.8	11.5	1.7	2.8	3.7	5.1	4.6	-2.9	1.8	14.7	8.2	9.0	1.2	4.0	-3.4	3.8
2011/2012	9.2	8.9	16.9	9.1	0.8	7.6	17.5	10.9	2.1	-0.5	12.5	9.5	8.0	3.8	8.5	-0.6	8.7
2012/2013	3.3	4.5	16.3	1.5	-4.9	1.1	6.4	11.1	-3.4	-2.3	11.8	5.9	2.6	2.6	5.8	-3.9	3.0
Annual percentage change:																	
2007/2008 to 2008/2009	4.5	2.8	0.7	7.8	0.9	3.2	8.8	2.8	-6.3	-1.3	5.3	2.8	2.2	-3.7	-7.0	3.7	2.8
2008/2009 to 2009/2010	18.9	2.1	6.8	-2.4	4.9	-3.7	3.4	2.8	3.6	8.3	4.7	3.9	3.7	7.1	14.7	2.0	3.8
2009/2010 to 2010/2011	-17.9	0.8	3.6	-3.3	-2.9	4.4	-6.5	-1.0	0.0	-4.8	4.0	1.3	2.9	-1.8	-2.5	-8.7	-1.4
2010/2011 to 2011/2012	7.1	2.9	4.8	7.3	-2.0	3.8	11.8	6.0	5.2	-2.3	-1.9	1.1	-0.9	2.5	4.3	3.0	3.4
2011/2012 to 2012/2013	-5.3	-4.0	-0.5	-7.0	-5.7	-6.1	-9.4	0.2	-5.4	-1.8	-0.6	-3.2	-5.0	-1.1	-2.5	-3.4	-3.7

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: PT/OT: physical/occupational therapist.

**Figure 52 Trend of Services per Visit to PT/OTs for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 52: Trend of Services per Visit to PT/OTs for Claims with More Than 7 Days of Lost Time (12 months)**

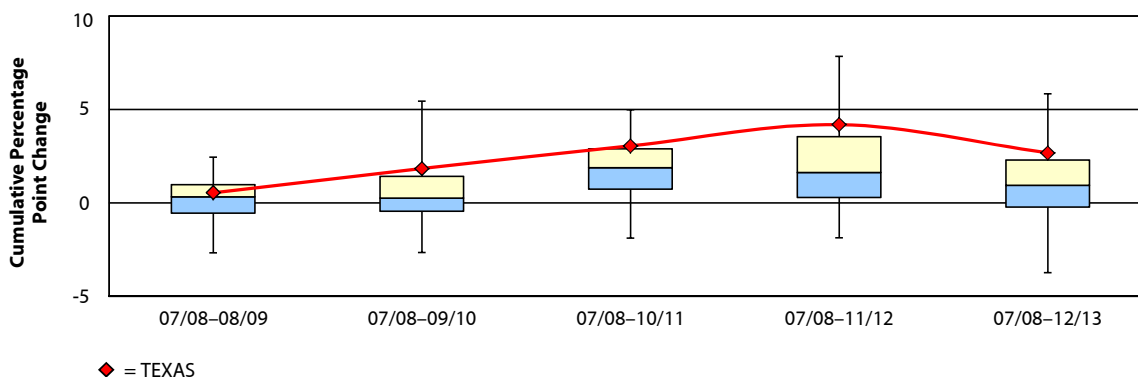
	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
Cumulative percentage change from 2007/2008 to:																	
2008/2009	7.2	2.1	2.9	1.5	3.7	8.4	-1.9	-0.9	-0.2	1.7	1.2	2.5	2.0	-1.5	5.9	8.1	2.1
2009/2010	2.9	2.8	4.1	5.2	5.0	6.4	-0.1	-3.8	-3.0	0.6	2.8	-0.7	3.4	-0.6	7.5	9.3	2.8
2010/2011	3.1	6.2	6.4	6.9	3.6	4.6	2.5	-3.9	-2.6	0.8	2.9	-0.3	4.7	-1.7	9.1	2.4	3.0
2011/2012	3.5	7.2	7.0	13.9	5.4	6.5	4.2	-7.1	1.5	-1.7	4.8	-0.6	5.4	2.2	6.2	6.4	5.1
2012/2013	6.4	10.1	6.1	16.4	8.1	10.7	6.4	-1.9	2.9	-3.8	6.5	1.6	7.0	3.5	7.2	10.5	6.5
Annual percentage change:																	
2007/2008 to 2008/2009	7.2	2.1	2.9	1.5	3.7	8.4	-1.9	-0.9	-0.2	1.7	1.2	2.5	2.0	-1.5	5.9	8.1	2.1
2008/2009 to 2009/2010	-4.0	0.6	1.1	3.6	1.3	-1.8	1.8	-2.9	-2.8	-1.0	1.6	-3.1	1.3	0.9	1.5	1.2	1.0
2009/2010 to 2010/2011	0.2	3.4	2.2	1.7	-1.4	-1.7	2.6	-0.2	0.4	0.2	0.1	0.4	1.3	-1.1	1.5	-6.4	0.3
2010/2011 to 2011/2012	0.4	0.9	0.6	6.5	1.8	1.9	1.7	-3.3	4.2	-2.5	1.9	-0.3	0.7	4.0	-2.6	3.9	1.3
2011/2012 to 2012/2013	2.8	2.7	-0.8	2.2	2.5	3.9	2.1	5.7	1.4	-2.2	1.7	2.2	1.5	1.3	0.9	3.9	2.1

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years.

<sup>a</sup> In California, a maximum of four individual services per visit are reimbursed. In addition, some procedures are defined in 30-minute increments, rather than the more standard 15 minutes.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: PT/OT: physical/occupational therapist.

**Figure 53 Trend of Resource Intensity<sup>a</sup> for PT/OTs for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 53: Trend of Resource Intensity<sup>a</sup> for PT/OTs for Claims with More Than 7 Days of Lost Time (12 months)**

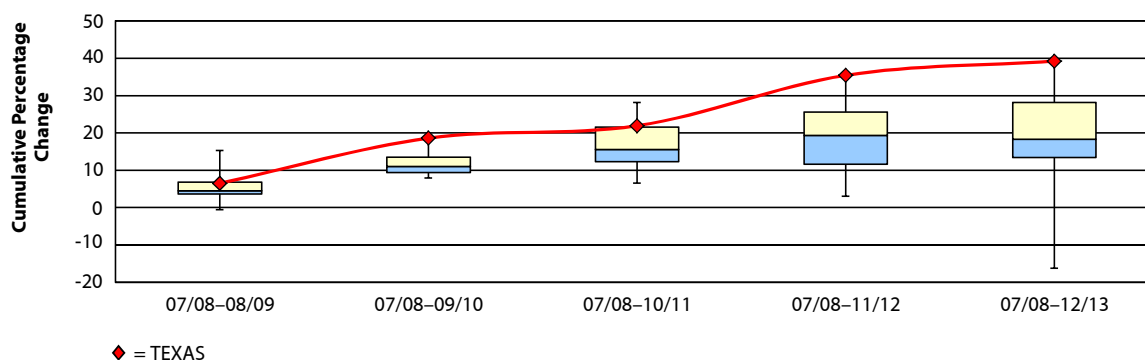
	AR	CA <sup>b</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI
Cumulative percentage point change from 2007/2008 to:																
2008/2009	-2.2	-0.5	0.3	-1.8	-0.6	0.0	0.8	2.5	0.6	-2.7	1.2	0.4	1.4	0.5	1.2	0.0
2009/2010	-2.7	-0.7	-0.1	-0.2	0.5	0.0	-0.6	5.4	2.4	-2.3	2.0	1.0	-0.3	1.8	0.9	0.5
2010/2011	-1.5	2.2	1.0	0.5	4.3	1.1	1.8	5.0	4.8	-1.9	1.1	1.9	-0.6	3.1	2.7	2.1
2011/2012	1.0	3.5	0.4	1.5	4.5	0.1	-1.9	7.9	3.6	-1.4	0.2	1.8	0.3	4.2	2.5	2.0
2012/2013	-3.7	1.1	0.8	0.6	5.8	-0.5	-0.3	5.1	3.1	-0.9	0.5	1.7	-0.2	2.7	1.4	1.9
Annual percentage point change:																
2007/2008 to 2008/2009	-2.2	-0.5	0.3	-1.8	-0.6	0.0	0.8	2.5	0.6	-2.7	1.2	0.4	1.4	0.5	1.2	0.0
2008/2009 to 2009/2010	-0.1	-0.1	-0.4	1.5	1.2	0.1	-1.2	2.9	2.0	0.4	0.7	0.6	-1.7	1.3	-0.4	0.5
2009/2010 to 2010/2011	0.6	2.7	1.0	0.6	3.5	1.0	2.1	-0.4	2.4	0.3	-0.9	0.9	-0.3	1.2	1.6	1.5
2010/2011 to 2011/2012	2.3	1.2	-0.5	0.8	0.0	-0.9	-3.6	2.6	-1.8	0.5	-0.7	-0.1	0.9	0.9	-0.2	-0.3
2011/2012 to 2012/2013	-4.1	-2.1	0.4	-0.6	1.3	-0.5	1.2	-2.9	-0.4	0.5	0.2	-0.1	-0.4	-1.4	-0.9	-0.1

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> In California, a maximum of four individual services per visit are reimbursed. In addition, some procedures are defined in 30-minute increments, rather than the more standard 15 minutes.

Key: PT/OT: physical/occupational therapist.

**Figure 54 Trend of Average Payment per Claim for Evaluation and Management by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 54: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Evaluation and Management by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	15.3	8.0	7.1	3.6	1.7	5.0	12.3	-0.6	4.6	2.0	4.3	4.0	3.7	6.5	4.1	5.3	4.5
2009/2010	14.2	17.3	9.7	8.5	7.9	9.4	12.5	10.2	12.5	8.5	9.5	9.8	11.9	18.6	18.6	12.9	11.0
2010/2011	28.1	21.5	9.5	16.3	12.3	17.0	11.5	15.5	12.3	13.9	6.5	15.7	13.9	21.9	26.2	21.7	15.6
2011/2012	31.1	21.2	9.6	20.8	4.3	22.6	17.9	12.0	11.3	25.9	3.1	17.8	12.6	35.4	29.5	25.3	19.4
2012/2013	29.7	18.7	13.2	19.5	-16.2	26.0	16.3	13.6	5.1	28.1	5.7	17.1	18.0	39.2	28.3	35.6	18.3
Annual percentage change:																	
2007/2008 to 2008/2009	15.3	8.0	7.1	3.6	1.7	5.0	12.3	-0.6	4.6	2.0	4.3	4.0	3.7	6.5	4.1	5.3	4.5
2008/2009 to 2009/2010	-1.0	8.6	2.4	4.8	6.0	4.2	0.2	10.9	7.5	6.3	4.9	5.6	7.9	11.4	13.9	7.2	6.2
2009/2010 to 2010/2011	12.2	3.5	-0.2	7.2	4.1	7.0	-0.9	4.8	-0.2	5.0	-2.7	5.3	1.8	2.8	6.4	7.8	4.5
2010/2011 to 2011/2012	2.3	-0.2	0.1	3.9	-7.1	4.7	5.8	-3.0	-0.9	10.5	-3.3	1.8	-1.1	11.1	2.6	2.9	2.1
2011/2012 to 2012/2013	-1.1	-2.0	3.2	-1.1	-19.7	2.8	-1.4	1.5	-5.6	1.7	2.6	-0.6	4.7	2.8	-0.9	8.2	0.4
<b>Percentage of claims with evaluation and management services</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	0.9	0.2	0.7	0.0	1.3	0.5	0.3	0.3	0.9	0.1	1.3	0.7	0.7	1.2	1.3	0.3	0.7
2009/2010	-0.8	0.5	0.6	-0.6	1.6	0.5	1.3	1.5	-0.3	-0.2	2.7	1.2	1.0	1.8	0.8	0.2	0.7
2010/2011	0.2	0.5	1.2	2.1	1.5	0.2	2.7	1.8	0.1	-0.7	3.0	1.1	1.7	1.6	1.0	0.1	1.2
2011/2012	-0.3	0.6	0.8	3.9	1.4	0.6	4.0	1.9	-0.5	-2.8	3.3	1.2	1.5	1.7	1.8	0.2	1.3
2012/2013	0.1	0.6	1.1	3.5	0.7	0.5	3.6	3.0	-1.7	-5.2	2.5	1.0	1.8	1.9	2.4	-0.2	1.1
Annual percentage point change:																	
2007/2008 to 2008/2009	0.9	0.2	0.7	0.0	1.3	0.5	0.3	0.3	0.9	0.1	1.3	0.7	0.7	1.2	1.3	0.3	0.7
2008/2009 to 2009/2010	-1.7	0.2	-0.1	-0.6	0.3	0.1	1.0	1.2	-1.2	-0.2	1.4	0.5	0.3	0.6	-0.5	-0.1	0.2
2009/2010 to 2010/2011	1.0	0.0	0.7	2.8	-0.1	-0.3	1.4	0.3	0.4	-0.5	0.4	-0.1	0.7	-0.2	0.2	-0.1	0.3
2010/2011 to 2011/2012	-0.5	0.1	-0.5	1.8	-0.1	0.4	1.2	0.0	-0.6	-2.1	0.2	0.1	-0.1	0.1	0.8	0.1	0.1
2011/2012 to 2012/2013	0.4	0.0	0.3	-0.4	-0.7	-0.1	-0.4	1.1	-1.2	-2.5	-0.7	-0.1	0.3	0.2	0.6	-0.5	-0.1

continued

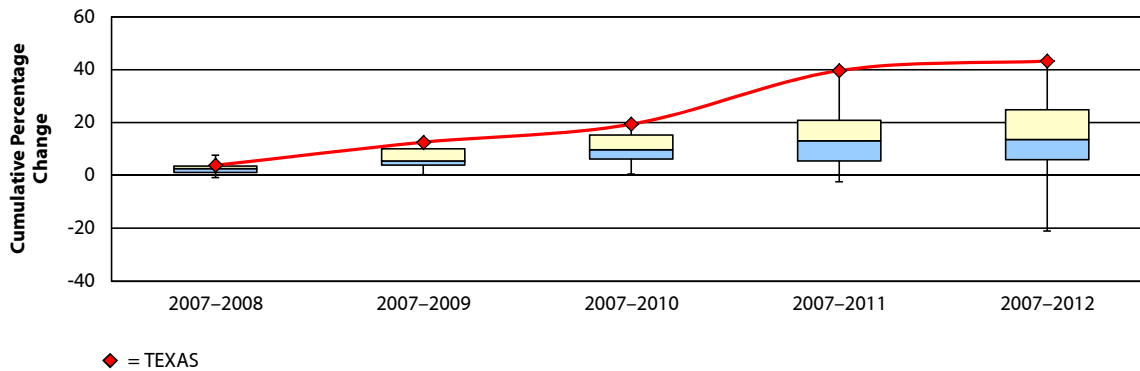


**Table for Figure 54: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Evaluation and Management by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made for evaluation and management services</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	0.0	0.0	-0.1	-0.3	-0.2	-0.4	-0.9	-0.5	0.3	-0.3	-0.1	0.3	0.0	-0.1	0.2	-0.4	-0.1
2009/2010	-0.4	0.5	0.3	-0.4	-0.4	-0.3	-1.0	-0.3	0.4	-0.4	-0.1	0.2	-0.1	0.7	0.4	-0.5	-0.2
2010/2011	-0.6	0.6	0.2	-0.2	-0.4	-0.1	-0.6	-0.1	0.6	-0.3	-0.1	-0.1	-0.1	1.1	0.1	-0.4	-0.1
2011/2012	0.3	-0.1	-0.3	-0.6	-0.5	-0.4	-1.1	-0.2	0.0	0.3	-0.1	-0.3	-0.3	1.4	0.6	-0.3	-0.3
2012/2013	-0.2	0.0	-0.3	-0.3	-0.6	-0.4	-1.0	-0.1	-0.3	0.2	-0.1	-0.5	-0.3	1.6	0.4	-0.1	-0.2
Annual percentage point change:																	
2007/2008 to 2008/2009	0.0	0.0	-0.1	-0.3	-0.2	-0.4	-0.9	-0.5	0.3	-0.3	-0.1	0.3	0.0	-0.1	0.2	-0.4	-0.1
2008/2009 to 2009/2010	-0.4	0.5	0.4	-0.2	-0.2	0.0	0.0	0.2	0.1	-0.1	0.1	-0.1	-0.1	0.8	0.2	-0.2	0.0
2009/2010 to 2010/2011	-0.2	0.2	-0.1	0.2	0.0	0.2	0.4	0.2	0.2	0.2	0.0	-0.3	-0.1	0.4	-0.3	0.2	0.2
2010/2011 to 2011/2012	0.9	-0.8	-0.5	-0.4	-0.1	-0.3	-0.5	-0.1	-0.6	0.6	-0.1	-0.3	-0.2	0.2	0.5	0.1	-0.2
2011/2012 to 2012/2013	-0.4	0.1	0.0	0.3	-0.1	0.0	0.1	0.1	-0.2	-0.1	0.1	-0.1	0.0	0.2	-0.2	0.2	0.0

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

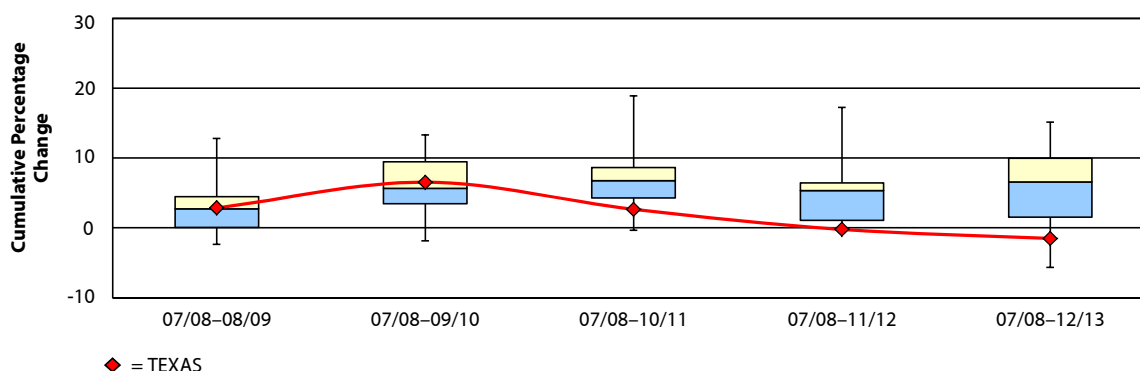
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 55 Trend of Prices for Evaluation and Management by Nonhospital Providers****Table for Figure 55: Trend of Prices for Evaluation and Management by Nonhospital Providers**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	1.0	2.7	2.5	6.0	1.3	2.9	1.5	-0.4	7.6	1.7	-0.8	0.6	3.0	3.8	6.0	3.4	2.6
2009	2.2	3.1	5.0	12.6	5.7	7.6	2.3	6.1	10.6	4.7	0.2	4.6	5.2	12.5	11.4	9.4	5.5
2010	10.1	3.1	6.2	19.0	6.4	14.2	2.8	8.7	12.3	11.3	0.5	9.2	6.2	19.4	16.4	16.7	9.7
2011	15.2	2.5	7.2	24.4	-2.4	17.5	3.6	8.5	13.1	26.1	0.3	13.2	7.8	39.6	20.5	21.2	13.1
2012	17.1	2.1	7.4	26.9	-21.0	19.8	4.6	7.8	12.3	30.1	0.6	14.9	11.3	43.3	22.6	27.7	13.6
Annual percentage change:																	
2007 to 2008	1.0	2.7	2.5	6.0	1.3	2.9	1.5	-0.4	7.6	1.7	-0.8	0.6	3.0	3.8	6.0	3.4	2.6
2008 to 2009	1.2	0.4	2.5	6.3	4.4	4.6	0.8	6.5	2.8	3.0	1.0	3.9	2.1	8.4	5.0	5.9	3.5
2009 to 2010	7.8	0.0	1.1	5.7	0.6	6.1	0.5	2.5	1.5	6.3	0.2	4.4	0.9	6.1	4.6	6.7	3.5
2010 to 2011	4.6	-0.5	1.0	4.5	-8.3	2.9	0.8	-0.2	0.7	13.3	-0.2	3.6	1.5	17.0	3.5	3.9	2.2
2011 to 2012	1.7	-0.4	0.1	2.0	-19.1	1.9	0.9	-0.6	-0.7	3.2	0.3	1.5	3.2	2.6	1.8	5.4	1.6

Note: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 56 Trend of Utilization of Evaluation and Management by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 56: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Evaluation and Management by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Utilization</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	12.8	4.0	5.0	-0.8	1.0	3.2	10.9	-1.1	-2.3	-0.1	7.0	3.0	1.6	2.9	0.2	2.6	2.7
2009/2010	11.8	12.2	6.2	-1.9	3.9	3.5	13.3	2.9	1.1	3.5	12.0	5.0	7.0	6.5	7.1	5.1	5.7
2010/2011	18.9	16.2	4.6	0.2	6.4	5.3	9.8	4.6	-0.4	3.9	8.6	7.1	8.7	2.7	7.3	7.6	6.8
2011/2012	13.7	17.3	4.1	0.8	4.8	6.7	15.1	1.4	0.2	0.8	6.2	3.5	6.0	-0.2	6.0	5.9	5.4
2012/2013	11.0	15.2	7.8	0.1	5.2	10.8	11.2	3.1	-5.7	-0.5	7.6	3.0	8.0	-1.5	5.5	9.2	6.6
Annual percentage change:																	
2007/2008 to 2008/2009	12.8	4.0	5.0	-0.8	1.0	3.2	10.9	-1.1	-2.3	-0.1	7.0	3.0	1.6	2.9	0.2	2.6	2.7
2008/2009 to 2009/2010	-0.9	7.9	1.2	-1.1	2.9	0.2	2.2	4.1	3.5	3.5	4.7	2.0	5.3	3.6	6.9	2.4	3.2
2009/2010 to 2010/2011	6.3	3.6	-1.5	2.2	2.4	1.7	-3.1	1.6	-1.4	0.5	-3.1	2.0	1.6	-3.6	0.1	2.4	1.6
2010/2011 to 2011/2012	-4.4	1.0	-0.5	0.5	-1.5	1.3	4.8	-3.1	0.6	-3.0	-2.2	-3.3	-2.5	-2.8	-1.1	-1.6	-1.6
2011/2012 to 2012/2013	-2.4	-1.8	3.5	-0.7	0.4	3.8	-3.4	1.7	-5.9	-1.2	1.3	-0.5	1.9	-1.3	-0.5	3.1	-0.5
<b>Visits per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	7.8	3.5	1.7	-1.5	0.9	2.8	12.2	-0.4	-0.7	-1.9	4.2	1.4	0.7	-0.1	-1.4	1.1	1.0
2009/2010	7.1	10.9	6.2	-1.6	4.0	4.0	13.2	3.1	4.2	0.9	7.5	4.2	6.4	3.0	4.2	2.8	4.2
2010/2011	10.1	13.9	5.4	0.9	7.4	5.1	8.7	3.7	1.9	2.7	5.1	5.6	7.0	0.0	3.4	3.7	5.1
2011/2012	7.6	15.0	4.3	2.5	6.7	6.5	13.5	1.2	2.4	0.6	2.8	4.2	3.5	-2.3	3.1	3.6	3.6
2012/2013	8.0	13.4	4.8	0.8	6.2	7.3	10.3	3.3	-2.1	-2.1	4.2	4.4	3.9	-2.8	2.7	3.6	4.1
Annual percentage change:																	
2007/2008 to 2008/2009	7.8	3.5	1.7	-1.5	0.9	2.8	12.2	-0.4	-0.7	-1.9	4.2	1.4	0.7	-0.1	-1.4	1.1	1.0
2008/2009 to 2009/2010	-0.6	7.2	4.4	-0.2	3.1	1.2	0.8	3.5	4.9	2.8	3.2	2.7	5.7	3.1	5.6	1.6	3.1
2009/2010 to 2010/2011	2.8	2.6	-0.8	2.6	3.2	1.1	-3.9	0.6	-2.2	1.8	-2.2	1.4	0.5	-2.9	-0.8	0.9	0.8
2010/2011 to 2011/2012	-2.3	1.0	-1.0	1.6	-0.6	1.3	4.3	-2.4	0.5	-2.1	-2.2	-1.3	-3.2	-2.3	-0.3	-0.1	-0.8
2011/2012 to 2012/2013	0.4	-1.4	0.5	-1.7	-0.5	0.7	-2.8	2.1	-4.3	-2.7	1.4	0.2	0.4	-0.5	-0.3	0.0	-0.2

continued

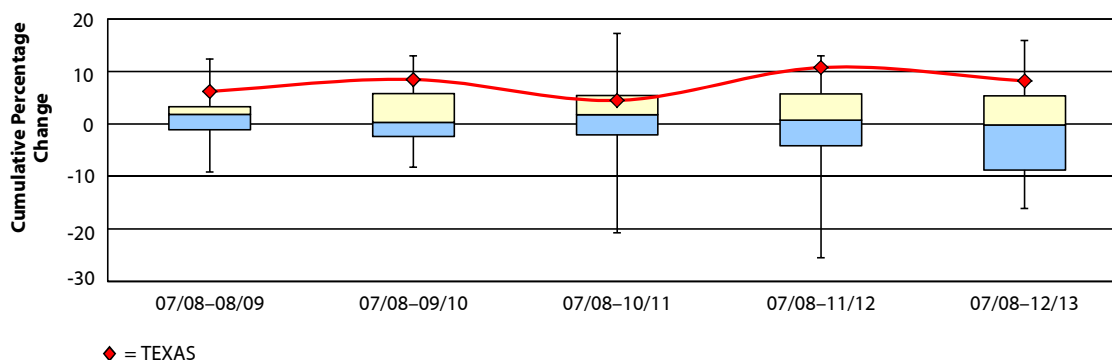
**Table for Figure 56: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Evaluation and Management by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Services per visit</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	1.0	0.0	0.6	-2.2	-0.6	-0.3	1.5	0.2	-0.5	-0.3	0.1	0.3	-0.2	1.0	-0.5	-0.2	-0.1
2009/2010	-0.1	0.2	0.3	-3.1	-0.3	-0.4	1.9	0.0	-0.9	0.1	0.3	0.0	-0.3	0.8	0.2	-0.2	0.0
2010/2011	1.8	0.6	-0.8	-3.3	-0.6	-0.1	-0.8	0.5	-1.4	0.0	-0.7	0.9	-0.4	0.6	-0.2	-0.5	-0.3
2011/2012	-0.9	0.4	-0.9	-3.7	-1.2	-0.1	-1.1	0.2	-1.1	0.0	-1.1	-0.7	-0.6	0.8	-0.7	-0.8	-0.8
2012/2013	-0.2	0.5	2.6	-3.2	-0.8	1.2	-0.9	0.6	-1.6	-0.4	-0.2	0.2	-0.4	0.4	0.8	0.4	0.0
Annual percentage change:																	
2007/2008 to 2008/2009	1.0	0.0	0.6	-2.2	-0.6	-0.3	1.5	0.2	-0.5	-0.3	0.1	0.3	-0.2	1.0	-0.5	-0.2	-0.1
2008/2009 to 2009/2010	-1.1	0.1	-0.3	-0.9	0.2	-0.1	0.3	-0.2	-0.4	0.4	0.3	-0.2	-0.1	-0.2	0.7	0.1	-0.1
2009/2010 to 2010/2011	1.9	0.4	-1.0	-0.1	-0.3	0.3	-2.6	0.5	-0.5	-0.1	-1.0	0.8	-0.1	-0.2	-0.4	-0.3	-0.2
2010/2011 to 2011/2012	-2.6	-0.2	-0.2	-0.4	-0.6	-0.1	-0.3	-0.4	0.3	0.0	-0.4	-1.6	-0.2	0.2	-0.5	-0.3	-0.3
2011/2012 to 2012/2013	0.7	0.0	3.5	0.5	0.4	1.3	0.2	0.4	-0.4	-0.4	0.9	0.9	0.2	-0.4	1.5	1.3	0.5
<b>Resource intensity<sup>a</sup></b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	3.4	0.4	1.5	0.8	0.3	0.5	-2.2	-0.9	-0.3	0.4	1.2	0.1	0.2	1.0	1.3	2.2	
2009/2010	2.7	1.1	1.6	0.6	0.4	0.5	-1.0	-0.3	-1.2	1.4	3.1	0.0	0.3	0.9	1.1	2.6	
2010/2011	3.8	1.6	0.8	0.3	-0.3	0.8	1.2	0.3	-0.3	0.7	2.1	-0.2	1.5	0.8	2.5	4.3	
2011/2012	3.4	1.6	0.9	0.2	-0.2	1.0	2.0	-0.1	-0.5	1.7	2.7	-0.6	1.6	0.8	2.1	4.0	
2012/2013	2.6	1.5	1.3	1.4	0.2	2.3	2.3	-0.8	-1.6	2.6	3.0	-1.5	3.0	0.4	1.5	5.4	
Annual percentage point change:																	
2007/2008 to 2008/2009	3.4	0.4	1.5	0.8	0.3	0.5	-2.2	-0.9	-0.3	0.4	1.2	0.1	0.2	1.0	1.3	2.2	
2008/2009 to 2009/2010	-0.6	0.6	0.1	-0.2	0.1	-0.1	1.1	0.6	-0.9	1.0	1.7	-0.1	0.0	0.0	-0.3	0.3	
2009/2010 to 2010/2011	0.8	0.5	-0.7	-0.3	-0.7	0.3	1.9	0.5	0.9	-0.7	-0.8	-0.2	1.1	-0.1	1.3	1.6	
2010/2011 to 2011/2012	-0.2	-0.1	0.1	-0.1	0.1	0.3	0.7	-0.3	-0.2	1.0	0.5	-0.4	0.2	0.0	-0.4	-0.2	
2011/2012 to 2012/2013	-0.6	0.0	0.3	1.2	0.4	1.2	0.3	-0.7	-1.2	0.9	0.3	-0.9	1.2	-0.4	-0.6	1.2	

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 57 Trend of Average Payment per Claim for Major Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 57: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Major Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	1.2	2.4	-2.7	1.8	1.9	0.6	5.9	-9.2	-1.3	2.8	3.8	2.5	-3.2	6.2	-1.0	12.4	1.8
2009/2010	-8.2	3.9	-0.5	-4.0	1.1	-1.6	7.7	-4.5	-2.1	-2.0	2.6	4.0	-2.7	8.5	11.5	13.0	0.3
2010/2011	-20.8	3.1	-2.2	-1.9	6.1	1.4	6.1	-6.5	-0.7	-1.0	2.2	4.9	-3.3	4.5	6.9	17.3	1.8
2011/2012	-25.5	4.0	-2.4	-7.6	-0.3	2.8	6.6	-2.6	-2.1	-9.4	1.8	4.9	-5.6	10.8	10.7	13.0	0.7
2012/2013	-11.4	3.0	-2.5	-5.2	-16.1	3.4	6.4	-6.8	-5.0	-10.8	2.1	4.4	-11.1	8.2	6.4	16.0	-0.2
Annual percentage change:																	
2007/2008 to 2008/2009	1.2	2.4	-2.7	1.8	1.9	0.6	5.9	-9.2	-1.3	2.8	3.8	2.5	-3.2	6.2	-1.0	12.4	1.8
2008/2009 to 2009/2010	-9.4	1.5	2.3	-5.7	-0.8	-2.1	1.7	5.2	-0.8	-4.7	-1.2	1.5	0.5	2.1	12.7	0.5	0.5
2009/2010 to 2010/2011	-13.7	-0.8	-1.8	2.2	4.9	3.0	-1.4	-2.1	1.4	1.1	-0.4	0.8	-0.6	-3.7	-4.2	3.8	-0.5
2010/2011 to 2011/2012	-6.0	0.8	-0.2	-5.9	-6.0	1.4	0.4	4.1	-1.4	-8.5	-0.4	0.0	-2.5	6.0	3.5	-3.7	-0.3
2011/2012 to 2012/2013	19.0	-0.9	-0.1	2.7	-15.8	0.5	-0.1	-4.2	-3.0	-1.5	0.3	-0.5	-5.8	-2.3	-3.9	2.6	-0.7
<b>Percentage of claims with major radiology services</b>																	
Cumulative percentage point change from 2006/2007 to:																	
2007/2008	3.1	0.8	2.4	1.0	0.3	3.3	3.5	0.6	2.1	1.3	3.0	2.0	1.5	0.6	1.4	1.7	1.6
2008/2009	4.2	3.2	2.8	1.1	2.8	3.4	2.4	2.0	2.4	1.9	6.1	2.6	3.4	2.8	3.1	2.9	2.8
2009/2010	3.0	4.6	5.4	2.3	2.4	3.6	4.4	2.6	4.0	2.2	6.0	5.3	4.4	1.9	4.2	2.8	3.8
2010/2011	3.8	4.9	6.6	4.3	2.9	4.9	5.5	2.2	4.4	1.0	5.4	4.4	5.6	-1.0	4.9	3.2	4.4
2011/2012	1.1	5.6	6.4	2.7	0.7	6.0	3.7	1.8	4.8	2.0	5.8	4.7	5.5	-2.1	6.5	3.0	4.2
Annual percentage point change:																	
2007/2008 to 2008/2009	3.1	0.8	2.4	1.0	0.3	3.3	3.5	0.6	2.1	1.3	3.0	2.0	1.5	0.6	1.4	1.7	1.6
2008/2009 to 2009/2010	1.1	2.4	0.4	0.1	2.5	0.1	-1.0	1.3	0.3	0.6	3.1	0.6	1.8	2.2	1.7	1.2	1.1
2009/2010 to 2010/2011	-1.2	1.4	2.5	1.2	-0.4	0.2	2.0	0.7	1.6	0.3	-0.1	2.7	1.0	-0.9	1.1	-0.1	0.9
2010/2011 to 2011/2012	0.9	0.3	1.2	2.1	0.4	1.3	1.1	-0.5	0.4	-1.2	-0.7	-0.9	1.2	-3.0	0.7	0.4	0.4
2011/2012 to 2012/2013	-2.8	0.7	-0.2	-1.6	-2.2	1.1	-1.8	-0.4	0.4	1.1	0.5	0.3	-0.2	-1.1	1.5	-0.2	-0.2

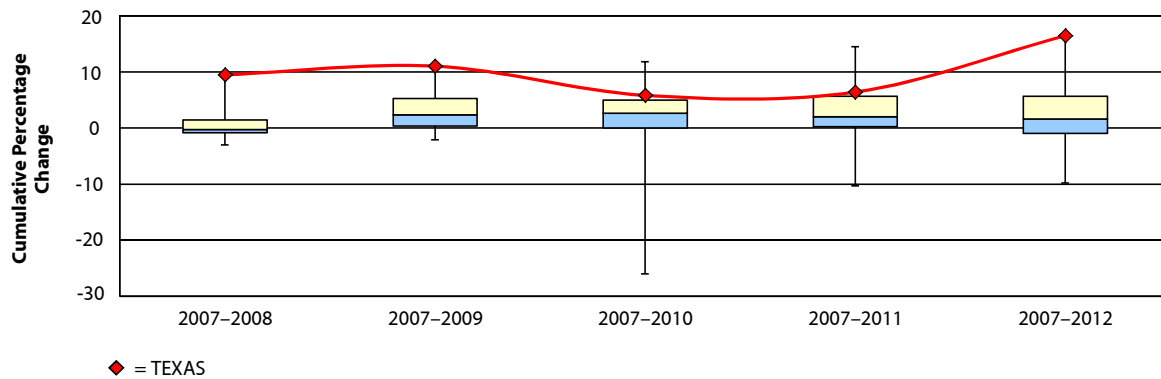
continued

**Table for Figure 57: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Major Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**  
(continued)

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made for major radiology services</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-0.3	-0.2	-0.3	-0.1	-0.1	-0.2	-0.7	-0.4	0.1	-0.1	-0.1	0.2	-0.1	0.0	0.0	0.2	-0.1
2009/2010	-0.7	0.0	0.0	-0.6	-0.3	-0.4	-0.8	-0.5	0.0	-0.5	0.0	0.1	-0.2	0.1	0.2	-0.2	-0.2
2010/2011	-1.7	0.0	0.0	-0.6	-0.3	-0.3	-0.4	-0.6	0.2	-0.5	0.1	-0.1	-0.4	0.0	-0.2	-0.2	-0.3
2011/2012	-1.4	-0.2	-0.2	-1.0	-0.3	-0.5	-0.9	-0.4	0.0	-0.9	0.1	-0.2	-0.4	-0.3	0.1	-0.4	-0.4
2012/2013	-1.3	-0.1	-0.4	-0.9	-0.4	-0.6	-0.9	-0.6	0.0	-0.9	0.2	-0.3	-0.9	-0.4	0.0	-0.5	-0.4
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.3	-0.2	-0.3	-0.1	-0.1	-0.2	-0.7	-0.4	0.1	-0.1	-0.1	0.2	-0.1	0.0	0.0	0.2	-0.1
2008/2009 to 2009/2010	-0.4	0.1	0.2	-0.4	-0.2	-0.2	-0.1	0.0	-0.1	-0.5	0.1	-0.1	0.0	0.2	0.2	-0.3	-0.1
2009/2010 to 2010/2011	-1.0	0.0	0.0	0.0	0.0	0.0	0.5	-0.1	0.2	0.0	0.1	-0.1	-0.2	-0.1	-0.4	-0.1	0.0
2010/2011 to 2011/2012	0.3	-0.2	-0.2	-0.4	0.0	-0.2	-0.5	0.1	-0.2	-0.4	0.0	-0.2	-0.1	-0.3	0.3	-0.2	-0.2
2011/2012 to 2012/2013	0.1	0.2	-0.2	0.2	0.0	0.0	0.0	-0.2	0.1	0.0	0.1	-0.1	-0.4	-0.2	-0.1	-0.1	0.0

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

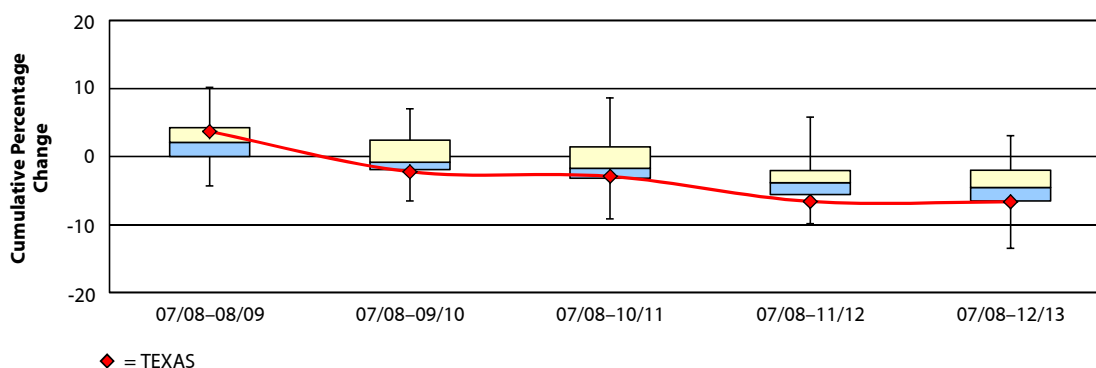
**Figure 58 Trend of Prices for Major Radiology by Nonhospital Providers****Table for Figure 58: Trend of Prices for Major Radiology by Nonhospital Providers**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	1.2	0.1	-3.0	-2.9	4.6	-0.4	-1.1	-0.3	-0.6	-0.4	-2.6	0.6	-0.2	9.5	1.7	2.7	-0.3
2009	3.3	0.7	-0.2	-2.1	6.6	0.3	3.7	10.0	2.0	2.5	0.4	2.3	-0.8	11.1	8.3	4.0	2.4
2010	-26.0	0.4	-0.4	-2.7	8.9	3.0	3.4	11.8	5.8	3.2	-0.6	1.8	1.0	5.8	4.1	2.3	2.6
2011	-10.3	-0.4	0.1	0.4	5.1	2.4	6.4	14.5	4.9	-4.7	0.4	4.5	1.6	6.4	6.3	1.6	2.0
2012	-7.0	-1.0	-0.9	0.5	-9.8	2.9	5.0	11.7	7.7	-3.6	1.5	5.9	-0.4	16.5	5.4	1.8	1.6
Annual percentage change:																	
2007 to 2008	1.2	0.1	-3.0	-2.9	4.6	-0.4	-1.1	-0.3	-0.6	-0.4	-2.6	0.6	-0.2	9.5	1.7	2.7	-0.3
2008 to 2009	2.1	0.7	2.8	0.8	1.9	0.7	4.9	10.4	2.6	2.8	3.1	1.7	-0.6	1.4	6.5	1.2	2.0
2009 to 2010	-28.4	-0.3	-0.1	-0.7	2.1	2.6	-0.3	1.6	3.7	0.7	-1.0	-0.6	1.8	-4.7	-3.9	-1.6	-0.3
2010 to 2011	21.3	-0.8	0.5	3.3	-3.5	-0.5	3.0	2.4	-0.9	-7.6	1.0	2.7	0.6	0.6	2.1	-0.8	0.6
2011 to 2012	3.7	-0.6	-1.0	0.0	-14.1	0.4	-1.3	-2.5	2.7	1.1	1.1	1.4	-2.0	9.5	-0.8	0.2	0.1

Notes: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.



**Figure 59 Trend of Utilization of Major Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 59: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Major Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Utilization</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	4.1	3.0	2.1	0.6	1.1	-0.9	10.2	-3.2	-0.1	4.8	4.5	4.4	0.2	3.7	-4.3	3.7	2.5
2009/2010	-6.5	4.6	1.7	-0.9	-0.9	-1.6	7.0	-5.9	3.1	-3.5	-0.5	3.7	-0.1	-2.2	-1.6	0.4	-0.7
2010/2011	8.6	4.0	-1.7	-1.7	-1.7	-3.5	3.3	-9.2	-0.5	-4.9	-4.8	4.6	-1.3	-2.9	-1.8	-0.6	-1.7
2011/2012	-9.2	5.8	-2.3	-5.5	-4.9	-2.6	2.4	-9.9	-2.0	-2.1	-3.9	3.4	-3.9	-6.6	-4.3	-5.7	-3.9
2012/2013	-1.8	3.1	-2.1	-7.2	-6.4	-3.2	1.2	-13.5	-4.7	-4.6	-4.5	2.6	-4.0	-6.7	-8.9	-6.3	-4.5
Annual percentage change:																	
2007/2008 to 2008/2009	4.1	3.0	2.1	0.6	1.1	-0.9	10.2	-3.2	-0.1	4.8	4.5	4.4	0.2	3.7	-4.3	3.7	2.5
2008/2009 to 2009/2010	-10.2	1.6	-0.4	-1.4	-2.0	-0.7	-2.8	-2.8	3.2	-7.9	-4.8	-0.7	-0.3	-5.7	2.9	-3.1	-1.7
2009/2010 to 2010/2011	16.2	-0.5	-3.4	-0.9	-0.8	-1.9	-3.5	-3.5	-3.5	-1.4	-4.3	0.9	-1.2	-0.7	-0.3	-1.0	-1.1
2010/2011 to 2011/2012	-16.4	1.7	-0.6	-3.8	-3.2	0.9	-0.8	-0.8	-1.6	2.9	0.9	-1.1	-2.6	-3.8	-2.5	-5.1	-1.4
2011/2012 to 2012/2013	8.1	-2.6	0.2	-1.8	-1.6	-0.6	-1.2	-4.0	-2.7	-2.5	-0.7	-0.8	-0.1	0.0	-4.8	-0.6	-1.0
<b>Visits per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	-5.1	1.2	0.5	1.0	0.0	2.2	4.9	-1.4	-0.9	-0.2	2.0	1.1	0.3	2.4	-3.6	2.4	0.7
2009/2010	-6.4	2.8	1.2	-0.9	0.5	2.8	2.3	-3.1	3.1	-3.3	1.6	2.4	0.0	-0.8	-1.1	2.7	0.9
2010/2011	0.1	3.1	0.6	-1.5	-1.0	0.5	1.9	-5.4	0.5	-2.4	-1.8	2.7	-0.8	-1.2	-0.8	0.7	-0.3
2011/2012	-8.3	5.2	-1.2	-0.9	-1.8	2.7	2.2	-3.9	1.3	-0.8	-2.6	2.2	-2.2	-2.2	-1.9	-1.8	-1.5
2012/2013	-2.5	3.3	-1.5	0.1	-2.1	2.5	-1.0	-5.4	-2.2	-0.2	-1.1	1.7	-2.4	-1.4	-3.0	-1.2	-1.3
Annual percentage change:																	
2007/2008 to 2008/2009	-5.1	1.2	0.5	1.0	0.0	2.2	4.9	-1.4	-0.9	-0.2	2.0	1.1	0.3	2.4	-3.6	2.4	0.7
2008/2009 to 2009/2010	-1.4	1.6	0.8	-1.8	0.5	0.6	-2.5	-1.7	4.1	-3.1	-0.4	1.2	-0.2	-3.1	2.6	0.2	0.0
2009/2010 to 2010/2011	6.9	0.3	-0.6	-0.7	-1.5	-2.2	-0.4	-2.4	-2.6	1.0	-3.3	0.3	-0.9	-0.4	0.3	-1.9	-0.7
2010/2011 to 2011/2012	-8.4	2.0	-1.8	0.6	-0.9	2.2	0.3	1.6	0.8	1.6	-0.8	-0.5	-1.3	-1.0	-1.1	-2.5	-0.6
2011/2012 to 2012/2013	6.3	-1.8	-0.4	1.0	-0.4	-0.1	-3.1	-1.5	-3.4	0.6	1.5	-0.5	-0.2	0.8	-1.2	0.6	-0.3

continued

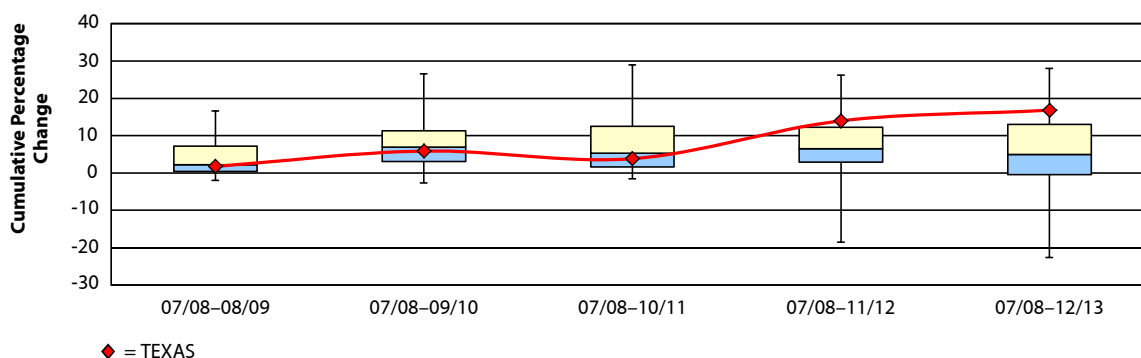
**Table for Figure 59: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Major Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Services per visit</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	2.7	2.2	1.2	-1.9	-0.4	-2.9	3.3	-1.5	1.1	0.5	0.0	2.0	0.9	3.8	-2.2	1.3	1.0
2009/2010	0.4	1.5	2.4	-1.4	-2.1	-2.8	3.5	-2.3	1.5	-2.7	-2.1	2.2	0.3	-0.1	-2.9	-2.0	-0.8
2010/2011	7.7	0.8	-0.3	-2.1	-1.7	-2.5	0.6	-2.5	-0.9	-4.8	-3.6	3.1	-0.2	0.1	-3.6	-2.8	-1.3
2011/2012	0.7	-0.1	-0.3	-4.6	-4.0	-4.5	-2.4	-5.9	-2.8	-3.3	-4.8	0.5	-2.6	-3.7	-7.8	-4.3	-3.5
2012/2013	-1.5	-1.7	-0.5	-7.0	-5.9	-6.2	0.7	-9.2	-4.1	-5.1	-5.5	0.7	-3.0	-3.4	-10.8	-5.8	-4.6
Annual percentage change:																	
2007/2008 to 2008/2009	2.7	2.2	1.2	-1.9	-0.4	-2.9	3.3	-1.5	1.1	0.5	0.0	2.0	0.9	3.8	-2.2	1.3	1.0
2008/2009 to 2009/2010	-2.2	-0.6	1.2	0.4	-1.7	0.1	0.2	-0.8	0.5	-3.2	-2.0	0.1	-0.6	-3.8	-0.7	-3.3	-0.7
2009/2010 to 2010/2011	7.3	-0.7	-2.6	-0.7	0.4	0.3	-2.8	-0.2	-2.4	-2.1	-1.6	1.0	-0.5	0.2	-0.7	-0.8	-0.7
2010/2011 to 2011/2012	-6.5	-0.8	0.0	-2.6	-2.4	-2.0	-3.0	-3.4	-2.0	1.6	-1.2	-2.6	-2.4	-3.8	-4.4	-1.5	-2.4
2011/2012 to 2012/2013	-2.2	-1.6	-0.2	-2.5	-2.0	-1.8	3.2	-3.5	-1.3	-1.9	-0.8	0.2	-0.5	0.3	-3.2	-1.6	-1.6
<b>Resource intensity<sup>a</sup></b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-2.5	0.0	0.6	-0.4	0.1	-0.2	-0.6	0.7	-0.3	2.0	0.6	-0.2	-1.4	-2.8	1.4	-0.8	
2009/2010	-2.8	0.5	-0.8	0.1	0.2	-0.7	-1.3	0.1	-1.0	1.2	1.5	-1.0	-1.7	-1.9	1.3	-0.9	
2010/2011	-4.5	1.0	-0.2	-0.2	1.1	-0.7	-1.2	-1.0	1.2	1.1	2.5	-0.6	-0.5	-2.3	2.5	0.5	
2011/2012	-4.2	1.2	0.2	-0.4	0.2	-0.3	-0.2	0.3	0.9	1.7	3.1	0.9	-0.2	-2.0	2.9	0.1	
2012/2013	-5.2	2.3	0.5	0.5	1.6	1.9	0.6	0.8	0.8	1.3	2.9	0.3	0.0	-2.9	3.6	0.1	
Annual percentage point change:																	
2007/2008 to 2008/2009	-2.5	0.0	0.6	-0.4	0.1	-0.2	-0.6	0.7	-0.3	2.0	0.6	-0.2	-1.4	-2.8	1.4	-0.8	
2008/2009 to 2009/2010	-0.5	0.5	-1.4	0.5	0.0	-0.5	-0.6	-0.6	-0.6	-0.6	0.8	-0.8	-0.3	0.7	-0.2	-0.1	
2009/2010 to 2010/2011	-1.2	0.4	0.6	-0.3	1.0	0.0	0.0	-1.2	2.0	-0.1	1.1	0.5	1.1	-0.5	1.3	1.4	
2010/2011 to 2011/2012	-0.3	0.2	0.4	-0.3	-0.9	0.4	0.9	1.5	-0.3	0.7	0.6	1.4	0.3	0.2	0.4	-0.4	
2011/2012 to 2012/2013	-0.7	1.1	0.3	1.0	1.5	2.3	0.8	0.5	-0.1	-0.4	-0.3	-0.6	0.1	-1.0	1.0	0.0	

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 60 Trend of Average Payment per Claim for Minor Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 60: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Minor Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	5.9	3.0	1.9	0.1	8.5	9.2	16.6	0.3	1.5	-0.3	2.5	0.6	4.5	1.8	-2.0	12.9	2.2
2009/2010	3.5	6.5	2.7	0.5	10.6	10.2	22.0	-2.7	4.9	9.3	7.4	12.0	12.5	5.9	1.2	26.6	6.9
2010/2011	1.6	5.4	0.0	5.2	11.6	13.4	22.3	-1.5	1.7	-0.9	2.9	14.8	6.3	3.8	7.2	29.0	5.3
2011/2012	5.3	7.5	-2.4	6.1	-2.1	22.0	26.0	5.8	8.0	-18.5	0.5	10.6	6.2	14.0	6.8	26.2	6.5
2012/2013	5.0	5.8	-3.1	5.0	-22.6	21.1	18.1	2.3	2.5	-20.3	-7.5	9.2	3.6	16.8	5.1	28.0	5.0
Annual percentage change:																	
2007/2008 to 2008/2009	5.9	3.0	1.9	0.1	8.5	9.2	16.6	0.3	1.5	-0.3	2.5	0.6	4.5	1.8	-2.0	12.9	2.2
2008/2009 to 2009/2010	-2.2	3.4	0.8	0.4	2.0	1.0	4.6	-2.9	3.3	9.7	4.7	11.3	7.7	4.0	3.3	12.1	3.3
2009/2010 to 2010/2011	-1.8	-1.0	-2.7	4.7	0.8	2.9	0.2	1.2	-3.0	-9.4	-4.2	2.6	-5.5	-1.9	6.0	1.9	-0.4
2010/2011 to 2011/2012	3.7	2.0	-2.3	0.8	-12.2	7.6	3.0	7.4	6.3	-17.8	-2.3	-3.7	-0.1	9.8	-0.4	-2.1	0.4
2011/2012 to 2012/2013	-0.4	-1.6	-0.8	-1.0	-21.0	-0.7	-6.2	-3.2	-5.2	-2.1	-8.0	-1.3	-2.5	2.5	-1.6	1.4	-1.6
<b>Percentage of claims with minor radiology services</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	0.4	1.4	1.0	0.7	1.4	2.5	-0.5	0.6	0.6	1.2	2.1	1.5	1.2	0.8	1.7	-0.2	1.1
2009/2010	0.6	1.9	1.9	0.0	1.8	3.0	-0.7	2.6	1.8	2.6	1.1	2.5	2.0	2.9	1.4	-0.4	1.9
2010/2011	2.1	2.7	1.2	2.1	1.4	2.7	1.4	1.5	0.4	0.3	2.4	2.9	2.6	1.9	1.3	-1.4	1.7
2011/2012	2.2	2.9	0.8	2.2	2.0	2.4	1.7	0.9	-0.1	-1.1	1.7	1.2	2.1	0.7	1.2	-0.4	1.4
2012/2013	1.3	2.2	-0.5	0.7	-1.1	0.4	-0.3	-0.6	-1.8	-1.0	-0.6	0.1	1.0	0.6	0.2	-1.7	-0.1
Annual percentage point change:																	
2007/2008 to 2008/2009	0.4	1.4	1.0	0.7	1.4	2.5	-0.5	0.6	0.6	1.2	2.1	1.5	1.2	0.8	1.7	-0.2	1.1
2008/2009 to 2009/2010	0.2	0.5	1.0	-0.7	0.4	0.5	-0.2	2.0	1.2	1.4	-1.0	1.0	0.8	2.2	-0.3	-0.3	0.5
2009/2010 to 2010/2011	1.5	0.8	-0.8	2.1	-0.5	-0.3	2.1	-1.1	-1.4	-2.3	1.3	0.4	0.5	-1.1	-0.1	-1.0	-0.2
2010/2011 to 2011/2012	0.0	0.2	-0.3	0.1	0.6	-0.4	0.3	-0.5	-0.5	-1.4	-0.7	-1.7	-0.5	-1.1	-0.1	1.1	-0.3
2011/2012 to 2012/2013	-0.9	-0.7	-1.4	-1.6	-3.1	-2.0	-2.0	-1.5	-1.7	0.1	-2.3	-1.1	-1.0	-0.1	-1.0	-1.3	-1.3

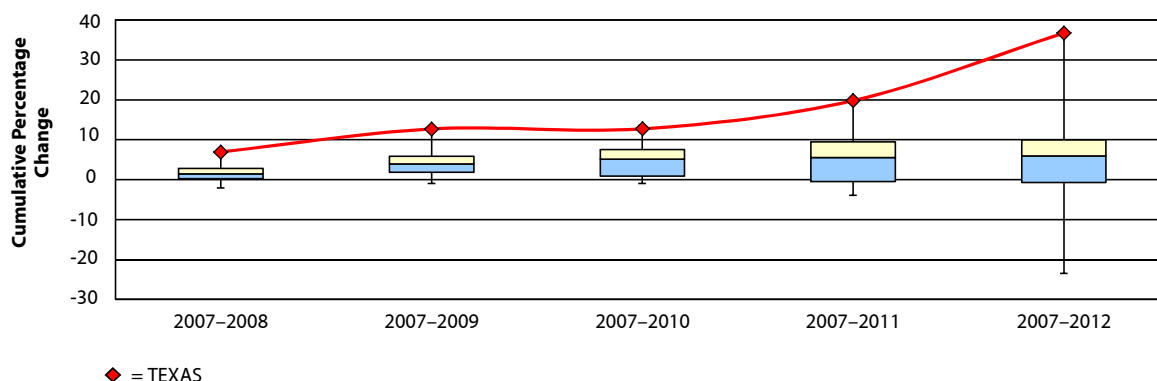
continued

**Table for Figure 60: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Minor Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**  
(continued)

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made for minor radiology services</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-0.1	-0.1	-0.1	-0.1	0.1	0.0	-0.3	0.0	0.0	-0.1	-0.1	0.1	0.0	-0.1	0.0	0.0	0.0
2009/2010	-0.2	-0.1	0.0	-0.2	-0.1	-0.1	-0.2	-0.1	0.0	0.0	-0.1	0.1	0.0	0.0	-0.1	0.0	-0.1
2010/2011	-0.5	-0.1	-0.1	-0.2	-0.1	-0.1	0.0	-0.1	0.0	-0.2	-0.1	0.0	-0.1	0.0	-0.2	-0.1	-0.1
2011/2012	-0.2	-0.2	-0.2	-0.3	-0.3	-0.1	-0.2	-0.1	0.0	-0.4	-0.1	-0.2	-0.1	0.0	-0.1	-0.1	-0.1
2012/2013	-0.3	-0.1	-0.3	-0.3	-0.3	-0.2	-0.3	-0.1	-0.1	-0.4	-0.2	-0.3	-0.2	0.0	-0.2	-0.2	-0.2
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.1	-0.1	-0.1	-0.1	0.1	0.0	-0.3	0.0	0.0	-0.1	-0.1	0.1	0.0	-0.1	0.0	0.0	0.0
2008/2009 to 2009/2010	-0.1	0.0	0.1	-0.1	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.1	0.0	0.1	-0.1	0.0	0.0
2009/2010 to 2010/2011	-0.2	0.0	-0.1	0.0	-0.1	0.0	0.2	0.0	0.0	-0.2	0.0	-0.1	-0.1	0.0	-0.1	-0.1	0.0
2010/2011 to 2011/2012	0.3	-0.1	-0.1	-0.2	-0.1	-0.1	-0.2	0.1	0.0	-0.2	0.0	-0.2	0.0	0.0	0.1	0.0	0.0
2011/2012 to 2012/2013	-0.1	0.0	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	0.0	0.0	-0.1	-0.1	-0.1	0.0	-0.1	-0.1	-0.1

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

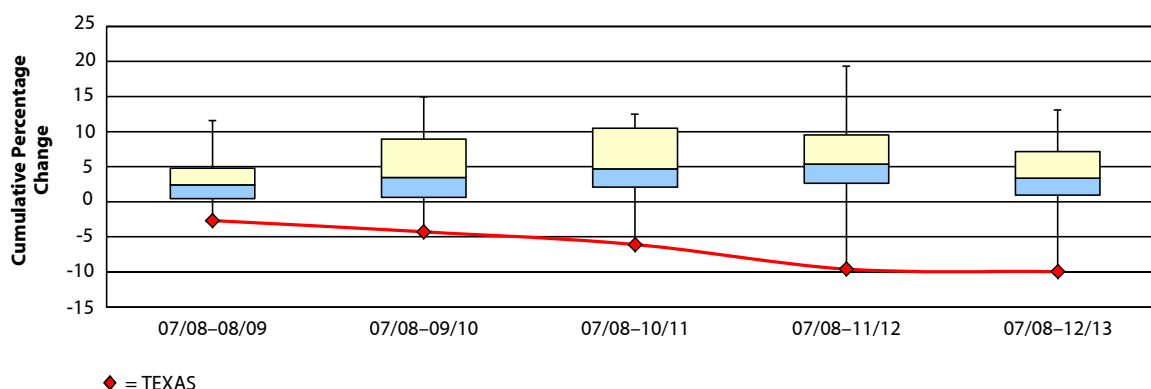
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 61 Trend of Prices for Minor Radiology by Nonhospital Providers****Table for Figure 61: Trend of Prices for Minor Radiology by Nonhospital Providers**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	1.0	-1.1	-2.1	-0.4	2.4	3.0	1.3	2.2	1.0	2.7	-0.2	0.6	1.5	6.9	3.6	2.9	1.4
2009	3.4	-1.0	0.9	-0.2	4.4	5.8	2.0	7.2	2.7	4.7	1.7	3.1	6.0	12.7	5.2	8.2	3.9
2010	0.3	-0.9	0.3	1.2	3.4	8.2	3.0	11.7	5.8	4.5	0.7	6.0	6.9	12.7	5.9	13.5	5.1
2011	7.5	-1.0	1.1	0.0	-3.8	7.7	5.6	13.1	5.2	-3.9	-0.9	9.9	9.1	19.8	5.6	14.9	5.6
2012	6.4	-1.2	0.7	-0.3	-23.5	8.1	6.8	9.2	4.3	-2.6	-2.2	10.7	11.1	36.7	5.6	16.3	6.0
Annual percentage change:																	
2007 to 2008	1.0	-1.1	-2.1	-0.4	2.4	3.0	1.3	2.2	1.0	2.7	-0.2	0.6	1.5	6.9	3.6	2.9	1.4
2008 to 2009	2.3	0.1	3.0	0.2	1.9	2.7	0.6	4.9	1.7	1.9	1.9	2.5	4.4	5.4	1.6	5.2	2.1
2009 to 2010	-3.0	0.0	-0.6	1.3	-1.0	2.3	1.0	4.2	3.0	-0.1	-1.0	2.8	0.9	0.0	0.7	4.9	0.8
2010 to 2011	7.2	-0.1	0.8	-1.1	-7.0	-0.5	2.4	1.3	-0.5	-8.1	-1.6	3.7	2.0	6.3	-0.3	1.2	0.4
2011 to 2012	-1.1	-0.1	-0.3	-0.3	-20.5	0.4	1.1	-3.5	-0.9	1.4	-1.3	0.7	1.8	14.1	0.0	1.2	-0.1

Notes: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 62 Trend of Utilization of Minor Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 62: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Minor Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Utilization</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	2.4	5.2	4.4	1.1	2.3	3.8	11.6	-0.2	5.4	-1.4	2.4	3.1	2.3	-2.7	-0.9	8.4	2.4
2009/2010	0.7	7.5	2.5	0.8	0.6	0.3	15.0	4.2	12.6	2.7	8.6	9.3	7.5	-4.3	-2.4	13.8	3.5
2010/2011	2.4	6.8	2.1	5.7	0.7	-1.3	12.5	9.3	12.2	2.1	10.1	10.9	3.7	-6.1	3.6	11.3	4.7
2011/2012	-2.3	9.3	3.1	5.9	2.4	4.5	12.8	17.5	19.3	2.9	9.8	4.8	7.8	-9.6	-1.7	9.1	5.4
2012/2013	-4.3	6.5	3.6	4.8	-0.4	1.8	7.8	12.9	13.1	1.1	1.5	3.1	3.7	-10.0	0.7	9.9	3.3
Annual percentage change:																	
2007/2008 to 2008/2009	2.4	5.2	4.4	1.1	2.3	3.8	11.6	-0.2	5.4	-1.4	2.4	3.1	2.3	-2.7	-0.9	8.4	2.4
2008/2009 to 2009/2010	-1.6	2.2	-1.8	-0.3	-1.7	-3.3	3.1	4.4	6.8	4.2	6.0	5.9	5.1	-1.6	-1.4	5.0	2.6
2009/2010 to 2010/2011	1.7	-0.6	-0.4	4.8	0.2	-1.6	-2.2	4.9	-0.3	-0.5	1.4	1.5	-3.5	-1.9	6.1	-2.2	-0.4
2010/2011 to 2011/2012	-4.6	2.3	1.0	0.2	1.7	5.8	0.3	7.5	6.4	0.7	-0.3	-5.5	3.9	-3.7	-5.0	-2.0	0.5
2011/2012 to 2012/2013	-2.0	-2.6	0.5	-1.1	-2.8	-2.5	-4.4	-3.9	-5.3	-1.7	-7.5	-1.7	-3.8	-0.4	2.4	0.7	-2.3
<b>Visits per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	0.1	2.9	1.1	0.3	0.1	3.6	9.4	0.8	3.2	-2.1	2.5	-1.0	1.2	0.2	-5.7	5.5	0.9
2009/2010	0.3	4.0	3.3	1.6	-0.9	-0.9	13.7	1.7	8.0	-0.8	7.2	1.2	4.4	-0.8	-5.9	9.3	1.6
2010/2011	-4.8	1.6	0.6	0.3	-3.2	-4.0	6.5	-0.1	2.3	-4.1	3.4	2.7	1.7	-3.2	-1.4	4.0	0.5
2011/2012	-4.5	3.0	0.6	2.5	-2.0	0.2	7.7	4.8	4.4	-2.8	-0.7	-0.2	0.6	-4.1	-8.1	1.3	0.4
2012/2013	0.1	-1.2	-3.7	-0.5	-4.4	-3.4	3.8	-1.0	-0.8	-7.0	-3.2	-2.6	-0.9	-4.7	-8.9	2.0	-1.9
Annual percentage change:																	
2007/2008 to 2008/2009	0.1	2.9	1.1	0.3	0.1	3.6	9.4	0.8	3.2	-2.1	2.5	-1.0	1.2	0.2	-5.7	5.5	0.9
2008/2009 to 2009/2010	0.2	1.1	2.2	1.3	-1.0	-4.3	4.0	0.9	4.7	1.4	4.7	2.2	3.1	-1.0	-0.3	3.6	1.3
2009/2010 to 2010/2011	-5.0	-2.4	-2.6	-1.2	-2.3	-3.1	-6.3	-1.7	-5.3	-3.4	-3.6	1.4	-2.6	-2.4	4.9	-4.8	-2.6
2010/2011 to 2011/2012	0.3	1.4	0.0	2.1	1.2	4.3	1.2	4.9	2.1	1.4	-4.0	-2.8	-1.0	-1.0	-6.8	-2.6	0.7
2011/2012 to 2012/2013	4.8	-4.0	-4.3	-2.9	-2.5	-3.6	-3.6	-5.6	-5.0	-4.3	-2.5	-2.4	-1.5	-0.6	-0.8	0.8	-2.7

continued

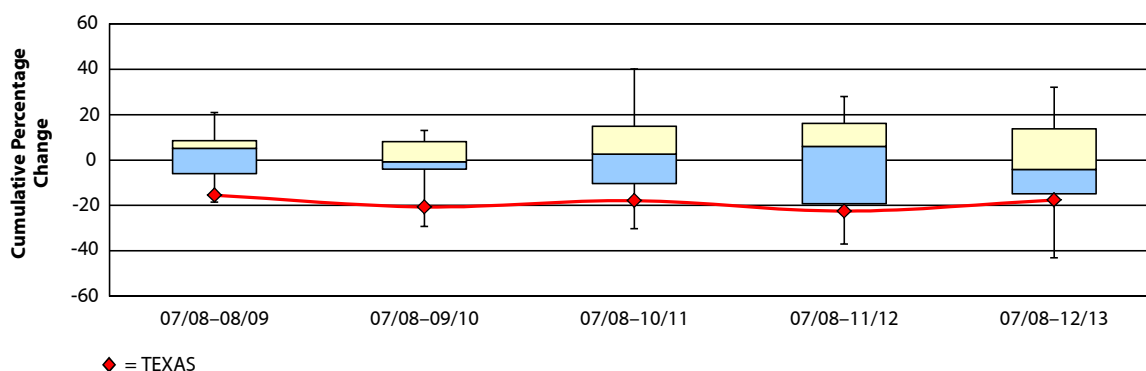
**Table for Figure 62: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Minor Radiology by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Services per visit</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	1.3	0.8	0.1	0.2	-0.2	-1.5	1.4	-1.7	-0.4	-0.2	-0.6	1.0	-0.6	-0.6	-0.5	1.3	-0.2
2009/2010	0.4	0.7	-0.3	-3.3	-0.5	-1.4	-1.0	-2.4	-1.8	-3.2	-0.8	1.3	-2.0	-1.1	-2.7	1.6	-1.1
2010/2011	2.9	3.2	-1.4	-2.9	-1.3	-0.8	-2.6	-0.3	-1.9	-3.1	-2.0	0.4	-2.2	-1.5	-3.9	-0.2	-1.5
2011/2012	1.4	2.2	-1.2	-1.5	-1.3	-1.5	-2.4	-0.3	-1.6	-1.1	-1.6	-2.0	-2.3	-3.1	-4.2	-0.6	-1.5
2012/2013	-0.3	3.1	-1.5	-3.5	-0.4	-2.8	-2.3	-2.3	-1.9	-2.9	-2.1	-0.7	-3.1	-3.1	-2.4	0.3	-2.2
Annual percentage change:																	
2007/2008 to 2008/2009	1.3	0.8	0.1	0.2	-0.2	-1.5	1.4	-1.7	-0.4	-0.2	-0.6	1.0	-0.6	-0.6	-0.5	1.3	-0.2
2008/2009 to 2009/2010	-0.9	-0.1	-0.4	-3.4	-0.3	0.1	-2.4	-0.6	-1.5	-3.0	-0.3	0.3	-1.4	-0.6	-2.2	0.2	-0.6
2009/2010 to 2010/2011	2.6	2.5	-1.1	0.3	-0.8	0.7	-1.6	2.1	-0.1	0.1	-1.2	-0.9	-0.2	-0.4	-1.2	-1.8	-0.3
2010/2011 to 2011/2012	-1.5	-1.0	0.2	1.5	0.0	-0.7	0.2	0.0	0.3	2.1	0.4	-2.4	-0.1	-1.6	-0.3	-0.3	0.0
2011/2012 to 2012/2013	-1.7	0.8	-0.3	-2.1	0.9	-1.3	0.1	-2.0	-0.2	-1.9	-0.5	1.3	-0.8	0.0	1.9	0.8	-0.3
<b>Resource intensity<sup>a</sup></b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-0.4	1.5	-0.1	-1.3	0.6	2.9	0.9	1.5	2.8	0.9	2.2	2.1	-0.4	-2.1	2.3	1.5	
2009/2010	-1.6	2.2	0.8	1.1	1.4	3.5	0.3	5.6	8.4	5.0	5.5	4.9	1.9	-2.0	4.1	4.0	
2010/2011	3.6	3.0	2.1	3.8	5.5	4.7	3.3	8.8	13.5	7.8	9.2	6.1	2.7	-1.8	7.3	7.9	
2011/2012	-2.4	4.6	2.8	3.4	6.7	7.2	3.4	12.4	18.4	7.1	10.9	6.4	6.6	-2.9	9.3	8.3	
2012/2013	-5.1	5.8	4.1	6.1	5.7	7.4	1.9	15.6	17.3	8.8	7.9	6.0	4.7	-2.4	11.0	7.3	
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.4	1.5	-0.1	-1.3	0.6	2.9	0.9	1.5	2.8	0.9	2.2	2.1	-0.4	-2.1	2.3	1.5	
2008/2009 to 2009/2010	-1.2	0.6	0.9	2.3	0.7	0.7	-0.6	4.2	5.3	4.2	3.1	2.6	2.2	0.1	1.9	2.2	
2009/2010 to 2010/2011	5.1	0.8	1.3	2.7	4.2	1.3	2.6	2.9	4.9	2.9	3.5	1.1	0.9	0.1	3.2	3.6	
2010/2011 to 2011/2012	-5.9	1.5	0.7	-0.4	1.2	2.3	0.1	2.9	4.0	-0.7	1.7	0.6	3.8	-1.2	2.4	0.6	
2011/2012 to 2012/2013	-2.7	1.2	1.3	2.6	-0.8	0.4	-1.2	3.6	-0.1	1.9	-2.2	-0.3	-1.7	0.5	1.7	-1.1	

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 63 Trend of Average Payment per Claim for Pain Management Injections by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 63: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Pain Management Injections by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	5.1	14.2	-12.6	-5.6	7.3	8.8	20.9	8.3	-18.5	-6.5	-5.1	6.2	-2.3	-15.5	17.0	5.3	5.2
2009/2010	-0.9	8.9	-23.1	-1.7	10.4	-4.9	-0.8	-2.0	-29.3	1.2	-3.2	13.1	-0.5	-20.7	8.7	7.6	-0.8
2010/2011	-2.5	12.7	-30.2	9.2	40.1	3.3	20.1	-2.7	-23.7	2.0	-14.4	17.0	-6.2	-17.9	26.0	12.9	2.6
2011/2012	8.4	13.8	-35.6	3.8	18.4	9.0	28.0	-2.2	-36.8	-37.0	-14.6	19.3	-16.0	-22.5	22.7	11.4	6.1
2012/2013	-3.5	15.4	-31.5	-0.3	-4.9	11.0	17.5	-5.0	-35.7	-43.1	-12.1	29.1	-9.3	-17.6	12.2	32.1	-4.2
Annual percentage change:																	
2007/2008 to 2008/2009	5.1	14.2	-12.6	-5.6	7.3	8.8	20.9	8.3	-18.5	-6.5	-5.1	6.2	-2.3	-15.5	17.0	5.3	5.2
2008/2009 to 2009/2010	-5.7	-4.6	-12.0	4.1	2.9	-12.5	-17.9	-9.5	-13.3	8.2	2.1	6.5	1.8	-6.1	-7.1	2.2	-5.2
2009/2010 to 2010/2011	-1.6	3.5	-9.3	11.1	26.9	8.5	21.0	-0.7	7.9	0.8	-11.6	3.4	-5.7	3.5	16.0	4.9	3.5
2010/2011 to 2011/2012	11.1	1.0	-7.8	-5.0	-15.5	5.5	6.6	0.5	-17.1	-38.3	-0.3	2.0	-10.4	-5.6	-2.6	-1.3	-2.0
2011/2012 to 2012/2013	-11.0	1.4	6.4	-3.9	-19.6	1.8	-8.2	-2.8	1.6	-9.7	3.0	8.2	8.0	6.3	-8.6	18.5	1.5
<b>Percentage of claims with pain management injections</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-1.4	0.9	0.8	0.6	1.4	1.0	3.4	1.1	2.2	1.3	3.0	1.0	1.5	-0.4	1.1	1.6	1.1
2009/2010	1.1	2.1	2.1	0.3	2.5	0.4	3.5	2.2	4.2	2.9	2.9	2.1	2.6	0.2	2.8	2.6	2.3
2010/2011	2.8	2.7	2.6	1.8	4.0	2.3	3.8	2.1	5.3	2.8	4.4	4.0	3.6	0.1	2.8	4.2	2.8
2011/2012	1.4	3.0	3.5	2.5	3.8	3.5	4.9	2.6	6.7	2.2	3.9	3.2	4.1	0.0	3.5	3.9	3.5
2012/2013	2.0	3.1	3.6	2.4	2.9	4.5	4.8	3.6	5.5	2.1	2.4	3.8	3.7	-0.6	4.5	3.4	3.5
Annual percentage point change:																	
2007/2008 to 2008/2009	-1.4	0.9	0.8	0.6	1.4	1.0	3.4	1.1	2.2	1.3	3.0	1.0	1.5	-0.4	1.1	1.6	1.1
2008/2009 to 2009/2010	2.6	1.2	1.3	-0.3	1.1	-0.6	0.1	1.0	2.0	1.6	0.0	1.0	1.1	0.5	1.7	1.0	1.1
2009/2010 to 2010/2011	1.7	0.7	0.5	1.5	1.5	1.9	0.3	-0.1	1.0	-0.1	1.4	1.9	1.0	-0.1	-0.1	1.6	1.0
2010/2011 to 2011/2012	-1.4	0.3	0.8	0.7	-0.2	1.2	1.2	0.5	1.4	-0.6	-0.5	-0.8	0.5	-0.1	0.8	-0.3	0.4
2011/2012 to 2012/2013	0.6	0.1	0.1	-0.1	-0.9	1.0	-0.1	1.1	-1.1	-0.1	-1.5	0.6	-0.4	-0.6	1.0	-0.5	-0.1

continued

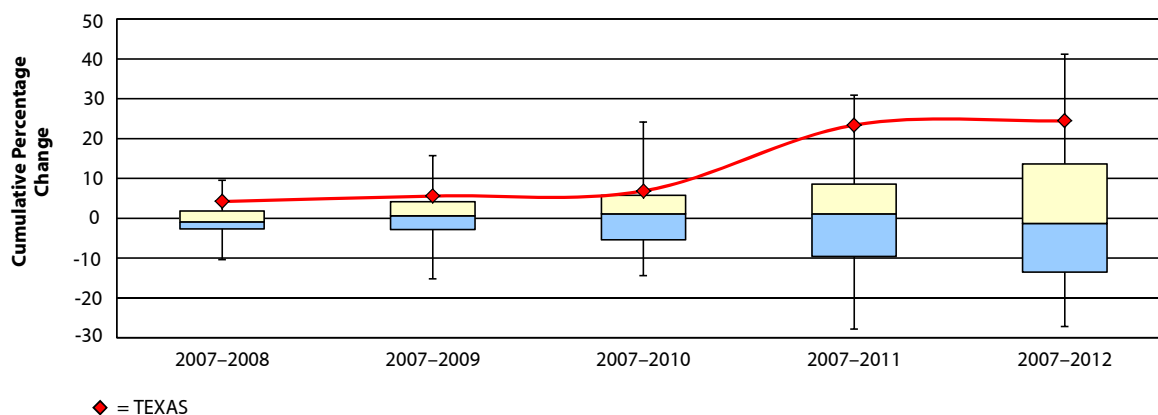


**Table for Figure 63: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Pain Management Injections by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made for pain management injections</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-0.2	0.1	-0.2	-0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	-0.2	0.2	0.1	0.0
2009/2010	-0.1	0.1	-0.2	-0.1	0.1	-0.2	-0.1	0.0	-0.1	0.1	0.0	0.3	0.0	-0.2	0.2	0.0	0.0
2010/2011	-0.2	0.1	-0.2	0.0	0.5	-0.1	0.2	0.0	0.1	0.0	0.0	0.4	0.0	-0.2	0.2	0.2	0.0
2011/2012	0.0	0.1	-0.3	-0.1	0.3	-0.1	0.2	0.1	-0.1	-0.4	0.0	0.2	-0.1	-0.2	0.3	0.1	0.0
2012/2013	-0.1	0.1	-0.3	-0.1	0.2	0.0	0.1	0.1	-0.1	-0.4	-0.1	0.4	-0.1	-0.2	0.2	0.3	0.0
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.2	0.1	-0.2	-0.1	0.1	0.0	0.1	0.1	0.0	0.0	0.0	0.2	0.0	-0.2	0.2	0.1	0.0
2008/2009 to 2009/2010	0.1	0.0	0.0	0.0	0.0	-0.2	-0.3	-0.1	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0
2009/2010 to 2010/2011	-0.1	0.0	-0.1	0.1	0.4	0.2	0.4	0.0	0.1	0.0	0.0	0.1	0.0	0.0	0.0	0.1	0.0
2010/2011 to 2011/2012	0.1	0.0	-0.1	-0.1	-0.2	0.0	-0.1	0.1	-0.1	-0.4	0.0	-0.2	-0.1	-0.1	0.1	-0.1	-0.1
2011/2012 to 2012/2013	-0.1	0.0	0.0	0.0	-0.1	0.0	-0.1	0.1	0.0	-0.1	0.0	0.2	0.0	0.0	-0.1	0.2	0.0

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

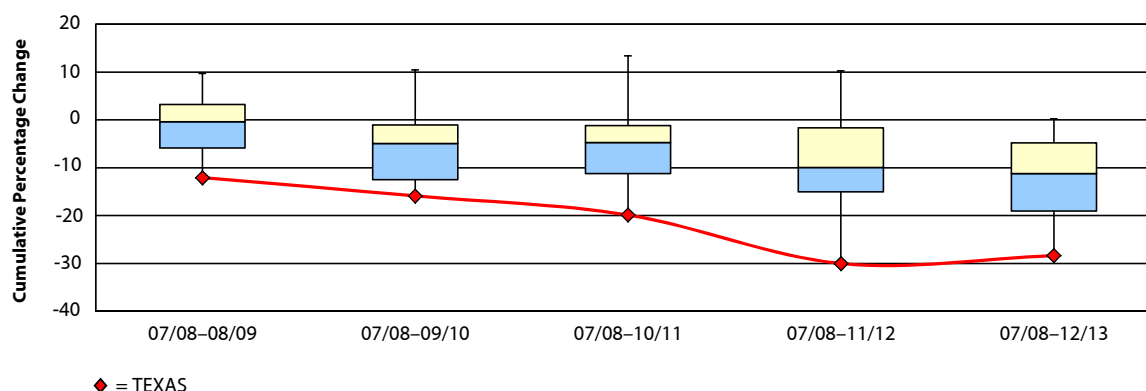
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 64 Trend of Prices for Pain Management Injections by Nonhospital Providers****Table for Figure 64: Trend of Prices for Pain Management Injections by Nonhospital Providers**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	-1.6	-0.2	-9.8	-3.3	2.6	7.4	1.1	-1.7	-6.6	1.0	-2.1	-1.5	-0.3	4.2	-10.3	9.5	-0.9
2009	2.6	-1.3	-12.6	2.7	10.4	0.4	8.5	-1.0	-15.2	0.9	-4.4	-0.2	0.8	5.6	-13.9	15.8	0.6
2010	4.7	-0.7	-12.6	2.5	15.0	9.0	3.2	0.0	-5.8	-6.1	-5.0	2.2	-4.9	6.9	-14.4	24.1	1.1
2011	15.1	-0.4	-15.9	5.7	3.2	8.4	2.6	-2.9	-18.2	-27.8	-7.5	8.9	-3.0	23.4	-11.6	30.9	1.1
2012	14.6	-1.0	-16.9	3.6	-17.1	9.9	12.6	-1.6	-17.7	-27.2	-10.1	20.3	-2.0	24.5	-8.6	41.2	-1.3
Annual percentage change:																	
2007 to 2008	-1.6	-0.2	-9.8	-3.3	2.6	7.4	1.1	-1.7	-6.6	1.0	-2.1	-1.5	-0.3	4.2	-10.3	9.5	-0.9
2008 to 2009	4.2	-1.1	-3.0	6.2	7.7	-6.5	7.3	0.8	-9.2	0.0	-2.4	1.3	1.0	1.3	-4.0	5.7	0.9
2009 to 2010	2.1	0.6	-0.1	-0.1	4.2	8.5	-4.9	0.9	11.1	-7.0	-0.6	2.4	-5.6	1.2	-0.5	7.2	0.8
2010 to 2011	10.0	0.3	-3.8	3.1	-10.3	-0.6	-0.6	-2.8	-13.2	-23.1	-2.6	6.5	2.0	15.5	3.2	5.4	-0.2
2011 to 2012	-0.4	-0.6	-1.2	-2.0	-19.7	1.4	9.8	1.3	0.6	0.9	-2.8	10.5	1.0	0.9	3.3	7.9	0.9

Notes: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 65 Trend of Utilization of Pain Management Injections by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 65: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Pain Management Injections by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Utilization</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	3.7	2.3	-8.3	-5.7	2.7	-1.9	9.2	-6.1	-11.5	-0.4	-0.4	4.5	0.3	-12.1	9.7	-1.6	-0.4
2009/2010	-5.9	1.1	-12.6	-8.7	-4.0	-15.9	-0.5	-14.6	-12.4	10.4	-0.7	-1.9	-3.2	-15.9	-1.4	-10.2	-4.9
2010/2011	-11.2	-2.3	-15.8	-2.6	3.1	-17.1	-1.0	-10.9	-11.3	13.4	-6.9	-1.4	-1.3	-19.9	13.4	-7.9	-4.8
2011/2012	-5.3	-2.0	-25.6	-9.8	-1.3	-13.7	2.2	-16.1	-19.9	1.1	-10.7	-10.1	-9.7	-30.0	10.3	-14.0	-9.9
2012/2013	-22.1	0.2	-24.3	-10.2	-2.2	-15.9	-10.2	-13.6	-24.2	-12.3	-5.7	-14.7	-8.1	-28.4	-1.7	-3.9	-11.2
Annual percentage change:																	
2007/2008 to 2008/2009	3.7	2.3	-8.3	-5.7	2.7	-1.9	9.2	-6.1	-11.5	-0.4	-0.4	4.5	0.3	-12.1	9.7	-1.6	-0.4
2008/2009 to 2009/2010	-9.3	-1.2	-4.6	-3.2	-6.6	-14.3	-8.9	-9.1	-1.1	10.8	-0.3	-6.1	-3.5	-4.3	-10.2	-8.8	-5.4
2009/2010 to 2010/2011	-5.7	-3.3	-3.7	6.7	7.4	-1.4	-0.6	4.4	1.3	2.7	-6.3	0.4	1.9	-4.8	15.0	2.6	0.9
2010/2011 to 2011/2012	6.6	0.2	-11.6	-7.4	-4.3	4.0	3.3	-5.8	-9.7	-10.9	-4.1	-8.8	-8.4	-12.6	-2.7	-6.7	-6.2
2011/2012 to 2012/2013	-17.7	2.3	1.7	-0.5	-0.9	-2.6	-12.1	2.9	-5.4	-13.2	5.6	-5.1	1.8	2.4	-10.8	11.8	-0.7
<b>Visits per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	-5.1	-3.3	-3.1	-1.6	-7.4	-1.4	1.4	-4.3	-7.0	-3.8	-3.1	-1.0	-2.9	-10.0	10.7	-2.3	-3.1
2009/2010	-9.3	-5.6	-6.3	-5.1	-11.7	-9.2	-3.5	-11.3	-7.3	-6.0	-1.4	-2.7	-1.9	-13.5	1.8	-6.0	-6.0
2010/2011	-21.4	-6.1	-8.4	-0.7	-10.3	-9.4	-6.3	-9.7	-6.2	-5.0	-5.1	-2.9	-2.2	-17.4	5.9	-6.9	-6.2
2011/2012	-11.9	-6.2	-12.5	-2.7	-13.8	-5.3	-9.8	-11.9	-11.5	-6.0	-10.8	-9.5	-10.1	-23.2	0.3	-12.6	-10.4
2012/2013	-15.5	-7.7	-15.1	-1.8	-13.5	-4.4	-11.8	-14.4	-15.4	-12.7	-7.0	-14.0	-10.1	-22.7	-3.2	-9.7	-12.2
Annual percentage change:																	
2007/2008 to 2008/2009	-5.1	-3.3	-3.1	-1.6	-7.4	-1.4	1.4	-4.3	-7.0	-3.8	-3.1	-1.0	-2.9	-10.0	10.7	-2.3	-3.1
2008/2009 to 2009/2010	-4.4	-2.3	-3.3	-3.6	-4.6	-7.8	-4.8	-7.3	-0.4	-2.3	1.7	-1.8	1.0	-4.0	-8.1	-3.7	-3.7
2009/2010 to 2010/2011	-13.3	-0.6	-2.2	4.7	1.6	-0.2	-2.9	1.9	1.3	1.1	-3.7	-0.1	-0.3	-4.5	4.1	-1.0	-0.3
2010/2011 to 2011/2012	12.0	-0.1	-4.5	-2.1	-3.9	4.5	-3.7	-2.4	-5.7	-1.1	-6.0	-6.8	-8.0	-7.1	-5.3	-6.1	-4.2
2011/2012 to 2012/2013	-4.0	-1.7	-3.0	1.0	0.3	0.9	-2.2	-2.9	-4.4	-7.1	4.2	-5.0	0.0	0.7	-3.5	3.3	-1.9

continued

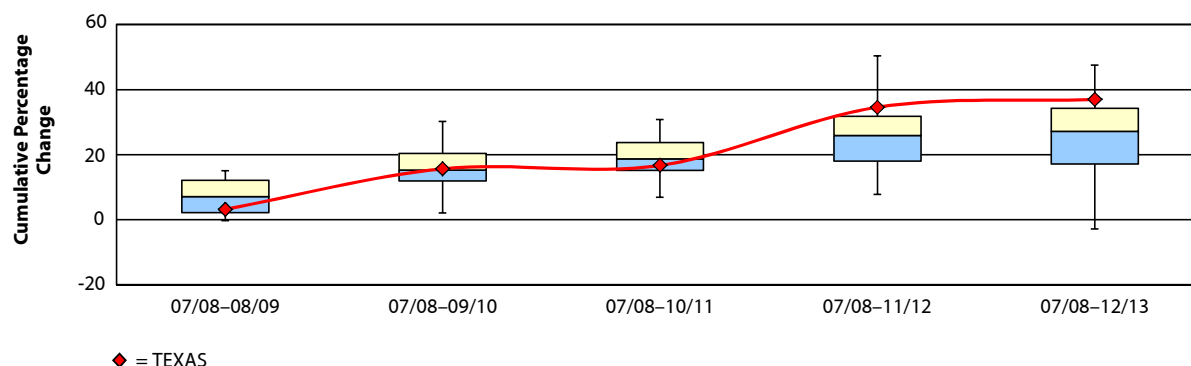
**Table for Figure 65: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Pain Management Injections by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**  
(continued)

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Services per visit</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	4.4	2.8	-3.1	-3.7	3.9	2.3	6.4	0.2	-6.6	2.2	4.7	-0.2	0.9	-1.2	3.6	-1.0	1.5
2009/2010	3.8	3.7	-5.5	-5.2	2.3	-1.9	-0.2	-0.8	-7.5	5.4	2.3	-0.2	-2.2	-1.3	0.3	-4.4	-0.5
2010/2011	0.6	1.7	-5.9	-4.9	8.9	0.4	6.3	-1.1	-4.2	6.8	-2.1	2.2	0.9	-0.4	6.5	-0.9	0.5
2011/2012	9.6	3.1	-9.9	-7.2	12.6	1.0	7.2	0.9	-8.6	2.2	3.2	-0.4	-2.2	-3.4	9.2	-4.5	1.0
2012/2013	0.9	5.9	-7.3	-7.9	11.9	-2.4	5.8	3.2	-8.9	2.7	3.1	3.5	-1.2	-6.4	6.9	0.6	1.8
Annual percentage change:																	
2007/2008 to 2008/2009	4.4	2.8	-3.1	-3.7	3.9	2.3	6.4	0.2	-6.6	2.2	4.7	-0.2	0.9	-1.2	3.6	-1.0	1.5
2008/2009 to 2009/2010	-0.5	0.9	-2.4	-1.5	-1.5	-4.1	-6.2	-1.1	-0.9	3.1	-2.3	0.0	-3.0	-0.2	-3.3	-3.4	-1.5
2009/2010 to 2010/2011	-3.1	-1.9	-0.4	0.3	6.5	2.3	6.5	-0.3	3.5	1.3	-4.3	2.4	3.1	0.9	6.2	3.7	1.8
2010/2011 to 2011/2012	8.9	1.4	-4.2	-2.5	3.4	0.6	0.9	2.0	-4.5	-4.4	5.4	-2.6	-3.0	-3.0	2.6	-3.6	-1.0
2011/2012 to 2012/2013	-7.9	2.7	2.9	-0.8	-0.6	-3.3	-1.3	2.2	-0.4	0.6	-0.1	4.0	1.0	-3.1	-2.2	5.3	-0.3
<b>Resource intensity<sup>a</sup></b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	2.4	2.1	-3.3	-2.7	-0.2	0.5	6.0	-1.4	-1.0	-0.4	-1.8	0.7	0.5	-2.3	-2.8	-0.9	
2009/2010	-3.7	3.0	-0.8	-1.2	0.8	-1.6	8.2	-1.7	-1.9	-5.6	-1.3	0.3	0.4	-1.3	-0.2	-1.8	
2010/2011	2.0	1.8	-3.7	-0.6	-1.0	-2.5	6.0	-0.6	-2.6	-2.0	-2.3	-0.7	0.0	-3.0	0.2	-2.2	
2011/2012	-0.3	0.7	-5.1	-4.8	-2.6	-2.1	10.4	-3.5	-2.0	-0.4	-3.8	-1.9	1.1	-6.2	-1.5	-5.1	
2012/2013	-6.1	2.5	-4.4	-2.6	-3.7	-3.4	1.1	-1.6	-4.6	-6.7	-3.3	-5.6	1.7	-5.7	-4.2	-1.8	
Annual percentage point change:																	
2007/2008 to 2008/2009	2.4	2.1	-3.3	-2.7	-0.2	0.5	6.0	-1.4	-1.0	-0.4	-1.8	0.7	0.5	-2.3	-2.8	-0.9	
2008/2009 to 2009/2010	-5.8	0.8	2.5	1.4	1.0	-2.1	2.6	-0.4	-1.1	-5.2	0.5	-0.3	-0.1	1.0	2.0	-1.1	
2009/2010 to 2010/2011	5.7	-1.1	-3.3	0.7	-2.0	-1.1	-2.3	1.3	-0.7	3.2	-1.0	-1.0	-0.5	-2.0	0.5	-0.3	
2010/2011 to 2011/2012	-2.8	-1.2	-2.1	-4.3	-1.5	0.5	4.5	-3.3	0.4	1.3	-1.7	-1.3	1.1	-4.3	-1.5	-3.2	
2011/2012 to 2012/2013	-6.2	1.8	1.0	2.4	-1.1	-1.5	-8.7	2.2	-3.3	-6.3	0.7	-4.2	0.7	0.8	-2.5	4.3	

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 66 Trend of Average Payment per Claim for Physical Medicine by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 66: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Physical Medicine by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	12.0	7.1	0.3	11.5	8.8	12.2	15.1	2.5	0.8	2.5	14.2	1.9	7.1	3.2	-0.3	14.9	7.1
2009/2010	30.2	12.6	2.0	16.2	27.0	19.9	19.8	11.2	8.7	14.0	22.4	9.0	14.6	15.6	14.9	20.9	15.3
2010/2011	23.4	15.4	6.9	23.3	30.8	27.8	16.3	14.9	8.7	12.4	25.7	18.6	20.4	16.7	24.1	18.8	18.7
2011/2012	22.8	17.9	7.7	50.4	18.0	41.6	34.4	17.2	19.3	12.4	24.6	27.5	27.1	34.6	28.7	29.2	25.8
2012/2013	26.8	17.3	8.9	41.5	-2.9	47.6	26.1	15.9	20.5	16.8	28.5	33.1	27.4	37.0	31.6	35.4	27.1
Annual percentage change:																	
2007/2008 to 2008/2009	12.0	7.1	0.3	11.5	8.8	12.2	15.1	2.5	0.8	2.5	14.2	1.9	7.1	3.2	-0.3	14.9	7.1
2008/2009 to 2009/2010	16.2	5.1	1.7	4.2	16.7	6.8	4.1	8.5	7.8	11.2	7.3	7.0	7.0	12.1	15.2	5.2	7.1
2009/2010 to 2010/2011	-5.2	2.5	4.7	6.1	3.0	6.7	-2.9	3.3	0.1	-1.3	2.7	8.8	5.1	0.9	8.0	-1.7	2.8
2010/2011 to 2011/2012	-0.5	2.2	0.8	21.9	-9.7	10.7	15.6	2.0	9.7	0.0	-0.9	7.5	5.6	15.3	3.7	8.7	4.6
2011/2012 to 2012/2013	3.3	-0.5	1.1	-5.9	-17.7	4.2	-6.2	-1.1	0.9	4.0	3.1	4.4	0.3	1.8	2.2	4.8	1.4
<b>Percentage of claims with physical medicine services</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	3.6	2.0	2.8	0.1	1.7	2.1	2.2	-1.1	-1.3	-1.6	3.7	2.8	2.1	-0.9	1.3	2.0	2.0
2009/2010	4.0	3.7	5.0	-0.4	4.1	2.8	5.1	1.9	-2.7	0.3	6.0	4.6	5.5	0.9	2.2	1.8	3.2
2010/2011	5.3	5.4	4.9	5.2	5.1	2.3	6.0	0.5	-1.9	0.5	7.9	4.0	6.0	0.0	2.5	3.3	4.4
2011/2012	3.7	6.3	6.0	5.6	4.6	2.2	6.2	0.6	-2.2	0.2	7.6	3.4	5.1	-2.3	2.9	1.6	3.5
2012/2013	2.5	6.5	7.2	3.5	4.2	5.1	5.2	1.2	-2.5	-0.2	6.8	3.6	3.4	-2.3	3.1	1.7	3.5
Annual percentage point change:																	
2007/2008 to 2008/2009	3.6	2.0	2.8	0.1	1.7	2.1	2.2	-1.1	-1.3	-1.6	3.7	2.8	2.1	-0.9	1.3	2.0	2.0
2008/2009 to 2009/2010	0.4	1.7	2.1	-0.5	2.4	0.7	2.8	3.1	-1.4	1.9	2.4	1.9	3.4	1.8	0.8	-0.2	1.8
2009/2010 to 2010/2011	1.2	1.7	-0.1	5.6	0.9	-0.4	0.9	-1.4	0.8	0.3	1.9	-0.6	0.5	-0.9	0.3	1.5	0.6
2010/2011 to 2011/2012	-1.6	0.9	1.2	0.4	-0.5	-0.1	0.2	0.1	-0.3	-0.4	-0.3	-0.6	-0.9	-2.2	0.5	-1.7	-0.3
2011/2012 to 2012/2013	-1.1	0.2	1.2	-2.1	-0.4	2.9	-1.0	0.5	-0.2	-0.3	-0.8	0.2	-1.6	0.0	0.1	0.1	-0.1

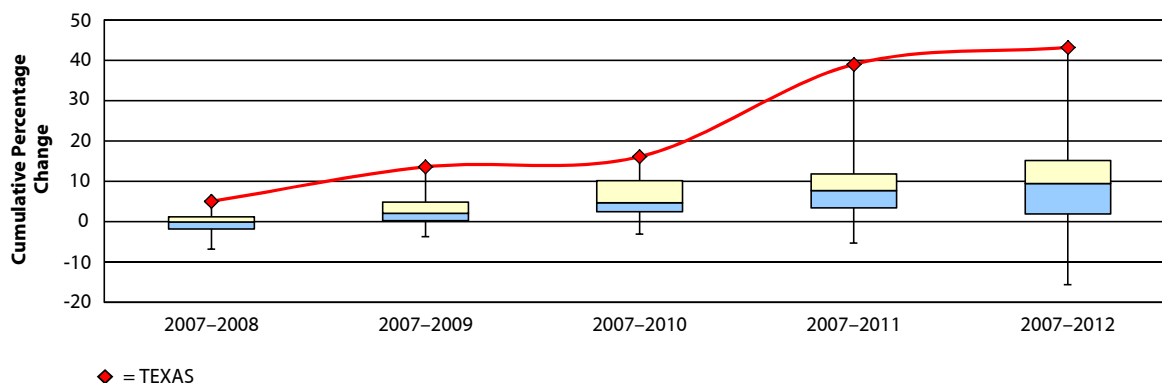
continued

**Table for Figure 66: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Physical Medicine by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**  
(continued)

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made for physical medicine services</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	0.3	0.2	-0.2	0.3	0.9	0.1	-1.4	-0.6	-0.3	-0.7	0.6	0.8	1.3	-0.9	0.2	0.6	0.2
2009/2010	1.2	0.4	0.5	-0.2	2.7	0.6	-0.8	0.0	-0.3	-0.1	1.4	1.1	2.0	0.9	1.1	0.0	0.6
2010/2011	-0.5	0.7	0.8	0.9	2.8	1.0	0.3	-0.3	0.3	-0.4	2.3	0.7	2.4	1.2	0.6	-0.3	0.7
2011/2012	0.5	0.5	0.3	1.5	1.5	0.9	0.1	0.1	0.4	-0.3	2.3	0.8	2.7	1.6	1.9	0.0	0.7
2012/2013	0.0	0.7	0.2	1.2	1.6	1.6	-0.5	0.0	1.1	-0.1	2.5	1.0	1.2	1.8	1.6	0.1	1.0
Annual percentage point change:																	
2007/2008 to 2008/2009	0.3	0.2	-0.2	0.3	0.9	0.1	-1.4	-0.6	-0.3	-0.7	0.6	0.8	1.3	-0.9	0.2	0.6	0.2
2008/2009 to 2009/2010	1.0	0.2	0.7	-0.4	1.7	0.5	0.6	0.6	0.0	0.6	0.8	0.2	0.7	1.8	0.9	-0.6	0.6
2009/2010 to 2010/2011	-1.8	0.4	0.3	1.1	0.2	0.4	1.1	-0.3	0.6	-0.2	0.9	-0.4	0.4	0.3	-0.5	-0.3	0.3
2010/2011 to 2011/2012	1.1	-0.3	-0.5	0.6	-1.4	-0.1	-0.2	0.4	0.1	0.1	0.0	0.1	0.3	0.4	1.3	0.3	0.1
2011/2012 to 2012/2013	-0.5	0.2	-0.1	-0.3	0.2	0.7	-0.6	-0.1	0.8	0.2	0.2	0.2	-1.6	0.2	-0.3	0.1	0.1

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

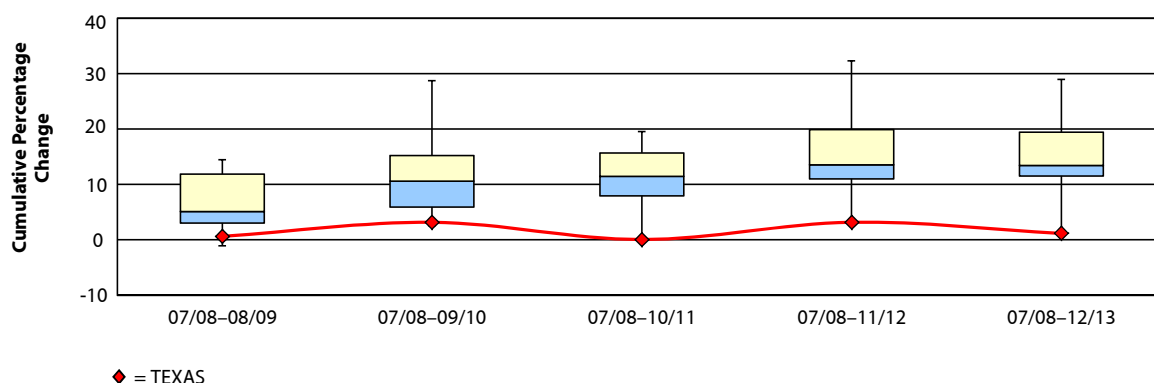
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 67 Trend of Prices for Physical Medicine by Nonhospital Providers****Table for Figure 67: Trend of Prices for Physical Medicine by Nonhospital Providers**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	-1.8	0.6	-6.3	0.9	-0.3	-2.0	1.7	-1.0	0.1	1.6	-0.6	-6.9	0.7	5.0	-5.3	1.5	-0.1
2009	0.2	0.5	-3.8	-0.1	9.9	5.0	2.7	4.4	1.4	4.7	0.3	-2.1	3.7	13.6	0.5	4.9	2.0
2010	4.4	2.1	-3.1	4.7	13.2	9.9	2.0	10.5	4.0	4.7	0.6	4.6	2.7	16.1	4.7	10.7	4.7
2011	11.5	1.8	-5.4	17.0	2.8	10.7	4.7	8.8	3.9	6.5	0.6	12.1	4.1	39.0	11.2	14.9	7.6
2012	12.2	0.5	-4.8	10.5	-15.6	16.5	6.6	10.3	3.4	8.3	-0.5	17.2	8.5	43.2	13.9	19.9	9.4
Annual percentage change:																	
2007 to 2008	-1.8	0.6	-6.3	0.9	-0.3	-2.0	1.7	-1.0	0.1	1.6	-0.6	-6.9	0.7	5.0	-5.3	1.5	-0.1
2008 to 2009	2.0	-0.1	2.7	-1.0	10.2	7.1	1.0	5.4	1.2	3.1	0.9	5.2	3.0	8.2	6.1	3.4	3.0
2009 to 2010	4.2	1.6	0.7	4.9	3.0	4.6	-0.7	5.9	2.6	0.0	0.4	6.9	-0.9	2.2	4.2	5.5	2.8
2010 to 2011	6.9	-0.3	-2.4	11.7	-9.2	0.7	2.7	-1.5	-0.1	1.7	0.0	7.1	1.4	19.7	6.2	3.8	1.5
2011 to 2012	0.7	-1.3	0.6	-5.6	-17.9	5.3	1.8	1.4	-0.5	1.8	-1.1	4.5	4.2	3.0	2.4	4.4	1.6

Notes: Prices are based on calendar years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 68 Trend of Utilization of Physical Medicine by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 68: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Physical Medicine by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Utilization</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	14.4	6.2	2.8	10.5	8.1	12.3	13.9	3.8	-1.0	2.0	11.7	4.0	3.8	0.6	3.2	12.0	5.1
2009/2010	28.8	9.5	2.6	15.4	15.0	11.7	16.5	6.8	3.2	8.1	18.4	5.4	6.4	3.2	12.0	13.7	10.6
2010/2011	15.3	12.4	9.7	16.0	17.8	11.4	13.9	8.8	1.4	5.6	19.6	11.5	10.9	0.1	17.5	7.0	11.4
2011/2012	11.6	14.4	11.6	32.3	19.7	23.0	28.0	10.0	12.4	3.6	20.1	10.4	14.6	3.2	15.8	12.7	13.6
2012/2013	12.8	13.7	11.5	29.0	18.0	23.0	20.8	10.3	13.2	6.0	24.0	11.5	12.0	1.2	14.6	16.8	13.4
Annual percentage change:																	
2007/2008 to 2008/2009	14.4	6.2	2.8	10.5	8.1	12.3	13.9	3.8	-1.0	2.0	11.7	4.0	3.8	0.6	3.2	12.0	5.1
2008/2009 to 2009/2010	12.5	3.1	-0.3	4.4	6.4	-0.5	2.3	2.9	4.3	6.0	6.0	1.4	2.4	2.5	8.5	1.5	3.0
2009/2010 to 2010/2011	-10.5	2.7	7.0	0.5	2.4	-0.2	-2.2	1.9	-1.7	-2.3	1.0	5.7	4.3	-3.0	4.9	-5.8	0.8
2010/2011 to 2011/2012	-3.2	1.7	1.7	14.0	1.7	10.4	12.4	1.1	10.9	-2.0	0.4	-0.9	3.3	3.1	-1.4	5.3	1.7
2011/2012 to 2012/2013	1.1	-0.6	-0.1	-2.5	-1.4	0.0	-5.6	0.3	0.7	2.4	3.3	1.0	-2.2	-1.9	-1.1	3.6	-0.1
<b>Visits per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	7.4	4.6	-0.4	4.7	3.7	3.7	9.1	0.8	0.4	-1.4	8.6	2.6	1.9	-5.9	-3.5	7.5	3.2
2009/2010	19.6	9.1	3.0	5.0	8.5	3.8	14.3	3.3	6.3	7.2	11.9	6.7	5.3	-2.6	4.1	6.1	6.2
2010/2011	4.8	9.4	6.3	0.7	7.1	5.2	10.8	3.8	3.6	4.2	13.0	8.5	7.7	-6.2	5.0	1.4	5.1
2011/2012	4.1	10.4	9.8	11.1	5.2	10.2	23.2	6.5	8.0	0.7	12.5	10.6	8.3	-7.2	5.6	1.1	8.2
2012/2013	1.2	8.6	10.1	8.5	-0.1	6.8	15.0	2.9	9.2	0.4	14.0	7.2	4.5	-9.2	5.2	-1.6	6.0
Annual percentage change:																	
2007/2008 to 2008/2009	7.4	4.6	-0.4	4.7	3.7	3.7	9.1	0.8	0.4	-1.4	8.6	2.6	1.9	-5.9	-3.5	7.5	3.2
2008/2009 to 2009/2010	11.3	4.3	3.5	0.3	4.6	0.1	4.8	2.5	5.9	8.6	3.1	4.0	3.3	3.5	7.9	-1.4	3.8
2009/2010 to 2010/2011	-12.3	0.3	3.2	-4.2	-1.3	1.3	-3.1	0.5	-2.6	-2.7	1.0	1.7	2.3	-3.7	0.9	-4.3	-0.5
2010/2011 to 2011/2012	-0.7	0.9	3.3	10.4	-1.8	4.7	11.1	2.6	4.2	-3.4	-0.5	1.9	0.6	-1.1	0.5	-0.4	0.8
2011/2012 to 2012/2013	-2.8	-1.7	0.2	-2.3	-5.0	-3.0	-6.6	-3.4	1.1	-0.3	1.3	-3.1	-3.5	-2.1	-0.4	-2.6	-2.5

continued



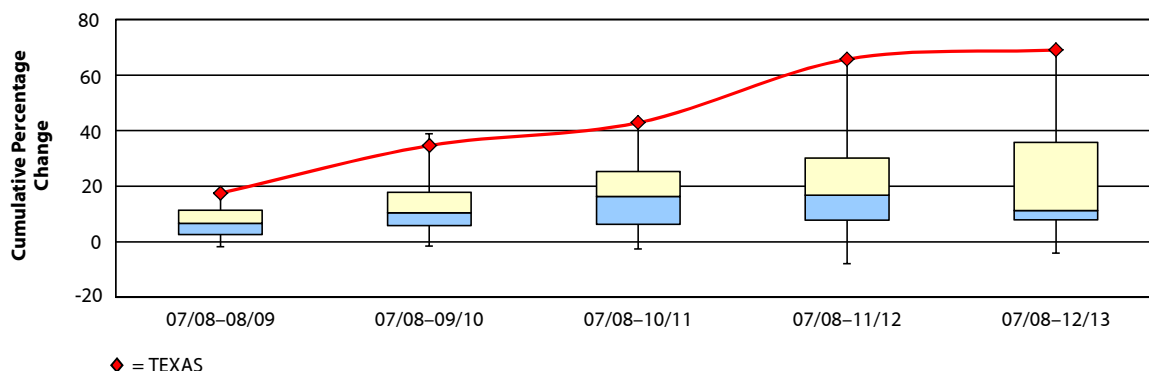
**Table for Figure 68: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Physical Medicine by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Services per visit</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	7.3	1.7	3.0	1.2	5.0	8.0	2.3	0.5	0.0	2.8	2.2	3.0	1.2	1.2	6.3	6.4	2.5
2009/2010	7.5	1.9	3.3	6.5	6.7	6.4	3.0	-1.5	-3.7	5.1	4.6	-0.8	2.6	-1.8	8.4	7.7	4.0
2010/2011	4.2	4.2	5.7	9.6	5.9	5.3	4.5	-0.8	-4.3	5.6	4.1	-0.7	4.5	-2.4	9.8	4.2	4.4
2011/2012	5.6	5.2	5.7	15.2	7.7	9.2	7.6	-4.1	0.1	4.3	6.2	-1.2	6.6	0.5	6.3	10.6	6.0
2012/2013	7.5	7.7	5.2	15.7	10.9	12.5	9.2	0.0	0.2	5.4	8.8	0.7	6.3	1.7	7.4	14.8	7.5
Annual percentage change:																	
2007/2008 to 2008/2009	7.3	1.7	3.0	1.2	5.0	8.0	2.3	0.5	0.0	2.8	2.2	3.0	1.2	1.2	6.3	6.4	2.5
2008/2009 to 2009/2010	0.2	0.2	0.3	5.2	1.5	-1.5	0.7	-1.9	-3.6	2.2	2.4	-3.7	1.3	-3.0	1.9	1.3	0.5
2009/2010 to 2010/2011	-3.1	2.2	2.4	2.9	-0.7	-1.0	1.5	0.6	-0.7	0.5	-0.5	0.1	1.9	-0.6	1.3	-3.3	0.3
2010/2011 to 2011/2012	1.3	1.0	0.0	5.1	1.7	3.7	2.9	-3.3	4.6	-1.2	2.1	-0.5	1.9	2.9	-3.2	6.2	1.8
2011/2012 to 2012/2013	1.9	2.4	-0.5	0.5	3.0	3.1	1.5	4.3	0.1	1.0	2.4	1.9	-0.2	1.2	1.1	3.8	1.7
<b>Resource intensity<sup>a</sup></b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-0.4	-0.1	-1.0	-0.3	0.0	-0.2	1.9	2.7	0.0	-1.3	1.0	0.5	1.3	3.3	0.8	1.1	
2009/2010	0.6	-0.7	-2.0	0.2	1.3	-0.6	-0.4	5.3	1.8	-1.5	2.2	0.8	0.5	6.0	1.0	2.2	
2010/2011	0.1	-1.2	-1.3	1.0	5.4	0.4	0.3	6.0	3.9	-0.8	2.0	2.5	-0.4	6.0	3.2	2.6	
2011/2012	1.6	-0.8	-1.4	2.1	5.9	-0.3	-1.6	8.3	4.4	-1.1	1.4	2.3	0.7	7.3	3.0	3.3	
2012/2013	-0.9	-1.8	-0.7	1.6	7.6	-0.1	0.1	7.4	4.8	-0.2	1.8	2.7	0.1	5.9	2.0	3.3	
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.4	-0.1	-1.0	-0.3	0.0	-0.2	1.9	2.7	0.0	-1.3	1.0	0.5	1.3	3.3	0.8	1.1	
2008/2009 to 2009/2010	0.9	-0.6	-0.9	0.4	1.2	-0.3	-2.1	2.5	1.7	-0.1	1.0	0.3	-0.8	2.6	0.2	1.0	
2009/2010 to 2010/2011	-0.3	-0.4	0.8	0.7	3.5	0.8	0.6	0.7	2.2	0.6	-0.2	1.5	-0.8	0.2	1.9	0.5	
2010/2011 to 2011/2012	1.3	0.4	-0.1	0.9	0.4	-0.7	-1.6	2.2	0.0	-0.2	-0.5	-0.1	1.0	1.2	-0.2	0.5	
2011/2012 to 2012/2013	-2.3	-0.8	0.6	-0.4	1.6	0.2	1.2	-0.9	0.3	0.9	0.2	0.3	-0.5	-1.3	-0.9	-0.2	

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 69 Trend of Average Payment per Claim for Major Surgery by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 69: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Major Surgery by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	-1.8	3.3	0.0	-1.1	6.0	16.1	11.4	7.7	6.8	11.3	11.2	6.4	1.8	17.5	5.5	11.4	6.6
2009/2010	2.8	4.3	-1.6	6.0	15.7	15.6	13.0	38.9	5.7	6.4	7.9	20.0	6.7	34.6	15.5	21.9	10.4
2010/2011	15.6	6.3	-2.6	6.2	24.9	20.4	17.1	41.3	0.5	0.2	10.2	33.7	11.9	42.9	19.6	25.7	16.3
2011/2012	14.5	11.5	3.6	18.8	14.7	27.7	19.4	35.0	4.1	-7.9	3.8	38.1	11.8	65.7	25.3	32.6	16.8
2012/2013	8.6	10.1	8.5	8.1	-4.0	38.1	19.8	40.3	6.2	-0.2	7.8	40.4	12.3	69.0	14.2	33.5	11.2
Annual percentage change:																	
2007/2008 to 2008/2009	-1.8	3.3	0.0	-1.1	6.0	16.1	11.4	7.7	6.8	11.3	11.2	6.4	1.8	17.5	5.5	11.4	6.6
2008/2009 to 2009/2010	4.7	1.0	-1.6	7.2	9.1	-0.4	1.5	29.0	-1.0	-4.4	-3.0	12.8	4.8	14.6	9.5	9.4	4.8
2009/2010 to 2010/2011	12.4	1.9	-1.1	0.1	8.0	4.2	3.6	1.8	-4.9	-5.8	2.1	11.4	4.8	6.1	3.6	3.1	3.3
2010/2011 to 2011/2012	-1.0	4.9	6.4	11.9	-8.2	6.0	2.0	-4.5	3.6	-8.1	-5.8	3.3	0.0	16.0	4.7	5.5	3.4
2011/2012 to 2012/2013	-5.1	-1.2	4.7	-9.0	-16.3	8.1	0.3	4.0	2.1	8.4	3.9	1.7	0.4	2.0	-8.9	0.7	1.2
<b>Percentage of claims with major surgery</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	3.4	1.0	0.6	1.0	0.4	0.7	5.9	0.7	-0.1	-1.0	0.8	-0.2	0.2	-0.2	-1.5	1.4	0.7
2009/2010	0.4	1.1	0.5	-0.1	1.3	2.0	6.0	2.4	-0.8	-0.2	0.1	0.1	0.2	-0.6	-0.3	2.4	0.3
2010/2011	2.9	0.6	0.8	2.2	0.2	-0.5	3.0	2.1	-1.5	-1.1	1.7	1.1	-0.8	-2.1	1.9	4.2	0.9
2011/2012	0.7	0.6	1.0	0.8	-0.4	0.4	5.2	0.8	-0.7	-3.5	0.6	0.9	0.3	-1.3	-2.0	1.4	0.6
2012/2013	1.2	0.3	-0.1	-0.4	-2.0	0.8	3.0	1.5	-1.9	-2.4	-1.6	0.2	-0.7	-2.4	-0.4	0.4	-0.3
Annual percentage point change:																	
2007/2008 to 2008/2009	3.4	1.0	0.6	1.0	0.4	0.7	5.9	0.7	-0.1	-1.0	0.8	-0.2	0.2	-0.2	-1.5	1.4	0.7
2008/2009 to 2009/2010	-3.0	0.1	-0.1	-1.1	0.8	1.3	0.1	1.7	-0.7	0.7	-0.7	0.3	0.0	-0.4	1.1	1.0	0.1
2009/2010 to 2010/2011	2.5	-0.5	0.3	2.4	-1.1	-2.4	-3.0	-0.4	-0.7	-0.9	1.6	1.0	-1.0	-1.5	2.3	1.8	-0.4
2010/2011 to 2011/2012	-2.3	0.0	0.3	-1.4	-0.5	0.9	2.2	-1.2	0.8	-2.3	-1.1	-0.2	1.0	0.8	-3.9	-2.8	-0.4
2011/2012 to 2012/2013	0.5	-0.3	-1.2	-1.3	-1.6	0.4	-2.1	0.7	-1.2	1.1	-2.2	-0.7	-1.0	-1.1	1.5	-1.0	-1.0

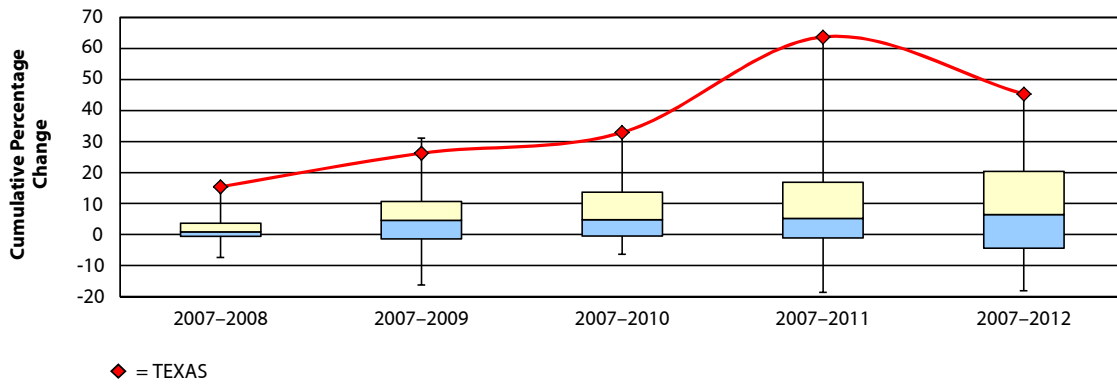
continued

**Table for Figure 69: Trend of Average Payment per Claim, Percentage of Claims, and Percentage of Payments for Major Surgery by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**  
(continued)

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Percentage of medical payments made for major surgery</b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-0.6	-0.1	-0.4	-0.7	0.1	0.2	0.1	0.7	0.4	0.1	0.1	0.9	-0.1	0.4	0.0	0.4	0.1
2009/2010	-1.2	-0.3	-0.2	-1.1	0.1	0.2	0.0	4.5	-0.1	-0.7	-0.5	1.8	-0.4	0.9	0.3	0.6	-0.1
2010/2011	-1.2	-0.4	-0.4	-1.1	0.2	-0.3	0.2	4.0	-0.4	-1.3	0.2	2.4	-0.5	1.1	0.2	1.1	0.0
2011/2012	-0.5	-0.5	-0.4	-1.7	-0.5	-0.6	-0.2	2.6	-0.6	-2.3	-0.3	1.8	-0.3	1.7	-0.1	0.5	-0.3
2012/2013	-1.3	-0.5	-0.6	-2.2	-0.7	0.0	-0.4	3.6	-0.4	-1.6	-0.5	1.2	-0.9	1.5	-0.7	-0.4	-0.5
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.6	-0.1	-0.4	-0.7	0.1	0.2	0.1	0.7	0.4	0.1	0.1	0.9	-0.1	0.4	0.0	0.4	0.1
2008/2009 to 2009/2010	-0.6	-0.2	0.2	-0.4	0.0	0.0	-0.1	3.8	-0.5	-0.8	-0.5	0.9	-0.3	0.6	0.3	0.2	-0.1
2009/2010 to 2010/2011	0.0	-0.1	-0.2	0.1	0.1	-0.5	0.2	-0.5	-0.3	-0.6	0.7	0.6	-0.1	0.2	-0.1	0.5	0.0
2010/2011 to 2011/2012	0.7	-0.1	0.0	-0.7	-0.7	-0.3	-0.4	-1.4	-0.2	-1.0	-0.5	-0.6	0.2	0.6	-0.3	-0.6	-0.3
2011/2012 to 2012/2013	-0.8	0.0	-0.3	-0.5	-0.2	0.6	-0.2	1.0	0.2	0.6	-0.2	-0.6	-0.6	-0.2	-0.6	-0.9	-0.2

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

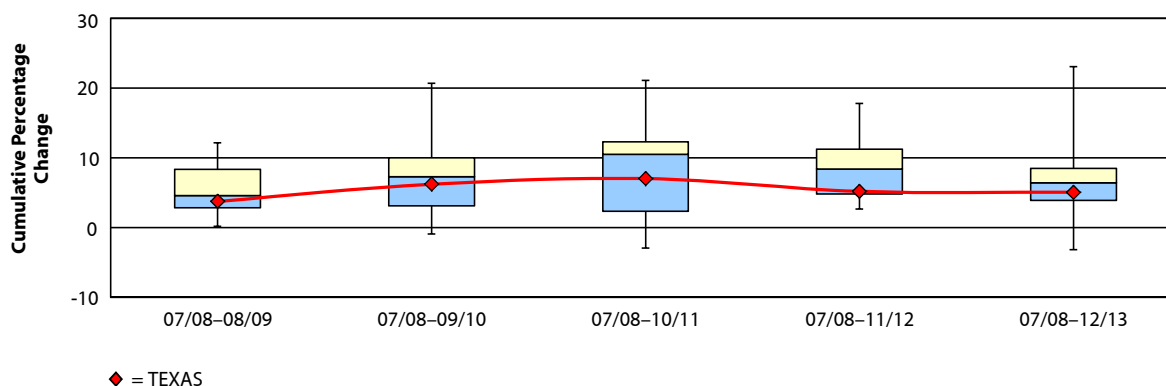
<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 70 Trend of Prices for Major Surgery by Nonhospital Providers****Table for Figure 70: Trend of Prices for Major Surgery by Nonhospital Providers**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
Cumulative percentage change from 2007 to:																	
2008	-0.7	-0.4	-7.4	-6.4	4.6	6.6	-0.3	3.7	1.0	-0.3	0.7	3.2	3.4	15.4	-3.3	3.6	0.8
2009	-1.0	-0.7	-4.0	-2.3	9.9	20.0	5.8	31.1	-1.8	5.5	3.7	7.1	3.7	26.3	-16.2	11.4	4.6
2010	3.7	1.1	-5.8	-2.0	10.6	26.9	7.9	29.9	-4.1	2.5	5.8	10.5	3.5	32.9	-6.4	16.8	4.7
2011	12.3	-7.9	-3.8	1.4	5.0	25.2	6.7	30.8	-3.0	-18.6	3.7	12.8	5.4	63.7	0.9	20.9	5.2
2012	7.3	-8.6	-5.0	-2.4	-18.1	33.1	6.8	27.1	-3.9	-15.7	4.4	14.6	8.9	45.3	6.0	26.3	6.4
Annual percentage change:																	
2007 to 2008	-0.7	-0.4	-7.4	-6.4	4.6	6.6	-0.3	3.7	1.0	-0.3	0.7	3.2	3.4	15.4	-3.3	3.6	0.8
2008 to 2009	-0.2	-0.3	3.6	4.4	5.1	12.5	6.1	26.4	-2.8	5.8	3.0	3.9	0.3	9.4	-13.3	7.5	4.1
2009 to 2010	4.7	1.8	-1.8	0.2	0.6	5.8	2.0	-0.9	-2.3	-2.8	2.1	3.1	-0.2	5.3	11.7	4.9	1.9
2010 to 2011	8.3	-8.9	2.1	3.6	-5.1	-1.3	-1.1	0.7	1.1	-20.6	-2.0	2.1	1.8	23.2	7.8	3.5	1.5
2011 to 2012	-4.4	-0.8	-1.2	-3.8	-22.0	6.3	0.1	-2.8	-0.9	3.5	0.7	1.5	3.3	-11.3	5.1	4.4	-0.4

Notes: Prices are based on calendar years.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 71 Trend of Utilization of Major Surgery by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 71: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Major Surgery by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Utilization</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	0.2	3.9	1.8	8.3	4.7	8.6	4.4	3.6	7.8	12.2	10.4	6.7	1.9	3.8	8.4	2.1	4.6
2009/2010	-0.6	3.1	3.2	9.2	7.5	0.0	15.6	20.7	11.4	-0.9	8.8	7.1	7.2	6.2	10.8	8.6	7.3
2010/2011	12.3	0.8	2.1	11.9	13.3	-1.5	11.6	21.1	2.6	-2.9	10.7	12.5	12.3	7.0	10.3	7.0	10.5
2011/2012	3.5	2.8	5.7	10.8	11.8	2.6	14.6	17.8	8.9	6.5	4.4	13.8	9.4	5.2	8.0	8.8	8.4
2012/2013	-3.2	1.0	6.5	8.5	10.8	8.5	6.2	23.1	8.4	6.4	2.7	13.6	7.0	5.1	2.7	5.1	6.4
Annual percentage change:																	
2007/2008 to 2008/2009	0.2	3.9	1.8	8.3	4.7	8.6	4.4	3.6	7.8	12.2	10.4	6.7	1.9	3.8	8.4	2.1	4.6
2008/2009 to 2009/2010	-0.8	-0.8	1.3	0.8	2.6	-7.9	10.7	16.5	3.4	-11.7	-1.5	0.4	5.1	2.4	2.2	6.3	1.8
2009/2010 to 2010/2011	13.0	-2.2	-1.1	2.5	5.4	-1.5	-3.5	0.3	-7.9	-2.0	1.8	5.0	4.8	0.8	-0.5	-1.4	-0.1
2010/2011 to 2011/2012	-7.8	2.0	3.5	-1.1	-1.3	4.2	2.7	-2.7	6.1	9.7	-5.7	1.2	-2.5	-1.7	-2.0	1.6	0.1
2011/2012 to 2012/2013	-6.4	-1.8	0.8	-2.0	-0.8	5.7	-7.3	4.5	-0.5	-0.1	-1.7	-0.2	-2.3	-0.1	-4.9	-3.4	-1.2
<b>Visits per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	-0.4	0.1	2.6	0.0	-0.6	-0.6	1.3	-0.1	0.0	-0.7	0.7	-1.2	0.7	-0.6	-0.5	1.6	-0.1
2009/2010	2.3	0.0	1.8	1.2	-0.3	-1.7	2.1	2.0	-1.3	-3.1	1.1	-1.2	0.1	2.5	1.2	3.0	1.2
2010/2011	1.5	-0.6	-1.6	2.5	-0.7	-3.4	-5.3	0.1	-1.9	-2.0	-1.2	-2.0	-0.1	0.4	1.1	0.7	-0.7
2011/2012	0.4	0.1	3.2	1.6	-1.2	-1.6	0.1	0.9	-2.1	-1.5	-1.1	-0.3	0.8	1.4	-2.0	0.6	0.1
2012/2013	-0.8	-1.1	-1.3	-0.6	-1.3	-2.7	-2.0	-1.0	-1.4	-2.3	-1.4	-1.0	-1.0	0.7	-3.9	2.0	-1.2
Annual percentage change:																	
2007/2008 to 2008/2009	-0.4	0.1	2.6	0.0	-0.6	-0.6	1.3	-0.1	0.0	-0.7	0.7	-1.2	0.7	-0.6	-0.5	1.6	-0.1
2008/2009 to 2009/2010	2.8	-0.1	-0.8	1.2	0.3	-1.1	0.8	2.1	-1.2	-2.3	0.4	0.0	-0.7	3.0	1.7	1.4	0.4
2009/2010 to 2010/2011	-0.8	-0.6	-3.3	1.3	-0.4	-1.8	-7.3	-1.8	-0.6	1.1	-2.2	-0.9	-0.2	-2.0	-0.2	-2.3	-0.8
2010/2011 to 2011/2012	-1.0	0.7	4.8	-0.8	-0.4	1.9	5.8	0.7	-0.2	0.5	0.1	1.8	0.9	1.0	-3.0	-0.1	0.6
2011/2012 to 2012/2013	-1.3	-1.1	-4.3	-2.2	-0.2	-1.1	-2.1	-1.8	0.6	-0.8	-0.3	-0.7	-1.8	-0.7	-1.9	1.4	-1.1

continued

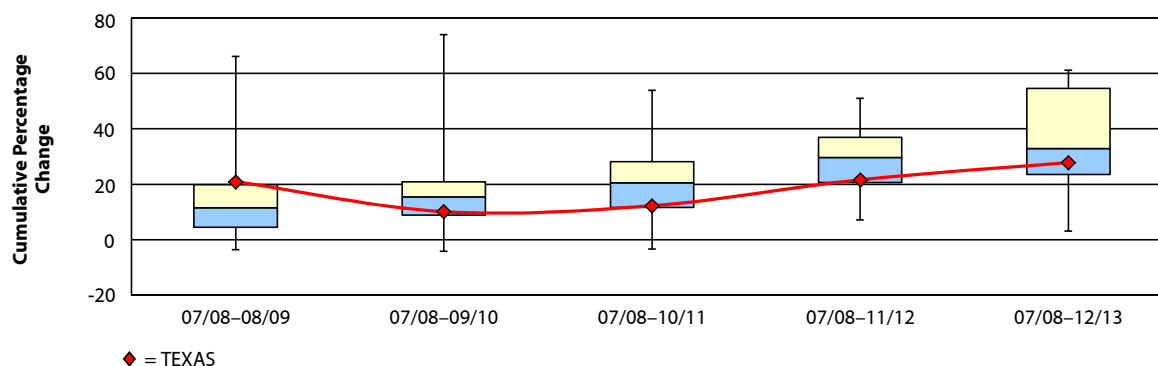
**Table for Figure 71: Trend of Utilization, Visits per Claim, Services per Visit, and Resource Intensity<sup>a</sup> for Major Surgery by Nonhospital Providers for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Services per visit</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	1.1	1.4	2.0	4.1	3.9	7.0	4.2	4.6	7.2	5.7	7.3	10.0	2.7	1.7	-0.3	3.3	4.0
2009/2010	4.5	1.5	5.3	3.9	5.0	0.6	4.9	17.6	12.7	1.4	5.6	10.5	5.6	1.4	5.7	6.7	5.2
2010/2011	14.4	0.7	6.5	4.7	9.9	1.1	16.3	22.4	4.6	-1.3	7.4	18.2	11.6	3.5	8.2	7.9	7.6
2011/2012	5.3	0.8	7.5	4.8	10.1	3.4	12.5	15.7	10.5	3.2	1.8	17.6	6.0	1.1	7.2	10.0	6.6
2012/2013	-0.3	-0.8	9.1	5.7	9.2	5.7	11.5	24.6	9.6	4.4	3.0	14.4	7.0	0.8	0.4	5.0	5.7
Annual percentage change:																	
2007/2008 to 2008/2009	1.1	1.4	2.0	4.1	3.9	7.0	4.2	4.6	7.2	5.7	7.3	10.0	2.7	1.7	-0.3	3.3	4.0
2008/2009 to 2009/2010	3.3	0.1	3.3	-0.2	1.0	-6.0	0.7	12.4	5.1	-4.1	-1.6	0.4	2.8	-0.2	6.1	3.4	0.8
2009/2010 to 2010/2011	9.5	-0.8	1.1	0.8	4.6	0.5	10.8	4.1	-7.2	-2.6	1.7	7.0	5.7	2.0	2.4	1.1	1.9
2010/2011 to 2011/2012	-7.9	0.2	0.9	0.1	0.2	2.3	-3.2	-5.5	5.7	4.6	-5.2	-0.5	-5.0	-2.3	-1.0	1.9	-0.2
2011/2012 to 2012/2013	-5.4	-1.6	1.6	0.9	-0.8	2.2	-0.9	7.7	-0.9	1.2	1.2	-2.7	0.9	-0.3	-6.4	-4.5	-0.6
<b>Resource intensity<sup>a</sup></b>																	
Cumulative percentage point change from 2007/2008 to:																	
2008/2009	-3.4	1.6	-2.4	2.8	0.1	2.4	-0.5	-0.7	2.5	2.5	-0.4	-0.5	1.1	1.8	-3.5	-0.9	
2009/2010	-2.5	0.5	-2.2	2.8	1.7	1.0	5.0	0.6	3.5	0.4	1.9	1.1	2.8	0.8	0.9	0.8	
2010/2011	1.3	1.2	-1.2	2.4	1.6	0.9	0.5	-1.3	1.9	-0.7	1.5	0.4	3.6	1.3	-1.5	0.8	
2011/2012	1.5	1.8	-2.0	3.2	0.9	0.9	1.2	1.6	3.5	1.7	1.7	1.1	4.1	1.1	-1.7	0.9	
2012/2013	-1.4	2.2	0.4	2.5	2.2	3.1	-4.4	0.0	3.3	1.8	0.6	1.1	3.4	2.1	1.0	1.3	
Annual percentage point change:																	
2007/2008 to 2008/2009	-3.4	1.6	-2.4	2.8	0.1	2.4	-0.5	-0.7	2.5	2.5	-0.4	-0.5	1.1	1.8	-3.5	-0.9	
2008/2009 to 2009/2010	0.8	-1.1	0.2	0.0	1.5	-1.1	5.3	1.4	0.9	-1.7	2.0	1.5	1.7	-1.0	4.0	1.8	
2009/2010 to 2010/2011	4.1	0.7	0.9	-0.4	-0.1	-0.1	-3.9	-1.6	-1.2	-1.2	-0.4	-0.7	0.6	0.4	-2.1	-0.1	
2010/2011 to 2011/2012	0.2	0.6	-0.8	0.7	-0.6	0.0	0.6	2.3	1.4	2.6	0.3	0.6	0.6	-0.2	-0.3	0.1	
2011/2012 to 2012/2013	-2.7	0.4	2.3	-0.5	1.1	2.0	-4.9	-1.4	-0.1	0.0	-1.1	0.0	-0.6	1.0	2.4	0.4	

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Resource intensity of services indicates whether a state has a comparatively more or less resource-intensive service mix. It is the difference between the unweighted volume (services per claim) and the utilization index, which is computed as the number of services per claim weighted by relative value units (RVUs). The RVU weights are based on Medicare's resource-based relative values in 2011. The RVU weights for new Current Procedural Terminology (CPT) codes for nerve conduction studies are based on Medicare's resource-based relative values in 2013. See [CompScope™ Medical Benchmarks: Technical Appendix, 15th Edition](#).

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

**Figure 72 Trend of Average Hospital Payment per Inpatient Episode for Claims with More Than 7 Days of Lost Time<sup>a</sup> (12 months)****Table for Figure 72: Trend of Average Hospital Payment per Inpatient Episode and Other Metrics for Claims with More Than 7 Days of Lost Time<sup>a</sup> (12 months)**

	AR <sup>b</sup>	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>c</sup>
<b>Average hospital payment per inpatient episode</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	n/a	13.2	19.8	6.5	4.5	14.8	66.1	5.2	-3.6	28.1	6.3	-2.3	11.5	20.9	4.5	13.9	11.5
2009/2010	n/a	16.8	8.8	20.9	15.5	13.3	74.0	5.9	-4.2	18.6	17.3	8.3	24.6	10.1	9.9	22.6	15.5
2010/2011	n/a	20.5	11.7	21.2	25.0	17.2	29.6	10.2	-3.3	36.7	15.0	7.5	53.9	12.2	28.1	27.0	20.5
2011/2012	n/a	37.0	39.9	51.0	29.6	20.7	27.7	10.7	13.7	48.8	7.2	33.7	33.2	21.6	29.6	33.5	29.6
2012/2013	n/a	32.9	51.0	55.1	3.1	38.3	30.4	14.2	9.4	54.6	23.5	39.4	61.2	27.8	29.5	56.4	32.9
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	13.2	19.8	6.5	4.5	14.8	66.1	5.2	-3.6	28.1	6.3	-2.3	11.5	20.9	4.5	13.9	11.5
2008/2009 to 2009/2010	n/a	3.2	-9.2	13.5	10.5	-1.3	4.7	0.7	-0.6	-7.4	10.4	10.9	11.8	-8.9	5.2	7.7	4.7
2009/2010 to 2010/2011	n/a	3.1	2.6	0.3	8.3	3.5	-25.5	4.0	0.9	15.3	-2.0	-0.8	23.6	1.9	16.6	3.5	3.1
2010/2011 to 2011/2012	n/a	13.7	25.3	24.6	3.7	2.9	-1.4	0.5	17.7	8.8	-6.8	24.4	-13.5	8.4	1.2	5.1	5.1
2011/2012 to 2012/2013	n/a	-3.0	8.0	2.7	-20.5	14.6	2.1	3.1	-3.8	3.9	15.2	4.3	21.0	5.1	-0.1	17.1	3.9
<b>Average hospital payment per claim for inpatient services</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	n/a	16.2	18.8	6.8	1.5	16.3	71.2	7.1	-1.2	21.7	9.2	-0.3	14.6	23.4	4.8	19.5	14.6
2009/2010	n/a	23.1	1.3	19.7	11.9	15.9	74.5	8.7	-2.3	17.1	17.7	11.2	29.9	12.6	12.9	27.9	15.9
2010/2011	n/a	26.2	6.9	15.2	24.2	17.1	20.2	16.9	-1.5	27.3	18.9	12.9	56.5	17.0	25.4	33.5	18.9
2011/2012	n/a	46.8	36.8	51.3	29.5	24.5	20.2	15.6	15.1	40.0	7.6	38.0	36.3	19.8	22.8	36.7	29.5
2012/2013	n/a	41.6	48.5	53.9	4.9	38.4	27.5	31.0	14.4	53.4	25.1	42.8	68.1	31.2	32.3	67.0	38.4
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	16.2	18.8	6.8	1.5	16.3	71.2	7.1	-1.2	21.7	9.2	-0.3	14.6	23.4	4.8	19.5	14.6
2008/2009 to 2009/2010	n/a	5.9	-14.8	12.0	10.3	-0.3	2.0	1.5	-1.1	-3.8	7.7	11.6	13.3	-8.8	7.8	7.0	5.9
2009/2010 to 2010/2011	n/a	2.5	5.6	-3.8	11.0	1.0	-31.1	7.6	0.9	8.7	1.0	1.5	20.5	3.9	11.0	4.4	3.9
2010/2011 to 2011/2012	n/a	16.4	27.9	31.4	4.2	6.4	0.0	-1.2	16.8	9.9	-9.5	22.2	-12.9	2.4	-2.0	2.4	4.2
2011/2012 to 2012/2013	n/a	-3.5	8.6	1.7	-19.0	11.1	6.0	13.4	-0.6	9.6	16.3	3.5	23.3	9.5	7.7	22.2	8.6

continued

**Table for Figure 72: Trend of Average Hospital Payment per Inpatient Episode and Other Metrics for Claims with More Than 7 Days of Lost Time<sup>a</sup> (12 months) (continued)**

	AR <sup>b</sup>	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>c</sup>
<b>Median hospital payment per inpatient episode</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	16.9	23.5	19.7	8.0	9.2	23.3	3.5	22.3	17.6	11.8	8.2	9.4	79.8	5.0	3.8	11.8
2008/2009 to 2009/2010	n/a	-3.1	-13.4	9.3	16.0	17.8	19.1	5.5	-2.9	7.8	3.4	14.9	3.2	3.6	19.5	12.7	7.8
2009/2010 to 2010/2011	n/a	6.9	11.4	1.4	5.8	0.1	-19.5	-4.8	4.5	17.5	12.6	8.8	9.3	5.3	13.0	6.4	6.4
2010/2011 to 2011/2012	n/a	12.1	9.2	23.8	1.7	-4.2	5.3	7.5	8.2	3.8	-5.1	17.8	4.6	7.0	7.4	10.3	7.4
2011/2012 to 2012/2013	n/a	1.1	5.3	5.7	-16.3	30.2	1.0	-9.6	5.7	1.3	16.2	5.9	4.1	8.8	-2.9	-2.4	4.1
<b>Percentage of claims with inpatient care</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	n/a	-0.1	-0.1	0.6	-0.5	-0.1	1.1	-0.3	0.4	-0.5	0.2	-0.5	0.1	0.5	-0.2	-0.4	-0.1
2008/2009 to 2009/2010	n/a	-0.1	-0.6	0.0	-0.5	-0.5	-1.6	-0.5	0.1	-0.5	-0.6	-0.6	-0.2	-1.0	-1.0	0.3	-0.5
2009/2010 to 2010/2011	n/a	-0.1	-0.5	-0.4	-0.5	-0.3	-0.7	0.3	-1.4	-1.0	-0.4	0.0	-0.8	-0.2	0.5	-0.7	-0.4
2010/2011 to 2011/2012	n/a	0.0	-0.3	0.4	-0.4	0.4	0.6	0.2	-0.1	0.3	-0.2	-0.8	0.3	0.3	-1.2	-0.4	0.0
2011/2012 to 2012/2013	n/a	-0.5	0.4	-1.6	-0.2	-0.9	-0.9	-0.8	-0.5	-1.2	-1.0	0.3	-0.9	-0.3	-0.1	0.1	-0.5
<b>Percentage of payments for inpatient care</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	n/a	0.3	2.6	1.1	-1.8	0.0	6.9	-1.3	0.0	2.1	0.7	-1.2	0.0	3.9	-2.1	0.1	0.1
2008/2009 to 2009/2010	n/a	-0.2	-3.6	0.6	-1.3	-1.9	-1.2	-2.8	-0.8	-4.2	-0.3	-1.1	1.5	-4.8	-2.6	0.0	-1.2
2009/2010 to 2010/2011	n/a	-0.2	-2.4	-1.6	0.2	-0.8	-9.0	1.7	-2.1	-0.8	-1.6	-0.6	1.8	0.0	0.6	-1.4	-0.8
2010/2011 to 2011/2012	n/a	1.9	3.9	3.1	0.2	0.1	-1.4	0.5	1.6	2.9	-2.2	1.4	-4.5	0.1	-1.0	-0.7	0.2
2011/2012 to 2012/2013	n/a	-2.1	1.9	-1.7	-0.7	0.7	0.5	0.0	-1.2	-1.6	0.3	1.2	1.0	0.8	-0.8	2.1	0.3

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

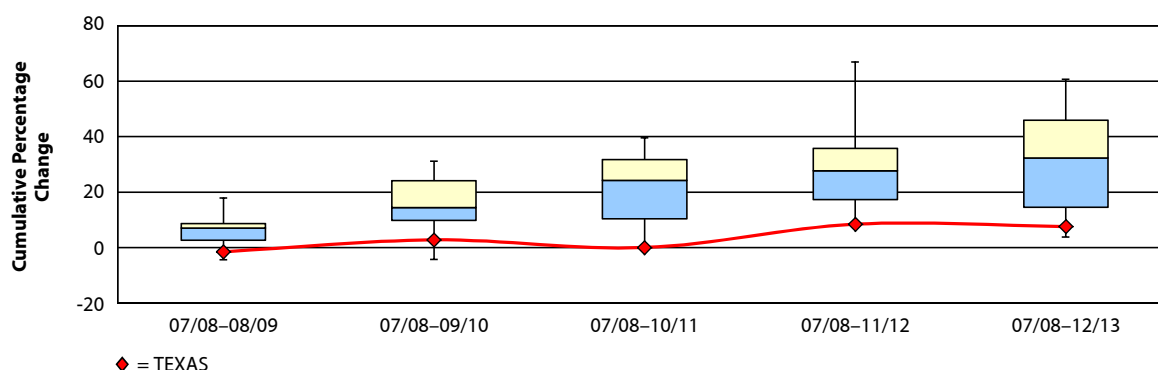
<sup>a</sup> In this report we identify hospital inpatient stays using revenue codes for room and board. We then use the service dates to construct hospital inpatient episodes, which include one day before and one day after the hospital inpatient stay, and capture all hospital services provided during the inpatient episode. The payments captured include only the payments made to the hospital provider for services rendered during the inpatient stay (i.e., it excludes payments to surgeons, etc., billing separately from the hospital).

<sup>b</sup> Trends in hospital inpatient payments per episode are not shown for Arkansas because the cell sizes underlying the data are too small to support a trend analysis.

<sup>c</sup> The 15-state median is the state ranked 8th on a given measure; this state changes depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.



**Figure 73 Trend of Hospital Outpatient Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 73: Trend of Hospital Outpatient Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average hospital outpatient payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	5.8	3.2	6.8	7.4	7.7	17.9	12.6	6.9	-0.8	7.0	10.3	-4.5	2.0	-1.5	8.9	8.2	7.0
2009/2010	8.8	13.2	15.6	20.2	22.9	27.3	25.2	12.8	6.1	31.2	12.9	-4.3	10.8	2.7	22.2	26.2	14.4
2010/2011	31.7	15.2	24.5	27.6	23.8	28.7	31.8	11.1	6.7	39.5	9.4	9.5	15.1	0.0	36.8	35.3	24.2
2011/2012	30.5	17.2	28.0	46.8	27.4	44.4	67.0	15.3	13.1	26.7	17.4	18.1	31.3	8.4	32.7	38.8	27.7
2012/2013	52.4	16.2	36.1	39.5	3.7	46.6	60.7	11.0	12.9	28.6	20.7	20.1	46.9	7.6	45.3	41.8	32.4
Annual percentage change:																	
2007/2008 to 2008/2009	5.8	3.2	6.8	7.4	7.7	17.9	12.6	6.9	-0.8	7.0	10.3	-4.5	2.0	-1.5	8.9	8.2	7.0
2008/2009 to 2009/2010	2.9	9.6	8.2	11.9	14.1	8.0	11.2	5.6	7.0	22.5	2.4	0.2	8.6	4.3	12.2	16.6	8.4
2009/2010 to 2010/2011	21.0	1.8	7.8	6.2	0.8	1.1	5.2	-1.5	0.5	6.4	-3.1	14.4	4.0	-2.7	11.9	7.3	4.6
2010/2011 to 2011/2012	-0.9	1.8	2.8	15.1	2.9	12.2	26.7	3.8	6.0	-9.2	7.3	7.8	14.1	8.4	-3.0	2.6	4.9
2011/2012 to 2012/2013	16.8	-0.9	6.3	-5.0	-18.6	1.5	-3.8	-3.7	-0.2	1.5	2.8	1.7	11.9	-0.8	9.5	2.2	1.5
<b>Percentage of claims with hospital outpatient services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.2	0.0	-1.0	0.9	-1.1	0.4	1.4	1.5	3.0	1.0	-1.1	-2.5	-0.5	-0.7	-2.4	-0.8	-0.4
2008/2009 to 2009/2010	3.3	1.2	-1.6	-1.3	-0.5	0.2	0.3	0.5	3.8	2.3	-2.9	0.1	-0.9	-0.6	-0.3	-1.2	-0.1
2009/2010 to 2010/2011	-6.4	-0.4	-2.4	0.9	-1.2	-1.7	-1.7	-0.9	0.0	0.7	-1.1	-0.5	-0.5	-1.7	0.9	1.4	-0.7
2010/2011 to 2011/2012	3.8	-1.1	-0.9	-0.1	1.4	1.1	1.9	1.0	-0.5	0.6	0.5	-1.5	-1.1	1.5	-3.0	0.7	0.6
2011/2012 to 2012/2013	-2.3	-3.4	-1.0	-0.7	-2.5	-2.2	-2.1	-0.7	-1.3	-1.8	-2.8	-0.9	0.9	-0.6	-1.3	-1.3	-1.3
<b>Percentage of medical payments made for hospital outpatient services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-2.7	-0.7	-0.3	0.0	-0.2	0.8	-3.2	0.7	1.0	0.5	-1.7	-1.4	-1.0	-1.9	1.2	-1.6	-0.5
2008/2009 to 2009/2010	0.5	0.5	1.2	0.8	0.4	1.6	1.5	-1.1	2.5	4.4	-1.5	-0.3	-0.8	-0.1	0.6	1.1	0.6
2009/2010 to 2010/2011	-2.0	-0.1	0.2	0.5	-1.1	-1.2	4.6	-1.5	0.9	1.8	-0.5	-0.4	-0.8	-0.7	0.2	1.3	-0.3
2010/2011 to 2011/2012	5.4	-0.6	-1.4	-0.2	2.2	0.7	3.9	1.6	-1.1	-2.4	2.9	-0.1	2.7	0.5	-0.7	0.6	0.6
2011/2012 to 2012/2013	1.5	-0.4	0.0	0.3	-0.8	-1.6	-0.5	-1.5	0.9	-0.6	-0.5	-0.3	1.7	-0.5	0.9	-1.3	-0.4

continued

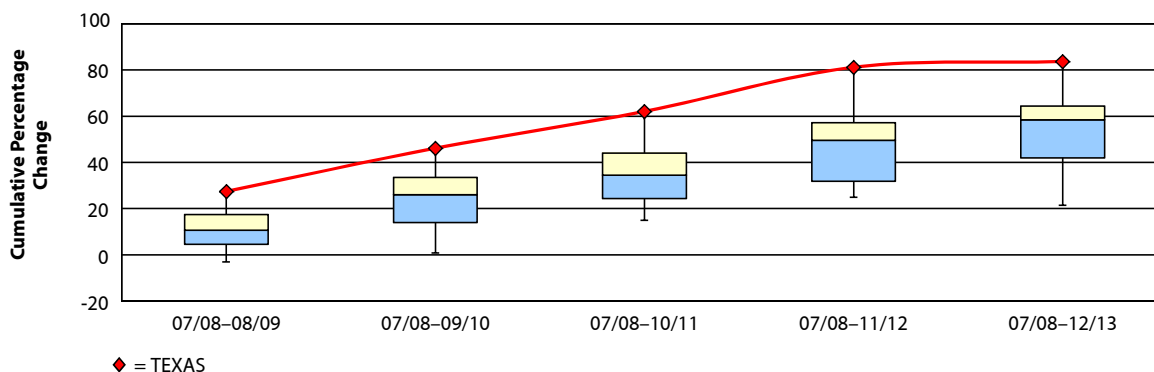
**Table for Figure 73: Trend of Hospital Outpatient Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Average hospital outpatient payment per service</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	4.8	8.1	7.4	3.8	9.9	11.3	3.3	3.0	-0.4	4.4	5.6	-1.8	0.8	6.8	5.5	9.5	5.2
2008/2009 to 2009/2010	11.5	4.4	10.4	8.4	11.1	10.7	12.3	9.3	-3.5	11.9	8.4	21.4	9.6	5.0	5.2	2.3	9.5
2009/2010 to 2010/2011	-1.5	10.1	7.6	7.3	4.9	0.9	1.4	-1.2	3.1	0.0	4.7	14.7	6.9	5.6	14.3	6.5	5.2
2010/2011 to 2011/2012	1.5	1.8	5.2	5.9	-1.1	13.0	22.0	4.4	-5.8	-5.1	11.0	0.5	6.8	7.5	6.4	5.1	5.2
2011/2012 to 2012/2013	2.3	0.1	6.9	3.9	-15.5	7.7	-4.3	0.3	9.5	7.2	0.4	7.6	7.2	-0.3	2.5	0.7	2.4
<b>Hospital outpatient services per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	0.9	-4.4	-0.6	3.4	-1.9	5.9	9.1	3.8	-0.4	2.5	4.4	3.4	1.2	-7.8	3.2	-1.2	1.9
2008/2009 to 2009/2010	-7.7	5.1	-2.0	3.3	2.7	-2.4	-0.9	-3.5	10.8	9.5	-5.5	-17.1	-0.9	-0.6	6.6	14.0	-0.8
2009/2010 to 2010/2011	22.9	-7.6	0.1	-1.0	-3.9	0.2	3.7	-0.3	-2.5	6.4	-7.4	0.0	-2.8	-7.8	-2.1	0.7	-0.7
2010/2011 to 2011/2012	-2.4	-0.1	-2.3	8.6	4.0	-0.7	3.9	-0.6	12.5	-4.3	-3.4	7.1	6.8	0.9	-8.8	-2.4	-0.3
2011/2012 to 2012/2013	14.2	-1.0	-0.5	-8.5	-3.6	-5.7	0.5	-4.0	-8.8	-5.4	2.4	-6.6	4.4	-0.5	6.9	1.5	-0.8
<b>Hospital outpatient visits per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	-4.5	-6.3	2.6	0.2	-2.3	5.6	17.2	4.7	-0.5	1.7	-1.9	-7.0	-1.8	0.8	3.2	-1.2	-0.2
2008/2009 to 2009/2010	-10.6	9.2	-3.6	0.9	4.3	-3.8	-1.3	-0.8	13.5	3.4	-10.5	-9.6	-1.8	1.9	12.1	14.2	0.0
2009/2010 to 2010/2011	23.7	-5.7	-3.1	-2.2	-5.4	-0.3	3.0	-2.2	-4.4	2.9	-8.2	4.9	-0.8	-2.7	-0.7	-2.7	-2.2
2010/2011 to 2011/2012	-5.3	-2.5	2.3	4.0	-0.6	-0.5	4.4	-0.9	2.7	2.5	-6.5	5.4	6.9	5.9	-13.2	-3.3	0.9
2011/2012 to 2012/2013	12.9	-3.0	-0.5	-10.8	-5.4	-12.9	-11.8	-4.2	-8.9	-4.0	-2.3	-8.6	3.4	-4.6	6.2	-2.8	-4.1
<b>Hospital outpatient services per visit</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	6.6	0.7	-1.8	2.6	0.0	0.6	-4.1	-0.8	-0.6	0.7	2.1	7.9	0.3	-8.7	-1.2	1.2	0.4
2008/2009 to 2009/2010	-1.3	-2.0	6.1	0.0	0.1	3.3	-0.1	-2.7	-1.9	4.3	6.4	-0.1	2.0	-2.3	-2.6	0.4	0.0
2009/2010 to 2010/2011	1.8	-2.8	1.6	3.2	1.9	0.8	3.5	1.9	1.0	2.9	5.2	-3.2	-0.4	-6.7	1.6	2.2	1.7
2010/2011 to 2011/2012	3.5	2.6	-2.2	5.5	2.1	0.8	2.8	0.3	12.4	-4.2	4.4	1.5	0.9	-4.2	5.0	1.7	1.9
2011/2012 to 2012/2013	2.2	1.8	-0.9	2.0	4.2	6.1	5.8	0.2	1.0	0.0	3.9	1.5	2.6	4.3	2.4	3.5	2.3

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 74 Trend of Hospital Outpatient Treatment/Operating/Recovery Room Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 74: Trend of Hospital Outpatient Treatment/Operating/Recovery Room Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average treatment/operating/recovery room payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	15.7	n/a	20.3	13.1	12.8	17.4	2.5	4.5	8.6	19.7	9.7	-3.2	4.1	27.4	10.6	9.6	10.6
2009/2010	33.5	n/a	26.0	26.0	41.8	32.6	31.2	25.1	12.5	47.0	14.8	0.8	14.0	46.1	7.3	23.0	26.0
2010/2011	39.5	n/a	42.6	36.9	49.6	44.0	34.5	24.8	20.6	55.7	14.8	17.6	31.1	62.1	24.4	34.3	34.5
2011/2012	44.6	n/a	57.2	56.2	63.2	52.3	68.0	45.1	24.9	51.8	30.5	28.9	47.7	81.2	31.9	49.5	49.5
2012/2013	58.4	n/a	59.5	67.0	41.9	64.3	64.4	38.5	21.4	66.1	42.2	35.1	60.6	83.7	44.9	51.8	58.4
Annual percentage change:																	
2007/2008 to 2008/2009	15.7	n/a	20.3	13.1	12.8	17.4	2.5	4.5	8.6	19.7	9.7	-3.2	4.1	27.4	10.6	9.6	10.6
2008/2009 to 2009/2010	15.4	n/a	4.7	11.4	25.6	12.9	27.9	19.7	3.6	22.8	4.7	4.1	9.5	14.7	-2.9	12.2	12.2
2009/2010 to 2010/2011	4.5	n/a	13.2	8.7	5.5	8.6	2.5	-0.2	7.2	5.9	0.0	16.7	15.0	10.9	15.9	9.1	8.6
2010/2011 to 2011/2012	3.7	n/a	10.2	14.1	9.1	5.7	24.9	16.2	3.6	-2.5	13.6	9.6	12.7	11.8	6.0	11.3	10.2
2011/2012 to 2012/2013	9.6	n/a	1.5	7.0	-13.1	7.9	-2.2	-4.6	-2.8	9.4	9.0	4.9	8.7	1.4	9.8	1.6	4.9
<b>Percentage of claims with treatment/operating/recovery room services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.5	n/a	-1.0	0.4	0.0	1.4	3.3	0.1	1.0	-1.1	-0.5	-0.1	-0.2	-0.6	0.0	0.6	0.0
2008/2009 to 2009/2010	1.8	n/a	-0.4	-2.1	-0.1	-0.4	-1.7	0.5	1.9	2.5	-1.3	0.1	1.0	-0.1	1.0	0.0	0.0
2009/2010 to 2010/2011	-1.7	n/a	-1.0	1.5	-1.5	-2.3	-1.4	1.5	-1.0	-0.4	1.5	-0.7	-1.7	-1.1	0.5	2.6	-1.0
2010/2011 to 2011/2012	1.5	n/a	-0.9	0.4	-0.5	3.9	2.0	-0.9	-1.1	-2.5	-1.3	-0.6	0.3	1.2	-2.6	-1.5	-0.6
2011/2012 to 2012/2013	1.3	n/a	-0.4	-2.5	-1.4	-1.6	-1.1	0.9	-0.2	-1.6	-2.8	0.0	-0.1	-0.8	0.2	-1.0	-0.8
<b>Percentage of medical payments made for treatment/operating/recovery room services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.2	n/a	0.2	0.6	0.4	0.6	-1.3	-0.1	1.2	0.4	-0.5	-0.1	-0.1	1.0	0.7	-0.1	0.2
2008/2009 to 2009/2010	1.1	n/a	0.2	-0.4	0.8	0.9	1.5	0.7	0.6	2.0	-0.2	-0.1	0.1	0.8	-0.6	0.1	0.6
2009/2010 to 2010/2011	-1.3	n/a	0.1	0.9	-0.4	-0.2	1.2	0.2	0.8	0.2	0.8	0.0	0.1	0.7	0.4	1.3	0.2
2010/2011 to 2011/2012	1.7	n/a	-0.4	0.0	0.9	0.8	1.9	1.0	-1.0	-1.1	1.0	0.0	0.8	0.9	0.0	0.6	0.8
2011/2012 to 2012/2013	0.5	n/a	-0.3	0.8	0.1	-0.1	-0.1	-0.2	0.1	0.0	-0.1	0.0	0.1	-0.3	0.5	-0.7	0.0

continued

**Table for Figure 74: Trend of Hospital Outpatient Treatment/Operating/Recovery Room Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

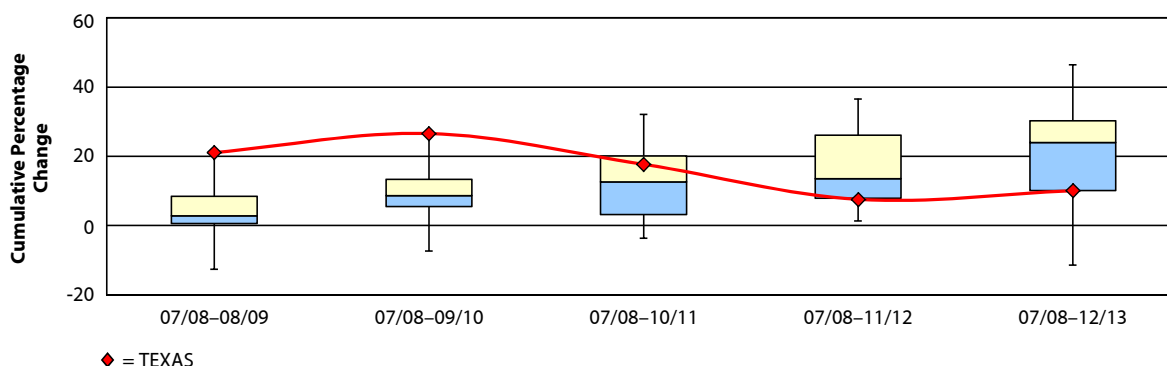
	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average treatment/operating/recovery room payment per service</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	22.6	n/a	18.1	19.4	11.0	16.5	4.3	5.4	12.4	23.8	4.3	0.5	3.3	39.5	10.0	12.7	12.4
2008/2009 to 2009/2010	14.1	n/a	12.5	4.6	28.7	13.6	18.3	14.1	3.6	14.9	8.6	1.2	2.0	15.9	-0.3	5.6	12.5
2009/2010 to 2010/2011	0.9	n/a	16.7	8.4	9.3	9.9	9.1	-1.1	2.2	3.3	-0.6	21.3	14.4	19.1	16.5	6.0	9.1
2010/2011 to 2011/2012	0.0	n/a	11.4	5.9	8.6	3.8	9.3	14.2	7.3	-0.6	10.9	14.5	10.6	12.2	8.9	9.8	9.3
2011/2012 to 2012/2013	11.5	n/a	4.1	6.4	-10.6	6.1	7.6	-1.7	-3.6	10.5	9.6	5.7	13.0	3.6	4.0	2.8	5.7
<b>Treatment/operating/recovery room services per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	-5.6	n/a	1.9	-5.3	1.6	0.8	-1.7	-0.9	-3.4	-3.4	5.1	2.7	0.7	-8.6	0.5	-2.7	-0.9
2008/2009 to 2009/2010	1.1	n/a	-6.9	6.6	-2.4	-0.7	8.1	4.9	-0.1	6.8	-3.6	9.6	7.3	-1.1	-2.7	6.2	1.1
2009/2010 to 2010/2011	3.6	n/a	-3.0	0.3	-3.5	-1.1	-6.1	0.9	4.8	2.5	0.6	-1.8	0.5	-6.9	-0.5	2.9	0.3
2010/2011 to 2011/2012	3.6	n/a	-1.0	7.7	0.5	1.9	14.3	1.8	-3.5	-1.9	2.5	-5.4	1.9	-0.3	-2.6	1.4	1.4
2011/2012 to 2012/2013	-1.8	n/a	-2.5	0.5	-2.8	1.7	-9.1	-2.9	0.8	-1.0	-0.5	-0.3	-3.8	-2.1	5.6	-1.2	-1.2
<b>Treatment/operating/recovery room visits per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	0.9	n/a	-0.9	-3.7	-0.4	-0.8	0.2	2.9	-2.5	-6.8	5.2	2.3	0.0	-7.5	-1.1	-2.4	-0.8
2008/2009 to 2009/2010	-7.2	n/a	-8.1	5.8	-7.0	-6.9	0.8	1.1	0.4	4.2	-2.0	5.5	0.6	-3.8	-0.3	5.0	0.4
2009/2010 to 2010/2011	3.4	n/a	-9.6	-1.7	-2.9	4.9	-9.5	2.0	0.9	-2.7	-4.4	-7.8	2.2	1.4	1.4	-0.5	-0.5
2010/2011 to 2011/2012	-7.7	n/a	-0.4	8.0	2.2	0.7	10.7	-1.8	-2.3	-0.1	4.7	0.0	2.8	3.4	-5.1	-0.1	0.0
2011/2012 to 2012/2013	2.5	n/a	2.5	-7.7	-2.7	2.3	-9.5	-4.3	-0.1	5.4	-4.6	-4.8	-4.5	-3.9	10.2	-0.6	-2.7
<b>Treatment/operating/recovery room services per visit</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	-7.0	n/a	2.8	-1.6	0.4	1.3	-4.9	-3.7	-2.1	1.2	-1.7	0.2	0.5	-1.2	1.1	-0.2	-0.2
2008/2009 to 2009/2010	4.7	n/a	1.3	1.8	5.5	6.5	7.1	3.8	1.1	3.9	-0.7	2.9	6.1	2.2	0.0	1.6	2.9
2009/2010 to 2010/2011	0.6	n/a	7.3	0.4	-0.6	-4.1	3.7	-1.1	2.9	5.5	4.3	8.8	-1.6	-8.6	-1.7	3.3	0.6
2010/2011 to 2011/2012	9.2	n/a	-0.6	0.4	-2.2	1.5	5.2	3.6	-0.9	-1.6	-1.9	-3.0	-1.6	-3.3	0.8	1.5	-0.6
2011/2012 to 2012/2013	1.2	n/a	-4.8	7.8	0.0	-3.0	-3.9	1.4	1.0	-8.5	3.3	1.9	0.4	1.7	-4.2	-0.7	0.4

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Trends in hospital outpatient payments, services, and visits are not shown for California because underlying data in our sample are not sufficiently representative of the state's trends.

<sup>b</sup> The 15-state median is the state ranked 8th on a given measure; this state changes depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 75 Trend of Hospital Outpatient Major Radiology Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 75: Trend of Hospital Outpatient Major Radiology Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average major radiology payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	13.0	n/a	2.2	0.1	6.5	4.2	-12.6	2.8	-4.5	0.8	14.3	8.4	0.9	21.1	0.5	4.6	2.8
2009/2010	6.0	n/a	13.3	13.6	8.3	15.7	-7.4	9.3	-1.3	6.3	11.6	5.5	4.2	26.6	8.6	8.8	8.6
2010/2011	32.1	n/a	20.7	10.8	12.6	20.1	28.6	-2.7	1.6	7.6	-3.7	3.2	6.8	17.7	14.4	14.5	12.6
2011/2012	21.0	n/a	31.5	26.1	8.5	27.3	36.5	1.4	7.3	7.9	12.9	13.5	11.8	7.5	18.1	19.2	13.5
2012/2013	24.8	n/a	46.4	30.2	-11.5	34.8	39.9	-7.2	8.7	13.4	23.9	28.3	23.0	10.1	21.9	25.3	23.9
Annual percentage change:																	
2007/2008 to 2008/2009	13.0	n/a	2.2	0.1	6.5	4.2	-12.6	2.8	-4.5	0.8	14.3	8.4	0.9	21.1	0.5	4.6	2.8
2008/2009 to 2009/2010	-6.2	n/a	10.9	13.5	1.6	11.0	6.0	6.4	3.3	5.5	-2.4	-2.7	3.3	4.5	8.0	4.0	4.5
2009/2010 to 2010/2011	24.6	n/a	6.5	-2.5	4.0	3.8	38.9	-11.0	3.0	1.2	-13.7	-2.2	2.4	-7.0	5.3	5.2	3.0
2010/2011 to 2011/2012	-8.4	n/a	9.0	13.8	-3.6	6.0	6.1	4.1	5.6	0.2	17.3	10.0	4.7	-8.6	3.2	4.1	4.7
2011/2012 to 2012/2013	3.1	n/a	11.3	3.3	-18.4	5.9	2.5	-8.4	1.3	5.1	9.8	13.0	10.0	2.4	3.2	5.1	3.3
<b>Percentage of claims with major radiology services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	2.0	n/a	-0.2	-0.6	0.2	0.8	3.0	2.5	1.9	0.6	0.4	0.4	0.7	0.4	-0.4	-0.4	0.4
2008/2009 to 2009/2010	3.1	n/a	0.4	2.9	1.6	0.6	1.6	1.3	3.3	1.3	-0.2	0.4	1.0	-0.1	0.0	2.5	1.3
2009/2010 to 2010/2011	-1.3	n/a	-0.1	0.5	-0.9	-1.2	-0.5	-0.1	0.8	0.6	-1.2	0.6	1.2	0.0	0.9	0.4	0.0
2010/2011 to 2011/2012	1.6	n/a	-0.1	1.4	1.4	0.4	0.7	0.7	0.2	-0.2	-0.2	0.4	0.1	0.1	-0.7	1.3	0.4
2011/2012 to 2012/2013	-3.4	n/a	0.5	-0.8	-1.4	-0.1	0.0	0.4	0.3	0.8	0.2	0.9	2.1	0.0	-0.2	-0.7	0.0
<b>Percentage of medical payments made for major radiology services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	0.2	n/a	-0.1	-0.4	0.0	-0.1	-0.5	0.3	0.1	-0.1	0.1	0.1	0.0	0.2	-0.1	-0.4	0.0
2008/2009 to 2009/2010	0.0	n/a	0.4	0.6	0.0	0.2	0.2	0.1	0.4	0.1	-0.2	0.0	0.0	0.0	0.0	0.2	0.1
2009/2010 to 2010/2011	-0.1	n/a	0.1	-0.2	-0.1	-0.1	1.2	-0.5	0.3	0.1	-0.5	0.0	0.0	-0.1	-0.1	0.1	-0.1
2010/2011 to 2011/2012	0.6	n/a	0.0	0.1	0.2	0.0	-0.2	0.2	-0.1	0.0	0.4	0.1	0.1	-0.2	0.2	0.3	0.1
2011/2012 to 2012/2013	-0.7	n/a	0.3	0.3	-0.2	0.0	0.3	-0.2	0.3	0.3	0.3	0.2	0.3	0.0	-0.1	-0.1	0.2

continued

**Table for Figure 75: Trend of Hospital Outpatient Major Radiology Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

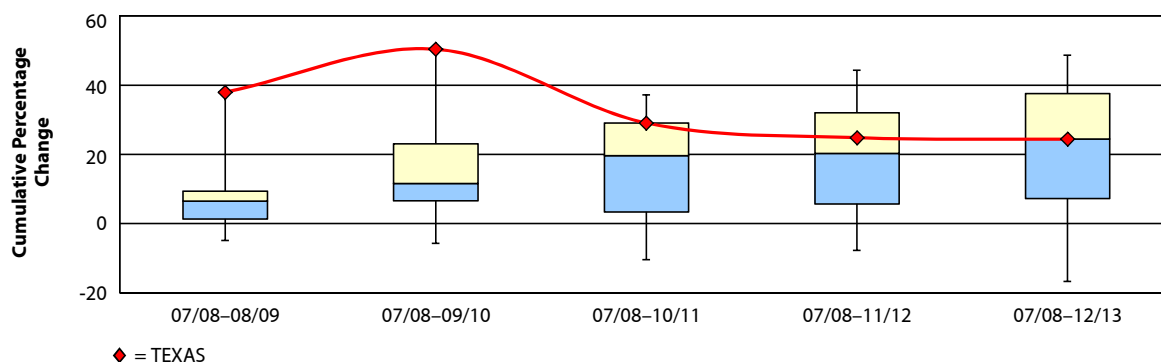
	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average major radiology payment per service</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	2.4	n/a	1.2	-2.6	4.0	7.1	-10.4	5.1	-3.5	-0.9	5.4	7.5	-2.3	13.8	3.9	0.7	2.4
2008/2009 to 2009/2010	9.0	n/a	10.8	15.7	4.8	7.4	7.4	3.9	-4.7	3.1	3.1	2.7	4.0	6.0	11.3	8.1	6.0
2009/2010 to 2010/2011	-0.1	n/a	5.6	-0.4	2.4	7.6	24.2	-8.5	6.5	3.7	-6.0	-0.7	1.0	-8.3	5.5	4.3	2.4
2010/2011 to 2011/2012	3.0	n/a	16.7	11.3	-0.9	2.4	10.1	6.1	5.7	-1.8	12.6	16.2	5.8	-3.1	2.7	5.5	5.7
2011/2012 to 2012/2013	10.1	n/a	9.4	6.1	-18.7	4.5	0.9	-3.2	3.7	7.6	6.2	6.4	10.2	1.6	3.5	7.6	6.1
<b>Major radiology services per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	10.4	n/a	1.0	2.8	2.4	-2.7	-2.5	-2.3	-1.0	1.7	8.5	7.7	3.2	6.4	-3.2	3.9	2.4
2008/2009 to 2009/2010	-13.9	n/a	0.0	-1.8	-3.0	3.3	-1.3	2.4	8.3	2.3	-5.3	-1.8	-0.6	-1.4	-3.0	-3.7	-1.4
2009/2010 to 2010/2011	24.8	n/a	0.9	-2.1	1.5	-3.5	11.8	-2.7	-3.3	-2.3	-8.2	-2.2	1.4	1.4	-0.1	0.9	-0.1
2010/2011 to 2011/2012	-11.0	n/a	-6.6	2.2	-2.8	3.5	-3.6	-1.8	-0.1	2.1	4.1	-3.8	-1.0	-5.7	0.5	-1.3	-1.3
2011/2012 to 2012/2013	-6.3	n/a	1.7	-2.7	0.3	1.3	1.5	-5.4	-2.3	-2.3	3.3	4.1	-0.2	0.8	-0.3	-2.3	-0.2
<b>Major radiology visits per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	5.8	n/a	3.7	2.0	-0.5	-2.2	0.0	-2.6	-1.4	2.4	0.1	-0.5	0.3	3.4	-5.0	1.7	0.1
2008/2009 to 2009/2010	-5.3	n/a	-0.4	-0.6	-1.3	3.3	-2.0	1.2	3.1	-2.3	1.6	-0.3	-0.3	-2.2	-0.7	-1.1	-0.6
2009/2010 to 2010/2011	7.4	n/a	-1.9	-2.4	1.6	-2.5	7.7	-1.3	-3.1	0.3	-4.9	-2.4	0.4	0.0	4.2	0.3	0.0
2010/2011 to 2011/2012	-5.1	n/a	-0.3	3.5	-1.7	3.8	-1.3	1.4	3.2	0.7	1.0	1.2	0.5	-0.4	-3.6	-0.4	0.5
2011/2012 to 2012/2013	-0.5	n/a	0.5	-2.4	1.6	-1.0	0.8	-1.8	-2.5	1.3	3.6	1.0	0.4	0.2	1.5	-1.4	0.4
<b>Major radiology services per visit</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	1.6	n/a	1.2	0.2	2.5	-1.9	0.1	0.3	0.9	-3.9	8.4	10.3	3.1	3.3	0.2	1.9	1.2
2008/2009 to 2009/2010	-5.6	n/a	1.0	-0.9	-0.7	1.2	-1.1	1.2	3.7	6.5	-4.9	-4.0	-2.0	-0.7	-1.4	-2.0	-0.9
2009/2010 to 2010/2011	14.0	n/a	1.4	0.2	-1.7	-1.8	1.4	-1.4	1.9	-0.1	-1.7	1.3	2.8	2.7	-4.0	0.2	0.2
2010/2011 to 2011/2012	-6.0	n/a	-4.1	-1.7	-0.1	-0.6	-0.4	-3.2	-4.7	-0.5	1.1	-2.5	-1.5	-5.4	4.2	-0.8	-1.5
2011/2012 to 2012/2013	-7.6	n/a	2.2	1.6	-1.2	4.9	0.2	-3.7	0.2	-3.1	3.7	0.9	-0.5	0.3	-3.8	-1.4	0.2

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Trends in hospital outpatient payments, services, and visits are not shown for California because underlying data in our sample are not sufficiently representative of the state's trends.

<sup>b</sup> The 15-state median is the state ranked 8th on a given measure; this state changes depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 76 Trend of Hospital Outpatient Minor Radiology Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 76: Trend of Hospital Outpatient Minor Radiology Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average minor radiology payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	10.7	n/a	5.1	3.5	3.9	8.3	-1.5	6.5	1.1	14.3	7.6	-4.9	1.4	37.9	9.3	8.2	6.5
2009/2010	30.0	n/a	11.6	23.0	10.2	20.3	7.2	3.6	1.8	26.3	7.6	-5.7	6.6	50.4	22.1	20.3	11.6
2010/2011	32.0	n/a	19.6	28.5	11.3	21.3	17.6	-10.4	3.4	33.3	1.8	2.3	6.7	29.1	37.2	20.6	19.6
2011/2012	40.3	n/a	20.3	44.3	7.0	21.6	32.0	-7.8	1.9	16.5	5.6	2.1	14.3	24.8	32.5	25.5	20.3
2012/2013	48.7	n/a	37.5	42.4	-16.7	29.3	28.5	-14.2	6.9	8.0	7.2	8.4	19.2	24.4	39.8	26.1	24.4
Annual percentage change:																	
2007/2008 to 2008/2009	10.7	n/a	5.1	3.5	3.9	8.3	-1.5	6.5	1.1	14.3	7.6	-4.9	1.4	37.9	9.3	8.2	6.5
2008/2009 to 2009/2010	17.4	n/a	6.2	18.9	6.0	11.1	8.9	-2.7	0.7	10.5	0.0	-0.9	5.2	9.0	11.6	11.2	8.9
2009/2010 to 2010/2011	1.5	n/a	7.1	4.5	1.0	0.8	9.7	-13.5	1.5	5.5	-5.3	8.5	0.1	-14.2	12.4	0.2	1.5
2010/2011 to 2011/2012	6.3	n/a	0.6	12.3	-3.9	0.3	12.2	2.9	-1.4	-12.6	3.7	-0.2	7.1	-3.3	-3.4	4.1	0.6
2011/2012 to 2012/2013	6.0	n/a	14.4	-1.3	-22.2	6.3	-2.6	-7.0	4.9	-7.3	1.5	6.2	4.3	-0.3	5.5	0.4	1.5
<b>Percentage of claims with minor radiology services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-3.6	n/a	-0.2	1.0	-0.9	1.2	-0.1	2.7	4.8	0.5	1.0	-0.8	1.0	-0.2	-1.9	-0.9	-0.1
2008/2009 to 2009/2010	3.8	n/a	-1.3	-0.4	-0.2	0.6	1.2	0.6	3.9	0.6	-2.4	2.4	0.2	-0.1	1.6	0.5	0.6
2009/2010 to 2010/2011	-2.9	n/a	-1.8	1.1	-1.2	-1.0	-1.0	-1.7	-2.3	1.9	-0.7	0.3	-0.6	-1.9	-1.0	-0.1	-1.0
2010/2011 to 2011/2012	2.2	n/a	-0.6	2.1	0.9	1.3	0.5	0.6	1.3	-0.9	0.2	-0.9	-0.4	1.1	-2.5	2.0	0.6
2011/2012 to 2012/2013	0.7	n/a	-0.4	-2.9	-2.2	-4.2	-2.7	-2.0	-1.4	2.0	-1.0	-0.5	1.1	-0.7	-0.6	-1.0	-1.0
<b>Percentage of medical payments made for minor radiology services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.1	n/a	0.0	0.0	-0.1	0.0	-0.4	0.1	0.1	0.1	-0.1	-0.1	0.0	0.2	0.1	-0.1	0.0
2008/2009 to 2009/2010	0.2	n/a	0.1	0.1	-0.1	0.1	0.1	-0.3	0.1	0.0	-0.1	0.0	-0.1	0.0	0.1	0.0	0.0
2009/2010 to 2010/2011	-0.2	n/a	0.0	0.0	-0.1	-0.1	0.3	-0.4	0.0	0.1	-0.1	0.0	-0.1	-0.1	-0.1	-0.1	-0.1
2010/2011 to 2011/2012	0.3	n/a	-0.2	0.0	0.0	-0.1	0.0	0.1	-0.1	-0.2	0.2	-0.1	0.0	-0.1	-0.1	0.1	0.0
2011/2012 to 2012/2013	0.0	n/a	0.1	0.0	-0.1	-0.1	-0.1	-0.2	0.1	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0

continued

**Table for Figure 76: Trend of Hospital Outpatient Minor Radiology Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average minor radiology payment per service</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	14.5	n/a	2.7	-2.1	4.1	7.3	0.2	7.6	-0.1	10.2	6.7	-3.2	0.2	36.0	5.1	8.4	5.1
2008/2009 to 2009/2010	15.0	n/a	7.2	13.1	2.2	11.1	5.0	-2.4	-5.0	4.8	0.6	4.8	3.3	11.3	16.5	5.9	5.0
2009/2010 to 2010/2011	0.5	n/a	10.8	5.0	4.0	7.3	12.7	-13.0	4.9	0.7	-4.6	8.5	-1.0	-14.3	11.6	4.7	4.7
2010/2011 to 2011/2012	8.5	n/a	2.0	6.7	-2.1	1.6	9.3	1.7	-1.0	-7.6	8.3	7.4	6.6	-3.7	-0.7	3.5	2.0
2011/2012 to 2012/2013	13.2	n/a	12.4	1.8	-22.0	3.4	2.3	-3.2	5.3	-0.3	5.5	2.7	5.4	-0.7	3.7	2.5	2.7
<b>Minor radiology services per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	-3.4	n/a	2.3	5.7	-0.2	0.9	-1.7	-1.0	1.1	3.8	0.8	0.2	1.1	1.4	4.0	-0.2	0.9
2008/2009 to 2009/2010	2.1	n/a	-0.9	5.1	3.7	0.0	3.7	-0.3	6.0	5.4	-0.5	-1.2	1.8	-2.1	-4.2	5.0	1.8
2009/2010 to 2010/2011	1.0	n/a	-3.3	-0.5	-2.8	-6.0	-2.7	-0.6	-3.2	4.8	-0.7	-0.3	1.1	0.1	0.7	-4.3	-0.6
2010/2011 to 2011/2012	-2.0	n/a	-1.4	5.2	-1.8	-1.3	2.7	1.2	-0.5	-5.4	-4.2	-6.1	0.5	0.4	-2.7	0.6	-1.3
2011/2012 to 2012/2013	-6.4	n/a	1.7	-3.0	-0.2	2.8	-4.8	-3.8	-0.4	-7.1	-3.8	1.3	-1.0	0.4	1.7	-2.0	-1.0
<b>Minor radiology visits per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	-5.7	n/a	-0.3	1.7	-2.3	0.3	0.9	-1.6	1.5	-0.5	0.3	-1.1	-1.1	2.3	1.9	2.1	0.3
2008/2009 to 2009/2010	5.0	n/a	0.9	5.8	3.2	-0.7	1.4	-0.8	2.8	-0.2	2.3	-0.6	2.8	-0.3	1.7	1.0	1.4
2009/2010 to 2010/2011	-4.2	n/a	-1.5	-2.2	-3.0	-0.6	-1.3	-0.6	-4.5	0.9	-1.8	-0.9	1.2	0.8	1.8	-1.8	-1.3
2010/2011 to 2011/2012	3.4	n/a	0.7	1.3	0.2	-2.8	3.2	0.3	1.5	1.3	-5.4	-1.7	-0.1	1.8	-5.5	-0.2	0.3
2011/2012 to 2012/2013	-2.8	n/a	-0.7	-1.0	-2.4	1.3	-4.7	-0.4	-1.3	0.0	-0.9	-2.3	0.2	1.4	2.4	-2.0	-0.9
<b>Minor radiology services per visit</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	0.0	n/a	-0.7	3.2	0.4	-0.6	-1.3	0.6	0.7	1.7	-1.4	-0.7	1.7	-0.6	2.3	-1.5	0.0
2008/2009 to 2009/2010	-2.2	n/a	1.1	-0.6	0.6	1.0	-1.5	0.5	2.4	5.0	0.0	-1.0	-1.2	-1.3	-5.1	4.1	0.0
2009/2010 to 2010/2011	4.4	n/a	-1.9	0.8	-0.4	-4.5	1.1	0.0	1.6	2.4	-0.2	0.3	0.6	-1.2	-1.8	-4.8	0.0
2010/2011 to 2011/2012	-4.5	n/a	-1.8	4.0	-0.2	0.3	0.7	1.0	-3.1	-4.2	2.9	-2.9	-0.3	-0.9	3.2	1.9	-0.2
2011/2012 to 2012/2013	-2.3	n/a	2.1	-1.0	2.2	3.1	-2.1	-3.4	-0.2	-7.2	-2.8	5.5	-1.3	-0.9	1.4	0.6	-0.9

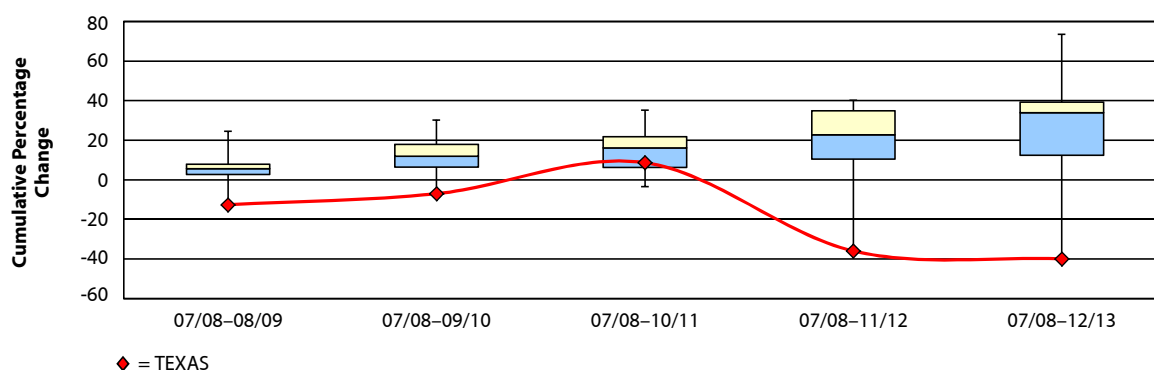
Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Trends in hospital outpatient payments, services, and visits are not shown for California because underlying data in our sample are not sufficiently representative of the state's trends.

<sup>b</sup> The 15-state median is the state ranked 8th on a given measure; this state changes depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.



**Figure 77 Trend of Hospital Outpatient Laboratory Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 77: Trend of Hospital Outpatient Laboratory Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)**

	AR <sup>a</sup>	CA <sup>b</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	14-State Median <sup>c</sup>
<b>Average laboratory payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	n/a	n/a	2.8	17.3	5.3	14.2	7.5	3.2	4.1	24.6	7.9	-1.9	5.8	-12.6	7.5	-0.2	5.6
2009/2010	n/a	n/a	6.4	22.1	11.9	30.2	17.8	11.9	4.0	18.4	16.7	3.8	11.3	-7.0	9.5	17.9	11.9
2010/2011	n/a	n/a	14.3	28.9	16.2	34.2	21.6	2.6	-0.6	35.2	-3.4	16.1	6.2	8.7	21.8	19.8	16.1
2011/2012	n/a	n/a	22.4	38.3	12.2	40.2	35.0	7.2	3.5	26.2	10.5	23.0	38.2	-35.9	32.5	22.4	22.7
2012/2013	n/a	n/a	37.9	39.8	-7.7	73.5	41.7	2.1	12.4	35.1	24.9	33.9	39.2	-39.9	29.3	34.0	33.9
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	2.8	17.3	5.3	14.2	7.5	3.2	4.1	24.6	7.9	-1.9	5.8	-12.6	7.5	-0.2	5.6
2008/2009 to 2009/2010	n/a	n/a	3.5	4.1	6.2	14.0	9.5	8.4	-0.1	-5.0	8.2	5.8	5.2	6.4	1.9	18.1	6.0
2009/2010 to 2010/2011	n/a	n/a	7.4	5.5	3.8	3.1	3.2	-8.3	-4.4	14.2	-17.2	11.9	-4.6	16.8	11.2	1.6	3.5
2010/2011 to 2011/2012	n/a	n/a	7.1	7.3	-3.4	4.5	11.0	4.5	4.1	-6.7	14.5	5.9	30.2	-41.0	8.8	2.2	5.2
2011/2012 to 2012/2013	n/a	n/a	12.6	1.1	-17.7	23.7	5.0	-4.7	8.6	7.1	13.0	8.9	0.7	-6.2	-2.4	9.5	6.0
<b>Percentage of claims with laboratory services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	n/a	n/a	-0.7	0.2	-0.4	0.2	1.8	0.0	1.2	-0.5	0.7	-0.4	0.4	2.4	-0.6	1.4	0.2
2008/2009 to 2009/2010	n/a	n/a	0.3	-0.4	-0.9	-0.2	0.8	0.8	1.0	2.5	-1.6	1.6	0.3	0.8	-0.7	-0.6	0.3
2009/2010 to 2010/2011	n/a	n/a	-1.1	1.2	0.2	-1.5	-1.8	-1.1	-0.4	0.0	-0.4	1.2	0.2	-0.5	0.8	0.6	-0.2
2010/2011 to 2011/2012	n/a	n/a	-0.9	1.2	-0.5	3.0	0.5	0.2	-0.7	0.4	0.5	-1.0	0.7	0.5	-0.8	-0.1	0.3
2011/2012 to 2012/2013	n/a	n/a	-0.7	-2.4	-1.1	-2.4	-0.7	0.5	-0.2	0.9	-1.4	0.0	0.6	-0.3	0.1	-0.7	-0.5
<b>Percentage of medical payments made for laboratory services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	n/a	n/a	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
2008/2009 to 2009/2010	n/a	n/a	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.0	0.0	0.0	0.0
2009/2010 to 2010/2011	n/a	n/a	0.0	0.0	0.0	0.0	0.1	-0.1	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	0.0	0.0
2010/2011 to 2011/2012	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.1	0.0	0.1	-0.1	0.1	0.0	0.0
2011/2012 to 2012/2013	n/a	n/a	0.0	0.0	0.0	0.0	0.1	0.0	0.1	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0

continued

**Table for Figure 77: Trend of Hospital Outpatient Laboratory Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR <sup>a</sup>	CA <sup>b</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	14-State Median <sup>c</sup>
<b>Average laboratory payment per service</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	1.7	12.4	2.4	7.4	4.3	6.5	-5.3	6.1	2.3	0.8	3.7	-12.8	7.6	3.3	3.5
2008/2009 to 2009/2010	n/a	n/a	4.7	-1.1	8.2	11.1	2.1	2.7	1.4	0.1	4.6	5.9	1.1	8.4	1.1	7.9	3.7
2009/2010 to 2010/2011	n/a	n/a	5.7	5.4	6.7	4.1	9.5	-5.0	-3.4	0.2	-10.6	7.5	1.6	15.5	14.0	8.7	5.5
2010/2011 to 2011/2012	n/a	n/a	7.6	5.5	-4.7	4.0	6.8	-4.0	0.9	0.6	11.9	6.1	16.4	-39.6	5.1	-2.7	4.6
2011/2012 to 2012/2013	n/a	n/a	15.5	7.1	-12.5	5.7	6.0	1.9	9.0	3.2	6.4	6.7	4.2	-6.2	2.1	5.3	5.5
<b>Laboratory services per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	1.1	4.4	2.9	6.3	3.1	-3.1	9.9	17.4	5.4	-3.0	2.0	0.2	-0.2	-3.3	2.4
2008/2009 to 2009/2010	n/a	n/a	-1.2	5.2	-1.8	2.6	7.3	5.6	-1.6	-5.0	3.4	4.6	4.0	-1.9	0.8	9.5	3.0
2009/2010 to 2010/2011	n/a	n/a	1.6	0.1	-2.7	-0.9	-5.7	-3.4	-1.0	14.0	-7.5	4.8	-6.1	1.2	-2.4	-6.5	-1.7
2010/2011 to 2011/2012	n/a	n/a	-0.4	1.7	1.3	0.4	3.9	8.8	3.2	-7.2	2.3	-0.2	11.8	-2.3	3.5	5.1	2.0
2011/2012 to 2012/2013	n/a	n/a	-2.5	-5.6	-5.9	17.0	-0.9	-6.5	-0.4	3.8	6.2	0.7	-3.4	0.0	-4.4	4.0	-0.7
<b>Laboratory visits per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	1.8	-0.9	1.3	2.6	-2.1	-0.1	8.9	7.5	6.0	-7.2	2.3	2.2	3.2	-1.0	2.0
2008/2009 to 2009/2010	n/a	n/a	-6.3	-3.8	-1.2	3.7	-5.5	-1.8	-6.3	1.0	4.4	0.8	0.7	0.6	3.3	10.8	0.7
2009/2010 to 2010/2011	n/a	n/a	4.7	3.1	1.9	-1.4	-3.2	5.7	-0.8	10.6	-6.6	4.9	2.0	1.7	-2.4	-9.6	1.8
2010/2011 to 2011/2012	n/a	n/a	-1.1	3.4	-1.5	5.0	7.4	4.0	10.2	-7.1	-1.0	-6.1	1.8	2.0	-0.6	7.3	1.9
2011/2012 to 2012/2013	n/a	n/a	-2.3	-2.5	-2.1	6.0	-5.7	-5.0	-12.0	-0.2	-0.7	2.9	-0.6	-1.8	-5.3	0.2	-1.9
<b>Laboratory services per visit</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	-0.4	1.1	0.0	5.2	3.7	-3.0	3.5	3.5	1.4	2.0	-0.6	-1.8	-5.8	-0.2	0.5
2008/2009 to 2009/2010	n/a	n/a	4.5	6.7	0.1	-3.0	5.0	7.5	4.0	0.2	-1.2	4.6	2.0	-1.6	0.0	-1.2	1.1
2009/2010 to 2010/2011	n/a	n/a	-3.0	1.5	-5.5	0.5	-3.0	-8.6	-2.2	-0.1	-1.9	-0.1	-5.6	0.1	-1.1	0.1	-1.5
2010/2011 to 2011/2012	n/a	n/a	1.8	-1.5	5.4	-3.0	6.7	4.6	-2.8	3.2	2.1	7.2	10.1	-4.3	4.0	-1.0	2.6
2011/2012 to 2012/2013	n/a	n/a	2.3	-4.2	-3.9	11.6	2.6	-1.6	10.2	0.4	9.8	-0.6	-3.7	2.1	1.1	5.2	1.6

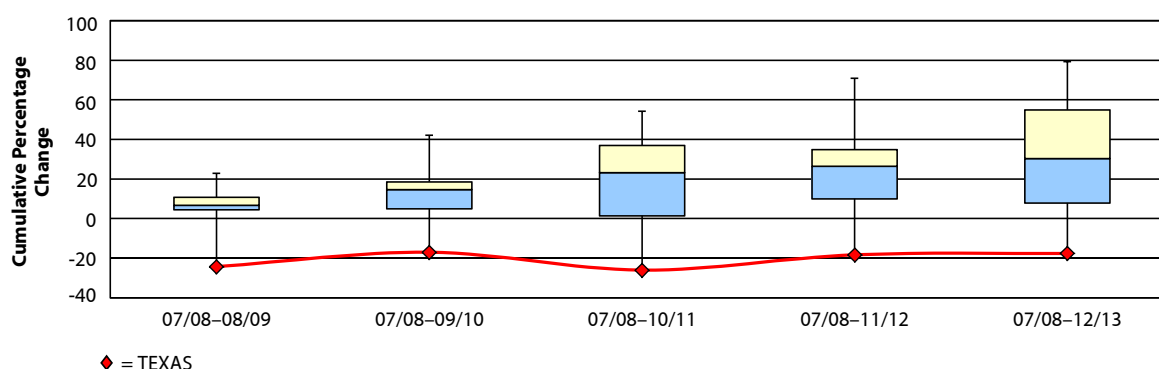
Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Trends in hospital outpatient payments, services, and visits for laboratory are not shown for Arkansas because underlying data in our sample do not support meaningful trend analysis due to extreme variability.

<sup>b</sup> Trends in hospital outpatient payments, services, and visits for specific service groups are not shown for California because underlying data in our sample are not sufficiently representative of the state's trends.

<sup>c</sup> The 14-state median is the average of the states ranked 7th and 8th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 78 Trend of Hospital Outpatient Physical Medicine Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 78: Trend of Hospital Outpatient Physical Medicine Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average physical medicine payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	6.7	n/a	10.9	8.2	5.4	9.6	22.9	4.6	-4.7	2.8	18.3	4.4	9.2	-24.3	5.2	10.7	6.7
2009/2010	17.5	n/a	16.9	14.1	18.6	13.9	42.2	5.0	1.2	14.6	6.7	-10.3	17.4	-17.0	37.6	33.4	14.6
2010/2011	37.8	n/a	23.8	23.2	20.3	26.2	54.3	6.6	-8.8	23.9	-5.4	1.4	14.4	-26.0	51.0	36.9	23.2
2011/2012	34.3	n/a	41.2	44.2	15.6	26.4	70.9	0.3	10.0	19.1	-4.8	17.1	33.6	-18.3	34.9	32.2	26.4
2012/2013	79.4	n/a	39.2	39.3	7.9	26.7	65.0	-5.2	5.1	20.9	9.6	30.3	54.8	-17.6	55.5	41.8	30.3
Annual percentage change:																	
2007/2008 to 2008/2009	6.7	n/a	10.9	8.2	5.4	9.6	22.9	4.6	-4.7	2.8	18.3	4.4	9.2	-24.3	5.2	10.7	6.7
2008/2009 to 2009/2010	10.1	n/a	5.4	5.5	12.4	3.9	15.7	0.3	6.2	11.5	-9.8	-14.0	7.5	9.5	30.7	20.5	7.5
2009/2010 to 2010/2011	17.3	n/a	5.9	8.0	1.5	10.8	8.5	1.6	-9.9	8.1	-11.4	13.0	-2.6	-10.9	9.8	2.7	5.9
2010/2011 to 2011/2012	-2.5	n/a	14.1	17.1	-3.9	0.2	10.7	-5.9	20.6	-3.9	0.6	15.5	16.8	10.4	-10.7	-3.5	0.6
2011/2012 to 2012/2013	33.5	n/a	-1.4	-3.4	-6.7	0.2	-3.5	-5.5	-4.4	1.5	15.2	11.3	15.9	0.9	15.3	7.3	0.9
<b>Percentage of claims with physical medicine services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-1.8	n/a	-0.5	0.8	-1.4	1.5	1.1	1.3	1.6	1.0	-0.1	-2.6	-1.5	0.7	0.0	-2.2	0.0
2008/2009 to 2009/2010	-0.5	n/a	-0.5	-0.1	-0.5	-1.6	0.0	-0.4	4.1	1.7	-2.5	-1.0	-1.6	-0.4	0.1	0.0	-0.4
2009/2010 to 2010/2011	1.2	n/a	-0.5	-1.8	-1.1	-0.3	-1.1	-1.5	0.9	0.2	-1.9	0.0	-0.3	-0.6	-0.2	1.2	-0.3
2010/2011 to 2011/2012	0.6	n/a	-0.6	-1.0	1.0	-1.5	0.4	0.2	-1.8	0.1	-0.8	0.0	-0.2	1.3	-0.9	0.2	0.0
2011/2012 to 2012/2013	1.5	n/a	0.1	-0.9	-1.2	-2.6	0.7	-0.4	-1.8	-2.3	-0.6	-0.7	1.4	-0.5	-0.6	-0.8	-0.6
<b>Percentage of medical payments made for physical medicine services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-0.7	n/a	0.0	0.1	-0.4	0.0	0.1	0.2	0.2	-0.1	0.2	-0.5	-0.3	-0.7	0.1	-0.6	0.0
2008/2009 to 2009/2010	0.1	n/a	0.0	-0.2	0.0	-0.3	0.3	-0.6	1.2	0.5	-1.1	-0.6	-0.7	0.1	0.6	0.6	0.0
2009/2010 to 2010/2011	0.1	n/a	-0.1	-0.2	-0.3	0.3	0.5	-0.4	-0.4	0.4	-0.7	0.0	-0.7	-0.3	-0.2	0.1	-0.2
2010/2011 to 2011/2012	0.7	n/a	-0.1	0.0	0.2	-0.8	-0.1	-0.2	0.3	0.0	-0.1	0.1	0.8	0.2	-0.4	-0.3	0.0
2011/2012 to 2012/2013	1.5	n/a	0.0	0.0	0.2	-0.6	0.3	-0.3	-0.5	-0.5	0.2	0.0	1.1	-0.1	0.2	0.0	0.0

continued

**Table for Figure 78: Trend of Hospital Outpatient Physical Medicine Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

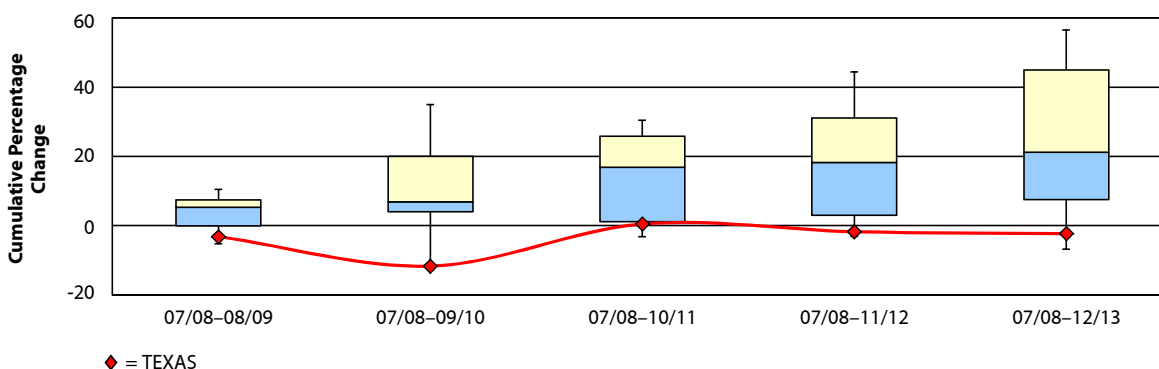
	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average physical medicine payment per service</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	0.4	n/a	0.4	3.4	2.1	7.1	12.1	0.6	-0.9	-1.8	16.1	-4.8	0.6	-14.6	1.9	6.4	0.6
2008/2009 to 2009/2010	11.1	n/a	7.1	8.3	7.7	7.2	19.8	5.8	2.4	7.5	-7.5	0.6	6.7	3.8	14.1	4.9	7.1
2009/2010 to 2010/2011	2.4	n/a	0.9	2.5	3.0	6.3	-6.5	-2.5	-3.3	6.9	-4.6	15.3	-0.6	-7.6	14.0	4.5	2.4
2010/2011 to 2011/2012	-1.6	n/a	6.5	3.2	-7.0	0.7	12.0	-4.1	-6.3	-5.1	1.0	4.6	13.4	9.5	5.0	0.4	1.0
2011/2012 to 2012/2013	20.2	n/a	2.0	6.4	-3.8	4.5	-2.4	-3.3	7.9	3.2	4.8	15.8	15.8	-1.5	2.4	3.0	3.2
<b>Physical medicine services per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	6.3	n/a	10.5	4.6	3.2	2.3	9.6	4.0	-3.9	4.6	1.8	18.7	8.5	-11.3	3.3	4.0	4.0
2008/2009 to 2009/2010	-0.9	n/a	-1.6	-2.6	4.4	-3.1	-3.4	-5.2	3.7	3.7	-2.5	-13.3	0.8	5.6	14.5	14.8	-0.9
2009/2010 to 2010/2011	14.5	n/a	4.9	5.4	-1.4	4.2	16.1	4.1	-6.8	1.2	-7.1	-1.3	-2.0	-3.5	-3.6	-1.7	-1.3
2010/2011 to 2011/2012	-0.9	n/a	7.1	13.5	3.3	-0.5	-1.1	-1.8	28.7	1.3	-0.4	17.1	3.0	0.8	-14.9	-3.9	0.8
2011/2012 to 2012/2013	11.1	n/a	-3.4	-9.2	-3.0	-4.1	-1.1	-2.3	-11.4	-1.6	9.8	-5.5	0.1	2.4	12.6	4.2	-1.6
<b>Physical medicine visits per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	3.6	n/a	14.0	0.1	3.2	2.8	9.6	4.9	-4.6	1.6	-4.7	10.0	7.7	-6.9	0.2	3.1	3.1
2008/2009 to 2009/2010	-4.6	n/a	-1.9	-3.8	3.8	-1.3	2.4	-0.4	6.1	1.5	-7.4	-7.4	0.9	6.4	20.8	12.9	0.9
2009/2010 to 2010/2011	12.5	n/a	7.5	5.1	-3.1	0.2	12.7	0.9	-7.4	0.1	-0.5	7.1	0.1	-5.0	-0.2	-3.2	0.1
2010/2011 to 2011/2012	-3.6	n/a	4.3	6.3	-2.3	3.7	0.9	-0.6	7.2	1.6	-3.8	6.9	2.8	-0.2	-15.4	-4.1	0.9
2011/2012 to 2012/2013	11.2	n/a	-7.1	-8.8	-4.0	-9.5	-12.6	-3.9	-7.9	-3.1	-2.5	-6.4	-4.3	-4.8	10.2	-1.6	-4.3
<b>Physical medicine services per visit</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	11.1	n/a	-5.3	4.0	-0.4	-0.3	4.8	-0.8	-2.0	6.5	-1.0	11.8	-0.7	-4.7	-0.9	1.3	-0.4
2008/2009 to 2009/2010	-5.3	n/a	12.8	-3.3	0.2	-0.5	-4.4	-4.9	-1.4	-0.9	1.6	0.8	1.1	0.5	-0.1	2.7	-0.1
2009/2010 to 2010/2011	4.5	n/a	-7.9	3.3	2.8	5.8	5.8	3.2	-0.4	1.5	5.0	-7.2	-1.0	-0.6	1.6	0.7	1.6
2010/2011 to 2011/2012	5.4	n/a	5.4	6.7	1.8	-3.7	0.1	-1.2	22.8	3.5	3.8	1.4	-0.7	1.3	1.4	1.5	1.5
2011/2012 to 2012/2013	1.4	n/a	1.3	-0.2	5.3	1.0	10.2	1.6	-2.3	2.8	8.0	3.2	7.7	8.1	2.7	5.0	2.8

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> Trends in hospital outpatient payments, services, and visits are not shown for California because underlying data in our sample are not sufficiently representative of the state's trends.

<sup>b</sup> The 15-state median is the state ranked 8th on a given measure; this state changes depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 79 Trend of Hospital Outpatient Clinic/Evaluation and Management Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 79: Trend of Hospital Outpatient Clinic/Evaluation and Management Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)**

	AR <sup>a</sup>	CA <sup>b</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	14-State Median <sup>c</sup>
<b>Average clinic/evaluation and management payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	n/a	n/a	1.7	5.9	4.8	5.9	10.2	-3.9	7.4	-0.1	10.5	-5.2	3.7	-3.2	7.9	6.1	5.3
2009/2010	n/a	n/a	4.9	18.9	20.0	4.0	4.4	3.0	28.1	7.9	-4.9	5.9	11.0	-11.7	35.0	21.8	6.9
2010/2011	n/a	n/a	1.1	18.3	28.8	19.8	-2.0	5.8	18.5	25.8	15.4	-3.2	14.2	0.5	30.4	30.4	16.9
2011/2012	n/a	n/a	-3.1	14.2	22.2	35.7	12.6	-0.4	10.9	31.1	28.8	3.0	29.8	-1.8	44.4	32.4	18.2
2012/2013	n/a	n/a	7.6	36.2	-6.8	38.7	19.7	1.5	22.7	44.9	10.3	11.6	54.8	-2.3	56.5	52.2	21.2
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	1.7	5.9	4.8	5.9	10.2	-3.9	7.4	-0.1	10.5	-5.2	3.7	-3.2	7.9	6.1	5.3
2008/2009 to 2009/2010	n/a	n/a	3.1	12.3	14.5	-1.8	-5.2	7.2	19.3	8.0	-13.9	11.8	7.0	-8.8	25.1	14.8	7.6
2009/2010 to 2010/2011	n/a	n/a	-3.6	-0.5	7.3	15.1	-6.2	2.7	-7.5	16.6	21.3	-8.6	2.9	13.7	-3.4	7.1	2.8
2010/2011 to 2011/2012	n/a	n/a	-4.2	-3.5	-5.1	13.3	14.9	-5.9	-6.4	4.2	11.6	6.4	13.7	-2.2	10.7	1.5	2.9
2011/2012 to 2012/2013	n/a	n/a	11.0	19.3	-23.7	2.2	6.3	1.9	10.6	10.5	-14.4	8.3	19.3	-0.5	8.4	14.9	8.3
<b>Percentage of claims with clinic/evaluation and management services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	n/a	n/a	0.5	-0.6	-1.0	0.7	1.8	1.0	-0.3	2.1	0.2	0.5	-0.7	0.8	1.4	-1.3	0.5
2008/2009 to 2009/2010	n/a	n/a	-0.1	-0.2	0.8	0.4	-1.5	-1.0	-0.8	1.4	-0.9	0.4	0.3	-0.5	-1.3	1.4	-0.1
2009/2010 to 2010/2011	n/a	n/a	-0.5	1.1	0.1	0.8	-0.4	-0.9	-0.3	3.3	-0.7	-0.4	-1.2	0.7	0.3	-0.9	-0.3
2010/2011 to 2011/2012	n/a	n/a	0.0	-1.3	-0.3	0.9	-0.2	-0.5	2.3	5.1	-0.6	-0.8	1.8	0.8	-1.4	-0.1	-0.2
2011/2012 to 2012/2013	n/a	n/a	-0.2	-1.2	0.5	-1.6	-0.4	-1.5	0.2	1.8	0.1	-0.4	2.7	-0.4	-0.5	-0.7	-0.4
<b>Percentage of medical payments made for clinic/evaluation and management services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	n/a	n/a	0.0	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	0.0	0.0	-0.1	0.0	0.0	-0.1	0.0
2008/2009 to 2009/2010	n/a	n/a	0.0	0.0	0.0	0.0	-0.1	-0.1	0.0	0.1	-0.1	0.0	0.0	-0.1	0.0	0.1	0.0
2009/2010 to 2010/2011	n/a	n/a	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.2	0.0	-0.1	0.0	0.1	0.0	0.0	0.0
2010/2011 to 2011/2012	n/a	n/a	0.0	-0.1	0.0	0.0	0.0	-0.1	0.0	0.3	0.0	0.0	0.1	0.0	0.0	0.0	0.0
2011/2012 to 2012/2013	n/a	n/a	0.0	0.1	0.0	0.0	0.0	-0.1	0.1	0.2	0.0	0.0	0.2	0.0	0.0	0.0	0.0

continued

**Table for Figure 79: Trend of Hospital Outpatient Clinic/Evaluation and Management Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR <sup>a</sup>	CA <sup>b</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	14-State Median <sup>c</sup>
<b>Average clinic/evaluation and management payment per service</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	5.4	13.0	8.5	2.4	14.0	-0.2	6.2	2.5	0.6	-2.6	4.1	-2.5	7.9	6.9	4.7
2008/2009 to 2009/2010	n/a	n/a	0.0	3.8	7.0	-0.7	8.4	5.6	10.4	3.5	-2.4	9.3	9.8	-3.3	19.6	-0.8	4.7
2009/2010 to 2010/2011	n/a	n/a	10.3	-1.1	4.7	11.7	-15.3	5.3	-4.3	9.4	15.7	-6.7	9.2	9.6	-6.6	13.7	7.2
2010/2011 to 2011/2012	n/a	n/a	-7.5	11.7	-5.7	14.1	30.8	-6.3	-3.0	6.5	5.2	12.1	9.3	4.9	-0.7	1.0	5.1
2011/2012 to 2012/2013	n/a	n/a	9.4	26.1	-21.6	0.6	4.5	4.9	0.8	4.6	-16.2	-0.2	10.8	4.6	13.5	8.7	4.6
<b>Clinic/evaluation and management services per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	-3.4	-6.3	-3.4	3.4	-3.4	-3.7	1.1	-2.5	9.8	-9.0	-0.3	-0.7	0.0	-0.8	-1.6
2008/2009 to 2009/2010	n/a	n/a	3.1	8.2	7.0	-1.0	-12.5	1.5	8.0	4.3	-11.8	10.1	-2.6	-5.7	4.6	15.8	3.7
2009/2010 to 2010/2011	n/a	n/a	-12.6	0.6	2.6	3.1	10.8	-2.5	-3.3	6.6	4.8	-5.1	-5.8	3.8	3.5	-5.8	1.6
2010/2011 to 2011/2012	n/a	n/a	3.6	-13.6	0.6	-0.6	-12.2	0.5	-3.6	-2.1	6.0	-3.3	4.0	-6.8	11.5	0.5	-0.1
2011/2012 to 2012/2013	n/a	n/a	1.5	-5.4	-2.8	1.6	1.7	-2.8	9.7	5.7	2.3	12.2	7.7	-4.9	-4.5	5.7	1.7
<b>Clinic/evaluation and management visits per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	-12.1	-9.2	-4.7	-0.5	-4.7	-3.5	0.3	-4.7	13.9	-7.2	-3.4	-1.1	-4.3	-1.0	-3.9
2008/2009 to 2009/2010	n/a	n/a	7.1	12.1	7.1	3.8	-29.0	2.9	10.3	4.5	-16.1	6.8	-5.1	-0.1	5.5	16.0	5.0
2009/2010 to 2010/2011	n/a	n/a	-8.6	-2.9	4.3	-1.2	24.9	-2.7	0.2	2.3	3.5	-3.8	2.2	3.7	4.5	-7.2	1.2
2010/2011 to 2011/2012	n/a	n/a	-0.8	-14.0	-1.9	2.8	-1.8	1.2	-2.0	1.3	6.9	-4.7	3.9	-8.0	10.5	0.8	0.0
2011/2012 to 2012/2013	n/a	n/a	3.6	-11.7	-3.1	1.0	-10.0	-2.7	11.5	-0.9	2.2	7.3	3.9	-7.0	-5.3	7.7	0.1
<b>Clinic/evaluation and management services per visit</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	n/a	n/a	2.1	1.7	-0.4	-0.3	-3.2	-0.2	-0.1	-1.3	1.7	-5.2	1.4	1.7	-0.2	1.1	-0.2
2008/2009 to 2009/2010	n/a	n/a	1.8	0.5	0.5	-2.2	-0.2	-1.4	-0.7	1.9	-1.6	0.6	-0.3	-4.3	0.3	0.3	0.0
2009/2010 to 2010/2011	n/a	n/a	-5.0	2.6	-1.3	1.0	8.0	0.2	1.0	-0.3	0.9	-2.4	-4.1	-0.3	0.8	-0.2	0.0
2010/2011 to 2011/2012	n/a	n/a	1.5	-2.2	0.4	-0.9	-7.0	-0.8	-0.9	0.5	0.3	2.4	-0.2	0.2	2.0	-1.6	0.0
2011/2012 to 2012/2013	n/a	n/a	-0.3	-2.6	1.8	4.0	5.3	-0.1	0.4	0.6	0.2	-0.5	-0.5	1.3	-1.4	0.8	0.3

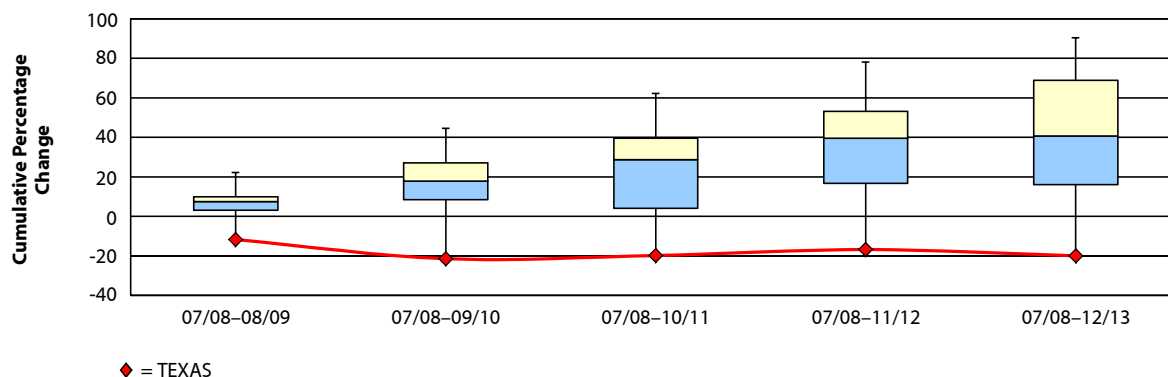
Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The cell sizes underlying the data in Arkansas for hospital outpatient clinic/evaluation and management measures are too small to support a trend analysis.

<sup>b</sup> Trends in hospital outpatient payments, services, and visits are not shown for California because underlying data in our sample are not sufficiently representative of the state's trends.

<sup>c</sup> The 14-state median is the average of the states ranked 7th and 8th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

Key: n/a: not available.

**Figure 80 Trend of Hospital Outpatient Emergency Average Payment per Claim and Other Metrics for Claims with More Than 7 Days of Lost Time (12 months)****Table for Figure 80: Trend of Average Hospital Outpatient Emergency Payment per Claim, Payment per Service, and Services per Claim for Claims with More Than 7 Days of Lost Time (12 months)**

	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average emergency payment per claim</b>																	
Cumulative percentage change from 2007/2008 to:																	
2008/2009	22.3	n/a	10.0	7.4	7.6	11.5	5.4	9.1	-5.0	8.5	3.0	-9.6	3.8	-11.7	19.0	8.6	7.6
2009/2010	31.2	n/a	27.1	14.6	16.2	25.6	22.3	8.4	0.7	29.3	17.8	-10.0	8.6	-21.5	44.6	18.4	17.8
2010/2011	51.0	n/a	46.8	30.8	28.7	32.8	28.8	1.8	0.4	39.6	13.1	4.0	14.3	-19.8	62.3	24.5	28.7
2011/2012	71.9	n/a	56.3	39.5	37.4	53.2	40.5	13.5	13.3	39.6	27.0	16.7	26.4	-16.8	78.2	43.0	39.5
2012/2013	69.5	n/a	68.9	40.7	15.2	73.3	60.2	14.1	16.0	52.8	34.7	36.2	30.3	-20.0	90.4	50.2	40.7
Annual percentage change:																	
2007/2008 to 2008/2009	22.3	n/a	10.0	7.4	7.6	11.5	5.4	9.1	-5.0	8.5	3.0	-9.6	3.8	-11.7	19.0	8.6	7.6
2008/2009 to 2009/2010	7.3	n/a	15.6	6.7	8.1	12.7	16.1	-0.7	6.0	19.2	14.3	-0.4	4.6	-11.0	21.6	9.1	8.1
2009/2010 to 2010/2011	15.2	n/a	15.4	14.1	10.7	5.7	5.2	-6.1	-0.3	7.9	-3.9	15.6	5.2	2.1	12.2	5.1	5.7
2010/2011 to 2011/2012	13.8	n/a	6.5	6.7	6.8	15.3	9.1	11.6	12.9	0.0	12.3	12.2	10.6	3.7	9.8	14.8	10.6
2011/2012 to 2012/2013	-1.4	n/a	8.0	0.8	-16.2	13.1	14.0	0.5	2.4	9.4	6.0	16.7	3.1	-3.8	6.9	5.1	5.1
<b>Percentage of claims with emergency services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	-1.9	n/a	0.0	-0.6	0.0	0.6	0.3	1.4	3.2	-0.6	0.0	0.7	1.0	-1.3	-2.3	-0.1	0.0
2008/2009 to 2009/2010	1.8	n/a	0.1	1.3	-0.9	-0.4	1.8	0.2	4.0	0.6	-0.8	0.2	-1.1	0.1	0.8	-1.5	0.2
2009/2010 to 2010/2011	-2.6	n/a	-2.0	0.5	-0.8	-0.7	-0.2	-0.2	-0.7	0.9	-1.7	0.2	-1.0	-0.5	-0.8	0.2	-0.7
2010/2011 to 2011/2012	0.9	n/a	-0.6	1.1	2.1	0.9	1.0	0.0	-1.6	0.2	1.3	-0.5	0.4	0.9	-1.9	0.7	0.7
2011/2012 to 2012/2013	0.6	n/a	0.1	-0.1	-2.2	-2.7	-1.5	-0.9	0.4	-0.4	-1.4	-0.6	-1.1	0.5	-0.2	0.7	-0.4
<b>Percentage of medical payments made for emergency services</b>																	
Annual percentage point change:																	
2007/2008 to 2008/2009	0.0	n/a	0.0	0.0	0.0	0.0	-0.3	0.2	0.1	0.0	-0.2	-0.1	0.0	-0.4	0.2	0.0	0.0
2008/2009 to 2009/2010	0.1	n/a	0.4	0.0	-0.1	0.1	0.2	-0.4	0.2	0.2	0.2	-0.1	-0.1	-0.2	0.3	-0.1	0.1
2009/2010 to 2010/2011	-0.2	n/a	0.2	0.1	0.0	0.0	0.3	-0.4	0.0	0.2	-0.1	0.1	-0.1	0.0	-0.1	0.0	0.0
2010/2011 to 2011/2012	0.6	n/a	-0.1	-0.1	0.2	0.1	-0.1	0.4	0.0	0.0	0.4	0.1	0.2	0.0	0.3	0.2	0.1
2011/2012 to 2012/2013	-0.2	n/a	0.1	0.1	0.0	0.0	0.3	-0.1	0.1	0.1	0.0	0.2	-0.1	0.0	0.0	0.0	0.0

continued

**Table for Figure 80: Trend of Average Hospital Outpatient Emergency Payment per Claim, Payment per Service, and Services per Claim for Claims with More Than 7 Days of Lost Time (12 months) (continued)**

	AR	CA <sup>a</sup>	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	15-State Median <sup>b</sup>
<b>Average emergency payment per service</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	21.0	n/a	7.4	3.9	8.6	8.2	6.2	9.3	-0.5	8.4	7.5	-1.2	5.7	-5.1	18.5	9.8	7.5
2008/2009 to 2009/2010	16.9	n/a	21.9	11.7	11.4	11.4	17.7	-2.9	4.5	13.5	16.4	9.7	9.2	1.6	25.1	7.1	11.4
2009/2010 to 2010/2011	9.1	n/a	14.5	16.9	12.9	13.5	11.1	-5.2	-2.1	2.4	-9.3	11.5	5.8	1.7	8.7	7.0	8.7
2010/2011 to 2011/2012	4.5	n/a	7.5	11.7	5.6	12.5	8.1	10.7	14.8	6.2	10.7	12.5	8.5	9.3	8.1	11.8	9.3
2011/2012 to 2012/2013	9.7	n/a	14.1	-0.2	-11.6	10.3	14.1	5.0	7.5	17.0	14.9	14.1	7.1	-1.8	7.5	6.3	7.5
<b>Emergency services per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	1.1	n/a	2.4	3.4	-1.0	3.1	-0.8	-0.2	-4.5	0.1	-4.2	0.4	-1.8	-7.0	0.4	-1.2	-0.2
2008/2009 to 2009/2010	-8.3	n/a	-5.2	-4.4	-3.0	1.1	-1.3	2.3	1.4	5.0	-1.8	0.3	-4.2	-12.5	-2.9	1.8	-1.8
2009/2010 to 2010/2011	5.5	n/a	0.9	-2.4	-2.0	-6.8	-5.3	-0.9	1.9	5.4	5.9	2.3	-0.5	0.4	3.2	-1.8	0.4
2010/2011 to 2011/2012	9.0	n/a	-0.9	-4.5	1.2	2.5	0.9	0.8	-1.7	-5.8	1.4	0.6	1.9	-5.1	1.6	2.7	0.9
2011/2012 to 2012/2013	-10.1	n/a	-5.3	1.0	-5.2	2.6	0.0	-4.3	-4.8	-6.5	-7.7	2.7	-3.8	-2.0	-0.6	-1.2	-3.8
<b>Emergency visits per claim</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	1.8	n/a	-3.4	3.3	-0.4	2.0	-2.8	-1.0	3.5	-3.7	-0.7	-0.2	-1.0	-0.1	-0.9	-1.0	-0.7
2008/2009 to 2009/2010	-3.3	n/a	0.2	-3.0	-0.2	-0.9	2.0	0.7	-0.4	1.1	-0.9	0.3	-2.8	-0.9	1.2	1.3	-0.2
2009/2010 to 2010/2011	-0.9	n/a	1.8	-1.6	-0.4	-1.9	-5.4	-3.7	-0.9	0.2	-0.8	0.3	0.8	0.5	2.9	-0.5	-0.5
2010/2011 to 2011/2012	6.3	n/a	-1.4	0.7	0.2	1.7	0.7	3.1	-0.9	-0.2	2.5	0.6	1.7	-0.1	-5.6	1.1	0.7
2011/2012 to 2012/2013	1.4	n/a	0.0	1.3	1.1	1.3	6.1	-1.5	-2.6	0.6	-2.2	-0.4	-2.1	0.1	2.9	-0.8	0.1
<b>Emergency services per visit</b>																	
Annual percentage change:																	
2007/2008 to 2008/2009	1.7	n/a	2.7	1.2	-2.6	1.7	3.2	0.8	-7.5	2.9	-3.3	-0.7	-0.4	-6.1	2.6	0.4	0.8
2008/2009 to 2009/2010	-5.1	n/a	-5.7	-1.3	-4.0	0.1	-5.3	1.6	1.9	4.3	-1.1	0.9	-1.5	-10.1	-3.9	0.7	-1.3
2009/2010 to 2010/2011	3.3	n/a	2.1	-3.4	-0.4	-4.1	-1.5	2.9	3.8	7.7	9.2	1.8	-1.9	0.9	0.6	-1.6	0.9
2010/2011 to 2011/2012	7.5	n/a	-0.1	-4.6	2.9	0.8	0.3	-2.3	-1.3	-9.0	-0.4	0.3	0.8	-4.6	7.7	2.1	0.3
2011/2012 to 2012/2013	-13.4	n/a	-4.3	0.3	-6.3	1.7	-4.2	-2.9	-3.4	-7.4	-4.9	3.6	-2.1	-2.6	-2.2	-1.7	-2.9

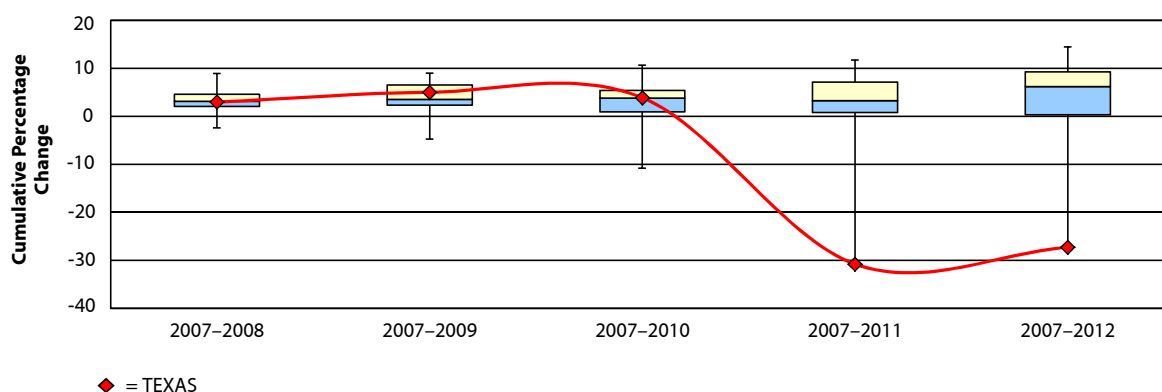
Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013; similar notation is used for other years. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The 15-state median is the state ranked 8th on a given measure; this state changes depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

<sup>b</sup> Trends in hospital outpatient payments, services, and visits are not shown for California because underlying data in our sample are not sufficiently representative of the state's trends.

Key: n/a: not available.



**Figure 81 Trend in Percentage of Medical Payments for Care Rendered within Networks<sup>a</sup> (calendar years)****Table for Figure 81: Trend in Percentage of Medical Payments for Care Rendered within Networks<sup>a</sup> (calendar years)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Percentage of overall medical payments for care within networks</b>																	
Cumulative percentage point change from 2007 to:																	
2008	5.1	-2.4	3.0	9.0	2.1	1.1	2.1	5.8	6.4	3.2	4.1	4.3	3.2	3.0	0.0	3.2	3.2
2009	6.5	-1.9	3.5	7.9	2.4	3.5	-4.7	3.5	8.8	2.3	6.5	9.0	3.0	5.0	2.2	6.6	3.5
2010	4.9	-2.0	3.7	5.9	1.3	0.6	-10.8	-1.1	8.2	4.6	4.6	10.7	2.4	3.9	3.0	7.7	3.8
2011	4.6	-3.0	1.8	11.8	4.1	5.9	-13.6	1.4	9.3	4.3	2.5	8.7	0.2	-30.8	2.3	8.4	3.3
2012	14.5	-2.0	0.5	13.7	7.7	6.1	-12.6	5.8	11.0	6.3	2.9	12.1	0.2	-27.2	6.4	6.9	6.2
Annual percentage point change:																	
2007 to 2008	5.1	-2.4	3.0	9.0	2.1	1.1	2.1	5.8	6.4	3.2	4.1	4.3	3.2	3.0	0.0	3.2	3.2
2008 to 2009	1.4	0.5	0.5	-1.1	0.2	2.5	-6.8	-2.3	2.5	-0.8	2.4	4.8	-0.2	2.1	2.2	3.4	0.9
2009 to 2010	-1.6	-0.1	0.2	-2.0	-1.1	-2.9	-6.1	-4.6	-0.6	2.3	-1.9	1.6	-0.6	-1.1	0.8	1.1	-0.8
2010 to 2011	-0.3	-1.0	-1.9	5.9	2.8	5.3	-2.8	2.5	1.1	-0.3	-2.1	-2.0	-2.3	-34.7	-0.7	0.7	-0.5
2011 to 2012	9.9	1.0	-1.3	1.9	3.5	0.2	1.0	4.3	1.6	2.0	0.4	3.5	0.1	3.5	4.1	-1.4	1.8
<b>Percentage of medical payments to hospital providers for care within networks</b>																	
Cumulative percentage point change from 2007 to:																	
2008	5.3	1.4	4.6	9.6	6.6	0.1	0.8	7.1	6.6	2.1	2.9	8.2	4.5	-2.7	-2.4	4.1	4.3
2009	9.4	3.5	5.8	6.5	5.2	3.4	-10.4	6.2	9.9	1.5	6.7	21.2	1.2	0.0	0.5	7.2	5.5
2010	5.5	3.6	4.6	3.3	2.7	0.2	-20.6	-4.2	9.6	4.4	2.4	24.3	0.8	-6.7	2.6	5.0	3.0
2011	6.5	4.4	3.3	10.8	5.8	4.5	-22.1	-5.8	11.2	3.4	-1.3	21.6	-2.9	-41.2	1.0	4.7	3.9
2012	18.9	8.8	2.7	12.8	9.4	4.3	-18.0	-5.1	11.6	6.0	0.6	25.2	-2.3	-37.5	2.7	2.5	3.5
Annual percentage point change:																	
2007 to 2008	5.3	1.4	4.6	9.6	6.6	0.1	0.8	7.1	6.6	2.1	2.9	8.2	4.5	-2.7	-2.4	4.1	4.3
2008 to 2009	4.1	2.0	1.2	-3.1	-1.3	3.3	-11.2	-0.9	3.4	-0.6	3.8	13.0	-3.3	2.7	3.0	3.1	2.4
2009 to 2010	-3.9	0.2	-1.2	-3.2	-2.5	-3.2	-10.2	-10.4	-0.4	2.9	-4.3	3.1	-0.4	-6.7	2.0	-2.1	-2.3
2010 to 2011	1.0	0.8	-1.2	7.5	3.1	4.2	-1.5	-1.5	1.6	-1.0	-3.7	-2.7	-3.7	-34.5	-1.6	-0.3	-1.1
2011 to 2012	12.4	4.4	-0.6	2.0	3.5	-0.1	4.1	0.7	0.4	2.6	1.9	3.6	0.6	3.7	1.7	-2.2	2.0

continued

**Table for Figure 81: Trend in Percentage of Medical Payments for Care Rendered within Networks<sup>a</sup> (calendar years)**  
(continued)

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Percentage of medical payments to nonhospital providers for care within networks</b>																	
Cumulative percentage point change from 2007 to:																	
2008	4.9	-3.1	2.5	8.3	0.5	2.1	3.5	6.2	7.1	5.4	6.5	2.9	2.8	7.7	4.5	3.2	4.0
2009	3.2	-2.8	4.1	10.0	2.3	4.2	1.0	4.9	9.0	4.2	7.9	3.8	5.1	9.8	7.4	7.2	4.5
2010	4.3	-2.6	5.3	9.2	2.8	1.6	-1.6	4.6	8.6	4.3	9.6	5.0	4.7	11.7	7.2	10.7	4.8
2011	3.6	-3.7	3.3	13.0	4.8	7.5	-4.8	10.2	9.2	6.7	9.4	3.2	3.9	-23.4	8.7	12.1	5.7
2012	11.1	-2.9	1.4	15.5	9.7	8.6	-6.4	17.4	12.6	9.8	8.5	7.3	3.9	-20.0	15.6	11.4	9.1
Annual percentage point change:																	
2007 to 2008	4.9	-3.1	2.5	8.3	0.5	2.1	3.5	6.2	7.1	5.4	6.5	2.9	2.8	7.7	4.5	3.2	4.0
2008 to 2009	-1.7	0.3	1.6	1.7	1.8	2.1	-2.5	-1.4	1.9	-1.2	1.4	0.9	2.2	2.0	3.0	4.0	1.6
2009 to 2010	1.0	0.2	1.2	-0.7	0.5	-2.6	-2.5	-0.3	-0.3	0.1	1.7	1.1	-0.4	2.0	-0.2	3.6	0.1
2010 to 2011	-0.7	-1.1	-2.0	3.7	2.0	5.9	-3.2	5.7	0.5	2.4	-0.2	-1.7	-0.8	-35.2	1.6	1.3	0.2
2011 to 2012	7.5	0.8	-1.9	2.5	4.9	1.1	-1.6	7.2	3.5	3.1	-0.9	4.1	0.0	3.4	6.9	-0.7	2.8
<b>Percentage of medical payments to physicians for care within networks</b>																	
Cumulative percentage point change from 2007 to:																	
2008	4.6	-2.6	-0.4	9.1	0.2	2.4	1.4	4.9	7.6	4.7	5.9	3.1	1.7	7.3	5.2	3.8	4.2
2009	1.7	-2.6	-0.4	9.6	3.5	3.0	-2.0	1.3	10.5	3.5	7.0	3.8	6.8	8.5	9.4	8.5	3.7
2010	3.5	-3.1	0.4	7.6	4.1	0.8	-3.4	-0.4	8.4	3.7	7.7	5.2	4.5	10.6	8.2	11.8	4.3
2011	2.8	-3.9	-1.6	13.1	6.8	7.5	-8.5	5.2	8.1	3.4	8.1	3.9	3.8	-27.2	9.2	13.6	4.6
2012	9.9	-3.0	-4.3	15.2	12.3	7.5	-11.6	14.3	12.3	9.6	5.3	9.2	2.9	-25.1	16.9	14.5	9.4
Annual percentage point change:																	
2007 to 2008	4.6	-2.6	-0.4	9.1	0.2	2.4	1.4	4.9	7.6	4.7	5.9	3.1	1.7	7.3	5.2	3.8	4.2
2008 to 2009	-2.9	0.0	0.0	0.4	3.4	0.6	-3.4	-3.7	2.8	-1.2	1.1	0.7	5.2	1.2	4.2	4.7	0.6
2009 to 2010	1.8	-0.5	0.8	-1.9	0.5	-2.2	-1.4	-1.7	-2.1	0.2	0.7	1.4	-2.4	2.2	-1.2	3.3	-0.2
2010 to 2011	-0.8	-0.7	-2.0	5.5	2.8	6.7	-5.1	5.6	-0.3	-0.3	0.4	-1.3	-0.7	-37.9	0.9	1.7	-0.3
2011 to 2012	7.2	0.9	-2.7	2.2	5.5	0.0	-3.1	9.1	4.2	6.2	-2.8	5.3	-0.9	2.1	7.7	1.0	2.1
<b>Percentage of medical payments to chiropractors for care within networks</b>																	
Cumulative percentage point change from 2007 to:																	
2008	-31.1	-9.2	2.5	6.5	2.6	8.3	-13.1	1.2	-7.5	8.3	25.7	-9.4	3.4	7.7	21.6	4.4	3.0
2009	-10.2	-2.6	-3.8	10.5	-1.5	24.4	-15.9	0.4	0.2	2.4	10.9	-15.2	2.2	8.6	22.6	1.0	0.7
2010	-7.4	-0.2	-28.7	9.0	-2.0	-10.8	-15.7	-2.2	-6.1	-2.4	4.4	-30.3	-2.4	5.4	16.3	13.1	-2.3
2011	-20.0	0.6	-19.9	-0.7	-1.2	38.9	-21.0	6.0	-0.9	2.5	17.9	-21.7	-6.5	-35.9	-12.6	18.9	-1.1
2012	-8.4	1.1	-20.8	-8.7	-2.7	18.4	-28.4	5.5	-5.2	4.0	19.1	-24.2	-13.9	-36.1	-15.6	-4.2	-6.8
Annual percentage point change:																	
2007 to 2008	-31.1	-9.2	2.5	6.5	2.6	8.3	-13.1	1.2	-7.5	8.3	25.7	-9.4	3.4	7.7	21.6	4.4	3.0
2008 to 2009	20.8	6.7	-6.3	4.0	-4.1	16.1	-2.8	-0.8	7.7	-5.9	-14.8	-5.7	-1.2	0.9	1.0	-3.4	-1.0
2009 to 2010	2.8	2.4	-24.9	-1.5	-0.5	-35.2	0.2	-2.6	-6.3	-4.8	-6.5	-15.2	-4.6	-3.2	-6.3	12.1	-3.9
2010 to 2011	-12.6	0.8	8.9	-9.7	0.8	49.6	-5.3	8.2	5.2	4.8	13.5	8.7	-4.1	-41.2	-28.9	5.8	2.8
2011 to 2012	11.6	0.5	-1.0	-8.0	-1.4	-20.5	-7.4	-0.5	-4.3	1.5	1.2	-2.6	-7.4	-0.3	-3.0	-23.1	-2.0

continued

**Table for Figure 81: Trend in Percentage of Medical Payments for Care Rendered within Networks<sup>a</sup> (calendar years)  
(continued)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
<b>Percentage of medical payments to physical therapists for care within networks</b>																	
Cumulative percentage point change from 2007 to:																	
2008	4.7	-6.1	1.0	7.3	-1.8	-1.2	-0.1	5.6	5.9	5.8	0.2	0.6	1.0	9.1	0.2	-7.3	0.8
2009	2.1	-6.7	0.9	9.0	-4.6	0.0	-3.3	5.5	2.1	-1.5	-0.3	-0.8	-0.5	10.4	-0.3	-10.1	-0.3
2010	0.5	-7.2	0.8	7.1	-3.9	-4.3	-6.1	3.5	4.1	-7.1	6.1	1.6	-0.9	18.6	-0.2	-4.0	0.1
2011	0.5	-8.2	-1.4	7.0	-4.7	1.4	-13.4	7.9	6.6	-3.6	2.6	-1.0	-1.8	-30.1	4.4	-0.5	-0.7
2012	-5.5	-8.7	-1.7	6.7	-3.8	2.6	-17.2	6.6	8.1	-7.2	-0.6	-1.7	-2.1	-25.2	9.4	-7.4	-1.9
Annual percentage point change:																	
2007 to 2008	4.7	-6.1	1.0	7.3	-1.8	-1.2	-0.1	5.6	5.9	5.8	0.2	0.6	1.0	9.1	0.2	-7.3	0.8
2008 to 2009	-2.6	-0.6	-0.1	1.7	-2.8	1.2	-3.3	-0.2	-3.7	-7.3	-0.5	-1.4	-1.5	1.3	-0.5	-2.8	-1.0
2009 to 2010	-1.6	-0.5	-0.1	-1.9	0.7	-4.4	-2.8	-1.9	2.0	-5.6	6.4	2.4	-0.4	8.1	0.1	6.1	-0.3
2010 to 2011	0.0	-1.0	-2.2	-0.1	-0.8	5.8	-7.3	4.3	2.5	3.6	-3.4	-2.6	-0.9	-48.6	4.6	3.5	-0.5
2011 to 2012	-6.0	-0.5	-0.3	-0.3	0.9	1.2	-3.8	-1.3	1.5	-3.7	-3.3	-0.8	-0.3	4.8	5.0	-6.9	-0.4
<b>Percentage of medical payments to other nonhospital providers<sup>c</sup> for care within networks</b>																	
Cumulative percentage point change from 2007 to:																	
2008	9.5	3.5	12.9	4.1	5.7	7.1	17.0	10.3	7.7	2.0	15.5	2.7	10.0	11.2	5.1	10.8	8.6
2009	11.9	6.0	20.3	14.8	5.9	18.8	17.4	15.6	14.0	6.5	18.8	12.0	9.9	17.0	7.6	20.7	14.4
2010	14.5	11.0	23.5	21.3	5.6	16.3	13.3	20.3	16.8	9.4	19.3	8.5	14.9	17.7	10.3	20.7	15.6
2011	17.8	11.0	22.0	20.5	8.9	16.0	16.0	22.9	16.1	19.1	19.7	3.4	14.8	-3.0	10.4	16.6	16.0
2012	32.1	12.8	22.0	28.3	17.7	23.2	18.8	29.3	20.1	17.3	25.3	7.2	20.0	2.2	16.0	18.8	19.4
Annual percentage point change:																	
2007 to 2008	9.5	3.5	12.9	4.1	5.7	7.1	17.0	10.3	7.7	2.0	15.5	2.7	10.0	11.2	5.1	10.8	8.6
2008 to 2009	2.4	2.5	7.4	10.6	0.2	11.7	0.3	5.3	6.3	4.4	3.3	9.3	-0.1	5.8	2.5	9.9	4.9
2009 to 2010	2.6	5.0	3.2	6.5	-0.2	-2.4	-4.1	4.7	2.8	2.9	0.5	-3.5	5.0	0.7	2.8	0.0	2.7
2010 to 2011	3.3	-0.1	-1.5	-0.8	3.2	-0.4	2.7	2.7	-0.7	9.7	0.4	-5.1	-0.1	-20.7	0.1	-4.2	-0.1
2011 to 2012	14.2	1.9	0.0	7.8	8.8	7.2	2.9	6.4	4.0	-1.8	5.6	3.8	5.2	5.2	5.6	2.2	5.2

Note: A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The percentage of medical payments to different types of health care providers for care rendered within networks is based on identification of network care provided by the data sources.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated. The median is also shown as the horizontal line within the box of the box plot figure for a measure.

<sup>c</sup> Other nonhospital providers include physicians' assistants, nurses, counselors, medical equipment suppliers, etc.

**Table 1 Criteria for Characterizations of Performance Used in This Report**

<b>Multistate Values</b>	<b>Comparison with Median State</b>	
Higher	More than 10 percent above median	
Lower	More than 10 percent below median	
Typical or close to	Within 10 percent above or below median	
<b>Trends<sup>a</sup></b>	<b>Change in Cost Measures (annual average percentage)</b>	<b>Change in Frequency Measures (annual average percentage points)</b>
Very rapid increase	+9% and higher	+4 points and higher
Rapid increase	+6% to 8.9%	+2 to 3.9 points
Moderate increase	+3% to 5.9%	+1 to 1.9 points
Flat, little change	+2.9% to -2.9%	+0.9 points to -0.9 points
Moderate decrease	-3% to -5.9%	-1 to -1.9 points
Rapid decrease	-6% to -8.9%	-2 to -3.9 points
Very rapid decrease	-9% and lower	-4 points and lower

<sup>a</sup> Other words used to describe an increase include *growth*, *rise*, and *acceleration* (movement up at least one category over the period analyzed). Other words used to describe a decrease include *fall*, *drop*, and *deceleration* (movement down at least one category over the period analyzed).

**Table 2 Comparing Texas with Other States: Selected Performance Measures, 2012/2013 Claims with More Than 7 Days of Lost Time**

	Texas	16-State Median <sup>a</sup>	Percentage or Percentage Point Difference	Texas Characterization Relative to Median
<b>Average medical payment per claim</b>	\$3,132	\$3,332	-6.0%	Typical
<b>Average medical payment per claim with more than 7 days of lost time</b>	\$9,847	\$12,167	-19.1%	Lower
<b>Nonhospital providers</b>				
Average payment per claim	\$6,733	\$6,577	2.4%	Typical
Percentage of claims	99.2%	98.6%	0.5	Typical
Percentage of payments	65.5%	51.8%	13.7	Higher
<i>By type of nonhospital provider</i>				
<b>Physician</b>				
Average payment per claim	\$4,102	\$4,351	-5.7%	Typical
Percentage of claims	97.4%	97.2%	0.2	Typical
Percentage of payments	39.2%	35.4%	3.8	Higher
Price index	99	100	-1	Typical
Utilization index	97	100	-3	Typical
Average number of visits per claim	11.7	10.6	10.5%	Typical
Average number of services per visit	2.5	2.5	-0.8%	Typical
<b>Chiropractor<sup>b</sup></b>				
Average payment per claim	\$2,795	\$2,023	38.2%	Higher
Percentage of claims	13.3%	6.6%	6.8	Higher
Percentage of payments	3.7%	1.0%	2.6	Higher
Price index	135	100	35	Higher
Utilization index	163	100	63	Higher
Average number of visits per claim	10.2	14.0	-27.5%	Lower
Average number of services per visit	4.1	3.6	14.8%	Higher
<b>Physical/occupational therapist<sup>c</sup></b>				
Average payment per claim	\$2,506	\$2,696	-7.1%	Typical
Percentage of claims	50.6%	50.2%	0.4	Typical
Percentage of payments	12.4%	9.6%	2.8	Higher
Price index	114	100	14	Higher
Utilization index	89	100	-11	Lower
Average number of visits per claim	12.9	17.1	-24.6%	Lower
Average number of services per visit	4.0	4.1	-0.8%	Typical
<i>By type of service (selected key services)</i>				
<b>Evaluation and management</b>				
Average payment per claim	\$1,050	\$751	39.8%	Higher
Percentage of claims	96.5%	95.2%	1.3	Typical
Percentage of payments	10.0%	5.3%	4.6	Higher
Price index	122	100	22	Higher
Utilization index	118	100	18	Higher
Average number of visits per claim	8.1	6.5	26.2%	Higher
Average number of services per visit	1.0	1.0	-0.9%	Typical

*continued*

**Table 2 Comparing Texas with Other States: Selected Performance Measures, 2012/2013 Claims with More Than 7 Days of Lost Time (continued)**

	Texas	16-State Median <sup>a</sup>	Percentage or Percentage Point Difference	Texas Characterization Relative to Median
<b>Physical medicine<sup>c</sup></b>				
Average payment per claim	\$3,083	\$3,029	1.8%	Typical
Percentage of claims	61.3%	58.6%	2.7	Typical
Percentage of payments	18.5%	11.6%	6.9	Higher
Price index	112	100	12	Higher
Utilization index	104	100	4	Typical
Average number of visits per claim	14.8	18.6	-20.6%	Lower
Average number of services per visit	4.2	3.9	7.6%	Typical
<b>Neurological/neuromuscular testing</b>				
Average payment per claim	\$899	\$743	21.0%	Higher
Percentage of claims	12.5%	9.1%	3.4	Higher
Percentage of payments	1.1%	0.5%	0.6	Higher
Price index	103	100	3	Typical
Utilization index	121	100	21	Higher
Average number of visits per claim	1.5	1.2	21.4%	Higher
Average number of services per visit	5.9	5.7	2.7%	Typical
<b>Minor radiology</b>				
Average payment per claim	\$151	\$171	-11.4%	Lower
Percentage of claims	77.1%	75.7%	1.3	Typical
Percentage of payments	1.1%	1.2%	0.0	Typical
Price index	88	100	-12	Lower
Utilization index	87	100	-13	Lower
Average number of visits per claim	2.4	2.6	-8.1%	Typical
Average number of services per visit	1.3	1.3	0.7%	Typical
<b>Major radiology</b>				
Average payment per claim	\$685	\$832	-17.7%	Lower
Percentage of claims	46.2%	47.6%	-1.4	Typical
Percentage of payments	3.1%	3.0%	0.1	Typical
Price index	79	100	-21	Lower
Utilization index	99	100	-1	Typical
Average number of visits per claim	1.3	1.4	-4.6%	Typical
Average number of services per visit	1.3	1.2	3.9%	Typical
<b>Major surgery</b>				
Average payment per claim	\$2,586	\$2,595	-0.3%	Typical
Percentage of claims	26.2%	30.3%	-4.1	Lower
Percentage of payments	6.7%	6.6%	0.0	Typical
Price index	84	100	-16	Lower
Utilization index	98	100	-2	Typical
Average number of visits per claim	1.2	1.2	5.7%	Typical
Average number of services per visit	2.2	2.4	-7.7%	Typical

*continued*

**Table 2 Comparing Texas with Other States: Selected Performance Measures, 2012/2013 Claims with More Than 7 Days of Lost Time (continued)**

	Texas	16-State Median <sup>a</sup>	Percentage or Percentage Point Difference	Texas Characterization Relative to Median
<b>Pain management injections</b>				
Average payment per claim	\$398	\$508	-21.7%	Lower
Percentage of claims	13.7%	16.8%	-3.0	Lower
Percentage of payments	0.5%	0.8%	-0.3	Lower
Price index	77	100	-23	Lower
Utilization index	95	100	-5	Typical
Average number of visits per claim	1.4	1.6	-10.3%	Typical
Average number of services per visit	1.3	1.3	-0.6%	Typical
<b>Hospital providers</b>				
Average payment per claim	\$5,946	\$8,617	-31.0%	Lower
Percentage of claims	52.9%	68.1%	-15.2	Lower
Percentage of payments	33.6%	47.0%	-13.3	Lower
<i>By type of hospital provider</i>				
<b>Hospital inpatient<sup>d</sup></b>				
Average payment per claim	\$26,158	\$35,425	-26.2%	Lower
Percentage of claims	6.1%	6.9%	-0.9	Typical
Percentage of payments	16.1%	18.1%	-2.0	Lower
<b>Hospital outpatient<sup>d</sup></b>				
Average payment per claim	\$3,519	\$5,068	-30.6%	Lower
Percentage of claims	50.9%	66.8%	-15.9	Lower
Percentage of payments	17.5%	29.0%	-11.5	Lower
<i>By type of outpatient service (selected key services)</i>				
<b>Clinic/evaluation and management<sup>e</sup></b>				
Average payment per claim	\$536	\$403	32.7%	Higher
Percentage of claims	4.6%	9.1%	-4.5	Lower
Percentage of payments	0.2%	0.3%	0.0	Typical
Average payment per service	\$143	\$115	24.2%	Higher
Average number of services per claim	3.8	3.5	8.5%	Typical
Average number of visits per claim	3.6	3.2	11.2%	Typical
Average number of services per visit	1.0	1.0	-0.6%	Typical
<b>Physical medicine</b>				
Average payment per claim	\$1,667	\$3,131	-46.7%	Lower
Percentage of claims	12.1%	16.6%	-4.5	Lower
Percentage of payments	2.0%	3.9%	-1.9	Lower
Average payment per service	\$50	\$67	-26.3%	Lower
Average number of services per claim	33.6	41.0	-18.2%	Lower
Average number of visits per claim	10.3	13.8	-25.0%	Lower
Average number of services per visit	3.3	3.2	3.3%	Typical

continued

**Table 2 Comparing Texas with Other States: Selected Performance Measures, 2012/2013 Claims with More Than 7 Days of Lost Time (continued)**

	Texas	16-State Median <sup>a</sup>	Percentage or Percentage Point Difference	Texas Characterization Relative to Median
<b>Minor radiology</b>				
Average payment per claim	\$204	\$449	-54.5%	Lower
Percentage of claims	29.1%	40.5%	-11.4	Lower
Percentage of payments	0.6%	1.2%	-0.6	Lower
Average payment per service	\$106	\$205	-48.6%	Lower
Average number of services per claim	1.9	2.0	-4.2%	Typical
Average number of visits per claim	1.4	1.4	-1.8%	Typical
Average number of services per visit	1.4	1.4	-2.4%	Typical
<b>Major radiology</b>				
Average payment per claim	\$943	\$2,090	-54.9%	Lower
Percentage of claims	13.1%	18.5%	-5.4	Lower
Percentage of payments	1.2%	2.9%	-1.7	Lower
Average payment per service	\$582	\$1,266	-54.0%	Lower
Average number of services per claim	1.6	1.6	1.5%	Typical
Average number of visits per claim	1.2	1.2	-2.7%	Typical
Average number of services per visit	1.4	1.3	7.3%	Typical
<b>Treatment/operating/recovery room</b>				
Average payment per claim	\$5,265	\$5,355	-1.7%	Typical
Percentage of claims	19.8%	24.8%	-5.0	Lower
Percentage of payments	10.2%	8.6%	1.5	Higher
Average payment per service	\$2,619	\$2,147	22.0%	Higher
Average number of services per claim	2.0	2.6	-23.1%	Lower
Average number of visits per claim	1.3	1.3	-4.6%	Typical
Average number of services per visit	1.6	1.9	-16.0%	Lower

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated.

<sup>b</sup> The numbers for chiropractors in Florida, Iowa, Louisiana, Michigan, and New Jersey should be used with caution because of relatively small cell sizes (less than 200 claims) underlying these measures. The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures at the claim level are too small to support an interstate comparison. We show a 12-state median for these measures. In addition to these states, Louisiana is also excluded from the utilization index and average number of services per visit. We show an 11-state median for these measures.

<sup>c</sup> Because unique codes are used for billing physical medicine services in Louisiana, and they are too broadly defined to be crosswalked with codes used in other states, we are unable to compare the utilization index or services per visit for physical medicine services in Louisiana with those in other states.

<sup>d</sup> For the most part, hospital inpatient or outpatient services do not include payments to stand-alone ambulatory surgery centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>e</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.



**Table 3 Trends in Texas: Selected Performance Measures, Not Adjusted for Injury and Industry Mix, Claims with More Than 7 Days of Lost Time**

	Unadjusted Values	Trend (annual average percentage or percentage point change)		
	2012/2013 Claims	2011/2012 to 2012/2013	2010/2011 to 2012/2013	2007/2008 to 2012/2013
<b>Average medical payment per claim</b>	\$3,169	-0.5	2.5	4.0
<b>Average medical payment per claim with more than 7 days of lost time</b>	\$10,006	2.6	4.5	3.9
<b>Nonhospital providers</b>				
Average payment per claim	\$6,691	0.1	3.6	4.2
Percentage of payments	63.2	-0.5	-0.5	0.5
Price	\$78	0.5	8.7	7.0
Utilization	88	-2.9	-2.8	-1.2
<i>By type of nonhospital provider</i>				
<b>Physician</b>				
Average payment per claim	\$4,060	0.4	3.8	4.7
Price	\$126	-0.5	7.6	6.8
Utilization	56	-2.1	-2.8	-1.5
Average number of visits per claim	11.5	1.1	-0.2	-0.2
Average number of services per visit	2.5	0.8	0.0	-0.6
<b>Chiropractor<sup>a</sup></b>				
Average payment per claim	\$2,752	-10.9	-1.6	-0.7
Price	\$47	3.7	15.1	8.8
Utilization	54	-10.7	-6.4	-6.0
Average number of visits per claim	9.9	-15.8	-14.0	-10.9
Average number of services per visit	4.1	-2.3	-1.1	-0.8
<b>Physical/occupational therapist</b>				
Average payment per claim	\$2,498	3.8	11.3	8.7
Price	\$43	3.4	10.4	7.5
Utilization	48	-0.4	3.2	1.9
Average number of visits per claim	12.9	-1.1	0.7	0.5
Average number of services per visit	4.0	1.3	2.6	0.7
<i>By type of service (selected key services)</i>				
<b>Evaluation and management</b>				
Average payment per claim	\$1,033	2.8	6.9	6.8
Price	\$135	2.6	9.6	7.5
Utilization	21	-1.3	-2.1	-0.3
Average number of visits per claim	8.0	-0.5	-1.4	-0.6
Average number of services per visit	1.0	-0.4	-0.1	0.1
<b>Physical medicine</b>				
Average payment per claim	\$3,056	1.8	8.3	6.5
Price	\$41	3.0	11.1	7.4
Utilization	59	-1.9	0.6	0.2
Average number of visits per claim	14.7	-2.1	-1.6	-1.9
Average number of services per visit	4.2	1.2	2.0	0.3

continued

**Table 3 Trends in Texas: Selected Performance Measures, Not Adjusted for Injury and Industry Mix, Claims with More Than 7 Days of Lost Time (continued)**

	Unadjusted Values	Trend (annual average percentage or percentage point change)		
	2012/2013 Claims	2011/2012 to 2012/2013	2010/2011 to 2012/2013	2007/2008 to 2012/2013
<b>Neurological/neuromuscular testing</b>				
Average payment per claim	\$890	-3.8	3.6	3.9
Price	\$92	7.4	14.6	7.0
Utilization	17	-15.0	-9.7	-4.5
Average number of visits per claim	1.5	-4.2	-2.4	0.4
Average number of services per visit	5.7	-12.4	-8.4	-4.8
<b>Minor radiology</b>				
Average payment per claim	\$153	2.5	6.1	3.2
Price	\$38	14.1	10.1	6.5
Utilization	4	-0.4	-2.1	-2.1
Average number of visits per claim	2.5	-0.6	-0.8	-1.0
Average number of services per visit	1.3	0.0	-0.8	-0.6
<b>Major radiology</b>				
Average payment per claim	\$680	-2.3	1.8	1.6
Price	\$363	9.5	4.9	3.1
Utilization	23	0.0	-1.9	-1.4
Average number of visits per claim	1.3	0.8	-0.1	-0.3
Average number of services per visit	1.3	0.3	-1.8	-0.7
<b>Major surgery</b>				
Average payment per claim	\$2,578	2.0	8.8	11.1
Price	\$1,140	-11.3	4.6	7.8
Utilization	54	-0.1	-0.9	1.0
Average number of visits per claim	1.2	-0.7	0.1	0.1
Average number of services per visit	2.1	-0.3	-1.3	0.2
<b>Pain management injections</b>				
Average payment per claim	\$394	6.3	0.2	-3.8
Price	\$170	0.9	7.9	4.5
Utilization	8	2.4	-5.4	-6.5
Average number of visits per claim	1.4	0.7	-3.2	-5.0
Average number of services per visit	1.3	-3.1	-3.1	-1.3
<b>Hospital providers</b>				
Average payment per claim	\$6,245	1.0	4.5	3.0
Percentage of claims	54.5	-0.7	0.5	-0.5
Average payment per service	\$389	1.2	1.7	5.3
Average number of services per claim	16.1	-0.2	2.8	-2.2

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013. A trend of 0.0 means the change was less than 0.05 percent or percentage points.

<sup>a</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures are too small to support a trend analysis.

**Table 4 Percentage of Overall Medical Payments by Provider and Service Type for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>a</sup>
<b>Nonhospital providers</b>	46.7	72.6	53.9	44.7	63.0	52.0	51.3	55.2	49.6	47.0	47.1	64.8	49.8	65.5	51.5	53.6	52.5
<i>By type of nonhospital provider</i>																	
Physician	31.2	49.6	36.9	32.4	42.1	37.2	31.8	39.3	29.5	33.9	30.9	47.2	26.9	39.2	33.1	40.8	35.3
Chiropractor <sup>b</sup>	n/a	1.7	0.1	0.1	1.7	n/a	1.0	1.0	0.2	1.8	n/a	0.1	2.1	3.7	n/a	1.1	1.0
PT/OT	5.8	8.5	8.6	7.6	14.0	10.3	10.1	8.6	12.8	5.5	9.1	12.5	13.9	12.4	11.9	6.9	9.9
Other nonhospital providers <sup>c</sup>	9.5	12.8	8.3	4.7	5.2	4.5	8.5	6.3	7.0	5.8	7.0	4.9	6.9	10.3	6.3	4.8	6.5
<i>By type of service (selected key services)</i>																	
Evaluation and management	5.2	11.9	6.1	4.6	4.2	4.1	5.2	7.8	6.7	6.4	3.9	5.4	5.1	10.0	5.2	5.6	5.5
Physical medicine	8.4	11.0	9.7	9.6	20.3	13.2	12.2	10.1	16.4	8.9	10.6	13.4	18.1	18.5	14.2	9.9	11.6
Major surgery	6.6	6.4	5.6	8.4	12.0	11.0	5.5	17.3	6.4	5.8	6.3	15.6	6.1	6.7	7.3	13.4	7.3
Pain management injections	0.7	0.6	0.7	0.8	1.2	1.3	1.1	1.0	0.6	0.6	0.7	1.7	0.8	0.5	1.0	1.7	0.8
Minor radiology	1.2	1.6	1.1	1.1	1.4	1.3	1.4	0.8	1.2	0.9	1.1	1.5	0.8	1.1	1.2	1.6	1.2
Major radiology	3.0	4.1	3.2	2.8	2.9	3.0	3.5	2.9	2.7	3.5	3.9	2.4	3.0	3.1	2.9	4.1	3.2
Neurological/neuromuscular testing	0.4	1.8	0.4	0.4	0.6	0.5	0.5	0.4	0.6	0.5	0.3	0.7	0.6	1.1	0.4	0.7	0.6
Emergency	0.4	0.5	0.5	0.5	0.4	0.6	0.4	0.6	0.6	0.5	0.4	0.9	0.4	0.5	0.9	0.8	0.5
Other nonhospital services <sup>f</sup>	20.7	34.7	26.6	16.4	20.0	17.0	21.5	14.3	14.3	20.1	19.9	23.3	14.9	24.0	18.5	15.8	19.9
<b>Hospital providers</b>	52.6	25.2	44.1	54.1	35.8	46.4	47.5	43.2	48.9	52.2	52.1	34.9	47.6	33.6	48.0	45.7	46.2
Hospital inpatient <sup>d</sup>	23.4	17.1	25.1	19.9	12.2	17.6	10.8	16.7	15.4	22.8	19.3	21.1	20.4	16.1	18.6	12.8	18.8
Hospital outpatient <sup>d</sup>	29.2	8.1	18.9	34.2	23.6	28.8	37.6	26.5	33.6	29.4	32.8	13.9	27.8	17.5	29.3	33.0	28.9
<i>By type of outpatient service (selected key services)</i>																	
Clinic/evaluation and management <sup>e</sup>	0.2	0.2	0.2	0.4	0.4	0.3	0.1	1.3	0.5	1.3	0.2	0.1	0.9	0.2	0.2	0.5	0.3
Emergency	1.9	0.9	2.5	1.8	1.5	1.6	2.0	3.8	1.8	2.2	2.4	2.0	1.5	1.2	2.8	1.4	1.7
Laboratory	0.5	0.1	0.6	0.4	0.4	0.5	0.8	0.4	0.4	0.4	0.6	0.4	0.3	0.2	0.5	0.3	0.4
Minor radiology	1.2	0.2	1.7	1.7	1.1	1.1	1.6	1.5	1.2	0.9	1.7	1.0	1.2	0.6	2.0	1.4	1.2
Major radiology	4.1	0.6	2.6	4.6	2.3	2.2	3.5	2.9	4.2	3.0	2.8	1.0	2.8	1.2	3.5	4.6	2.6
Treatment/operating/recovery room	7.4	3.9	5.1	11.9	8.4	12.2	15.5	8.2	11.1	8.5	11.0	3.0	7.1	10.2	8.8	11.0	8.5
Physical medicine	6.1	0.6	0.4	6.2	3.4	3.3	4.4	4.3	6.5	5.1	2.7	1.7	7.9	2.0	3.3	7.4	4.0
Other hospital outpatient services <sup>g</sup>	7.8	1.6	5.9	7.1	6.1	7.7	9.7	4.1	7.9	7.9	11.5	4.6	6.1	2.0	8.4	6.5	6.8
<b>Unclassified provider<sup>h</sup></b>	0.7	2.2	2.1	1.2	1.2	1.5	1.2	1.6	1.5	0.7	0.8	0.3	2.5	0.9	0.6	0.7	1.3

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated.

<sup>b</sup> The numbers for chiropractors in Florida, Iowa, Louisiana, Michigan, and New Jersey should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measure. The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for the chiropractic measure at the claim level are too small to support an interstate comparison. We show a 12-state median for this measure.

<sup>c</sup> Other nonhospital providers include physicians' assistants, nurses, counselors, medical equipment suppliers, etc.

<sup>d</sup> For the most part, hospital inpatient or outpatient services do not include payments to stand-alone ambulatory surgery centers, which are not consistently defined in the data but are most often included in the nonhospital physician category.

<sup>e</sup> The numbers shown for clinic/evaluation and management in Arkansas and Louisiana should be used with caution because of relatively small cell sizes (less than 200 claims) underlying the measures.

<sup>f</sup> Other nonhospital services mainly include anesthesia, drugs, legal and special reports, supplies and equipment, miscellaneous services billed by stand-alone ambulatory surgical centers, and other miscellaneous defined medical and/or diagnostic services and testing.

<sup>g</sup> Other hospital outpatient services mainly include miscellaneous hospital ambulatory surgical care, supplies and equipment, hospital outpatient service undefined, hospital drugs/pharmaceuticals, and other miscellaneous defined medical and/or diagnostic services and testing.

<sup>h</sup> Eight to 20 percent of claims involve at least one payment to providers that could not be classified because of missing data. Payments to unclassified providers typically make up only between 0 and 3 percent of medical payments.

Key: n/a: not available; PT/OT: physical therapist and/or occupational therapist.

**Table 5 Summary of Medical Cost Containment Strategies, 2014**

State	Managed Care Regulations	Limited Initial Provider Choice	Limited Provider Change	Nonfacility Medical Provider Fee Schedule	Hospital Outpatient Fee Regulation	Hospital Inpatient Fee Regulation	Pharmaceutical Fee Regulation	Utilization Review (non-managed care)	Treatment Guidelines	Other
Arkansas	X	X	X	X	X	X	X	X (see note).		
California	X	X	X	X	X	X	X	X	X	
Florida	X	X	X	X	X	X	X	X	X	See note.
Illinois			X	X	X	X	See note.	See note.		
Indiana		X	X		See note.	See note.				
Iowa		X	X							
Louisiana		X	X	X	X	X	X	X (see note).	X (see note).	
Massachusetts	See note.	See note.	X	X	X	X	X	X	X	See note.
Michigan		X (see note).	See note.	X	X	X	X	X		
Minnesota	See note.	X	X	X	X	X	X		X	See note.
New Jersey	X	X	X							See note.
North Carolina	X	X	X	X	X	X		X		
Pennsylvania	X	X (see note).	See note.	X	X	X	X	See note.		
Texas	X	X	X	X	X	X	X	X	X	See note.
Virginia		X	X							
Wisconsin			X						X	See note.

**Notes:**

AR: Utilization review is mandatory for all claims. Only certified review organizations are authorized to perform utilization review functions.

FL: The statute provides for a \$10/visit copayment for medical services following overall maximum medical improvement from an injury compensable under Florida's workers' compensation statute.

IL: As part of the 2011 reforms, Illinois introduced new utilization review standards, applicable when utilization review is requested. Upon notification by an employer, medical providers are required to provide a clinical report to support the request for treatment. Providers who fail to comply might not be allowed to bill for their services. The utilization review has to be based upon nationally recognized treatment guidelines and evidence-based medicine. This change took effect for services occurring on or after September 1, 2011.

IN: House Bill 1320 enacted a hospital fee schedule effective July 1, 2014, with reimbursement set at 200 percent of Medicare.

LA: Utilization review is required for all requests for medical services exceeding the statutory limit of \$750. Legislation passed in 2009 provided for the use of evidence-based treatment guidelines. The implementation date for the guidelines was extended by legislation to January 1, 2011, and further delayed by several court challenges. The medical treatment guidelines adopted by the Office of Workers' Compensation went into effect on July 13, 2011.

MA: The worker selects the provider except when the employer has a preferred provider arrangement, then the worker must see that provider first. Massachusetts does not have traditional managed care, but does have this one limitation on the worker's total choice of physician. Fee schedules are in place for all treatment of work-related injuries.

MI: Effective December 2011, the employer choice of initial medical provider was extended from 10 to 28 days.

MN: The worker selects the provider except when the employer has a certified managed care plan, in which case the worker selects the provider from within the plan. Services not covered by the fee schedule are paid at 85 percent of the provider's usual and customary charge, or 85 percent of the prevailing charge, whichever is lower. However, services provided at hospitals with fewer than 100 licensed beds are paid at 100 percent of the hospital's usual and customary charge, unless the commissioner or compensation judge determines the charge is unreasonably excessive.

NJ: Except for emergency situations, injured workers must receive authorization from the employer or the employer's insurance carrier. The employer has the right to choose medical providers. Disputes over medical treatment are reviewable by the Division of Workers' Compensation.

PA: Workers may change providers within a listing of designated providers within the first 90 days. After that, the employee may change providers unrestricted. Statutory provisions exist for coordinated care organizations (CCOs) upon approval of the department. Utilization review is mandated for CCOs; otherwise, it is at the request of the employer, insurer, or worker. Only agency-authorized review organizations can perform utilization review functions.

TX: If care is received through a managed care organization (MCO), the MCO rules apply. The process to change providers is for the worker to submit a request to change providers. The new proposed provider has to agree to treat the worker by signing the request, and it is then submitted to the agency for approval or denial. Requires use of Official Disability Guidelines (ODG).

WI: Certified database for reimbursement.

Sources: State statutes and rules; Coomer, 2010b; Victor and Petrova, 2006; Tanabe, 2013.

**Table 6 Medical Cost Containment Strategies, 2014**

<b>Managed care</b>				
<b>AR</b> Regulated but not mandated.	<b>CA</b> Regulated but not mandated; under contracts with certified HCOs or approved MPNs (see note).	<b>FL</b> Regulated but not mandated; through MCAs approved by the Agency for Health Care Administration (see note).	<b>IA</b> Allowed but not regulated.	<b>IL</b> Allowed but not regulated.
<b>IN</b> Allowed but not regulated.	<b>LA</b> Allowed but not regulated.	<b>MA</b> Allowed but not regulated.	<b>MI</b> Allowed but not regulated.	<b>MN</b> Regulated but not mandated (see note).
<b>NC</b> Regulated (by Department of Insurance) but not mandated.	<b>NJ</b> Regulated but not mandated.	<b>PA</b> See note.	<b>TX</b> Regulated but not mandated; under contracts with health care networks (see note).	<b>VA</b> Allowed but not regulated.
<b>WI</b> Allowed but not regulated. The division's position is that employee choice can coexist with managed care.				
<b>Initial choice of provider</b>				
<b>AR</b> Employer.	<b>CA</b> Under an MPN, the employer arranges the initial medical evaluation, after which the worker can choose a new provider from the network (see note).	<b>FL</b> Employer, but if a managed care arrangement exists worker may select the initial treating provider unless otherwise specified in the plan.	<b>IA</b> Employer.	<b>IL</b> Worker (see note).
<b>IN</b> Employer.	<b>LA</b> Worker (see note).	<b>MA</b> Worker; however, if a PPA exists, worker may be required to have first appointment with provider from plan (see note).	<b>MI</b> Employer and insurer for 28 days after inception of medical care, then worker can choose the provider (see note).	<b>MN</b> Worker; worker selects from within a certified managed care plan if employer has established a plan (see note).
<b>NC</b> Employer; worker choice if employer does not direct care.	<b>NJ</b> Employer.	<b>PA</b> Worker, for first 90 days, from employer list of six or more designated health care providers; worker choice if no panel is posted or needed specialty is not on the list.	<b>TX</b> Worker; must select from within medical provider network, if one established (see note).	<b>VA</b> Worker, from employer-developed panel.
<b>WI</b> Worker, from any provider licensed and practicing in the state. In an emergency, employer/insurer may select a provider; choice of provider reverts to the employee after the emergency has passed.				
<b>Change of provider</b>				
<b>AR</b> Employer can change without restriction; worker can petition the Commission for a one-time only change to a provider associated with the insurer or self-insurer's MCO (if a contract exists) or with any MCO (if no contract exists) or to the worker's regular treating provider (see note).	<b>CA</b> Within the MPN, the worker can change unrestricted. Outside the MPN, the worker is limited to one change by law, but can practically change any time prior to reaching maximum medical improvement.	<b>FL</b> Worker can change once per injury (upon written request); additional changes only with agreement of the employer/insurer (see note).	<b>IA</b> Employer can change without restriction; worker can change provider only with the approval of the employer/insurer or if ordered by the WC agency (see note).	<b>IL</b> Worker can change once without restriction; after that, only with agreement of the employer/insurer (see note).
<b>IN</b> Employer can change without restriction; worker can change provider only with the approval of the employer/insurer.	<b>LA</b> Worker can change only with approval of employer/insurer; employer/insurer cannot change providers.	<b>MA</b> Worker can change once; after that, only with agreement of employer/insurer. Employer/insurer cannot change providers.	<b>MI</b> After 28 days from the inception of medical care, the worker can select the treating provider and change without restriction but must notify the employer of the change. Within the first 28 days the employer can change at will (see note).	<b>MN</b> Worker can change once without restriction within 60 days of initiating treatment. After the first 60 days of treatment, worker needs approval by the employer/insurer, the commissioner, or a workers' compensation judge.

continued

**Table 6 Medical Cost Containment Strategies, 2014 (continued)**

<b>Change of provider</b>				
<b>NC</b>	<b>NJ</b>	<b>PA</b>	<b>TX</b>	<b>VA</b>
Employer may change at any time, but all provider choices are subject to the decision of the Industrial Commission if opposing party petitions. Worker may change with employer/insurer approval or upon approval of the Industrial Commission.	Employer can change without restriction; worker cannot change providers without employer/insurer approval or unless ordered by the WC agency.	Worker may choose another provider from within the panel at any time; after 90 days the worker is no longer required to treat within the panel.	With agency approval using stated criteria. Worker can change once within an MPN; subsequent requests are subject to network approval. Employer/insurer cannot change providers.	Worker can change upon approval by the employer/insurer or if ordered by the WC Commission.
<b>WI</b>				
Once without restriction; subsequent changes require agreement of the employer/insurer. Employer/insurer cannot change providers.				
<b>Medical fee schedule</b>				
<b>AR</b>	<b>CA</b>	<b>FL</b>	<b>IA</b>	<b>IL</b>
Yes, since 1992. Based on Medicare RBRVS, and Arkansas-specific conversion factors. Fees can only be negotiated lower than the published rate.	Yes, since 1954, based on California Relative Value Studies, 1974. Prior to the 2012 legislation, reviewed and updated periodically with public input; most recent (partial) update in 2007 (see note). Fees can be negotiated above or below the published rate.	Yes, since 1938. Based on Medicare RBRVS; last updated February 4, 2009. Fees can be negotiated above or below the published rate (see note).	No medical fee schedule has been adopted.	Yes, medical fee schedule implemented effective February 1, 2006 (see note). Last updated January 1, 2013. Fees can be negotiated above or below the published rate.
<b>IN</b>	<b>LA</b>	<b>MA</b>	<b>MI</b>	<b>MN</b>
No medical fee schedule has been adopted.	Yes, since 1994. Based on Blue Cross/Blue Shield RVS. Has not been updated since initial promulgation (see note). Fees can only be negotiated lower than the published rate.	Yes, since 1991. Based on a state-developed RVS. Last updated effective April 1, 2009. Fees can be negotiated above or below the published rate.	Yes, since 1989. Based on Medicare RBRVS. May be reviewed and updated annually. Most recent update was December 26, 2012.	Yes, converted to an RBRVS system in 1983. Based on Medicare RBRVS; last updated October 1, 2010. Fees can be negotiated above or below the published rate.
<b>NC</b>	<b>NJ</b>	<b>PA</b>	<b>TX</b>	<b>VA</b>
Yes, since 1929. Based on Medicare RBRVS. Reviewed and updated periodically; last update January 1, 2013 (see note). Fees can be negotiated if the provider has agreed to a contract.	No medical fee schedule has been adopted.	Yes, since 1994. Based on Medicare RBRVS. Since 1995, updated annually to reflect changes in SAWW. Fees can be negotiated above or below the published rate.	Yes, since 1992. Based on Medicare RBRVS. Payment policies, RBRVS, and CPT codes are updated annually with Medicare. Conversion factors are updated annually based on changes to Medicare Economic Index. Fees can only be negotiated below the published rate in certified workers' compensation health care networks (see note).	No medical fee schedule has been adopted.
<b>WI</b>				
No medical fee schedule has been adopted (see note).				
<b>Hospital outpatient payment regulation</b>				
<b>AR</b>	<b>CA</b>	<b>FL</b>	<b>IA</b>	<b>IL</b>
Yes. Reimbursed same as nonfacility provider fees.	Yes. Prices are regulated with an APC-based methodology (see note).	Yes. Reimbursement using a varied method depending on the services provided (see note).	No hospital outpatient fee schedule has been adopted.	Yes. CPT-based fee schedule for outpatient services.
<b>IN</b>	<b>LA</b>	<b>MA</b>	<b>MI</b>	<b>MN</b>
No hospital outpatient fee schedule was in effect in 2013 (see note).	Yes. Reimbursement set at 90 percent of billed charges (see note). Covers all outpatient services.	Yes. Reimbursement using a varied method depending on the services provided (see note).	Yes. Regulated by formula, based on a cost-to-charge ratio for each hospital (see note).	Yes. Reimbursement based on percent of charges or usual and customary charge per service or procedure and differs by hospital size (see note).
<b>NC</b>	<b>NJ</b>	<b>PA</b>	<b>TX</b>	<b>VA</b>
Yes. Reimbursement based on percent of charges and differs by hospital type (see note).	No hospital outpatient fee schedule has been adopted.	Yes. Reimbursed same as non-facility provider fees (see note)	Yes. Prices are regulated with an APC-based methodology using Medicare's hospital specific rates (see note).	No hospital fee schedule has been adopted.
<b>WI</b>				
No hospital outpatient fee schedule has been adopted (see note).				

*continued*

**Table 6 Medical Cost Containment Strategies, 2014 (continued)**

<b>Hospital inpatient payment regulation</b>				
<b>AR</b> Yes. Reimbursement based on per diem amount according to hospital size and type of facility.	<b>CA</b> Yes. DRG-based fee schedule for inpatient services; uses Medicare's hospital specific rates.	<b>FL</b> Yes. Reimbursement paid on per diem basis; different allowable fees based on type of hospital.	<b>IA</b> No hospital inpatient fee schedule has been adopted.	<b>IL</b> Yes. DRG-based fee schedule for inpatient services.
<b>IN</b> No hospital inpatient fee schedule was in effect in 2013 (see note).	<b>LA</b> Yes. Reimbursement paid on per diem basis (see note).	<b>MA</b> Yes. Hospital-specific cost-to-charge ratio established annually (see note).	<b>MI</b> Yes. Regulated by formula, based on a cost-to-charge ratio for each hospital (see note).	<b>MN</b> Yes. Reimbursement based on percent of charges or usual and customary charge and differs by hospital size (see note).
<b>NC</b> Yes. DRG-based fee schedule or percent of charges (see note); different allowable fees based on type of hospital (see note).	<b>NJ</b> No hospital inpatient fee schedule has been adopted.	<b>PA</b> Yes. DRG-based fee schedule for inpatient services; uses hospital specific rates (see note).	<b>TX</b> Yes. DRG-based fee schedule for inpatient services; uses Medicare's hospital specific rates (see note).	<b>VA</b> No hospital fee schedule has been adopted.
<b>WI</b> No hospital inpatient fee schedule has been adopted.				
<b>Pharmaceutical fee regulation</b>				
<b>AR</b> Yes. Basis is AWP, plus a maximum allowable dispensing fee of \$5.13. Substitution of generic drugs required.	<b>CA</b> Yes. Basis is state Medicaid (Medi-Cal) fee schedule. Substitution of generic drugs required. Maximum allowable dispensing fee same for generic and brand names: \$7.25, except \$8.00 for nursing homes.	<b>FL</b> Yes. Basis is AWP, plus a maximum allowable dispensing fee of \$4.18. Substitution of generic drugs required.	<b>IA</b> No pharmacy fee schedule has been adopted.	<b>IL</b> No pharmacy fee schedule has been adopted (see note).
<b>IN</b> No pharmacy fee schedule has been adopted (see note).	<b>LA</b> Yes. Basis is the lesser of usual and customary or provider/insurer contracted charge or AWP plus 40 percent, plus a maximum allowable dispensing fee of \$5.77 for generic; AWP plus 10 percent, plus a maximum allowable dispensing fee of \$5.77 for brand name. Substitution of generic drugs allowed but not required.	<b>MA</b> Yes. Basis is the lesser of the estimated acquisition cost plus a \$3.00 dispensing fee or usual and customary (see note). Substitution of generic drugs not required. Physician dispensing is generally prohibited.	<b>MI</b> Yes. Basis is AWP minus 10%, plus a maximum allowable dispensing fee of \$3.50 for generic and \$5.50 for brand name applicable to both pharmacy-dispensed and physician-dispensed prescriptions, effective December 2012 (see note). Substitution of generic drugs required.	<b>MN</b> Yes (see note). Substitution of generic drugs required.
<b>NC</b> No pharmacy fee schedule has been adopted. Statutes are silent on generic substitution, but according to regulators, the state implicitly permits payors to require the substitution of generic drugs for brand-name drugs.	<b>NJ</b> No pharmacy fee schedule has been adopted.	<b>PA</b> Yes. Basis is 110 percent of the AWP and no dispensing fee (does not apply to hospitals and urgent care centers). Substitution of generic drugs is not required.	<b>TX</b> Yes. Basis is AWP plus 9 percent for brand-name drugs and AWP plus 25 percent for generic drugs, plus a maximum allowable dispensing fee of \$4.00. Substitution of generic drugs required (see note). Physician dispensing is generally prohibited.	<b>VA</b> No pharmacy fee schedule has been adopted.
<b>WI</b> No pharmacy fee schedule has been adopted.				
<b>Utilization review</b>				
<b>AR</b> Yes, mandated for all claims. Only certified review organizations are authorized to perform UR functions.	<b>CA</b> Yes, mandated for all claims, under 2003 legislation (see note). Private payors authorized to perform UR functions.	<b>FL</b> Yes, mandated for all claims. State agency employees and private payors authorized to perform UR functions.	<b>IA</b> None.	<b>IL</b> Not required (see note).
<b>IN</b> None.	<b>LA</b> Review performed in all nonemergency hospitalizations and in cases with more than \$750 in medical costs; mandatory precertification, continued stay, discharge planning, and dispute resolution for all nonemergency hospital services.	<b>MA</b> Yes, mandated for all claims (see note). Only certified review organizations are authorized to perform UR functions.	<b>MI</b> Yes, required by insurance carriers in inpatient cases, cases in which medical expenditures (excluding inpatient care) exceed \$20,000, and cases where care is alleged to be "inappropriate, insufficient, or excessive."	<b>MN</b> None required outside of MCOs; mandated for all MCOs.

continued

**Table 6 Medical Cost Containment Strategies, 2014 (continued)**

<b>Utilization review</b>				
<b>NC</b> Yes, mandated for all claims listed in the UR plan. Private payors authorized to perform UR functions.	<b>NJ</b> None.	<b>PA</b> Mandated for CCOs; otherwise, at request of employer, insurer, or worker. Only agency authorized review organizations can perform UR functions.	<b>TX</b> Preauthorization and concurrent review mandated under HB 7 (see note). Only certified review organizations are authorized to perform UR functions.	<b>VA</b> None (see note).
<b>WI</b> Not required ( see note).				
<b>Treatment guidelines (mandatory)</b>				
<b>AR</b> No.	<b>CA</b> Yes (see note).	<b>FL</b> Yes (see note).	<b>IA</b> No.	<b>IL</b> No.
<b>IN</b> No.	<b>LA</b> Yes (see note).	<b>MA</b> Yes; used in conjunction with UR program; 28 guidelines in place, developed through consensus-based, multidisciplinary effort.	<b>MI</b> No (see note).	<b>MN</b> Yes (see note).
<b>NC</b> No.	<b>NJ</b> No.	<b>PA</b> No.	<b>TX</b> Yes, under 2005 legislation, HB 7 (see note).	<b>VA</b> No.
<b>WI</b> Yes (see note).				

**Notes:**

CA: Senate Bill (SB) 899 allowed employers to establish medical treatment networks effective January 1, 2005; an injured worker who does not predesignate a treating physician must receive care only through the network. Under SB 899, an employee may be treated by a predesignated physician from the date of injury if all of the requirements for predesignation are met; predesignation is allowed only for employees whose employers provide nonoccupational group health coverage through an HMO, health care plan, HCO, or other such entity described in the statute. Otherwise and prior to SB 899, the employer selects the provider for the first 30 days, unless the worker predesignated a treating physician or unless the employer or insurer established an MPN. LC 5307.1 (a)(2) requires an Official Medical Fee Schedule based on the Medicare resource-based relative value scale for physician services to begin in 2014. The fee schedule provided by Senate Bill 863 will commence on January 1, 2014, and continue until a physician fee schedule is adopted. Under SB 683, effective January 1, 2013, reimbursement for ambulatory surgical center services was reduced from 120 percent to 80 percent of Medicare hospital outpatient rates. SB 228 mandated adoption of utilization guidelines effective January 1, 2004, and attached a presumption of correctness to the guidelines; the American College of Occupational and Environmental Medicine (ACOEM) practice guidelines, second edition, were adopted. Further, the legislation required the administrative director in consultation with the Commission on Health and Safety and Workers' Compensation (CHSWC) to adopt a medical treatment utilization schedule by December 1, 2004, based on CHSWC study recommendations. All employers are required to adopt UR systems consistent with the utilization schedule. SB 863 (2012) required the establishment of a 30-day independent medical review (IMR) process for medical treatment disputes for claims with injuries on/after 1/1/2013; effective 7/1/2013, IMRs shall be the only way for all utilization review (UR) decision appeals regardless the date of injury.

FL: Use of managed care is optional as of October 1, 2001, but if an authorized MCA is used, specified guidelines must be followed. Under 2003 legislation, an insurer must authorize a change of physician within five days of the request; if the insurer fails to respond on time, the worker may select the physician. Legislation in 2003 resulted in increased reimbursements for osteopaths and physicians and for surgical procedures (effective January 1, 2004) and for chiropractor and physical/occupational therapists (effective May 2005). For these providers and services, fees are a percentage of Medicare rather than based on usual and customary charges. At the same time, reduction in fees for certain hospital services and hospital outpatient services was mandated. Under Florida Statutes (Section 440.13(14)(b)), an employer/insurer may deviate from the fee schedule reimbursement allowance based on a contractual agreement with the health care provider for the provision of medical care and treatment in such a manner to facilitate cost containment and early return-to-work outcomes. Compensable outpatient charges are reimbursed at 75 percent of usual and customary charges. Scheduled outpatient surgeries are reimbursed at 60 percent of charges. Outpatient physical, occupational, and speech therapy, as well as scheduled nonemergency radiology and clinical laboratory services provided not in conjunction with a surgical procedure, are paid the same as nonhospital providers. Treatment guidelines identify typical courses of intervention. Providers are expected to be familiar with the guidelines and follow the recommendations; however, the guidelines are not hard-and-fast rules and sound medical judgment is important in deciding how to use and interpret the information. The 2003 legislation required that, where the U.S. Agency for Healthcare Research and Quality has adopted treatment guidelines (those in effect on January 1, 2003), they are to be used. However, because these guidelines are not available for all diagnoses, providers often reference other treatment guidelines when the mandated resource provides no guidelines.

IA: If the employer/insurer does not agree to a request to change providers, the employee can file a petition with the commissioner to seek alternate medical care.

IL: House Bill 2137 (2005) created a medical fee schedule, effective February 1, 2006. The fee schedule set fees at 90 percent of the 80th percentile of actual charges within a geographic area based on geozip (a geographic area with the same first three digits of a zip code), utilizing information contained in employers' and insurers' national databases. Twenty-nine geozip regions were established. The fee schedule is adjusted yearly based on changes to the Consumer Price Index. The legislation also required establishment of fee schedules for hospital services. Allowable fees were set at 90 percent of the 80th percentile of charges based on charge data from August 1, 2002, to August 1, 2004, based on geozip. Two hospital inpatient fee schedules have been established: the first is the standard DRG fee schedule that applies to the vast majority of hospital inpatient bills; the second is the trauma DRG fee schedule that applies to a small number of inpatient bills that involve trauma admission at designated trauma centers. Rates/fees for inpatient care may be contracted or negotiated below the fee schedule amount. Effective January 1, 2011, the number of regional fee schedules was reduced to 4 for nonhospital services and to 14 for hospital care, down from 29 fee schedules. Reimbursement for all medical services was reduced by 30 percent, effective for services delivered on/after September 1, 2011. Utilization review is not required. The 2005 legislation defined utilization review and established qualifications for individuals who conduct utilization review within the workers' compensation system; utilization techniques may include prospective review, second opinions, concurrent review, discharge planning, peer review, independent medical examinations, and retrospective review. Utilization review may be considered in the same way as other evidence in determination of the reasonableness and necessity of medical bills or treatment. Under the 2011 reforms, Illinois created a preferred provider program for selecting treating physicians. The employee may decline to participate in the program in writing and choose his/her own physician. The final preferred provider program rules went into effect in March 2013. Effective November 2012, prescriptions dispensed or filled outside of licensed pharmacies are reimbursed at AWP plus a \$4.18 dispensing fee. Utilization review is not required, but effective for services on or after September 1, 2011, when UR is requested and upon notification by an employer, medical providers are required to provide a clinical report to support the request for treatment. Providers who fail to comply might not be allowed to bill for their services. The utilization review has to be based upon nationally recognized treatment guidelines and evidence-based medicine.

*continued*



**Table 6 Medical Cost Containment Strategies, 2014 (continued)**

IN: House Bill 1320 enacted a hospital fee schedule effective July 1, 2014, with reimbursement set at 200 percent of Medicare. Also the 2013 legislation set the maximum reimbursement for repackaged prescription drugs to the AWP set by the original manufacturer of the drug, effective July 1, 2013. If the National Drug Code (NDC) for a drug cannot be determined from the medical service provider's billing or statement, the maximum reimbursement amount for the repackaged drug is the lowest cost generic for the drug.

LA: The worker has the right to select one treating provider in each field or specialty. The Office of Workers' Compensation has updated the CPT codes, effective July 20, 2013. The medical treatment guidelines adopted by the Office of Workers' Compensation went into effect on July 13, 2011. The medical fee schedule sets reimbursement for hospital outpatient services in Louisiana at 90 percent of billed charges. The workers' compensation statute, however, calls for reimbursement based on the mean of usual and customary charges. Reimbursement for inpatient services is limited to the lesser of covered billed charges or the per diem amount. Per diem amounts are standard metropolitan statistical area (SMSA) specific and medical/surgical specific.

MA: Massachusetts does not have traditional managed care, but does have this one limitation on the workers' total choice of provider. Each hospital has a specific PAF (payment on account factor, a multiplier) for each rate year, and the PAF is multiplied by charges to determine reimbursement. Hospital outpatient surgeries that have a Medicare APC assigned are reimbursed at the same amount as an ASC. Nonsurgical services provided on an outpatient basis (except for restorative services) are paid under the general medical fee schedule unless the outpatient services are available only in hospitals. Then payors pay for the following services (emergency department, observation, and ambulatory surgery that is not approved by Medicare to be performed in an ASC) and any other services incidental to the visit by applying the hospital's PAF to the charge for services. The maximum reimbursement rate for generic drugs is the lesser of the Federal upper limit, the state upper limit, or the estimated acquisition cost plus a \$3.00 dispensing fee, or the usual and customary charge. The estimated acquisition cost is the wholesale acquisition cost plus 5 percent, which is equivalent to the AWP minus 16 percent. Utilization review is required starting 12 weeks postinjury unless the insurer intends to deny treatment within the first 12 weeks postinjury.

MI: A cost-to-charge method is used to reimburse all hospital outpatient and inpatient services. The following formula applies for payment of a properly submitted bill within 30 days (appropriate charges x hospital ratio for the date of service x 107 percent). The following formula applies for payment of a properly submitted bill after 30 days (appropriate charges x hospital ratio for the date of service x 110 percent). The development, use, and enforcement of treatment guidelines are the responsibility of the insurance carriers. Legislation passed in 2011 increased the period of employer choice of initial provider from 10 days to 28 days. This change was effective December 19, 2011. Prior to the change in reimbursement for prescriptions effective December 26, 2012, the maximum was the AWP (plus a dispensing fee) and there was no regulation of physician-dispensed prescriptions.

MN: Employees may be allowed to obtain treatment with a provider outside the plan with whom they have a prior treating relationship and who maintains the employee's medical records. Outside providers must agree to abide by the terms of the plan. A managed care plan may not require a health care provider to accept a lesser payment or pay a fee as a condition of receiving referrals from or becoming a participating provider in the plan. Reimbursement for outpatient services at a hospital with 100 or more licensed beds is limited to the lower of the maximum fee that applies to any service included in the relative value fee schedule, 85 percent of the facility's usual and customary charge, 85 percent of the prevailing charge, or the facility's actual charge. Hospitals with fewer than 100 licensed beds are reimbursed at 100 percent of the hospital's usual and customary charge, unless the commissioner or compensation judge determines the charge is unreasonably excessive. Reimbursement for inpatient services at a hospital with 100 or more licensed beds is limited to the lower of 85 percent of the facility's usual and customary charge, 85 percent of the prevailing charge, or the facility's actual charge. Hospitals with fewer than 100 licensed beds are reimbursed at 100 percent of the hospital's usual and customary charge, unless the commissioner or compensation judge determines the charge is unreasonably excessive. Reimbursement for pharmaceuticals for electronic transactions is the lower of 88 percent of the AWP plus a dispensing fee of \$3.65, the Medicaid MAC plus \$3.65, or the provider's usual and customary charge. Reimbursement for pharmaceuticals for paper transactions is the lower of AWP plus a \$5.14 dispensing fee, or usual and customary charge. The statute allows payors to establish pharmacy networks and negotiated fees. Treatment guidelines apply to all dates of injury and all health care providers and have been established for some common work-related injuries: low back pain, neck pain, thoracic back pain, upper extremity disorders, and reflex sympathetic dystrophy. The parameters also include broad guidelines that reflect good medical practice that apply to all injuries.

NC: Effective January 1, 2013, the multipliers for the professional fee schedule were increased for CPT codes covering evaluation and management services (from 1.58 to 2.05 of 1995 NC Medicare values) and physical medicine services (from 1.30 to 1.36); payments for many CPT general medicine codes were retained at 1995 NC Medicare values x 1.58. Reimbursement for hospital outpatient services is set at 79 percent of charges for all hospitals except critical access hospitals, which are reimbursed at 87 percent of charges. Inpatient hospital stays are reimbursed according to a DRG fee schedule that duplicates the State Health Plan contract. However, in instances where DRG allowances fall below charges or DRG allowances exceed charges, end caps are imposed. Interim fee schedule changes in 2013 further reduced reimbursement for hospital care. House Bill 92 (signed into law by the Governor on 8/23/13) requires that hospital reimbursement be based on "Medicare methodology" and charges the Industrial Commission with developing a new hospital fee schedule; no timelines were specified.

PA: Statute provides for Coordinated Care Organizations (see 77PF Section 531). Reimbursement for hospital outpatient services is set at 113 percent of the provider's charge for procedure or revenue billing codes frozen at December 31, 1994, levels are updated annually for changes in the statewide average weekly wage. Payments to providers of inpatient acute care hospital services are based on the sum of the following: (1) 113 percent of the DRG payment, (2) 100 percent of payments that are reimbursed on the prospective pay system, (3) 100 percent of pass-through costs, and (4) 100 percent of applicable cost outliers or 100 percent of applicable day outliers. DRG rates are frozen at December 31, 1994, levels and are adjusted annually by the change in the statewide average weekly wage. The Bureau will randomly assign requests for UR to authorized UROs.

TX: House Bill (HB) 7 (2005) permitted insurers and employers to establish or contract with health care networks, which must be certified by the Texas Department of Insurance, with certification commencing January 1, 2006; it established other provisions concerning networks. Effective January 1, 2011, discounted fee contracts for voluntary or informal networks were eliminated. The reimbursement rate for inpatient care is calculated as the sum of the Medicare facility-specific reimbursement amount and any applicable outlier payment amount multiplied by 143 percent. If a facility or surgical implant provider requests separate reimbursement, the facility-specific reimbursement amount and any applicable outlier payment amount is multiplied by 108 percent. The reimbursement rate for hospital outpatient services is calculated as the sum of the Medicare facility-specific reimbursement amount and any applicable outlier payment amount multiplied by 200 percent, unless a facility or surgical implant provider requests separate reimbursement, in which case the facility-specific reimbursement amount and any applicable outlier payment amount is multiplied by 130 percent. Texas law allows a worker to obtain a brand-name drug if the worker pays the difference between the generic and the brand-name drug. Utilization review was not required prior to passage of HB 7 and was provided at the request of the employer, the insurer, or the worker. HB 7 required that the commissioner and networks select treatment and return-to-work guidelines; the Texas Department of Insurance designated the Official Disability Guideline (ODG) as the official workers' compensation treatment guidelines for Texas, applicable for health care provided on or after May 1, 2007, in non-network claims. For return-to-work guidelines, Texas has adopted the most current edition of *The Medical Disability Advisor, Workplace Guidelines for Disability Duration* (MDA), published by the Reed Group.

VA: Utilization review occurs only when there is a dispute between the provider and insurer as to the reasonableness or necessity of the treatment rendered. Parties can resolve these disputes through the judicial process or through peer review.

WI: Since 1992, databases certified by the Worker's Compensation Division list "formula amounts" by CPT code for each region, updated semiannually; fees are considered reasonable if below formula amounts. Prospective utilization review is prohibited; retrospective review is permitted in disputes over hospital length of stay and physician and chiropractor visits. Legislation passed in 2005 authorized the department to promulgate rules to establish treatment guidelines to be used in resolving necessity of treatment disputes; proposed rules establish standards that are largely consistent with Minnesota's treatment parameters. Treatment guidelines became effective November 1, 2007 (Chapter 81). Act 185, effective April 1, 2008, eliminated the requirement that the rules establishing necessity of treatment standards be consistent with Minnesota rules.

Key: APC: ambulatory payment classification; ASC: ambulatory surgical center; AWP: average wholesale price; CCO: coordinated-care organization; CPT: Current Procedural Terminology; DRG: diagnosis-related group; HB: house bill; HCO: health care organization; HMO: health maintenance organization; MAC: Medicaid administrative claiming; MCA: managed-care arrangement; MCO: managed-care organization; MPN: medical provider network; PPA: preferred-provider arrangement; RBRVS: resource-based relative value scale; RVS: relative value scale; SAWW: statewide average weekly wage; UR: utilization review; URO: utilization review organization; WC: workers' compensation.

Sources: State statutes and rules; Coomer, 2010b; Victor and Petrova, 2006; Tanabe, 2013.

**Table 7 Workers' Compensation Premiums over Medicare by Service Group, July 2011**

State	Percentage Greater Than or Less Than Medicare									
	Overall	Emergency Services	Evaluation & Management	Major Radiology	Minor Radiology	Neurological/ Neuromuscular Testing	Physical Medicine	Pain Management Injections	Major Surgery	Maximum Spread from 8 Service Groups
<b>California<sup>a</sup></b>	-1	24	-17	86	65	36	-14	-12	71	103
<b>Massachusetts</b>	-1	-4	-10	-2	-7	-6	-25	16	126	151
<b>Florida<sup>b</sup></b>	2	3	-7	4	-3	0	-1	52	28	59
<b>North Carolina</b>	11	31	-16	136	118	5	-6	69	123	152
Hawaii	15	28	10	40	63	6	15	14	22	57
New York <sup>b, c</sup>	15	86	-19	112	167	66	-3	-4	140	186
<b>Pennsylvania<sup>b</sup></b>	27	26	-4	106	92	20	27	27	114	118
Oklahoma	29	40	4	125	76	53	14	58	132	128
Utah	30	29	24	51	46	20	26	61	54	41
Maryland	31	26	26	26	26	26	27	33	67	41
Kentucky	34	27	19	62	57	26	25	65	109	90
<b>Michigan</b>	34	44	29	47	39	24	38	22	36	25
South Dakota	34	96	6	161	119	26	25	-22	137	183
West Virginia <sup>d</sup>	39	41	38	36	36	39	41	36	35	6
Colorado	40	137	29	141	101	48	17	59	120	124
Wyoming	42	101	10	199	149	73	24	4	170	195
Kansas	44	43	38	70	65	40	23	128	124	105
Ohio <sup>e</sup>	44	n/c	35	43	39	28	37	39	108	80
South Carolina	44	48	44	42	47	45	44	41	46	7
<b>Louisiana</b>	48	73	12	96	95	44	58	24	127	115
Maine	51	49	36	69	50	61	54	125	66	89
Vermont	53	50	8	165	126	64	53	95	175	167
New Mexico	54	58	22	436	149	56	40	73	133	414
<b>Arkansas</b>	56	39	42	111	120	48	43	117	131	92
<b>Minnesota</b>	56	87	68	91	83	60	36	83	74	55
Arizona	58	100	14	144	115	106	48	53	206	192
Mississippi	58	33	22	79	58	56	59	169	150	147
Nebraska	61	85	43	166	156	50	35	105	187	152
Washington	63	62	62	63	63	62	63	64	62	2
Alabama	64	29	-2	281	274	33	59	27	276	283
<b>Texas<sup>b</sup></b>	65	61	61	61	61	61	62	61	102	41
Connecticut	68	66	47	115	114	90	23	139	279	256
Georgia	71	49	49	145	145	66	48	66	218	170
Tennessee	83	124	79	124	124	79	48	124	208	160
North Dakota	86	88	86	87	89	84	85	85	93	9
Nevada	91	118	18	373	293	94	74	63	326	355
Montana	93	93	93	93	93	92	94	93	94	2
Oregon	101	107	106	90	91	90	84	148	146	64
Delaware <sup>b</sup>	109	180	32	205	221	116	87	244	384	352
Idaho	115	112	117	162	172	125	50	170	346	296
<b>Illinois<sup>b</sup></b>	136	211	33	340	379	207	108	261	443	410
Alaska	168	167	72	380	436	312	140	371	440	368
Rhode Island <sup>f</sup>	n/c	51	2	354	162	39	n/c	45	251	352
Median state <sup>g</sup>	52	55	29	106	93	53	41	63	127	124

continued

**Table 7 Workers' Compensation Premiums over Medicare by Service Group, July 2011 (continued)**

Notes: Fees are those in effect in July 2011. State names in bold represent states with medical fee schedules that are among the 16 states included in this study. Positive numbers in this table reflect a percentage above the Medicare fee schedule levels for a state, and negative numbers in this table reflect a percentage below the Medicare fee schedule levels for a state.

<sup>a</sup> California sets workers' compensation rates for 30 minutes per unit for a few physical medicine services. However, Medicare and the other states set rates for 15 minutes per unit for the same services. We estimated California rates for 15 minutes per unit for these services, based on Detailed/Benchmark Evaluation data.

<sup>b</sup> Delaware, Florida, Illinois, New York, Pennsylvania, and Texas have distinct workers' compensation fee schedules for different parts of the state. For each, a single statewide rate was created by averaging the different sub-state fee schedules using the percentage of employed persons in each sub-state region as weights. Medicare establishes distinct sub-state fee schedules in 14 states. For each, a single statewide rate was created using the same procedure.

<sup>c</sup> In New York, the maximum number of relative value units reimbursed per physical medicine visit is capped. For instance, when multiple physical medicine procedures and/or modalities are performed on the same day, the reimbursement is limited to eight units. This additional dimension of the fee schedule regulation is not captured in the analysis due to the focus of the study on the service-level rather than visit-level reimbursement.

<sup>d</sup> West Virginia sets the workers' compensation fee schedule to be 135 percent of Medicare using rounded, fully implemented RVUs. In 2011, Medicare was still using transitional RVUs, and Medicare does not round during the calculation. The result of these differences is that the 2011 workers' compensation premium over Medicare in West Virginia is not exactly 35 percent.

<sup>e</sup> Ohio does not establish rates for the emergency services included in the marketbasket. For Ohio, the overall rate is based on the fee schedule levels for the other seven service groups. For more detail, see the [Technical Appendix](#).

<sup>f</sup> Rhode Island has different billing codes for physical medicine that we are unable to crosswalk to commonly used CPT codes. An overall rate is not established for Rhode Island, as physical medicine is the largest component of the marketbasket and excluding it significantly biases the results. For more detail, see the [Technical Appendix](#).

<sup>g</sup> The value shown is for the median state in each column. Therefore, the entry for the last column (maximum spread from eight service groups) in this row is the median of the maximum spreads in the individual states, rather than the maximum spread of the entries for the median of each service group.

Key: CPT: Current Procedural Terminology; n/c: not comparable; RVU: relative value unit.

Source: Fomenko and Liu, 2012.

**Table 8 Percentage of Services and Average Prices for New and Established Patient Office Visit CPT Codes in All States, Calendar Year 2012**

Calendar Year 2012																	
CPT Code	AR	CA	FL	IA	IL	IN	LA <sup>a</sup>	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>b</sup>
New patient office visits																	
Percentage of services																	
99201	1.7	1.0	0.4	1.7	1.0	0.9	0.7	0.5	0.8	3.0	0.6	0.7	0.7	0.5	1.3	2.8	0.9
99202	15.7	5.3	4.0	18.6	7.1	13.7	9.9	7.0	12.2	24.7	10.4	3.8	8.2	7.9	22.8	20.0	10.2
99203	50.3	33.1	31.8	54.5	49.0	59.5	42.0	45.4	43.9	50.2	49.6	31.9	50.4	48.9	45.5	54.3	48.9
99204	29.4	51.2	45.6	23.5	39.7	24.9	29.7	42.4	40.8	20.4	37.1	57.6	36.6	38.6	26.7	21.0	36.8
99205	2.8	9.4	18.2	1.7	3.2	0.9	10.6	4.7	2.3	1.8	2.3	6.0	4.1	4.2	3.8	2.0	3.5
PT430 <sup>a</sup>	7.1																
Average price																	
99201	\$50	\$37	\$37	\$62	\$51	\$71	\$46	\$36	\$47	\$60	\$39	\$54	\$47	\$57	\$58	\$88	\$50
99202	\$84	\$66	\$65	\$107	\$73	\$102	\$81	\$63	\$83	\$110	\$64	\$85	\$72	\$101	\$98	\$141	\$84
99203	\$126	\$96	\$96	\$151	\$107	\$152	\$117	\$102	\$127	\$160	\$89	\$127	\$95	\$151	\$143	\$207	\$126
99204	\$192	\$136	\$139	\$232	\$153	\$218	\$163	\$151	\$187	\$245	\$134	\$189	\$151	\$238	\$214	\$323	\$188
99205	\$229	\$162	\$169	\$303	\$187	\$250	\$198	\$202	\$231	\$297	\$168	\$210	\$181	\$280	\$268	\$374	\$220
PT430 <sup>a</sup>	\$78																
Established patient office visits																	
Percentage of services																	
99211	0.6	0.5	0.6	0.7	3.4	0.6	2.1	0.9	0.4	0.9	0.6	0.4	1.8	1.4	0.8	1.0	0.8
99212	13.0	3.1	4.2	18.9	10.4	13.6	10.5	8.8	10.4	12.7	8.3	5.8	14.0	8.9	10.6	15.8	10.5
99213	63.0	32.6	42.5	60.2	49.3	57.7	53.7	58.4	63.0	57.1	56.1	46.4	52.9	64.7	55.1	60.1	56.6
99214	21.5	49.7	41.6	18.7	33.6	27.3	27.0	29.3	25.0	27.0	32.7	44.0	29.5	23.6	29.6	21.6	28.3
99215	1.9	14.0	11.1	1.5	3.3	0.8	6.7	2.6	1.2	2.3	2.4	3.4	1.7	1.4	3.9	1.5	2.3
Average price																	
99211	\$24	\$22	\$21	\$36	\$36	\$39	\$26	\$19	\$22	\$32	\$20	\$37	\$28	\$29	\$35	\$43	\$28
99212	\$50	\$39	\$39	\$66	\$46	\$64	\$46	\$39	\$49	\$65	\$35	\$61	\$42	\$59	\$61	\$87	\$49
99213	\$83	\$54	\$61	\$95	\$62	\$87	\$65	\$66	\$84	\$110	\$50	\$81	\$61	\$99	\$91	\$133	\$82
99214	\$126	\$83	\$91	\$145	\$96	\$134	\$100	\$96	\$124	\$166	\$77	\$117	\$94	\$152	\$138	\$201	\$120
99215	\$161	\$112	\$123	\$195	\$139	\$176	\$148	\$127	\$166	\$219	\$121	\$164	\$142	\$202	\$209	\$278	\$162

continued

**Table 8 Percentage of Services and Average Prices for New and Established Patient Office Visit CPT Codes in All States, Calendar Year 2012 (continued)****CPT code definitions:**

99201: Office or other outpatient office visit for the evaluation and management of a new patient, with three key components: a problem-focused history, a problem-focused exam, and straightforward medical decision making.

99202: Office or other outpatient office visit for the evaluation and management of a new patient, with three key components: an expanded problem-focused history, an expanded problem-focused exam, and straightforward medical decision making.

99203: Office or other outpatient office visit for the evaluation and management of a new patient, with three key components: a detailed history, a detailed exam, and medical decision making of low complexity.

99204: Office or other outpatient office visit for the evaluation and management of a new patient, with three key components: a comprehensive history, a comprehensive exam, and medical decision making of moderate complexity.

99205: Office or other outpatient office visit for the evaluation and management of a new patient, with three key components: a comprehensive history, a comprehensive exam, and medical decision making of high complexity.

99211: Office or other outpatient office visit for the evaluation and management of an established patient that may not require the presence of a physician.

99212: Office or other outpatient office visit for the evaluation and management of an established patient that requires at least two of these three key components: a problem-focused history, a problem-focused exam, and straightforward medical decision making.

99213: Office or other outpatient office visit for the evaluation and management of an established patient that requires at least two of these three key components: an expanded problem-focused history, an expanded problem-focused exam, and medical decision making of low complexity.

99214: Office or other outpatient office visit for the evaluation and management of an established patient that requires at least two of these three key components: a detailed history, a detailed exam, and medical decision making of moderate complexity.

99215: Office or other outpatient office visit for the evaluation and management of an established patient that requires at least two of these three key components: a comprehensive history, a comprehensive exam, and medical decision making of high complexity.

PT430: Office or other outpatient visit for the evaluation and management of a new patient, typically 30 minutes face to face with the patient and/or family.

<sup>a</sup> In Louisiana, about 7 percent of the new patient office visits billed were billed using unique office visit codes for physical/occupational therapists and/or chiropractors. The most frequent unique code billed was PT430, which was paid at an average price of \$78.

<sup>b</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated.

Key: CPT: Current Procedural Terminology.

**Table 9 Average Physical Medicine Payment per Claim and Other Metrics by All Providers<sup>a</sup> for Claims with More Than 7 Days of Lost Time, 2012/2013 (12 months)**

	AR	CA	FL	IA	IL	IN	LA <sup>b</sup>	MA	MI	MN	NC	NJ	PA	TX	VA	WI	16-State Median <sup>c</sup>
Average payment per claim	\$2,531	\$1,276	\$1,741	\$3,501	\$4,799	\$4,146	\$3,509	\$1,499	\$3,154	\$2,505	\$2,475	\$3,489	\$4,379	\$3,065	\$4,187	\$4,546	\$3,321
Percentage of claims	64.2%	74.1%	69.0%	68.0%	72.7%	70.9%	62.6%	60.7%	65.7%	65.4%	66.7%	70.9%	69.3%	68.4%	65.8%	68.4%	68.2%
Percentage of payments	14.5%	11.6%	10.1%	15.9%	23.7%	16.5%	16.6%	14.4%	23.0%	14.0%	13.3%	15.2%	26.0%	20.5%	17.5%	17.2%	16.2%
Average payment per service	\$39	\$25	\$26	\$54	\$46	\$59	\$38	\$25	\$38	\$49	\$30	\$37	\$38	\$49	\$44	\$76	\$38
Average number of services per claim	65.1	51.8	67.8	64.8	105.2	70.4	n/a	60.1	83.2	51.1	81.6	102.1	116.5	62.4	94.2	59.7	67.8
Average number of visits per claim	17.2	15.5	18.1	19.9	25.1	18.7	21.2	18.4	21.5	17.4	20.2	22.7	26.7	15.1	22.0	18.5	19.3
Average number of services per visit	3.7	3.4	3.8	3.2	4.2	3.7	n/a	3.3	3.8	2.9	4.1	4.4	4.4	4.1	4.3	3.2	3.8

Notes: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> Physical medicine by all providers include physical medicine services billed by physical/occupational therapists, chiropractors, physicians, and hospital outpatient settings.

<sup>b</sup> Physical medicine codes in Louisiana are billed using state-specific physical/occupational therapy (PT/OT) codes. Although many of these codes can be directly mapped to standard physical therapy services, some cannot. Specifically, those for therapeutic exercises and activities cannot be directly mapped. Therefore, average number of services per claim and average number of services per visit are not shown for Louisiana because not all of the underlying codes are comparable to those in other states.

<sup>c</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; those states change depending on the measure being evaluated.

Key: n/a: not available.

**Table 10 Total Costs per Claim and Components**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI
<b>2012/2013 claims with more than 7 days of lost time</b>																
<i>Costs per claim</i>																
Medical	\$11,404	\$7,831	\$11,519	\$14,723	\$13,912	\$17,234	\$13,886	\$6,236	\$8,695	\$11,137	\$12,151	\$15,127	\$12,182	\$9,847	\$15,947	\$16,980
Indemnity	\$7,029	\$8,772	\$7,323	\$7,733	\$8,740	\$6,090	\$9,742	\$7,197	\$5,588	\$5,949	\$11,413	\$6,207	\$10,150	\$7,272	\$7,365	\$5,652
Benefit delivery expenses	\$2,788	\$3,492	\$4,052	\$2,613	\$3,685	\$2,911	\$4,041	\$2,561	\$2,013	\$2,304	\$3,717	\$4,640	\$3,757	\$3,443	\$3,242	\$2,186
Vocational rehabilitation	\$7	\$15	\$7	\$7	\$11	\$7	\$38	\$7	\$13	\$625	\$23	\$1	\$9	\$4	\$48	\$18
Total	\$21,228	\$20,110	\$22,902	\$25,076	\$26,347	\$26,241	\$27,707	\$16,002	\$16,309	\$20,015	\$27,304	\$25,974	\$26,098	\$20,566	\$26,602	\$24,836
<i>Component share of total costs per claim</i>																
Medical	53.7%	38.9%	50.3%	58.7%	52.8%	65.7%	50.1%	39.0%	53.3%	55.6%	44.5%	58.2%	46.7%	47.9%	59.9%	68.4%
Indemnity	33.1%	43.6%	32.0%	30.8%	33.2%	23.2%	35.2%	45.0%	34.3%	29.7%	41.8%	23.9%	38.9%	35.4%	27.7%	22.8%
Benefit delivery expenses	13.1%	17.4%	17.7%	10.4%	14.0%	11.1%	14.6%	16.0%	12.3%	11.5%	13.6%	17.9%	14.4%	16.7%	12.2%	8.8%
Vocational rehabilitation	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	3.1%	0.1%	0.0%	0.0%	0.0%	0.2%	0.1%
<b>2010/2013 claims with more than 7 days of lost time</b>																
<i>Costs per claim</i>																
Medical	\$15,094	\$15,202	\$14,573	\$17,907	\$23,729	\$19,825	\$19,266	\$8,822	\$10,268	\$15,303	\$16,844	\$18,516	\$15,750	\$13,488	\$21,853	\$20,722
Indemnity	\$13,489	\$19,116	\$13,667	\$20,770	\$22,798	\$9,860	\$24,122	\$16,622	\$14,774	\$13,307	\$29,628	\$13,826	\$24,544	\$11,210	\$18,725	\$10,405
Benefit delivery expenses	\$4,680	\$8,851	\$6,865	\$4,723	\$5,848	\$3,732	\$8,560	\$4,196	\$4,175	\$4,547	\$6,464	\$7,100	\$6,645	\$5,402	\$5,296	\$3,327
Vocational rehabilitation	\$15	\$94	\$38	\$35	\$105	\$22	\$388	\$102	\$132	\$1,434	\$137	\$1	\$79	\$9	\$328	\$39
Total	\$33,279	\$43,263	\$35,144	\$43,435	\$52,480	\$33,440	\$52,335	\$29,741	\$29,349	\$34,592	\$53,073	\$39,442	\$47,018	\$30,109	\$46,202	\$34,493
<i>Component share of total costs per claim</i>																
Medical	45.4%	35.1%	41.5%	41.2%	45.2%	59.3%	36.8%	29.7%	35.0%	44.2%	31.7%	46.9%	33.5%	44.8%	47.3%	60.1%
Indemnity	40.5%	44.2%	38.9%	47.8%	43.4%	29.5%	46.1%	55.9%	50.3%	38.5%	55.8%	35.1%	52.2%	37.2%	40.5%	30.2%
Benefit delivery expenses	14.1%	20.5%	19.5%	10.9%	11.1%	11.2%	16.4%	14.1%	14.2%	13.1%	12.2%	18.0%	14.1%	17.9%	11.5%	9.6%
Vocational rehabilitation	0.0%	0.2%	0.1%	0.1%	0.2%	0.1%	0.7%	0.3%	0.4%	4.1%	0.3%	0.0%	0.2%	0.0%	0.7%	0.1%
<b>Average benefit delivery expenses for 2010/2013 claims with more than 7 days of lost time and with benefit delivery expenses</b>																
Average benefit delivery expense per claim with expenses	\$4,699	\$8,878	\$7,211	\$4,756	\$5,906	\$3,757	\$8,604	\$4,260	\$4,297	\$4,586	\$6,506	\$7,156	\$6,689	\$5,446	\$5,332	\$3,367
Claims with MCC expenses (percentage)	98.3%	98.1%	90.2%	95.9%	95.5%	97.5%	96.9%	96.3%	92.0%	93.1%	95.2%	91.8%	97.2%	98.3%	97.3%	95.5%
Average MCC expense per claim with MCC expenses	\$3,349	\$3,580	\$3,405	\$2,606	\$3,461	\$2,917	\$4,016	\$2,355	\$2,114	\$1,926	\$3,564	\$5,455	\$3,342	\$4,091	\$3,320	\$2,023
Percentage of claims with defense attorney payments greater than \$500 (indexed) <sup>b</sup>	22.1%	39.9%	40.6%	22.6%	36.7%	15.5%	35.5%	23.3%	22.9%	22.2%	39.5%	48.8%	29.8%	10.4%	28.2%	12.6%
Average defense attorney payment per claim with defense attorney payments greater than \$500 (indexed) <sup>b</sup>	\$4,357	\$7,041	\$7,102	\$6,243	\$3,750	\$3,569	\$9,083	\$4,128	\$5,595	\$7,390	\$4,863	\$2,453	\$6,103	\$5,654	\$4,820	\$4,712
Claims with medical-legal expenses (percentage)	10.6%	29.9%	7.9%	17.3%	29.5%	9.4%	23.5%	25.5%	28.1%	22.3%	10.6%	46.9%	27.7%	26.9%	11.4%	24.8%
Average medical-legal expense per claim with medical-legal expenses	\$1,210	\$3,290	\$1,207	\$1,614	\$2,347	\$1,334	\$2,438	\$1,293	\$1,516	\$2,715	\$1,323	\$1,131	\$2,598	\$1,300	\$1,739	\$2,028

Note: 2012/2013 refers to claims arising from October 1, 2011, through September 30, 2012, evaluated as of March 31, 2013. 2010/2013 refers to claims arising from October 1, 2009, through September 30, 2010, evaluated as of March 31, 2013.

<sup>a</sup> For benefit delivery expense and its component measures, we included data where the medical cost containment strategies were used and the relevant expenses were allocated to the claim. In other words, if a data source did not allocate some or all of the expenses related to its medical cost containment strategies, we excluded it from this report. Similarly, if a data source did not allocate some or all of the litigation-related expenses to the claim, we excluded it from this report as well.

<sup>b</sup> A \$500 threshold was used in reporting the frequency of defense attorney involvement and the average payment made to defense attorneys to identify where defense attorneys were more likely to be involved in disputes, rather than involved in a more nominal way, such as drafting settlement agreements. The \$500 threshold was adjusted annually by 3 percent to reflect the average change in the Consumer Price Index, using 2001 as the base year. See [CompScope™ Benchmarks: Technical Appendix, 14th Edition](#).

Key: MCC: medical cost containment.

## LIST OF COMMON ABBREVIATIONS AND SYMBOLS<sup>1</sup>

**AAPC:** Annual average percentage change.

**ACOEM:** American College of Occupational and Environmental Medicine.

**APC:** Ambulatory payment classification.

**ASC:** Ambulatory surgery center.

**ASTC:** Ambulatory surgery treatment center.

**Avg.:** Average.

**AWP:** Average wholesale price.

**CAT scan:** Computed axial tomography.

**CCO:** Coordinated care organization.

**CPI-U:** Consumer Price Index for All Urban Consumers.

**CPT:** Current Procedural Terminology codes, a system of coding used to identify procedures and services performed by physicians.

**CT scan:** Computerized tomography.

**Cum.:** Cumulative.

**Diff.:** Difference.

**DRG:** Diagnosis-related group.

**E&M:** Evaluation and management (mainly office visits).

**Eff.:** Effective.

**Esp.:** Especially.

**FS:** Fee schedule.

**Geo zip:** Geographical area defined by U.S. Postal Service zip codes.

**GH:** Group health.

**GPCI:** Geographic practice cost index.

**HB:** House bill.

**HEA:** House enrolled act.

**HCFA:** Health Care Financing Administration

---

<sup>1</sup> The abbreviations and symbols on this list are frequently used in this CompScope™ Medical Benchmarks report series.



**HMO:** Health maintenance organization.

**ICD or ICD-9:** International Classification of Diseases codes, 9th Edition, a system of coding used to identify diagnoses, symptoms, and reasons for medical treatment.

**Max.:** Maximum.

**MCC:** Medical cost containment.

**MD:** Medical doctor. The physician category includes surgeons, general practitioners, radiologists, family practice physicians, psychiatrists, and other recognized medical doctors, such as doctors of osteopathic medicine.

**MDRx:** Physician-dispensed prescriptions.

**MEA:** Morphine equivalent amount.

**MEI:** Medicare economic index.

**Min.:** Minimum.

**M-L:** Medical-legal.

**MPN:** Medical provider network.

**MRI:** Magnetic resonance imaging.

**MTG:** Medical treatment guidelines.

**NCCI:** National Council on Compensation Insurance, Inc.

**ODG:** Official disability guidelines.

**PAF:** Payment on account factor.

**PDRx:** Pharmacy-dispensed prescriptions.

**PM or Phys. Med.:** Physical medicine.

**Pmt.:** Payment.

**PPA:** Preferred provider association.

**PPO:** Preferred provider organization.

**PPP:** Preferred provider program.

**PPT or ppt:** Percentage point(s).

**PT/OT:** Physical therapist and/or occupational therapist.

**R code:** Revenue code, one of a system of codes widely used to identify services and procedures delivered in hospital settings.

**RBRVS:** Resource-based relative value scale.

**RTW or SRTW:** (Substantial) Return to work.

**RVU:** Relative value unit.

**Rx:** Prescriptions.

**SAWW:** Statewide average weekly wage.

**SB:** Senate bill.

**SMSA:** Standard metropolitan statistical area.

**TOR or T/O/R:** Treatment/operating/recovery room services.

**UR:** Utilization review.

**URO:** Utilization review organization.

**w/:** With.

**WC:** Workers' compensation.

**%:** Percent or percentage.

**#:** Number.

**/:** Per (as in cost/claim means cost per claim).

**>:** More than.

**≤:** Less than or equal to.

## GLOSSARY

**access to medical care:** The extent to which patients were able to obtain the medical care that they or their health care provider desired. In WCRI and many other surveys, access to medical care is evaluated in terms of the patients reporting that they encountered “no problems,” “small problems,” or “big problems” in this regard.

**ambulatory payment classification:** A payment methodology developed by Medicare to reimburse outpatient hospital and ambulatory surgery centers for services and procedures. The methodology categorizes visits according to clinical characteristics, typical resource use, as well as the costs associated with the diagnoses and procedures performed.

**average medical payment per claim:** The sum of medical payments divided by the number of claims. This is the result of utilization and prices paid. Similar averages may be presented on a provider type or service group basis by appropriately limiting the payments summed and claims counted for purposes of the calculation.

**average number of services per claim:** The sum of the number of services billed divided by the number of claims. Similar averages may be presented on a provider type or service group basis by appropriately limiting the number of services summed and claims counted for purposes of the calculation.

**average number of services per visit:** The sum of the number of services billed at each visit divided by the number of visits. Similar averages may be presented on a provider type or service group basis by appropriately limiting the services summed and visits counted for purposes of the calculation.

**average number of visits per claim:** The number of visits, which is identified as unique dates of service within each claim counted across a complete set of claims, divided by the number of claims in the set. Similar averages may be presented on a provider type or service group basis by appropriately limiting the unique dates summed and claims counted for purposes of the calculation.

**average payment per visit:** The total amount paid for medical services divided by the number of visits made to receive services. Similar averages may be presented on a provider type or service group basis by appropriately limiting the amount summed and number of visits counted for purposes of the calculation.

**average medical payment per service:** The sum of payments for each service (line item billing) divided by the total number of services for which payments were made. It is important to note that these are paid amounts, not charged amounts.

**balance billing:** A procedure under which providers of medical services can bill the injured worker for some or all of the difference between bills submitted for services on a claim and the amounts paid for those services by the employer or insurer.

**billed or billing provider:** Terms used to indicate medical services that were billed and paid to the specified type of provider.

**claims with more than seven days of lost time:** WCRI methodology in multistate benchmarking studies that applies a waiting period of seven days before counting or including indemnity benefits paid, if a state law allows earlier payments. This approach provides a more appropriate multistate comparison because states that have a waiting period for benefits shorter than seven days will typically have lower average indemnity benefits per claim as a result.

**closed formulary:** A medical cost containment protocol that specifically prohibits certain drugs without prior

authorization.

**cost-to-charge ratio reimbursement:** A ratio of the cost divided by the charges, generally used with acute inpatient or outpatient hospital services. Base cost-to-charge ratios are often calculated using the hospitals declared revenue and expenses on the Medicare Cost Reports. The base cost-to-charge ratios are multiplied by charges to determine the reimbursement amount.

**Current Procedural Terminology (CPT) codes:** A system of coding used to identify procedures and services performed by physicians.

**Detailed Benchmark/Evaluation (DBE) database:** Created by WCRI, this is the compilation of data used as the basis for the measures in these reports.

**duration of temporary disability:** The imputed length of time for which temporary disability benefits have been paid, estimated from amounts of benefits and average benefit rate.

**end caps:** The maximum and minimum utilized in the North Carolina method of calculating inpatient hospital fees based on diagnostic-related groups (DRGs). Effective July 2009, for most hospitals the minimum was set at 75 percent of the hospital's itemized charges as shown on the UB-92 claim form (lowered from 77.07 percent); the maximum was set at 100 percent of the charges. Any DRG falling within the band limited by the maximum and minimum is paid as is.

**evaluation date:** The date as of which payments have been summarized for all claims from a particular accident year. In this study, selected evaluation dates falling 6, 18, 30, 42, and 54 months after the end of each accident year were used. However, we typically report on claims evaluated 6 months after the end of each accident year (an average maturity of 12 months). Accordingly, claims with dates of injury in accident years 2006 through 2011 were evaluated as of March 31, 2012, and on March 31 of each previous year (2007 through 2011) as applicable. The evaluation date may also be referred to as the valuation date.

**fee schedule:** A set of prescribed reimbursement levels for medical procedures provided by a wide range of practitioners, generally within nonhospital and/or hospital settings, to workers' compensation claimants. Fee schedules may also apply to durable medical supplies or pharmaceuticals. Fee schedules may be subject to negotiation or adjustment by agreement of the parties in some systems.

**formulary drugs:** A limited list of medications covered by insurance without prior authorization from the payor.

**hospital inpatient episode:** An episode is a separate incident of hospital inpatient care which is identified through revenue codes indicating a hospital overnight stay (i.e., codes identifying room and board) and all other hospital services provided during that stay.

**hospital inpatient payments:** Payments made to the hospital for services rendered during an inpatient stay.

**hospital outpatient payments:** Payments made to the hospital for services that are delivered outside an inpatient stay.

**indemnity claim:** A claim in which indemnity payments—payments for temporary disability, permanent disability, or death—have been made. Note that much of the report analysis focuses on claims with more than seven days of lost time and applies a waiting period of seven days before counting or including indemnity benefits paid if a state law allows earlier payments.

**indemnity payments:** Income replacement and/or disability benefit payments made to workers.

**injury year:** The 12-month period in which an injury occurred, also called accident year. We define an injury year to include the 12 months beginning October 1 of the previous calendar year through September 30 of the calendar year used to designate the injury year. For example, injury year 2011 includes claims with injuries arising from October 1, 2010, through September 30, 2011. Thus, the injury

years used in this study do not align with specific calendar years.

**International Classification of Diseases (ICD or ICD-9) codes:** A system of coding used to identify diagnoses, symptoms, and reasons for treatment.

**major radiology:** Primarily computerized tomography (CT) scans and magnetic resonance imaging (MRIs) of all body parts, as distinguished from X rays and ultrasounds, which are categorized as minor radiology.

**major surgery:** Invasive surgeries, as opposed to surgical treatments and pain management injections (which are also included in the surgical section of the CPT manual). The most frequent surgeries in the major category are carpal tunnel, neuroplasty, arthroscopic surgery, laminectomies, and laminotomies.

**managed care:** An approach to health care cost containment that enables the payor to influence the delivery of health services before the services are provided. As used in this report, *managed care* refers to the use of designated entities, referred to as managed-care organizations, to deliver health care to injured workers. Techniques common to managed-care organizations include case management, physician gatekeepers, provider networks, and components of utilization review (such as admission review, admission precertification, continued-stay review, discharge planning, mandatory second opinion programs, and quality assurance mechanisms).

**mapping:** One of the key methods we use to ensure the comparability of the benchmark measures across states. It involves categorizing different data source codes into a common structure based on the definitions of those codes.

**maturity:** The time between the date of injury and the evaluation date. In this study, we typically analyze claims with average maturities of 12, 24, and 36 months.

**median study state:** The state that ranks in the middle of the group of states included for a particular measure when the states are sorted from low to high values. For example, the median of 16 study states is the mid-point between the states that rank 8th and 9th on a given measure; those states change depending on the measure being analyzed. In WCRI studies, we consider values within 10 percent of the median value or within 3 percentage points of the median percentage measure to be *typical*—that is, similar to the median state.

**medical cost containment expenses:** All payments related to medical cost containment, including fees for bill review, utilization review, case management, and preferred-provider networks. Note that medical cost containment expenses are not included in the average medical payments per claim that we report.

**medical payments:** Payments to medical providers for the medical treatment of workers' injuries. These include payments to physicians, chiropractors, and physical therapists, and for hospital, pharmacy, nursing home, and medical rehabilitation services. The average medical payment per claim is the sum of medical payments made to all types of providers and for all types of services, divided by the total number of claims receiving any such services.

**medical service:** A single medical treatment or procedure billed by a medical provider. Multiple medical services may be delivered at one visit.

**medical-only claim:** An open or closed claim for which medical payments have been made, but no indemnity payments have been made or no indemnity reserves have been established.

**minor radiology:** Primarily X rays and ultrasounds for all body parts, as distinguished from major radiology, which includes CT scans and/or MRIs.

**“N” drugs:** Drugs with “N” or non-formulary status under the closed formulary adopted by the Texas

Division of Workers' Compensation, which incorporates the pharmacy treatment parameters of Appendix A of the Official Disability Guidelines (ODG) Treatment in Workers' Compensation. Drugs on the ODG "N" list include highly addictive and expensive class 2 narcotics, dangerous hypnotics, and compound drugs that include "N" ingredients. Prior authorization through a prospective utilization review of medical necessity is required for prescribed N drugs before they can be dispensed.

**network care:** Health care rendered within a network of preferred medical providers who provide care under an agreement with the payor; such agreements may establish discounted reimbursement rates for services and require compliance with certain protocols for care.

**neurological/neuromuscular testing:** Includes neurological and neuromuscular testing. Largely made up of sensory and motor nerve conduction tests (CPT codes 95907 through 95913), but also includes range of motion tests (CPT codes 95851 and 95851) and analysis of implanted neurostimulators (CPT codes 95970 through 95981). These services may be billed by physicians as well as chiropractors and physical therapists.

**pain management injections:** Includes injection procedures that are commonly used for pain management, such as epidural or steroid injections on nerve roots and muscles for lumbar, sacral, cervical, or thoracic areas.

**payment on accounts factor:** Represents a ratio of the net to gross private sector patient revenue for a hospital and is used to determine rates of payment for hospital services.

**payor:** The entity responsible for administering and making payments on a workers' compensation claim. Payors may be insurers, third-party administrators, or self-insured, self-administered employers.

**physical medicine services:** Services billed under CPT codes 97xxx and/or chiropractic or osteopathic manipulations billed under CPT codes 98xxx, regardless of the type of provider billing the codes (physician, physician's assistant, chiropractor, physical or occupational therapist, etc.). In some states, such as Louisiana, other state-specific codes are also included, such as codes beginning with "PT" and/or "OT." Such state-specific codes are mapped to individual service groups as appropriate.

**premium (above Medicare):** Refers to the dollar amount or percentage by which a state workers' compensation fee schedule rate exceeds the corresponding Medicare reimbursement rate for that state. In very few circumstances, the workers' compensation rate may be lower than the Medicare rate, in which case the premium is negative.

**price index:** The ratio of the price per service in an individual state to the median state, where the price per service is constructed using a marketbasket approach to hold utilization of services constant.

**procedure code:** A code used to map a service group. This can be a CPT code, Healthcare Common Procedure Coding System (HCPCS) code, National Drug Code, revenue code, or other state- or company-specific code.

**provider type:** One of six categories of medical providers (physician, chiropractor, physical/occupational therapist, hospital, other, unclassified) created in the DBE database. Provider type is one of the dimensions that form the detailed medical benchmark measures. Provider type is defined regardless of the type of service being provided.

**PT/OT:** Physical therapist and/or occupational therapist. Payments to PT/OTs are for all services they provide and bill (whether or not the services are considered physical medicine services, as previously defined).

**relative value unit (RVU):** A measure of the relative costs required to provide different medical services, with more complex, time-consuming services (like a shoulder arthroscopy) having higher unit values

than less complex, less time-consuming services (such as an office visit).

**resource intensity:** Measures the relative complexity for a mix of services based on the weighted volume of services delivered. The weights are the Medicare resource-based relative value scale.

**resource-intensive service:** A service with a relatively high resource-based relative value scale.

**revenue code (R code):** One of a system of codes widely used to identify services and procedures delivered in hospital settings.

**satisfaction with medical care:** Patients' perceptions of the quality, effectiveness, and efficiency of their medical care. Satisfaction with medical care is measured in WCRI and many surveys using questions that ask patients to rate their satisfaction as "very satisfied," "somewhat satisfied," "somewhat dissatisfied," or "very dissatisfied."

**Schedule II narcotic:** A drug or other substance that has high potential for abuse, which may lead to severe psychological or physical dependence, and has a currently accepted medical use in treatment in the United States. Examples of specific drugs are Morphine (Avinza®), fentanyl (Duragesic®), oxycodone HCL (OxyContin®), oxycodone-acetaminophen (Percocet®), and methadone.

**service group:** One of 20 categories of medical services. Service group is one of the dimensions that form the detailed medical benchmark measures. Service group applies to categories of services regardless of the provider type(s) delivering the services.

**treatment guidelines:** Specifications for ranges and/or levels of service and the methods of treatment (protocols) that should be considered accepted medical practice for certain diagnoses or patient conditions.

**trend:** Rate and direction of change over time.

**unclassified provider:** A provider type—primarily a physician or hospital—that could not be mapped into a specific provider type because of missing information.

**unclassified service:** A service delivered by a nonhospital or hospital provider that could not be mapped into a specific service group because of missing information.

**utilization index:** The ratio of the average number of services per claim in an individual state to those of the median state. The average number of services per claim was weighted by the relative value unit (RVU) to hold the intensity of resource use constant in these comparisons.

**utilization review:** The assessment of a patient's medical care to ensure that it is medically necessary and reasonable. This assessment typically considers the appropriateness of the place of care; the level of care; and the duration, frequency, and/or quantity of services provided based on the accepted condition(s).

**visit:** An event in which a patient receives a service, or services, from a particular medical provider on a specific date.

## REFERENCES

- American Medical Association. 2006. *Current procedural terminology expert, 2006, 6th edition*. Chicago, IL: AMA Press.
- Belton, S., and T. Liu. 2009. *Comparing outcomes for injured workers in Michigan*. Cambridge, MA: Workers Compensation Research Institute.
- Borba, P., and C. Yee. 2012. *Impact of treatment guidelines in Texas*. Cambridge, MA: Workers Compensation Research Institute.
- Coomer, N. 2010a. *Fee schedules for hospital and ambulatory surgical centers: A guide for policymakers*. Cambridge, MA: Workers Compensation Research Institute.
- . 2010b. *National inventory of workers' compensation fee schedules for hospitals and ambulatory surgical centers*. Cambridge, MA: Workers Compensation Research Institute.
- Coomer, N., and T. Liu. 2010. *Benchmarks for designing workers' compensation medical fee schedules: 2009*. Cambridge, MA: Workers Compensation Research Institute.
- Fomenko, O. 2013. *Comparing workers' compensation and group health hospital outpatient payments*. Cambridge, MA: Workers Compensation Research Institute.
- Fomenko, O., and T. Liu. 2012. *Designing workers' compensation medical fee schedules*. Cambridge, MA: Workers Compensation Research Institute.
- Fomenko, O., and R. Victor. 2013. *A new benchmark for workers' compensation fee schedules: Prices paid by commercial insurers?* Cambridge, MA: Workers Compensation Research Institute.
- Fomenko, O., and R. Yang. 2013. *Hospital outpatient cost index for workers' compensation, 2nd edition*. Cambridge, MA: Workers Compensation Research Institute.
- National Council on Compensation Insurance, Inc. (NCCI). 2007. *Annual statistical bulletin*. Boca Raton, FL.
- . 2008. *Annual statistical bulletin*. Boca Raton, FL.
- . 2009. *Annual statistical bulletin*. Boca Raton, FL.
- . 2010. *Annual statistical bulletin*. Boca Raton, FL.
- . 2011. *Annual statistical bulletin*. Boca Raton, FL.
- . 2012. *Annual statistical bulletin*. Boca Raton, FL.
- . 2013. *Annual statistical bulletin*. Boca Raton, FL.
- . 2014. *Annual statistical bulletin*. Boca Raton, FL.
- Savych, B. 2014a. *Comparing payments to ambulatory surgery centers and hospital outpatient departments*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014b. *Payments to ambulatory surgery centers*. Cambridge, MA: Workers Compensation Research Institute.
- Tanabe, R. 2012. *Workers' compensation laws as of January 2012*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013. *Workers' compensation medical cost containment: A national inventory, 2013*. Cambridge, MA: Workers Compensation Research Institute.
- Telles, C. 2011a. *Monitoring the impact of reforms in Texas: CompScope™ medical benchmarks, 11th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2011b. *Monitoring the impact of reforms and recession in Texas: CompScope™ benchmarks, 12th*



- edition. Cambridge, MA: Workers Compensation Research Institute.
- . 2012a. *Monitoring the impact of reforms in Texas: CompScope™ medical benchmarks, 12th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2012b. *Monitoring the impact of reforms and recession in Texas: CompScope™ benchmarks, 13th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013. *CompScope™ benchmarks for Texas, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014. *CompScope™ medical benchmarks for Texas, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Telles, C., N. Coomer, E. Radeva, B. Savych, R. Yang, and R. Tanabe. 2011. *Monitoring the impact of reforms in Texas: CompScope™ benchmarks, 11th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Telles, C., L. Lamy, and K. Rothkin. 2013. *Monitoring the impact of reforms in Texas: CompScope™ medical benchmarks, 13th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Texas Department of Insurance. 2008a. *General information for medical fee guidelines*. Retrieved from <http://www.tdi.texas.gov/wc/fee/documents/mfginfo.pdf> (accessed September 17, 2014).
- . 2008b. *Setting the standard: An analysis of the 2005 legislative reforms on the Texas workers' compensation system, 2008 results*. Retrieved from <http://www.tdi.state.tx.us/reports/wcreg/documents/settingthestandard201.pdf> (accessed September 17, 2014).
- . 2008c. For detail on fee schedule changes for hospital services, see <http://www.tdi.state.tx.us/wc/rules/adopted/documents/aorderhfg0108.pdf> (accessed September 17, 2014).
- . 2008d. For detail on fee schedule changes for ambulatory surgical centers, see <http://www.tdi.state.tx.us/wc/rules/adopted/documents/aoasc0808.pdf> (accessed September 17, 2014).
- . 2009a. *Impacts of the 2007 adoption of ODG-TWC treatment guidelines on medical utilization and costs: A preliminary report*. Retrieved from <http://www.tdi.state.tx.us/reports/wcreg/documents/ImpactsODGTreatmentGuideline.ppt> (accessed September 17, 2014).
- . 2009b. *2009 workers' compensation network report card results*. Retrieved from <http://www.tdi.state.tx.us/reports/wcreg/documents/2009reportcard2.pdf> (accessed September 17, 2014).
- . 2010a. *Access to medical care in the Texas workers' compensation system, 1998-2008*. Retrieved from [http://www.tdi.state.tx.us/reports/wcreg/documents/Access\\_to\\_Care\\_2010.pdf](http://www.tdi.state.tx.us/reports/wcreg/documents/Access_to_Care_2010.pdf) (accessed September 17, 2014).
- . 2010b. *Return-to-work outcomes for Texas injured workers*. Retrieved from [http://www.tdi.state.tx.us/reports/wcreg/documents/RTW\\_2010\\_final1.pdf](http://www.tdi.state.tx.us/reports/wcreg/documents/RTW_2010_final1.pdf) (accessed September 17, 2014).
- . 2010c. *2010 workers' compensation network report card results*. Retrieved from <http://www.tdi.state.tx.us/reports/wcreg/documents/2010reportcardweb1.pdf> (accessed September 17, 2014).
- . 2010d. *Setting the standard: An analysis of the 2005 legislative reforms on the Texas workers'*

- compensation system, 2010 results.* Retrieved from [http://www.tdi.state.tx.us/reports/wcreg/documents/setting\\_the\\_standard.pdf](http://www.tdi.state.tx.us/reports/wcreg/documents/setting_the_standard.pdf) (accessed September 17, 2014).
- . 2010e. For information on the closed formulary, see <http://www.tdi.state.tx.us/wc/rules/adopted/documents/aorx1210.pdf> (accessed September 17, 2014).
- . 2011a. *2011 workers' compensation network report card results.* Retrieved from <http://www.tdi.texas.gov/reports/wcreg/documents/2011reportcard-final.pdf> (accessed September 17, 2014).
- . 2011b. *Costs to employers and efficiencies in the Texas workers' compensation system.* Retrieved from [http://www.tdi.texas.gov/reports/wcreg/documents/Employers\\_cost.pdf](http://www.tdi.texas.gov/reports/wcreg/documents/Employers_cost.pdf) (accessed September 17, 2014).
- . 2011c. *Pharmaceutical utilization and costs, 2006-2010.* Retrieved from [http://www.tdi.texas.gov/reports/wcreg/documents/New\\_accessible\\_.pdf](http://www.tdi.texas.gov/reports/wcreg/documents/New_accessible_.pdf) (accessed September 17, 2014).
- . 2012a. *2012 workers' compensation network report card results.* Retrieved from [http://www.tdi.texas.gov/reports/wcreg/documents/2012\\_report\\_card.pdf](http://www.tdi.texas.gov/reports/wcreg/documents/2012_report_card.pdf) (accessed September 17, 2014).
- . 2012b. *Impact of the Texas pharmacy closed formulary: A preliminary report, 2012.* Retrieved from [http://www.tdi.texas.gov/reports/wcreg/documents/Pharmacy\\_closed.pdf](http://www.tdi.texas.gov/reports/wcreg/documents/Pharmacy_closed.pdf) (accessed September 17, 2014).
- . 2012c. *Setting the standard: An analysis of the 2005 legislative reforms on the Texas workers' compensation system, 2012 results.* Retrieved from <http://www.tdi.texas.gov/reports/wcreg/documents/Biennial2012revised.pdf> (accessed September 17, 2014).
- . 2013. *2013 workers' compensation network report card results.* Retrieved from [http://www.tdi.texas.gov/reports/wcreg/documents/2013\\_report\\_card.pdf](http://www.tdi.texas.gov/reports/wcreg/documents/2013_report_card.pdf) (accessed September 17, 2014).
- Texas Department of Insurance Division of Workers' Compensation. 2009. *Self-valuation report submitted to the Sunset Advisory Commission September 2009.* Retrieved from <http://www.tdi.state.tx.us/reports/dwc/documents/2009dwcser.pdf> (accessed September 17, 2014).
- Texas Department of Insurance, Division of Workers' Compensation, Administrative Code. *Chapter 152. Attorneys' fees.* Retrieved from <http://www.tdi.state.tx.us/wc/rules/documents/152.pdf> (accessed September 17, 2014).
- Texas Department of Insurance, Workers' Compensation Research and Evaluation Group. 2012a. *Access to medical care in the Texas workers' compensation system, 1998-2010; 2012 results.* April 2012. Retrieved from [http://www.tdi.texas.gov/reports/wcreg/documents/Access\\_to\\_care\\_2012.pdf](http://www.tdi.texas.gov/reports/wcreg/documents/Access_to_care_2012.pdf) (accessed September 17, 2014).
- . 2012b. *Health care cost and utilization in the Texas workers' compensation system: 1998–2011 (October 2012).* Medical Cost 2012. Retrieved from <http://www.tdi.texas.gov/reports/wcreg/documents/Health%20care%20cost%20and%20utilization%202012%20final2.pdf> (accessed September 17, 2014).
- . 2013. *Impact of the Texas pharmacy closed formulary: A preliminary report based on 6-month injuries*

- with 9-months services (June 2013). Retrieved from [http://www.tdi.texas.gov/reports/wcreg/documents/Pharma\\_0612131.pdf](http://www.tdi.texas.gov/reports/wcreg/documents/Pharma_0612131.pdf) (accessed September 17, 2014).
- . 2014. *Impact of the Texas pharmacy closed formulary: A preliminary report based on 12-month injuries with 12-month services (March 2014)*. Retrieved from <http://www.tdi.texas.gov/reports/wcreg/documents/Pharma-mar2014.pdf> (accessed September 17, 2014).
- Texas Workers' Compensation Commission. 2005. *HB 2600 implementation matrix*. Retrieved from [http://www.house.state.tx.us/media/pdf/committees/reports/78interim/business\\_appendix1.pdf](http://www.house.state.tx.us/media/pdf/committees/reports/78interim/business_appendix1.pdf) (accessed September 17, 2014).
- . 2006. *Summary of House Bill 7 (79th Legislature)*. Retrieved from <http://www.tdi.state.tx.us/wc/dwc/legisupdate.html#hb7> (accessed September 17, 2014).
- Thumula, V., and T. Liu. 2014. *Impact of a Texas-like formulary in other states*. Cambridge, MA: Workers Compensation Research Institute.
- Thumula, V., D. Wang, and T. Liu. 2014. *Interstate variations in use of narcotics, 2nd edition*. Cambridge, MA: Workers Compensation Research Institute.
- Victor, R., and P. Petrova. 2006. *State policies affecting the cost and use of pharmaceuticals in workers' compensation: A national inventory*. Cambridge, MA: Workers Compensation Research Institute.
- Wang, D. 2014. *Longer-term use of opioids, 2nd edition*. Cambridge, MA: Workers Compensation Research Institute.
- Wang, D., D. Hashimoto, and K. Mueller. 2012. *Longer-term use of opioids*. Cambridge, MA: Workers Compensation Research Institute.
- Wang, D., and T. Liu. 2011. *Prescription benchmarks, 2nd edition: Trends and interstate comparisons*. Cambridge, MA: Workers Compensation Research Institute.
- Wang, D., T. Liu, and V. Thumula. 2013. *The prevalence and costs of physician-dispensed drugs*. Cambridge, MA: Workers Compensation Research Institute.
- Wang, D., K. Mueller, and D. Hashimoto. 2011. *Interstate variations in use of narcotics*. Cambridge, MA: Workers Compensation Research Institute.
- Wang, D., K. Mueller, D. Hashimoto, S. Belton, and X. Zhao. 2008. *Interstate variations in medical practice patterns for low back conditions*. Cambridge, MA: Workers Compensation Research Institute.
- Wang, D., and R. Victor. 2010. *Prescription benchmarks for Texas*. Cambridge, MA: Workers Compensation Research Institute.
- Workers Compensation Research Institute (WCRI). 2011. *Workers' compensation medical cost containment: A national inventory, 2011*. Cambridge, MA.
- . 2014. *Workers' compensation laws as of January 1, 2014*. Cambridge, MA.
- Yang, R. 2011. *WCRI medical price index for workers' compensation, third edition (MPI-WC)*. Cambridge, MA: Workers Compensation Research Institute.
- Yang, R., and O. Fomenko. 2012a. *Hospital outpatient cost index for workers' compensation*. Cambridge, MA: Workers Compensation Research Institute.
- . 2012b. *WCRI medical price index for workers' compensation, fourth edition (MPI-WC)*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013. *WCRI medical price index for workers' compensation, fifth edition (MPI-WC)*. Cambridge, MA: Workers Compensation Research Institute.

- . 2014. *WCRI medical price index for workers' compensation, sixth edition (MPI-WC)*. Cambridge, MA: Workers Compensation Research Institute.
- Yee, C., P. Borba, and N. Coomer. 2011. *Impact of preauthorization on medical care in Texas*. Cambridge, MA: Workers Compensation Research Institute.

## **WORKERS' COMPENSATION STATUTE<sup>1</sup>**

Texas Labor Code, Title 5, Chapters 401 through 506.

---

<sup>1</sup> The citation provided is the basic workers' compensation statute. Amendments are not listed, and other state statutes may relate to workers' compensation requirements and processes.

# **COMPSCOPE™ MEDICAL BENCHMARKS: TECHNICAL APPENDIX, 15TH EDITION**

*Roman Dolinski*

*Karen Rothkin*

October 2014

WORKERS COMPENSATION RESEARCH INSTITUTE  
CAMBRIDGE, MASSACHUSETTS

# TABLE OF CONTENTS FOR THE TECHNICAL APPENDIX

<b>List of Figures</b>	<b>TA 3</b>
<b>List of Tables</b>	<b>TA 4</b>
<b>Organization</b>	<b>TA 5</b>
<b>Section 1: Conceptual Framework</b>	<b>TA 5</b>
ANALYTIC APPROACH	TA 5
DECOMPOSING THE TREND IN THE AVERAGE MEDICAL PAYMENT PER CLAIM INTO CHANGES IN PRICE AND UTILIZATION	TA 6
CLASSIFICATION OF PROVIDER TYPES AND SERVICE GROUPS	TA 7
MEASURES USED IN THE COMPSCOPE™ MEDICAL BENCHMARKS	TA 8
<b>Section 2: Data Set Development</b>	<b>TA 9</b>
WHAT'S NEW IN THE 15TH EDITION	TA 9
CLAIM INCLUSION OR EXCLUSION	TA 10
WEIGHTING FOR MARKET SEGMENTS TO REPRESENT THE FULL MARKET	TA 12
ADJUSTING FOR CASE MIX IN INJURY AND INDUSTRY DISTRIBUTION	TA 12
DATA CAPPING	TA 13
COMPARING THE MEDICAL PAYMENTS AND OTHER CLAIM CHARACTERISTICS OF THE COMPSCOPE™ MEDICAL AND COMPSCOPE™ DATA SETS	TA 14
<b>Section 3: Methods to Construct the Price Index</b>	<b>TA 15</b>
ESTABLISHING THE MARKETBASKET	TA 15
COMPUTING PRICE AND PRICE INDEX	TA 17
<b>Section 4: Methods to Construct the Utilization Index</b>	<b>TA 20</b>
<b>Section 5: Analyzing Hospital Services</b>	<b>TA 22</b>
<b>Section 6: State-Specific Issues</b>	<b>TA 23</b>
<b>References</b>	<b>TA 52</b>

## LIST OF FIGURES

- TA.1 Medical Price and Utilization: Analytic Framework / TA 24
- TA.2 Defining Provider Type and Service Group / TA 25
- TA.3 A Comparison of Interstate Rankings Based on Medical Payments per Claim: CompScope™  
Medical and CompScope™, 2012/2013 Claims with More Than 7 Days of Lost Time, Adjusted for  
Injury and Industry Mix / TA 26

## LIST OF TABLES

TA.1	Defining CompScope™ Medical Measures / TA 27
TA.2	Claim Volume and Representation by State, 2012/2013 Indemnity Claims / TA 31
TA.3	Effect of Selecting a Subset of Claims with More Than 7 Days of Lost Time, 2012/2013 Claims / TA 32
TA.4	Estimated Population Distribution of Market Segment by State, 2012 Indemnity Claims / TA 33
TA.5	Industry Categories / TA 34
TA.6	Case-Mix Adjustment Example: Distribution of Percentage of Claims by Injury and Industry in California, 2012/2013 Claims with More Than 7 Days of Lost Time / TA 35
TA.7	Effect of Data Capping on Medical Payments, 2012/2013 Claims with More Than 7 Days of Lost Time / TA 36
TA.8	A Comparison of Trend Results: CompScope™ Medical and CompScope™, Claims with More Than 7 Days of Lost Time at 12 Months' Maturity, 2007/2008–2012/2013, Not Adjusted for Injury and Industry Mix / TA 37
TA.9	A Comparison of Claim Characteristics: CompScope™ Medical and CompScope™, 2012/2013 Claims with More Than 7 Days of Lost Time / TA 38
TA.10a	Summary of Medical Payment Distribution for Group A and Group B Procedures by Provider Type, 2012/2013 Claims with More Than 7 Days of Lost Time / TA 40
TA.10b	Percentage of Claims with Group A and Group B Procedures by Provider Type, 2012/2013 Claims with More Than 7 Days of Lost Time / TA 42
TA.11	Description of Marketbasket Contents / TA 44
TA.12	Sensitivity Test: Percentage of Nonhospital Expenditures Captured by the Marketbasket, Calendar Year 2012 / TA 45
TA.13	Marketbasket Procedure Codes and Descriptions / TA 46
TA.14	Interstate Comparability Concerns / TA 50



In this *Technical Appendix*, we describe in detail the concepts, measures, data, and methods used to construct benchmarking metrics reported in the CompScope™ Medical Benchmarks individual state reports, including how the price and utilization indices were created. Individual state reports summarize state-specific results and provide a summary description of our methodological approach.

## ORGANIZATION

This *Technical Appendix* is organized into six sections:

- **Section 1: Conceptual framework:** This section describes the conceptual framework that serves as the basis for formulating the measures used to analyze the cost and utilization of medical care in state workers' compensation systems, including the classification of medical services by provider type and by service group.
- **Section 2: Data set development:** This section describes how the data were developed. It covers methods for cleaning the data, establishing proper weights, and checking validity.
- **Section 3: Methods to construct the price index:** This section describes the marketbasket approach we used to construct the price index for nonhospital services. We discuss marketbasket procedures, frequency weights, and computation procedures.
- **Section 4: Methods to construct the utilization index:** This section describes the construction of the utilization index for nonhospital services. We discuss weighting procedures to include relative value unit (RVU) weights as well as computational procedures.
- **Section 5: Analyzing hospital services:** This section describes the approach used to analyze medical payments for hospital outpatient services and inpatient episodes.
- **Section 6: State-specific issues:** In this section, we discuss other technical, methodological, and comparability issues we encountered in the study that are specific to individual states.

## SECTION 1: CONCEPTUAL FRAMEWORK

### ANALYTIC APPROACH

*CompScope™ Medical Benchmarks, 15th Edition* examines the key components underlying the medical costs per claim for medical services provided to injured workers. It is important to note that most cost measures are on a per-claim basis. The CompScope™ Medical Benchmarks study helps to identify key service areas contributing to overall medical costs per claim, by provider type and by service group, to determine whether it is price, utilization, or both that influences medical costs per claim. Figure TA.1 depicts the basic analytic framework applied in this 15th edition of the study.

At the most basic level, medical costs per claim are equal to the price of a medical service multiplied by the number of times that service was provided. Costs could thus change because of changes in prices or changes in utilization of services.

If all services were the same, it would be relatively straightforward to decompose any rise in costs per claim between utilization (i.e., number of services) and price. Complicating the matter, however, is that each claim has a unique mix of services. Therefore, utilization can affect costs per claim in two ways: a change in the number of services and a change in the types of services provided.

To control for differences in service mix when estimating unit prices, we construct the price index for

nonhospital providers. With this approach, the differences in prices for physical medicine services, for example, reflect the differences in unit prices of individual Current Procedural Terminology (CPT) procedures, holding quantity and service mix constant.<sup>1</sup>

To accurately represent utilization per claim—that is, the volume and resource intensity of services provided when a particular provider bills for at least one service—we construct a utilization index. The utilization index incorporates several aspects of medical care as shown in Figure TA.1, including number of visits per claim, number of services per visit, and the resource intensity of the services. The utilization index is computed as the number of services per claim weighted by the relative value unit (RVU). The resource intensity measures the relative complexity for a mix of services based on different resources required or different intensities of resource usage, such as time and effort of medical providers, equipment, facilities, and other overhead. If a combination of services required more resources than typical, utilization would be more intense than the volume alone would have indicated. This would be captured by a positive resource-intensity indicator. The methods used to construct the price and utilization indices are discussed in detail in Sections 3 and 4 of this *Technical Appendix*.<sup>2</sup>

Although this approach provides more rigorous analysis of price and utilization than if we were to simply decompose the average costs into average payment per service times volume of services, we should note that the changes or differences in the components of price and utilization will not necessarily add up to the changes in average medical payments per claim. The following section explains more on this issue.

To maintain the accuracy of the price and utilization indices, we exclude services for which accurate unit prices and/or unit-resource values could not be determined. Those services (for example, supplies) have broadly defined CPT or revenue codes. The services included in the construction of the price and utilization indices, the Group A services (see the discussion under “Classification of Provider Types and Service Groups”), make up 51 to 74 percent of total medical payments to nonhospital providers (depending on the state) and are representative of the services included in most states.

As mentioned earlier, we apply the analysis of the price and utilization indices to nonhospital services. For hospital outpatient services, because the revenue codes often used in hospital billing are too broadly defined to support a robust marketbasket of services and an estimate of the relative intensity of services, we report the average payment per service and number of services per claim. For hospital inpatient services, we rely on payments per episode for the medical costs and utilization analysis (see Section 5 for more detail).

#### **DECOMPOSING THE TREND IN THE AVERAGE MEDICAL PAYMENT PER CLAIM INTO CHANGES IN PRICE AND UTILIZATION**

Compared with an approach reporting payments per service and services per claim directly, our price-index approach more accurately reflects unit-price differences and price changes within a state by holding utilization constant, and our utilization-index approach more accurately reflects differences or changes in utilization by taking the resource intensity of services provided into consideration (see Sections 3 and 4).

There is, however, a necessary trade-off between separating costs directly into average payment per service and volume of services and using the price and utilization indices. We have chosen the latter as our

---

<sup>1</sup> Each CPT code identifies an individual medical procedure. See *Current Procedural Terminology*, published annually by the American Medical Association.

<sup>2</sup> It is important to note that there is another measure of utilization—the percentage of claims with a specific provider type or service group involvement (see Figure TA.1). The percentage of claims with a specific provider type or service group is not explicitly factored into the utilization index. Rather, it is discussed separately.

goal because it allows for better comparability across states. For this reason, as previously described, only services for which accurate unit prices and/or unit-resource values can be measured are included in the price and utilization indices. In addition, to hold the mix of services constant across states, we adopt the marketbasket method. To better capture the impact of price regulation changes that often come into effect by calendar year, we chose to base our price index on the calendar year instead of an injury/evaluation year, which is used for all other measures. Our utilization index takes the resource intensity of services into consideration by weighting the volume of services by the RVUs of those services. Because of all these factors, the changes in average medical payment over time are not simply the products of the changes in the price index and the utilization index.

Although the tables that contain average payment per claim and the price and utilization indices often “add up,” this should not be expected to be the norm. Rather, the price and utilization indices are independent measures that provide the most comparable measures of both a state’s relative prices and price changes over time, and a state’s relative utilization and utilization changes over time.

#### **CLASSIFICATION OF PROVIDER TYPES AND SERVICE GROUPS**

In examining medical costs and utilization, it is important to distinguish between services delivered by hospital providers and nonhospital providers for three reasons. First, individual services billed by hospital providers are more difficult to identify than are those billed by nonhospital providers. Second, service groups are not comparable across the two provider types. Third, policy considerations also make it necessary to separate nonhospital providers from hospital providers because states often regulate the medical prices differently for the two.

Generally, states regulate the reimbursement rate for nonhospital providers by setting fee schedule rates based on CPT codes. This type of regulation can also affect some hospital providers to the extent that they bill using CPT codes. State regulation of hospital inpatient prices often takes the form of per diem rates, diagnosis-related groups (DRGs), or percentage discounts from charges.<sup>3</sup> Prices for hospital outpatient services take many forms and are often regulated based on charges, ambulatory payment classification (APC) groups, or not at all.<sup>4</sup>

Figure TA.2 shows how medical services are grouped, by provider type and service group. At the top level, medical goods and services are grouped into two broad categories of provider type: nonhospital and hospital providers. The figure also includes a third provider type, unknown providers, which are providers whose specialty or provider type cannot be identified.<sup>5</sup> The unknown provider group is small, accounting for 0.2 to 1.5 percent of the medical payments, depending on the state.

Figure TA.2 also shows the detailed breakout within the nonhospital provider and hospital provider

---

<sup>3</sup> DRG is a classification system that groups patients’ medical conditions into approximately 500 mutually exclusive and exhaustive disease categories or groups.

<sup>4</sup> APC is a classification system that groups procedures into approximately 800 mutually exclusive groups based on the resource mix required to perform the procedures.

<sup>5</sup> We identify provider type using company-specific codes indicating provider specialty. When the information needed to identify provider specialties was either missing or ambiguous, we used the master provider table, which we established based on the available data, to match providers with the same tax identification number for maximum identification of provider type. It is important to note that the provider type was identified as the billing source in each case. For example, sometimes a physician who was part of a hospital network billed through the hospital and therefore was identified as a hospital provider. The extent to which a billing source was not the actual provider may have had an impact on the comparability of the groups.

groups. For nonhospital providers, we group services by provider type and service group. There are four nonhospital provider types: physician, chiropractor, physical or occupational therapist (PT/OT), and other nonhospital providers. The physician category includes surgeons, general practitioners, radiologists, family practice physicians, psychiatrists, and other recognized medical doctors, such as doctors of osteopathic medicine. Chiropractor and PT/OT are mutually exclusive categories. Other nonhospital providers include nurses, clinical social workers, and other ancillary practitioners.

We classify all services provided by nonhospital providers into 17 service groups, including, but not limited to, emergency, evaluation and management, major radiology, minor radiology, neurological and neuromuscular testing, laboratory, physical medicine, major surgery, and pain management injections. As noted in Figure TA.2, we have two broad service groups for nonhospital services: Group A and Group B. Only the Group A services were included in the analysis of price and utilization indices. The Group B services were not reported for the price and utilization indices, but included in the overall average payment per claim. For multistate comparisons, we report the percentage of claims and the percentage of payments for the Group B services altogether. These services mainly include anesthesia, drugs, legal and special reports, supplies and equipment, miscellaneous services billed by stand-alone ambulatory surgical centers, and other miscellaneous defined medical and/or diagnostic services and testing. We did not report the Group B services for the price and utilization indices because these services are too broadly defined and have large variations that prevent us from constructing price and utilization indices. See Section 3 for detail on the volume of Group B procedures.

Hospital providers include facilities, trauma centers, and inpatient and outpatient hospital treatment centers. As Figure TA.2 shows, we divided hospital services into hospital outpatient services and hospital inpatient services. The hospital outpatient services were further separated into 15 outpatient service groups including, but not limited to, clinic/evaluation and management, emergency, laboratory, major radiology, minor radiology, operating room, and physical medicine. Like Group B of the nonhospital services, hospital outpatient services in Group B were excluded from the detailed analysis of the payments per service and services per claim but were included in overall medical payments. For multistate comparisons, we report the average medical payment per claim, the percentage of claims and the percentage of payments for the Group B services altogether. These services mainly include miscellaneous hospital ambulatory surgical care, supplies and equipment, undefined hospital outpatient services, hospital drugs/pharmaceuticals, and other miscellaneous defined medical and/or diagnostic services and testing.

Hospital inpatient care is a unique area in terms of billing practices. We did not classify inpatient services into specific groups. Instead, we measured inpatient services by inpatient episode or hospital overnight stays. These episode costs are defined as all payments made to the hospital during the period of the inpatient stay as identified by the presence of room and board charges (see Section 5 for more detail).

#### **MEASURES USED IN THE COMPSCOPE™ MEDICAL BENCHMARKS**

Table TA.1 lists the CompScope™ Medical Benchmarks measures we used in the state reports. As the table shows, the measures are summarized in terms of medical area of analysis. We started with overall medical costs per claim for all paid claims, claims with more than seven days of lost time, and claims with less than or equal to seven days of lost time. The analyses in the state reports mainly focus on measures for claims with more than seven days of lost time and on claims with an average of 12 months of experience. However, for inpatient analysis, we used claims with 24 months of experience. We note in the report and tables where there may be differences in the benchmark analysis based on longer duration claims—those with, on average, 36

months of experience.

In addition to analysis of nonhospital providers, hospital outpatient services, and hospital inpatient services, we report results on cost and utilization measures that compare certain types of medical services by various providers. Physical medicine, for example, is one of the most common service groups in workers' compensation medical care. We compare the costs and utilization of physical medicine by chiropractors and other providers (mostly PT/OTs). Note that we have a separate list of measures for Group A and Group B services for nonhospital providers and hospital outpatient services.

## SECTION 2: DATA SET DEVELOPMENT

Constructing the analysis data is a critical step for any empirical study to ensure meaningful and credible results. In this section, we describe the steps taken to develop an accurate database that adequately represents all workers' compensation medical claims. These steps include

- establishing inclusion/exclusion criteria for claims selection;
- constructing a weighting system to ensure that the data are representative of the full market in a state;
- adjusting for injury and industry mix;
- data capping; and
- conducting verification checks to ensure reliability.

### WHAT'S NEW IN THE 15TH EDITION

Here is a summary of a few changes relevant to this 15th edition of the study.

**Decrease in utilization of neurological/neuromuscular testing services across most study states in 2012/2013 due to a change in the coding for nerve conduction studies:** In January 2013, Medicare implemented a fundamental change in the coding for nerve conduction studies. Previous procedure codes for sensory conduction studies, or motor conduction studies with or without an F-wave test or an H-reflex test, have been deleted (i.e., CPT codes 95900, 95903, 95904, 95934, 95936). Note that these deleted codes were the most commonly billed procedures in the neurological/neuromuscular testing service group. These deleted codes have been replaced with the CPT codes 95907 to 95913. Under the new coding system, a single nerve conduction study includes a sensory nerve conduction test, motor nerve conduction test with or without an F wave test, or an H-reflex test. The new rule also requires that each type of nerve conduction study is counted only once when multiple sites on the same nerve are stimulated or recorded, and the numbers of these separate tests should be added to determine which code to use. This change may have several implications. Most importantly, one may see a decrease in the number of neurological/neuromuscular testing services billed, as the old codes that previously could be billed multiple times have now been eliminated. The new coding system does not allow billing each individual new code multiple times, nor does it allow billing for multiple codes in any one visit. This change may also trigger a shift in the mix of procedures that medical providers provide or bill for, as other unchanged codes may be used more frequently. It may also lead to a decrease in supply of neurological/neuromuscular testing services in the long run, as some providers may choose to reduce the number of visits and the number of services offered for these or related procedures. Note that this change affects only three months of data in our latest valuation (2012/2013) and, as a result, the

changes in utilization and their magnitudes reflect very preliminary observations. Since some states chose to follow the Medicare code change while others continued to use the old codes during the first quarter of 2013, the change in utilization in 2012/2013 can be seen to a greater extent in the states that adopted the code change.

**Pain management injections service group code change:** Over the six-year study period there have been a number of code changes in the pain management injections service group. In order to enhance the continuity and consistency of the definition of the pain management injections service group, the number of CPT codes included in this service group has been expanded to include more codes in the 15th edition. This led to changes in most measures for this service group, such as, for example, higher average payment per claim for pain management injections services in the 15th edition compared with the 14th edition. However, the interstate comparisons and the relative rankings did not materially change for most study states.

#### **CLAIM INCLUSION OR EXCLUSION**

We created two analysis data sets in this 15th edition of the study: Data Set I supports analysis for overall medical costs and utilization and detailed analysis for nonhospital providers, and Data Set II supports detailed hospital analysis. The two data sets are not mutually exclusive; that is, one claim may be included in both data sets. Both data sets were extracted from the Detailed Benchmark/Evaluation (DBE) database.

#### **SUBSET OF CLAIMS WITH GOOD BILL REVIEW AND IDENTIFIABLE HOSPITAL SERVICES**

The detailed medical data used in the CompScope™ Medical Benchmarks study are from medical bills that went through each individual payor's bill review system. Because not all bills are sent for bill review, the bill payments recorded in the detailed medical data do not always add up to the total amount paid for medical treatments reported in the payment-transaction data. Additionally, some bills may have gone through bill review but have not yet been paid. The type and proportion of missing payments may vary from claim to claim, data source to data source, and state to state. To make sure that the detailed medical data for Data Set I adequately reflected all medical services provided in a state, we extracted the medical detail for claims with relatively complete bill review data. Specifically, a claim and its associated medical detail would be excluded from our analysis data if any of the following conditions held:

- Bill review data were completely missing for the claim.
- The total medical payments exceeded the total bill review payments by more than 20 percent of medical payments.
- The total bill review payments exceeded the total medical payments by more than 35 percent.<sup>6</sup>

To ensure the representativeness of the data, we also excluded a data source if the data source's claims with complete bill review data were deemed biased and did not represent all claims from that data source. That is, if the average medical payment of claims with complete bill review data was substantially higher or lower than the average medical payment across all claims (those with and without complete bill review data),

---

<sup>6</sup> The criterion was less strict for bill review data that exceeded the payment-transaction data. In some states, the transaction data were understated because providers were slow to bill or payors were slow to pay, which meant that the bill review data more accurately reflected the medical costs per claim.

the claims from that data source were not included. Following the good bill review and bias test exclusions, the relative share of claims from each data source in the sample may be altered from that in the population; thus share weights were applied to the sample to maintain the existing relative shares in the population.

For Data Set II, used in the detailed analysis of hospital services, we further excluded data sources for which hospital services could not be identified, in addition to the exclusions previously described. This occurred when the revenue codes were missing from a given data source. Although the size of Data Set II is smaller than the basic sample data set as a result of the additional exclusion, the sample data in Data Set II are still largely representative. Table TA.2 shows the indemnity-claim volume and representation of the population in each state for the two analysis data sets used in the 15th edition of the CompScope™ Medical Benchmarks study as well as the analysis data underlying the 15th edition of the CompScope™ study.<sup>7</sup>

As the table shows, Data Set I contains a total of 196,044 indemnity claims across the 16 states with injuries arising from October 2011 through September 2012, covering from 28 percent (Iowa) to 61 percent (Texas) of all indemnity claims in each state. Data Set II has a total of 114,893 indemnity claims arising from October 2011 through September 2012, representing from 12 percent (California) to 33 percent (Massachusetts or Texas) of all indemnity claims in each state. Notice that the CompScope™ data set represents a much larger proportion of claims in each state, from 39 percent in Arkansas to 73 percent in Texas. The difference in claims representation between the CompScope™ and CompScope™ Medical data sets is due to the claim exclusions described earlier to ensure the adequacy and representativeness of the data for the analysis. Despite a large reduction of the claim representation, we believe that the two CompScope™ Medical data sets are representative of the full workers' compensation market in each state, based on the result of the validity check described in the section titled "Comparing the Medical Payments and Other Claim Characteristics of the CompScope™ Medical and CompScope™ Data Sets."

#### SUBSET OF CLAIMS WITH MORE THAN SEVEN DAYS OF LOST TIME

The statutory waiting period for indemnity benefits varies from state to state at either three, five, or seven days. A state that has a three-day waiting period may have more indemnity claims that are less serious compared with a state that has a seven-day waiting period. To improve interstate comparability, we made adjustments for differences across the states in the statutory waiting period for indemnity claims by focusing on claims with more than seven days of lost time. Table TA.3 compares the average medical payment per claim for indemnity claims versus claims with more than seven days of lost time, and indicates what the number of days the statutory waiting period is for each of the 16 states. As the table shows, adjusting for waiting period had an impact on six states in which the statutory waiting period is less than seven days: California, Illinois, Iowa, Massachusetts, Minnesota, and Wisconsin. We used the medical payments per claim to demonstrate the effect of the waiting period. This adjustment of more than seven days of lost time reduced the percentage of indemnity claims by 2 to 4 percentage points and increased the average medical payment per claim by 6 to 17 percent in those six states.

---

<sup>7</sup> In Table TA.2, the number of claims in the two analysis data sets used in this CompScope™ Medical Benchmarks study is based on claims with more than seven days of lost time. The number of claims in the CompScope™ study is based on indemnity claims.

**WEIGHTING FOR MARKET SEGMENTS TO REPRESENT THE FULL MARKET**

Both Data Set I and Data Set II generally contain claims from all market segments in each state, including the voluntary market, self-insured market, residual market, and state-fund market, as applicable.<sup>8</sup> To make the sample data representative of the population in a state, we applied statistical techniques to weight the claims in the sample up or down to reflect the population proportions of the market segments in the state. Table TA.4 shows the market-segment proportions of all indemnity claims in 2012, by state.

The market-segment weight was calculated as a ratio of the market-segment proportion between the population claims and the CompScope™ Medical Benchmarks sample. Because claim volume changes over time, we calculated the market-segment weights by injury year within each state. For example, if the proportion of voluntary market claims was 70 percent in the state population and 48 percent in the CompScope™ Medical Benchmarks sample, the market-segment weight for voluntary claims would be 1.46.

**ADJUSTING FOR CASE MIX IN INJURY AND INDUSTRY DISTRIBUTION**

Injury and industry mix is a critical area in case-mix adjustment. Industry or occupation is often associated with the risk and severity of an injury. The nature of the injury influences how a claim is handled, the type and intensity of medical treatment, and outcomes. To the extent that two states have very different distributions of industry and injury, all else being equal, we would expect average and median costs per claim and its components to vary. To enhance the comparability of our data across states, we applied the injury and industry case-mix adjustment to the measures used in the interstate comparisons.

**MAPPING INJURY AND INDUSTRY GROUPS**

We mapped our sample data into 12 injury groups and seven industry groups. The 12 injury groups are spine (back and neck) sprains, strains, and nonspecific pain; other sprains and strains; carpal tunnel; fractures, lower extremity; fractures, upper extremity; inflammations; lacerations and contusions; hand laceration; knee derangement; neurological spine pain; skin; and other injuries. The seven industry groups are clerical and professional, construction, manufacturing, trade, high-risk services, low-risk services, and other industries. Table TA.5 lists the major components in each industry group.

We created the 12 injury groups based on two sources: primary International Classification of Diseases (ICD-9) codes from medical bills and a combination of nature of injury/body part reported by the insurance claims adjuster.<sup>9</sup> The ICD-9 codes provided the primary source of information in our injury mapping. In the event that ICD-9 codes were not populated or were ambiguous about either the medical condition or part of body, we used the nature of injury and body part reported by the insurance claims adjuster instead.<sup>10</sup> For the seven industry groups, we used the four-digit, industry-standard worker- and governing-class codes and

---

<sup>8</sup> One exception is California, where our sample is not sufficiently representative of all market segments in the state for detailed hospital outpatient measures (such as trends for specific outpatient service groups); thus we only show trends in overall hospital outpatient and inpatient measures in California.

<sup>9</sup> ICD-9 codes are published in Medicode's *International Classification of Diseases* (1998). The codes, which identify a patient's specific medical condition, are used for reimbursement purposes, so accuracy is critical. We define the primary ICD-9 code as the one that receives the most payments. Often a single ICD-9 code adequately identified the need for care; when necessary, we listed codes in order of importance.

<sup>10</sup> Our decision was based on WCRI research that shows that defining injury groups solely on the basis of part-of-body and nature-of-injury codes listed on first reports of injury underestimates the actual proportion of sprains, strains, and certain types of other injuries (Johnson, Baldwin, and Marcus, 1999).



standard industrial classification (SIC) codes.<sup>11</sup> For certain industries, we also used incidence rates, published by the Bureau of Labor Statistics, to further classify occupations that are in the same industry but bear very different risk factors.

#### ADJUSTING FOR INJURY AND INDUSTRY CASE MIX

The intent of the injury and industry mix adjustment is to adjust the sample of claims in each state so that the claim distribution across injury and industry categories looks the same across the states. To accomplish this goal, we first determined the distribution of claims by injury and industry combinations for the pooled sample of the 16 states and for the sample claims in each individual state, based on claims with more than seven days of lost time. Next, we compared the sample distribution in each state to the pooled state distribution and calculated a unique set of injury and industry weights for each state as a ratio of the injury and industry proportion between the pooled sample of the 16 states and the sample of claims for each state. Finally, we used those weights to adjust the sample of claims in each state in calculating the performance measures, so that the measures reflect an injury and industry mix that is constant across the states.

Table TA.6 provides an example to illustrate how we calculated the injury/industry weights, based on the subset of claims with more than seven days of lost time and with relatively complete bill review data. The top section of the table shows the *typical* case mix: the claim distribution of injury and industry groups in the 16-state, pooled sample. The middle section shows the claim distribution in California, and the bottom section shows the injury/industry weights we created for California. For each combination of injury and industry group, as the example shows, we basically divided the claim proportion in the 16-state, pooled sample by the claim proportion in California. Note that to ensure equal representation of states in the WCRI sample (i.e., that no state is over- or under-represented in the sample due to its size), we weighted each state to have an equal share in the pooled sample.

In addition, we realize that our industry groups cover a broad spectrum of risk. This is especially true of manufacturing. The risk of injury inherent in a company that builds computer chips, for example, is substantially less than the risk in a steel fabrication plant. Further disaggregation within each group would increase the accuracy of the adjustments. Unfortunately, despite the large volume of claims in the DBE database, adjusting for industry at a finer level of detail would make cell sizes too small to allow reliable analysis. This is especially true when we combine the injury and industry adjustment with the other adjustments we make to improve comparability across the states.

#### DATA CAPPING

A small proportion of the claims in the data had unusually large values in medical payments. While these are legitimate claims and payments, the extreme values contributed disproportionately to the average because the distribution was skewed. To mitigate the influence of the extreme values on the average medical payments, we applied data capping. We established the upper bound of the data capping within each state and by injury and

---

<sup>11</sup> A workers' compensation claim is assigned a classification code based on the injured worker's occupation and the payroll exposure reports of the employer. Classification codes in most states are defined using a common set of basic classifications subject to individual state exceptions, but some states use independently established sets of basic classifications. In Pennsylvania, for example, classification codes are set out in the Pennsylvania Compensation Rating Bureau's *Pennsylvania Basic Manual*. To convert the Pennsylvania codes to industry-standard codes, we used a classification comparison provided to us by the rating bureau.

evaluation year for each measure. The threshold was set as the dollar amount at the 99th percentile of the variable multiplied by a factor of five. We capped the dollar amount at the threshold if the original value was greater than the threshold. We also established the lower bound of the data capping to exclude claims with extremely small values in medical payments since they are likely to be data errors. The threshold was set as the dollar amount at half of the first percentile of the variable for most service and provider groups. For major surgeries, the threshold was set at the dollar amount at the second percentile of the variable.

For hospital inpatient services, we constructed the analysis data to reflect hospital inpatient stays so that each record corresponded to a hospital inpatient stay or inpatient episode. The threshold for the upper bound for hospital measures was set as the dollar amount at the 95th percentile of the variable multiplied by a factor of five. In addition to capping medical payments as described above, we excluded the inpatient records if the amount paid for an inpatient episode was below \$300 (a level deemed not likely to include all costs associated with an inpatient stay).

Table TA.7 shows the effect of the data capping on medical payments overall, by provider type for nonhospital providers, and by inpatient and outpatient care for hospital providers. In general, capping affected a small percentage of claims with more than seven days of lost time, ranging from minimal to 2.5 percent. The differences in medical payments per claim before and after capping were generally within 1.4 percentage points across states for most nonhospital providers (such as physicians, chiropractors, and physical therapists), and within 15 percentage points for hospitals and for other nonhospital providers.

#### **COMPARING THE MEDICAL PAYMENTS AND OTHER CLAIM CHARACTERISTICS OF THE COMPSCOPE™ MEDICAL AND COMPSCOPE™ DATA SETS**

We used the CompScope™ analysis data for the overall medical payments per claim as a reference point to validate the sample data we used in the CompScope™ Medical Benchmarks study. Figure TA.3 provides the results of a comparison of interstate rankings based on the average medical payment per claim in the 15th edition of the CompScope™ study and the average bill review payment per claim from this CompScope™ Medical analysis data. The medical payments used in the CompScope™ study are based on the payment transactions recorded in payors' data systems, and the bill review payments are from the detailed medical bill review data. In the state reports, we often use the term *medical payments* to refer to the bill review payments in the detailed analysis. However, we make this distinction here when we discuss potential selection issues. Note that the interstate ranking of the study states based on the average medical payment for claims included in the CompScope™ report and the ranking based on the average bill review payment per claim from this CompScope™ Medical report are essentially the same.

As Figure TA.3 shows, the relative rankings of states do not change materially whether the rankings are based on CompScope™ Medical analysis data or on CompScope™ analysis data. In other words, if a state was in the lower or higher group of states based on the CompScope™ Medical analysis data, it was also in the lower or higher group of states based on the CompScope™ analysis data. The median state values based on CompScope™ Medical analysis data and on CompScope™ analysis data were very similar (the difference in medians was 2.0 percent). We also compared the annual average percentage change on medical payments per claim between the CompScope™ data and the CompScope™ Medical data during the 2007/2008 to 2012/2013 study period. As shown in Table TA.8, the trend results matched well for all states, as the differences in trends were within 1.7 percentage points. Readers should keep these differences in mind when reviewing the detailed medical benchmarks for a given state. These differences come from several sources. First, claim inclusion and

exclusion were different between the two types of analysis data. Second, not all medical bills underwent bill review. Third, on occasion, information from the bill review process did not reach WCRI. Fourth, a time lag occurred between bill review and payment.

In addition to comparing average medical payments per claim, we compared the results on key claim characteristics between the CompScope™ data and the CompScope™ Medical data to further test the representativeness of the sample used in this analysis. As Table TA.9 shows, the CompScope™ data and the CompScope™ Medical data yield very similar results on injured workers' age and gender and on the mix of claims in terms of injury and occupation.

## SECTION 3: METHODS TO CONSTRUCT THE PRICE INDEX

### ESTABLISHING THE MARKETBASKET

To isolate price trends and interstate differences in price independently from utilization, we created a price index that measures unit-price differences. To construct the price index, we used the marketbasket approach. Two major steps are involved in this approach: developing a marketbasket that captures common procedures, and computing a price index based on the prices for individual procedures selected in the marketbasket. It is important to note that we only use a price-index method for services provided by nonhospital providers. Because revenue codes used in a hospital setting (both outpatient and inpatient) are too broadly defined to support a robust marketbasket of services, we report the average payment per service and number of services per claim for services provided in hospital outpatient and inpatient settings, described in Section 5.

A key feature of the price index is to isolate the differences or changes in price from those in utilization. We do this by holding utilization constant across the states or across the index years. To do so, we applied the same marketbasket of services to each state, and we created weights at two levels: the individual procedure level and the service-group level. We used frequency weights to calculate average price across the marketbasket procedures within each service group. Then we used service-group-frequency weights to aggregate the price from service groups to overall provider level.

It is critical to have a set of well-balanced detailed medical data to develop a marketbasket that adequately represents all goods or services in a market. To create such a data set and avoid potential bias in services and expenditure distribution, we selected the medical bill review data associated with claims with relatively complete bill review data, and we selected companies in which the claims with complete bill review data represented all claims from the same company. The percent of overall expenditures in the state-pooled data and the percent of total expenditures across the study states in 2012 represented by the medical services in the marketbasket by service group are shown in Tables TA.11 and TA.12.

### SELECTING MARKETBASKET CODES

The marketbasket for nonhospital services contains a set of procedures commonly provided in nonhospital settings, often recorded using CPT codes. The marketbasket procedure codes (CPT codes) were selected within a service group based on the rankings of the total expenditures associated with the codes. As discussed earlier in Section 1, we separated the 17 nonhospital service groups into Group A and Group B (see Figure TA.2 for the groupings). The marketbasket procedures were selected from service groups in Group A only; Group B services were excluded from the price-index analysis because the inherent large variations among those broadly defined services prevent us from accurately measuring unit price.

Table TA.10a shows that the Group A services made up 48 to 79 percent of the payments to physicians, and in general more than 80 percent of the payments to chiropractors or physical therapists, depending on the state. Most Group B services billed by physicians were for anesthesia, supplies, miscellaneous ambulatory surgical care, and other services. In California and Texas, special reports also made up a substantial portion of the Group B services billed by physicians. Beginning with the 14th edition of CompScope™ Medical Benchmarks, we are able to better identify facility fees for stand-alone ambulatory surgical centers (ASCs). Since stand-alone ASCs are included in the physician provider group, the percentage of payments for facility (i.e., treatment/operating/recovery room) services under the medical doctor provider group in the 14th and 15th editions was relatively higher than that in the previous editions. For providers classified as other providers (for example, equipment suppliers), most of the payments are for Group B services.

For each of the eight service groups in Group A, we selected the most common medical procedure codes (based on the rankings of the total expenditures associated with the codes) so that at least 85 percent of expenditures in each service group were represented by selected codes.<sup>12</sup> There were three exceptions: major surgery, pain management injections, and minor radiology, where the codes in the marketbasket captured 40, 59, and 67 percent of total expenditures in those groups, respectively (see Table TA. 11). This is because there was a broader list of codes in these groups and adding additional codes adds only a small percentage of payments each time. Overall, the marketbasket includes 118 unique procedure codes included in the price analysis (see Table TA.11). Table TA.13 provides the full list of procedure codes included in the marketbasket and their descriptions.

Two things are worth noting regarding the procedure codes: (1) most state-specific CPT codes are converted and crosswalked to standard CPT codes, and (2) some CPT codes become obsolete and are replaced by new codes over the period of our analysis. First, some states (such as California, Louisiana, Massachusetts, North Carolina, and Texas) have their own state-specific codes for some services. For those states, we crosswalked the state-specific codes to the common definitions wherever possible. When we could not do this, we excluded the services from the analysis. For example, in Louisiana, where physical medicine services by physical therapists are billed using state-specific PT/OT codes, we mapped Louisiana code PT010/OT010 for hot or cold packs to CPT code 97010. Louisiana's PT/OT codes for therapeutic exercises or activities could not be mapped and thus were not included in the price analysis. Because of this, the services in the marketbasket for Louisiana for physical medicine make up just 64 percent of the physical medicine expenditures rather than 82 to 98 percent as seen in other states in 2012 (see Table TA.12). Second, to maintain the continuity of the same services identified by the CPT codes, we combined certain CPT codes to reflect changes in the coding system over the study period. For example, codes 97250, 97260, 97261, and 97265 were combined with 97140 (manual therapy techniques, a new code introduced in the 1999 CPT manual) and labeled as 97140 in our analysis.

#### COMPUTING MARKETBASKET WEIGHTS

The procedure-level frequency weight for a marketbasket code was calculated as the total number of services with the code divided by the total number of services across all marketbasket procedures within the service group. The frequency weight for a service group is the percentage of the total count of nonhospital services

<sup>12</sup> Expenditure is the product of price per service and number of services. By using the expenditure (rather than frequency) in the ranking, we put more weight on both more expensive and less expensive but frequent procedures.

associated with this service group divided by the total count of all nonhospital services. Because we selected the marketbasket codes from the pooled data of study states, one may be concerned that the distribution of service frequencies in relatively larger states (such as California and Texas) might dominate the whole distribution in the pooled data and hence introduce potential bias in the marketbasket weights. To prevent this, we further adjusted for the differences in the mix of service frequencies across the states in the pooled data, so that each state had essentially the same influence in the computation of marketbasket weights.

Another important issue is whether the selected marketbasket codes based on the pooled data were representative for each of the states. Table TA.12 shows the result of a sensitivity test for the marketbasket. The nonhospital marketbasket represents 79 to 98 percent of the included expenditures for emergency, evaluation and management, major radiology, neurological/neuromuscular testing, and physical medicine services, with the exception of Louisiana. As previously noted, Louisiana has several physical medicine codes with a large amount of dollars that cannot be crosswalked to the common CPT codes. As a result, the marketbasket codes selected only cover 64 percent of the total physical medicine payments in Louisiana in 2012. The exclusions in Louisiana are basically therapeutic exercises and activities; other physical medicine categories are well represented. The marketbasket represents 66 to 82 percent of the included expenditures for minor radiology, 51 to 79 percent of the included expenditures for pain management injections, and 32 to 52 percent of the included expenditures for surgery services.

#### **COMPUTING PRICE AND PRICE INDEX**

Based on the established marketbasket, we computed the unit prices and price indices for the medical services represented by the marketbasket procedures. The following is the summary of the major computation steps:

- Determine calendar year prices for individual procedure codes by computing average amount paid for individual procedures selected in the marketbasket.
- Determine aggregate prices across marketbasket codes within a service group by using the procedure-level frequency weights.
- Calculate the price at overall provider group level by using the service-group-frequency weights to get the weighted average price across all service groups.
- For interstate comparisons, calculate price indices against the 16-state median prices at both service-group and overall provider-group levels for each state.

Note that the service-group-frequency weights are the share of the number of services within each service group as a percentage of the total number of all professional services in the eight service groups, not limited to procedures captured by the marketbasket. Hence, the computed state-level indices reflect the relative importance of each service group as observed in the data and not distorted by differences in the proportion of services captured in the marketbasket for each service group. In particular, the marketbasket procedures for major surgery represented a substantially smaller fraction of all major surgery services than the marketbasket procedures for other service groups. If price growth for surgical services was higher than for other services in a state, the state-level price index would have underestimated the actual price growth if the frequency of the surgical services were based on services selected in the marketbasket.<sup>13</sup>

---

<sup>13</sup> This approach implicitly relies on an assumption that the price trends of services captured in the marketbasket for each service group are representative of all services observed in the data for a respective service group.

A few issues are worth noting regarding the computation of the unit price and the price index. First, we sometimes observed that the amount paid for an individual service (i.e., a unique procedure code) showed an unusual pattern. To ensure meaningful results, we applied a *price data cleaning* technique to trim the *outlier* values at two extremes of the distribution of the paid amounts across all services with the same procedure code. The price data cleaning algorithm identified unreasonable increases from one percentile to the next and capped the amounts paid beyond the point of increase.<sup>14</sup>

Second, some services, such as physical medicine modalities and procedures and neurological/neuromuscular testing services, may be billed in multiple units. For example, a nerve test that is done on five nerves can be billed as one single line item. The corresponding CPT code would be for just one nerve but the amount paid would be for five nerves. Another example is the therapeutic exercise CPT 97110, which is normally billed for every 15 minutes of treatment. Sometimes there were no accurate indications of how many units of service were provided. Hence it is necessary to adjust the data for these multiple-unit billings. To identify the correct number of units of service, we determined the *prevailing prices* for each physical medicine procedure or neurological/neuromuscular testing service. Prevailing price, by definition, is one or more of the most frequently paid prices for each procedure code picked at a data-source and service-calendar-year level. Once prevailing prices were picked, we then checked line items with that service against those prevailing prices. If the amount paid in a single line item was a whole multiple of any of the prevailing prices, we used the matched prevailing price to inflate that single line item to multiple line items.

Third, radiology services are often billed separately for the technical versus professional components. For the same procedure, these components are paid at different levels—usually 10 to 30 percent of the price for the whole procedure is paid for the professional component, and 70 to 90 percent for the technical component. Since the codes' identifying modifiers are often missing, we applied an algorithm to identify medical bill line items for the professional component for major and minor radiology services. The algorithm used a regulation-driven method for states with fee schedules and a data-driven method for states without fee schedules. Then we estimated the prices paid for the professional component separately from the prices paid for the technical component or the whole procedure.

Fourth, surgical procedures also have a set of commonly used modifiers to identify modified or reduced payments for surgical procedures. In particular, in the case of multiple surgical procedures performed at the same operative session, modifiers indicate which surgical procedure was primary. Additional or non-primary surgical procedures are commonly reimbursed at about 50 percent of the full rate—the rate at which the same procedure is reimbursed when performed as primary by a primary surgeon.<sup>15</sup> Also, modifiers are used to identify payments for services of a primary surgeon versus assistant surgeon. Services of an assistant surgeon are typically reimbursed at about 15–25 percent of the full rate. Unfortunately, the modifiers are not always consistently and accurately reported in the data, and they are often missing. Because of the incompleteness of the modifiers, we focus on the prices paid for services of a primary surgeon performing the primary surgery procedure only.

Beginning with the 14th edition of the study, we updated the algorithm to isolate the payments to the

<sup>14</sup> The algorithm starts at the 90th percentile of the price distribution for a unique procedure and searches upward through percentiles, one by one, until the upper bound is set or the maximum is reached. The upper bound is set to  $1.2 \times P_i$  if the ratio of  $P_{i+1}$  to  $P_i$  is greater than 1.5. For the lower bound, the algorithm starts at the 10th percentile and searches downward through percentiles, one by one, until the lower bound is set ( $0.8 \times P_i$  if the ratio of  $P_i$  to  $P_{i-1}$  is greater than 2) or the minimum is reached.

<sup>15</sup> The discount rates for reduced payments are based on state fee schedule regulations.

primary surgeon for the primary procedure. This algorithm has two steps. First, following reimbursement rules establishing discounted rates for secondary procedures and services of assistant surgeons, we considered all surgical services provided on a surgery day and kept the one with the highest payment. This approach removed reduced payments for non-primary surgical services and payments for assistant surgeon services. Second, incomplete billing information, especially missing payments for the primary surgery for the primary surgeon services, was likely to result in discounted payments to remain in the price distribution prior to the second step. Therefore, we removed unusually high values and remaining reduced payments. The developed trimming method relied on the estimated threshold of the maximum price for modified services for each surgical procedure code in a state and eliminated all payments below this threshold as modified payments. Since non-primary surgical procedures are commonly reimbursed at about 50 percent of the full rate, and services of an assistant surgeon are typically reimbursed at about 15–25 percent of the full rate, the threshold of the maximum price for modified services was computed as 50 percent of the full fee schedule rate for a particular procedure in a fee schedule state. For non-fee schedule states, since a fee schedule rate was not available, we relied on a typical price observed for the primary procedure performed by a primary surgeon, which was computed in the earlier step, by keeping the most expensive procedure for each operative session. Hence, in order to compute maximum price for modified services for each surgical procedure in a state without a fee schedule, the threshold was defined as 50 percent of the median of the paid price for primary procedures as identified after the first step. To address the issue of misclassified facility payments, the trimming technique restricted the final price distribution by eliminating surgical procedures with payments above 2.5 times the full fee schedule rate for a particular procedure for a fee schedule state.<sup>16</sup> In non-fee schedule states, we relied on the typical price observed for the primary procedure performed by a primary surgeon as identified in the first step. Hence, to exclude misclassified facility payments for each surgical procedure in a state without a fee schedule, prices above 2.5 times the median price for primary procedures were dropped from the analysis. The average price paid for each marketbasket surgical procedure in a state was computed based on the final trimmed distribution of prices paid to the primary surgeon performing the primary procedure.

Fifth, it is also common to have multiple pain management injection procedures during a single visit, and some of the multiple procedures can be subject to a reduced reimbursement rule. In some cases, the multiple procedure codes (CPTs) billed during a visit are multiple levels of the same procedure, where the single level and each additional level are recorded under different CPTs. Typically, billing multiple units is not allowed under single-level procedure codes. However, billing for multiple services associated with procedure codes identified as “each additional level” is common and requires a modifier 59 (an indication that an additional procedure was provided during the same visit and it should be reimbursed at a reduced rate).<sup>17</sup> In this case, a reduced reimbursement rule for multiple procedures will apply. It is also possible to have different multiple pain management injection procedures during a single visit, which are also likely to be subject to a

---

<sup>16</sup> Fee schedule rates for facility services associated with common surgeries are substantially greater than the fee schedule amounts for the relevant professional services of surgeons. In particular, in 2009, the Texas fee schedule rate for facility services related to common shoulder arthroscopy (APC=42 or CPT=29826) was \$6,472, while the fee schedule rate for surgeon’s services was \$1,143 (see Coomer and Liu, 2010; and Coomer, 2010a). In Tennessee, the facility rate associated with common shoulder arthroscopy was \$4,679 versus \$1,668 for the relevant professional services.

<sup>17</sup> For example, a physician would be paid at the full rate for one injection into the lumbar/sacral spine per visit. However, if the physician administers a pain injection into the cervical/thoracic spine during the same visit, this procedure would be paid at a reduced rate. To indicate to the payor that the procedure should be compensated, the line for the second injection should include modifier 59.

reduced reimbursement rule for secondary procedures. Similar to the methods applied to surgical procedures, to isolate full prices paid for the pain management injection procedures in the marketbasket, we focused on the prices paid for a primary pain management injection procedure during a visit, since it is not subject to a reduced reimbursement rule. To isolate the payments for the primary procedure, we considered all pain management injections administered during a single visit and kept the one with the highest payment. To remove outliers for pain management injection procedures, we excluded 5 percent of the primary services at the low end of the price distribution and 10 percent at the upper end of the price distribution for each procedure, year, and state.<sup>18</sup>

Sixth, Medicare implemented a fundamental change in 2013 in the coding for nerve conduction studies. Previous procedure codes for sensory conduction studies, or motor conduction studies with or without an F-wave test or an H-reflex test, have been deleted (i.e., CPT codes 95900, 95903, 95904, 95934, 95936). These have been replaced with the following code couplets in the table on the next page. Under the new coding system, a single nerve conduction study includes a sensory nerve conduction test, motor nerve conduction test with or without an F-wave test, or an H-reflex test. The new rule also requires that each type of nerve conduction study is counted only once when multiple sites on the same nerve are stimulated or recorded, and the numbers of these separate tests should be added to determine which code to use. This code change affected the most commonly billed procedures in the neurological/neuromuscular testing service group. Some study states followed the Medicare code change while others continued using the old codes during the first quarter of 2013. There is no direct crosswalk between the old and new codes, and it is too early to evaluate the changes in billing and utilization patterns of the procedures based on available data, as this change affects only three months of data in our latest valuation (2012/2013). In a future study, we will examine the billing and utilization patterns of these new codes using data with longer experience and develop a method that can accommodate both the old and new coding systems.

<b>CPT Code</b>	<b>Definition</b>
95907	Nerve conduction studies; 1–2 studies
95908	Nerve conduction studies; 3–4 studies
95909	Nerve conduction studies; 5–6 studies
95910	Nerve conduction studies; 7–8 studies
95911	Nerve conduction studies; 9–10 studies
95912	Nerve conduction studies; 11–12 studies
95913	Nerve conduction studies; 13 or more studies

#### SECTION 4: METHODS TO CONSTRUCT THE UTILIZATION INDEX

The utilization index takes into account both the volume of services and the resource intensity of services (i.e., the relative complexity for a mix of services). It is defined as the weighted-average number of services per claim. The weights are the RVU values. As with the price index, we only included the Group A services (see Figure TA.2) in the utilization index analysis for the same reason as discussed earlier. However, for the

<sup>18</sup> A larger percentage of services were removed from the upper end of the price distribution to exclude misclassified facility payments.



utilization index, all procedures within a given Group A service were considered, rather than relying on the set of selected procedures in the marketbasket supporting the price index.

Comparability issues often arise from a simple comparison of the average number of services per claim in a state against the median state. Without adjusting for differences in case mix across the states, one could argue that a state with a higher number of services per claim may simply have more medically severe cases. We applied the injury and industry mix adjustment (described earlier) in constructing the utilization index and its components, such as volume of services, visits per claim, and services per visit. This adjustment, although not perfect, helps make an interstate comparison more meaningful.

Another comparability issue is related to the mix of services in terms of the intensity of resources utilized in providing those services. Different medical services often require different resources or different intensities of resource usage, including time and effort of medical providers, equipment, facilities, and other overhead. Assume two states treated similar conditions with a similar number of medical services (physical medicine, for example) but that most services used by one state were much less resource intensive than the ones used by the other. Then the simple average number of services per claim would be an overestimate of the actual utilization of medical services in the first state and an underestimate in the second state. We applied the RVU values as weights to reflect the differences in resource intensity of services provided across states.<sup>19</sup> The RVU data were obtained from the 2012 *Physician Fee Schedule (PFS) Relative Value Files* and then merged with the detailed medical analysis data for nonhospital services by matching the procedure codes (CPT codes).

The major steps we took to construct the utilization index for nonhospital services for the 16 states included in the study are as follows:

- Determine the number of services, from the detailed line items associated with good bill review claims,<sup>20</sup> for individual procedure codes.
- Aggregate the total number of services across procedure codes within a given service group, weighted by the RVU weights.
- Calculate the average number of services per claim by applying the RVU weights as well as the market-segment and injury/industry weights.
- For interstate comparisons, calculate utilization indices against the 16-state median utilization at both service-group and overall provider-group levels for each state.

The resource intensity measures the relative complexity for a mix of services based on different resources required or different intensities of resource usage, such as time and effort of medical providers, equipment, facilities, and other overhead. The resource intensity of services provided is responsible for the difference between the utilization index and the volume of services. It indicates the relative intensity of resources used in providing medical services in the interstate comparisons. For example, if the utilization index for neurological and neuromuscular testing services in a state was 118 and the volume was 105, then the resource intensity was 13. In other words, if one did not consider the relative intensity of resources used in providing the services, the volume of services in this state was fairly typical compared with the median of all study states. However, if

---

<sup>19</sup> RVU is a resource-based relative value system. A procedure that is less resource intensive has a lower relative value, and the relative value is higher for a procedure that is more resource intensive.

<sup>20</sup> The phrase, *good bill review claims*, refers to relatively complete bill review claims based on the criteria of total medical payments exceeding total bill review payments by not more than 20 percent, or total bill review payments exceeding total medical payments by not more than 35 percent.

one took the relative intensity of resources into consideration, the utilization of the services in this state was higher than the median of the study states. The factor that contributed to higher utilization in this state was higher resource intensity. A positive resource intensity number suggests that the mix of neurological and neuromuscular services provided in that state was more resource intensive relative to the median state in the study. This may be a result of a relatively larger proportion of procedures with higher relative resource-based values, such as intraoperative neurophysiology testing and electromyography to multiple extremities (CPT codes 95920 and 95861, respectively), and a smaller proportion of procedures with lower relative resource-based values, such as nerve conduction testing and motor and sensory testing (CPT codes 95903 and 95904, respectively). In the trend analysis, the changes in resource intensity capture the differences between the changes in utilization and sheer volume. For example, an increase in utilization combined with no change in the volume of services indicates that there were more resource-intensive procedures used during the period.

## SECTION 5: ANALYZING HOSPITAL SERVICES

In the CompScope™ Medical Benchmarks study, we separate services provided by hospitals into two sub-categories: services provided in hospital outpatient settings and services related to hospital inpatient stays (see Figure TA.2). For hospital outpatient services, because the revenue codes often used in hospital billing are too broadly defined to support a robust marketbasket of services and an estimate of the relative intensity of services, we decomposed medical payments into the average payment per service and number of services per claim, which we further decomposed into number of visits per claim and number of services per visit.

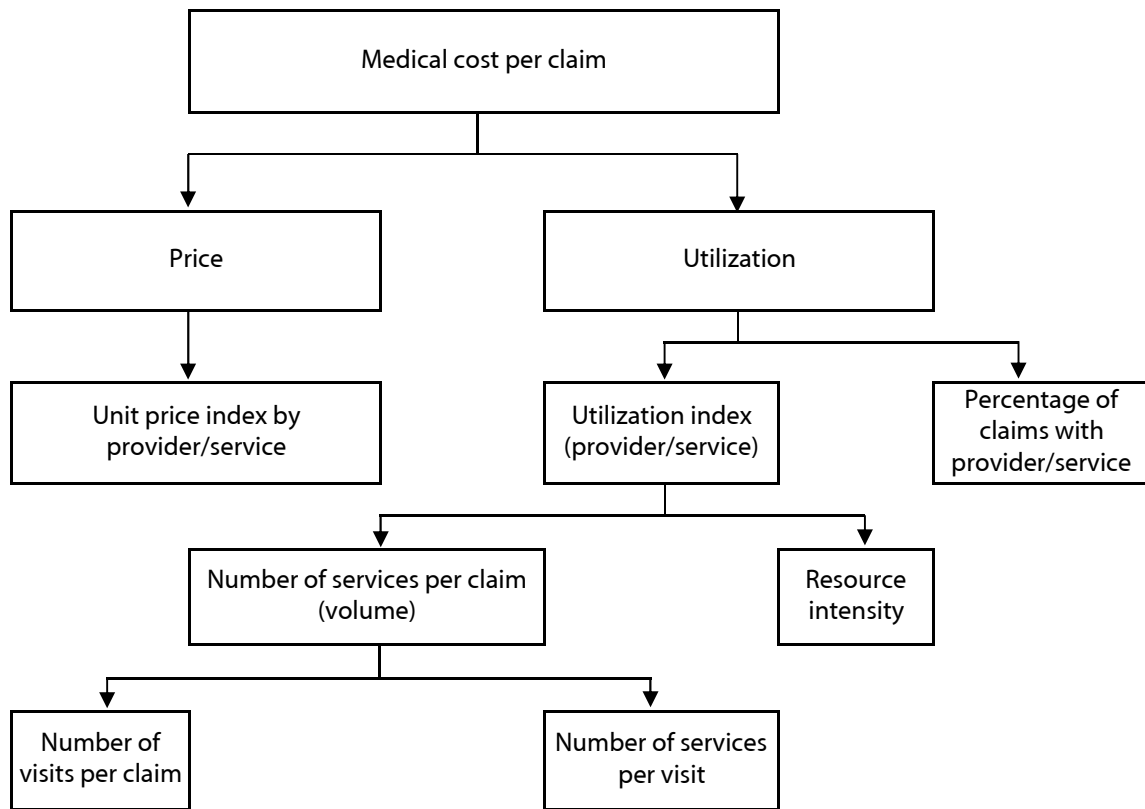
For hospital inpatient services, we relied on payments per episode for the medical costs and utilization analysis. Unlike nonhospital services, hospital inpatient care is a unique area for costs and utilization analysis. First, prices for hospital inpatient care are often regulated differently, frequently in the forms of per diem rates, DRG, or percentage discounts from charges. The medical data for inpatient services may also have various forms, depending on how inpatient hospital bills are submitted and reviewed and how subsequent payments for the hospital inpatient services are made and recorded in a data system. A hospital may bill in a bundle for inpatient services during the entire hospital stay. Even if hospital bills for inpatient services are itemized, the payments may be made in a bundle without itemization. In such cases, the total payment for the hospital stay is accurately recorded, but the data lack details to identify specific services provided and amounts paid for those services. Therefore, we analyze hospital inpatient payments per episode without the detailed services breakout.

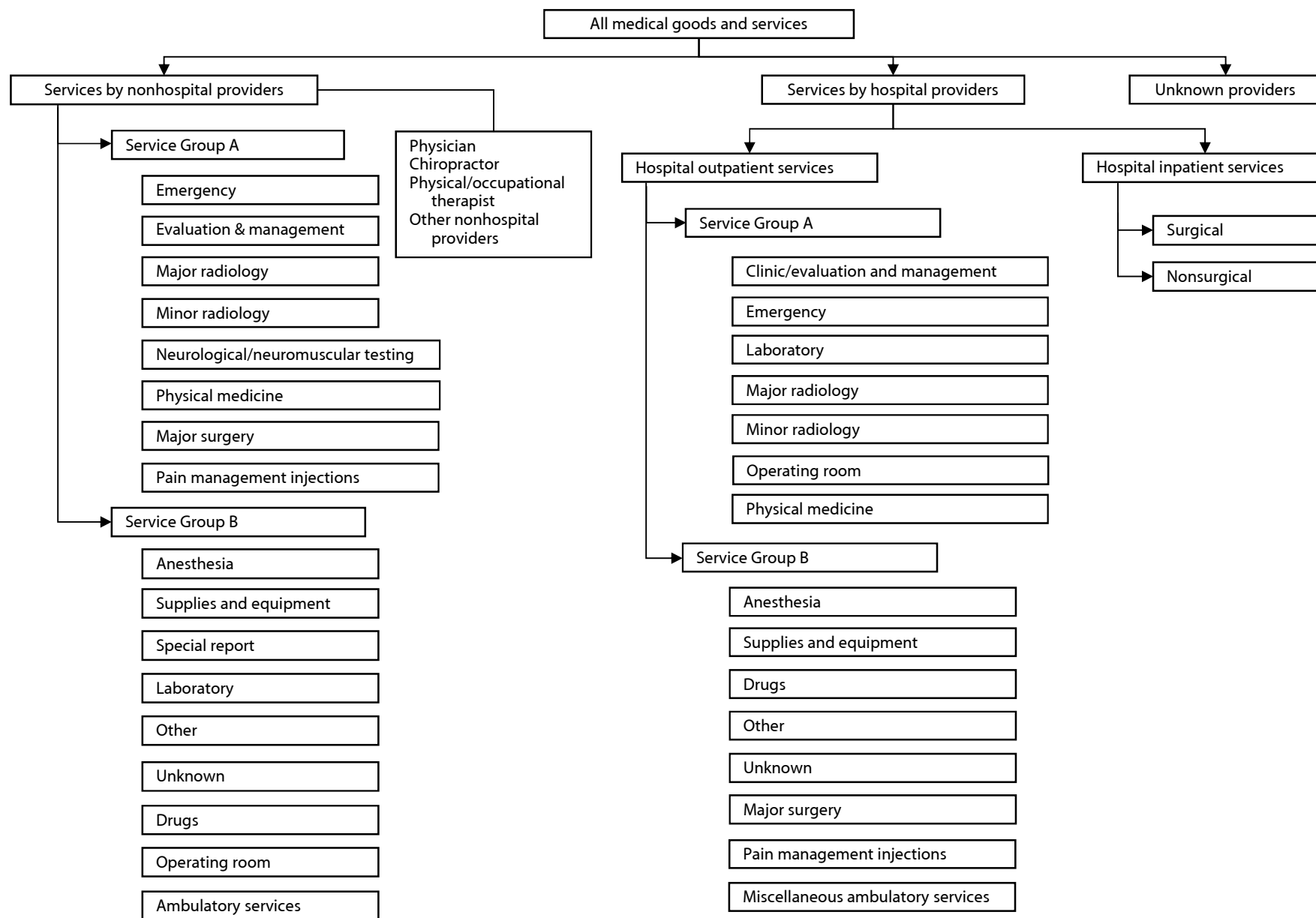
To analyze costs and utilization of hospital inpatient services, we constructed hospital inpatient data based on Data Set II, and we treated an inpatient episode or overnight stay as the unit of analysis. Specifically, we identified hospital inpatient care based on revenue codes indicating hospital overnight stays (i.e., codes identifying room and board). We used the service dates attached to those overnight stays to link all other hospital services provided during those stays. Then we measured costs and utilization of hospital inpatient services as payments per episode and number of inpatient episodes. Note that the majority of the claims only had one episode of inpatient care, so the cost and utilization measures per episode could be used as a proxy to analyze cost and utilization of hospital inpatient payments per claim in most cases. Because of the nature of hospital inpatient care, we focused on claims with, on average, 24 months of experience for hospital inpatient analysis. Readers should keep in mind that the cost per inpatient episode is highly correlated with the length of stay. Since the data in this report do not allow us to control for the length of stay, the differences in costs per episode—particularly over time within a state—are partly a function of differing lengths of stay in

addition to the unit cost of those days.

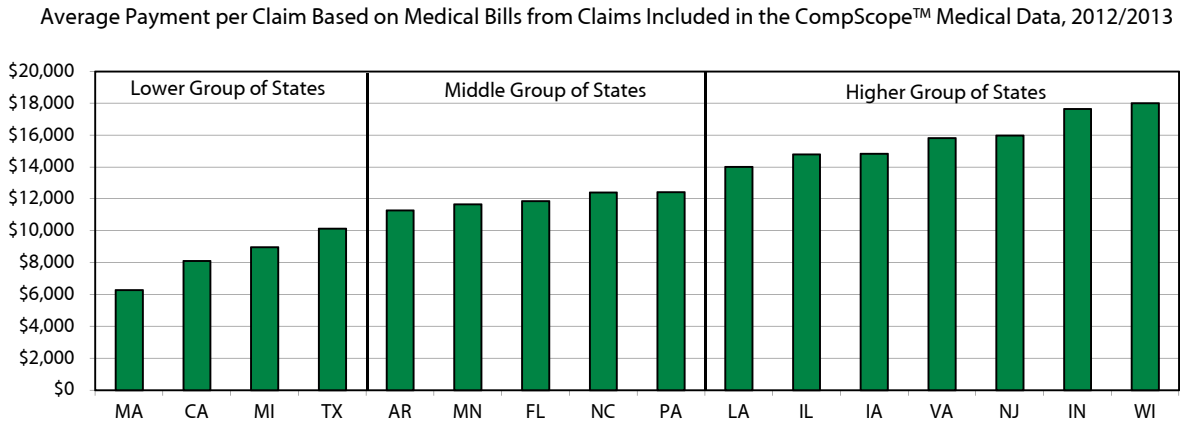
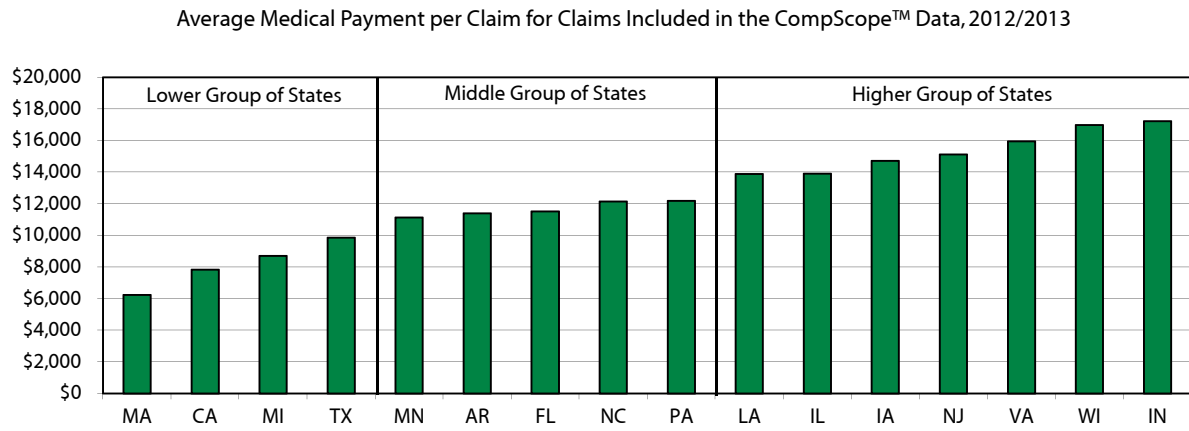
## **SECTION 6: STATE-SPECIFIC ISSUES**

Table TA.14 lists specific comparability issues with respect to certain states for the interstate comparison and trend analysis. These comparability issues are also noted in the state reports on relevant figures and/or tables.

**Figure TA.1 Medical Price and Utilization: Analytic Framework**

**Figure TA.2 Defining Provider Type and Service Group**

**Figure TA.3 A Comparison of Interstate Rankings Based on Medical Payments per Claim: CompScope™ Medical and CompScope™, 2012/2013 Claims with More Than 7 Days of Lost Time, Adjusted for Injury and Industry Mix**



Note: 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013.

**Table TA.1 Defining CompScope™ Medical Measures**

Measure	Definition
<b>Overall medical payments, based on the CompScope™ data</b>	
Average medical payment per all paid claims	The sum of medical payments for all paid claims, divided by the total number of all paid claims.
Average medical payment per claim with more than 7 days of lost time	The sum of medical payments for claims with more than 7 days of lost time, divided by the total number of claims with more than 7 days of lost time.
Average medical payment per claim with 7 days or fewer of lost time	The sum of medical payments for claims with 7 days or fewer of lost time, divided by the total number of claims with 7 days or fewer of lost time.
<b>Medical costs and utilization based on the CompScope™ Medical Data Set I<sup>a</sup> for nonhospital services</b>	
Percentage of claims with a type of service	The number of claims that have received at least one service for a particular service type divided by the number of all claims with more than 7 days of lost time and medical payments.
Percentage of total medical payments paid for a type of service	The sum of medical payments made for the type of service divided by the sum of total medical payments.
Average medical payment per claim for a type of service	The sum of medical payments for the particular service across the claims receiving that service, divided by the total number of claims with that service.
Price index for a type of service	The ratio of the price per service between an individual state and the median state, where the price per service was constructed using the marketbasket approach to hold utilization constant.
Utilization index for a type of service	The ratio of the average number of services per claim, weighted by the RVU, between an individual state and the median state. The utilization index incorporates several aspects of medical care: number of visits per claim, number of services per visit, and the resource intensity of services provided.
Resource intensity of a type of service	The relative complexity for a mix of services based on different resources required or different intensities of resource usage, such as time and effort of medical providers, equipment, facilities, and other overhead. It is responsible for the difference between the RVU-weighted utilization index and the volume of services, which is calculated based on the unweighted average number of services per claim.
Average number of visits for a type of service per claim with that type of service	The total number of visits for a particular service divided by the total number of claims with the particular type of service.
Average number of services for a type of service per visit for that type of service	The total number of services for a particular service divided by the total number of visits for claims involving the particular type of service.
<b>Nonhospital services, based on the CompScope™ Medical Data Set I<sup>a</sup></b>	
<i>Nonhospital services by provider type (medical doctor, doctor of osteopathy, chiropractor, physical/occupational therapist, and other)</i>	
Percentage of claims with a provider type	The number of claims that have received at least one service from a particular provider type divided by the number of all claims with more than 7 days of lost time and medical payments.
Percentage of total medical payments paid for a provider type	The sum of medical payments made to a provider type divided by the sum of total medical payments.
Average medical payment per claim for a provider type	The sum of medical payments across the claims involving the provider type divided by the total number of claims with the same provider type.
Price index for services by a provider type	The ratio of the price per service for the provider type between an individual state and the median state, where the price per service was constructed using the marketbasket approach to hold utilization constant.
Utilization index for services by a provider type	The ratio of the average number of services per claim with the provider type, weighted by the RVU, between an individual state and the median state. The utilization index incorporates several aspects of medical care: number of visits per claim, number of services per visit, and the resource intensity of services provided.
Resource intensity of services by a provider type	The relative complexity for a mix of services by a provider type based on different resources required or different intensities of resource usage, such as time and effort of medical providers, equipment, facilities, and other overhead. It is responsible for the difference between the RVU-weighted utilization index for services by a provider type and the volume of services, which is calculated based on the unweighted average number of services per claim with services by the provider type.
Average number of visits to a provider type per claim with services by that provider type	The total number of visits to a particular provider divided by the total number of claims with at least one visit to that provider type.
Average number of services by a provider type per visit to that provider type	The total number of services for a particular provider type divided by the total number of visits for claims involving the provider type.

continued

**Table TA.1 Defining CompScope™ Medical Measures (continued)**

Measure	Definition
<b>Nonhospital services, based on the CompScope™ Medical Data Set I<sup>a</sup></b>	
<i>Nonhospital services by service group, Group A</i>	
Percentage of claims with a service group	The number of claims that have received at least one service for a particular Group A nonhospital service group divided by the number of all claims with more than 7 days of lost time and medical payments.
Percentage of total medical payments paid for a service group	The sum of medical payments made for the service group divided by the sum of total medical payments.
Average medical payment per claim with a service group	The sum of medical payments across the claims involving the service group divided by the total number of claims with the same service group.
Price index for a service group	The ratio of the price per service for the service group between an individual state and the median state, where the price per service was constructed using the marketbasket approach to hold utilization constant.
Utilization index for a service group	The ratio of the average number of services per claim involving the service group, weighted by the RVU, between an individual state and the median state. The utilization index incorporates several aspects of medical care: number of visits per claim, number of services per visit, and the resource intensity of services provided.
Resource intensity of a service group	The relative complexity for a mix of services involving a service group based on different resources required or different intensities of resource usage, such as time and effort of medical providers, equipment, facilities, and other overhead. It is responsible for the difference between the RVU-weighted utilization index for a service group and the volume of services, which is calculated based on the unweighted average number of services per claim with services in the service group.
Average number of visits for a service group per claim with that service group	The total number of visits divided by the total number of claims, for claims with the same service group.
Average number of services for a service group per visit for that service group	The total number of services divided by the total number of visits, for claims involving the same service group.
<i>Nonhospital services by service group, Group B</i>	
Percentage of claims with a service group	The number of claims that have received at least one service for a particular Group B nonhospital service group divided by the number of all claims with more than 7 days of lost time and medical payments.
Percentage of total medical payments paid for a service group	The sum of payments paid for the service group divided by the sum of total medical payments.
Average medical payment per claim with a service group	The sum of medical payments made for the service group divided by the number of claims involving the same service group.
Average number of visits for a service group per claim with that service group	The total number of visits for the service group divided by the total number of claims involving the same service group.
Average medical payment per visit for a service group	The sum of medical payments for the service group divided by the total number of visits for the same service group.
<b>Hospital outpatient services, based on the CompScope™ Medical Data Set II<sup>b</sup></b>	
<i>Hospital outpatient services by service group, Group A</i>	
Percentage of claims with a service group	The number of claims that have received at least one service for a particular Group A hospital outpatient service group divided by the number of all claims with more than 7 days of lost time and medical payments.
Percentage of total medical payments paid for a service group	The sum of medical payments made for the service group divided by the sum of total medical payments.
Average medical payment per claim with a service group	The sum of medical payments across the claims involving the service group divided by the total number of claims with the same service group.
Average medical payment per service for a service group <sup>c</sup>	The sum of payments divided by the total number of services involving the same service group.
Average number of services for a service group per claim with that service group <sup>c</sup>	The total number of services divided by the total number of claims involving the same service group.
Average number of visits for a service group per claim with that service group	The total number of visits divided by the total number of claims, for claims with the same service group.
Average number of services for a service group per visit for that service group	The total number of services divided by the total number of visits, for claims involving the same service group.

*continued*



**Table TA.1 Defining CompScope™ Medical Measures (continued)**

Measure	Definition
<b>Hospital outpatient services, based on the CompScope™ Medical Data Set II<sup>b</sup></b>	
<i>Hospital outpatient services by service group, Group B</i>	
Percentage of claims with a service group	The number of claims that have received at least one service for a particular Group B hospital outpatient service group divided by the number of all claims with more than 7 days of lost time and medical payments.
Percentage of total medical payments paid for a service group	The sum of payments paid for the service group divided by the sum of total medical payments.
Average medical payment per claim with a service group	The sum of medical payments made for the service group divided by the number of claims involving the same service group.
Average number of visits for a service group per claim with that service group	The total number of visits for the service group divided by the total number of claims involving the same service group.
Average medical payment per visit for a service group	The sum of medical payments for the service group divided by the total number of visits for claims involving the same service group.
<b>Hospital inpatient services, based on the CompScope™ Medical Data Set II<sup>b</sup></b>	
Percentage of claims with inpatient care	The number of claims that have received at least one hospital inpatient service divided by the number of all claims with more than 7 days of lost time and medical payments.
Percentage of total medical payments paid for hospital inpatient services	The sum of medical payments paid to hospital inpatient services divided by the sum of total medical payments.
Percentage of inpatient episodes with surgery	The number of inpatient episodes with surgery divided by the total number of inpatient episodes.
Average hospital payment per inpatient episode	The sum of medical payments to the hospital for inpatient services divided by the total number of inpatient episodes.
Percentage of claims with inpatient surgery	The number of claims that have received at least one inpatient surgery divided by the number of all claims with more than 7 days of lost time and medical payments.
Average hospital payment per inpatient episode with surgery	The sum of medical payments to the hospital for surgical and other services during the inpatient stay divided by the total number of inpatient episodes with surgery.
<b>Outpatient services (hospital and nonhospital), based on the CompScope™ Medical Data Set I<sup>a</sup> and Data Set II<sup>b</sup></b>	
Average medical payment per visit for outpatient services	The sum of medical payments for outpatient services divided by the total number of visits for the outpatient services.
<b>Physical medicine services (chiropractor and other providers), based on the CompScope™ Medical Data Set I<sup>a</sup></b>	
Percentage of claims with physical medicine services	The number of claims that have received at least one physical medicine service divided by the number of all claims with more than 7 days of lost time and medical payments.
Percentage of total medical payments paid for physical medicine	The sum of medical payments paid for physical medicine services divided by the sum of total medical payments.
Average medical payment per claim with physical medicine	The sum of medical payments paid for physical medicine services divided by the number of claims involving physical medicine services.
Price index for physical medicine	The ratio of the price per physical medicine service between an individual state and the median state, where the price per service was constructed using the marketbasket approach to hold utilization constant.
Utilization index for physical medicine	The ratio of the average number of physical medicine services per claim, weighted by the RVU, between an individual state and the median state. The utilization index incorporates several aspects of medical care: number of visits per claim, number of services per visit, and the resource intensity of services provided.
Resource intensity of physical medicine	The relative complexity for a mix of physical medicine services based on different resources required or different intensities of resource usage, such as time and effort of medical providers, equipment, facilities, and other overhead. It is responsible for the difference between the RVU-weighted utilization index for physical medicine services and the volume of services, which is calculated based on the unweighted average number of physical medicine services per claim with those services.
Average medical payment per visit for physical medicine	The sum of medical payments paid for the type of physical medicine divided by the total number of visits, involving the type of physical medicine service.
Average number of visits for physical medicine per claim with physical medicine	The total number of services divided by the total number of visits, for claims involving the type of physical medicine providers.
Average number of services for physical medicine per visit for physical medicine	The total number of physical medicine services divided by the total number of visits involving physical medicine services.

*continued*

**Table TA.1 Defining CompScope™ Medical Measures (continued)**

---

<sup>a</sup> CompScope™ Medical Data Set I is the analysis data that we used to construct performance measures for medical services overall and by provider type. The data set was also used for detailed analysis of nonhospital services.

<sup>b</sup> CompScope™ Medical Data Set II is the analysis data that we used for detailed analysis of hospital services, including hospital outpatient services and hospital inpatient services.

<sup>c</sup> For hospital outpatient services, because the revenue codes often used in hospital billing are too broadly defined to support a robust marketbasket of services and an estimate of the relative intensity of services, we report the average payment per service and number of services per claim.

Key: RVU: relative value unit.

**Table TA.2 Claim Volume and Representation by State, 2012/2013 Indemnity Claims**

State	Number of All Indemnity Claims in Population <sup>a</sup>	CompScope™ <sup>b</sup>		CompScope™ Medical Data Set I <sup>c</sup>		CompScope™ Medical Data Set II <sup>d</sup>	
		Number of Claims	% of Population Claims	Number of Claims	% of Population Claims	Number of Claims	% of Population Claims
Arkansas	5,511	2,152	39%	1,720	31%	1,216	22%
California	159,737	73,119	46%	45,955	29%	19,254	12%
Florida	49,946	23,166	46%	16,152	32%	7,854	16%
Illinois	48,484	26,276	54%	16,634	34%	11,440	24%
Indiana	15,780	8,141	52%	5,689	36%	3,977	25%
Iowa	13,574	6,027	44%	3,849	28%	3,008	22%
Louisiana	10,600	4,323	41%	3,372	32%	2,276	21%
Massachusetts	22,386	13,807	62%	9,719	43%	7,365	33%
Michigan	23,303	10,971	47%	8,663	37%	6,618	28%
Minnesota	20,322	10,401	51%	6,601	32%	4,692	23%
New Jersey	35,487	19,640	55%	13,399	38%	7,584	21%
North Carolina	22,032	10,236	46%	6,639	30%	4,031	18%
Pennsylvania	41,505	20,208	49%	15,645	38%	10,937	26%
Texas	48,884	35,844	73%	29,894	61%	15,952	33%
Virginia	13,454	7,070	53%	4,609	34%	3,173	24%
Wisconsin	24,889	11,421	46%	7,506	30%	5,516	22%
Total	555,895	282,801	51%	196,044	35%	114,893	21%

Note: 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> Data on the population of indemnity claims in each state are estimated generally based on the number of insured claims, weighted to account for self-insured claims. Notes in Table TA.4 of *CompScope™ Benchmarks: Technical Appendix, 14th Edition* ([http://www.wcrinet.org/cs14/technical\\_appendix.pdf](http://www.wcrinet.org/cs14/technical_appendix.pdf)) describe the external data sources and methods used for estimating the population claim volume and distribution by market segment for all claims. The same approach is used here for indemnity claims.

<sup>b</sup> Number of claims shown in this table is based on paid and reserved indemnity claims. For similar information based on all claims, see Table TA.3 in *CompScope™ Benchmarks: Technical Appendix, 14th Edition* ([http://www.wcrinet.org/cs14/technical\\_appendix.pdf](http://www.wcrinet.org/cs14/technical_appendix.pdf)).

<sup>c</sup> CompScope™ Medical Data Set I is the analysis data that we used to construct performance measures for medical services overall and by provider type. The data set was also used for detailed analysis of nonhospital services. Number of claims reflects claims with more than seven days of lost time.

<sup>d</sup> CompScope™ Medical Data Set II is the analysis data that we used for detailed analysis of hospital services, including hospital outpatient services and hospital inpatient services. Number of claims reflects claims with more than seven days of lost time.

**Table TA.3 Effect of Selecting a Subset of Claims with More Than 7 Days of Lost Time, 2012/2013 Claims**

Measures	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI
Statutory waiting period for indemnity benefits (days)	7	3	7	3	3	7	7	5	7	3	7	7	7	7	7	3
<b>Before 7-day waiting period adjustment</b>																
Indemnity claims as percentage of all paid claims	16%	29%	22%	21%	29%	15%	22%	31%	17%	22%	19%	25%	18%	24%	16%	23%
Average medical payment per indemnity claim	\$12,131	\$6,895	\$11,135	\$13,452	\$12,799	\$17,526	\$14,249	\$5,807	\$8,384	\$9,760	\$12,093	\$15,152	\$12,139	\$10,006	\$16,015	\$14,713
<b>After 7-day waiting period adjustment</b>																
Claims with more than 7 days of lost time as percentage of all paid claims	16%	26%	22%	18%	27%	15%	22%	29%	17%	19%	19%	25%	18%	24%	16%	19%
Average medical payment per claim with more than 7 days of lost time	\$12,131	\$7,501	\$11,135	\$14,745	\$13,646	\$17,526	\$14,249	\$6,169	\$8,384	\$10,776	\$12,093	\$15,152	\$12,139	\$10,006	\$16,015	\$17,242
<b>Effect of subsetting claims</b>																
Change in frequency before and after the waiting period adjustment (percentage points)	0	-3	0	-2	-2	0	0	-2	0	-3	0	0	0	0	0	-4
Change in payments per claim before and after waiting period adjustment (percentage)	0%	9%	0%	10%	7%	0%	0%	6%	0%	10%	0%	0%	0%	0%	0%	17%

Note: 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013.

**Table TA.4 Estimated Population Distribution of Market Segment by State, 2012 Indemnity Claims**

State	Private Voluntary		State Fund		Private Residual		Self-Insured		All Market Segments	
	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage	Number	Percentage
Arkansas	3,724	68%	0	0%	117	2%	1,669	30%	5,511	100%
California	92,530	58%	17,116	11%	0	0%	50,091	31%	159,737	100%
Florida	36,082	72%	0	0%	69	0%	13,795	28%	49,946	100%
Illinois	35,525	73%	0	0%	407	1%	12,553	26%	48,484	100%
Indiana	13,296	84%	0	0%	514	3%	1,970	13%	15,780	100%
Iowa	10,298	76%	0	0%	314	2%	2,962	22%	13,574	100%
Louisiana	6,214	59%	878	8%	0	0%	3,509	33%	10,600	100%
Massachusetts	14,972	67%	0	0%	2,993	13%	4,422	20%	22,386	100%
Michigan	13,784	59%	0	0%	440	2%	9,080	39%	23,303	100%
Minnesota	14,634	72%	0	0%	526	3%	5,162	25%	20,322	100%
New Jersey	26,670	75%	0	0%	1,220	3%	7,597	21%	35,487	100%
North Carolina	16,204	74%	0	0%	337	2%	5,491	25%	22,032	100%
Pennsylvania	31,431	76%	1,318	3%	0	0%	8,756	21%	41,505	100%
Texas	28,487	58%	10,689	22%	0	0%	9,708	20%	48,884	100%
Virginia	10,145	75%	0	0%	282	2%	3,027	23%	13,454	100%
Wisconsin	20,890	84%	0	0%	722	3%	3,276	13%	24,889	100%

**Table TA.5 Industry Categories****Clerical and professional**

Clerical

Instructional professions

**Construction**

Erection

Shipbuilding

Miscellaneous construction

**Manufacturing**

Food and tobacco

Textiles

Cloth products

Leather

Rubber/bone products

Paper/pulp products, printing

Wood

Metallurgy

Metal forming

Machine shops/fine machines

Vehicles

Stone products

Clay products

Glass products

Chemicals

Miscellaneous manufacturing

**Trade**

Retail trade

Wholesale trade

**High-risk services**

Laundering, cleaning, and dyeing

Stevedoring/freight handling; explosives or ammunition shipping; refrigerator car loading or unloading

Railroad operations

Package delivery; hauling (long-distance or local)

Electric light or power; steam light or power; waterworks operation; sewage disposal plant operation; recycling and garbage collection

Automobile hauling; automobile sales and services

Warehousing and storage

Health care facility-related services: nursing home, home care (excluding physician and dentist services)

Building maintenance; janitorial services; elevator services; sign installation; window cleaning

Hotels, restaurants, clubs

**Low-risk services**

Telephone, telegraph, internet access providers; computer data processing; radio/TV broadcasting; cable TV; motion picture productions; recording studios

Automobile parking and garage

Physicians/dentists

Insurance; real estate; travel agencies; addressing; mailing; mail packaging; advertising

Schools; museums; day care centers

Commercial service and repair; architect or engineer consulting

Property management; leasing services

Dinner theater/theater operations

Amusement park or exhibition operations; dog shows; horse shows; racetrack operations

Personal service, such as beauty salons and hair styling

**Other industries**

Agriculture

Mining and oil/gas production

Quarrying, stone/sand/clay

Miscellaneous occupations

**Table TA.6 Case-Mix Adjustment Example: Distribution of Percentage of Claims by Injury and Industry in California, 2012/2013 Claims with More Than 7 Days of Lost Time**

<b>a. Injury/Industry Case-Mix Adjustment: Distribution of Injury and Industry for the All-State Pooled Sample</b>												
<b>Industry Group</b>	<b>Injury Type</b>											
	<b>Fractures - Lower Extremity</b>	<b>Fractures - Upper Extremity</b>	<b>Hand Laceration</b>	<b>Inflammation</b>	<b>Knee Derangement</b>	<b>Lacerations and Contusions</b>	<b>Neurologic Spine Pain</b>	<b>Other</b>	<b>Other Sprains and Strains</b>	<b>Skin</b>	<b>Spine Sprains, Strains, and Non-Specific Pain</b>	<b>Upper Extremity Neurologic</b>
Manufacturing	0.58	1.04	0.77	1.19	0.53	1.38	0.75	3.43	3.69	0.36	1.89	0.52
Construction	0.57	0.73	0.36	0.49	0.47	0.78	0.62	2.55	1.64	0.23	1.06	0.06
Clerical and professional	0.47	0.48	0.13	0.58	0.29	0.71	0.41	1.36	2.30	0.09	1.33	0.31
Trade	0.72	0.68	0.43	0.92	0.53	1.68	0.84	2.51	4.34	0.16	3.19	0.23
High-risk services	0.89	1.02	0.79	1.46	0.90	2.00	1.50	4.04	6.49	0.59	4.88	0.21
Low-risk services	0.53	0.58	0.24	0.89	0.54	0.97	0.78	2.34	3.46	0.14	2.38	0.24
Other	0.45	0.56	0.29	0.71	0.36	1.13	0.52	2.43	3.10	0.15	1.92	0.10
<b>b. Injury/Industry Case-Mix Adjustment: Distribution of Injury and Industry for a Single State (California)</b>												
<b>Industry Group</b>	<b>Injury Type</b>											
	<b>Fractures - Lower Extremity</b>	<b>Fractures - Upper Extremity</b>	<b>Hand Laceration</b>	<b>Inflammation</b>	<b>Knee Derangement</b>	<b>Lacerations and Contusions</b>	<b>Neurologic Spine Pain</b>	<b>Other</b>	<b>Other Sprains and Strains</b>	<b>Skin</b>	<b>Spine Sprains, Strains, and Non-Specific Pain</b>	<b>Upper Extremity Neurologic</b>
Manufacturing	0.28	0.51	0.48	1.00	0.32	0.83	0.54	2.05	2.22	0.19	1.52	0.31
Construction	0.53	0.79	0.50	0.58	0.45	0.93	0.73	2.44	1.73	0.18	1.32	0.08
Clerical and professional	0.40	0.43	0.20	0.90	0.22	1.15	0.40	1.75	3.48	0.08	2.46	0.60
Trade	0.61	0.55	0.45	1.26	0.56	1.83	0.92	2.50	5.24	0.17	4.33	0.36
High-risk services	0.57	0.69	0.85	1.64	0.84	1.93	1.26	3.53	6.07	0.47	5.16	0.33
Low-risk services	0.36	0.44	0.28	1.14	0.51	0.90	0.78	2.12	3.31	0.12	2.41	0.51
Other	0.42	0.57	0.36	0.83	0.33	1.38	0.55	2.21	3.27	0.14	2.25	0.11
<b>c. Injury/Industry Case-Mix Adjustment: Adjustment Weights for the State (California)</b>												
<b>Industry Group</b>	<b>Injury Type</b>											
	<b>Fractures - Lower Extremity</b>	<b>Fractures - Upper Extremity</b>	<b>Hand Laceration</b>	<b>Inflammation</b>	<b>Knee Derangement</b>	<b>Lacerations and Contusions</b>	<b>Neurologic Spine Pain</b>	<b>Other</b>	<b>Other Sprains and Strains</b>	<b>Skin</b>	<b>Spine Sprains, Strains, and Non-Specific Pain</b>	<b>Upper Extremity Neurologic</b>
Manufacturing	2.09	2.03	1.59	1.19	1.65	1.66	1.40	1.66	1.65	1.87	1.23	1.64
Construction	1.07	0.91	0.72	0.85	1.03	0.83	0.85	1.03	0.94	1.25	0.80	0.76
Clerical and professional	1.17	1.11	0.67	0.64	1.35	0.62	1.03	0.78	0.66	1.21	0.54	0.52
Trade	1.20	1.24	0.96	0.73	0.94	0.92	0.92	1.00	0.83	0.94	0.74	0.62
High-risk services	1.56	1.48	0.93	0.90	1.07	1.04	1.21	1.15	1.07	1.26	0.94	0.65
Low-risk services	1.48	1.34	0.84	0.79	1.07	1.09	1.01	1.11	1.05	1.14	0.99	0.47
Other	1.09	0.98	0.81	0.86	1.10	0.82	0.96	1.11	0.94	1.11	0.85	0.97

Note: 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013.

**Table TA.7 Effect of Data Capping on Medical Payments, 2012/2013 Claims with More Than 7 Days of Lost Time**

	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI
<b>Claims with caps on medical payments (percentage)</b>																
Medical payments overall	1.4	1.9	2.0	2.0	1.8	1.6	2.5	2.2	1.8	1.1	2.1	1.8	2.2	1.7	2.2	2.0
Nonhospital	0.3	0.3	0.4	0.5	0.5	0.5	0.7	0.1	0.5	0.4	0.6	0.4	0.6	0.6	0.5	0.6
Medical doctor/doctor of osteopathy	0.4	0.3	0.3	0.3	0.3	0.4	0.3	0.0	0.8	0.7	0.4	0.5	0.6	0.3	0.5	0.4
Chiropractor	0.0	0.4	0.0	0.0	0.5	0.0	0.4	0.5	0.0	0.2	0.0	0.7	0.2	0.3	0.0	0.5
Physical therapist	0.4	0.3	0.2	0.3	0.3	0.4	0.2	0.5	0.5	0.1	0.3	0.2	0.4	0.2	0.2	0.4
Other	0.1	0.2	0.1	0.1	0.2	0.3	0.4	0.1	0.2	0.1	0.1	0.2	0.5	0.2	0.3	0.2
Hospital inpatient	0.0	0.7	0.5	0.4	0.1	0.5	0.2	0.9	0.1	0.2	0.3	1.0	1.1	0.6	0.0	0.7
Hospital outpatient	0.1	0.3	0.1	0.3	0.2	0.3	0.5	0.0	0.4	0.5	0.3	0.4	0.4	0.5	0.4	0.4
<b>Percentage change after data caps applied<sup>a</sup></b>																
Medical payments overall	-0.9	-3.7	-4.5	-2.7	-0.5	-2.1	-0.6	-2.3	-1.6	-1.9	-1.1	-3.4	-5.9	-2.7	-0.4	-0.8
Nonhospital	0.0	-0.7	0.0	0.0	0.0	0.0	-0.2	-0.1	-0.1	-1.4	0.0	0.0	-0.3	-0.3	-0.4	0.0
Medical doctor/doctor of osteopathy	0.4	0.2	0.3	0.3	0.3	0.4	0.3	0.0	0.8	0.7	0.4	0.5	0.2	0.3	0.5	0.4
Chiropractor	0.0	0.3	0.0	0.0	0.5	0.0	0.4	0.5	0.0	0.2	0.0	0.7	0.2	0.3	0.0	0.5
Physical therapist	0.4	-0.3	0.2	0.3	0.3	0.4	0.2	0.5	0.5	0.1	0.3	0.2	0.4	0.2	0.2	0.4
Other	0.1	-4.6	-1.8	0.0	-2.6	-0.5	-1.2	-4.4	-1.0	-15.0 <sup>b</sup>	-1.3	-4.6	-0.9	-1.8	-7.6	-0.5
Hospital inpatient	0.0	-3.5	-4.2	-5.7	-0.4	-6.2	-1.5	-2.0	-0.1	-0.3	-0.6	-9.3	-7.6	-3.6	0.0	-1.2
Hospital outpatient	0.1	-1.1	0.0	0.3	0.2	0.3	0.5	0.0	-0.1	0.5	0.3	-0.9	-0.4	0.0	-0.1	0.3

Notes: 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013. A value of 0.0 means the number of claims affected by data capping was less than 0.05 percentage points, or the changes in payments after data caps applied were less than 0.05 percent.

<sup>a</sup>The effects of data capping may be negative or positive since we applied both upper and lower bounds. A positive number means that more claims with extremely small values were below the lower bound and excluded, and no claims with large values were above the upper bound.

<sup>b</sup>The average medical payment per claim for other nonhospital providers in Minnesota was \$1,206 before the data caps were applied and \$1,024 after the data caps were applied. However, the relative ranking of the state did not materially change as a result of this adjustment. Minnesota is consistently ranked among the lower third group of states on this measure both before and after the data capping.



**Table TA.8 A Comparison of Trend Results: CompScope™ Medical and CompScope™, Claims with More Than 7 Days of Lost Time at 12 Months' Maturity, 2007/2008–2012/2013, Not Adjusted for Injury and Industry Mix**

Measures <sup>a</sup>	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI
<b>Average annual percentage change from 2007/2008 to 2012/2013</b>																
Average medical payment per claim for claims included in the CompScope™ data	5.7%	3.6%	2.9%	6.1%	-0.4%	6.8%	6.1%	3.6%	2.2%	3.2%	1.0%	5.1%	5.7%	3.9%	6.0%	6.5%
Average payment per claim based on medical bills from claims included in the CompScope™ Medical data	6.1%	3.8%	3.4%	5.7%	-0.9%	6.7%	7.8%	3.5%	1.4%	3.3%	2.0%	5.2%	5.2%	3.4%	4.8%	6.7%
Percentage point difference	0.5	0.2	0.4	-0.4	-0.5	-0.1	1.7	-0.1	-0.8	0.1	1.0	0.2	-0.5	-0.5	-1.2	0.2

Notes: 2007/2008 refers to claims with injuries arising from October 1, 2006, to September 30, 2007, evaluated as of March 31, 2008. 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> In our data, we have two sources of payments for medical services—the medical payments paid out by the payors for the medical services, and the medical bills charged by medical providers and subsequently reviewed and repriced through the bill review process. In this table, the average medical payment per claim was calculated based on the payment transactions data, and the average bill-review payment per claim was based on the detailed medical bill review data. We make this distinction in this table to analyze the difference between the two sources of the data. We use the terms *medical payments* and *bill review payments* interchangeably elsewhere in the detailed analysis of medical services.

**Table TA.9 A Comparison of Claim Characteristics: CompScope™ Medical and CompScope™, 2012/2013 Claims with More Than 7 Days of Lost Time**

Comparison	State Results																16-State Median <sup>a</sup>
	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI	
Workers' characteristics																	
Average age (years)																	
CompScope™	43	43	44	45	43	43	42	43	44	44	43	44	44	42	43	44	43
CompScope™ Medical	43	42	44	44	43	43	42	43	43	44	43	44	44	42	43	44	43
Gender (percentage male)																	
CompScope™	70%	60%	60%	65%	63%	64%	66%	67%	59%	61%	64%	66%	67%	72%	63%	64%	64%
CompScope™ Medical	69%	62%	63%	65%	64%	64%	65%	68%	61%	63%	66%	68%	68%	70%	64%	63%	64%
Industry classification (percentage)																	
Clerical and professional																	
CompScope™	6%	12%	9%	12%	7%	6%	6%	8%	5%	7%	6%	7%	6%	7%	9%	6%	7%
CompScope™ Medical	6%	12%	9%	13%	7%	6%	6%	8%	6%	8%	6%	7%	6%	8%	8%	7%	7%
Construction																	
CompScope™	11%	10%	6%	8%	5%	5%	16%	13%	4%	5%	7%	9%	7%	15%	11%	5%	8%
CompScope™ Medical	11%	10%	6%	8%	6%	6%	16%	13%	5%	5%	8%	10%	8%	16%	11%	5%	8%
Services <sup>b</sup>																	
CompScope™	53%	55%	64%	46%	57%	52%	55%	56%	57%	57%	55%	59%	56%	47%	56%	42%	56%
CompScope™ Medical	55%	55%	63%	44%	56%	52%	55%	55%	56%	55%	54%	61%	55%	47%	55%	42%	55%
Manufacturing																	
CompScope™	23%	10%	6%	26%	18%	29%	12%	13%	25%	22%	18%	12%	18%	17%	13%	40%	18%
CompScope™ Medical	22%	10%	7%	25%	17%	29%	13%	13%	26%	22%	19%	13%	19%	17%	13%	40%	18%
Other industries																	
CompScope™	8%	13%	15%	9%	13%	7%	11%	10%	8%	9%	13%	13%	12%	14%	11%	7%	11%
CompScope™ Medical	7%	12%	16%	10%	14%	7%	9%	10%	8%	10%	12%	9%	13%	13%	12%	6%	10%
Injury classification (percentage)																	
Sprains, strains, and non-specific pain <sup>c</sup>																	
CompScope™	37%	44%	42%	38%	41%	35%	37%	42%	43%	44%	40%	38%	41%	40%	40%	38%	40%
CompScope™ Medical	38%	45%	44%	38%	41%	38%	39%	43%	44%	44%	40%	37%	42%	39%	38%	40%	40%
Fractures <sup>d</sup>																	
CompScope™	13%	7%	9%	9%	8%	11%	10%	9%	10%	8%	10%	9%	9%	11%	11%	9%	9%
CompScope™ Medical	13%	7%	9%	10%	8%	11%	11%	9%	10%	9%	11%	10%	9%	11%	12%	10%	10%
Inflammations, lacerations, and contusions <sup>e</sup>																	
CompScope™	15%	18%	18%	17%	18%	16%	16%	18%	17%	16%	17%	19%	16%	18%	18%	16%	17%
CompScope™ Medical	15%	19%	18%	17%	18%	17%	17%	18%	17%	16%	17%	19%	17%	18%	17%	17%	17%
Carpal tunnel <sup>f</sup>																	
CompScope™	2%	2%	1%	3%	2%	2%	1%	1%	2%	3%	1%	1%	2%	1%	0%	3%	2%
CompScope™ Medical	2%	2%	1%	4%	2%	2%	1%	1%	2%	3%	1%	1%	2%	1%	0%	3%	2%
Other injuries <sup>g</sup>																	
CompScope™	32%	29%	30%	32%	31%	37%	35%	31%	28%	29%	32%	32%	33%	30%	31%	34%	32%
CompScope™ Medical	32%	26%	28%	31%	31%	32%	32%	30%	26%	28%	32%	34%	30%	31%	33%	30%	31%

continued

**Table TA.9 A Comparison of Claim Characteristics: CompScope™ Medical and CompScope™, 2012/2013 Claims with More Than 7 Days of Lost Time (continued)**

---

*Notes:* 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013. Used in the comparison is the CompScope™ Medical Data Set I, the analysis data we used to construct performance measures for medical services overall and by provider type.

<sup>a</sup> The 16-state median is the average of the states ranked 8th and 9th on a given measure; these states change depending on the measure being evaluated.

<sup>b</sup> The services industry classification is based on data for high-risk services, low-risk services, and trade industry categories. See Table TA.5 for a detailed description of the industry categories.

<sup>c</sup> The sprains, strains, and non-specific pain injury classification is based on data for spine (back and neck) sprains, strains, and non-specific pain; and other sprains and strains injury categories.

<sup>d</sup> The fractures injury classification is based on data for fractures (at lower extremity) and fractures (at upper extremity) injury categories.

<sup>e</sup> The inflammations, lacerations, and contusions injury classification is based on data for inflammation, lacerations, and contusions, and hand laceration injury categories.

<sup>f</sup> The carpal tunnel injury classification is based on data for the carpal tunnel injury category.

<sup>g</sup> The other injuries classification is based on data for knee derangement, neurological spine pain, skin, and other injury categories.

**Table TA.10a Summary of Medical Payment Distribution for Group A and Group B Procedures by Provider Type, 2012/2013 Claims with More Than 7 Days of Lost Time**

Group	AR <sup>a</sup>	CA	FL	IA	IL	IN <sup>a</sup>	LA	MA	MI	MN	NC <sup>a</sup>	NJ	PA	TX	VA <sup>a</sup>	WI	Median
<b>Chiropractors</b>																	
Group A	n/a	82.1%	95.6%	98.9%	96.8%	n/a	96.4%	98.3%	97.9%	97.7%	n/a	96.3%	94.2%	86.8%	n/a	95.2%	96.4%
Group B	n/a	17.9%	4.4%	1.1%	3.2%	n/a	3.6%	1.7%	2.1%	2.3%	n/a	3.7%	5.8%	13.2%	n/a	4.8%	3.6%
Anesthesia	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.2%	0.0%	0.0%	0.1%	n/a	0.0%	0.0%	0.0%	n/a	0.0%	0.0%
Laboratory	n/a	0.1%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.1%	0.0%	n/a	0.0%	0.0%
Special report	n/a	10.1%	0.7%	0.0%	0.1%	n/a	0.7%	0.2%	0.1%	0.0%	n/a	0.0%	0.0%	10.6%	n/a	0.0%	0.1%
Supplies and equipment	n/a	1.6%	1.7%	0.1%	1.3%	n/a	0.8%	1.0%	1.4%	0.5%	n/a	1.7%	2.3%	1.2%	n/a	0.9%	1.3%
Other medical/diagnostic services	n/a	3.9%	1.8%	0.9%	1.4%	n/a	0.3%	0.3%	0.3%	1.2%	n/a	1.3%	3.3%	1.2%	n/a	3.7%	1.3%
Drugs	n/a	0.4%	0.0%	0.0%	0.0%	n/a	1.5%	0.0%	0.2%	0.0%	n/a	0.0%	0.0%	0.0%	n/a	0.0%	0.0%
Miscellaneous ambulatory surgical care	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	n/a	0.0%	0.0%
Treatment/operating/recovery room	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	n/a	0.0%	0.0%
Unclassified services	n/a	1.9%	0.1%	0.1%	0.3%	n/a	0.1%	0.2%	0.1%	0.6%	n/a	0.6%	0.1%	0.1%	n/a	0.2%	0.1%
<b>Physical therapists</b>																	
Group A	98.6%	90.2%	97.6%	98.7%	98.4%	97.1%	98.6%	97.4%	98.5%	94.9%	96.4%	98.4%	97.5%	97.8%	97.8%	95.8%	97.7%
Group B	1.4%	9.8%	2.4%	1.3%	1.6%	2.9%	1.4%	2.6%	1.5%	5.1%	3.6%	1.6%	2.5%	2.2%	2.2%	4.2%	2.3%
Anesthesia	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	0.0%	0.1%	0.4%	0.0%
Laboratory	0.0%	0.1%	0.1%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.1%	0.2%	0.0%
Special report	0.2%	0.9%	0.2%	0.2%	0.0%	0.1%	0.2%	0.1%	0.0%	0.8%	0.1%	0.0%	0.0%	1.0%	0.0%	0.0%	0.1%
Supplies and equipment	0.6%	3.3%	1.0%	0.5%	0.6%	1.1%	0.7%	1.1%	0.6%	1.9%	1.4%	0.5%	0.8%	0.7%	0.9%	0.9%	0.8%
Other medical/diagnostic services	0.5%	4.2%	0.5%	0.3%	0.7%	1.1%	0.4%	0.9%	0.3%	0.9%	0.6%	0.7%	0.4%	0.3%	0.6%	0.9%	0.6%
Drugs	0.2%	0.7%	0.4%	0.1%	0.1%	0.2%	0.1%	0.1%	0.1%	0.0%	0.1%	0.1%	0.6%	0.0%	0.3%	0.2%	0.1%
Miscellaneous ambulatory surgical care	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Treatment/operating/recovery room	0.0%	0.1%	0.0%	0.1%	0.0%	0.1%	0.0%	0.2%	0.3%	0.1%	0.2%	0.0%	0.0%	0.0%	0.0%	1.1%	0.0%
Unclassified services	0.0%	0.3%	0.3%	0.1%	0.1%	0.0%	0.0%	0.1%	0.1%	1.3%	1.0%	0.1%	0.8%	0.2%	0.1%	0.3%	0.1%
<b>Medical doctor/doctor of osteopathy</b>																	
Group A	61.2%	54.4%	48.1%	62.4%	63.0%	65.5%	56.6%	78.9%	73.8%	56.7%	57.3%	59.9%	69.6%	63.1%	62.1%	71.7%	62.3%
Group B	38.8%	45.6%	51.9%	37.6%	37.0%	34.5%	43.4%	21.1%	26.2%	43.3%	42.7%	40.1%	30.4%	36.9%	37.9%	28.3%	37.7%
Anesthesia	5.6%	3.1%	2.9%	6.9%	4.9%	6.0%	5.1%	5.3%	7.3%	8.4%	4.8%	8.6%	6.0%	4.4%	7.1%	6.8%	5.8%
Laboratory	0.5%	0.9%	0.7%	0.3%	0.4%	0.3%	1.4%	0.2%	0.2%	0.5%	0.7%	0.2%	0.3%	0.6%	0.4%	0.5%	0.5%
Special report	2.1%	6.9%	1.7%	0.6%	0.8%	0.4%	1.3%	0.5%	0.6%	0.2%	1.0%	0.2%	0.5%	9.9%	0.4%	0.7%	0.6%
Supplies and equipment	4.8%	2.9%	4.7%	2.6%	3.6%	4.6%	3.6%	1.3%	3.0%	3.1%	4.3%	1.7%	3.9%	2.6%	2.9%	1.5%	3.1%
Other medical/diagnostic services	8.5%	6.4%	7.5%	8.1%	5.8%	6.6%	6.3%	8.0%	7.6%	5.8%	6.1%	6.5%	7.4%	7.2%	7.7%	8.1%	7.3%
Drugs	0.5%	4.5%	5.1%	0.7%	2.2%	0.9%	2.3%	0.5%	1.5%	0.8%	1.6%	0.4%	3.6%	0.4%	0.9%	0.6%	0.9%
Miscellaneous ambulatory surgical care	7.5%	4.9%	8.8%	11.4%	5.5%	7.0%	17.4%	1.2%	0.6%	15.9%	18.4%	16.5%	3.9%	0.1%	12.1%	3.2%	7.3%
Treatment/operating/recovery room	8.9%	14.7%	19.5%	6.2%	12.9%	8.1%	5.1%	3.3%	4.8%	5.9%	4.4%	5.3%	3.7%	11.2%	5.7%	5.7%	5.8%
Unclassified services	0.3%	1.2%	1.0%	0.7%	0.8%	0.6%	0.8%	0.7%	0.6%	2.6%	1.2%	0.6%	1.2%	0.6%	0.7%	1.2%	0.8%

*continued*

**Table TA.10a Summary of Medical Payment Distribution for Group A and Group B Procedures by Provider Type, 2012/2013 Claims with More Than 7 Days of Lost Time (continued)**

Group	AR <sup>a</sup>	CA	FL	IA	IL	IN <sup>a</sup>	LA	MA	MI	MN	NC <sup>a</sup>	NJ	PA	TX	VA <sup>a</sup>	WI	Median
<b>Other providers</b>																	
Group A	10.7%	14.0%	12.8%	10.1%	19.8%	13.4%	11.3%	8.7%	9.1%	12.2%	9.7%	14.5%	10.0%	14.6%	10.6%	18.9%	11.7%
Group B	89.3%	86.0%	87.2%	89.9%	80.2%	86.6%	88.7%	91.3%	90.9%	87.8%	90.3%	85.5%	90.0%	85.4%	89.4%	81.1%	88.3%
Anesthesia	3.1%	0.7%	2.7%	4.0%	2.6%	2.7%	3.8%	0.5%	5.6%	9.2%	2.4%	2.6%	2.2%	4.7%	1.4%	4.5%	2.7%
Laboratory	0.3%	8.2%	2.9%	1.0%	1.9%	0.9%	4.1%	0.4%	0.9%	0.3%	1.1%	2.7%	1.9%	3.4%	1.9%	1.1%	1.5%
Special report	0.8%	2.2%	0.4%	0.2%	1.9%	0.1%	0.1%	2.9%	1.3%	0.9%	0.2%	1.1%	0.9%	0.3%	0.5%	1.1%	0.8%
Supplies and equipment	29.6%	27.1%	25.2%	27.5%	30.8%	29.4%	26.0%	30.6%	28.9%	36.0%	27.8%	29.7%	37.0%	22.4%	24.9%	24.9%	28.3%
Other medical/diagnostic services	27.7%	20.0%	27.2%	20.8%	13.4%	19.0%	18.8%	23.5%	23.8%	20.4%	21.3%	23.3%	17.1%	21.5%	26.4%	20.5%	21.0%
Drugs	26.7%	19.3%	25.6%	29.6%	24.5%	31.4%	32.7%	26.4%	24.0%	17.0%	32.8%	18.0%	28.4%	30.6%	24.4%	22.7%	26.0%
Miscellaneous ambulatory surgical care	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.9%	0.0%	0.0%	1.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Treatment/operating/recovery room	0.0%	0.0%	0.1%	0.0%	0.1%	0.0%	0.6%	0.0%	0.0%	0.1%	0.1%	0.3%	0.2%	0.0%	0.6%	2.3%	0.1%
Unclassified services	0.8%	5.2%	1.9%	2.5%	3.1%	2.2%	1.7%	3.1%	3.8%	1.8%	3.3%	3.1%	1.9%	1.6%	4.7%	2.6%	2.6%
All other services <sup>b</sup>	0.3%	3.2%	1.1%	4.2%	1.5%	0.9%	0.0%	4.1%	2.7%	1.2%	1.4%	4.4%	0.5%	0.9%	4.6%	1.5%	1.4%
<b>Hospital outpatient</b>																	
Group A	73.2%	80.4%	69.0%	79.2%	74.0%	73.4%	74.2%	84.3%	76.6%	73.0%	64.8%	67.0%	78.1%	88.7%	71.4%	80.4%	74.1%
Group B	26.8%	19.6%	31.0%	20.8%	26.0%	26.6%	25.8%	15.7%	23.4%	27.0%	35.2%	33.0%	21.9%	11.3%	28.6%	19.6%	25.9%
Anesthesia	5.1%	1.0%	6.5%	3.3%	5.7%	3.8%	5.8%	2.7%	5.3%	5.1%	8.9%	3.8%	4.2%	0.7%	5.8%	4.9%	5.0%
Drugs	3.6%	1.5%	4.5%	3.5%	3.8%	4.3%	3.4%	1.7%	3.0%	4.4%	5.1%	1.7%	1.6%	0.5%	4.1%	3.2%	3.4%
Supplies and equipment	8.5%	2.7%	13.0%	7.9%	9.7%	12.7%	11.7%	6.5%	10.5%	10.2%	16.6%	10.3%	9.6%	3.2%	13.3%	7.9%	10.0%
Other medical/diagnostic services	3.1%	7.2%	5.2%	4.2%	3.4%	2.8%	2.3%	3.0%	3.7%	3.8%	2.1%	4.5%	2.5%	4.7%	2.3%	2.5%	3.3%
Major surgery	0.1%	1.4%	0.1%	0.2%	0.3%	0.0%	0.0%	0.0%	0.2%	0.3%	0.0%	0.1%	0.1%	0.3%	0.1%	0.0%	0.1%
Pain management injections	0.5%	0.7%	0.1%	0.3%	0.4%	0.3%	0.0%	0.1%	0.2%	0.2%	0.1%	0.0%	0.2%	0.4%	0.0%	0.2%	0.2%
Miscellaneous ambulatory services	4.4%	4.0%	0.8%	0.7%	2.0%	2.3%	2.2%	1.0%	0.1%	2.2%	2.1%	10.8%	1.9%	0.0%	2.6%	0.3%	2.1%
Unclassified services	1.6%	1.0%	0.6%	0.5%	0.3%	0.2%	0.3%	0.3%	0.3%	0.5%	0.2%	1.8%	1.7%	1.5%	0.3%	0.5%	0.5%
All other services <sup>b</sup>	1.6%	1.1%	0.8%	0.7%	0.5%	0.4%	0.3%	0.6%	0.4%	0.8%	0.3%	1.8%	1.8%	1.6%	0.4%	0.6%	0.7%

Note: 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures at the claim level are too small to support an interstate comparison.

<sup>b</sup> All other services by other providers includes other facility services such as hospice, skilled nursing facilities that are not hospital based, etc. This category represents a small percentage of payments for other providers and it was not included in the analysis or Figure TA.2. All other services by hospital outpatient includes undefined services provided in a hospital outpatient setting. These payments represent such a small percentage of total payments made to hospital outpatient settings that they are not meaningful in the analysis and are not included in Figure TA.2.

Table TA.10b Percentage of Claims with Group A and Group B Procedures by Provider Type, 2012/2013 Claims with More Than 7 Days of Lost Time <sup>c</sup>

Group	AR <sup>a</sup>	CA	FL	IA	IL	IN <sup>a</sup>	LA	MA	MI	MN	NC <sup>a</sup>	NJ	PA	TX	VA <sup>a</sup>	WI	Median
<b>Chiropractors</b>																	
Group A	n/a	97.7%	98.6%	100.0%	99.5%	n/a	99.5%	100.0%	99.5%	99.9%	n/a	98.3%	99.6%	75.4%	n/a	99.9%	99.5%
Group B	n/a	68.5%	30.1%	10.4%	29.1%	n/a	33.5%	19.9%	17.0%	33.0%	n/a	26.0%	30.4%	60.5%	n/a	28.9%	29.6%
Anesthesia	n/a	0.0%	0.0%	0.0%	0.0%	n/a	1.2%	0.0%	0.0%	0.1%	n/a	0.0%	0.3%	0.0%	n/a	0.0%	0.0%
Laboratory	n/a	0.6%	0.0%	0.0%	1.0%	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.5%	0.5%	n/a	0.6%	0.0%
Special report	n/a	23.4%	1.9%	0.0%	5.1%	n/a	7.4%	1.0%	1.1%	0.4%	n/a	0.7%	0.7%	54.8%	n/a	1.4%	1.3%
Supplies and equipment	n/a	29.6%	18.8%	3.8%	13.2%	n/a	18.4%	15.5%	9.8%	11.4%	n/a	15.2%	18.8%	7.9%	n/a	21.3%	15.3%
Other medical/diagnostic services	n/a	43.2%	12.4%	6.5%	12.0%	n/a	9.3%	4.1%	4.5%	7.7%	n/a	7.4%	14.7%	6.9%	n/a	11.6%	8.5%
Drugs	n/a	3.3%	0.4%	0.0%	0.1%	n/a	3.5%	0.1%	0.5%	0.0%	n/a	2.4%	1.5%	0.1%	n/a	0.6%	0.5%
Miscellaneous ambulatory surgical care	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	0.2%	n/a	0.0%	0.0%	0.0%	n/a	0.0%	0.0%
Treatment/operating/recovery room	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	0.0%	n/a	0.0%	0.0%	0.0%	n/a	0.0%	0.0%
Unclassified services	n/a	5.3%	1.4%	0.7%	6.7%	n/a	2.3%	4.2%	2.4%	19.7%	n/a	4.8%	2.4%	4.1%	n/a	4.2%	4.1%
<b>Physical therapists</b>																	
Group A	99.5%	99.6%	99.3%	99.0%	99.5%	99.5%	99.8%	99.4%	99.1%	98.2%	99.3%	99.6%	99.1%	99.2%	99.6%	98.6%	99.3%
Group B	22.6%	57.1%	18.2%	22.0%	33.1%	36.3%	24.8%	20.9%	28.9%	47.0%	28.0%	27.1%	30.4%	30.8%	22.1%	33.7%	28.5%
Anesthesia	0.0%	0.1%	0.0%	0.1%	0.1%	1.2%	0.3%	0.2%	0.3%	0.0%	0.4%	0.4%	0.2%	0.1%	0.5%	1.2%	0.2%
Laboratory	0.4%	1.0%	0.7%	0.8%	1.1%	0.7%	0.9%	0.6%	0.3%	0.5%	0.4%	0.5%	0.6%	0.7%	0.7%	1.5%	0.7%
Special report	2.9%	4.7%	1.1%	1.2%	0.7%	1.2%	1.2%	0.9%	0.1%	3.5%	1.5%	0.2%	0.1%	13.2%	1.0%	1.5%	1.2%
Supplies and equipment	14.6%	45.2%	12.4%	13.9%	19.8%	23.4%	18.5%	13.5%	14.7%	19.3%	16.7%	20.0%	19.4%	13.9%	13.7%	19.9%	17.6%
Other medical/diagnostic services	7.9%	28.0%	6.6%	9.0%	15.0%	18.1%	4.2%	8.6%	15.5%	17.1%	10.7%	9.8%	8.6%	9.1%	8.7%	16.6%	9.5%
Drugs	2.6%	8.1%	2.3%	2.3%	7.0%	7.3%	1.6%	3.1%	7.6%	1.7%	3.8%	4.5%	10.2%	1.4%	3.4%	4.6%	3.6%
Miscellaneous ambulatory surgical care	0.0%	0.0%	0.0%	0.0%	0.0%	0.2%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Treatment/operating/recovery room	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.0%	0.1%	0.2%	0.2%	0.1%	0.1%	0.0%	0.0%	0.0%	0.6%	0.0%
Unclassified services	0.6%	6.0%	0.9%	1.4%	2.7%	1.3%	1.9%	2.6%	1.7%	27.7%	3.3%	1.1%	3.0%	2.9%	1.7%	3.2%	2.3%
<b>Medical doctor/doctor of osteopathy</b>																	
Group A	100.0%	99.8%	100.0%	99.7%	99.8%	100.0%	99.8%	99.6%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	100.0%	99.7%	100.0%
Group B	84.3%	96.2%	89.6%	74.9%	80.0%	85.0%	80.3%	59.9%	79.1%	77.2%	82.3%	80.1%	78.1%	93.6%	78.6%	75.0%	80.0%
Anesthesia	36.5%	28.5%	28.1%	34.8%	32.9%	37.7%	33.6%	26.0%	37.5%	30.4%	35.0%	34.8%	36.8%	29.1%	33.0%	32.4%	33.3%
Laboratory	21.9%	20.5%	24.5%	15.5%	19.3%	13.5%	29.8%	7.2%	10.2%	17.5%	16.4%	13.5%	8.7%	19.2%	13.1%	17.4%	16.9%
Special report	49.4%	58.1%	37.7%	11.1%	9.3%	10.1%	16.5%	3.7%	2.1%	4.2%	25.8%	3.2%	2.6%	83.4%	6.4%	12.0%	10.6%
Supplies and equipment	33.9%	58.5%	47.0%	35.6%	44.1%	48.4%	37.6%	18.9%	30.4%	29.5%	41.0%	43.3%	32.9%	36.0%	38.6%	31.7%	36.8%
Other medical/diagnostic services	48.6%	89.4%	57.7%	49.9%	51.6%	57.0%	49.7%	43.2%	50.8%	48.4%	50.4%	53.9%	53.4%	50.6%	52.9%	51.2%	51.0%
Drugs	24.7%	47.9%	42.3%	28.0%	35.1%	44.2%	25.4%	15.1%	34.8%	21.5%	28.8%	32.7%	29.0%	21.8%	27.5%	22.3%	28.4%
Miscellaneous ambulatory surgical care	9.0%	4.8%	6.1%	10.2%	5.0%	8.1%	8.2%	1.5%	0.5%	11.4%	9.4%	16.4%	6.1%	0.1%	9.5%	3.1%	7.1%
Treatment/operating/recovery room	9.7%	13.9%	13.7%	5.9%	11.4%	8.2%	3.3%	2.7%	6.9%	4.7%	3.3%	5.2%	7.0%	10.9%	4.5%	6.7%	6.8%
Unclassified services	3.8%	14.9%	10.5%	6.7%	10.6%	8.0%	9.8%	3.5%	8.2%	44.7%	8.1%	9.6%	8.5%	11.1%	7.5%	11.8%	9.1%

continued

**Table TA.10b Percentage of Claims with Group A and Group B Procedures by Provider Type, 2012/2013 Claims with More Than 7 Days of Lost Time <sup>c</sup> (continued)**

Group	AR <sup>a</sup>	CA	FL	IA	IL	IN <sup>a</sup>	LA	MA	MI	MN	NC <sup>a</sup>	NJ	PA	TX	VA <sup>a</sup>	WI	Median
<b>Other providers</b>																	
Group A	18.4%	27.7%	23.7%	14.1%	25.1%	17.1%	20.1%	15.4%	13.8%	17.6%	16.5%	21.6%	18.9%	15.4%	21.7%	20.4%	18.7%
Group B	97.4%	96.4%	93.7%	97.3%	93.2%	96.6%	96.2%	95.3%	97.1%	96.0%	97.0%	94.5%	96.1%	98.2%	94.7%	94.4%	96.1%
Anesthesia	10.1%	2.9%	11.9%	5.3%	5.1%	4.4%	12.0%	1.1%	19.3%	16.5%	13.1%	3.5%	8.3%	13.5%	2.9%	5.9%	7.1%
Laboratory	2.7%	17.5%	13.1%	6.3%	8.2%	4.3%	8.7%	2.0%	4.4%	1.6%	4.0%	9.3%	5.8%	8.7%	7.2%	5.6%	6.1%
Special report	5.0%	7.5%	2.0%	0.5%	2.6%	0.3%	0.8%	3.1%	1.3%	0.9%	0.7%	2.1%	1.3%	2.5%	0.7%	1.0%	1.3%
Supplies and equipment	36.4%	37.7%	30.1%	34.3%	33.4%	33.8%	29.1%	34.6%	33.7%	30.7%	37.3%	35.4%	43.9%	27.1%	33.1%	28.2%	33.8%
Other medical/diagnostic services	18.2%	28.5%	29.9%	18.6%	24.3%	20.8%	20.5%	22.3%	18.1%	18.1%	19.9%	27.4%	23.7%	17.7%	24.8%	23.6%	21.6%
Drugs	78.1%	69.8%	71.4%	78.8%	65.2%	80.4%	74.1%	70.4%	72.1%	69.8%	79.0%	65.5%	65.2%	84.5%	72.9%	73.5%	72.5%
Miscellaneous ambulatory surgical care	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.1%	0.0%	0.0%	0.3%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%
Treatment/operating/recovery room	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.3%	0.0%	0.0%	0.0%	0.0%	0.2%	0.2%	0.0%	0.1%	0.7%	0.0%
Unclassified services	5.0%	13.6%	6.9%	6.0%	12.4%	6.6%	7.4%	6.3%	7.0%	7.9%	8.9%	14.4%	5.2%	4.9%	7.2%	6.2%	6.9%
All other services <sup>b</sup>	0.1%	0.1%	0.1%	0.3%	0.2%	0.1%	0.0%	0.2%	0.1%	0.3%	0.2%	0.3%	0.1%	0.0%	0.3%	0.2%	0.2%
<b>Hospital outpatient</b>																	
Group A	98.2%	96.3%	97.4%	98.3%	98.5%	98.1%	99.8%	99.3%	99.5%	98.9%	98.4%	97.2%	98.8%	99.5%	99.1%	99.3%	98.6%
Group B	72.0%	50.5%	71.8%	71.2%	76.1%	80.6%	77.9%	64.9%	75.7%	71.8%	80.0%	73.5%	71.0%	51.6%	72.1%	73.2%	72.0%
Anesthesia	24.1%	1.3%	17.0%	21.6%	22.2%	33.6%	30.9%	13.3%	34.1%	20.6%	33.7%	14.5%	26.2%	2.1%	22.8%	26.0%	22.5%
Drugs	47.0%	11.0%	48.9%	51.9%	51.2%	61.8%	54.2%	39.7%	57.2%	43.9%	61.5%	44.1%	37.2%	6.2%	54.0%	56.6%	50.1%
Supplies and equipment	45.6%	8.8%	40.8%	38.5%	42.9%	52.4%	52.0%	28.3%	45.6%	43.5%	53.7%	36.7%	42.6%	8.4%	41.8%	41.9%	42.3%
Other medical/diagnostic services	35.9%	37.2%	30.3%	34.1%	35.7%	34.6%	33.6%	28.9%	38.0%	33.5%	32.0%	32.2%	35.5%	42.7%	29.1%	32.2%	33.9%
Major surgery	0.2%	0.5%	0.2%	0.4%	0.4%	0.1%	0.1%	0.1%	0.6%	1.0%	0.1%	0.1%	0.2%	0.5%	0.3%	0.1%	0.2%
Pain management injections	1.2%	1.4%	0.3%	1.2%	1.6%	1.2%	0.3%	0.6%	0.8%	1.7%	0.7%	0.1%	0.5%	1.1%	0.4%	1.4%	0.9%
Miscellaneous ambulatory services	3.8%	1.7%	0.9%	1.5%	1.7%	2.5%	1.9%	1.6%	0.1%	2.9%	3.8%	8.9%	5.4%	0.0%	3.1%	0.7%	1.8%
Unclassified services	10.2%	3.3%	8.1%	10.5%	7.2%	7.0%	5.9%	25.6%	12.0%	9.5%	7.4%	20.2%	22.6%	5.0%	7.2%	7.2%	7.8%
All other services <sup>b</sup>	2.8%	0.7%	0.9%	1.6%	1.9%	0.9%	0.7%	1.9%	1.2%	2.0%	0.8%	0.2%	0.8%	1.9%	0.6%	1.7%	1.1%

Note: 2012/2013 refers to claims with injuries arising from October 1, 2011, to September 30, 2012, evaluated as of March 31, 2013.

<sup>a</sup> The cell sizes underlying the data in Arkansas, Indiana, North Carolina, and Virginia for chiropractic measures at the claim level are too small to support an interstate comparison.

<sup>b</sup> All other services by other providers includes other facility services such as hospice, skilled nursing facilities that are not hospital based, etc. This category represents a small percentage of payments for other providers and it was not included in the analysis or Figure TA.2. All other services by hospital outpatient includes undefined services provided in a hospital outpatient setting. These payments represent such a small percentage of total payments made to hospital outpatient settings that they are not meaningful in the analysis and are not included in Figure TA.2.

<sup>c</sup> Since a claim can be associated with multiple services (e.g. may have both Group A and Group B services), the percent of claims with Group A and with Group B services will not add up to 100% within a provider group. For the same reason, the sum of percent of claims for each individual Group B service will not add up to the overall percent of claims with a Group B service.

**Table TA.11 Description of Marketbasket Contents**

<b>Service Group</b>	<b>Number of CPT Codes</b>	<b>% of Expenditures Captured by Marketbasket Codes</b>	<b>% of Expenditures in Marketbasket</b>	<b>% of Services Captured by Marketbasket Codes</b>	<b>% of Services in Marketbasket</b>
Emergency	5	95%	2%	90%	1%
Evaluation and management	13	93%	23%	93%	16%
Major radiology	13	86%	9%	84%	1%
Minor radiology	33	67%	5%	81%	6%
Neurological/neuromuscular testing	11	92%	3%	95%	2%
Physical medicine	23	92%	34%	94%	71%
Major surgery	12	40%	23%	41%	1%
Pain management injections	8	59%	1%	72%	1%

Key: CPT: Current Procedural Terminology.



**Table TA.12 Sensitivity Test: Percentage of Nonhospital Expenditures Captured by the Marketbasket, Calendar Year 2012**

Nonhospital Service Group <sup>a</sup>	AR	CA	FL	IA	IL	IN	LA	MA	MI	MN	NC	NJ	PA	TX	VA	WI
Emergency	97%	96%	94%	97%	95%	92%	93%	88%	96%	91%	96%	97%	89%	98%	94%	91%
Evaluation and management	96%	88%	96%	95%	93%	96%	91%	96%	97%	96%	93%	94%	94%	95%	94%	94%
Major radiology	84%	88%	83%	86%	85%	86%	85%	86%	83%	85%	86%	84%	82%	81%	85%	87%
Minor radiology	82%	66%	71%	80%	74%	79%	74%	70%	74%	78%	76%	69%	71%	78%	76%	79%
Neurological/neuromuscular testing <sup>b</sup>	84%	89%	91%	88%	86%	86%	85%	80%	86%	83%	79%	85%	86%	85%	83%	91%
Pain management injections	71%	79%	55%	74%	60%	55%	56%	60%	58%	52%	51%	52%	62%	58%	52%	60%
Physical medicine	95%	82%	93%	97%	98%	96%	64%	95%	98%	90%	93%	96%	86%	82%	97%	95%
Surgery	36%	38%	33%	44%	38%	44%	32%	52%	42%	40%	39%	33%	41%	33%	33%	48%

<sup>a</sup> Included here are those Group A services that were captured by the marketbasket for nonhospital services. Table TA.11 shows the percentage of payments represented by Group A services, by different provider types.

<sup>b</sup> In 2013, Medicare implemented a fundamental change in the coding for nerve conduction studies, which affected the most commonly billed procedures in the neurological/neuromuscular testing service group. Many states adopted this change, while others continued using the old codes as of June 2013. Because there is no direct crosswalk between the old and new codes, we are not able to construct a comparable marketbasket for this service group across all states for the year 2013. This table shows eight service groups, including the neurological/neuromuscular testing service group, in 2012.

**Table TA.13 Marketbasket Procedure Codes and Descriptions**

Procedure	% of Services	CPT Code	Description
<b>Emergency</b>			
1	56.6%	99283	Emergency department visit, moderate severity
2	24.2%	99284	Emergency department visit, high severity, urgent evaluation
3	10.8%	99282	Emergency department visit, low-moderate severity
4	6.7%	99285	Emergency department visit, high severity, immediate significant threat
5	1.6%	99281	Emergency department visit, self-limited/minor
<b>Evaluation and management</b>			
6	39.9%	99213	Established patient office visit, low-moderate severity, 15 minutes
7	19.3%	99214	Established patient office visit, moderate-high severity, 25 minutes
8	10.5%	99203	New patient office visit, moderate severity, 30 minutes
9	8.7%	99212	Established patient office visit, self-limited/minor, 10 minutes
10	8.0%	99204	New patient office visit, moderate-high severity, 45 minutes
11	3.1%	99202	New patient visit, low-moderate severity, 20 minutes
12	2.5%	99243	Office consultation, new/established patient, moderate severity, 40 minutes
13	2.1%	99215	Established patient office visit, moderate-high severity, 40 minutes
14	2.1%	99244	Office consultation, new/established patient, moderate-high severity, 60 minutes
15	1.2%	99205	New patient office visit, moderate-high severity, 60 minutes
16	1.1%	99232	Subsequent hospital care, minor complication, 25 minutes
17	0.9%	99245	Office consultation, new/established patient, moderate-high severity, 80 minutes
18	0.8%	99211	Established patient office visit, no physician necessary, 5 minutes
<b>Major radiology</b>			
19	20.9%	73721	MRI, any joint of lower extremity, without contrast material
20	20.9%	73221	MRI, any joint of upper extremity, without contrast material
21	17.6%	72148	MRI, spinal canal and contents, lumbar, without contrast material
22	11.4%	70450	Computed tomography, head or brain, without contrast material
23	8.0%	72141	MRI, spinal canal and contents, cervical, without contrast material
24	4.8%	72125	Computed tomography, cervical spine, without contrast material
25	2.8%	72193	Computed tomography, pelvis, with contrast material
26	2.7%	74160	Computed tomography, abdomen, with contrast material
27	2.7%	73222	MRI, any joint of upper extremity, with contrast material
28	2.1%	72131	Computed tomography, lumbar spine, without contrast material
29	2.1%	73700	Computed tomography, lower extremity, without contrast material
30	2.0%	72146	MRI, spinal canal and contents, thoracic, without contrast material
31	2.0%	72158	MRI, spinal canal and contents, without, then with contrast material, lumbar
<b>Minor radiology</b>			
32	9.1%	73030	Radiologic exam, shoulder, complete, minimum of two views
33	8.6%	73140	Radiologic exam, finger(s), minimum of two views
34	7.6%	73610	Radiologic exam, ankle, complete, minimum of three views
35	7.4%	73130	Radiologic exam, hand, minimum of three views
36	7.2%	73110	Radiologic exam, wrist, complete, minimum of three views
37	7.0%	72100	Radiologic exam, spine, lumbosacral, two or three views
38	6.7%	73630	Radiologic exam, foot, complete, minimum of three views
39	4.2%	73562	Radiologic exam, knee, three views
40	4.0%	73560	Radiologic exam, knee, one or two views
41	3.5%	72110	Radiologic exam, spine, lumbosacral, minimum of four views

*continued*

**Table TA.13 Marketbasket Procedure Codes and Descriptions (continued)**

Procedure	% of Services	CPT Code	Description
42	3.1%	71020	Radiologic exam, chest, two views, frontal and lateral
43	2.9%	72040	Radiologic exam, spine, cervical, two or three views
44	2.8%	73080	Radiologic exam, elbow, complete, minimum of three views
45	2.7%	73564	Radiologic exam, knee, complete, four or more views
46	2.4%	71010	Radiologic exam, chest, single view, frontal
47	2.3%	73590	Radiologic exam, tibia and fibula, two views
48	2.2%	73100	Radiologic exam, wrist, two views
49	2.0%	72050	Radiologic exam, spine, cervical, minimum of four views
50	1.8%	73090	Radiologic exam, forearm, two views
51	1.6%	72070	Radiologic exam, spine, thoracic, two views
52	1.6%	72170	Radiologic exam, pelvis, one or two views
53	1.1%	73600	Radiologic exam, ankle, two views
54	1.1%	73120	Radiologic exam, hand, two views
55	1.0%	71100	Radiologic exam, ribs, unilateral, two views
56	1.0%	73620	Radiologic exam, foot, two views
57	0.9%	73060	Radiologic exam, humerus, minimum of two views
58	0.8%	73660	Radiologic exam, toe(s), minimum of two views
59	0.8%	73550	Radiologic exam, femur, two views
60	0.6%	70030	Radiologic exam, eye, for detection of foreign body
61	0.6%	73650	Radiologic exam, calcaneus, minimum of two views
62	0.5%	72052	Radiologic exam, spine, cervical, complete, including oblique, flexion and/or extension studies
63	0.5%	72072	Radiologic exam, spine, thoracic, three views
64	0.5%	73565	Radiologic exam, both knees, standing, anteroposterior
<b>Neurological/neuromuscular testing</b>			
65	40.5%	95904	Nerve conduction, each nerve, sensory
66	18.8%	95900	Nerve conduction, each nerve, motor, without F-wave study
67	16.8%	95903	Nerve conduction, each nerve, motor, with F-wave study
68	7.1%	95860	Needle EMG, one extremity with or without related paraspinal areas
69	4.1%	95851	ROM measurements and report, each extremity (excluding hand) or each trunk section
70	4.0%	95861	Needle EMG, two extremities, with or without related paraspinal areas
71	3.2%	95934	H-reflex, amplitude and latency study, record gastrocnemius/soleus muscle
72	2.0%	95831	Muscle test, manual with report, extremity (excluding hand) or trunk
73	1.8%	95920	Intraoperative neurophysiology testing, per hour
74	1.2%	95852	ROM measurements and report, hand, with or without comparison with normal side
75	0.6%	95832	Muscle test, manual with report, hand, with or without comparison with normal side
<b>Physical medicine</b>			
76	43.3%	97110	Therapeutic procedure, one or more areas, each 15 minutes, therapeutic exercises
77	13.6%	97140	Manual therapy techniques, one or more regions, each 15 minutes
78	7.4%	97014	Electrical stimulation (unattended), one or more areas
79	6.4%	97530	Therapeutic activities, direct patient contact, each 15 minutes
80	6.1%	97010	Hot/cold packs, one or more areas
81	4.9%	97035	Ultrasound, one or more areas, each 15 minutes
82	3.2%	97112	Therapeutic procedure, one or more areas, each 15 minutes, neuromuscular re-education of movement

*continued*

**Table TA.13 Marketbasket Procedure Codes and Descriptions (continued)**

Procedure	% of Services	CPT Code	Description
83	1.9%	98940	Chiropractic manipulative treatment, spinal, one to two regions
84	1.8%	97001	Physical therapy evaluation
85	1.7%	97032	Electric stimulation, one or more areas, each 15 minutes
86	1.2%	98941	Chiropractic manipulative treatment, spinal, three to four regions
87	1.2%	97012	Traction, mechanical, one or more areas
88	1.1%	97033	Iontophoresis, one or more areas, each 15 minutes
89	1.0%	97124	Therapeutic procedure, one or more areas, each 15 minutes, massage
90	0.8%	97750	Physical performance test or measurement, with written report, each 15 minutes
91	0.7%	97546	Work hardening/conditioning, each additional hour
92	0.7%	97545	Work hardening/conditioning, initial two hours
93	0.6%	97022	Whirlpool, one or more areas
94	0.6%	97002	Physical therapy re-evaluation
95	0.6%	97113	Therapeutic procedure, one or more areas, each 15 minutes, aquatic therapy with therapeutic exercises
96	0.4%	97018	Paraffin bath, one or more areas
97	0.4%	97016	Vasopneumatic devices, one or more areas
98	0.3%	97026	Infrared, one or more areas
<b>Major surgery</b>			
99	19.1%	29881	Arthroscopy, knee surgery, with meniscectomy, medial or lateral
100	17.3%	64721	Neuroplasty and/or transposition, median nerve at carpal tunnel
101	14.8%	29826	Arthroscopy, shoulder surgery, decompression of subacromial space
102	10.3%	29827	Arthroscopy, shoulder surgery, rotator cuff repair
103	6.8%	29880	Arthroscopy, knee surgery, with meniscectomy, medial and lateral
104	6.6%	49505	Repair initial inguinal hernia, age five years or over, reducible
105	6.5%	63030	Laminotomy with decompression of nerve root, one interspace, lumbar
106	5.0%	29888	Arthroscopically aided ACL repair, augmentation, reconstruction
107	4.3%	23412	Repair of ruptured musculotendinous cuff, chronic
108	3.9%	29877	Arthroscopy, knee surgery, debridement/shaving of articular cartilage
109	2.9%	26951	Amputation, finger or thumb, primary or secondary
110	2.5%	26418	Repair, extensor tendon, finger, primary or secondary, without free graft, each tendon
<b>Pain management injections</b>			
111	27.3%	20552	Injection(s), single or multiple trigger point(s), one or two muscle(s)
112	22.4%	62311	Injection, single (not via indwelling catheter), not including neurolytic substances, with or without contrast (for either localization or epidurography), of diagnostic or therapeutic substance(s) (including anesthetic, antispasmodic, opioid, steroid, other solution), epidural or subarachnoid, lumbar, sacral (caudal)
113	18.7%	64415	Injection, anesthetic agent, brachial plexus, single
114	8.2%	64493	Injections, diagnostic or therapeutic agent, paravertebral facet joint (or nerves innervating that joint) with image guidance, lumbar or sacral, single level
115	7.7%	62310	Injection, single (not via indwelling catheter), not including neurolytic substances, with or without contrast (for either localization or epidurography), of diagnostic or therapeutic substance(s) (including anesthetic, antispasmodic, opioid, steroid, other solution), epidural or subarachnoid, cervical or thoracic
116	7.1%	64450	Injection, anesthetic agent, other peripheral nerve or branch
117	4.5%	20553	Injection(s), single or multiple trigger point(s), three or more muscle(s)
118	4.2%	62284	Injection procedure for myelography and/or computed tomography, spinal (other than C1-C2 and posterior fossa)

*continued*

**Table TA.13 Marketbasket Procedure Codes and Descriptions (continued)**

---

*Key:* ACL: anterior cruciate ligament; CPT: Current Procedural Terminology; EMG: electromyography; MRI: magnetic resonance imaging; ROM: range of motion; SLAP: superior labrum anterior to posterior.

*Notes:* In 2013, Medicare implemented a fundamental change in the coding for nerve conduction studies, which affected the most commonly billed procedures in the neurological/neuromuscular testing service group. Many states adopted this change while others continued using the old codes as of June 2013. Because there is no direct crosswalk between the old and new codes, and it is too early to evaluate the changes in billing and utilization patterns of the procedures, we are not able to construct a comparable marketbasket for this service group across all states in 2013. The marketbasket procedures for the neurological/neuromuscular testing service group shown in this table are the ones before the coding change used for years earlier than 2013.

**Table TA.14 Interstate Comparability Concerns**

<b>State</b>	<b>Source of Concern (provider type/service group)</b>	<b>Issue</b>
All	Provider type categories	The billing source is the identifying information for provider type. If, for example, a physician bills through a hospital, he or she may be categorized as a hospital provider.
All	Average payment per inpatient episode	The average payment per inpatient episode is highly dependent on length of stay. The data details do not allow us to control for length of stay at this time; however, we are able to provide measures for certain types of claims (by surgery or ICD-9 codes).
All	Laboratory tests/pathology and neurological/neuromuscular testing	Billing for laboratory tests and neurological/neuromuscular testing can differ across states. For example, a relatively high number of services per claim may indicate that tests are broken out more finely in bills in those states than in other states.
All	Special reports	Special reports are primarily made up of service code 99080, which is defined as "special reports such as insurance forms, more than the information conveyed in the usual medical communication or standard reporting form." California and Texas also have a high percentage of codes 99455 and 99456, which are defined as "work related or medical disability exam by the treating physician and completion of necessary documentation/certificates and report."
All	Miscellaneous hospital ambulatory care	This is a broadly defined category encompassing miscellaneous charges for hospital ambulatory surgical care not defined under other categories and typically billed using hospital revenue codes 490 and 499.
All, hospital providers	Supplies and equipment	Supplies and equipment as billed by hospitals, in particular, may not be comparable across states because of different billing practices. In some states, charges for supplies are unbundled—that is, hospitals bill for individual supplies. In other states, hospitals group supply charges, which affects per-service payments and the number of services in this service group.
MA and PA	Hospital outpatient measures	More claims receive hospital outpatient treatment in Massachusetts and Pennsylvania than in the other states; this may mean that more workers are seen in hospital settings or that more hospital billing is done even when the setting is a physician's office. The result is that more services are in the hospital provider category in Massachusetts and Pennsylvania. Overall, injuries treated by hospital providers in Massachusetts and Pennsylvania are likely less severe than those treated in other states; therefore, costs and utilization may not be comparable to other states for some services.
LA	Physical medicine services	Physical medicine services provided by PT/OTs and chiropractic services in Louisiana are billed using state-specific PT/OT codes or chiropractor codes. Although many of these codes can be directly mapped to standard physical therapy services, some cannot (i.e., codes for therapeutic exercises and activities). We only include those codes that can be directly mapped in the price analysis. In Louisiana, this means that only 64 percent of physical medicine expenditures were included in the price analysis rather than 82–98 percent in other states. Because of this issue, utilization, services per visit, and resource intensity in Louisiana for physical medicine services, and for PT/OTs and chiropractors, are not comparable to other states.
FL, IA, LA, MI, and NJ	Payments per claim and other metrics for chiropractors	The numbers for payments per claim and other metrics for chiropractors in Florida, Iowa, Louisiana, Michigan, and New Jersey should be used with caution in interstate comparisons and trend analysis because of relatively few claims with chiropractic treatment (less than 200) in these states.

*continued*

**Table TA.14 Interstate Comparability Concerns (continued)**

<b>State</b>	<b>Source of Concern (provider type/service group)</b>	<b>Issue</b>
AR and LA	Hospital outpatient clinic/evaluation and management payments per claim and other metrics	The numbers in Arkansas and Louisiana for hospital outpatient clinic/evaluation and management measures should be used with caution in interstate comparisons because of relatively small cell sizes (less than 200 claims) in those states.
IN, IA, MA, MN, NC, VA, and WI	Low back cases with disc conditions metrics	The numbers in Indiana, Iowa, Massachusetts, Minnesota, North Carolina, Virginia, and Wisconsin for low back cases with disc conditions measures should be used with caution because of relatively small cell sizes (less than 100 claims).
AR, IN, NC and VA	Payments per claim and other metrics for chiropractors	The numbers in Arkansas, Indiana, North Carolina, and Virginia for payments per claim and other metrics for chiropractors are not shown because cell sizes are too small to support an interstate comparison or trend analysis.
AR, LA, IA, IN, NC, VA, and WI	Low back cases with disc conditions metrics	We have excluded numbers for Arkansas and Louisiana from all low back cases with disc conditions measures due to very small cell sizes. Iowa, Indiana, North Carolina, Virginia, and Wisconsin have been excluded for the following measures due to very small cell sizes (less than 50 claims): percentage of cases (with inpatient care), percentage of surgical cases (with inpatient surgery), average total medical payment per episode for disc cases with inpatient surgery, and average hospital payment per episode for disc cases with inpatient surgery.
CA	Hospital outpatient payment per claim and other metrics by service group	Trends in hospital outpatient measures for specific service groups are not shown for California because underlying data in our sample are not sufficiently representative of the state's trends.
AR	Hospital outpatient clinic/evaluation and management, and hospital outpatient laboratory average payment per claim and other metrics	Trends in hospital outpatient clinic/evaluation and management measures and hospital outpatient laboratory measures are not shown for Arkansas because cell sizes underlying the data are too small to support a meaningful trend analysis.
AR	Hospital inpatient payment per episode	Trends in hospital inpatient payments per episode are not shown for Arkansas because the cell sizes underlying the data are too small to support a trend analysis.

Key: ICD-9: International Classification of Diseases; PT/OT: physical/occupational therapist.

## REFERENCES

- Abraham, M., J. Ahlman, A. Boudreau, J. Connelly, D. Evans, and R. Glenn. 2011. *CPT® 2011 standard edition*. American Medical Association (AMA): Chicago, IL.
- Belton, S. 2013a. *CompScope™ benchmarks for Minnesota, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013b. *CompScope™ benchmarks for Wisconsin, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . *CompScope™ medical benchmarks for Minnesota, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014b. *CompScope™ medical benchmarks for Wisconsin, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Belton, S., R. Dolinschi, E. Radeva, K. Rothkin, B. Savych, C. Telles, and R. Yang. 2013. *CompScope™ Benchmarks: Technical appendix, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Coomer, N. 2010a. *Fee schedules for hospitals and ambulatory surgical centers: A guide for policymakers*. Cambridge, MA: Workers Compensation Research Institute.
- . 2010b. *National inventory of workers' compensation fee schedules for hospitals and ambulatory surgical centers*. Cambridge, MA: Workers Compensation Research Institute.
- Coomer, N., and T. Liu. 2010. *Benchmarks for designing workers' compensation medical fee schedules: 2009*. Cambridge, MA: Workers Compensation Research Institute.
- Eccleston, S. 2006. *Analysis of the workers' compensation medical fee schedules in Illinois*. Cambridge, MA: Workers Compensation Research Institute.
- Eccleston, S., A. Laszlo, X. Zhao, and M. Watson. 2002. *Benchmarks for designing workers' compensation medical fee schedules: 2001–2002*. Cambridge, MA: Workers Compensation Research Institute.
- Eccleston, S., and T. Liu. 2006. *Benchmarks for designing workers' compensation medical fee schedules: 2006*. Cambridge, MA: Workers Compensation Research Institute.
- Eccleston, S., T. Liu, and R. Victor. 2007. *WCRI FlashReport: Analysis of illustrative medical fee schedules in Wisconsin*. Cambridge, MA: Workers Compensation Research Institute.
- Fomenko, O., and T. Liu. 2012. *Designing workers' compensation medical fee schedules*. Cambridge, MA: Workers Compensation Research Institute.
- Fomenko, O., and R. Yang. 2013. *Hospital outpatient cost index for workers' compensation, 2nd edition*. Cambridge, MA: Workers Compensation Research Institute.
- Johnson, W., M. Baldwin, and S. Marcus. 1999. *The impact of workers' compensation networks on medical costs and disability payments*. Cambridge, MA: Workers Compensation Research Institute.
- Medicode. 1998. *International classification of diseases*. 9th revision. Washington, DC.
- Pennsylvania Compensation Rating Bureau. 2014 *Pennsylvania workers' compensation manual*, also known as the *Pennsylvania basic manual*. Philadelphia, PA.
- Radeva, E. 2013a. *CompScope™ benchmarks for Massachusetts, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013b. *CompScope™ benchmarks for Pennsylvania, 14th edition*. Cambridge, MA: Workers



- Compensation Research Institute.
- . 2013c. *Early evidence and baselines for monitoring the 2011 reforms in Illinois: CompScope™ benchmarks, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013d. *Michigan system performance prior to the 2011 legislative changes: CompScope™ benchmarks, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014a. *CompScope™ medical benchmarks for Massachusetts, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014b. *CompScope™ medical benchmarks for Michigan, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014c. *CompScope™ medical benchmarks for Pennsylvania, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014d. *Early insights on the 2011 reforms in Illinois: CompScope™ medical benchmarks, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Savych, B. 2013. *CompScope™ benchmarks for Virginia, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014. *CompScope™ medical benchmarks for Virginia, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Telles, C. 2013a. *Baseline for monitoring effects of 2011 legislation in North Carolina: CompScope™ benchmarks, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013b. *Benchmarks for Indiana, CompScope™ 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013c. *CompScope™ benchmarks for Texas, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014a. *CompScope™ medical benchmarks for North Carolina, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014b. *CompScope™ medical benchmarks for Texas, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Telles, C., and R. Dolinski. 2013. *CompScope™ benchmarks for Louisiana, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014. *CompScope™ medical benchmarks for Louisiana, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Telles, C., and K. Rothkin. 2013. *CompScope™ benchmarks for New Jersey, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014. *CompScope™ medical benchmarks for New Jersey, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- U.S. Department of Health and Human Services, Centers for Medicare and Medicaid Services. 2012. *PFS relative value files*.
- Yang, R. 2013a. *Baseline for monitoring the impact of SB 863 in California: CompScope™ benchmarks, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2013b. *CompScope™ benchmarks for Florida, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- . 2014a. *CompScope™ medical benchmarks for California, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.

- .2014b. *CompScope™ medical benchmarks for Florida, 14th edition*. Cambridge, MA: Workers Compensation Research Institute.
- Yang, R., and O. Fomenko. 2014. *WCRI medical price index for workers' compensation, sixth edition (MPI-WC)*. Cambridge, MA: Workers Compensation Research Institute.

# ACKNOWLEDGMENTS

This reference book is the 15th in a series of annual state medical benchmarking studies published by the Workers Compensation Research Institute under its CompScope™ program. The knowledge, support, and cooperation of many individuals and organizations in the workers' compensation community made this research possible. We are indebted to them all.

The insightful comments of system participants in each of the 16 study states significantly improved this report. We especially appreciate the assistance and comments from members of the CompScope™ advisory committees in the study states. They contributed to our understanding of the system in each state and helped us develop performance measures of interest to policymakers.

Our special thanks go to technical reviewers Michael Manley and Bobbi Markiewicz, who offered expert comments and suggestions that led to improvements in the presentation and focus of the studies.

We thank our data sources for their ongoing support of the database that is the foundation for this and other WCRI studies. The development of the database would not have been possible without the help of Dr. Philip Borba and his staff at Milliman, Inc.; their commitment to quality helps ensure the accuracy of the information.

We received support from many of our colleagues at the Institute. Our deputy director and CompScope™ Program Manager, Ramona Tanabe, provided direction and advice throughout the entire report development process. Eric Harrison, Beth Heffner, and Stacey O'Brien helped make sure that the data were of the highest quality. Stacey O'Brien also facilitated the presentation of the data in the reports. Roman Dolinschi and Karen Rothkin examined the data for potential anomalies with great care. Ning Zhang and Robyn Tarantino were responsible for programming the massive amounts of data that underlie the studies. Callison Lawson, Jill McNamee, and Sarah Solorzano provided expert administrative assistance in formatting the tables and text. Sarah Solorzano also shepherded the publication of the manuscript. We also thank Andrew Kenneally, the communications director at WCRI, for his diligent efforts in disseminating the research findings. On behalf of the entire CompScope™ team, we want to recognize the many contributions of Dr. Richard Victor, executive director of the Institute, to this 15th edition benchmarking series. His insight and guidance were invaluable to the success of the publication.

Of course, any errors or omissions that remain are the responsibility of the authors.

**Sharon E. Belton**  
**Roman Dolinschi**  
**Evelina Radeva**  
**Karen Rothkin**  
**Bogdan Savych**  
**Carol A. Telles**  
**Rui Yang**

Cambridge, Massachusetts  
October 2014

# OTHER WCRI PUBLICATIONS

## MEDICAL COSTS, UTILIZATION, AND HEALTH CARE DELIVERY

- IMPACT OF PHYSICIAN DISPENSING REFORM IN GEORGIA, 2ND EDITION.* Dongchun Wang, Te-Chun Liu, and Vennela Thumula. September 2014. wc-14-50.
- PHYSICIAN DISPENSING IN PENNSYLVANIA, 2ND EDITION.* Dongchun Wang, Te-Chun Liu, and Vennela Thumula. September 2014. wc-14-51.
- WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION, SIXTH EDITION (MPI-WC).* Rui Yang and Olesya Fomenko. July 2014. wc-14-34.
- IMPACT OF A TEXAS-LIKE FORMULARY IN OTHER STATES.* Vennela Thumula and Te-Chun Liu. June 2014. wc-14-31.
- COMPARING PAYMENTS TO AMBULATORY SURGERY CENTERS AND HOSPITAL OUTPATIENT DEPARTMENTS.* Bogdan Savych. June 2014. wc-14-30.
- PAYMENTS TO AMBULATORY SURGERY CENTERS.* Bogdan Savych. June 2014. wc-14-29.
- INTERSTATE VARIATIONS IN USE OF NARCOTICS, 2ND EDITION.* Vennela Thumula, Dongchun Wang, and Te-Chun Liu. May 2014. wc-14-18.
- LONGER-TERM USE OF OPIOIDS, 2ND EDITION.* Dongchun Wang. May 2014. wc-14-19.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR CALIFORNIA, 14TH EDITION.* Rui Yang. February 2014. wc-14-02.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR FLORIDA, 14TH EDITION.* Rui Yang. February 2014. wc-14-03.
- EARLY INSIGHTS ON THE 2011 REFORMS IN ILLINOIS: COMPSCOPE™ MEDICAL BENCHMARKS, 14TH EDITION.* Evelina Radeva. February 2014. wc-14-04.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR INDIANA, 14TH EDITION.* Carol A. Telles. February 2014. wc-14-05.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR LOUISIANA, 14TH EDITION.* Carol A. Telles and Roman Dolinschi. February 2014. wc-14-06.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR MASSACHUSETTS, 14TH EDITION.* Evelina Radeva. February 2014. wc-14-07.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR MICHIGAN, 14TH EDITION.* Evelina Radeva. February 2014. wc-14-08.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR MINNESOTA, 14TH EDITION.* Sharon E. Belton. February 2014. wc-14-09.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR NEW JERSEY, 14TH EDITION.* Carol A. Telles and Karen Rothkin. February 2014. wc-14-10.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR NORTH CAROLINA, 14TH EDITION.* Carol A. Telles. February 2014. wc-14-11.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR PENNSYLVANIA, 14TH EDITION.* Evelina Radeva. February 2014. wc-14-12.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR TEXAS, 14TH EDITION.* Carol A. Telles. February 2014. wc-14-13.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR VIRGINIA, 14TH EDITION.* Bogdan Savych. February 2014. wc-14-14.
- COMPSCOPE™ MEDICAL BENCHMARKS FOR WISCONSIN, 14TH EDITION.* Sharon E. Belton. February 2014. wc-14-15.
- THE EFFECT OF REDUCING THE ILLINOIS FEE SCHEDULE.* Rui Yang and Olesya Fomenko. January 2014. wc-14-01.
- THE PREVALENCE AND COSTS OF PHYSICIAN-DISPENSED DRUGS.* Dongchun Wang, Te-Chun Liu, and Vennela Thumula. September 2013. wc-13-39.
- PHYSICIAN DISPENSING IN THE PENNSYLVANIA WORKERS' COMPENSATION SYSTEM.* Dongchun Wang, Te-Chun Liu, and Vennela Thumula. September 2013. wc-13-23.
- PHYSICIAN DISPENSING IN THE MARYLAND WORKERS' COMPENSATION SYSTEM.* Dongchun Wang, Te-Chun Liu, and Vennela Thumula. September 2013. wc-13-22.
- IMPACT OF BANNING PHYSICIAN DISPENSING OF OPIOIDS IN FLORIDA.* Vennela Thumula. July 2013. wc-13-20.
- IMPACT OF REFORM ON PHYSICIAN DISPENSING AND PRESCRIPTION PRICES IN GEORGIA.* Dongchun Wang, Te-Chun Liu, and Vennela Thumula. July 2013. wc-13-21.
- A NEW BENCHMARK FOR WORKERS' COMPENSATION FEE SCHEDULES: PRICES PAID BY COMMERCIAL INSURERS?.* Olesya Fomenko and Richard A. Victor. June 2013. wc-13-17.
- COMPARING WORKERS' COMPENSATION AND GROUP HEALTH HOSPITAL OUTPATIENT PAYMENTS.* Olesya Fomenko. June 2013. wc-13-18.
- WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION, FIFTH EDITION (MPI-WC).* Rui Yang and Olesya Fomenko. June 2013. wc-13-19.
- WORKERS' COMPENSATION MEDICAL COST CONTAINMENT: A NATIONAL INVENTORY, 2013.* Ramona P. Tanabe. February 2013. wc-13-02.

*HOSPITAL OUTPATIENT COST INDEX FOR WORKERS' COMPENSATION, 2ND EDITION.* Olesya Fomenko and Rui Yang. January 2013. wc-13-01.

*LONGER-TERM USE OF OPIOIDS.* Dongchun Wang, Dean Hashimoto, and Kathryn Mueller. October 2012. wc-12-39.

*IMPACT OF TREATMENT GUIDELINES IN TEXAS.* Philip S. Borba and Christine A. Yee. September 2012. wc-12-23.

*PHYSICIAN DISPENSING IN WORKERS' COMPENSATION.* Dongchun Wang. July 2012. wc-12-24.

*DESIGNING WORKERS' COMPENSATION MEDICAL FEE SCHEDULES.* Olesya Fomenko and Te-Chun Liu. June 2012. wc-12-19.

*COMPSCOPE™ MEDICAL BENCHMARKS FOR MARYLAND, 12TH EDITION.* Rui Yang. May 2012. wc-12-06.

*WHY SURGEON OWNERS OF AMBULATORY SURGICAL CENTERS DO MORE SURGERY THAN NON-OWNERS.* Christine A. Yee. May 2012. wc-12-17.

*WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION, FOURTH EDITION (MPI-WC).* Rui Yang and Olesya Fomenko. March 2012. wc-12-20.

*HOSPITAL OUTPATIENT COST INDEX FOR WORKERS' COMPENSATION.* Rui Yang and Olesya Fomenko. January 2012. wc-12-01.

*WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION, THIRD EDITION (MPI-WC).* Rui Yang. August 2011. wc-11-37.

*PRESCRIPTION BENCHMARKS, 2ND EDITION: TRENDS AND INTERSTATE COMPARISONS.* Dongchun Wang and Te-Chun Liu. July 2011. wc-11-31.

*PRESCRIPTION BENCHMARKS FOR FLORIDA, 2ND EDITION.* Dongchun Wang and Te-Chun Liu. July 2011. wc-11-32.

*PRESCRIPTION BENCHMARKS FOR WASHINGTON.* Dongchun Wang and Te-Chun Liu. July 2011. wc-11-33.

*INTERSTATE VARIATIONS IN USE OF NARCOTICS.* Dongchun Wang, Kathryn Mueller, and Dean Hashimoto. July 2011. wc-11-01.

*IMPACT OF PREAUTHORIZATION ON MEDICAL CARE IN TEXAS.* Christine A. Yee, Philip S. Borba, and Nicole Coomer. June 2011. wc-11-34.

*WORKERS' COMPENSATION MEDICAL COST CONTAINMENT: A NATIONAL INVENTORY, 2011.* April 2011. wc-11-35.

*PRESCRIPTION BENCHMARKS FOR MINNESOTA.* Dongchun Wang and Richard A. Victor. October 2010. wc-10-53.

*PRESCRIPTION BENCHMARKS FOR FLORIDA.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-06.

*PRESCRIPTION BENCHMARKS FOR ILLINOIS.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-05.

*PRESCRIPTION BENCHMARKS FOR LOUISIANA.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-10.

*PRESCRIPTION BENCHMARKS FOR MARYLAND.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-08.

*PRESCRIPTION BENCHMARKS FOR MASSACHUSETTS.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-07.

*PRESCRIPTION BENCHMARKS FOR MICHIGAN.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-09.

*PRESCRIPTION BENCHMARKS FOR NORTH CAROLINA.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-16.

*PRESCRIPTION BENCHMARKS FOR NEW JERSEY.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-15.

*PRESCRIPTION BENCHMARKS FOR PENNSYLVANIA.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-11.

*PRESCRIPTION BENCHMARKS FOR TENNESSEE.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-13.

*PRESCRIPTION BENCHMARKS FOR TEXAS.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-12.

*PRESCRIPTION BENCHMARKS FOR WISCONSIN.* Dongchun Wang and Richard A. Victor. March 2010. wc-10-14.

*FEE SCHEDULES FOR HOSPITALS AND AMBULATORY SURGICAL CENTERS: A GUIDE FOR POLICYMAKERS.* Nicole M. Coomer. February 2010. wc-10-01.

*NATIONAL INVENTORY OF WORKERS' COMPENSATION FEE SCHEDULES FOR HOSPITALS AND AMBULATORY SURGICAL CENTERS.* Nicole M. Coomer. February 2010. wc-10-02.

*WORKERS' COMPENSATION MEDICAL COST CONTAINMENT: A NATIONAL INVENTORY.* August 2009. wc-09-15.

*WCRI FLASHREPORT: INFORMATION REQUESTED BY MEDICARE TO SUPPORT DECISION-MAKING ON MEDICARE SECONDARY PAYER REGULATIONS.* Ramona P. Tanabe. April 2009. FR-09-01.

*WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION, SECOND EDITION (MPI-WC).* Stacey M. Eccleston with the assistance of Juxiang Liu. June 2008. wc-08-29.

*WCRI FLASHREPORT: CONNECTICUT FEE SCHEDULE RATES COMPARED TO STATE MEDICARE RATES: COMMON MEDICAL SERVICES DELIVERED TO INJURED WORKERS BY NONHOSPITAL PROVIDERS.* Stacey M. Eccleston. December 2007. FR-07-04.

*WCRI FLASHREPORT: WHAT ARE THE MOST IMPORTANT MEDICAL CONDITIONS IN WORKERS' COMPENSATION.* August 2007. FR-07-03.

*WCRI FLASHREPORT: WHAT ARE THE MOST IMPORTANT MEDICAL CONDITIONS IN NEW YORK WORKERS' COMPENSATION.* July 2007. FR-07-02.

WCRI FLASHREPORT: ANALYSIS OF ILLUSTRATIVE MEDICAL FEE SCHEDULES IN WISCONSIN. Stacey M. Eccleston, Te-Chun Liu, and Richard A. Victor. March 2007. FR-07-01.

WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION: THE MPI-WC, FIRST EDITION. Stacey M. Eccleston. February 2007. WC-07-33.

BENCHMARKS FOR DESIGNING WORKERS' COMPENSATION MEDICAL FEE SCHEDULES: 2006. Stacey M. Eccleston and Te-Chun Liu. October 2006. WC-06-14.

ANALYSIS OF THE WORKERS' COMPENSATION MEDICAL FEE SCHEDULES IN ILLINOIS. Stacey M. Eccleston. July 2006. WC-06-28.

STATE POLICIES AFFECTING THE COST AND USE OF PHARMACEUTICALS IN WORKERS' COMPENSATION: A NATIONAL INVENTORY. Richard A. Victor and Petia Petrova. June 2006. WC-06-30.

THE COST AND USE OF PHARMACEUTICALS IN WORKERS' COMPENSATION: A GUIDE FOR POLICYMAKERS. Richard A. Victor and Petia Petrova. June 2006. WC-06-13.

HOW DOES THE MASSACHUSETTS MEDICAL FEE SCHEDULE COMPARE TO PRICES ACTUALLY PAID IN WORKERS' COMPENSATION? Stacey M. Eccleston. April 2006. WC-06-27.

THE IMPACT OF PROVIDER CHOICE ON WORKERS' COMPENSATION COSTS AND OUTCOMES. Richard A. Victor, Peter S. Barth, and David Neumark, with the assistance of Te-Chun Liu. November 2005. WC-05-14.

ADVERSE SURPRISES IN WORKERS' COMPENSATION: CASES WITH SIGNIFICANT UNANTICIPATED MEDICAL CARE AND COSTS. Richard A. Victor. June 2005. WC-05-16.

WCRI FLASHREPORT: ANALYSIS OF THE PROPOSED WORKERS' COMPENSATION FEE SCHEDULE IN TENNESSEE. Stacey M. Eccleston and Xiaoping Zhao. January 2005. FR-05-01.

WCRI FLASHREPORT: ANALYSIS OF SERVICES DELIVERED AT CHIROPRACTIC VISITS IN TEXAS COMPARED TO OTHER STATES. Stacey M. Eccleston and Xiaoping Zhao. July 2004. FR-04-07.

WCRI FLASHREPORT: SUPPLEMENT TO BENCHMARKING THE 2004 PENNSYLVANIA WORKERS' COMPENSATION MEDICAL FEE SCHEDULE. Stacey M. Eccleston and Xiaoping Zhao. May 2004. FR-04-06.

WCRI FLASHREPORT: IS CHIROPRACTIC CARE A COST DRIVER IN TEXAS? RECONCILING STUDIES BY WCRI AND MGT/TEXAS CHIROPRACTIC ASSOCIATION. April 2004. FR-04-05.

WCRI FLASHREPORT: POTENTIAL IMPACT OF A LIMIT ON CHIROPRACTIC VISITS IN TEXAS. Stacey M. Eccleston. April 2004. FR-04-04.

WCRI FLASHREPORT: ARE HIGHER CHIROPRACTIC VISITS PER CLAIM DRIVEN BY "OUTLIER" PROVIDERS? Richard A. Victor April 2004. FR-04-03.

WCRI FLASHREPORT: BENCHMARKING THE 2004 PENNSYLVANIA WORKERS' COMPENSATION MEDICAL FEE SCHEDULE. Stacey M. Eccleston and Xiaoping Zhao. March 2004. FR-04-01.

EVIDENCE OF EFFECTIVENESS OF POLICY LEVERS TO CONTAIN MEDICAL COSTS IN WORKERS' COMPENSATION. Richard A. Victor. November 2003. WC-03-08.

WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION. Dongchun Wang and Xiaoping Zhao. October 2003. WC-03-05.

WCRI FLASHREPORT: WHERE THE MEDICAL DOLLAR GOES? HOW CALIFORNIA COMPARES TO OTHER STATES. Richard A. Victor and Stacey M. Eccleston. March 2003. FR-03-03.

PATTERNS AND COSTS OF PHYSICAL MEDICINE: COMPARISON OF CHIROPRACTIC AND PHYSICIAN-DIRECTED CARE. Richard A. Victor and Dongchun Wang. December 2002. WC-02-07.

PROVIDER CHOICE LAWS, NETWORK INVOLVEMENT, AND MEDICAL COSTS. Richard A. Victor, Dongchun Wang, and Philip Borba. December 2002. WC-02-05.

WCRI FLASHREPORT: ANALYSIS OF PAYMENTS TO HOSPITALS AND SURGERY CENTERS IN FLORIDA WORKERS' COMPENSATION. Stacey M. Eccleston and Xiaoping Zhao. December 2002. FR-02-03.

BENCHMARKS FOR DESIGNING WORKERS' COMPENSATION MEDICAL FEE SCHEDULES: 2001-2002. Stacey M. Eccleston, Aniko Laszlo, Xiaoping Zhao, and Michael Watson. August 2002. WC-02-02.

WCRI FLASHREPORT: CHANGES IN MICHIGAN'S WORKERS' COMPENSATION MEDICAL FEE SCHEDULE: 1996-2002. Stacey M. Eccleston. December 2002. FR-02-02.

TARGETING MORE COSTLY CARE: AREA VARIATION IN TEXAS MEDICAL COSTS AND UTILIZATION. Richard A. Victor and N. Michael Helvacian. May 2002. WC-02-03.

WCRI FLASHREPORT: COMPARING THE PENNSYLVANIA WORKERS' COMPENSATION FEE SCHEDULE WITH MEDICARE RATES: EVIDENCE FROM 160 IMPORTANT MEDICAL PROCEDURES. Richard A. Victor, Stacey M. Eccleston, and Xiaoping Zhao. November 2001. FR-01-07.

WCRI FLASHREPORT: BENCHMARKING PENNSYLVANIA'S WORKERS' COMPENSATION MEDICAL FEE SCHEDULE. Stacey M. Eccleston and Xiaoping Zhao. October 2001. FR-01-06.

WCRI FLASHREPORT: BENCHMARKING CALIFORNIA'S WORKERS' COMPENSATION MEDICAL FEE SCHEDULES. Stacey M. Eccleston. August 2001. FR-01-04.

*MANAGED CARE AND MEDICAL COST CONTAINMENT IN WORKERS' COMPENSATION: A NATIONAL INVENTORY, 2001–2002.* Ramona P. Tanabe and Susan M. Murray. December 2001. wc-01-04.

*WCRI FLASHREPORT: BENCHMARKING FLORIDA'S WORKERS' COMPENSATION MEDICAL FEE SCHEDULES.* Stacey M. Eccleston and Aniko Laszlo. August 2001. fr-01-03.

*THE IMPACT OF INITIAL TREATMENT BY NETWORK PROVIDERS ON WORKERS' COMPENSATION MEDICAL COSTS AND DISABILITY PAYMENTS.* Sharon E. Fox, Richard A. Victor, Xiaoping Zhao, and Igor Polevoy. August 2001. dm-01-01.

*THE IMPACT OF WORKERS' COMPENSATION NETWORKS ON MEDICAL AND DISABILITY PAYMENTS.* William G. Johnson, Marjorie L. Baldwin, and Steven C. Marcus. November 1999. wc-99-5.

*FEE SCHEDULE BENCHMARK ANALYSIS: OHIO.* Philip L. Burstein. December 1996. fs-96-1.

*THE RBRVS AS A MODEL FOR WORKERS' COMPENSATION MEDICAL FEE SCHEDULES: PROS AND CONS.* Philip L. Burstein. July 1996. wc-96-5.

*BENCHMARKS FOR DESIGNING WORKERS' COMPENSATION MEDICAL FEE SCHEDULES: 1995–1996.* Philip L. Burstein. May 1996. wc-96-2.

*FEE SCHEDULE BENCHMARK ANALYSIS: NORTH CAROLINA.* Philip L. Burstein. December 1995. fs-95-2.

*FEE SCHEDULE BENCHMARK ANALYSIS: COLORADO.* Philip L. Burstein. August 1995. fs-95-1.

*BENCHMARKS FOR DESIGNING WORKERS' COMPENSATION MEDICAL FEE SCHEDULES: 1994–1995.* Philip L. Burstein. December 1994. wc-94-7.

*REVIEW, REGULATE, OR REFORM: WHAT WORKS TO CONTROL WORKERS' COMPENSATION MEDICAL COSTS.* Thomas W. Grannemann, ed. September 1994. wc-94-5.

*FEE SCHEDULE BENCHMARK ANALYSIS: MICHIGAN.* Philip L. Burstein. September 1994. fs-94-1.

*MEDICOLEGAL FEES IN CALIFORNIA: AN ASSESSMENT.* Leslie I. Boden. March 1994. wc-94-1.

*BENCHMARKS FOR DESIGNING WORKERS' COMPENSATION MEDICAL FEE SCHEDULES.* Stacey M. Eccleston, Thomas W. Grannemann, and James F. Dunleavy. December 1993. wc-93-4.

*HOW CHOICE OF PROVIDER AND RECESSIONS AFFECT MEDICAL COSTS IN WORKERS' COMPENSATION.* Richard B. Victor and Charles A. Fleischman. June 1990. wc-90-2.

*MEDICAL COSTS IN WORKERS' COMPENSATION: TRENDS & INTERSTATE COMPARISONS.* Leslie I. Boden and Charles A. Fleischman. December 1989. wc-89-5.

## **WORKER OUTCOMES**

*PREDICTORS OF WORKER OUTCOMES IN INDIANA.* Bogdan Savych, Vennela Thumula, and Richard A. Victor. June 2014. wc-14-20.

*PREDICTORS OF WORKER OUTCOMES IN MASSACHUSETTS.* Bogdan Savych, Vennela Thumula, and Richard A. Victor. June 2014. wc-14-21.

*PREDICTORS OF WORKER OUTCOMES IN MICHIGAN.* Bogdan Savych, Vennela Thumula, and Richard A. Victor. June 2014. wc-14-22.

*PREDICTORS OF WORKER OUTCOMES IN MINNESOTA.* Bogdan Savych, Vennela Thumula, and Richard A. Victor. June 2014. wc-14-23.

*PREDICTORS OF WORKER OUTCOMES IN NORTH CAROLINA.* Vennela Thumula, Bogdan Savych, and Richard A. Victor. June 2014. wc-14-24.

*PREDICTORS OF WORKER OUTCOMES IN PENNSYLVANIA.* Vennela Thumula, Bogdan Savych, and Richard A. Victor. June 2014. wc-14-25.

*PREDICTORS OF WORKER OUTCOMES IN VIRGINIA.* Vennela Thumula, Bogdan Savych, and Richard A. Victor. June 2014. wc-14-26.

*PREDICTORS OF WORKER OUTCOMES IN WISCONSIN.* Vennela Thumula, Bogdan Savych, and Richard A. Victor. June 2014. wc-14-27.

*HOW HAVE WORKER OUTCOMES AND MEDICAL COSTS CHANGED IN WISCONSIN?* Sharon E. Belton and Te-Chun Liu. May 2010. wc-10-04.

*COMPARING OUTCOMES FOR INJURED WORKERS IN MICHIGAN.* Sharon E. Belton and Te-Chun Liu. June 2009. wc-09-31.

*COMPARING OUTCOMES FOR INJURED WORKERS IN MARYLAND.* Sharon E. Belton and Te-Chun Liu. June 2008. wc-08-15.

*COMPARING OUTCOMES FOR INJURED WORKERS IN NINE LARGE STATES.* Sharon E. Belton, Richard A. Victor, and Te-Chun Liu, with the assistance of Pinghui Li. May 2007. wc-07-14.

*COMPARING OUTCOMES FOR INJURED WORKERS IN SEVEN LARGE STATES.* Sharon E. Fox, Richard A. Victor, and Te-Chun Liu, with the assistance of Pinghui Li. February 2006. wc-06-01.

WCRI FLASHREPORT: *WORKER OUTCOMES IN TEXAS BY TYPE OF INJURY*. Richard A. Victor. February 2005. FR-05-02.

*OUTCOMES FOR INJURED WORKERS IN CALIFORNIA, MASSACHUSETTS, PENNSYLVANIA, AND TEXAS*. Richard A. Victor, Peter S. Barth, and Te-Chun Liu, with the assistance of Pinghui Li. December 2003. WC-03-07.

*OUTCOMES FOR INJURED WORKERS IN TEXAS*. Peter S. Barth and Richard A. Victor, with the assistance of Pinghui Li and Te-Chun Liu. July 2003. WC-03-02.

*THE WORKERS' STORY: RESULTS OF A SURVEY OF WORKERS INJURED IN WISCONSIN*. Monica Galizzi, Leslie I. Boden, and Te-Chun Liu. December 1998. WC-98-5.

*WORKERS' COMPENSATION MEDICAL CARE: EFFECTIVE MEASUREMENT OF OUTCOMES*. Kate Kimpan. October 1996. WC-96-7.

## **BENEFITS AND RETURN TO WORK**

*RETURN TO WORK AFTER A LUMP-SUM SETTLEMENT*. Bogdan Savych. July 2012. WC-12-21.

*FACTORS INFLUENCING RETURN TO WORK FOR INJURED WORKERS: LESSONS FROM PENNSYLVANIA AND WISCONSIN*. Sharon E. Belton. November 2011. WC-11-39.

*THE IMPACT OF THE 2004 PPD REFORMS IN TENNESSEE: EARLY EVIDENCE*. Evelina Radeva and Carol Telles. May 2008. FR-08-02.

*FACTORS THAT INFLUENCE THE AMOUNT AND PROBABILITY OF PERMANENT PARTIAL DISABILITY BENEFITS*. Philip S. Borba and Mike Helvacian. June 2006. WC-06-16.

*RETURN-TO-WORK OUTCOMES OF INJURED WORKERS: EVIDENCE FROM CALIFORNIA, MASSACHUSETTS, PENNSYLVANIA, AND TEXAS*. Sharon E. Fox, Philip S. Borba, and Te-Chun Liu. May 2005. WC-05-15.

*WHO OBTAINS PERMANENT PARTIAL DISABILITY BENEFITS: A SIX STATE ANALYSIS*. Peter S. Barth, N. Michael Helvacian, and Te-Chun Liu. December 2002. WC-02-04.

WCRI FLASHREPORT: *BENCHMARKING OREGON'S PERMANENT PARTIAL DISABILITY BENEFITS*. Duncan S. Ballantyne and Michael Manley. July 2002. FR-02-01.

WCRI FLASHREPORT: *BENCHMARKING FLORIDA'S PERMANENT IMPAIRMENT BENEFITS*. Richard A. Victor and Duncan S. Ballantyne. September 2001. FR-01-05.

*PERMANENT PARTIAL DISABILITY BENEFITS: INTERSTATE DIFFERENCES*. Peter S. Barth and Michael Niss. September 1999. WC-99-2.

*MEASURING INCOME LOSSES OF INJURED WORKERS: A STUDY OF THE WISCONSIN SYSTEM*—A WCRI Technical Paper. Leslie I. Boden and Monica Galizzi. November 1998.

*PERMANENT PARTIAL DISABILITY IN TENNESSEE: SIMILAR BENEFITS FOR SIMILAR INJURIES?* Leslie I. Boden. November 1997. WC-97-5.

*WHAT ARE THE MOST IMPORTANT FACTORS SHAPING RETURN TO WORK? EVIDENCE FROM WISCONSIN*. Monica Galizzi and Leslie I. Boden. October 1996. WC-96-6.

*DO LOW TTD MAXIMUMS ENCOURAGE HIGH PPD UTILIZATION: RE-EXAMINING THE CONVENTIONAL WISDOM*. John A. Gardner. January 1992. WC-92-2.

*BENEFIT INCREASES AND SYSTEM UTILIZATION: THE CONNECTICUT EXPERIENCE*. John A. Gardner. December 1991. WC-91-5.

*DESIGNING BENEFIT STRUCTURES FOR TEMPORARY DISABILITY: A GUIDE FOR POLICYMAKERS*—Two-Volume Publication. Richard B. Victor and Charles A. Fleischman. December 1989. WC-89-4.

*RETURN TO WORK INCENTIVES: LESSONS FOR POLICYMAKERS FROM ECONOMIC STUDIES*. John A. Gardner. June 1989. WC-89-2.

*INCOME REPLACEMENT FOR LONG-TERM DISABILITY: THE ROLE OF WORKERS' COMPENSATION AND SSDI*. Karen R. DeVol. December 1986. SP-86-2.

## **COST DRIVERS AND BENCHMARKS OF SYSTEM PERFORMANCE**

*MONITORING TRENDS IN THE NEW YORK WORKERS' COMPENSATION SYSTEM*. Carol A. Telles and Ramona P. Tanabe. September 2014. WC-14-33.

*MONITORING CHANGES IN NEW YORK AFTER THE 2007 REFORMS*. Carol A. Telles and Ramona P. Tanabe. October 2013. WC-13-24.



*BASLINE FOR MONITORING THE IMPACT OF SB 863 IN CALIFORNIA: COMPScope™ BENCHMARKS, 14TH EDITION.* Rui Yang. October 2013. wc-13-25.

*COMPScope™ BENCHMARKS FOR FLORIDA, 14TH EDITION.* Rui Yang. October 2013. wc-13-26.

*EARLY EVIDENCE AND BASELINES FOR MONITORING THE 2011 REFORMS IN ILLINOIS: COMPScope™ BENCHMARKS, 14TH EDITION.* Evelina Radeva. October 2013. wc-13-27.

*BENCHMARKS FOR INDIANA, COMPScope™ 14TH EDITION.* Carol A. Telles. October 2013. wc-13-28.

*COMPScope™ BENCHMARKS FOR LOUISIANA, 14TH EDITION.* Carol A. Telles and Roman Dolinski. October 2013. wc-13-29.

*COMPScope™ BENCHMARKS FOR MASSACHUSETTS, 14TH EDITION.* Evelina Radeva. October 2013. wc-13-30.

*MICHIGAN SYSTEM PERFORMANCE PRIOR TO THE 2011 LEGISLATIVE CHANGES: COMPScope™ BENCHMARKS, 13TH EDITION.* Evelina Radeva. October 2013. wc-13-31.

*COMPScope™ BENCHMARKS FOR MINNESOTA, 14TH EDITION.* Sharon E. Belton. October 2013. wc-13-32.

*COMPScope™ BENCHMARKS FOR NEW JERSEY, 14TH EDITION.* Carol A. Telles and Karen Rothkin. October 2013. wc-13-33.

*BASLINE FOR MONITORING EFFECTS OF 2011 LEGISLATION IN NORTH CAROLINA: COMPScope™ BENCHMARKS, 14TH EDITION.* Carol A. Telles. October 2013. wc-13-34.

*COMPScope™ BENCHMARKS FOR PENNSYLVANIA, 14TH EDITION.* Evelina Radeva. October 2013. wc-13-35.

*COMPScope™ BENCHMARKS FOR TEXAS, 14TH EDITION.* Carol A. Telles. October 2013. wc-13-36.

*COMPScope™ BENCHMARKS FOR VIRGINIA, 14TH EDITION.* Bogdan Savych. October 2013. wc-13-37.

*COMPScope™ BENCHMARKS FOR WISCONSIN, 14TH EDITION.* Sharon E. Belton. October 2013. wc-13-38.

*MONITORING THE IMPACT OF THE 2007 REFORMS IN NEW YORK.* Carol A. Telles and Ramona P. Tanabe. October 2012. wc-12-22.

*COMPScope™ BENCHMARKS FOR MARYLAND, 12TH EDITION.* Rui Yang, with the assistance of Syd Allan. December 2011. wc-11-45.

*EARLY IMPACT OF 2007 REFORMS IN NEW YORK.* Carol A. Telles and Ramona P. Tanabe. December 2011. wc-11-38.

*COMPScope™ BENCHMARKS FOR TENNESSEE, 11TH EDITION.* Evelina Radeva, Nicole M. Coomer, Bogdan Savych, Carol A. Telles, Rui Yang, and Ramona P. Tanabe, with the assistance of Syd Allan. January 2011. wc-11-13.

*BASLINE TRENDS FOR EVALUATING THE IMPACT OF THE 2007 REFORMS IN NEW YORK.* Ramona P. Tanabe and Carol A. Telles. November 2010. wc-10-36.

*UPDATED BASELINE FOR EVALUATING THE IMPACT OF THE 2007 REFORMS IN NEW YORK.* Ramona P. Tanabe, Stacey Eccleston, and Carol A. Telles. April 2009. wc-09-14.

*INTERSTATE VARIATIONS IN MEDICAL PRACTICE PATTERNS FOR LOW BACK CONDITIONS.* Dongchun Wang, Kathryn Mueller, Dean Hashimoto, Sharon Belton, and Xiaoping Zhao. June 2008. wc-08-28.

*WCRI FLASHREPORT: TIMELINESS OF INJURY REPORTING AND FIRST INDEMNITY PAYMENT IN NEW YORK: A COMPARISON WITH 14 STATES.* Carol A. Telles and Ramona P. Tanabe. March 2008. fr-08-01.

*BASLINE FOR EVALUATING THE IMPACT OF THE 2007 REFORMS IN NEW YORK.* Ramona P. Tanabe, Stacey Eccleston, and Carol A. Telles. March 2008. wc-08-14.

*WHY ARE BENEFIT DELIVERY EXPENSES HIGHER IN CALIFORNIA AND FLORIDA?* Duncan S. Ballantyne and Carol A. Telles. December 2002. wc-02-06.

*COMPScope™ BENCHMARKS: MASSACHUSETTS, 1994–1999.* Carol A. Telles, Aniko Laszlo, and Te-Chun Liu. January 2002. cs-01-03.

*COMPScope™ BENCHMARKS: FLORIDA, 1994–1999.* N. Michael Helvacian and Seth A. Read. September 2001. cs-01-1.

*WCRI FLASHREPORT: WHERE THE WORKERS' COMPENSATION DOLLAR GOES.* Richard A. Victor and Carol A. Telles. August 2001. fr-01-01.

*PREDICTORS OF MULTIPLE WORKERS' COMPENSATION CLAIMS IN WISCONSIN.* Glenn A. Gotz, Te-Chun Liu, and Monica Galizzi. November 2000. wc-00-7.

*AREA VARIATIONS IN TEXAS BENEFIT PAYMENTS AND CLAIM EXPENSES.* Glenn A. Gotz, Te-Chun Liu, Christopher J. Mazingo, and Douglas J. Tattre. May 2000. wc-00-3.

*AREA VARIATIONS IN CALIFORNIA BENEFIT PAYMENTS AND CLAIM EXPENSES.* Glenn A. Gotz, Te-Chun Liu, and Christopher J. Mazingo. May 2000. wc-00-2.

*AREA VARIATIONS IN PENNSYLVANIA BENEFIT PAYMENTS AND CLAIM EXPENSES.* Glenn A. Gotz, Te-Chun Liu, and Christopher J. Mazingo. May 2000. wc-00-1.

*BENCHMARKING THE PERFORMANCE OF WORKERS' COMPENSATION SYSTEMS: COMPScope™ MEASURES FOR MINNESOTA.* H. Brandon Haller and Seth A. Read. June 2000. cs-00-2.

*BENCHMARKING THE PERFORMANCE OF WORKERS' COMPENSATION SYSTEMS: COMPScope™ MEASURES FOR MASSACHUSETTS.* Carol A. Telles and Tara L. Nells. December 1999. cs-99-3.

*BENCHMARKING THE PERFORMANCE OF WORKERS' COMPENSATION SYSTEMS: COMPSCOPE™ MEASURES FOR CALIFORNIA.* Sharon E. Fox and Tara L. Nells. December 1999. cs-99-2.

*BENCHMARKING THE PERFORMANCE OF WORKERS' COMPENSATION SYSTEMS: COMPSCOPE™ MEASURES FOR PENNSYLVANIA.* Sharon E. Fox and Tara L. Nells. November 1999. cs-99-1.

*COST DRIVERS AND SYSTEM PERFORMANCE IN A COURT-BASED SYSTEM: TENNESSEE.* John A. Gardner, Carol A. Telles, and Gretchen A. Moss. June 1996. wc-96-4.

*THE 1991 REFORMS IN MASSACHUSETTS: AN ASSESSMENT OF IMPACT.* John A. Gardner, Carol A. Telles, and Gretchen A. Moss. May 1996. wc-96-3.

*THE IMPACT OF OREGON'S COST CONTAINMENT REFORMS.* John A. Gardner, Carol A. Telles, and Gretchen A. Moss. February 1996. wc-96-1.

*COST DRIVERS AND SYSTEM CHANGE IN GEORGIA, 1984–1994.* John A. Gardner, Carol A. Telles, and Gretchen A. Moss. November 1995. wc-95-3.

*COST DRIVERS IN MISSOURI.* John A. Gardner, Richard A. Victor, Carol A. Telles, and Gretchen A. Moss. December 1994. wc-94-6.

*COST DRIVERS IN NEW JERSEY.* John A. Gardner, Richard A. Victor, Carol A. Telles, and Gretchen A. Moss. September 1994. wc-94-4.

*COST DRIVERS IN SIX STATES.* Richard A. Victor, John A. Gardner, Daniel Sweeney, and Carol A. Telles. December 1992. wc-92-9.

*PERFORMANCE INDICATORS FOR PERMANENT DISABILITY: LOW-BACK INJURIES IN TEXAS.* Sara R. Pease. August 1988. wc-88-4.

*PERFORMANCE INDICATORS FOR PERMANENT DISABILITY: LOW-BACK INJURIES IN NEW JERSEY.* Sara R. Pease. December 1987. wc-87-5.

*PERFORMANCE INDICATORS FOR PERMANENT DISABILITY: LOW-BACK INJURIES IN WISCONSIN.* Sara R. Pease. December 1987. wc-87-4.

## **ADMINISTRATION/LITIGATION**

*WORKERS' COMPENSATION LAWS AS OF JANUARY 1, 2014.* Joint publication of IAIABC and WCRI. April 2014. wc-14-28.

*WORKERS' COMPENSATION LAWS AS OF JANUARY 2012.* Joint publication of IAIABC and WCRI. Ramona P. Tanabe. March 2012. wc-12-18.

*WORKERS' COMPENSATION LAWS, 3RD EDITION.* Joint publication of IAIABC and WCRI. Ramona P. Tanabe. October 2010. wc-10-52.

*AVOIDING LITIGATION: WHAT CAN EMPLOYERS, INSURERS, AND STATE WORKERS' COMPENSATION AGENCIES DO?.* Richard A. Victor and Bogdan Savych. July 2010. wc-10-18.

*WORKERS' COMPENSATION LAWS, 2ND EDITION.* Joint publication of IAIABC and WCRI. June 2009. wc-09-30.

*DID THE FLORIDA REFORMS REDUCE ATTORNEY INVOLVEMENT?.* Bogdan Savych and Richard A. Victor. June 2009. wc-09-16.

*LESSONS FROM THE OREGON WORKERS' COMPENSATION SYSTEM.* Duncan S. Ballantyne. March 2008. wc-08-13.

*WORKERS' COMPENSATION IN MONTANA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. March 2007. wc-07-12.

*WORKERS' COMPENSATION IN NEVADA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. December 2006. wc-06-15.

*WORKERS' COMPENSATION IN HAWAII: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. April 2006. wc-06-12.

*WORKERS' COMPENSATION IN ARKANSAS: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. August 2005. wc-05-18.

*WORKERS' COMPENSATION IN MISSISSIPPI: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. May 2005. wc-05-13.

*WORKERS' COMPENSATION IN ARIZONA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. September 2004. wc-04-05.

*WORKERS' COMPENSATION IN IOWA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. April 2004. wc-04-02.

*WCRI FLASHREPORT: MEASURING THE COMPLEXITY OF THE WORKERS' COMPENSATION DISPUTE RESOLUTION PROCESSES IN TENNESSEE.* Richard A. Victor. April 2004. fr-04-02.

*REVISITING WORKERS' COMPENSATION IN MISSOURI: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. December 2003. wc-03-06.

*WORKERS' COMPENSATION IN TENNESSEE: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. April 2003. wc-03-01.

*REVISITING WORKERS' COMPENSATION IN NEW YORK: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. January 2002. wc-01-05.

*WORKERS' COMPENSATION IN KENTUCKY: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. June 2001. wc-01-01.

*WORKERS' COMPENSATION IN OHIO: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. October 2000. wc-00-5.

*WORKERS' COMPENSATION IN LOUISIANA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. November 1999. wc-99-4.

*WORKERS' COMPENSATION IN FLORIDA: ADMINISTRATIVE INVENTORY.* Peter S. Barth. August 1999. wc-99-3.

*MEASURING DISPUTE RESOLUTION OUTCOMES: A LITERATURE REVIEW WITH IMPLICATIONS FOR WORKERS' COMPENSATION.* Duncan S. Ballantyne and Christopher J. Mazingo. April 1999. wc-99-1.

*REVISITING WORKERS' COMPENSATION IN CONNECTICUT: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. September 1998. wc-98-4.

*DISPUTE PREVENTION AND RESOLUTION IN WORKERS' COMPENSATION: A NATIONAL INVENTORY, 1997–1998.* Duncan S. Ballantyne. May 1998. wc-98-3.

*WORKERS' COMPENSATION IN OKLAHOMA: ADMINISTRATIVE INVENTORY.* Michael Niss. April 1998. wc-98-2.

*WORKERS' COMPENSATION ADVISORY COUNCILS: A NATIONAL INVENTORY, 1997–1998.* Sharon E. Fox. March 1998. wc-98-1.

*THE ROLE OF ADVISORY COUNCILS IN WORKERS' COMPENSATION SYSTEMS: OBSERVATIONS FROM WISCONSIN.* Sharon E. Fox. November 1997.

*REVISITING WORKERS' COMPENSATION IN MICHIGAN: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Lawrence Shiman. October 1997. wc-97-4.

*REVISITING WORKERS' COMPENSATION IN MINNESOTA: ADMINISTRATIVE INVENTORY.* Carol A. Telles and Lawrence Shiman. September 1997. wc-97-3.

*REVISITING WORKERS' COMPENSATION IN CALIFORNIA: ADMINISTRATIVE INVENTORY.* Carol A. Telles and Sharon E. Fox. June 1997. wc-97-2.

*REVISITING WORKERS' COMPENSATION IN PENNSYLVANIA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. March 1997. wc-97-1.

*REVISITING WORKERS' COMPENSATION IN WASHINGTON: ADMINISTRATIVE INVENTORY.* Carol A. Telles and Sharon E. Fox. December 1996. wc-96-10.

*WORKERS' COMPENSATION IN ILLINOIS: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Karen M. Joyce. November 1996. wc-96-9.

*WORKERS' COMPENSATION IN COLORADO: ADMINISTRATIVE INVENTORY.* Carol A. Telles and Sharon E. Fox. October 1996. wc-96-8.

*WORKERS' COMPENSATION IN OREGON: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and James F. Dunleavy. December 1995. wc-95-2.

*REVISITING WORKERS' COMPENSATION IN TEXAS: ADMINISTRATIVE INVENTORY.* Peter S. Barth and Stacey M. Eccleston. April 1995. wc-95-1.

*WORKERS' COMPENSATION IN VIRGINIA: ADMINISTRATIVE INVENTORY.* Carol A. Telles and Duncan S. Ballantyne. April 1994. wc-94-3.

*WORKERS' COMPENSATION IN NEW JERSEY: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and James F. Dunleavy. April 1994. wc-94-2.

*WORKERS' COMPENSATION IN NORTH CAROLINA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne. December 1993. wc-93-5.

*WORKERS' COMPENSATION IN MISSOURI: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Carol A. Telles. May 1993. wc-93-1.

*WORKERS' COMPENSATION IN CALIFORNIA: ADMINISTRATIVE INVENTORY.* Peter S. Barth and Carol A. Telles. December 1992. wc-92-8.

*WORKERS' COMPENSATION IN WISCONSIN: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Carol A. Telles. November 1992. wc-92-7.

*WORKERS' COMPENSATION IN NEW YORK: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Carol A. Telles. October 1992. wc-92-6.

*THE AMA GUIDES IN MARYLAND: AN ASSESSMENT.* Leslie I. Boden. September 1992. wc-92-5.

*WORKERS' COMPENSATION IN GEORGIA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Stacey M. Eccleston. September 1992. wc-92-4.

*WORKERS' COMPENSATION IN PENNSYLVANIA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Carol A. Telles. December 1991. wc-91-4.

*REDUCING LITIGATION: USING DISABILITY GUIDELINES AND STATE EVALUATORS IN OREGON.* Leslie I. Boden, Daniel E. Kern, and John A. Gardner. October 1991. wc-91-3.

*WORKERS' COMPENSATION IN MINNESOTA: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Carol A. Telles. June 1991. wc-91-1.

*WORKERS' COMPENSATION IN MAINE: ADMINISTRATIVE INVENTORY.* Duncan S. Ballantyne and Stacey M. Eccleston. December 1990. wc-90-5.

*WORKERS' COMPENSATION IN MICHIGAN: ADMINISTRATIVE INVENTORY.* H. Allan Hunt and Stacey M. Eccleston. January 1990. wc-90-1.

*WORKERS' COMPENSATION IN WASHINGTON: ADMINISTRATIVE INVENTORY.* Sara R. Pease. November 1989. wc-89-3.

*WORKERS' COMPENSATION IN TEXAS: ADMINISTRATIVE INVENTORY.* Peter S. Barth, Richard B. Victor, and Stacey M. Eccleston. March 1989. wc-89-1.

*REDUCING LITIGATION: EVIDENCE FROM WISCONSIN.* Leslie I. Boden. December 1988. wc-88-7.

*WORKERS' COMPENSATION IN CONNECTICUT: ADMINISTRATIVE INVENTORY.* Peter S. Barth. December 1987. wc-87-3.

*USE OF MEDICAL EVIDENCE: LOW-BACK PERMANENT PARTIAL DISABILITY CLAIMS IN NEW JERSEY.* Leslie I. Boden. December 1987. wc-87-2.

*USE OF MEDICAL EVIDENCE: LOW-BACK PERMANENT PARTIAL DISABILITY CLAIMS IN MARYLAND.* Leslie I. Boden. September 1986. sp-86-1.

## **VOCATIONAL REHABILITATION**

*IMPROVING VOCATIONAL REHABILITATION OUTCOMES: OPPORTUNITIES FOR EARLY INTERVENTION.* John A. Gardner. August 1988. wc-88-3.

*APPROPRIATENESS AND EFFECTIVENESS OF VOCATIONAL REHABILITATION IN FLORIDA: COSTS, REFERRALS, SERVICES, AND OUTCOMES.* John A. Gardner. February 1988. wc-88-2.

*VOCATIONAL REHABILITATION IN FLORIDA WORKERS' COMPENSATION: REHABILITANTS, SERVICES, COSTS, AND OUTCOMES.* John A. Gardner. February 1988. wc-88-1.

*VOCATIONAL REHABILITATION OUTCOMES: EVIDENCE FROM NEW YORK.* John A. Gardner. December 1986. wc-86-1.

*VOCATIONAL REHABILITATION IN WORKERS' COMPENSATION: ISSUES AND EVIDENCE.* John A. Gardner. June 1985. s-85-1.

## **OCCUPATIONAL DISEASE**

*LIABILITY FOR EMPLOYEE GRIEVANCES: MENTAL STRESS AND WRONGFUL TERMINATION.* Richard B. Victor, ed. October 1988. wc-88-6.

*ASBESTOS CLAIMS: THE DECISION TO USE WORKERS' COMPENSATION AND TORT.* Robert I. Field and Richard B. Victor. September 1988. wc-88-5.

## **OTHER**

*WORKERS' COMPENSATION: WHERE HAVE WE COME FROM? WHERE ARE WE GOING?.* Richard A. Victor and Linda L. Carrubba, eds. November 2010. wc-10-33.

*RECESSION, FEAR OF JOB LOSS, AND RETURN TO WORK.* Richard A. Victor and Bogdan Savych. April 2010. wc-10-03.

*WCRI FLASHREPORT: WHAT ARE THE PREVALENCE AND SIZE OF LUMP-SUM PAYMENTS IN WORKERS' COMPENSATION: ESTIMATES RELEVANT FOR MEDICARE SET-ASIDES.* Richard A. Victor, Carol A. Telles, and Rui Yang. November 2006. FR-06-01.

*THE FUTURE OF WORKERS' COMPENSATION: OPPORTUNITIES AND CHALLENGES.* Richard A. Victor, ed. April 2004. wc-04-03.

*MANAGING CATASTROPHIC EVENTS IN WORKERS' COMPENSATION: LESSONS FROM 9/11.* Ramona P. Tanabe, ed. March 2003. wc-03-03.

*WCRI FLASHREPORT: WORKERS' COMPENSATION IN CALIFORNIA: LESSONS FROM RECENT WCRI STUDIES.* Richard A. Victor. March 2003. FR-03-02.

*WCRI FLASHREPORT: WORKERS' COMPENSATION IN FLORIDA: LESSONS FROM RECENT WCRI STUDIES.* Richard A. Victor. February 2003. FR-03-01.

*WORKERS' COMPENSATION AND THE CHANGING AGE OF THE WORKFORCE.* Douglas J. Tatttrie, Glenn A. Gotz, and Te-Chun Liu. December 2000. wc-00-6.

*MEDICAL PRIVACY LEGISLATION: IMPLICATIONS FOR WORKERS' COMPENSATION.* Ramona P. Tanabe, ed. November 2000. wc-00-4.

*THE IMPLICATIONS OF CHANGING EMPLOYMENT RELATIONS FOR WORKERS' COMPENSATION.* Glenn A. Gotz, ed. December 1999. wc-99-6.

*WORKERS' COMPENSATION SUCCESS STORIES*. Richard A. Victor, ed. July 1993. WC-93-3.

*THE AMERICANS WITH DISABILITIES ACT: IMPLICATIONS FOR WORKERS' COMPENSATION*. Stacey M. Eccleston, ed. July 1992. WC-92-3.

*TWENTY-FOUR-HOUR COVERAGE*. Richard A. Victor, ed. June 1991. WC-91-2.

These publications can be obtained by visiting our web site at **[www.wcrinet.org](http://www.wcrinet.org)** or by sending a written request by fax to (617) 661-9284, or by mail to

Publications Department  
Workers Compensation Research Institute  
955 Massachusetts Avenue  
Cambridge, MA 02139

## About the Institute

The Workers Compensation Research Institute is a nonpartisan, not-for-profit research organization providing objective information about public policy issues involving workers' compensation systems.

The Institute does not take positions on the issues it researches; rather it provides information obtained through studies and data collection efforts that conform to recognized scientific methods, with objectivity further ensured through rigorous peer review procedures.

The Institute's work helps those interested in improving workers' compensation systems by providing new, objective, empirical information that bears on certain vital questions:

- How serious are the problems that policymakers want to address?
- What are the consequences of proposed solutions?
- Are there alternative solutions that merit consideration? What are their consequences?

The Institute's work takes several forms:

- Original research studies on major issues confronting workers' compensation systems
- Original research studies of individual state systems where policymakers have shown an interest in reform and where there is an unmet need for objective information
- Sourcebooks that bring together information from a variety of sources to provide unique, convenient reference works on specific issues
- Periodic research briefs that report on significant new research, data, and issues in the field
- Benchmarking reports that identify key outcomes of state systems