WCRI Medical Price Index for Workers' Compensation, Fifth Edition (MPI-WC)

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Of course, any errors that remain in the report are the responsibility of the authors.

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State	Trends in Medical Prices for Professional Services			
Arkansas	Overall	E&M	Surgery	By Service Group
Arizona	Overall	E&M	Surgery	By Service Group
California	Overall	E&M	Surgery	By Service Group
Connecticut	Overall	E&M	Surgery	By Service Group
Florida	Overall	E&M	Surgery	By Service Group
Georgia	Overall	E&M	Surgery	By Service Group
Iowa	Overall	E&M	Surgery	By Service Group
Illinois	Overall	E&M	Surgery	By Service Group
Indiana	Overall	E&M	Surgery	By Service Group
Louisiana	Overall	E&M	Surgery	By Service Group
Massachusetts	Overall	E&M	Surgery	By Service Group
Maryland	Overall	E&M	Surgery	By Service Group
Michigan	Overall	E&M	Surgery	By Service Group
Minnesota	Overall	E&M	Surgery	By Service Group
Missouri	Overall	E&M	Surgery	By Service Group
North Carolina	Overall	E&M	Surgery	By Service Group
New Jersey	Overall	E&M	Surgery	By Service Group
New York	Overall	E&M	Surgery	By Service Group
Oklahoma	Overall	E&M	Surgery	By Service Group
Pennsylvania	Overall	E&M	Surgery	By Service Group
South Carolina	Overall	E&M	Surgery	By Service Group
Tennessee	Overall	E&M	Surgery	By Service Group
Texas	Overall	E&M	Surgery	By Service Group
Virginia	Overall	E&M	Surgery	By Service Group
Wisconsin	Overall	E&M	Surgery	By Service Group

MAJOR FINDINGS

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Increasing prices for medical treatment for workers' compensation injuries have been a focus of public policymakers and system stakeholders. To help decision makers set priorities about system improvement by conducting meaningful interstate comparisons on prices, this study creates an index for prices paid for the most common professional services (i.e., nonhospital, nonfacility services) used in workers' compensation for each study state. In addition, the time-series price index by state reported in this study assists policymakers in monitoring the price trends in relationship to price-focused policy changes. This report includes 25 large states that represent nearly 80 percent of the workers' compensation benefits paid in the United States and covers 11 years from 2002 to 2012.[1]

The following is a summary of the major findings from this study. The discussion is organized into three major topics. The first topic explores several lessons from static cross-state comparisons on prices associated with policy differences. The second topic summarizes a few lessons from changes in prices by state over the study period. The last topic discusses the Illinois fee schedule reform in September 2011. Like earlier editions of this study, we discuss price changes associated with fee schedule reforms in some study states within the study period. The results in this fifth edition may be particularly interesting as they capture the actual price changes under the most recent fee schedule reforms in Illinois. Please note that this study does not intend to identify causal relationships; rather, it highlights possible policy implications by describing associations between observed empirical patterns and policy choices and changes.

LESSONS FROM INTERSTATE COMPARISONS

- Prices paid were higher in states without fee schedule regulations for professional services as compared with fee schedule states.
  - Six states included in this study had no fee schedules as of 2012, namely Indiana, Iowa, Missouri, New Jersey, Virginia, and Wisconsin (Figure 1). The prices paid for professional services in five of these states (Indiana, Iowa, Missouri, New Jersey, and Virginia,) were 25 to 67 percent higher than the median of the study states with fee schedules. The prices paid in Wisconsin were the highest of the 25 study states, more than twice the median of the study states with fee schedules and about 50 percent higher than the median of the study states without fee schedules.
- There were more variations in prices paid across states for major surgeries than for primary care services.
  - The relative difference (i.e., ratio) between the second highest and second lowest prices paid for major surgeries across the study states more than doubled that for primary care services, such as office visits (Table 1).[2] Compared with the 25-state median, the average prices paid for major surgeries were more than 100 percent higher in the states among the highest, New Jersey and Wisconsin, while the average prices in the states among the lowest, Florida, Michigan, and South

[1] The states included in this study are Arizona, Arkansas, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin.

[2] To avoid basing the range computation on potential outliers, we used the second highest and second lowest values to discuss the variation in prices paid across study states. Note that the same qualitative conclusion holds for using the highest and lowest values.

Carolina, were more than 40 percent lower (Figure E.4). In other words, the average prices in those states among the highest were more than three times higher than the prices in those states among the lowest for similar surgeries. In contrast, for office visits, the average prices in the states among the highest (Minnesota and Wisconsin) were only double the prices in the states among the lowest (New York and North Carolina) for similar services (Figure E.2).

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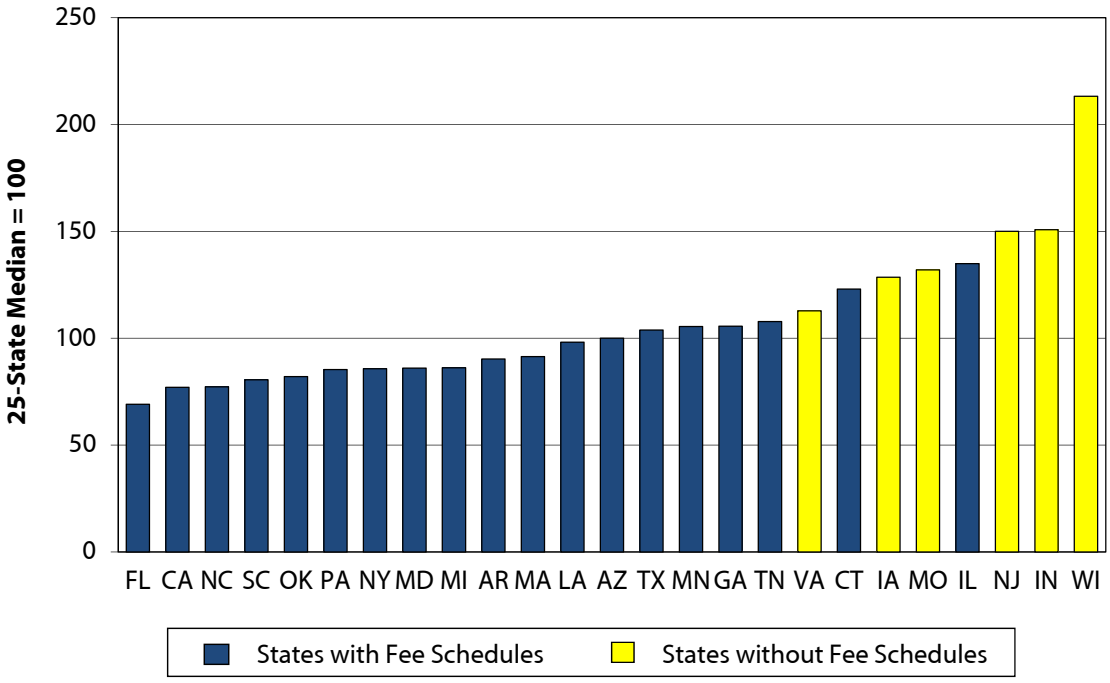
Figure 1 Interstate Comparisons of Price Index for Professional Services, 2012^{p}



Special notation:^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

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Table 1 Description of Interstate Variations in Price Index for Office Visits and Major Surgeries, 2012[p]

Measures	Evaluation and Management (office visits)	Major Surgery
Minimum price index value	67 (NC)	55 (MI, SC)
2nd lowest price index value	68 (NY)	56 (FL)
Maximum price index value	167 (WI)	258 (WI)
2nd highest price index value	133 (MN)	235 (NJ)
Ratio between minimum and maximum price index values	2.5	4.7
Ratio between 2nd lowest and 2nd highest price index values	2.0	4.2
Number of states with price index values within 25% of the median of study states	20	10
Number of states with price index values more than 25% higher than the median of study states	2 (MN, WI)	7 (CT, IL, IN, MA, MO, NJ, WI)
Number of states with price index values more than 25% lower than the median of study states	3 (CA, NC, NY)	8 (AR, FL, MD, MI, MN, OK, SC, TX)

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: In parentheses underneath the values are the states that correspond to those values.

LESSONS FROM TRENDS

- Prices grew more rapidly over the study period in states without fee schedules compared with states with fee schedules.
  - The average prices paid in Indiana, Iowa, Missouri, New Jersey, and Virginia increased 26 to 37 percent from 2002 to 2012, compared with a median growth rate of 13 percent for the study states with fee schedules (Figure 2). The average price in Wisconsin experienced the most rapid growth among the 25 states—a 53 percent increase over the 11 years covered in this study. This growth was not only more rapid than the typical growth in states with fee schedules, but also more rapid than the growth in the other study states without fee schedules.

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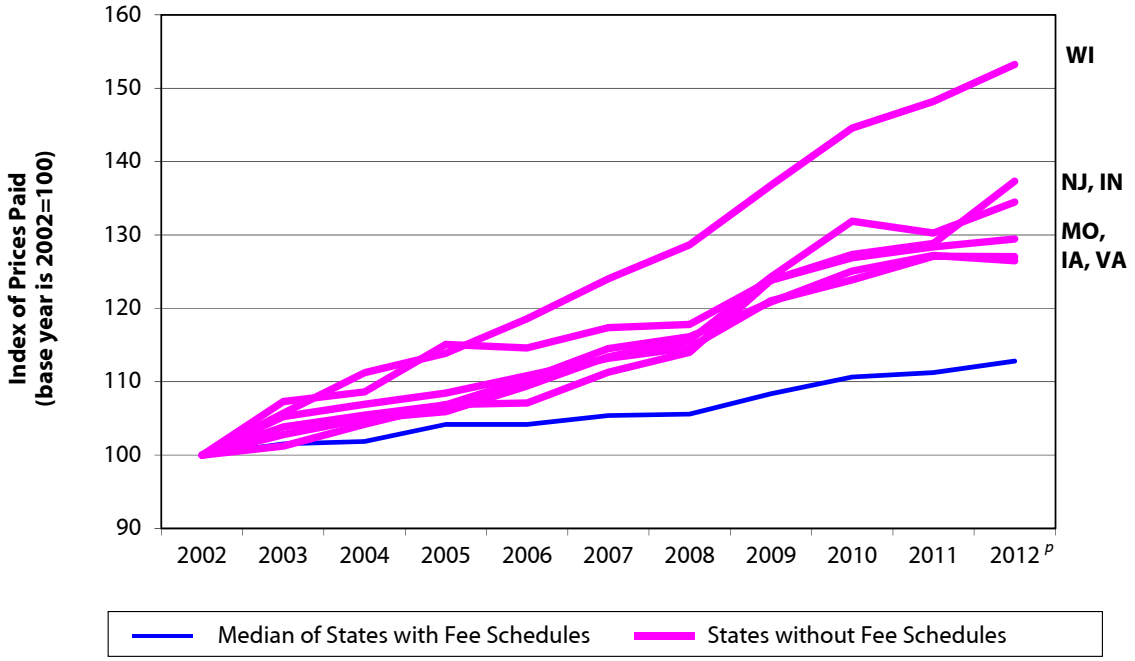
Figure 2 Trends of Price Index for Professional Services, 2002 to 2012



Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend line for the median of states with fee schedules represents the median rate of growth of prices paid among states with fee schedules from year to year.

- In states with fee schedules, changes in actual prices paid were related to changes in fee schedules.
  - Prices paid remained fairly stable in states where fee schedules did not change. For example, fee schedule rates in North Carolina did not have any material change during the study period, and the average price paid remained stable from 2002 to 2012 (Figure A.17). In New York, fee schedule rates for most types of services covered in this study did not change from 2002 to 2010, and the average price paid remained stable during that period (Figure A.19).[3]
  - In states with fee schedule reforms, changes in the actual prices paid were associated with the policy changes. For example, Texas underwent multiple fee schedule reforms. In August 2003, fee schedule rates for surgery were decreased while fee schedule rates for office visits (i.e., evaluation and management) increased significantly. In March 2008, Texas increased fee schedule rates for most professional services, especially for surgeries. These regulation changes were followed by substantial changes in prices paid (Figure D.23). The average price paid for major surgeries decreased about 40 percent from 2002 to 2004, and the average price paid for office visits increased nearly 40 percent in Texas, after the 2003 fee schedule change. From 2007 to 2009, the average prices paid for office visits and major surgeries increased 12 percent and 24 percent respectively, after the 2008 fee schedule change.[4] Another example was Maryland. In September

[3] In 2011, fee schedule rates in New York increased for evaluation and management (office visits) and emergency services, and the prices paid for those services increased correspondingly.

[4] For comparison, the typical growth rates of prices paid for office visits and major surgeries in study states without fee schedules were about 4–5 percent per year from 2002 to 2004 and from 2007 to 2009 (Figures B.1 and C.1).

2004, fee schedule rates for office visits and physical medicine services were increased, while fee schedule rates for surgery were decreased. Following that change, the average prices paid for office visits and physical medicine increased nearly 30 percent, while the average price paid for major surgeries decreased about 40 percent from 2003 to 2005 (Figure D.12). In February 2006, Maryland increased fee schedule rates for neurological and orthopedic surgeries. The average price paid for major surgeries grew about 20 percent from 2005 to 2007.[5]

- Prices paid for services not covered by fee schedules grew more rapidly compared with services covered by fee schedules. For example, in Louisiana, the average prices paid for most types of services remained fairly stable from 2002 to 2012, as the fee schedule rates remained unchanged. However, for pain management injections, the average price increased 82 percent (Figure D.10). This may be related to the fact that many pain management injections were not regulated by fee schedule rates; instead they were determined under a *by report* method, which was based on factors such as payors' specific prevailing charges data, documentation submitted by medical providers, etc. Another example was Minnesota. Before 2010, many commonly used pain management injections were not covered by the state's fee schedule, and the average price increased nearly 50 percent from 2002 to 2009. This growth rate was more rapid compared with the price growth in other types of services that were covered by the fee schedule (Figure D.14). In October 2010, Minnesota updated its fee schedule and covered the pain management injections that were not regulated before. Following this change, the average price paid for pain management injections decreased nearly 40 percent from 2009 to 2011.

ILLINOIS 2011 FEE SCHEDULE REFORM

- In September 2011, Illinois enacted new legislation that introduced a 30 percent decrease in the fee schedule rates across all types of services and discontinued its use of the 29 geo-zip areas for physicians and other providers in favor of four county-based regions. The prior 29 fee schedule rates ranged from a low of 115 percent above Medicare to a high of 219 percent above Medicare, a difference of 104 percentage points. This difference might create unintended incentives for providers to control revenue by moving the site of service. With the consolidation of the 29 geo-zip areas into the four county-based regions under the new fee schedule, the intrastate differences in fee schedule rates among regions in Illinois decreased noticeably. For example, for a common knee arthroscopy surgery (i.e., CPT 29881), the highest fee schedule rate among the 29 geo-zip regions was more than 100 percent above the lowest fee schedule rate before the 2011 reform. After the fee schedule change, the highest rate among the four regions was about 40 percent above the lowest rate. Therefore, one might expect the incentives to move the site of service would be undermined. This report captures the actual price changes at the state level under the new fee schedule.
- Following this policy change, the overall average price paid for professional services in Illinois decreased 24 percent from 2010 to 2012 (Figure 3). Furthermore, as of June 2012, the magnitudes of decreases in prices paid for most types of professional services were somewhat smaller than 30 percent (Table for

[5] For comparison, the growth rates of prices paid for office visits and physical medicine in the two non-fee schedule states neighboring Maryland, New Jersey and Virginia, were up to 4 percent per year from 2003 to 2005. For major surgeries, the growth rates were up to 6 percent per year from 2003 to 2005 and 4 percent per year from 2005 to 2007 in those two states (Figure D.17 and D.24).

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Figure 3). For example, the average price paid for office visits decreased 25 percent from 2010 to 2012, and the decrease in average price paid for major surgeries was 23 percent. The only exception was neurological and neuromuscular testing services, where the decrease in average price paid was 34 percent from 2010 to 2012.

Figure 3 Illinois Trend in Professional Prices Paid by Service Group, 2002 to 2012

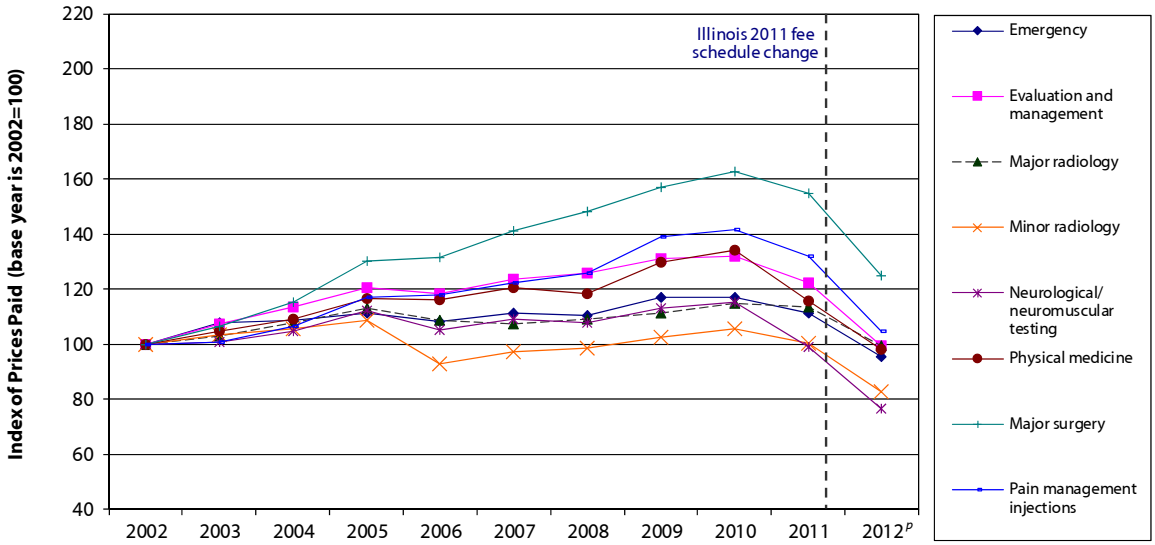


Table for Figure 3: Illinois Trend in Professional Prices Paid by Service Group, 2010 to 2012

	Overall	Evaluation and Management	Physical Medicine	Major Surgery	Pain Management Injections	Major Radiology	Minor Radiology	Neurological/ Neuromuscular Testing	Emergency
% change in prices paid from 2010 to 2012	-24%	-25%	-27%	-23%	-26%	-13%	-22%	-34%	-18%

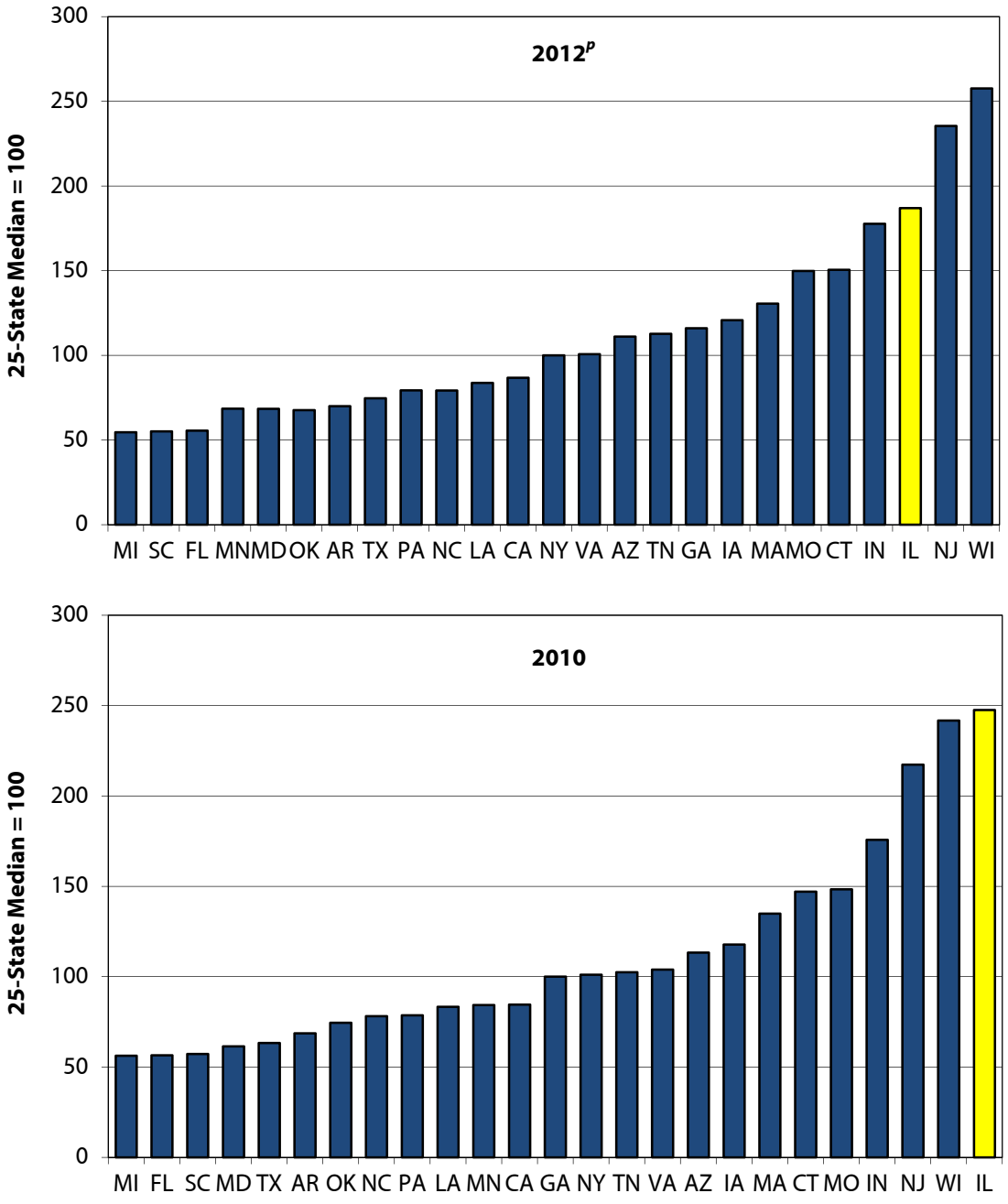
Note: For price index values for each year, see Figure D.8.

Special notation: ^{P} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

- Before the 2011 fee schedule change, the average price paid for major surgeries in Illinois was nearly two and a half times the 25-state median, the highest of the 25 states in 2010 (Figure 4). This was likely associated with the relatively higher pre-reform fee schedule levels for surgeries in the state. According to another WCRI study, *Designing Workers' Compensation Medical Fee Schedules*, the pre-reform fee schedule rate for major surgeries in Illinois was 443 percent above the Medicare rate on average in the state, one of the highest nationwide (Fomenko and Liu, 2012). After the 2011 fee schedule reform, the average price paid for major surgeries in Illinois was nearly two times the 25-state median in 2012, still among the highest of the study states.
- In contrast, for office visits, the average price paid for office visits in Illinois was 14 percent higher than the 25-state median in 2010 before the 2011 fee schedule change (Figure 5). According to *Designing Workers' Compensation Medical Fee Schedules*, the pre-reform fee schedule rate for office visits in Illinois was 33 percent above the Medicare rate in the state; the national median fee schedule rate for office visits

was 29 percent above the Medicare rate (Fomenko and Liu, 2012). After the 2011 fee schedule reform, the average price paid for office visits in Illinois became 18 percent lower than the 25-state median in 2012.

Figure 4 Changes in Interstate Ranking for Illinois on Price Index for Major Surgeries



Special notation:^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

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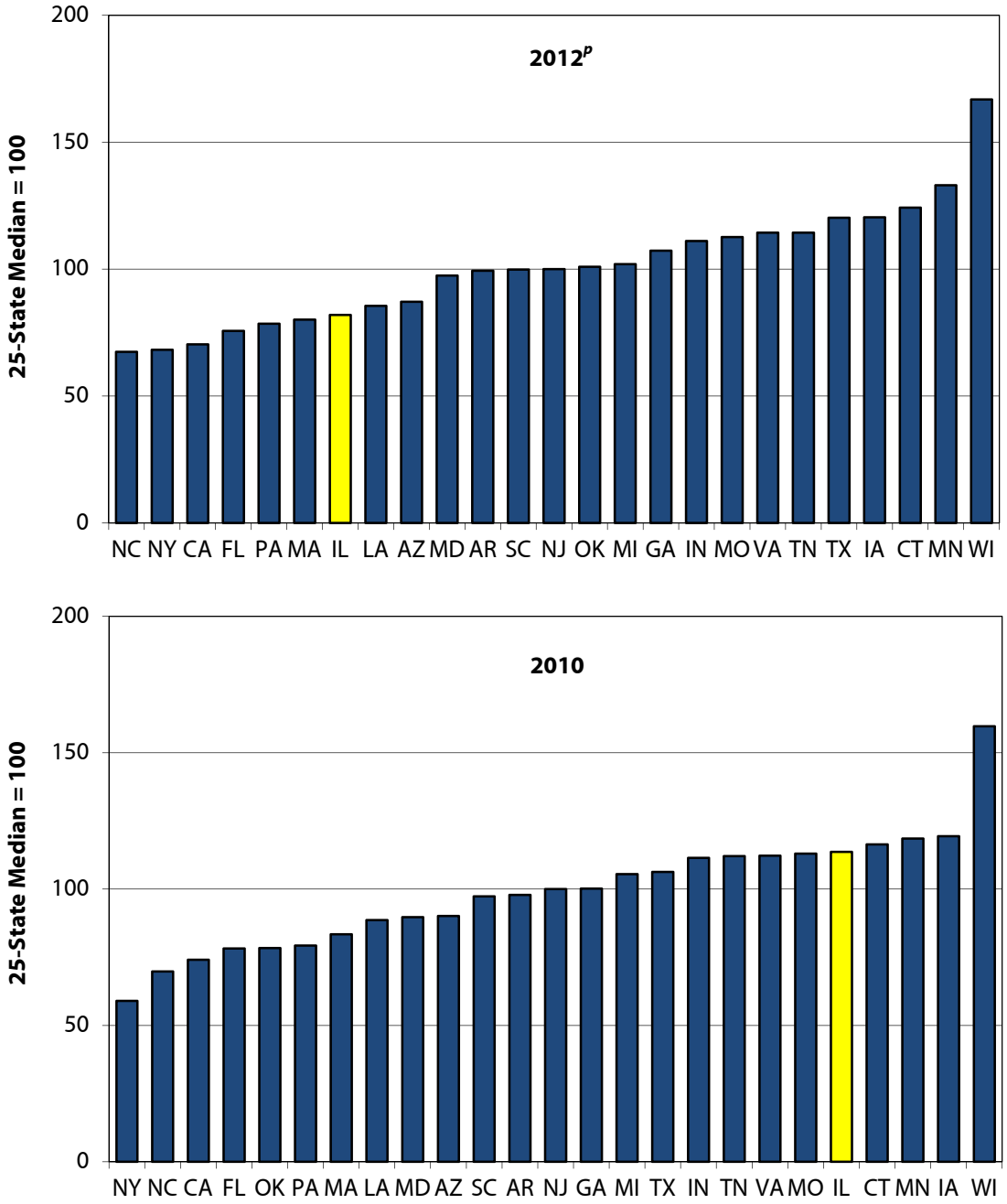
Figure 5 Changes in Interstate Ranking for Illinois on Price Index for Office Visits



Special notation:^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

INTRODUCTION

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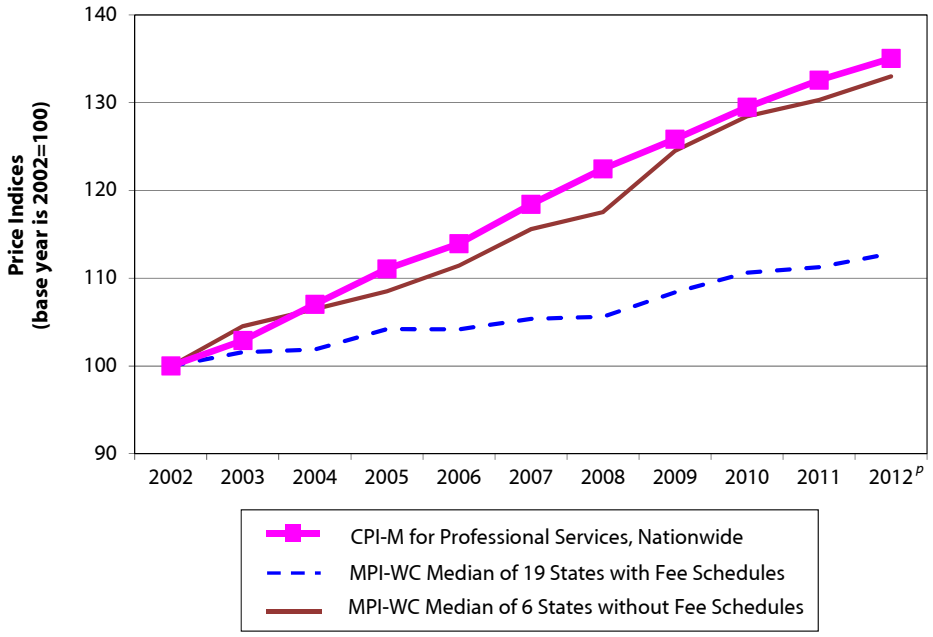
Over recent years the costs of medical treatment per claim for workers' compensation injuries have been growing rapidly. To manage this growth through both public policies and private management actions, public policymakers and system stakeholders need to know what areas of medical care are the key drivers for rapidly increasing overall costs. This study focuses on prices paid for professional services (i.e., nonhospital, nonfacility services). Other Workers Compensation Research Institute (WCRI) studies examine the quantity and mix of medical care provided and hospital costs.[1]

The essential method for developing this Medical Price Index for Workers' Compensation (MPI-WC) is similar to the one for the Consumer Price Index for medical care (CPI-M), published by the U.S. Department of Labor's Bureau of Labor Statistics (BLS). Both price indices measure changes in price while holding utilization constant over the period studied.

However, the WCRI MPI-WC is a more focused measure of workers' compensation price inflation in most states than the BLS CPI-M. The BLS medical CPI includes the prices of all medical services provided to the U.S. population. The majority of these services have little or no relevance for tracking medical prices for the care provided to injured workers. The WCRI medical price index focuses only on those medical services that are commonly provided to injured workers—largely related to diagnosis and treatment of trauma and orthopedic conditions. Furthermore, changes in prices paid under workers' compensation systems are likely to be related to regulation choices made by the states. As shown in Figure 6, the BLS medical CPI-M for professional services did not track the workers' compensation price trends well for the study states with fee schedules. For study states without fee schedules, growth in the CPI-M for professional services was fairly similar to workers' compensation price trends over the study period.

[1] Belton, S., R. Dolinschi, L. Lamy, E. Radeva, K. Rothkin, B. Savych, C. Telles, and R. Yang. 2013. *CompScope™ medical benchmarks, 13th edition.* 13 vols. 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.

Figure 6 Comparing Trends of Price Index for Professional Services between MPI-WC and CPI-M, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index

Special notation:^{P} We use the notation *p* to indicate that the MPI-WC 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: For more information on Bureau of Labor Statistics' CPI-M by region, see Figure F.1.

Key: CPI-M: Consumer Price Index for medical care; MPI-WC: Medical Price Index for Workers' Compensation.

SCOPE OF THE STUDY

WCRI developed the MPI-WC to aid policymakers and system stakeholders in identifying states and medical services where medical prices are unusually high or low or are rising unusually rapidly or slowly. The indices measure prices actually paid and take into account any network or other discounts. The study focuses on professional services billed by physicians, physical therapists, and chiropractors. The price indices compare medical prices paid from state to state and show the trends within each state. Indices are reported for each state on a statewide basis and for major groups of medical services, including evaluation and management, physical medicine, surgery, major radiology, minor radiology, neurological and neuromuscular testing, pain management injections, and emergency care. Since the focus of the study is on prices paid for professional services, the indices exclude services billed by hospitals or ambulatory surgical centers and services billed for durable medical equipment, as well as pharmaceuticals.

This fifth edition covers 25 large states that represent nearly 80 percent of the workers' compensation benefits paid in the U.S. For each state, the indices track medical prices from calendar year 2002 through June 2012. Also, this study provides a snapshot comparison of medical prices across states by reporting interstate price indices for 2012.

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The changes in prices paid vary widely, as this report shows. In general, these variations are affected by several underlying factors, including state regulation and changes in fee schedules, network penetration rates, market conditions (i.e., negotiated price levels), and provider billing practices.[2]

ORGANIZATION OF THE REPORT

This report includes six major sections. The "Major Findings" section presents major findings and highlights policy implications. After a short "Introduction" section, the "Data and Methods" section and the "Limitations and Caveats" section discuss the data and method design in this study. Then, in the "Figures and Tables" section, we present the trends in workers' compensation medical prices paid for each of the 25 states from calendar year 2002 through June 2012, followed by the interstate comparisons of prices paid for services delivered and paid for in calendar year 2012.[3] The "Technical Appendix" section describes the methods, data, and limitations of this price index study in more detail.

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[2] The CompScope™ Medical series reports network penetration rates and discusses a variety of cases when changes in prices were associated with changes in the above-stated factors (see CompScope™ Medical, 13th, 12th, 11th, and 10th editions). Also, another WCRI study, *How Does the Massachusetts Medical Fee Schedule Compare to Prices Actually Paid in Workers' Compensation?*, describes the relationship between fee schedules, price negotiations, and actual prices paid before the 2009 change (Eccleston, 2006).

[3] 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

DATA AND METHODS

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The price index measures prices for professional services, holding the utilization of those services constant across study states and over time. It is based on a collection of the most common medical services provided to injured workers; this collection is called a marketbasket. To isolate the effect of price changes and interstate differences in prices, we held the marketbasket of procedures constant and used fixed weights to compute the average prices. The following sections describe the data used, the construction of the marketbasket, and the computation of the price index. The "Technical Appendix" provides further details on method.

THE DATA

The WCRI MPI-WC is based on the detailed medical bill data in the WCRI Detailed Benchmark/Evaluation (DBE) database, which comprised 49 to 82 percent of the claims across the 25 study states. The data in most of the 25 study states were reasonably representative of the state systems, with the caveats described in the "Limitations and Caveats" section of this chapter and the "Technical Appendix." The information to construct the marketbasket and to compute the price index comes from the medical bills associated with the claims in the DBE database. The basic unit of measurement is the price—the amount paid for each medical service on a bill.

THE MARKETBASKET

To represent the utilization of medical services, we selected a set of medical services most commonly used to treat injured workers—a marketbasket. The marketbasket of procedures was held constant across states and over time. Holding utilization constant allows us to isolate the effect of price changes and interstate differences in prices from the changes and interstate differences in patterns of medical care delivered. The professional services provided to injured workers generally fall into eight major service groups. Each of these groups represents a price index component. We reviewed the top procedure codes ranked by frequency for each of these groups. In general, we selected the most frequent codes so that at least 85 percent of expenditures in each service group were represented by selected codes. There were two exceptions: major surgery and minor radiology, where the codes in the marketbasket captured 40 percent and 67 percent of total expenditures in those groups, respectively (see "Technical Appendix," Table TA.4). The marketbasket was then tested to ensure that it was robust and represented the overwhelming majority of workers' compensation expenditures on professional services in each of the 25 states (see "Technical Appendix," Table TA.3).

CREATING THE INDICES

We computed an average price paid for each of the individual services in the marketbasket for each state and for each year.[4] We computed the average price level of each service group as the weighted average of the

[4] Several data cleaning steps were necessary prior to creating the average unit price, including checking for outlier values, multiple units of services (or bundled services), and missing procedure code modifiers. The methods for cleaning the data are described in more detail in the "Technical Appendix."

individual service prices for the services in each group, relying on procedure-level frequency weights. The procedure-level weights are the relative frequency of each procedure in the marketbasket—that is, the total number of services for each procedure provided as a share of the total number of all services provided within the respective service group. The service group price levels were aggregated to a state-level price for *overall professional services* using the service group frequency weights. Here 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.[5]

The index for the interstate comparisons uses the median state as a base, so an index of 120 simply means that the prices paid in that state were, on average, 20 percent higher than those in the median state.

The intrastate trend indices use calendar year 2002 as the base, so an index of 120 for calendar year 2012 means that the average price paid in 2012 was 20 percent higher than in 2002.

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[5] 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.

LIMITATIONS AND CAVEATS

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First, to provide more recent information, we report prices in 2012 based on January through June 30, 2012. The interstate rankings based on the 2012 figures should provide a reasonable approximation for a state's ranking relative to other states in 2012—especially for states that adjusted their fee schedules early in 2012 (see Figure TA.1). For states that adjusted their fee schedules after June 30, the index may understate or overstate their comparable price index for 2012.[6] That is also true to a lesser extent for states that adjusted their fee schedules in the second quarter of 2012. For states without fee schedules, it would not be surprising if the price index based on six months of data understates the value of the price index based on a full year of data. For the same reasons, the price index trends from 2011 to 2012 in the report (based on half-year 2012 data) may understate or overstate the trends based on a full year of 2012 data in the study states.

Second, this study is based on data from a group of large insurers, self-insurers, state funds, and third-party administrators in 25 states. The data in most study states were reasonably representative of the state systems; however, in a few states our data were not necessarily representative because they were missing data from a larger data source that was significant in the state. These states include Arizona, Missouri, New York, and Oklahoma, as noted throughout the tables. However, the results for Arizona, New York, and Oklahoma are unlikely to be significantly under- or overestimated, given that these states had fee schedules for professional services reimbursement, and, therefore, it is unlikely that the prices for the missing data source were materially different from other data sources included in this study.

Third, we use a single marketbasket of procedure codes across all states to hold utilization constant in order to isolate the effects of prices. In a few states, there are a limited number of unique state-specific procedure codes. Often these codes are mapped to the standard codes in the marketbasket. In a few states, such a mapping was not possible. In these cases, we omitted the state-specific codes (for example, the physical medicine services in Louisiana). This might produce minor distortions in the interstate comparability, but should not affect the individual state trends.

Fourth, radiology procedure codes often use modifiers to distinguish the technical component (of the whole procedure) versus the professional component (of the whole procedure), and these components are paid at different levels for the same procedure. Unfortunately, the modifier codes are sometimes missing in the data reported to WCRI. Without a modifier, a paid amount can be for one of the following 3 things: the professional component, the technical component, or the whole procedure. For this study, we developed an algorithm to identify the payments for the professional component separately from the other two. This allows us to more accurately compute the average prices for radiology services. However, we were not able to identify the payments for the technical component and for the whole procedure separately due to data limitations (see the "Technical Appendix" for more discussion).

[6] Among the 25 study states, Arizona, Connecticut, and Minnesota had fee schedule changes or updates within 2012, but after June 30, 2012.

Table A MPI-WC—2012^{p} Interstate Comparisons

Professional Services	Overall	Emergency	Evaluation & Management	Major Radiology	Minor Radiology	Neurological/ Neuromuscular Testing	Physical Medicine	Major Surgery	Pain Management Injections
AR	90	78	99	89	102	87	100	70	116
AZ[a,b]	100	114	87	90	92	105	101	111	81
CA	77	83	70	86	70	92	70	87	51
CT[b]	123	101	124	121	115	126	96	150	119
FL	69	65	76	72	60	64	73	56	119
GA	106	86	107	92	117	95	98	116	98
IA[c]	129	157	120	151	148	131	125	121	194
IL	135	138	82	146	157	111	118	187	167
IN[c]	151	189	111	154	195	154	140	178	201
LA	98	100	86	118	100	91	110	84	169
MA	91	60	80	89	61	54	70	131	96
MD	86	75	97	77	71	71	100	68	72
MI	86	83	102	101	73	80	103	55	68
MN[b]	105	117	133	131	97	107	112	68	100
MO[a,c]	132	173	113	130	170	149	118	150	157
NC	77	75	67	112	81	63	72	79	91
NJ[c]	150	233	100	87	134	156	106	235	281
NY[a]	86	101	68	100	103	108	76	100	71
OK[a]	82	83	101	95	70	80	78	68	73
PA	85	76	78	97	85	79	94	79	75
SC	81	96	100	69	72	83	93	55	69
TN	108	124	114	106	101	102	97	113	105
TX	104	95	120	88	85	100	126	75	98
VA[c]	113	177	114	124	137	118	107	101	156
WI[c]	213	233	167	230	245	297	177	258	316

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Note: For definitions of the service groups, please see Table TA.1.

[a] The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

[b] This state had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

[c] This state had no workers' compensation fee schedule in 2012.

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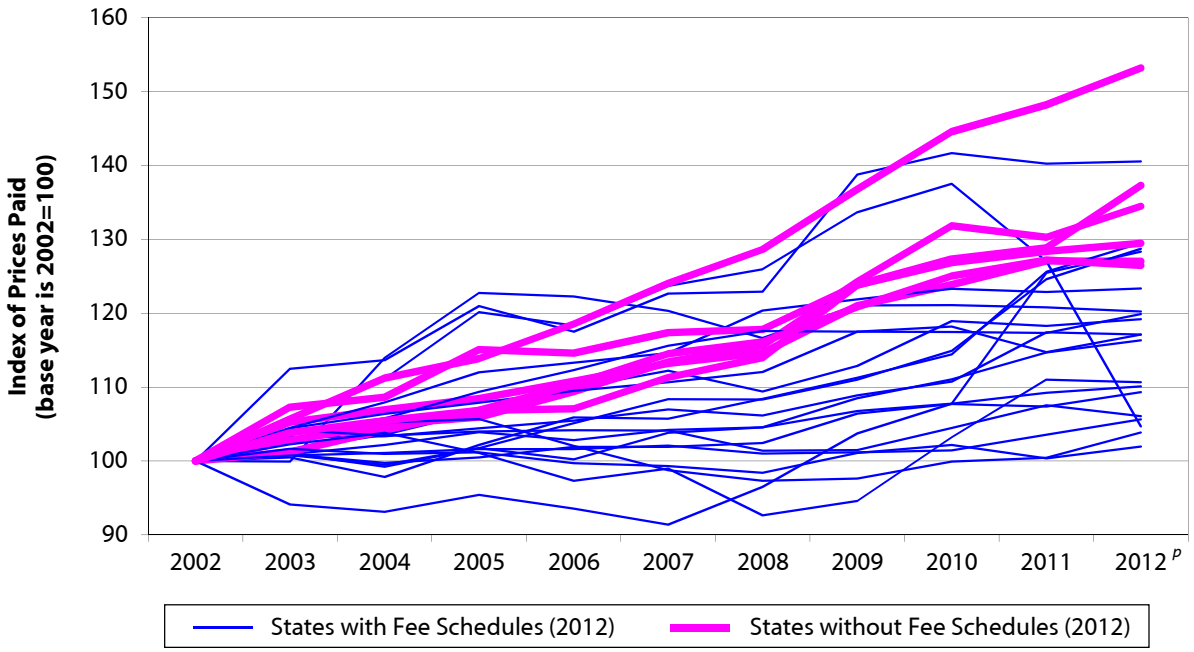
Figure A.1 Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
AR	100	103	103	104	105	107	106	109	111	117	117
AZ[a,b]	100	102	104	107	110	112	109	113	119	118	119
CA	100	101	99	102	100	104	105	107	108	109	110
CT[b]	100	101	102	104	103	104	105	108	111	115	116
FL	100	100	114	123	122	120	117	121	121	121	120
GA	100	101	100	102	105	108	108	111	115	125	129
IA[c]	100	105	107	108	111	113	115	121	124	127	127
IL	100	105	111	120	118	124	126	134	138	127	105
IN[c]	100	103	105	106	109	113	116	124	132	130	134
LA	100	101	100	100	102	102	102	106	108	107	109
MA	100	112	114	121	118	123	123	139	142	140	141
MD	100	100	98	102	106	106	108	111	114	126	130
MI	100	104	108	112	113	115	120	122	123	123	123
MN[b]	100	104	106	108	109	111	112	117	118	115	117
MO[a,c]	100	101	104	107	107	111	114	124	127	128	129
NC	100	102	101	101	100	99	98	101	102	100	102
NJ[c]	100	107	109	115	115	117	118	124	127	129	137
NY[a]	100	101	101	102	102	102	101	101	101	104	106
OK[a]	100	104	105	106	102	99	97	98	100	100	104
PA	100	104	106	109	112	116	118	118	117	117	120
SC	100	104	103	104	104	104	101	102	104	108	106
TN	100	102	104	101	97	99	93	95	103	111	111
TX	100	94	93	95	94	91	97	104	108	125	128
VA[c]	100	104	105	107	110	115	116	121	125	127	126
WI[c]	100	106	111	114	119	124	129	137	145	148	153

continued

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Figure A.1 Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012 (continued)

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes:
Calender year 2002 is the base year, which is equal to 100 in the index.
For definitions of the service groups, please see Table TA.1.

[a] The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

[b] This state had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

[c] This state had no workers' compensation fee schedule in 2012.

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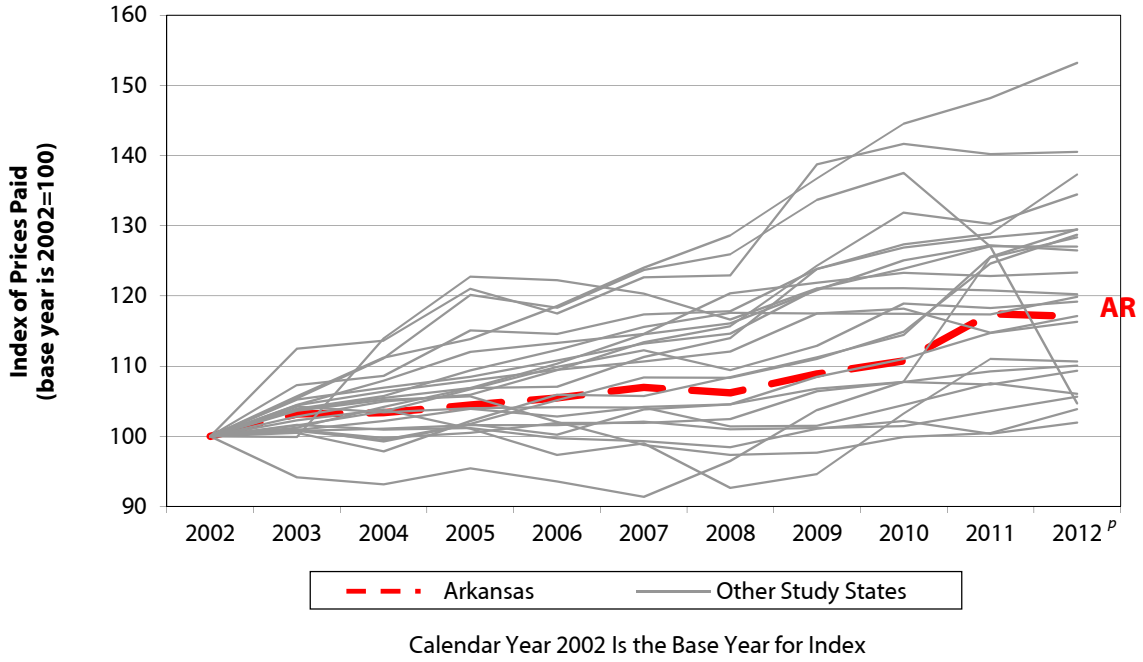
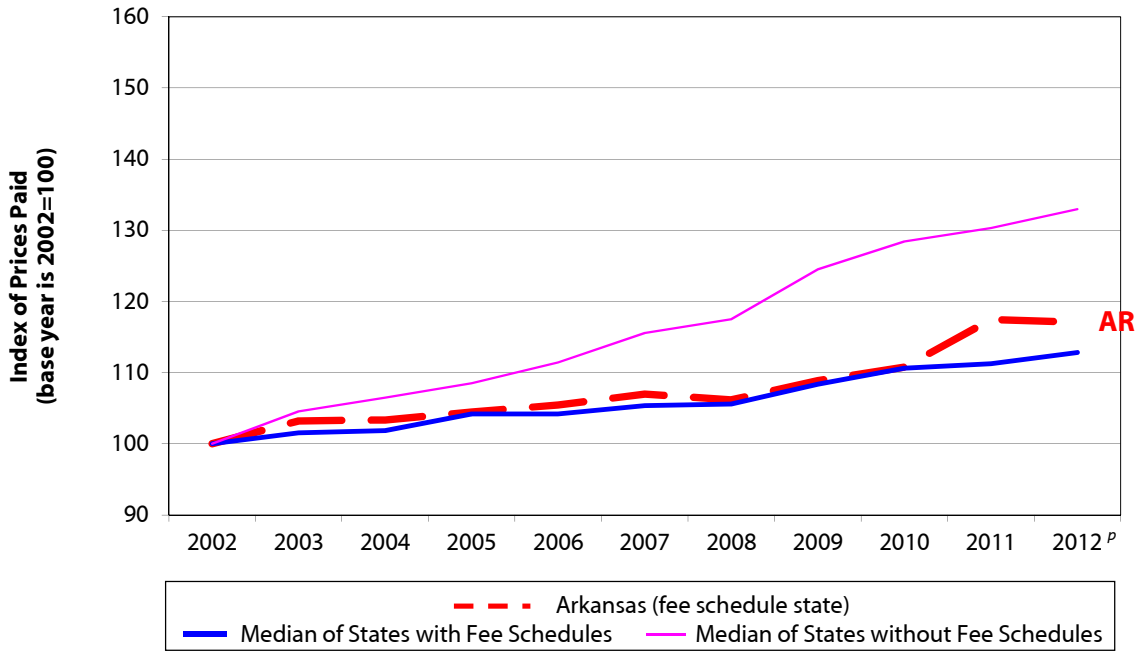
Figure A.2 Arkansas Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Arkansas' fee schedule for professional services has regular updates on the relative value units tied to the most recent Medicare resource-based relative value scale, with applied state conversion factors adopted in May 2000 for the services included in this study. The most recent update covered in the study period in this report was effective April 1, 2012.

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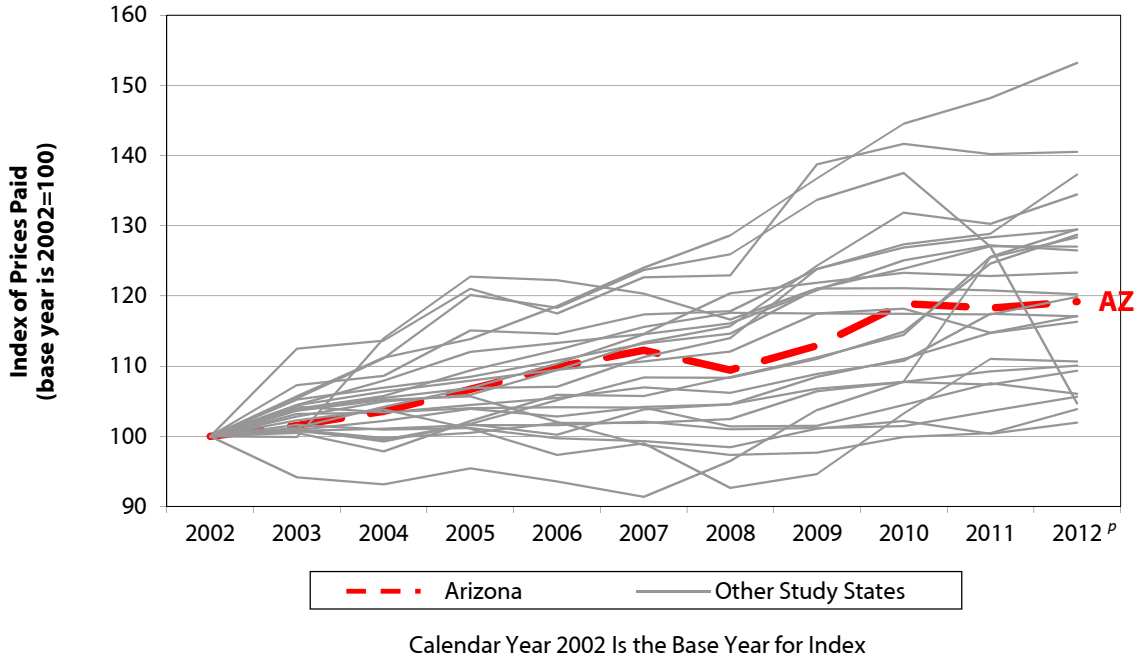
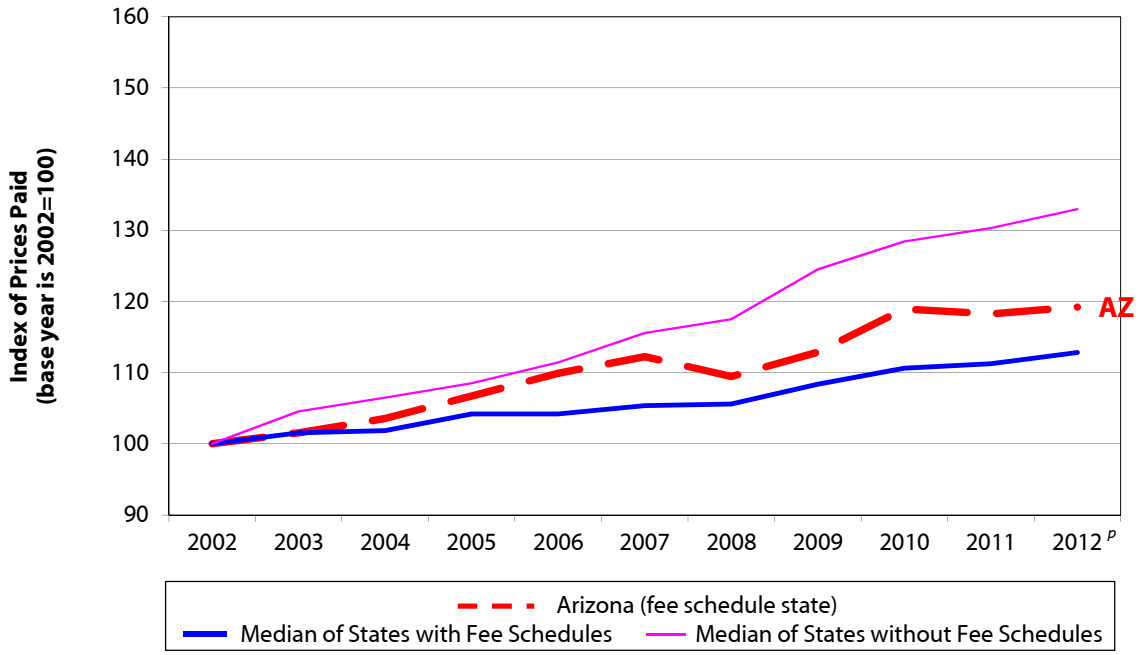
Figure A.3 Arizona Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Arizona updates its fee schedule for professional services annually in October. The most recent update covered in the study period in this report was effective October 1, 2011.

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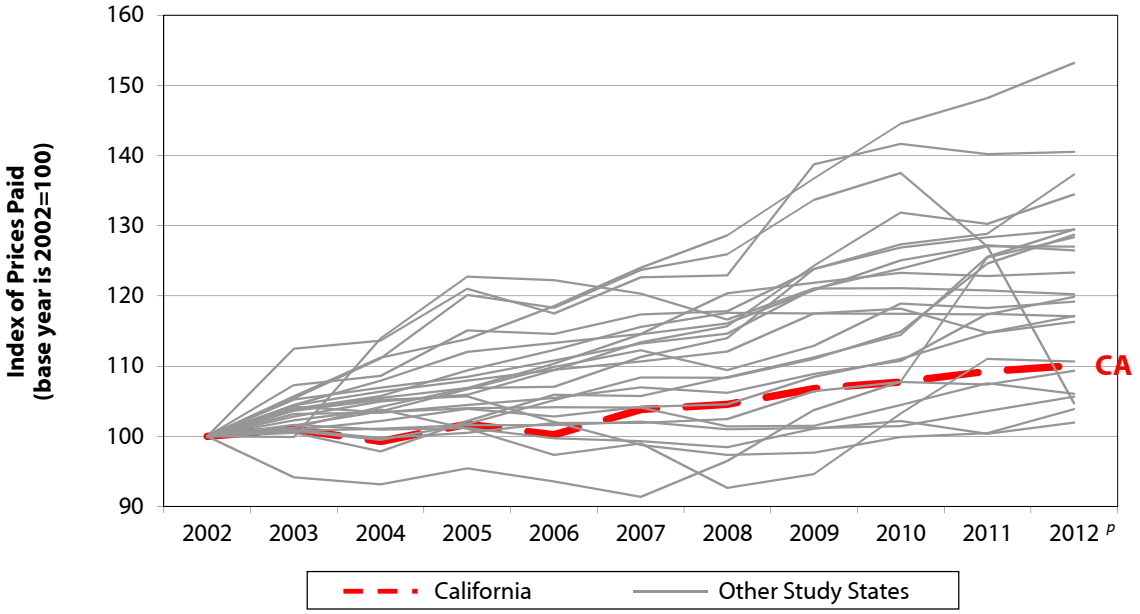
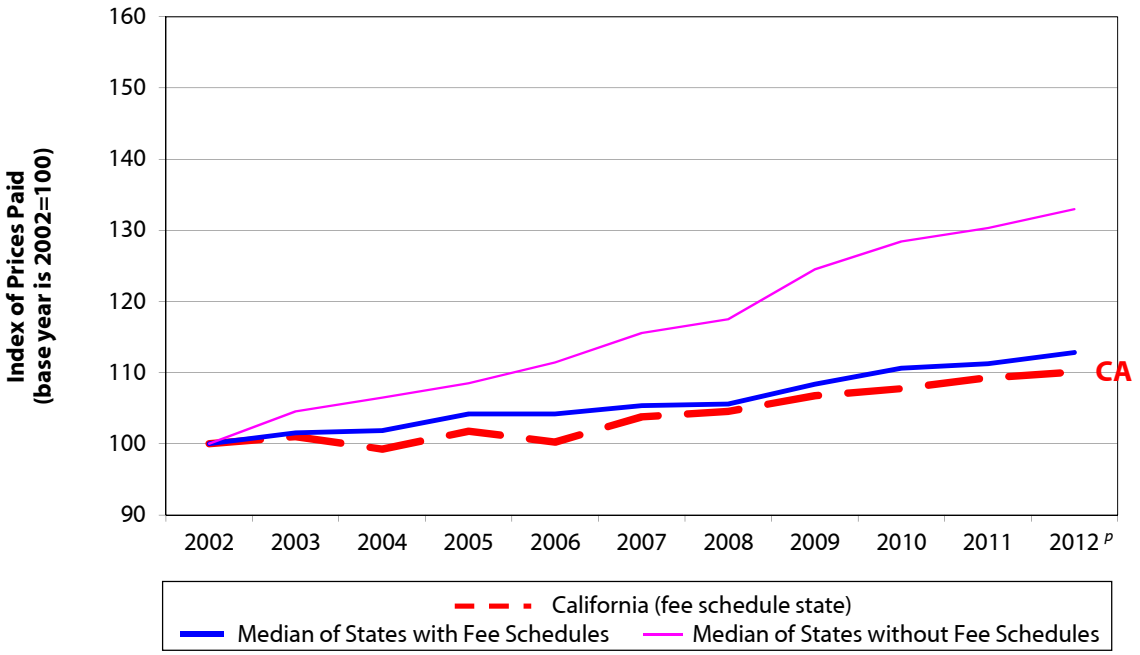
Figure A.4 California Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: California had a reduction of 5 percent in fee schedule rates for professional services in 2004; except for increases in fee schedule rates for evaluation and management services in February 15, 2007, there have not been additional updates.

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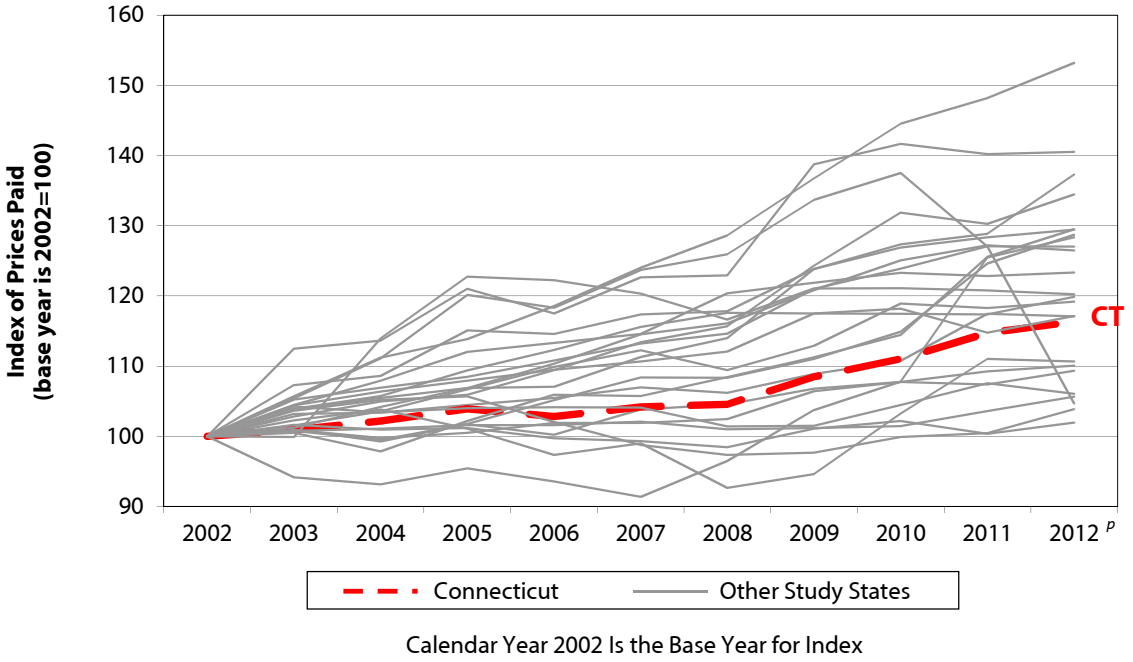
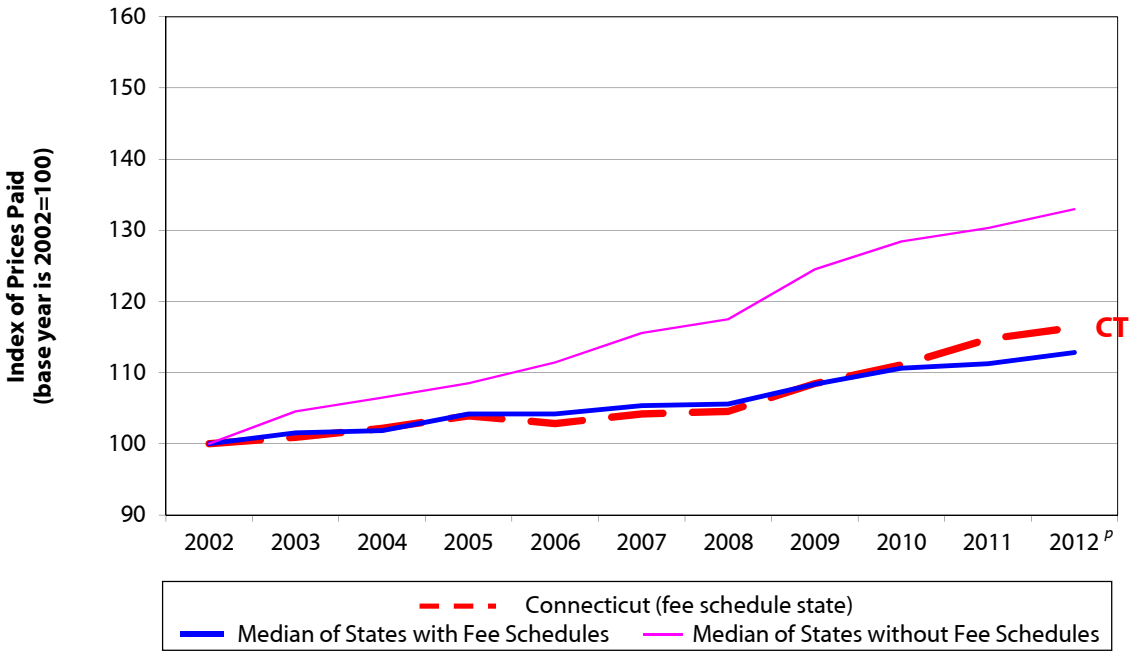
Figure A.5 Connecticut Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Connecticut has updated its fee schedule for professional services annually in July since 2008; in prior years, updates were effective in April. The most recent update covered in the study period in this report was effective July 15, 2011.

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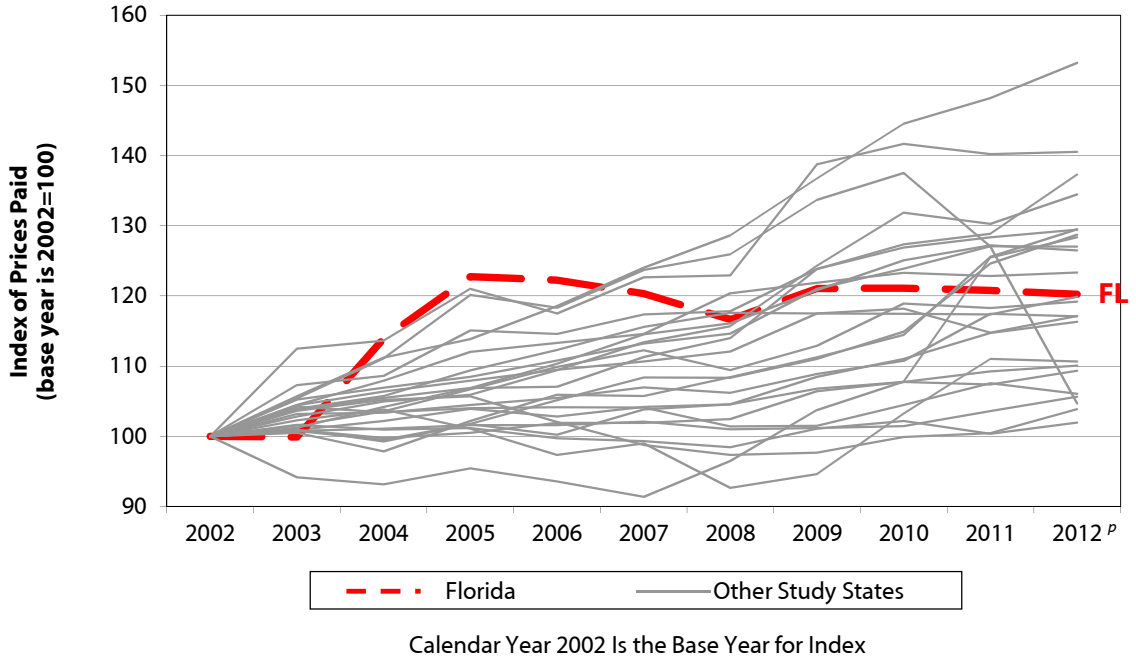
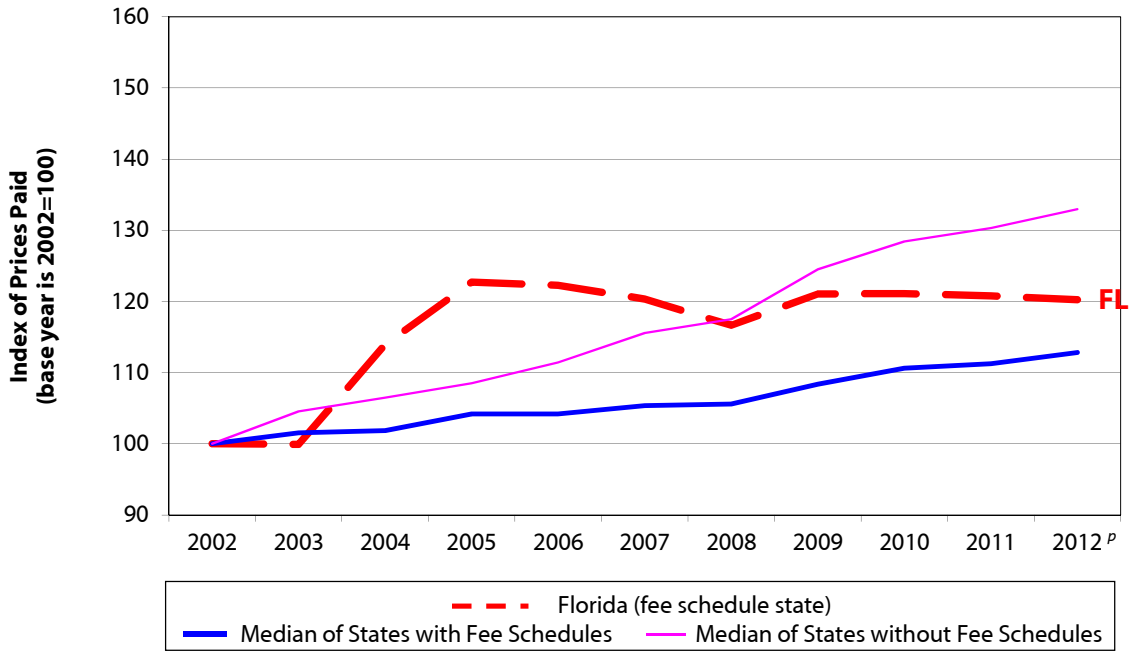
Figure A.6 Florida Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Florida had significant increases in fee schedule rates for physician services in January 2004 and increases in fee schedule rates for services provided by chiropractors and physical/occupational therapists in May 2005. After that, Florida had fee schedule updates for professional services in 2006, 2007, and 2009.

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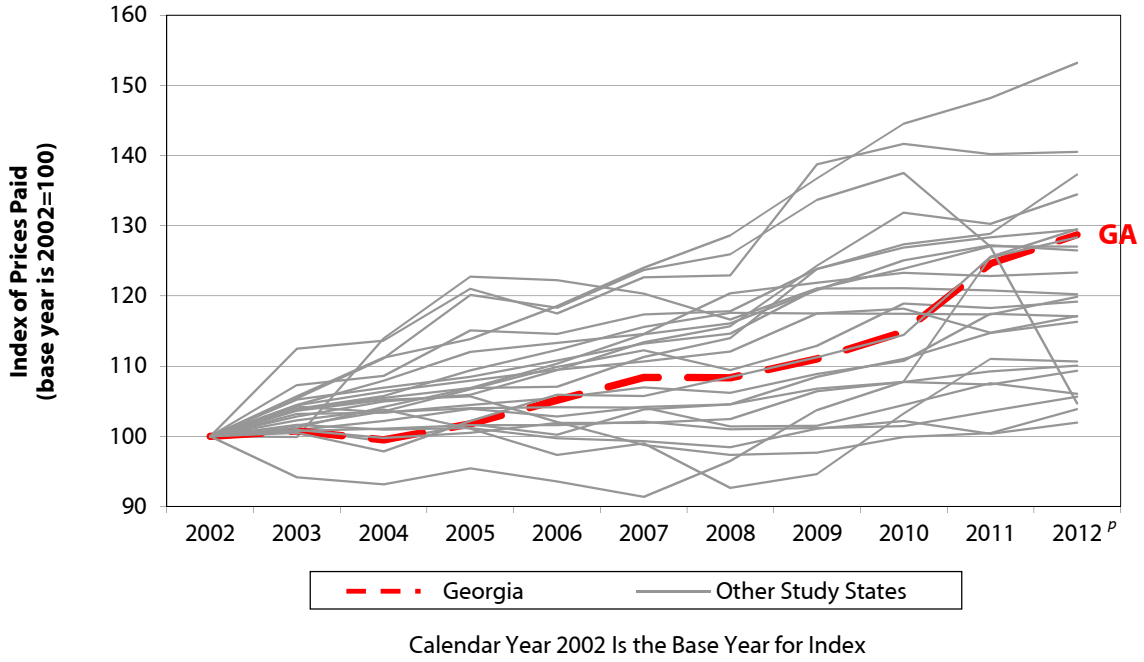
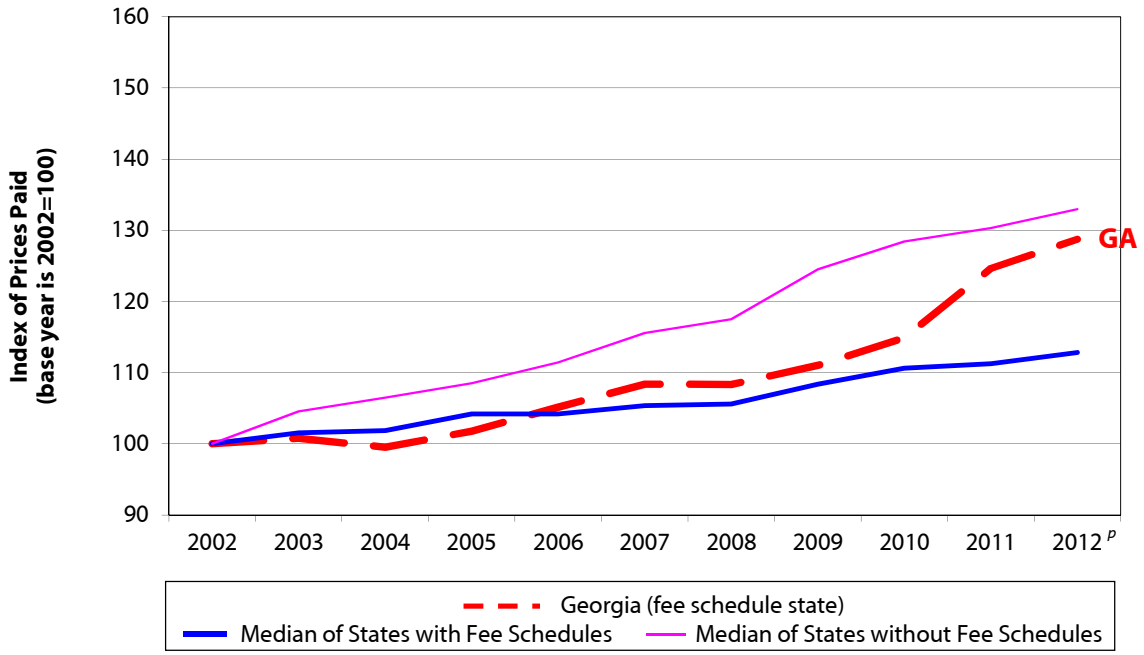
Figure A.7 Georgia Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index

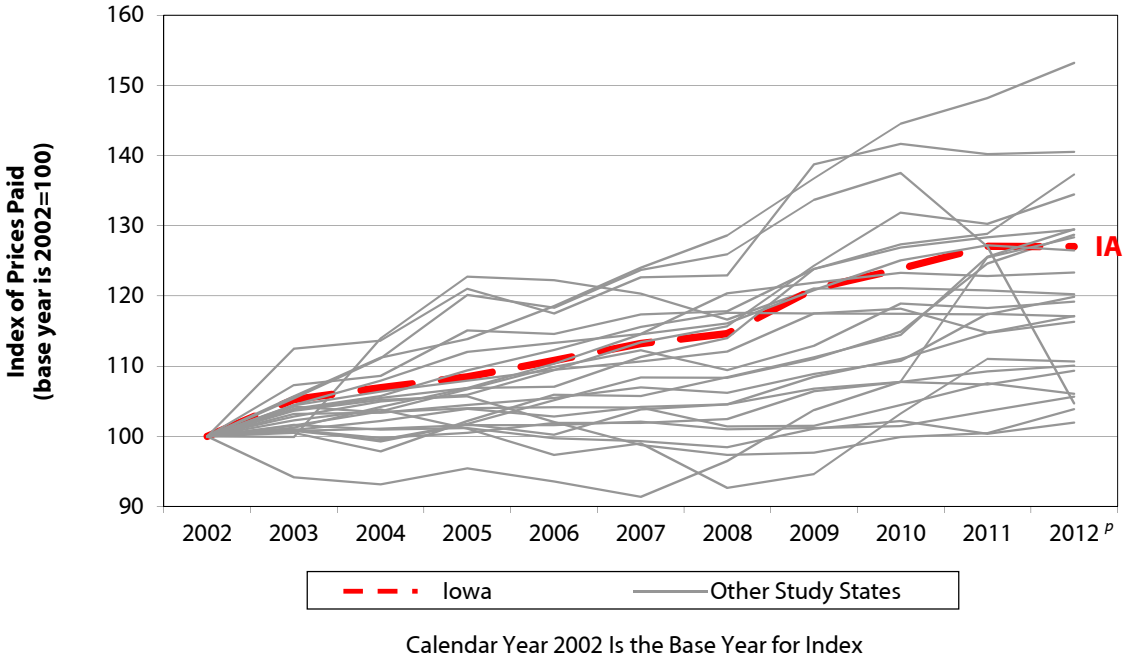


Calendar Year 2002 Is the Base Year for Index

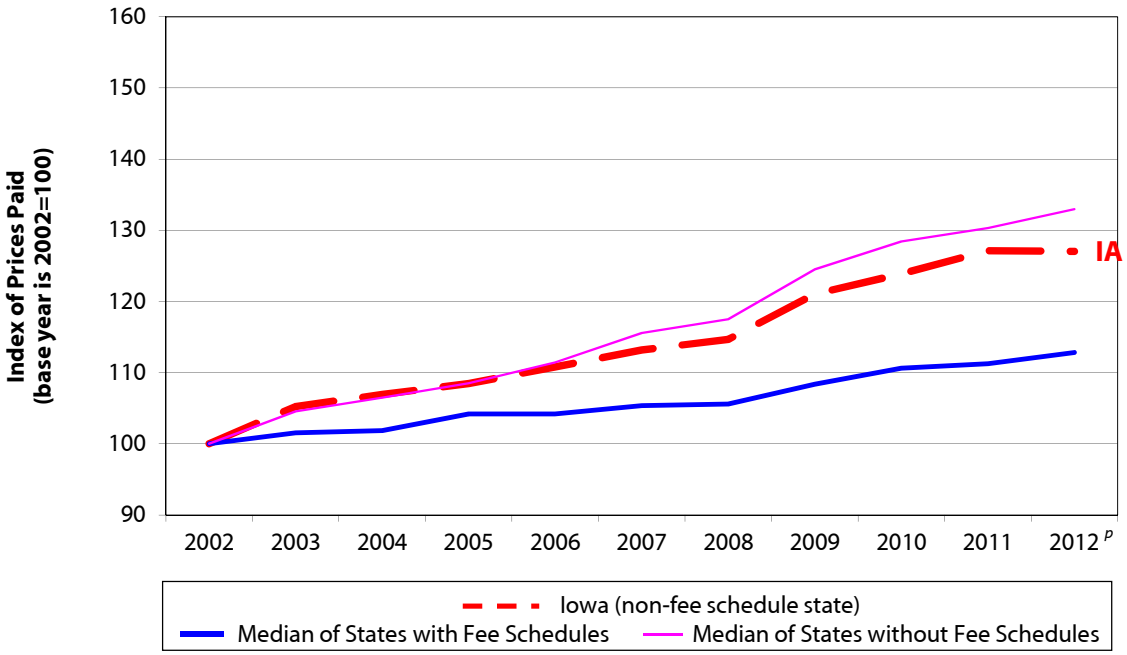
Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Georgia updates its fee schedule for professional services annually in April. For example, in 2005, the fee schedule rates increased materially for evaluation and management and physical medicine services and decreased for many services, such as emergency, minor radiology, neurological and neuromuscular testing, and certain major surgery procedures. The most recent update covered in the study period in this report was effective April 1, 2012.

Figure A.8 Iowa Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Iowa did not have a workers' compensation fee schedule as of 2012.

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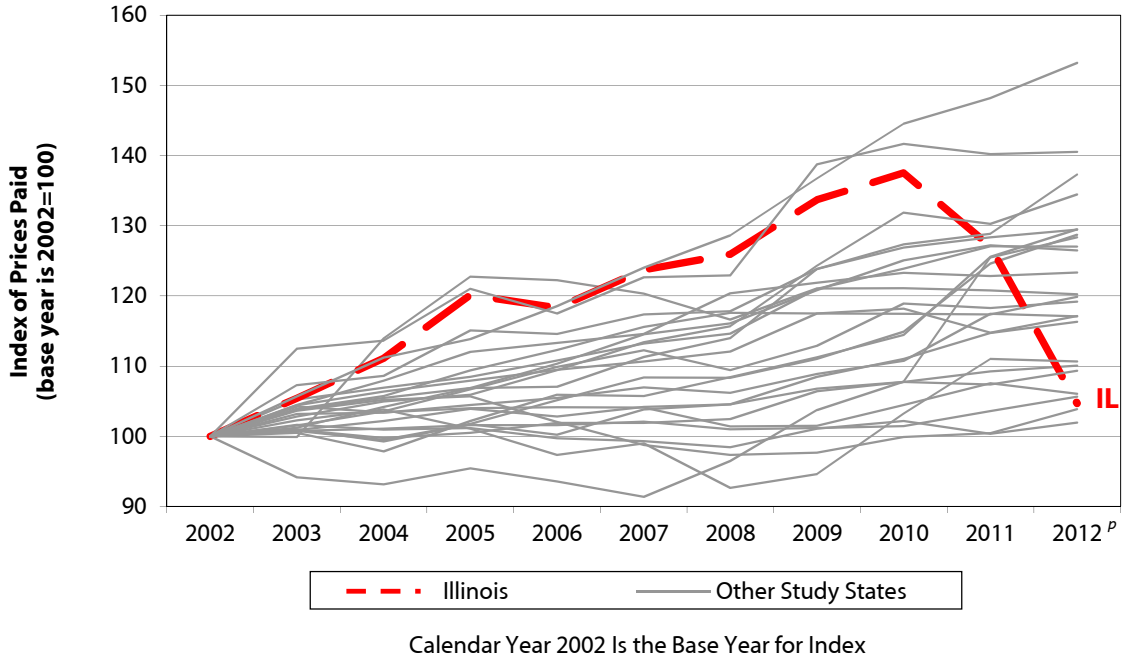
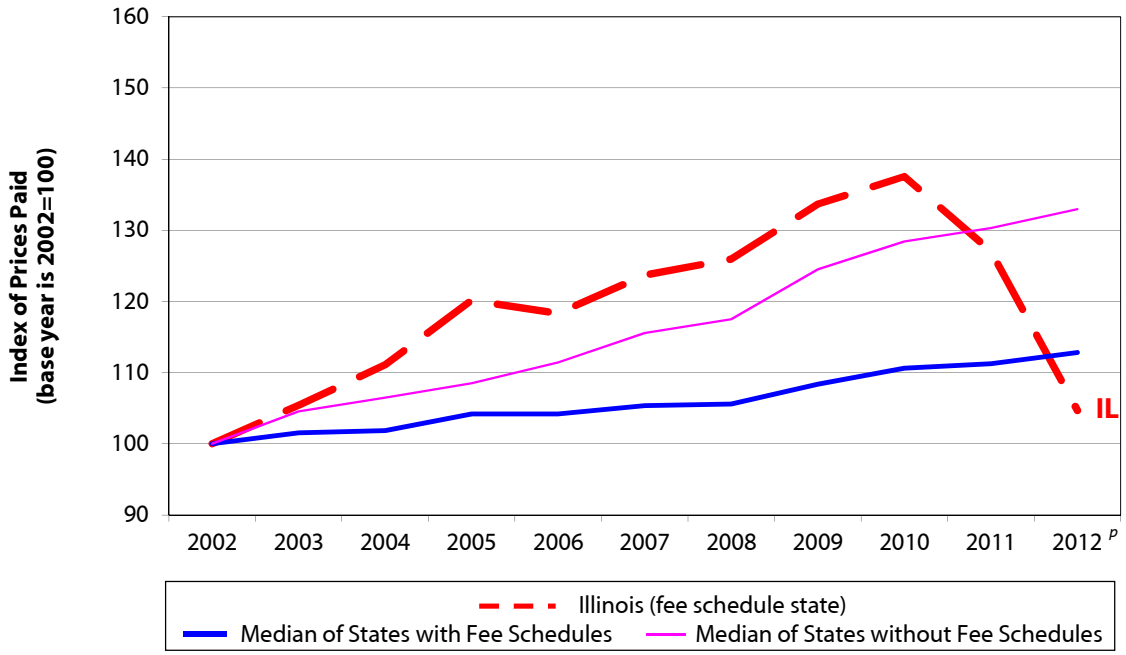
Figure A.9 Illinois Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Illinois implemented a workers' compensation fee schedule in February 2006. This workers' compensation fee schedule for professional services set different maximum reimbursement rates for the same services for each of 29 different areas of the state based on the first three digits of the zip code where the service was delivered. The 29 fee schedules ranged from a low of 115 percent above Medicare to a high of 219 percent above Medicare—a difference of 104 percentage points. This difference might create unintended incentives for providers to control revenue by moving the site of service. Prices in this study represent the aggregate state-level estimation without drilling down to the 29 geo-zip areas; therefore, the price trends after 2006 could be influenced by the potential behavior changes of the providers. In September 2011, Illinois enacted new legislation that introduced a 30 percent decrease in the fee schedule rates. On January 1, 2012, Illinois discontinued its use of the 29 geo-zip areas for physicians and other providers in favor of four county-based regions.

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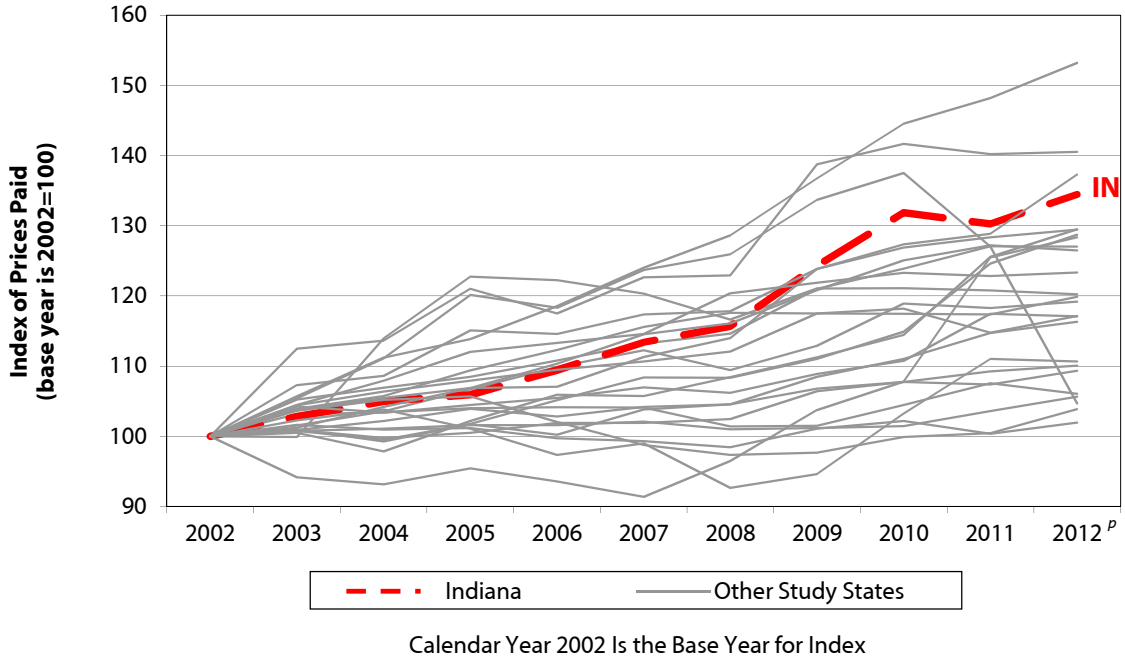
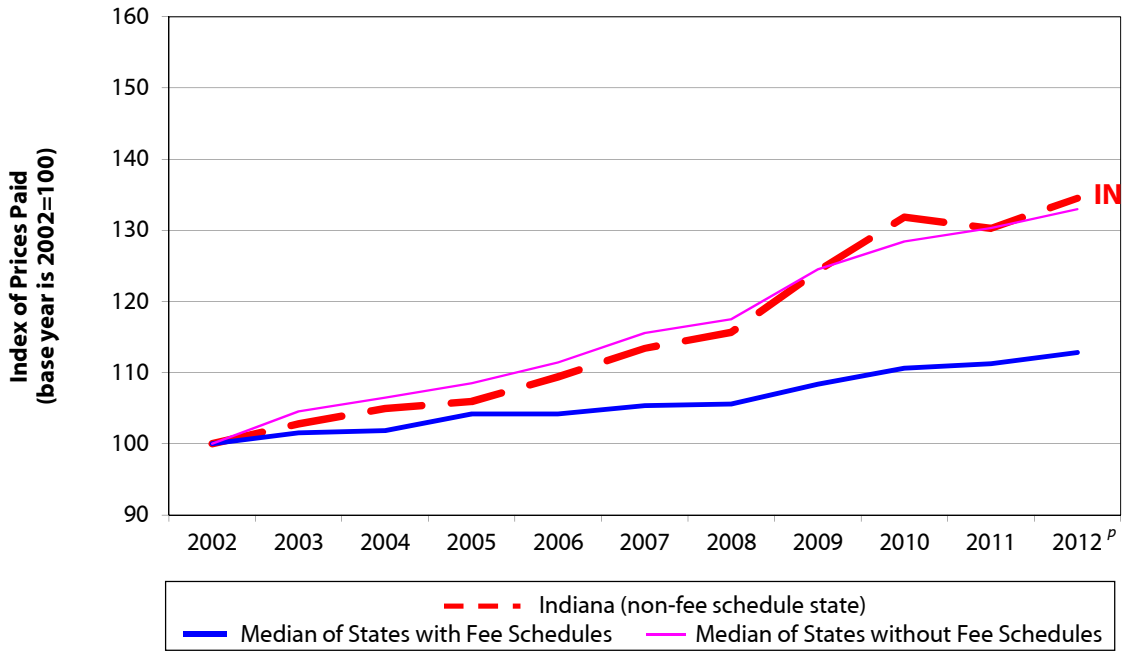
Figure A.10 Indiana Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Indiana did not have a workers' compensation fee schedule as of 2012.

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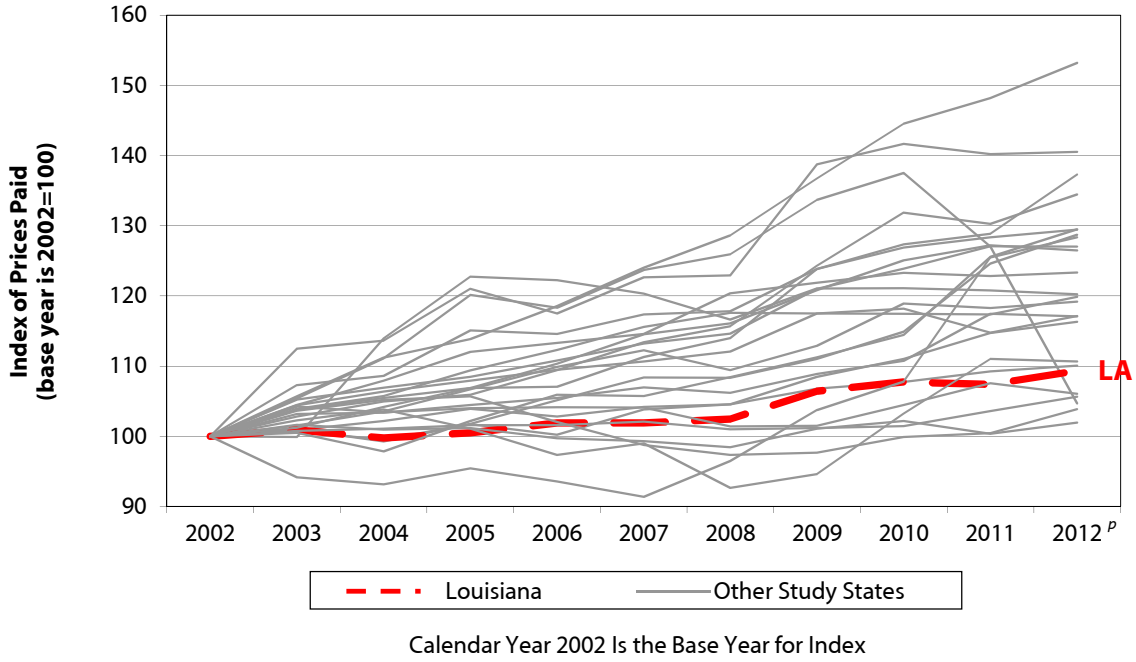
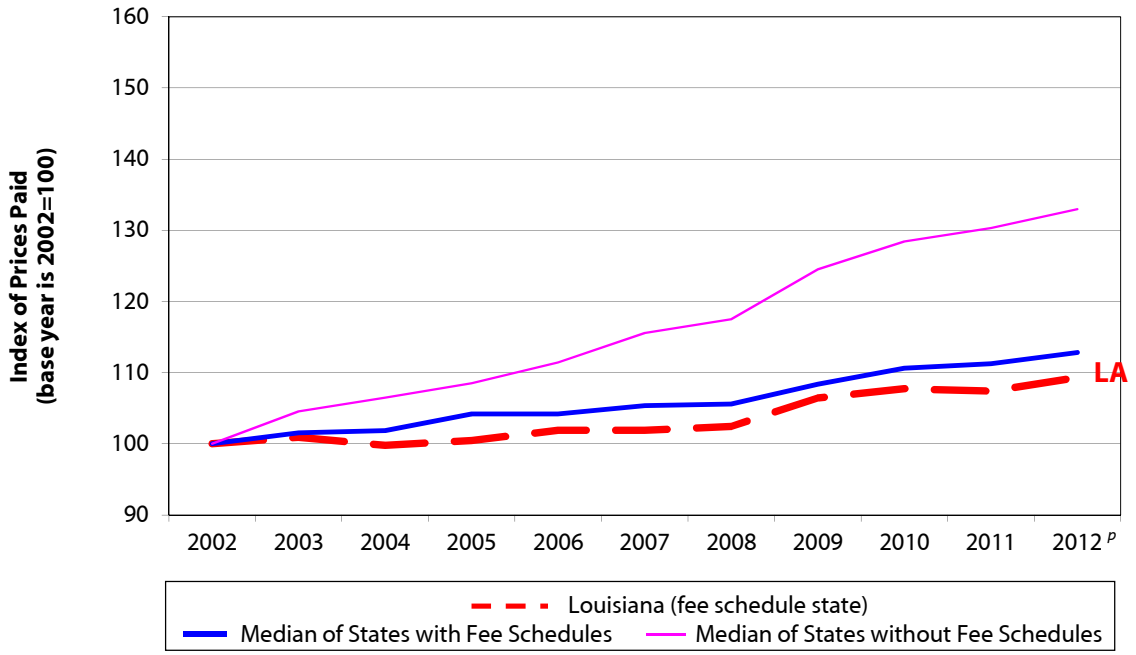
Figure A.11 Louisiana Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012

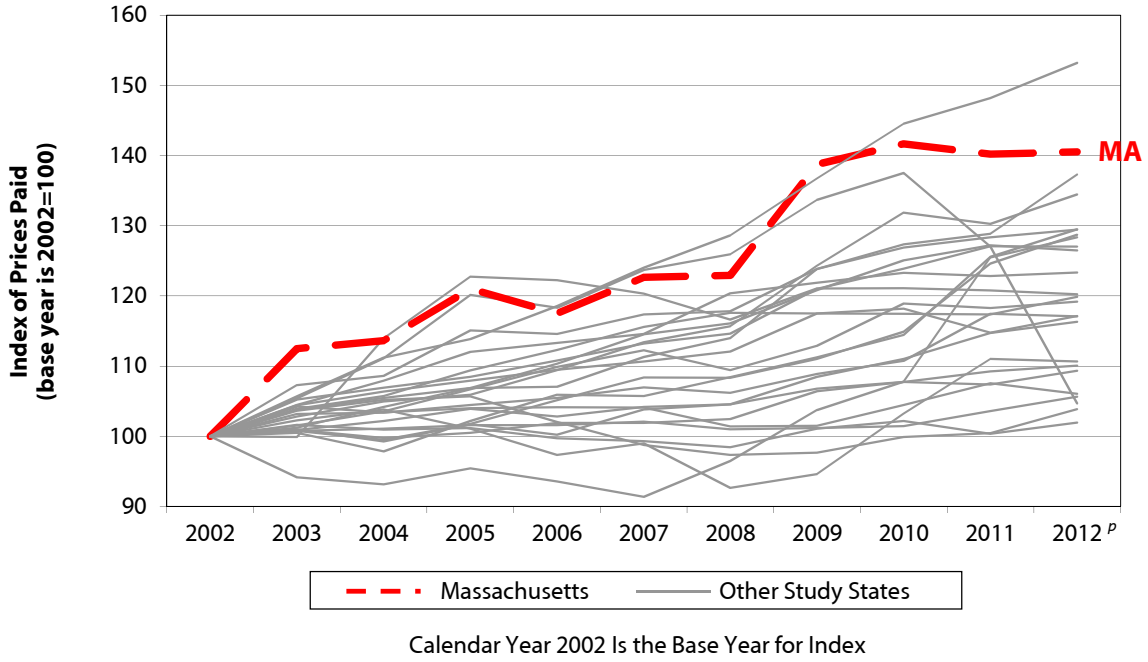


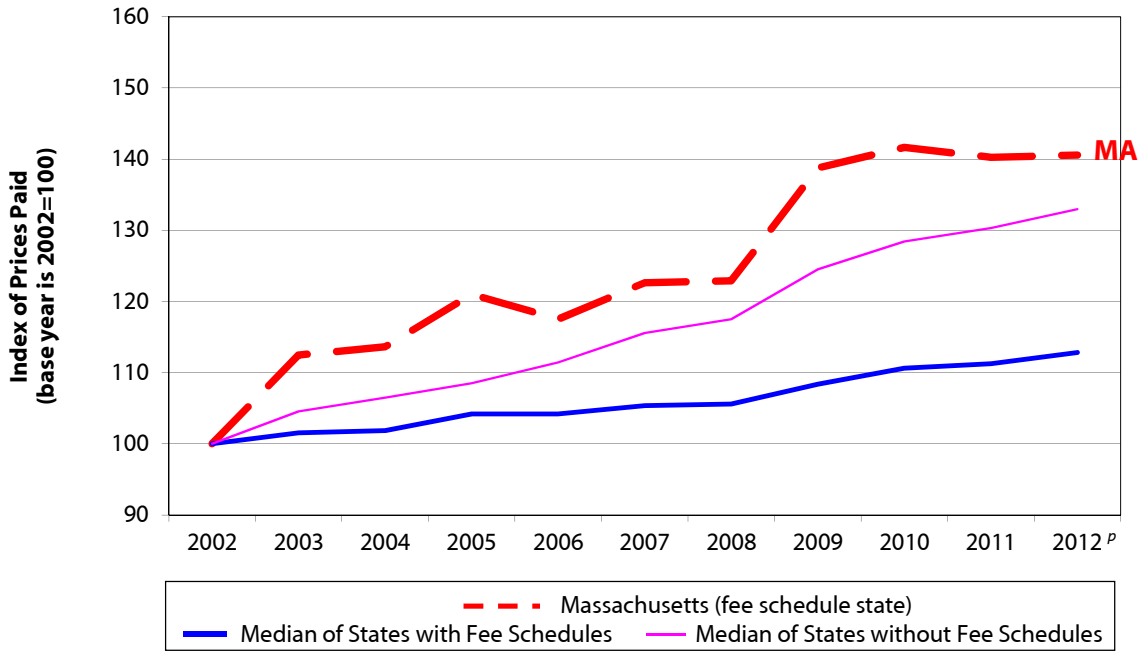


Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Louisiana's fee schedule for professional services uses the 1999 Current Procedural Terminology (CPT) list published by the American Medical Association and the maximum allowable reimbursement rates effective as of March 2001.

Figure A.12 Massachusetts Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012





Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Massachusetts increased the fee schedule rates for many professional services, effective April 2009. The fee schedule increases for major surgeries were especially significant; the rates for some procedures increased to two to three times the previous rates. Prior to that, the fee schedule for professional services had not been updated since September 2004.

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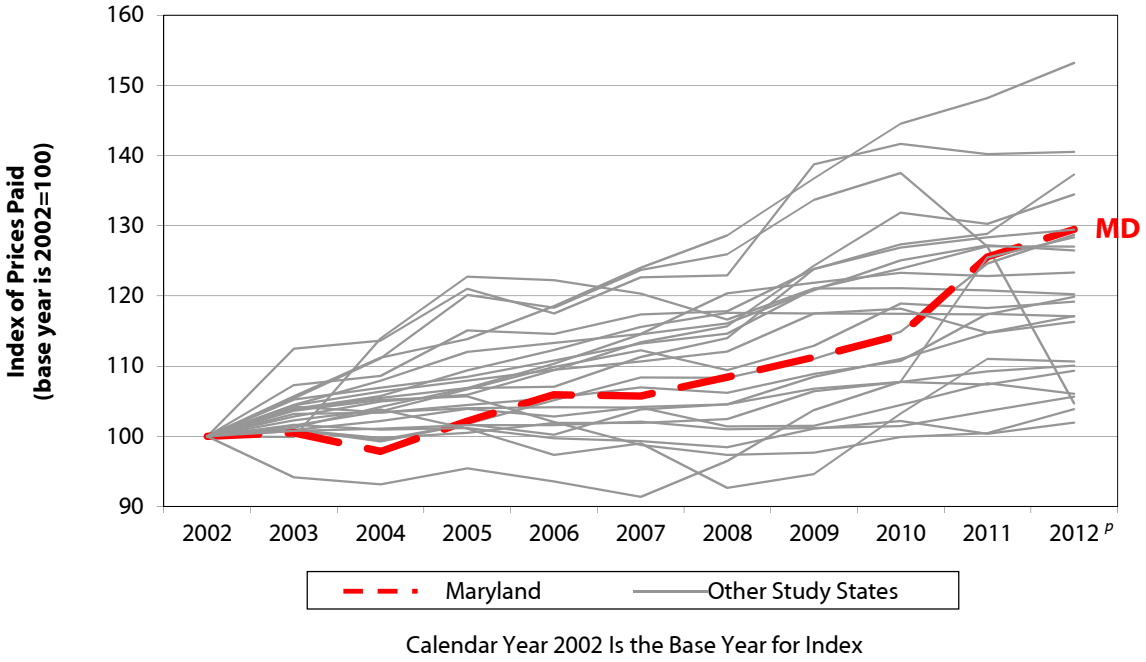
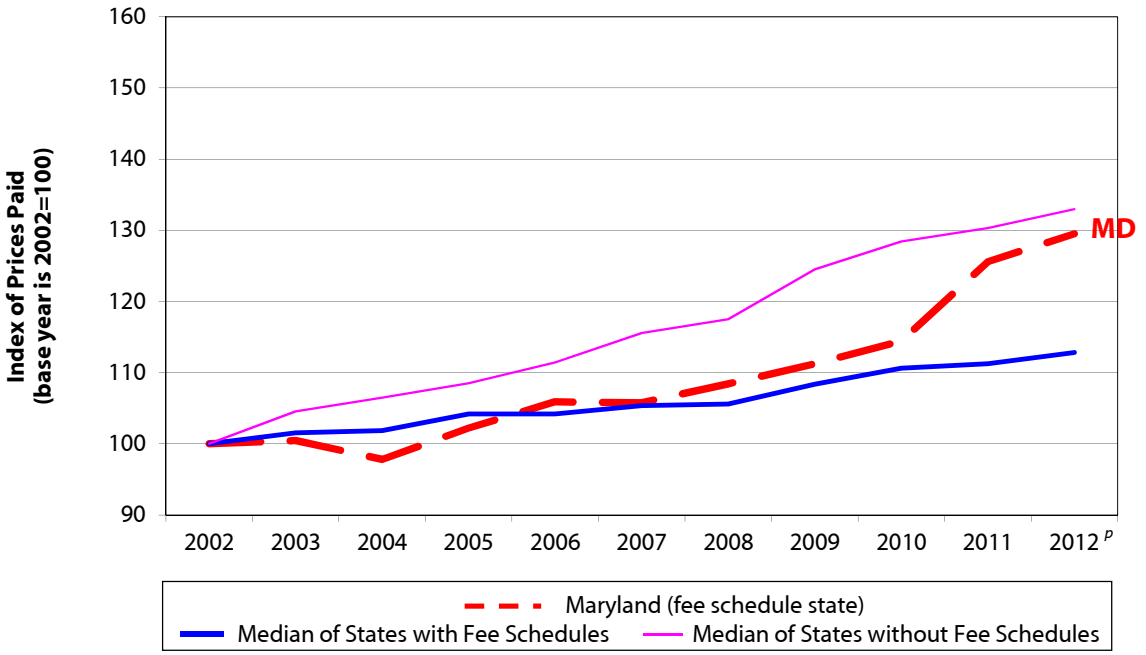
Figure A.13 Maryland Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Maryland increased fee schedule rates for evaluation and management and physical medicine services, and decreased rates for surgery, in September 2004. In February 2006, Maryland increased fee schedule rates for neurological and orthopedic surgeries. Starting in March 2008, Maryland allowed annual increases in fee schedule rates for professional services based on changes in the Medicare Economic Index. The most recent update covered in the study period in this report was effective March 1, 2012.

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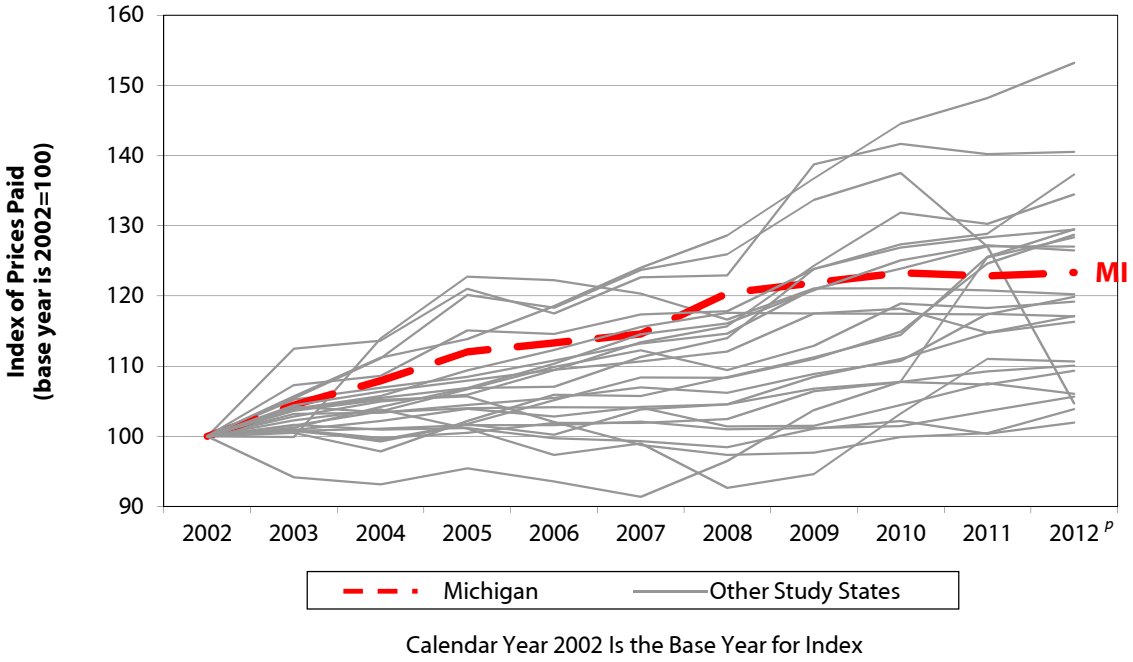
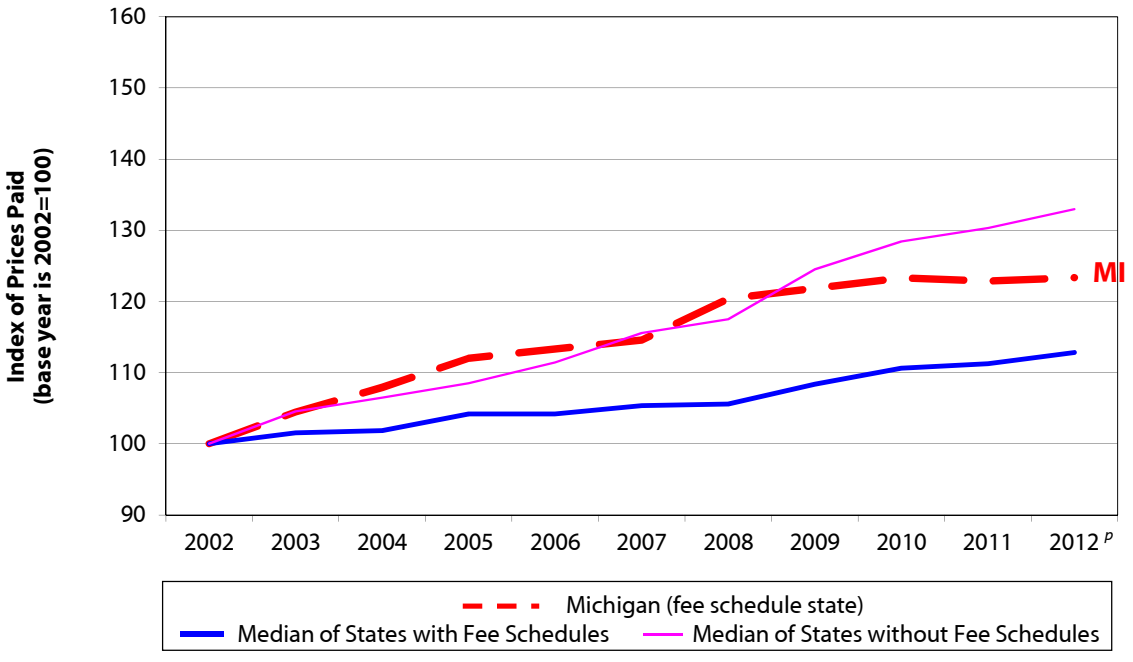
Figure A.14 Michigan Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012





Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Michigan updates its fee schedule for professional services annually. The most recent update covered in the study period in this report was effective December 8, 2010.

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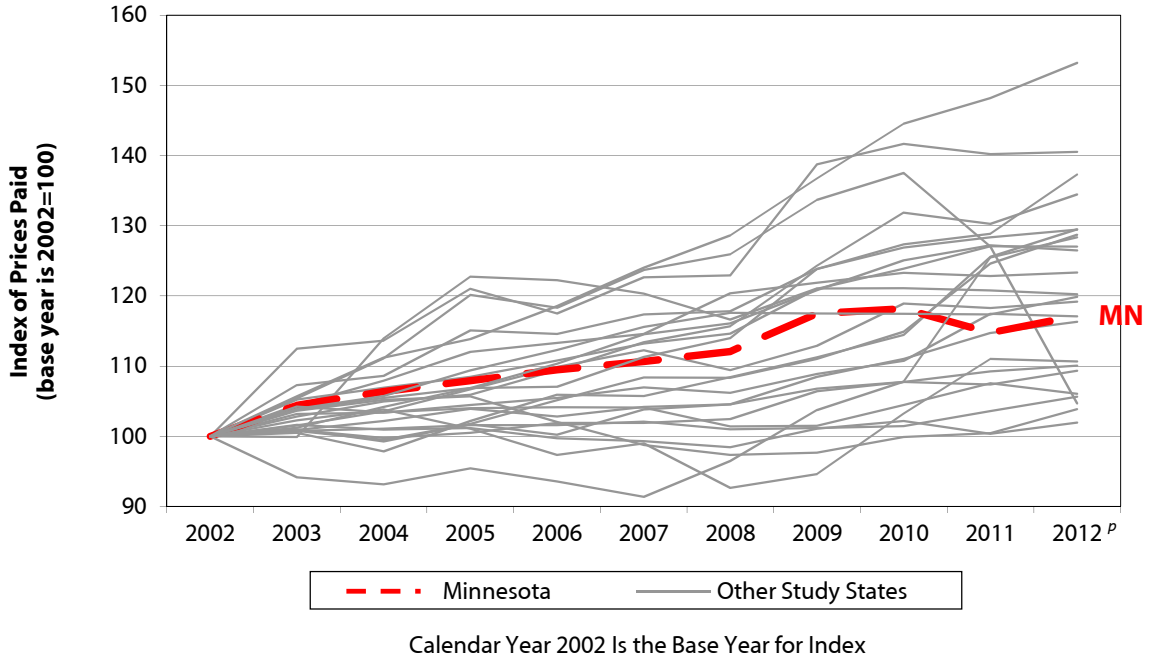
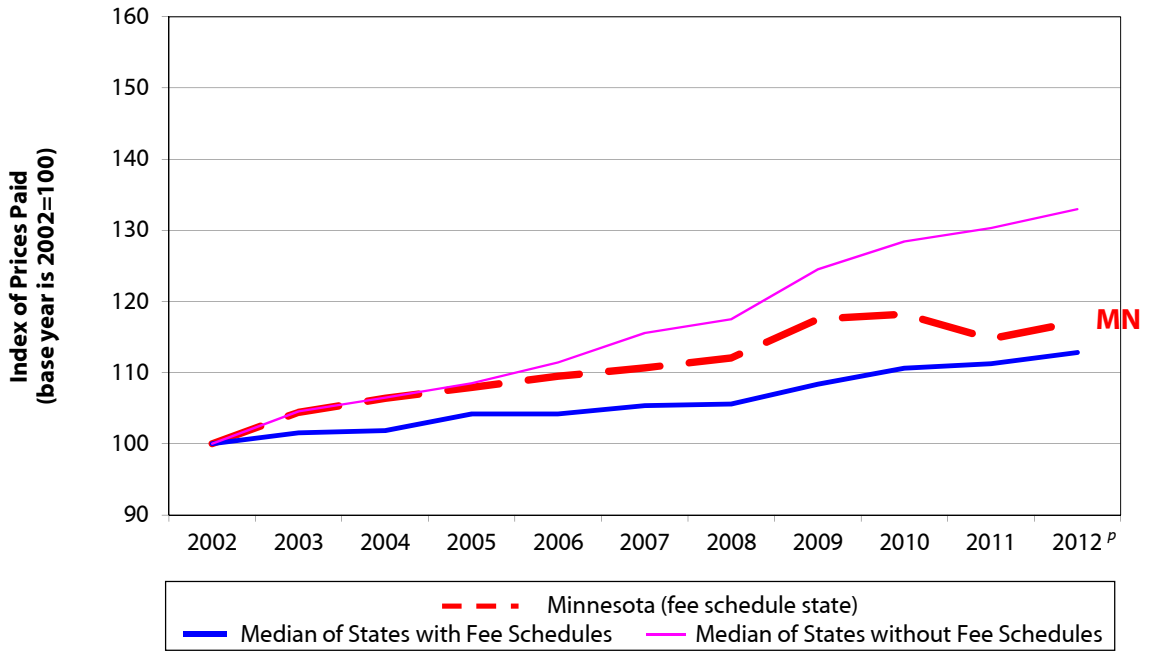
Figure A.15 Minnesota Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index

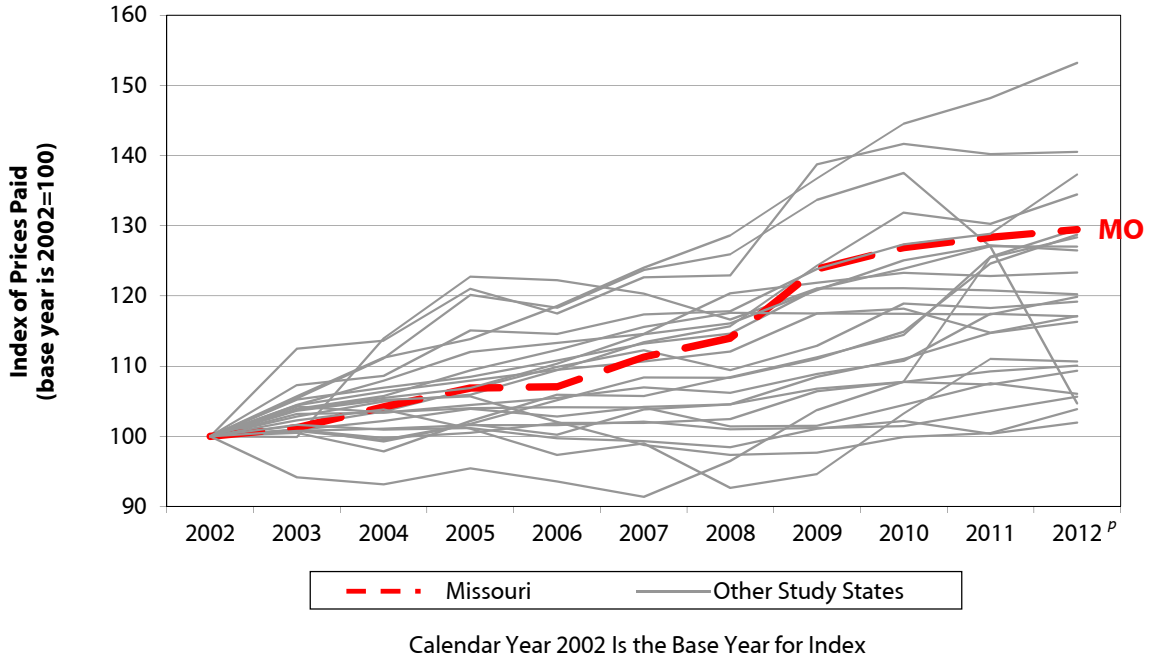


Calendar Year 2002 Is the Base Year for Index

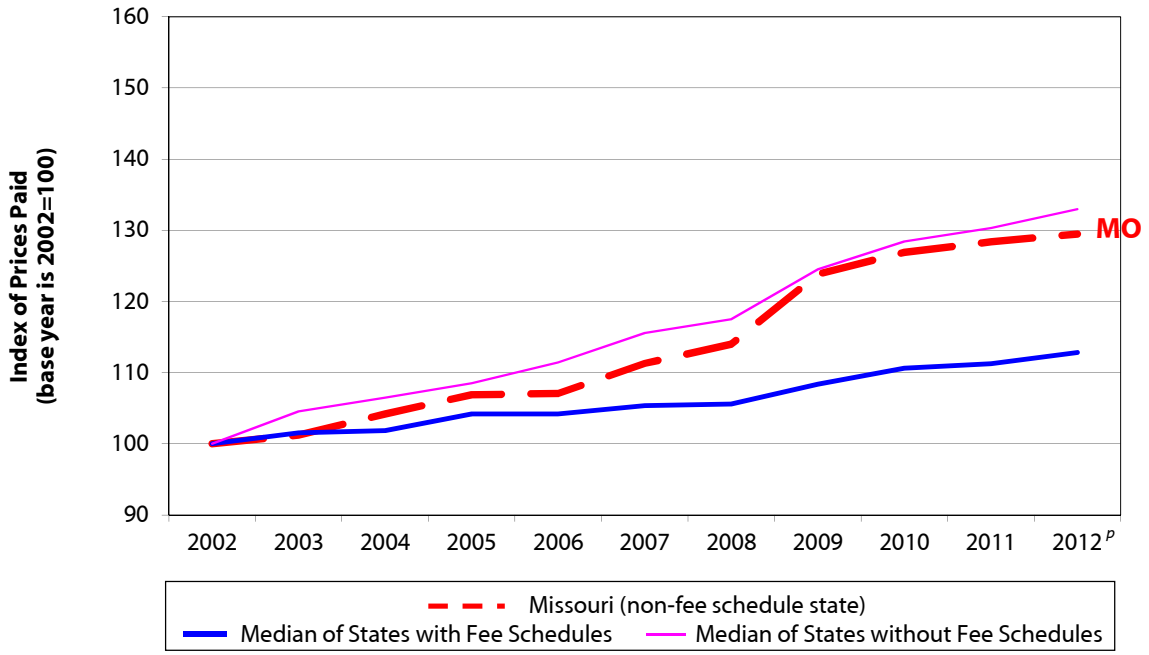
Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Minnesota's fee schedule for professional services from 2002 to September 2010 was based on 1998 Medicare relative value units (RVUs), with annual updates in the conversion factor. Effective October 1, 2010, Minnesota updated its fee schedule by using 2009 Medicare RVUs and decreasing the state conversion factor. The most recent update covered in the study period in this report was effective October 1, 2011.

Figure A.16 Missouri Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Missouri did not have a workers' compensation fee schedule as of 2012.

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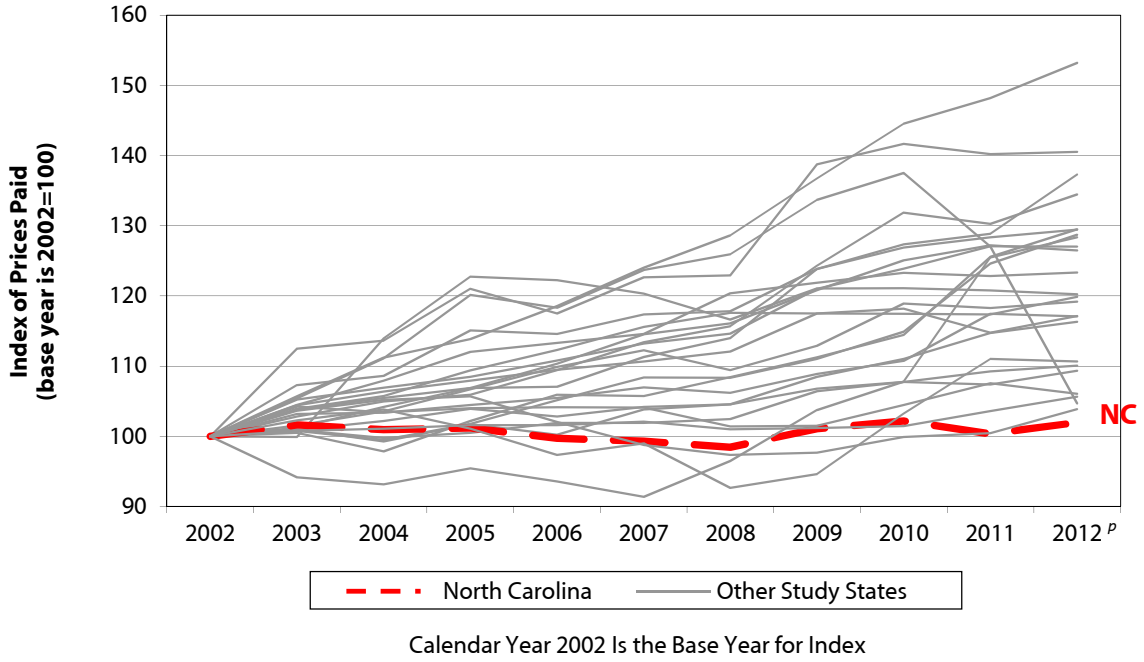
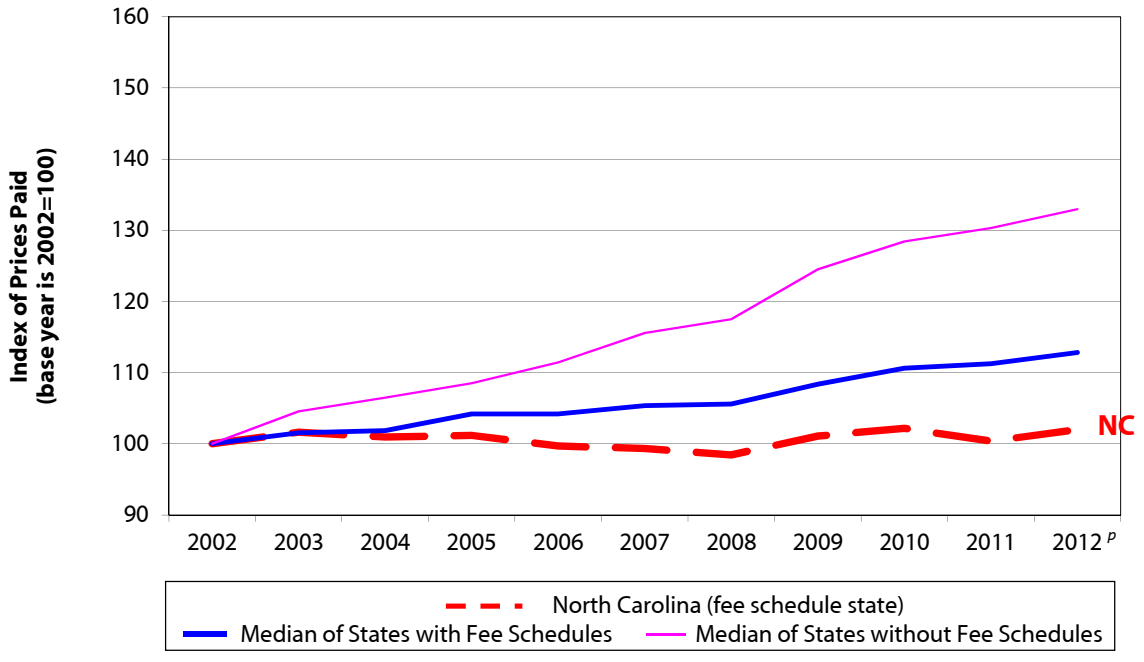
Figure A.17 North Carolina Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012

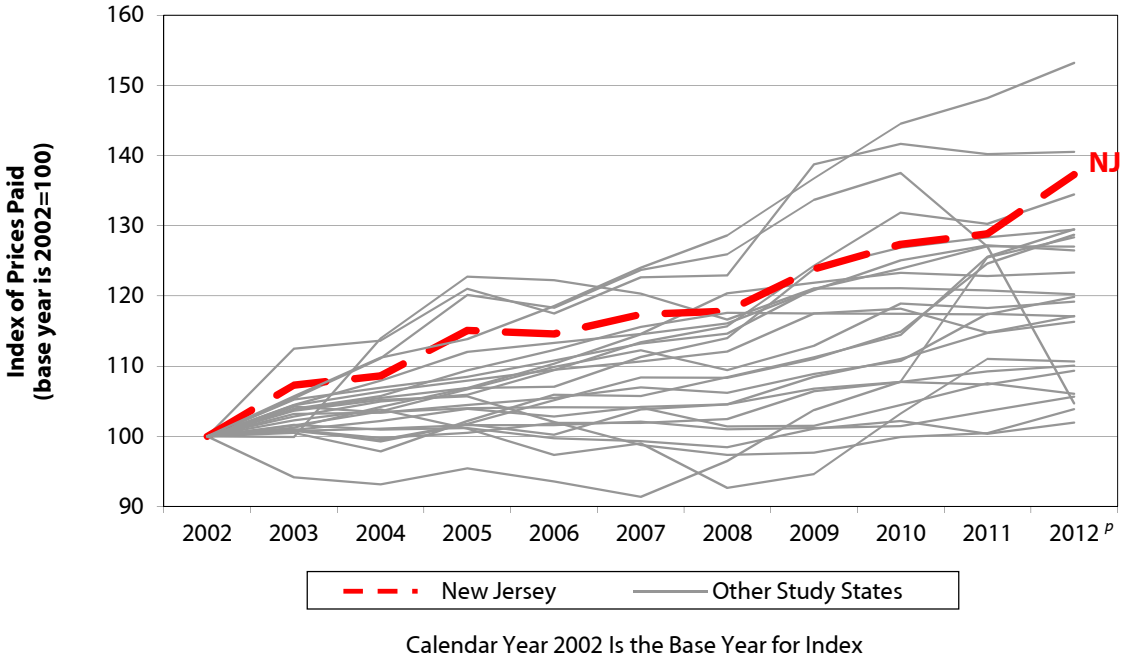




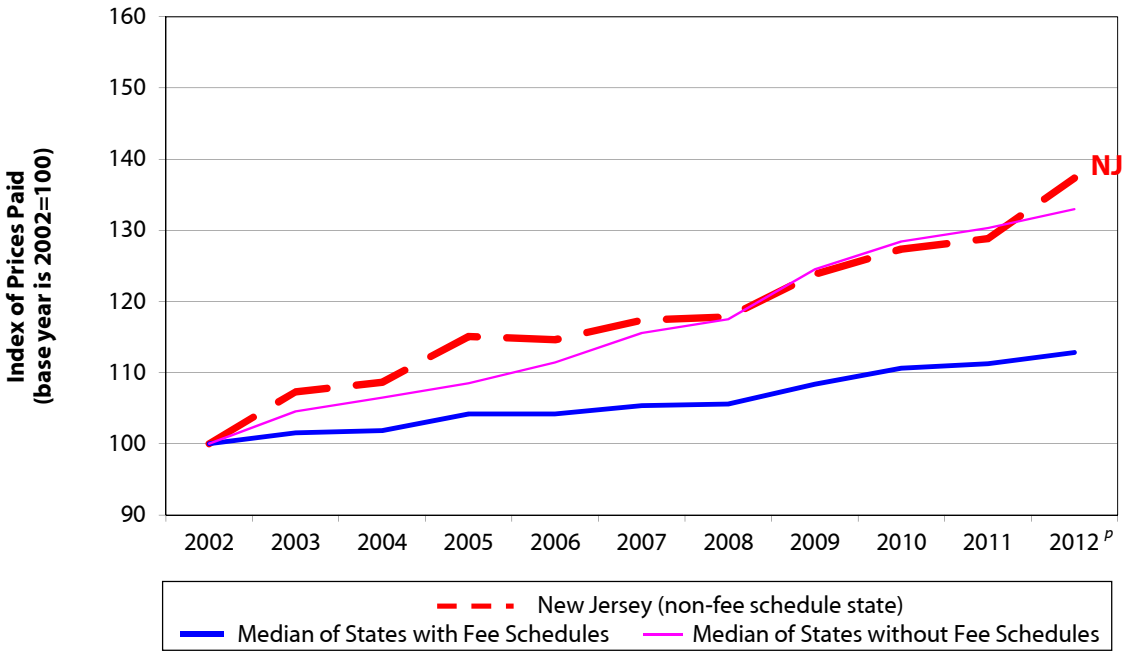
Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Maximum reimbursement amounts in the North Carolina fee schedule for professional services are based on those adopted by the North Carolina Industrial Commission effective January 1996. North Carolina updates its fee schedule annually in January to account for new and discontinued Current Procedural Terminology (CPT) codes published by the American Medical Association.

Figure A.18 New Jersey Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: New Jersey did not have a workers' compensation fee schedule as of 2012.

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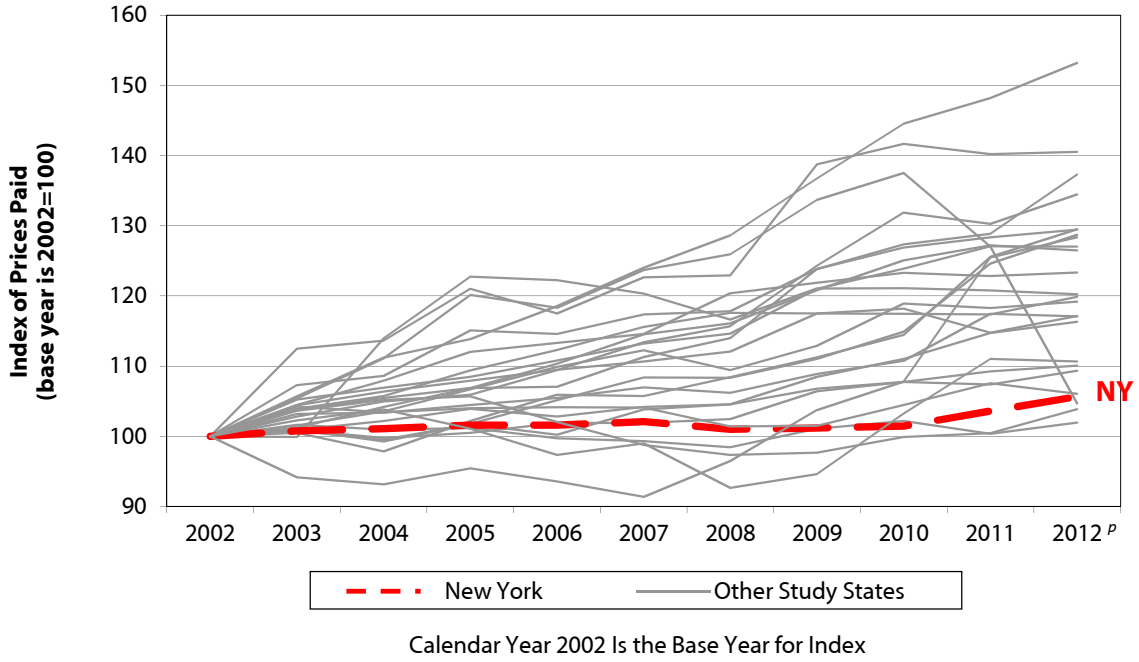
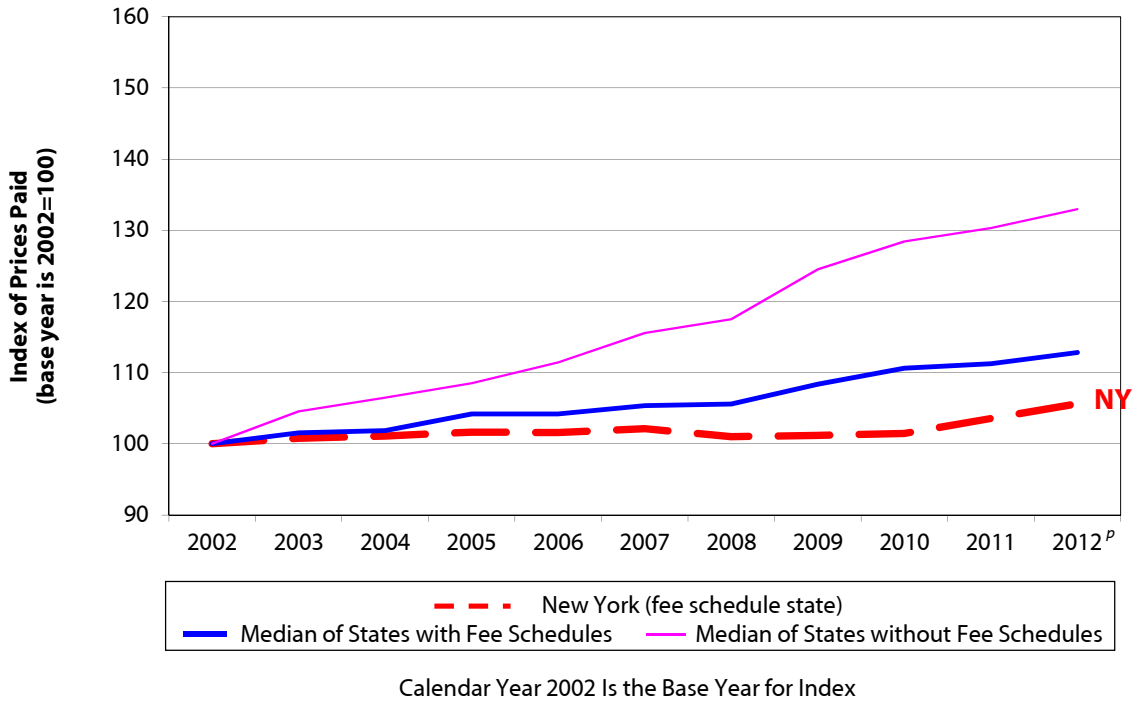
Figure A.19 New York Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

New York periodically updates its fee schedule for professional services; however, the maximum allowable reimbursement rates for most procedures covered in this report did not change from 2002 to November 2010. Effective December 1, 2010, the fee schedule rates in New York increased for evaluation and management services and emergency services. The most recent update covered in the study period in this report was effective June 1, 2012.

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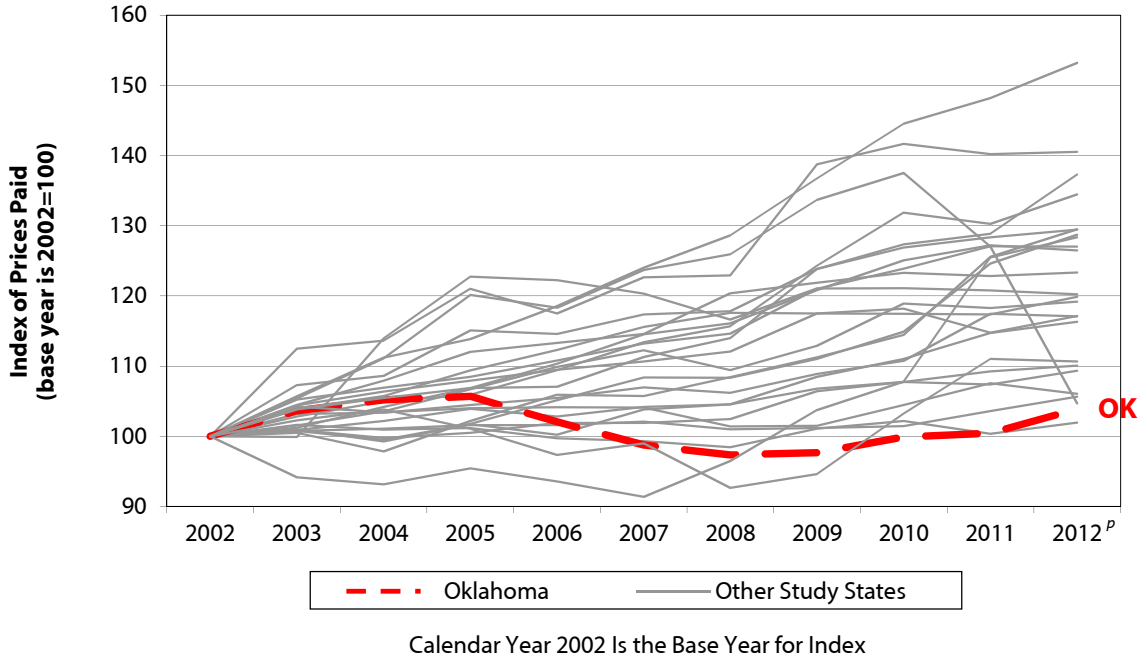
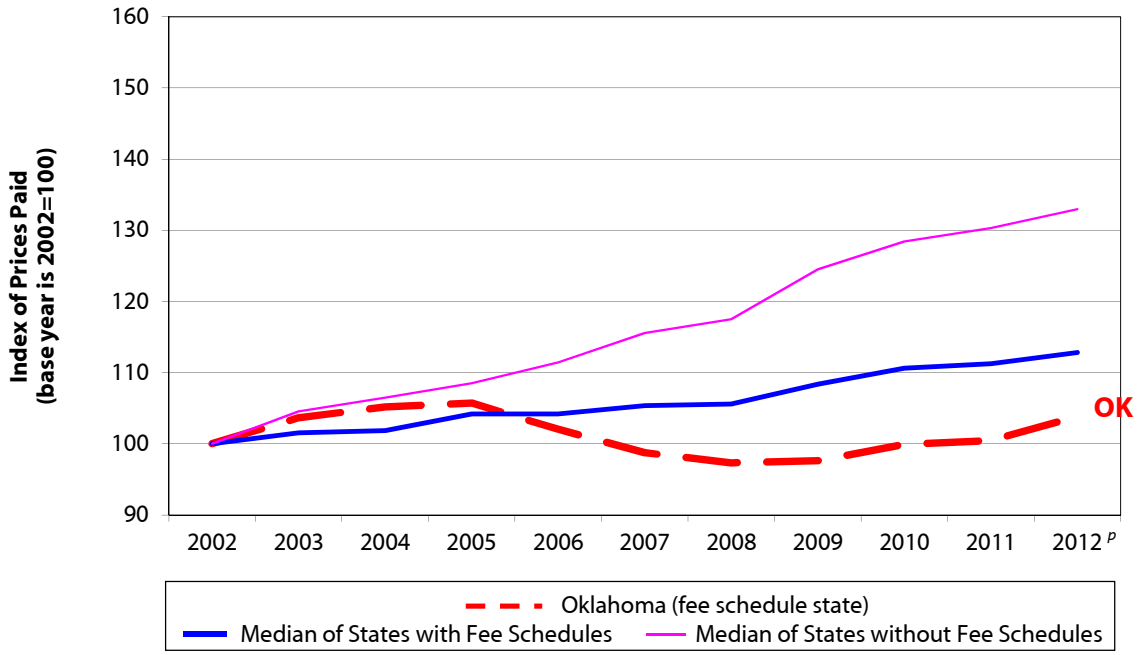
Figure A.20 Oklahoma Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Oklahoma regularly updated its fee schedule for professional services over the study period. For example, in 2006, the fee schedule rates increased materially for many pain management injection procedures and decreased for many services, such as emergency, radiology, neurological and neuromuscular testing, and many surgery procedures. The most recent update during the period covered by this study was effective January 1, 2012.

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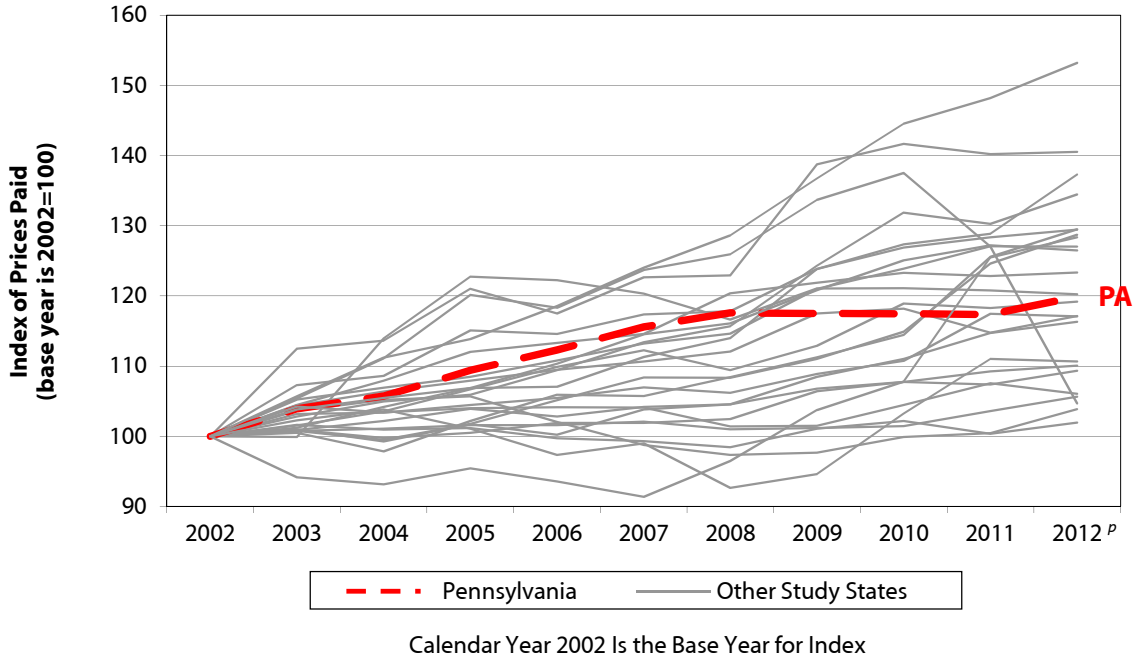
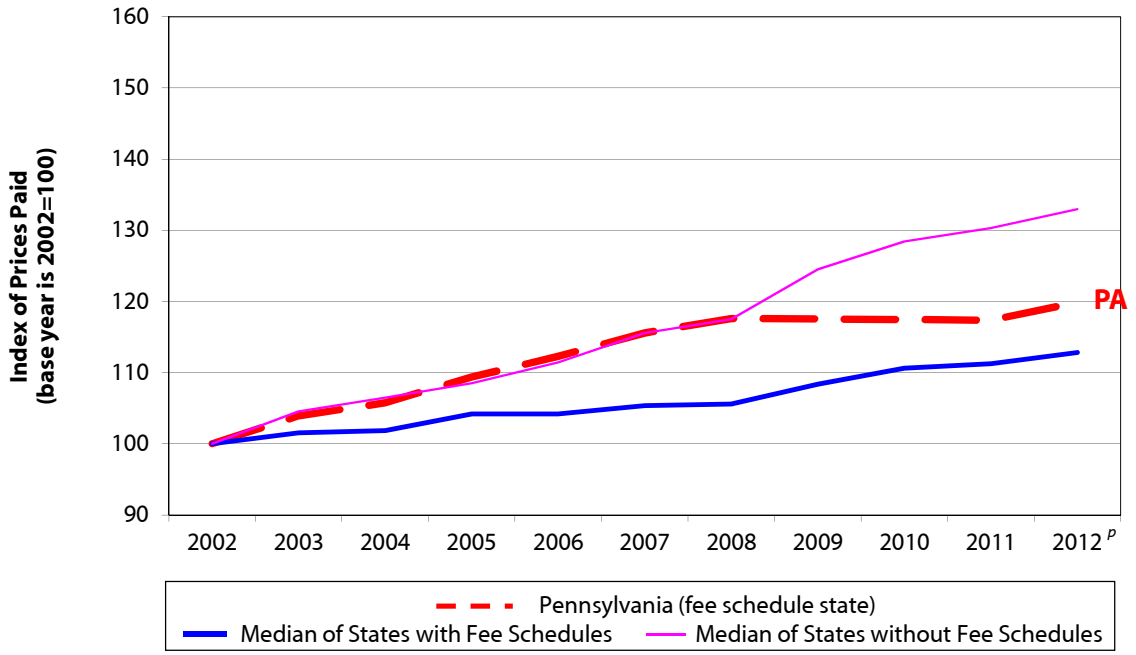
Figure A.21 Pennsylvania Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Pennsylvania updates its fee schedule for professional services annually, based on the percentage change in the statewide average weekly wage.

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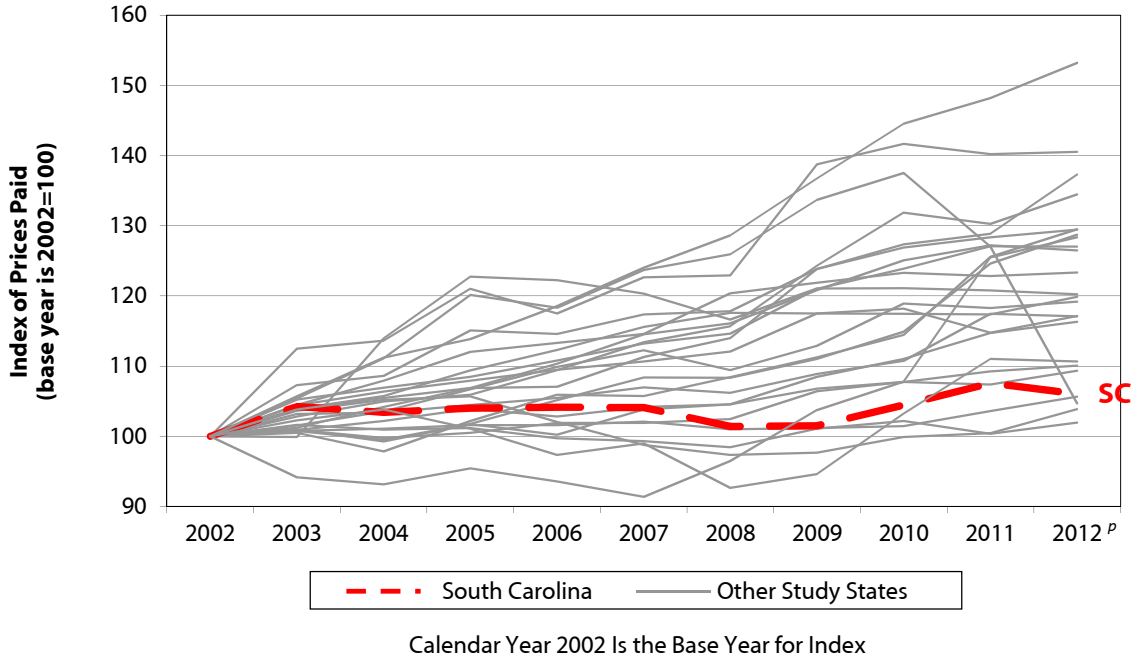
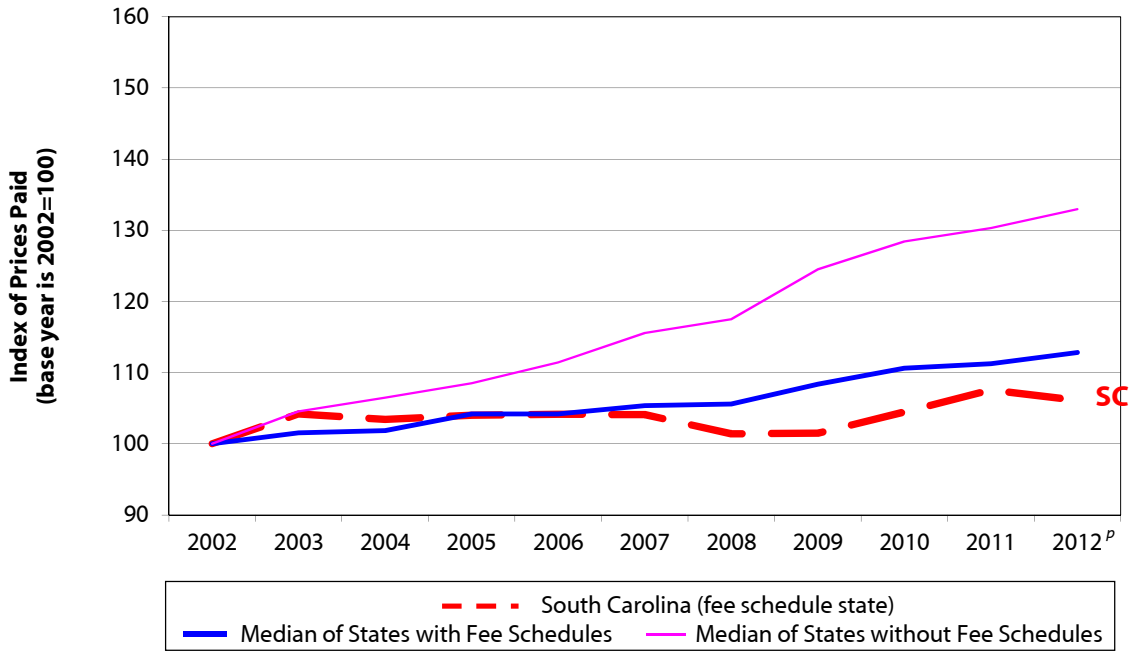
Figure A.22 South Carolina Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: South Carolina's fee schedule for professional services remained unchanged (after the update in January 2003) until 2009. Effective July 1, 2010, South Carolina had another update to its fee schedule, which increased the fee schedule rates for many professional services (such as evaluation and management, emergency, etc.) and decreased the rates for others (such as pain management injections, radiology services, etc.).

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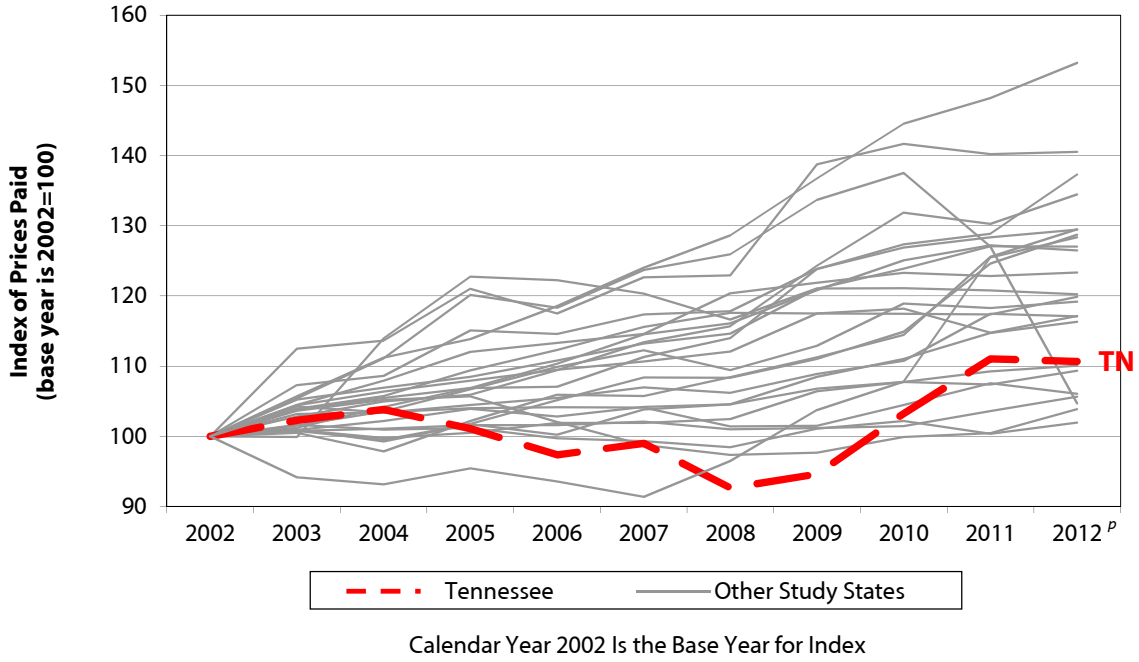
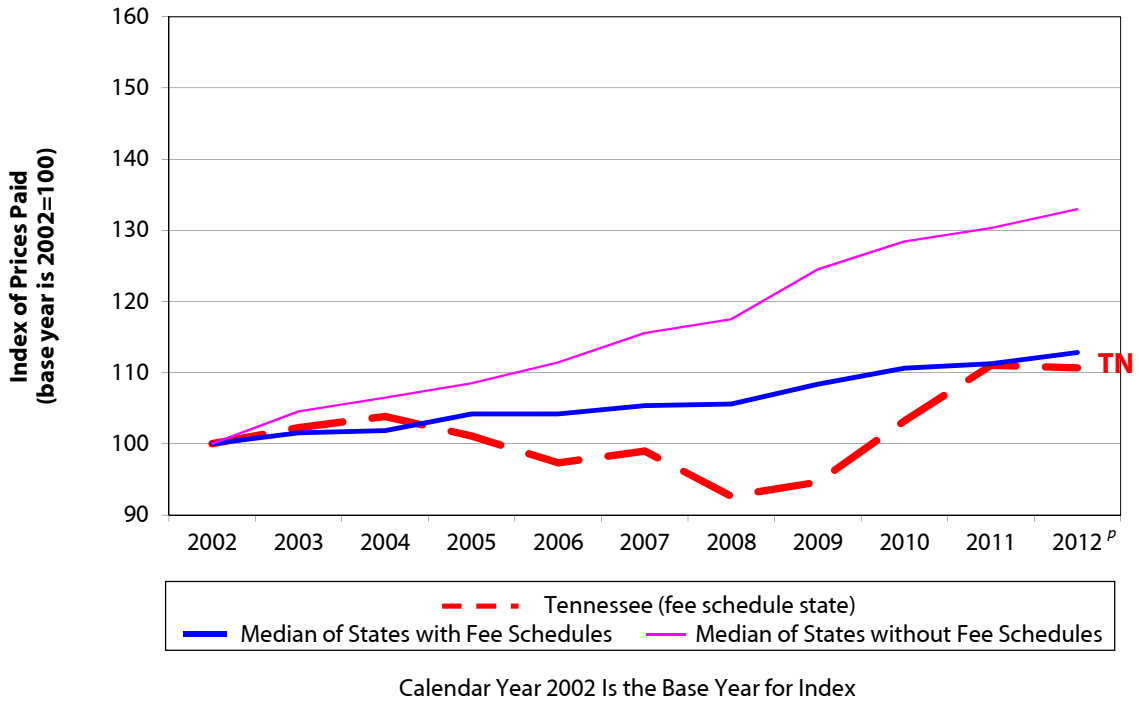
Figure A.23 Tennessee Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Tennessee implemented a fee schedule in July 2005 and had regular updates in the following years.

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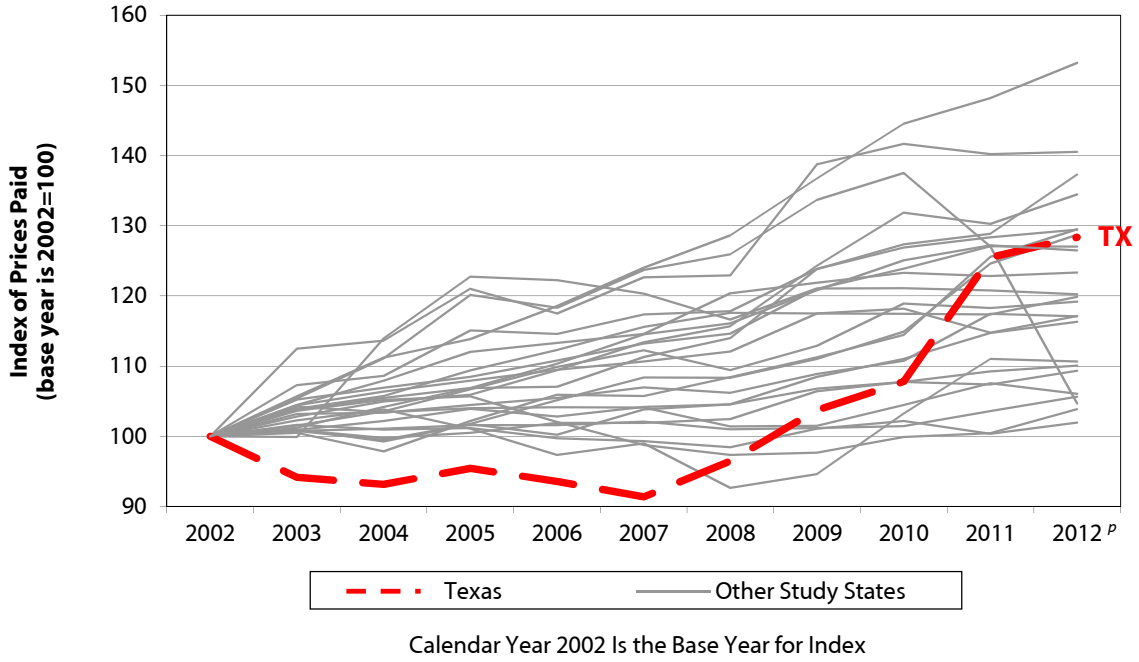
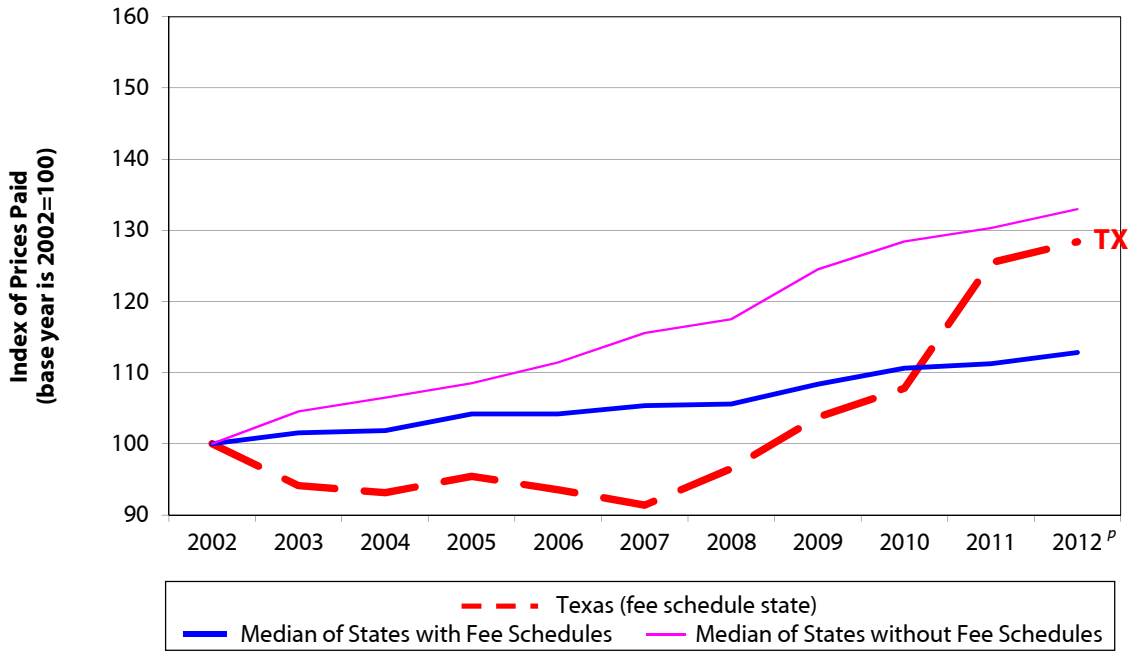
Figure A.24 Texas Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index

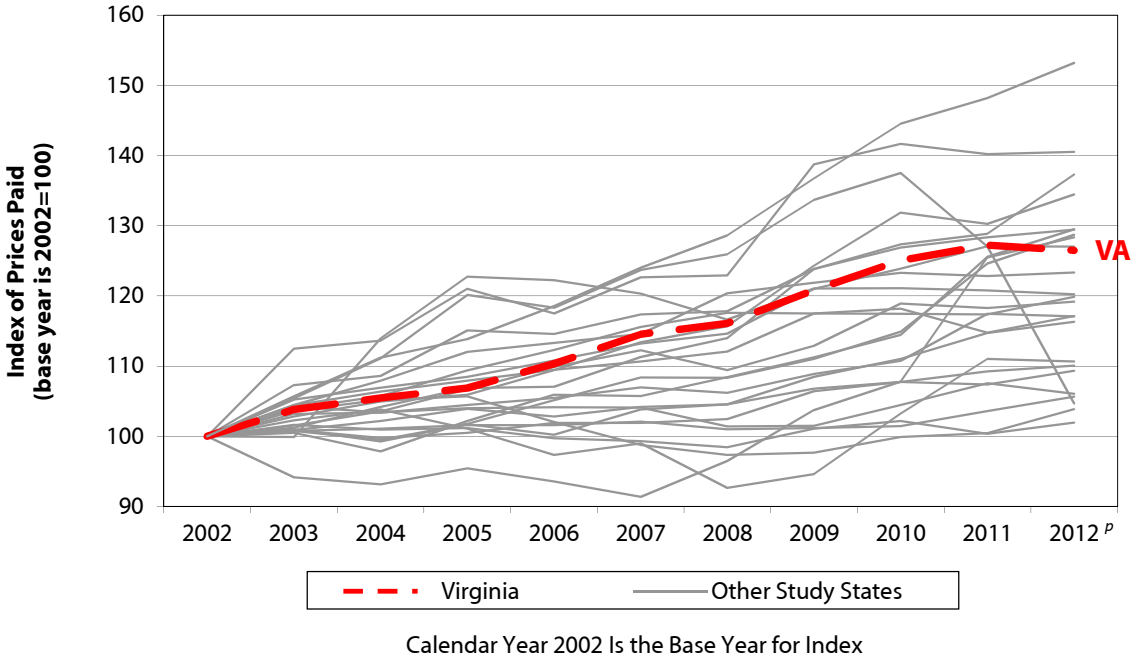


Calendar Year 2002 Is the Base Year for Index

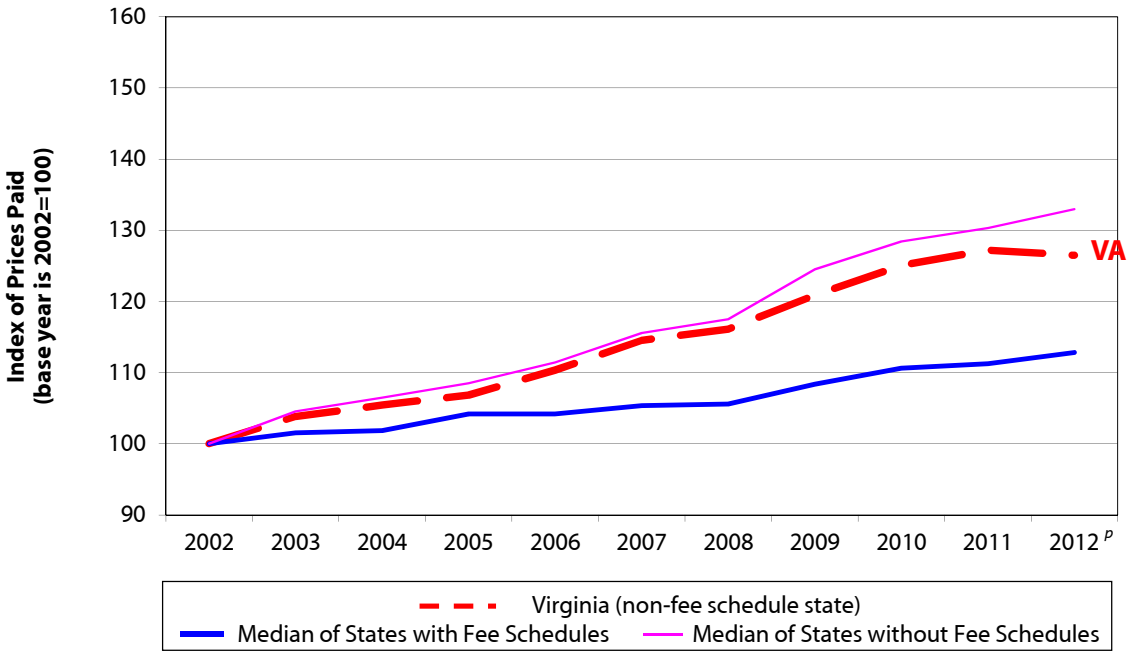
Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Texas decreased fee schedule rates for surgery and radiology, and increased rates for evaluation and management services, in August 2003. In March 2008, Texas increased fee schedule rates for professional services, especially for surgeries, and allowed annual increases based on changes in the Medicare Economic Index. In 2011, the fee schedule rates in Texas increased for most professional services following the Medicare updates. The most recent update covered in the study period in this report was effective January 1, 2012.

Figure A.25 Virginia Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Virginia did not have a workers' compensation fee schedule as of 2012.

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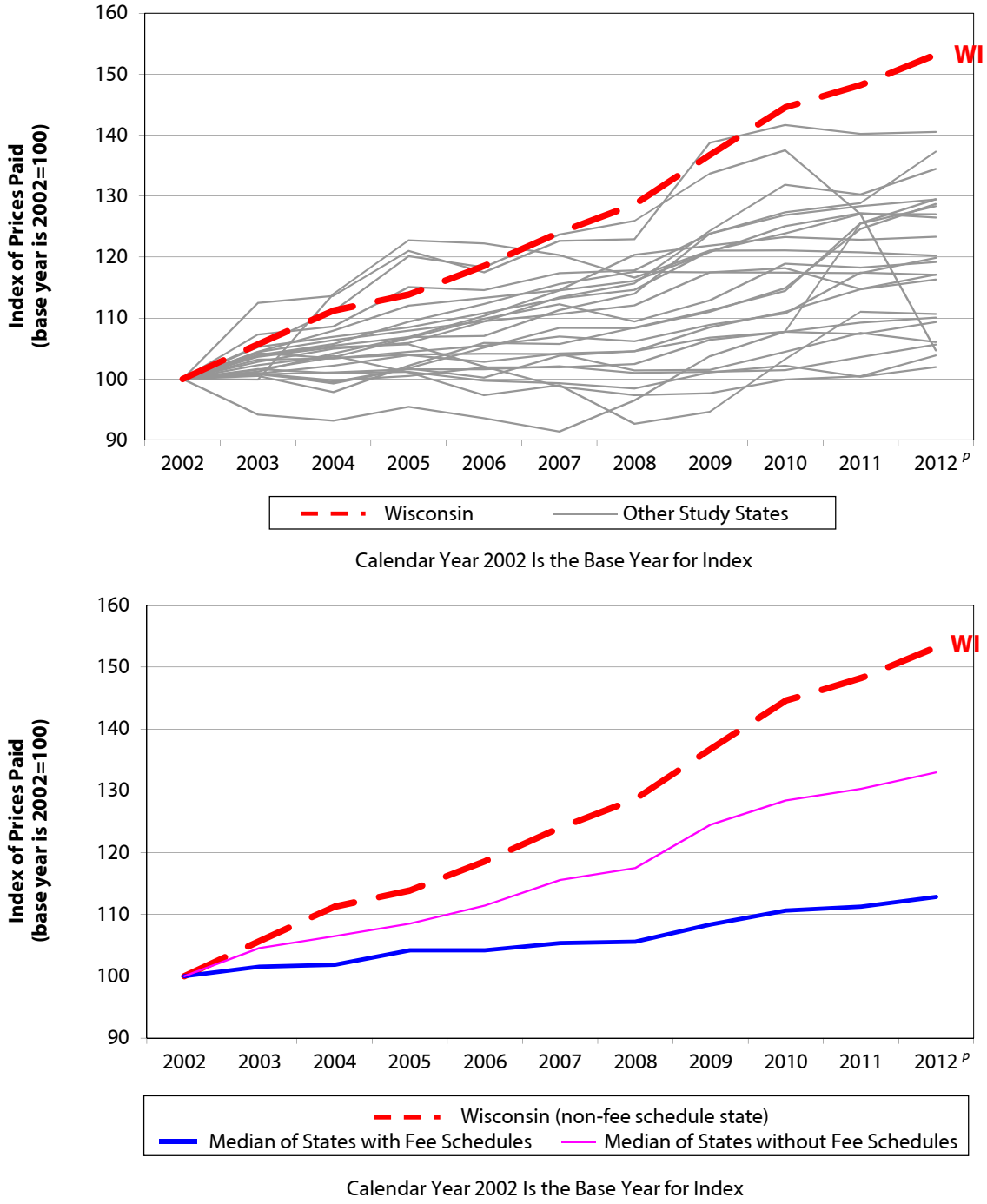
Figure A.26 Wisconsin Trends in Prices Paid for Professional Services, WCRI MPI-WC, 2002 to 2012



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Wisconsin did not have a conventional workers' compensation fee schedule as of 2012.

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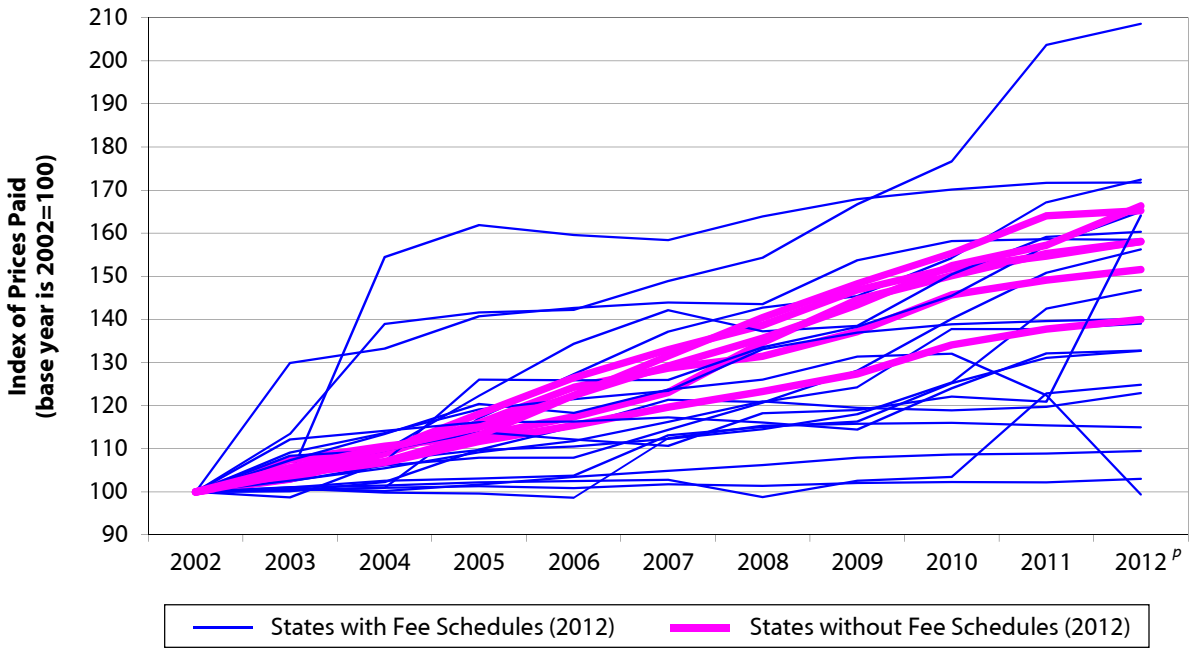
Figure B.1 Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
AR	100	101	103	103	104	113	115	116	125	131	133
AZ[a,b]	100	100	102	110	115	121	121	124	138	138	139
CA	100	101	100	100	99	112	115	116	116	115	115
CT[b]	100	102	106	108	108	114	121	128	140	151	156
FL	100	104	155	162	160	158	164	168	170	172	172
GA	100	100	101	117	127	137	143	145	154	167	172
IA[c]	100	107	111	113	117	123	135	145	150	155	158
IL	100	107	113	120	118	124	126	131	132	122	99
IN[c]	100	103	109	116	124	129	131	137	146	149	152
LA	100	101	100	102	103	105	106	108	109	109	109
MA	100	130	133	141	143	144	144	154	158	159	158
MD	100	99	107	126	126	126	133	138	145	157	165
MI	100	109	114	119	121	123	133	137	139	140	140
MN[b]	100	104	107	110	110	112	115	118	125	142	147
MO[a,c]	100	104	110	118	126	133	139	147	152	155	158
NC	100	101	101	101	101	102	101	102	102	102	103
NJ[c]	100	104	107	112	115	120	123	127	134	138	140
NY[a]	100	101	101	102	103	103	99	103	103	123	125
OK[a]	100	108	110	114	112	111	118	119	122	121	164
PA	100	103	105	109	112	116	121	119	119	120	123
SC	100	112	114	116	116	117	116	114	124	132	133
TN	100	106	110	122	134	142	137	139	150	159	160
TX	100	113	139	142	142	149	154	167	177	204	209
VA[c]	100	104	107	113	122	132	140	148	155	164	165
WI[c]	100	106	110	115	122	129	136	143	152	157	166

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Figure B.1 Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012 (continued)

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes:
Calender year 2002 is the base year, which is equal to 100 in the index.
For definitions of the service groups, please see Table TA.1.

[a] The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

[b] This state had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

[c] This state had no workers' compensation fee schedule in 2012.

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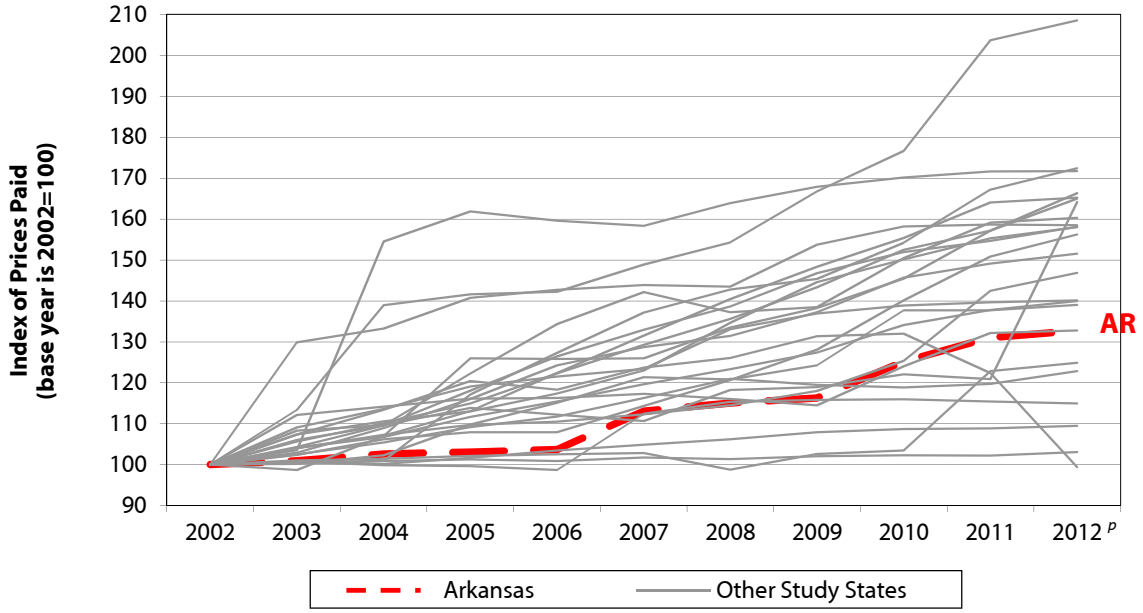
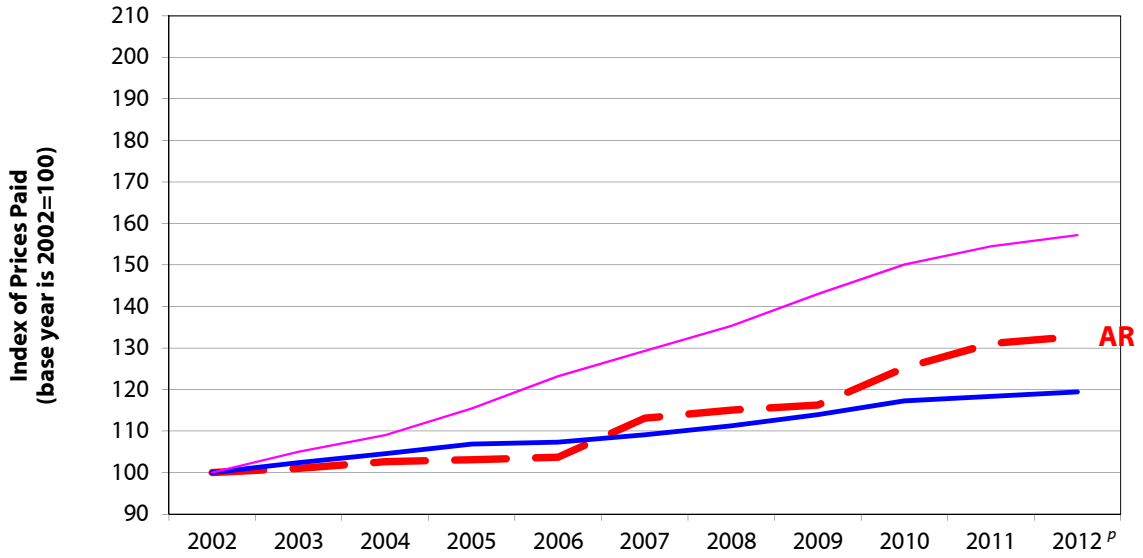
Figure B.2 Arkansas Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Arkansas' fee schedule for professional services has regular updates on the relative value units tied to the most recent Medicare resource-based relative value scale, with applied state conversion factors adopted in May 2000 for the services included in this study. The most recent update covered in the study period in this report was effective April 1, 2012.

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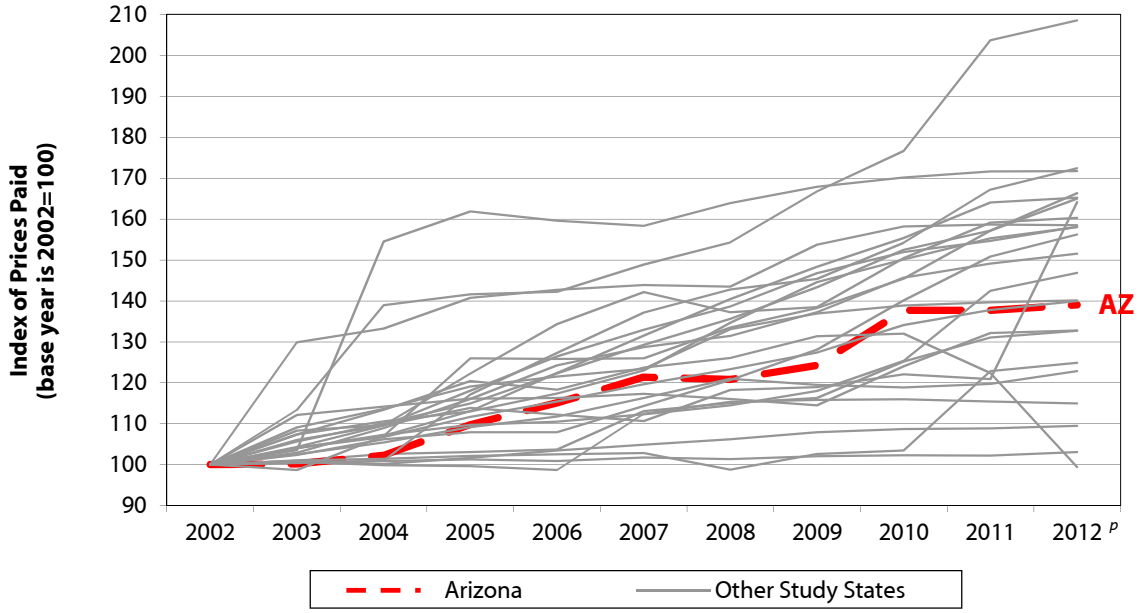
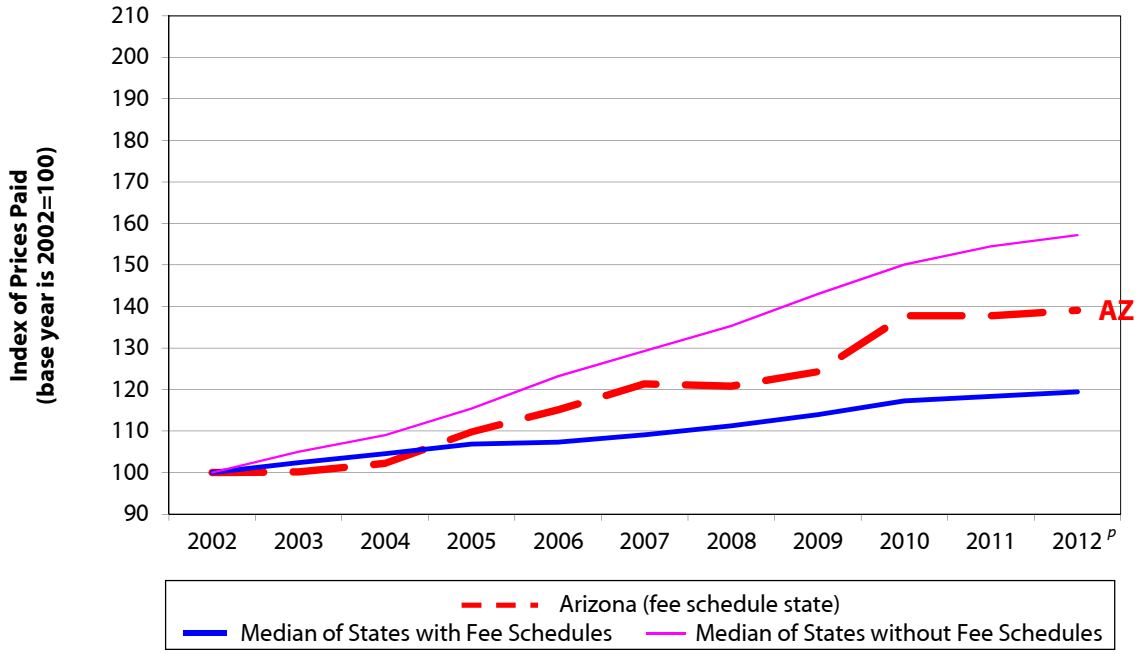
Figure B.3 Arizona Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Arizona updates its fee schedule for professional services annually in October. The most recent update covered in the study period in this report was effective October 1, 2011.

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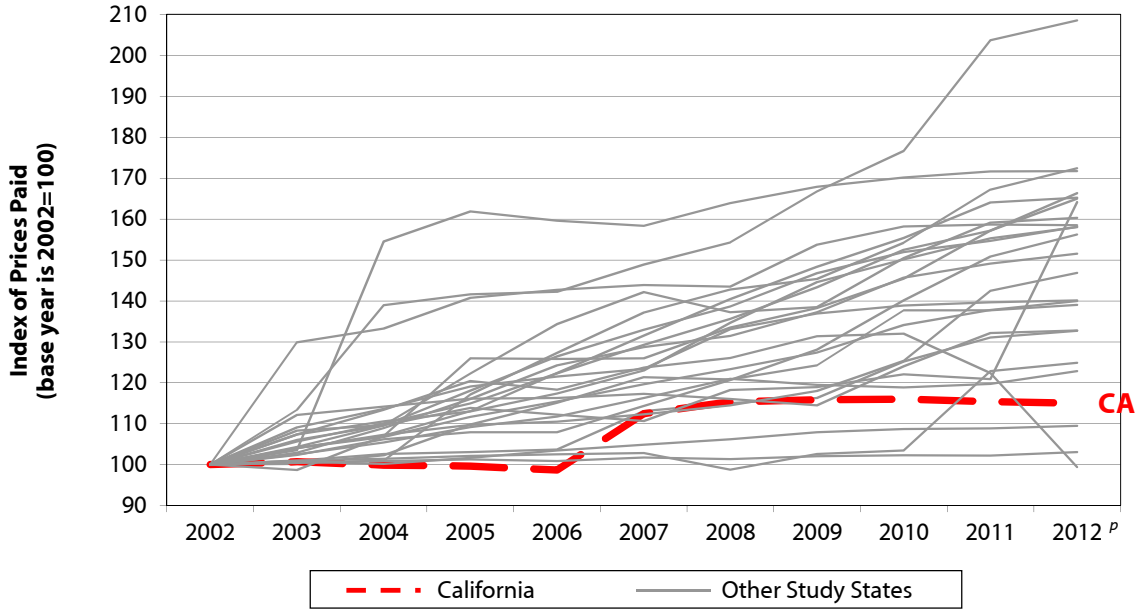
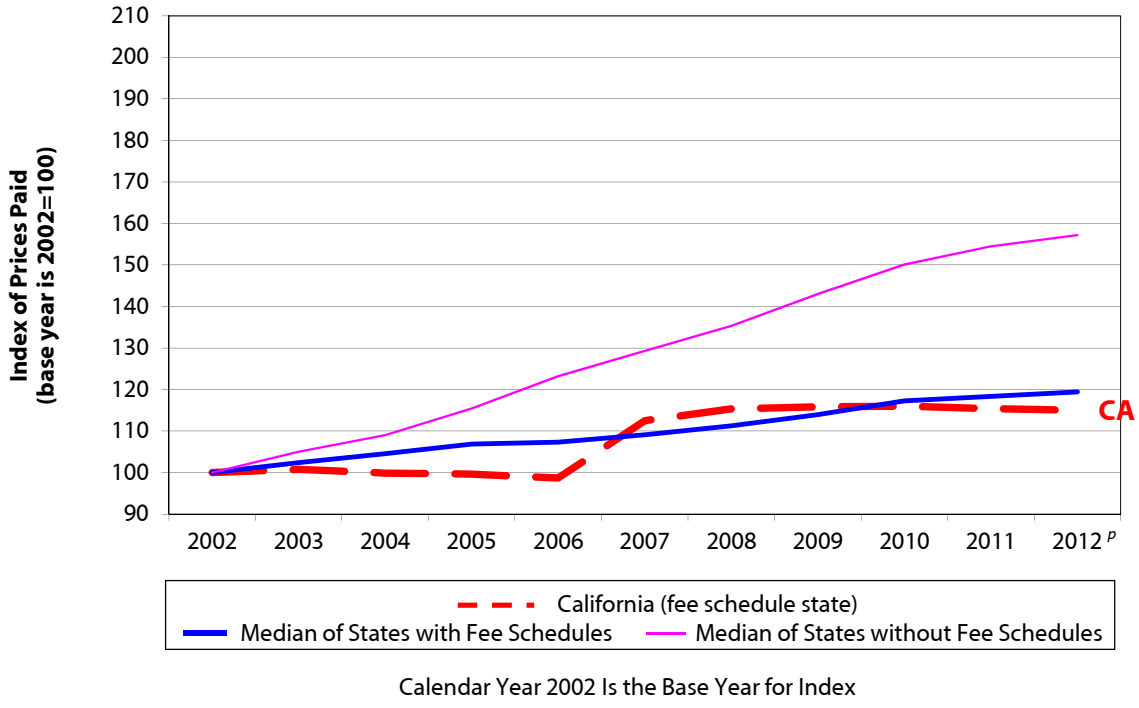
Figure B.4 California Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: California had a reduction of 5 percent in fee schedule rates for professional services in 2004; except for increases in fee schedule rates for evaluation and management services in February 15, 2007, there have not been additional updates.

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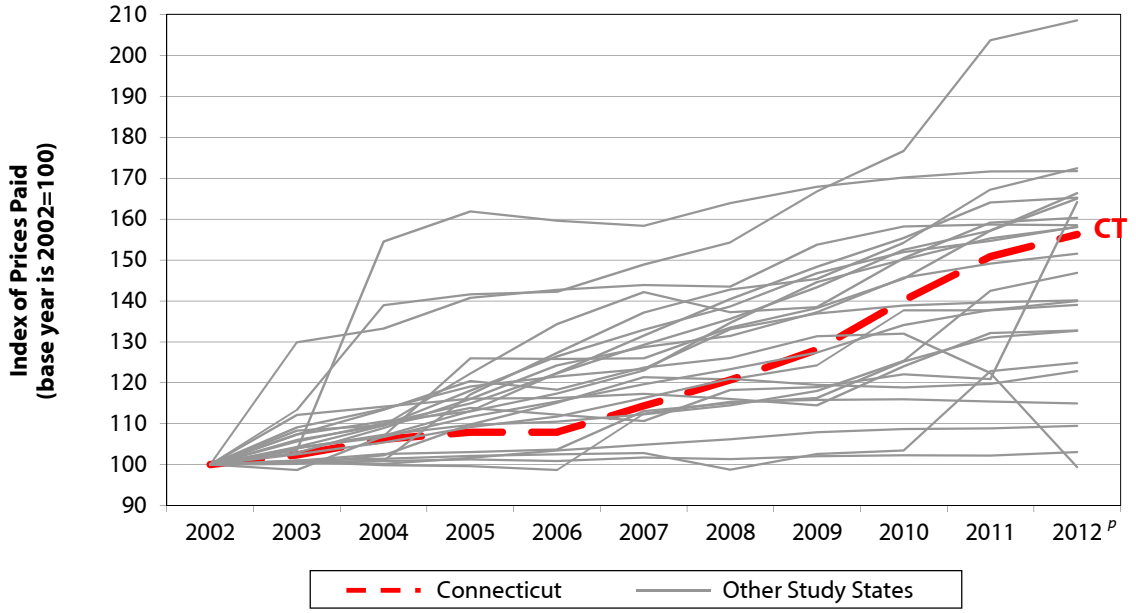
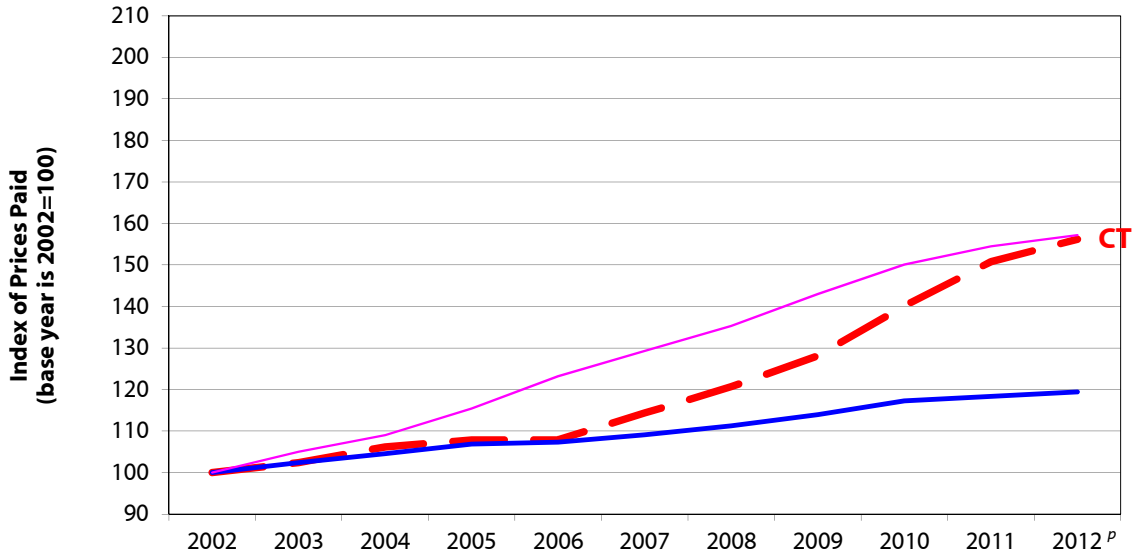
Figure B.5 Connecticut Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Connecticut has updated its fee schedule for professional services annually in July since 2008; in prior years, updates were effective in April. The most recent update covered in the study period in this report was effective July 15, 2011.

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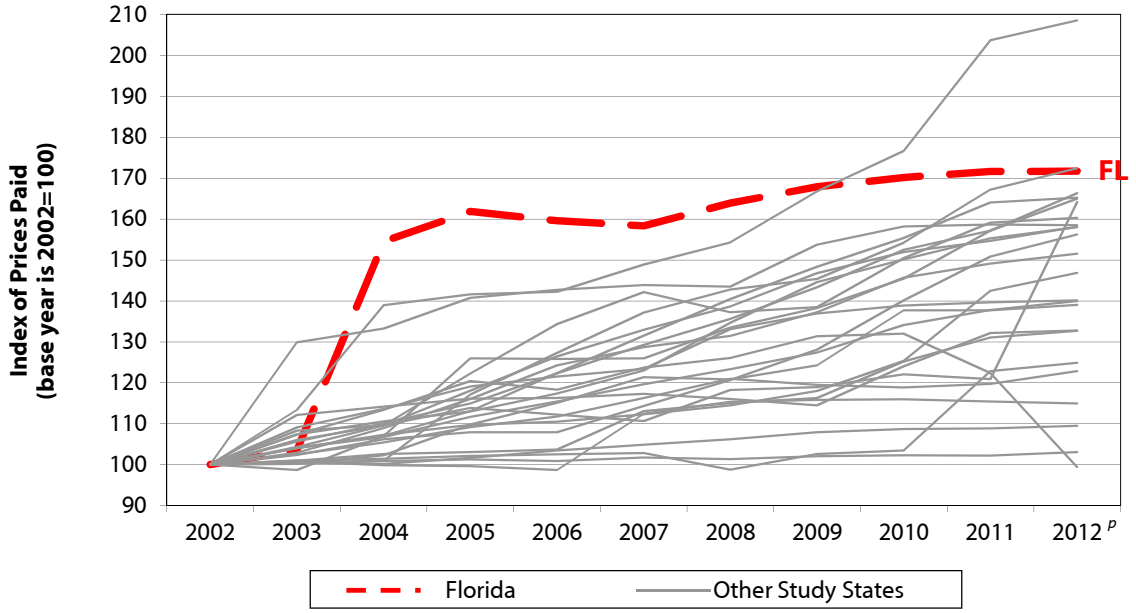
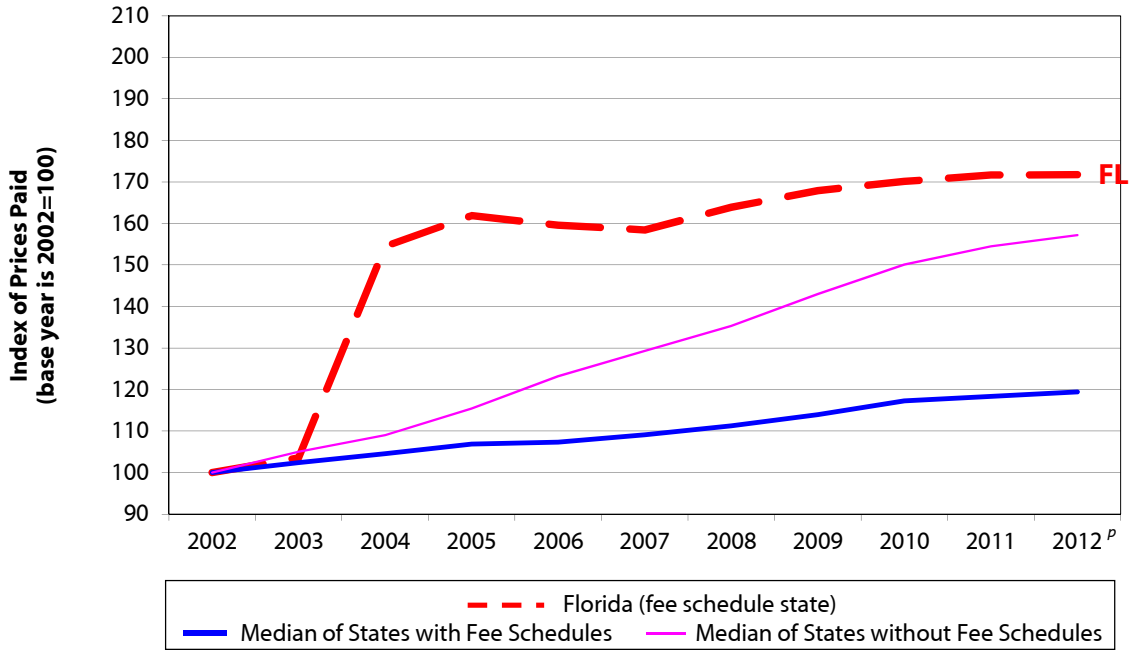
Figure B.6 Florida Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Florida had significant increases in fee schedule rates for physician services in January 2004 and increases in fee schedule rates for services provided by chiropractors and physical/occupational therapists in May 2005. After that, Florida had fee schedule updates for professional services in 2006, 2007, and 2009.

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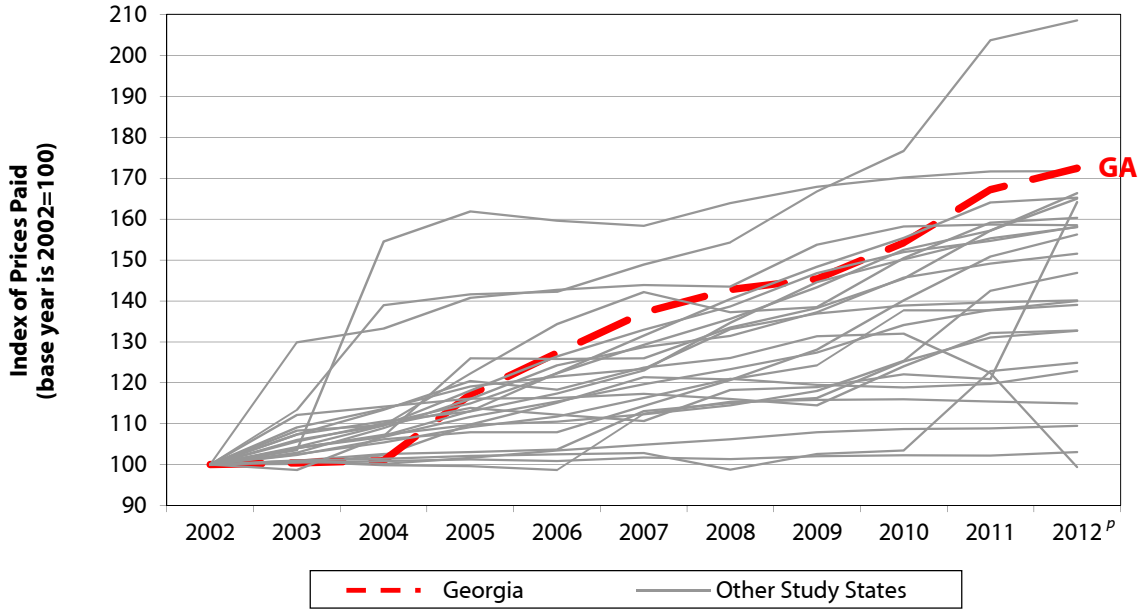
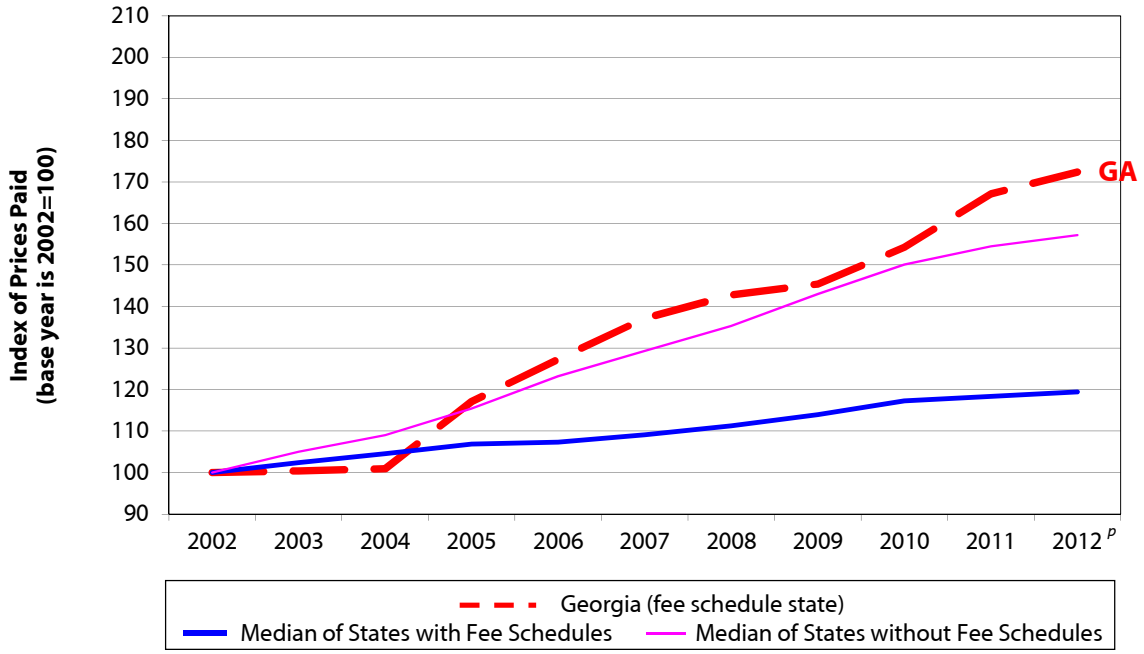
Figure B.7 Georgia Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Georgia updates its fee schedule for professional services annually in April. For example, in 2005, the fee schedule rates increased materially for evaluation and management and physical medicine services and decreased for many services, such as emergency, minor radiology, neurological and neuromuscular testing, and certain major surgery procedures. The most recent update covered in the study period in this report was effective April 1, 2012.

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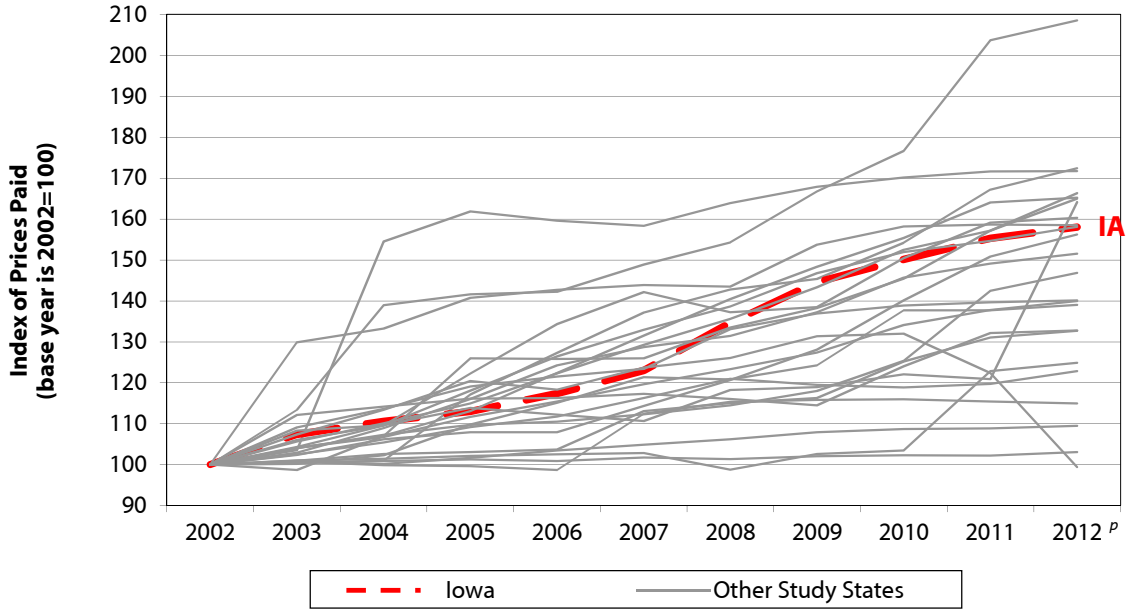
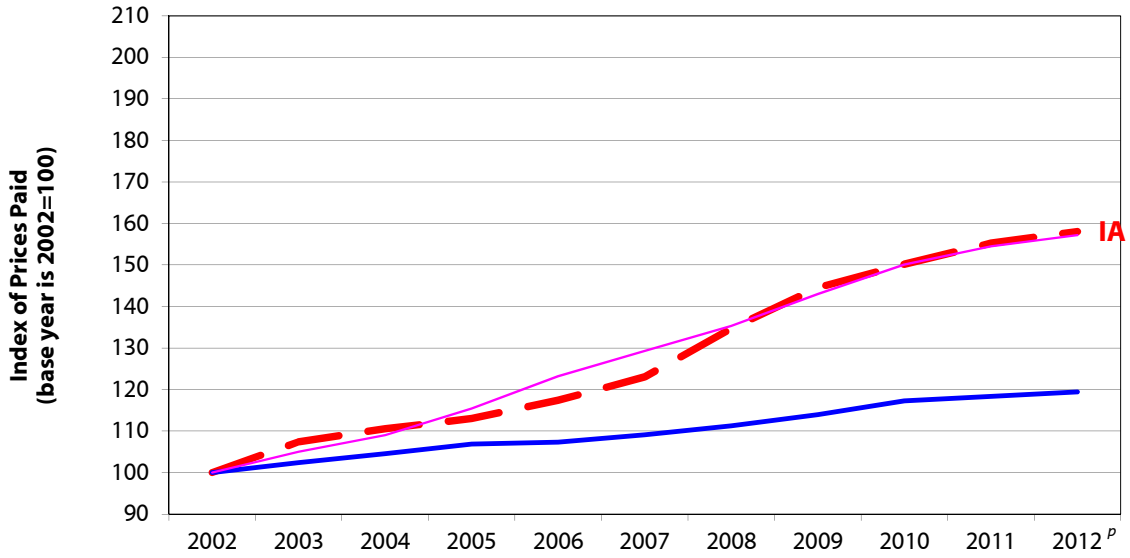
Figure B.8 Iowa Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Iowa did not have a workers' compensation fee schedule as of 2012.

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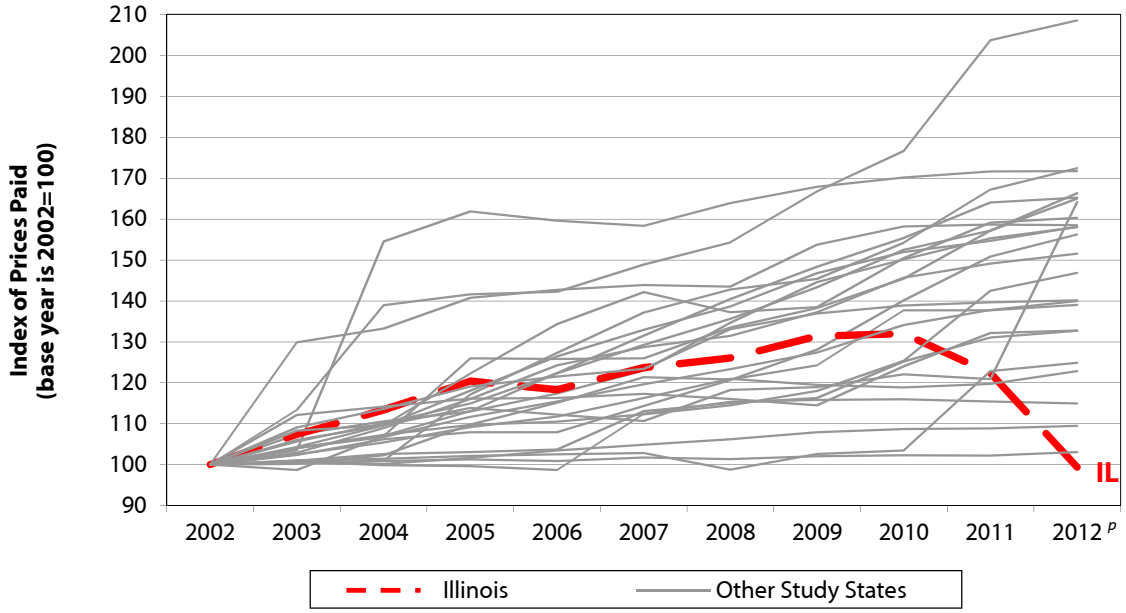
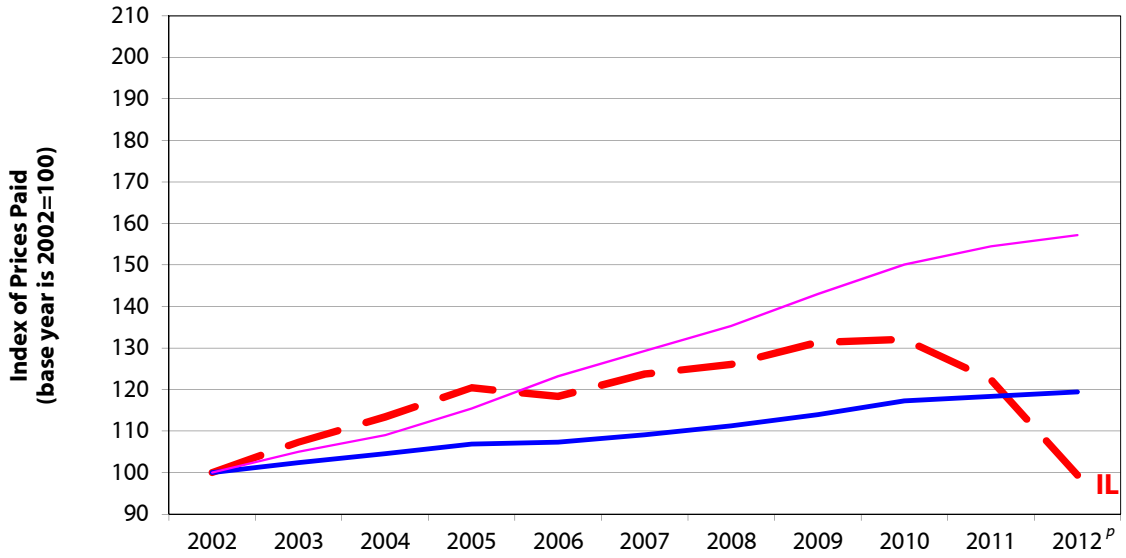
Figure B.9 Illinois Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Illinois implemented a workers' compensation fee schedule in February 2006. This workers' compensation fee schedule for professional services set different maximum reimbursement rates for the same services for each of 29 different areas of the state based on the first three digits of the zip code where the service was delivered. The 29 fee schedules ranged from a low of 115 percent above Medicare to a high of 219 percent above Medicare—a difference of 104 percentage points. This difference might create unintended incentives for providers to control revenue by moving the site of service. Prices in this study represent the aggregate state-level estimation without drilling down to the 29 geo-zip areas; therefore, the price trends after 2006 could be influenced by the potential behavior changes of the providers. In September 2011, Illinois enacted new legislation that introduced a 30 percent decrease in the fee schedule rates. On January 1, 2012, Illinois discontinued its use of the 29 geo-zip areas for physicians and other providers in favor of four county-based regions.

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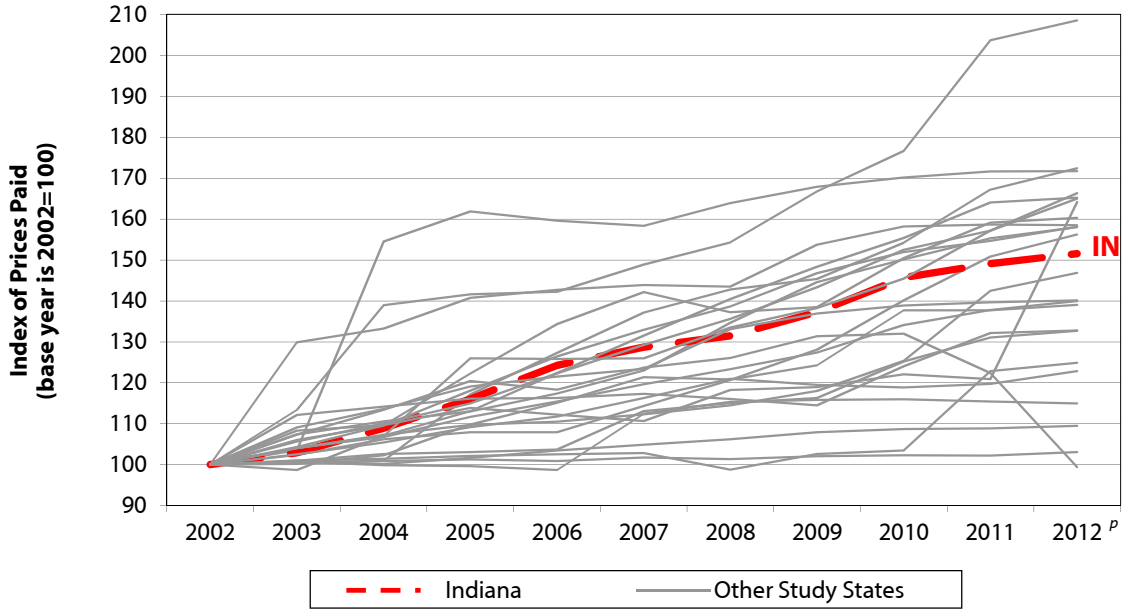
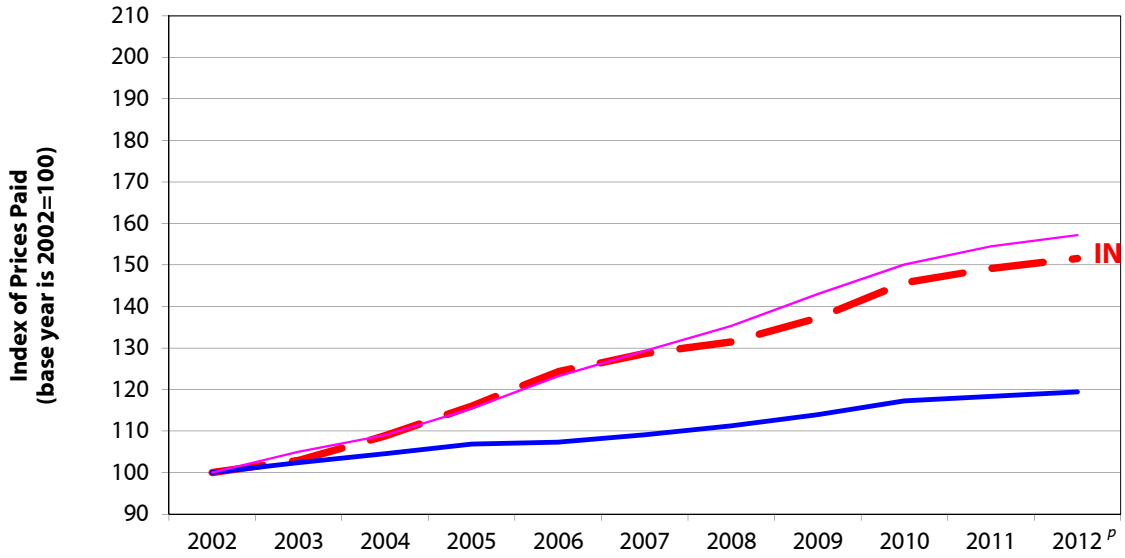
Figure B.10 Indiana Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Indiana did not have a workers' compensation fee schedule as of 2012.

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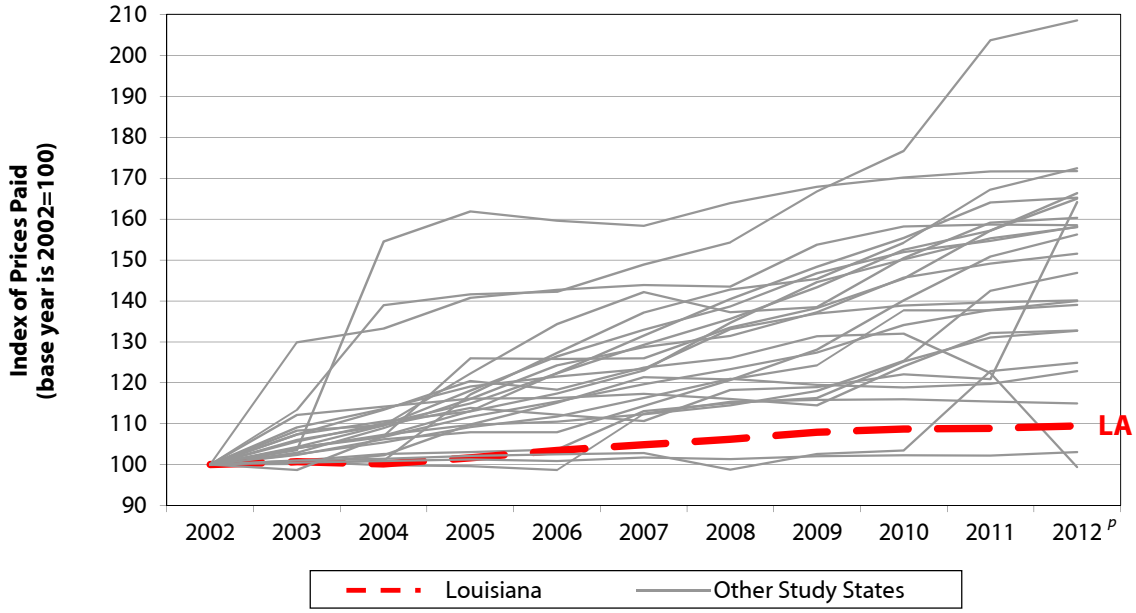
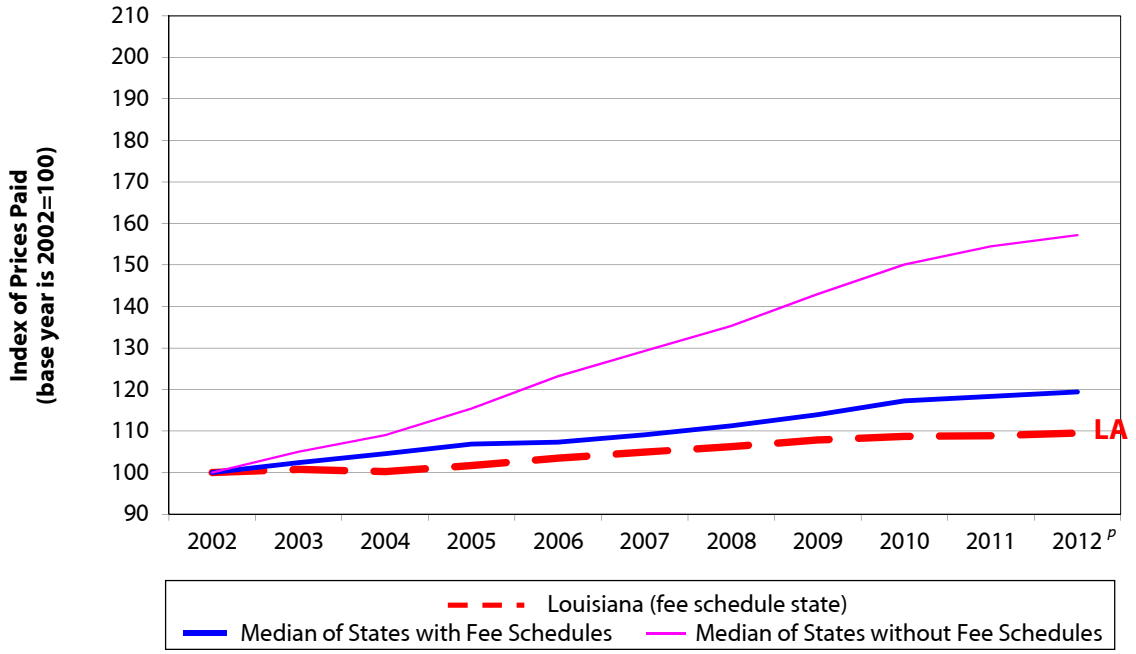
Figure B.11 Louisiana Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Louisiana's fee schedule for professional services uses the 1999 Current Procedural Terminology (CPT) list published by the American Medical Association and the maximum allowable reimbursement rates effective as of March 2001.

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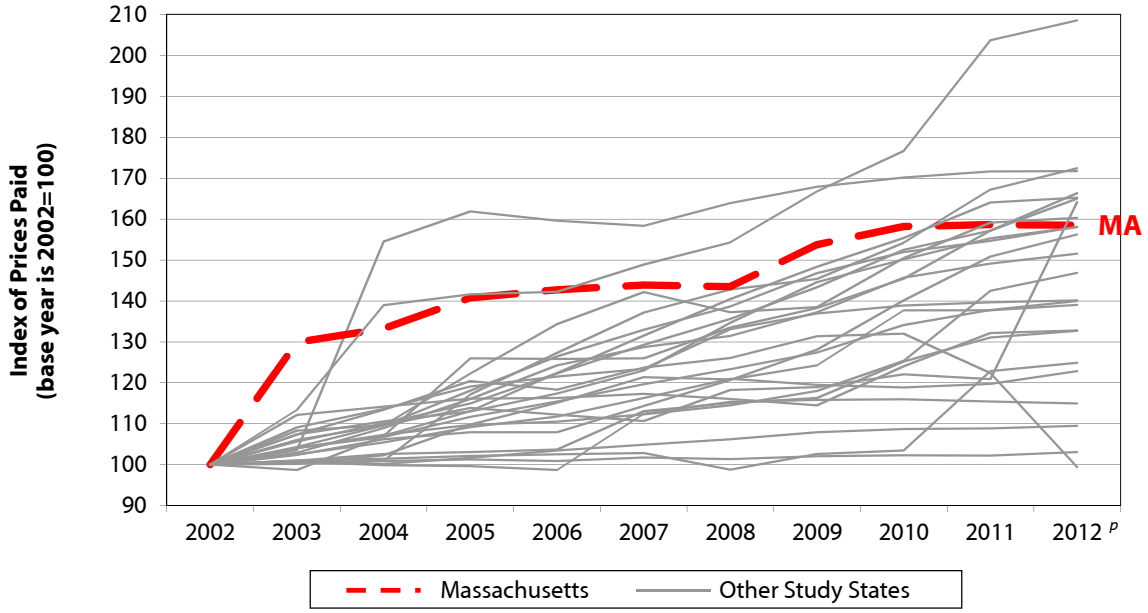
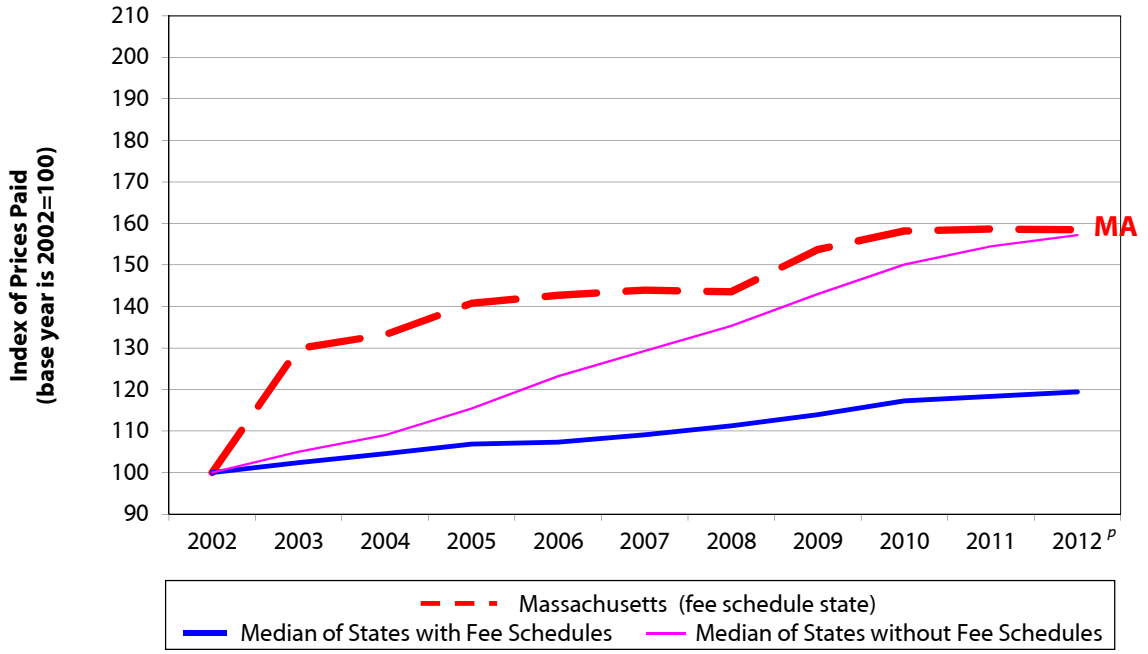
Figure B.12 Massachusetts Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Massachusetts increased the fee schedule rates for many professional services, effective April 2009. The fee schedule increases for major surgeries were especially significant; the rates for some procedures increased to two to three times the previous rates. Prior to that, the fee schedule for professional services had not been updated since September 2004.

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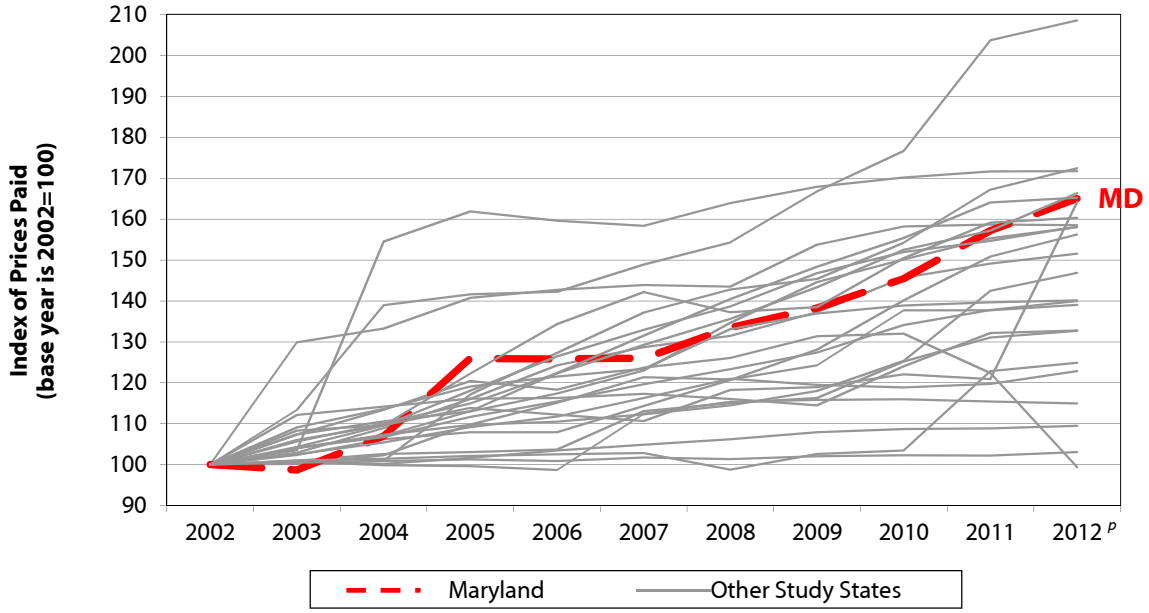
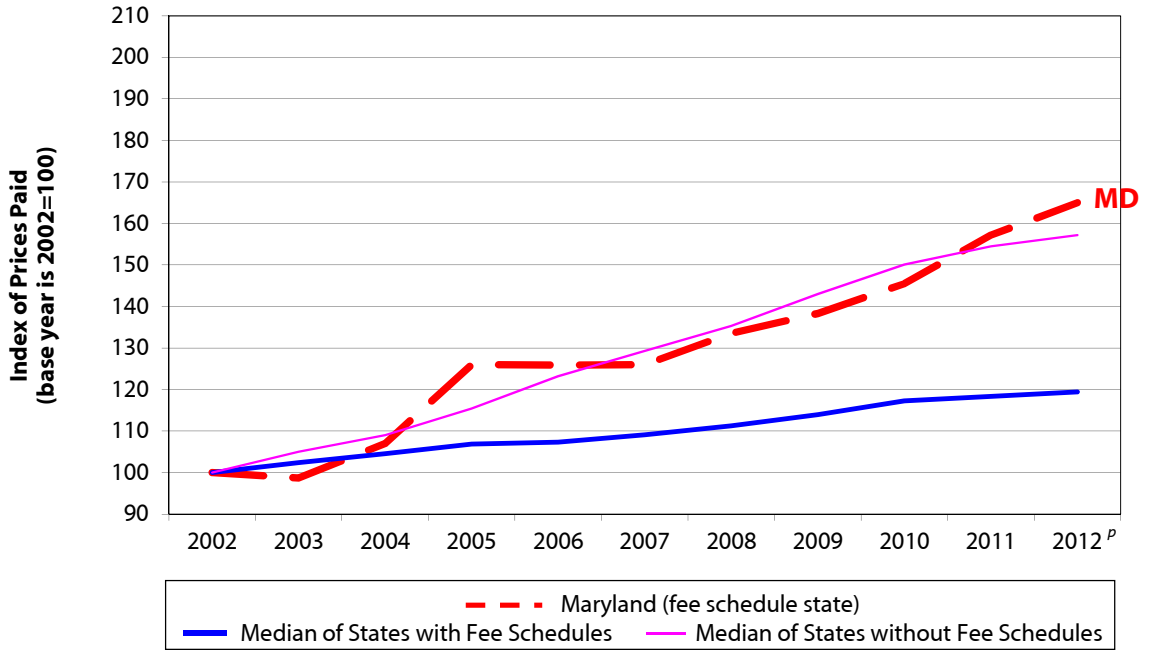
Figure B.13 Maryland Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Maryland increased fee schedule rates for evaluation and management and physical medicine services, and decreased rates for surgery, in September 2004. In February 2006, Maryland increased fee schedule rates for neurological and orthopedic surgeries. Starting in March 2008, Maryland allowed annual increases in fee schedule rates for professional services based on changes in the Medicare Economic Index. The most recent update covered in the study period in this report was effective March 1, 2012.

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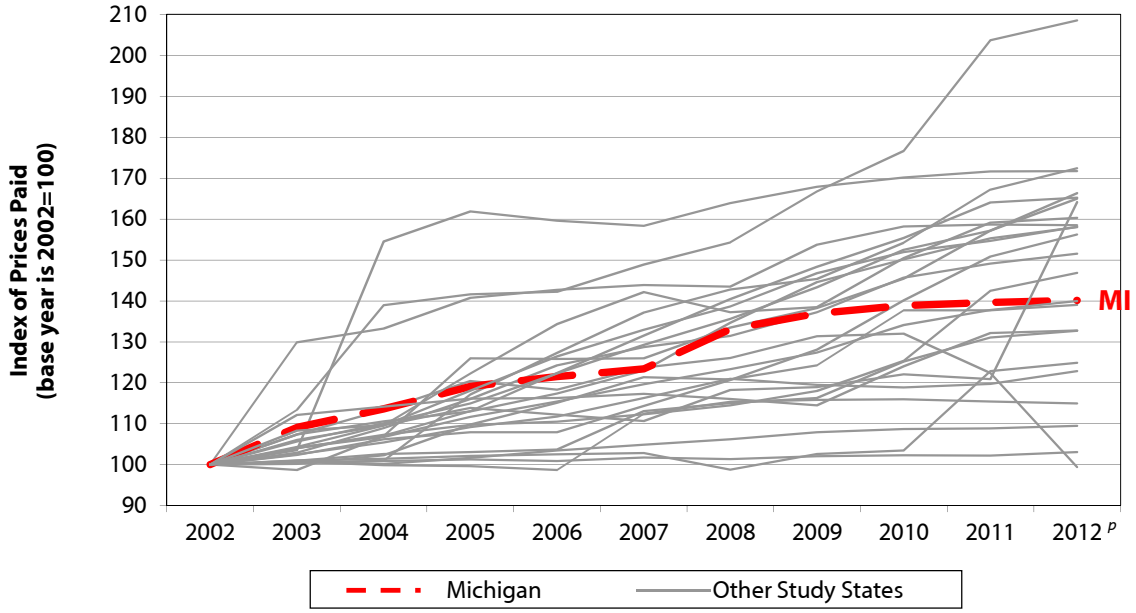
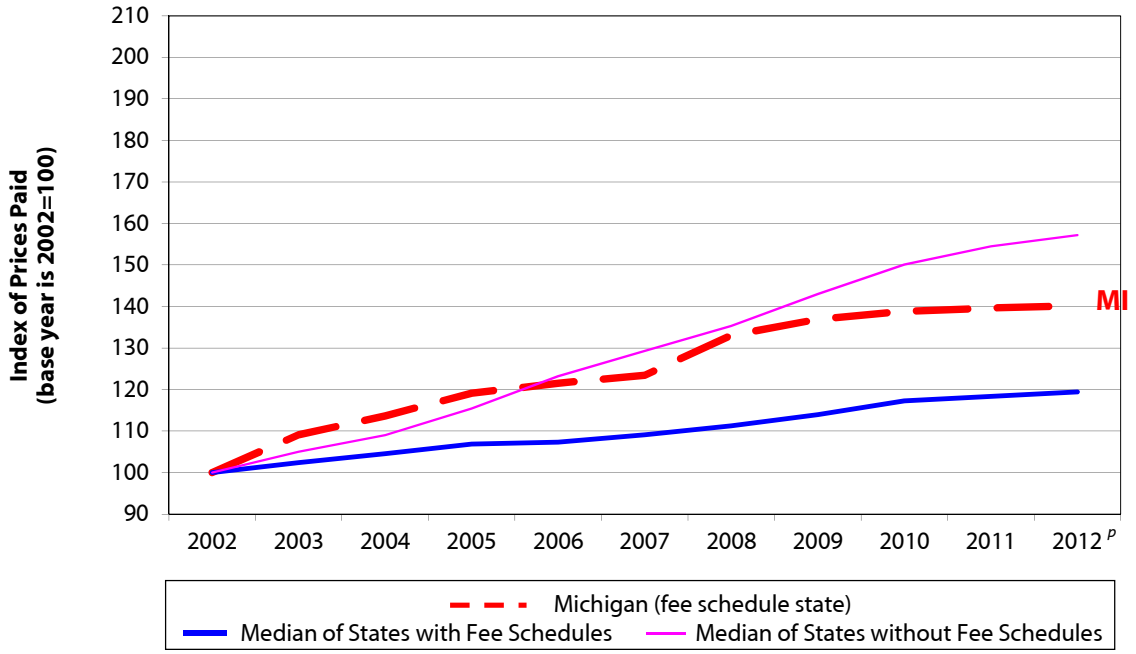
Figure B.14 Michigan Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Michigan updates its fee schedule for professional services annually. The most recent update covered in the study period in this report was effective December 8, 2010.

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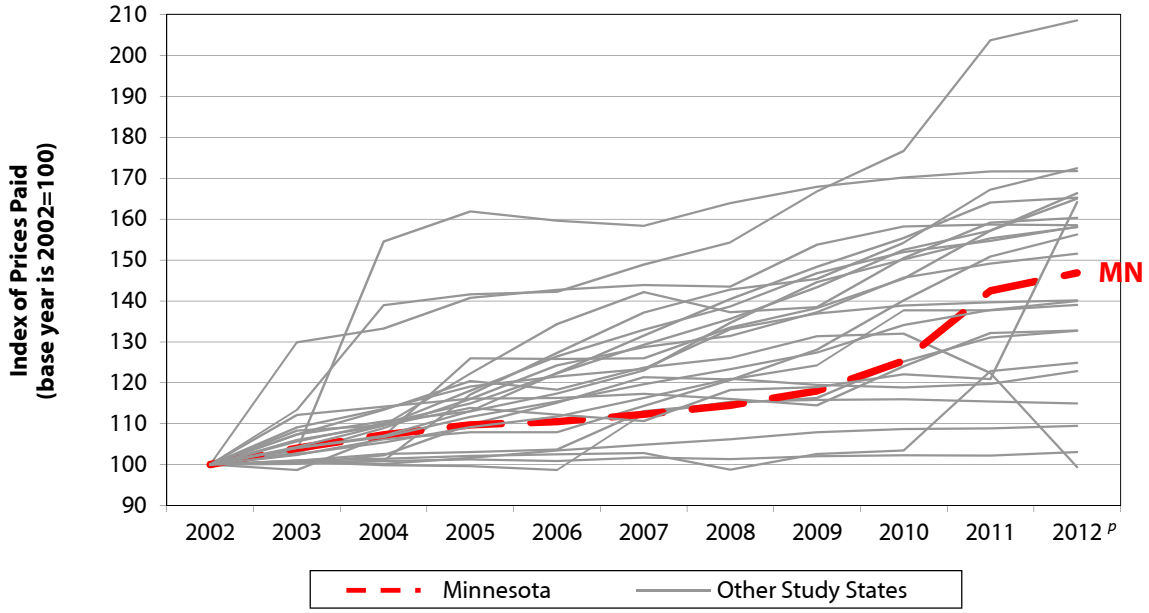
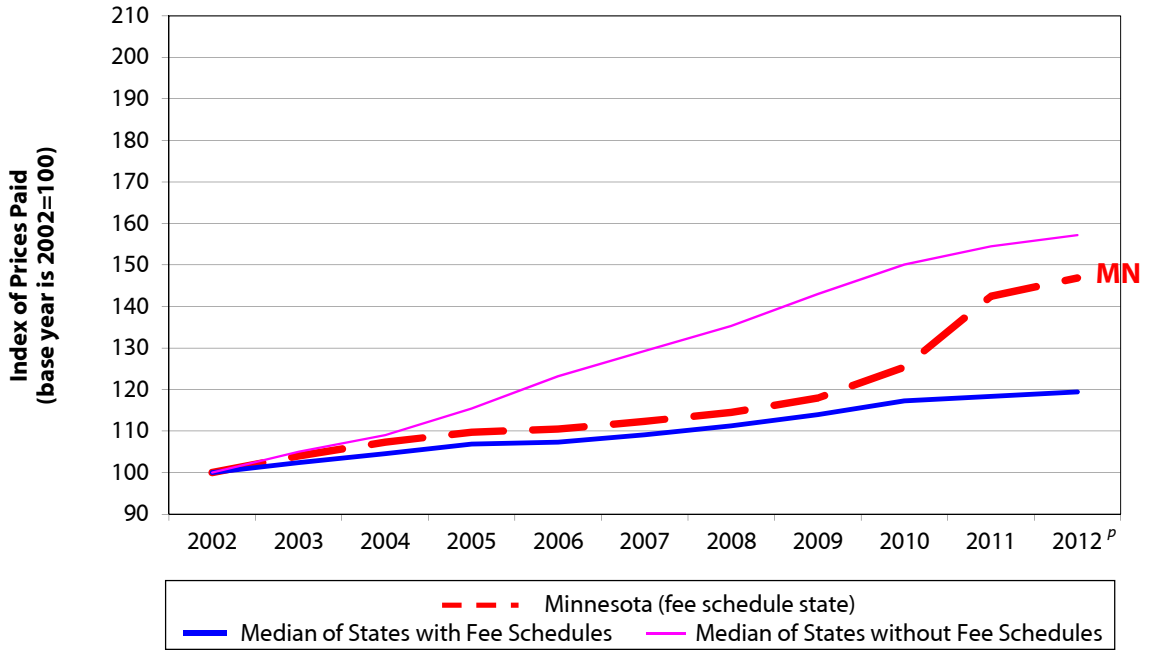
Figure B.15 Minnesota Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Minnesota's fee schedule for professional services from 2002 to September 2010 was based on 1998 Medicare relative value units (RVUs), with annual updates in the conversion factor. Effective October 1, 2010, Minnesota updated its fee schedule by using 2009 Medicare RVUs and decreasing the state conversion factor. The most recent update covered in the study period in this report was effective October 1, 2011.

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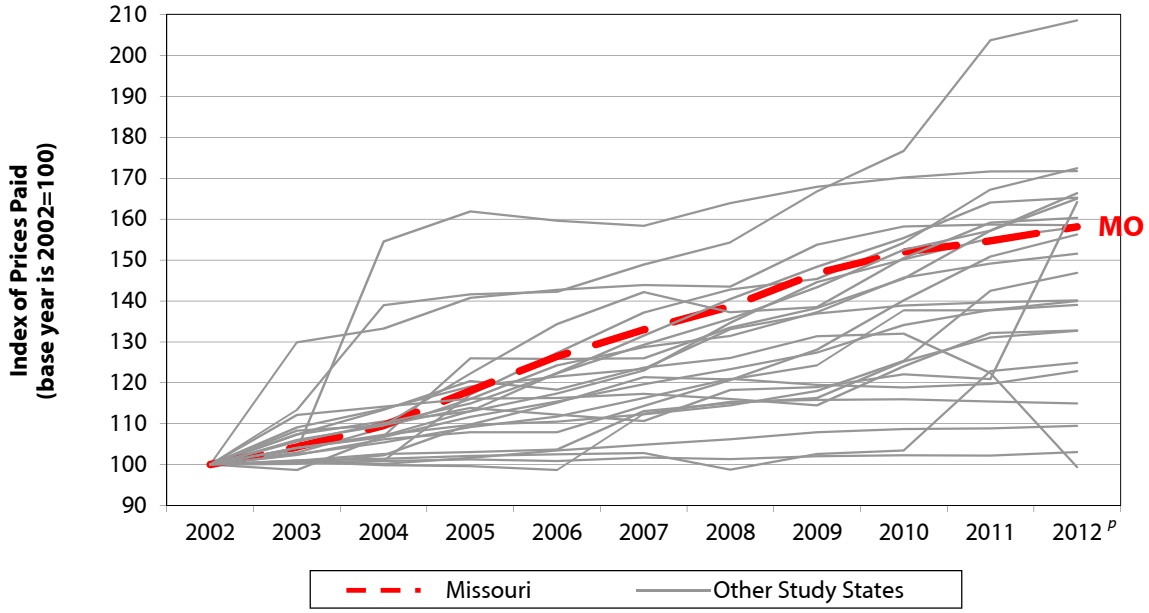
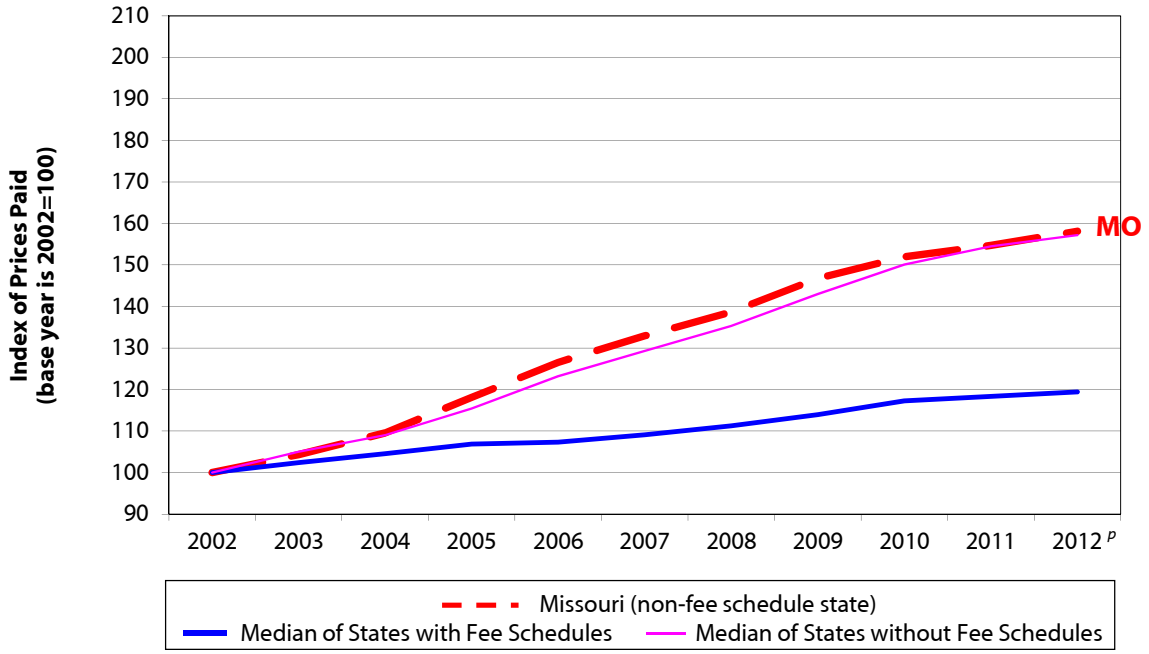
Figure B.16 Missouri Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Missouri did not have a workers' compensation fee schedule as of 2012.

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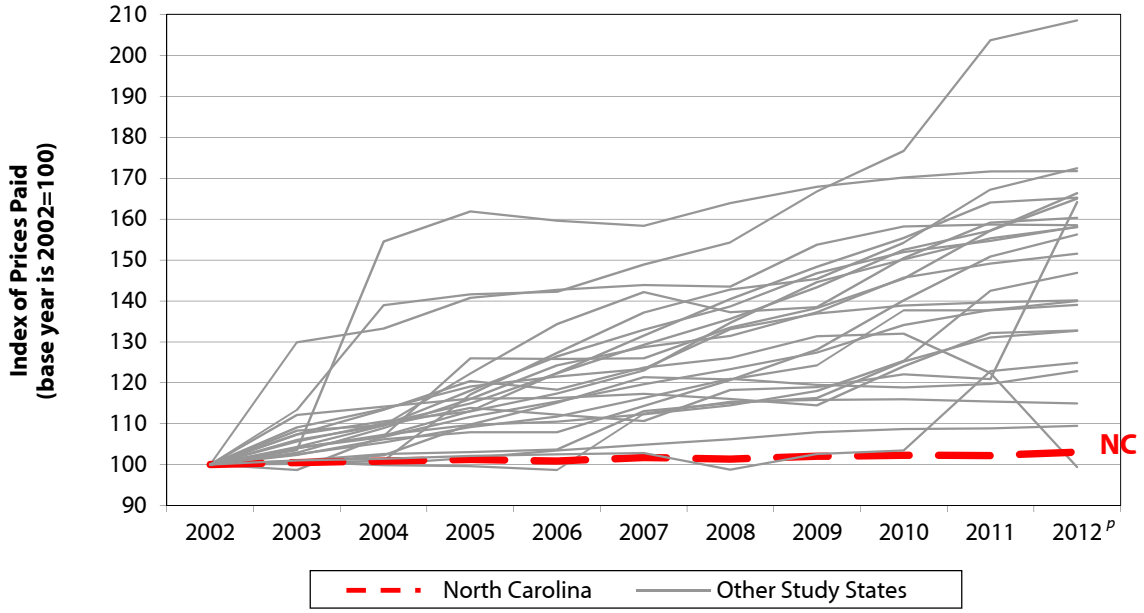
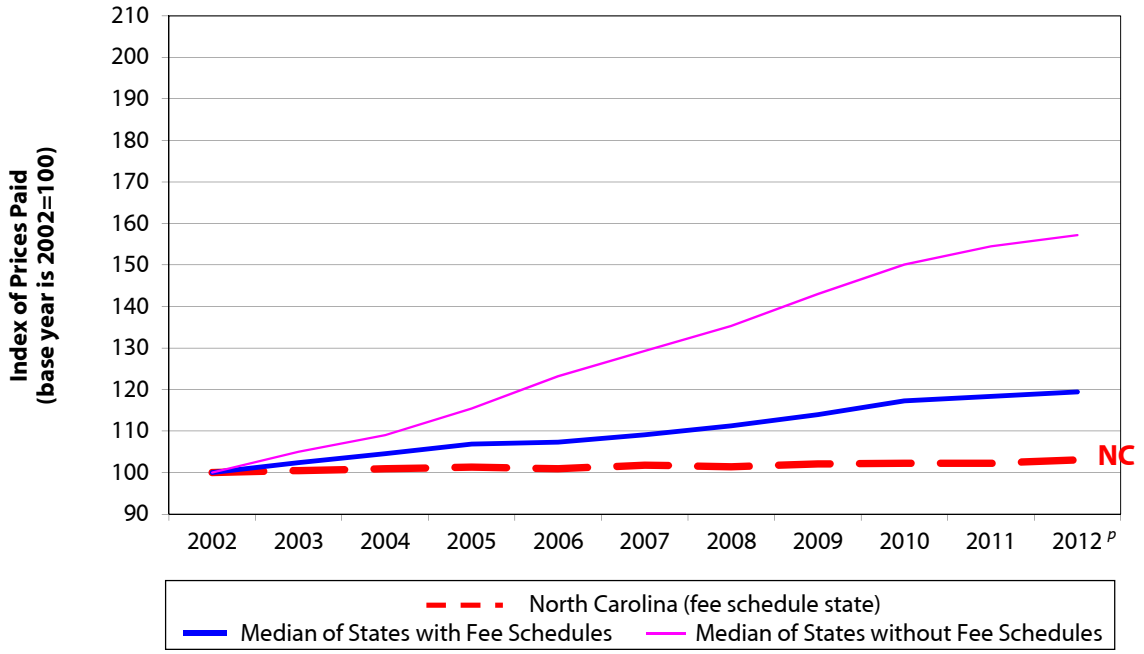
Figure B.17 North Carolina Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Maximum reimbursement amounts in the North Carolina fee schedule for professional services are based on those adopted by the North Carolina Industrial Commission effective January 1996. North Carolina updates its fee schedule annually in January to account for new and discontinued Current Procedural Terminology (CPT) codes published by the American Medical Association.

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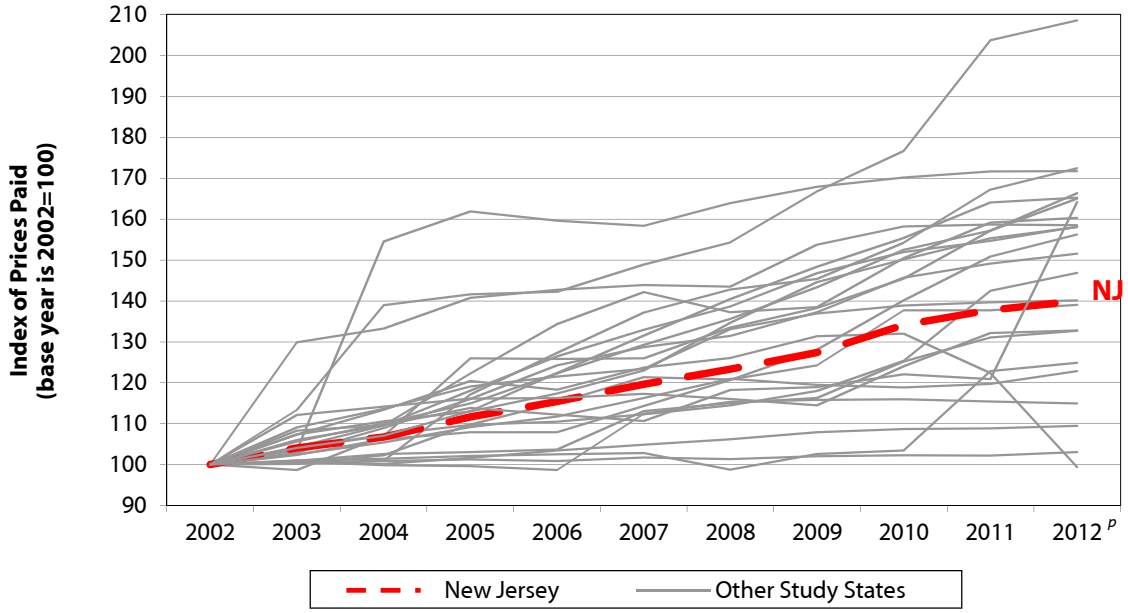
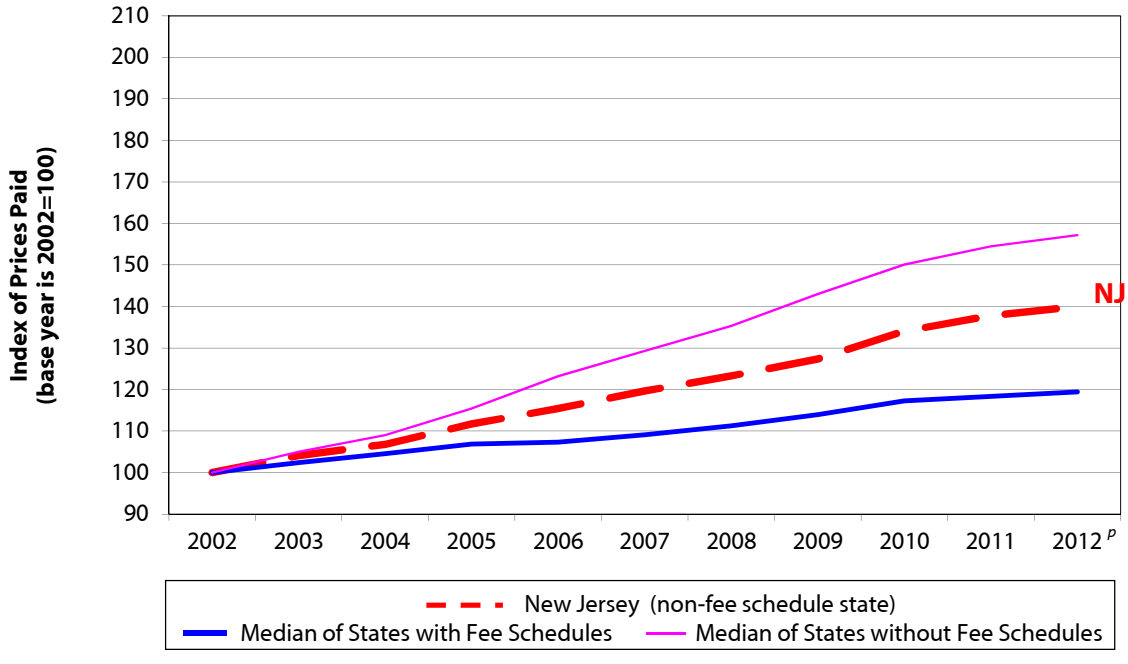
Figure B.18 New Jersey Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: New Jersey did not have a workers' compensation fee schedule as of 2012.

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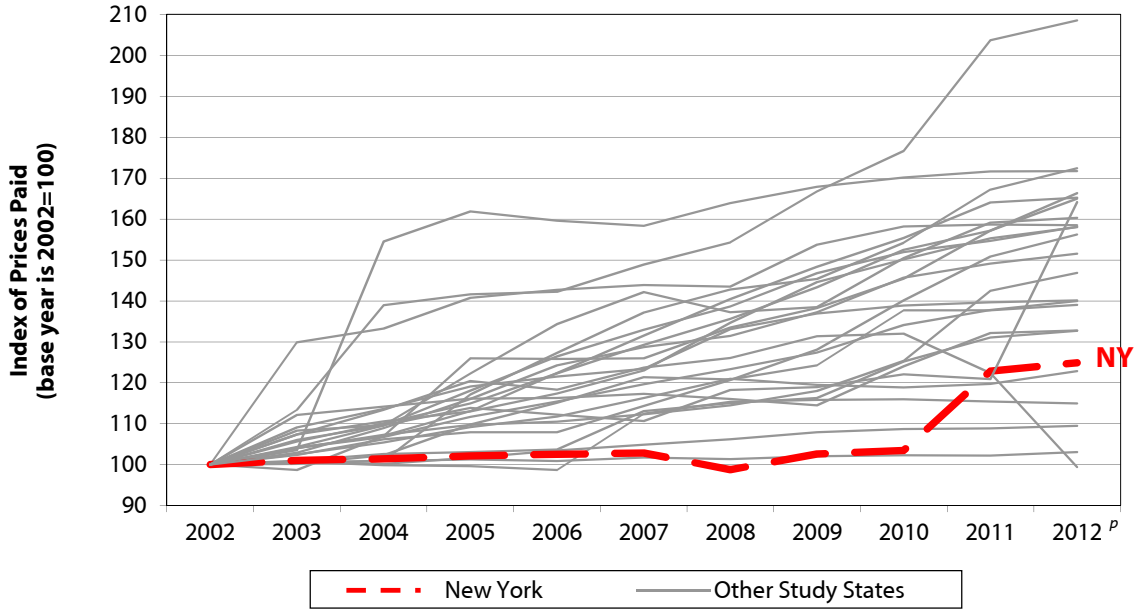
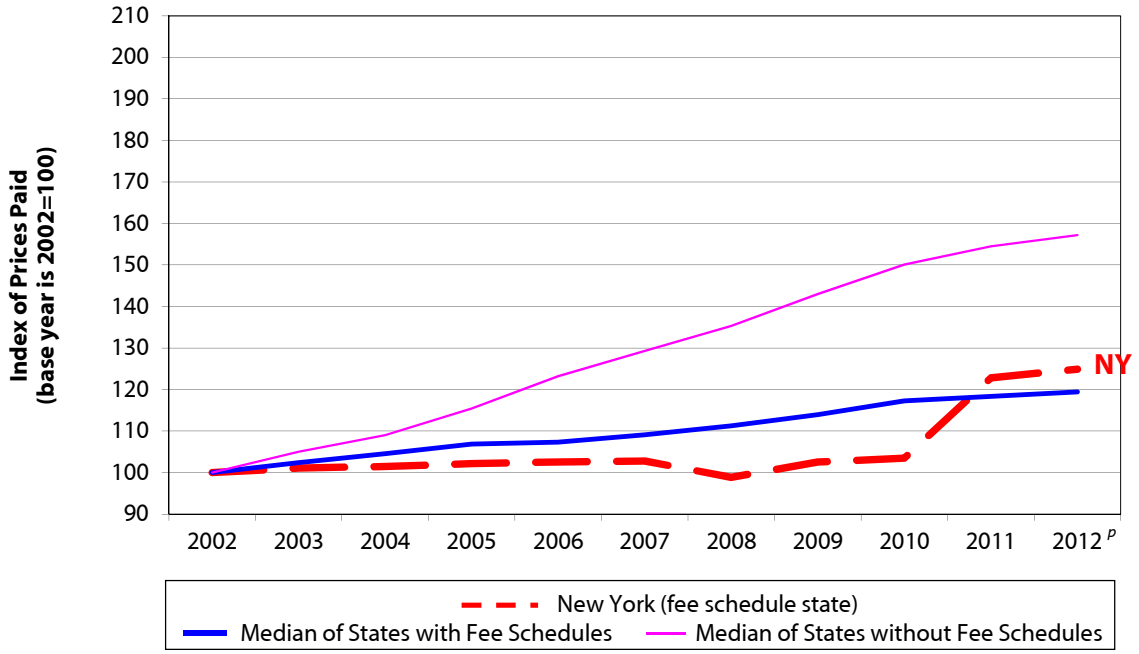
Figure B.19 New York Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

New York periodically updates its fee schedule for professional services; however, the maximum allowable reimbursement rates for most procedures covered in this report did not change from 2002 to November 2010. Effective December 1, 2010, the fee schedule rates in New York increased for evaluation and management services and emergency services. The most recent update covered in the study period in this report was effective June 1, 2012.

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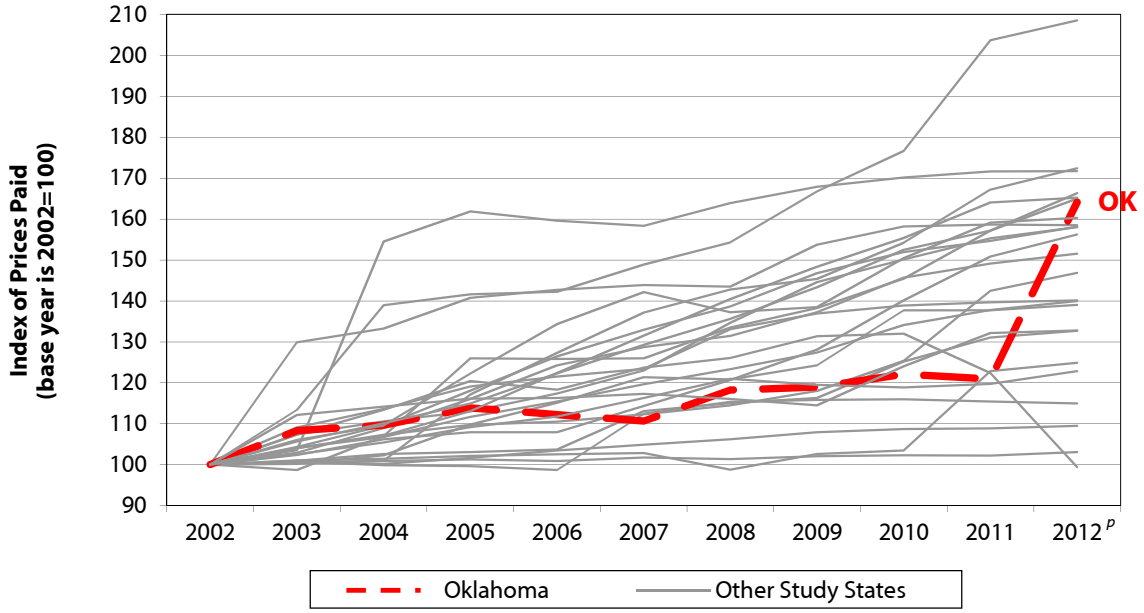
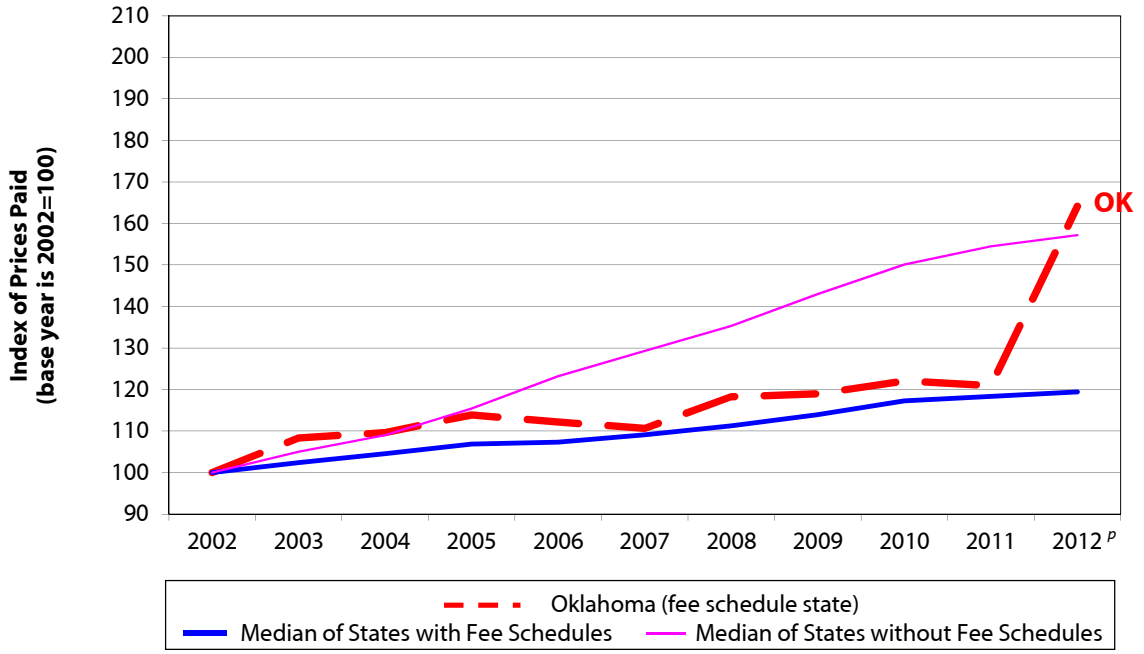
Figure B.20 Oklahoma Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Oklahoma regularly updated its fee schedule for professional services over the study period. For example, in 2006, the fee schedule rates increased materially for many pain management injection procedures and decreased for many services, such as emergency, radiology, neurological and neuromuscular testing, and many surgery procedures. The most recent update during the period covered by this study was effective January 1, 2012.

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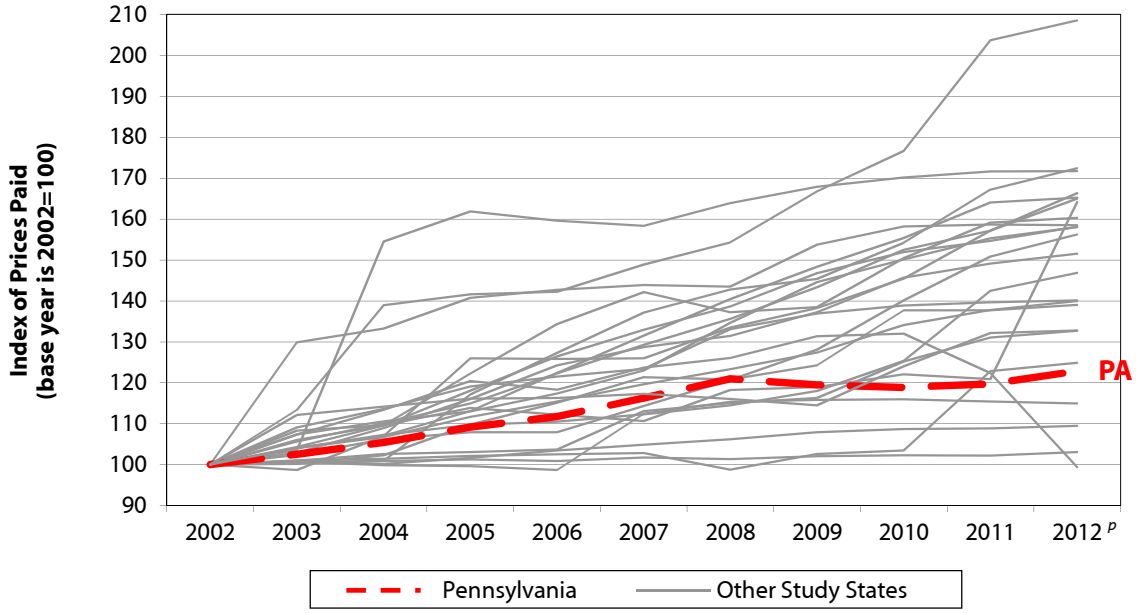
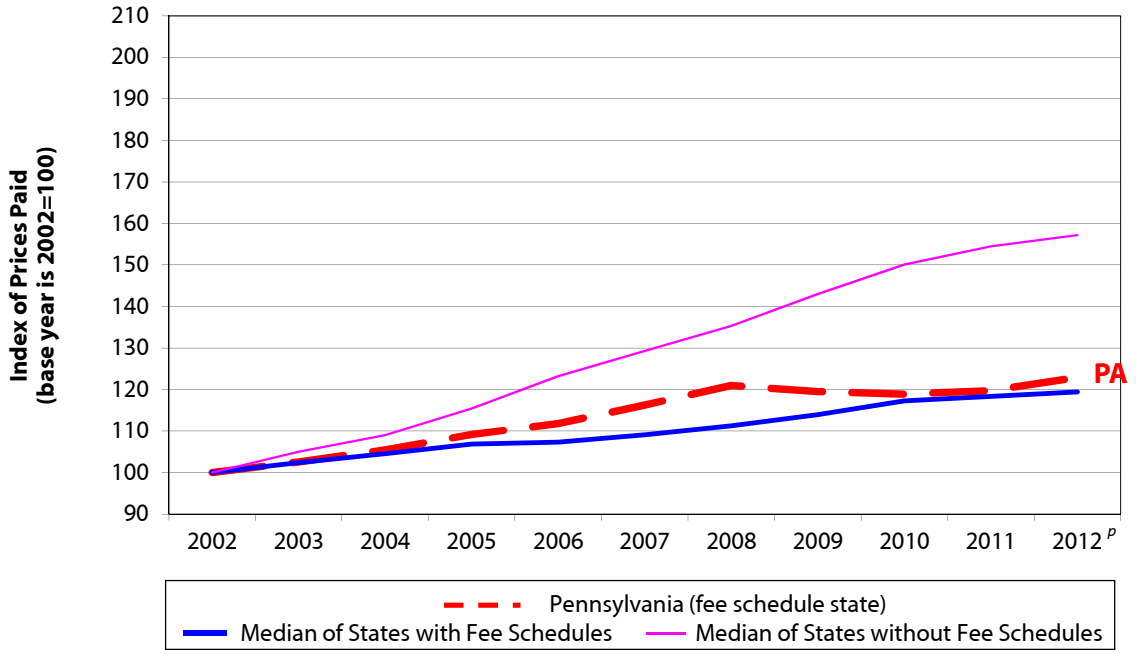
Figure B.21 Pennsylvania Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Pennsylvania updates its fee schedule for professional services annually, based on the percentage change in the statewide average weekly wage.

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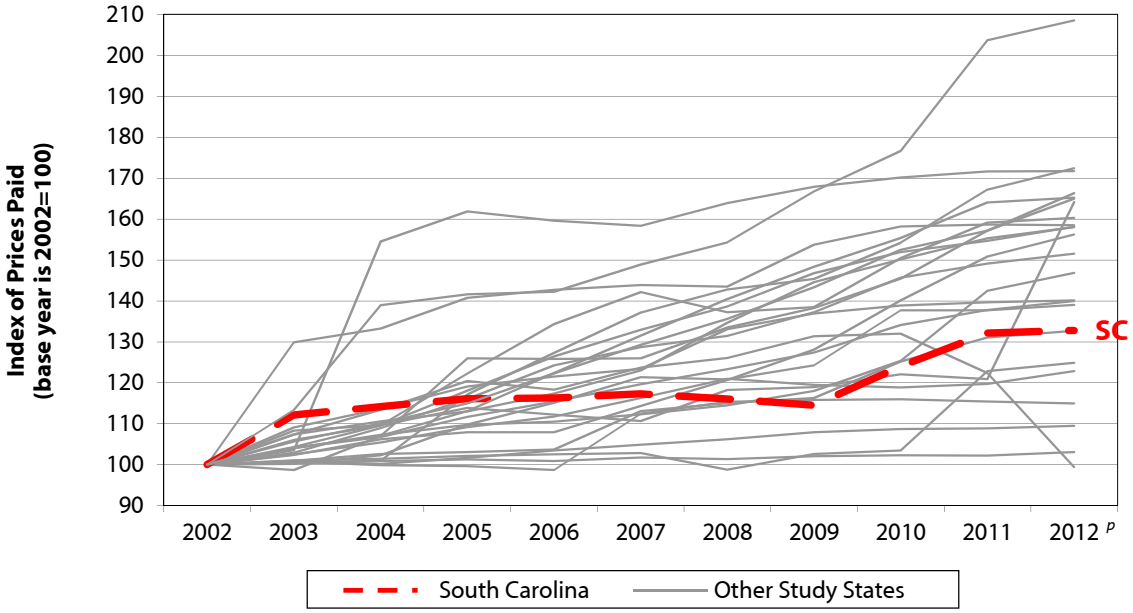
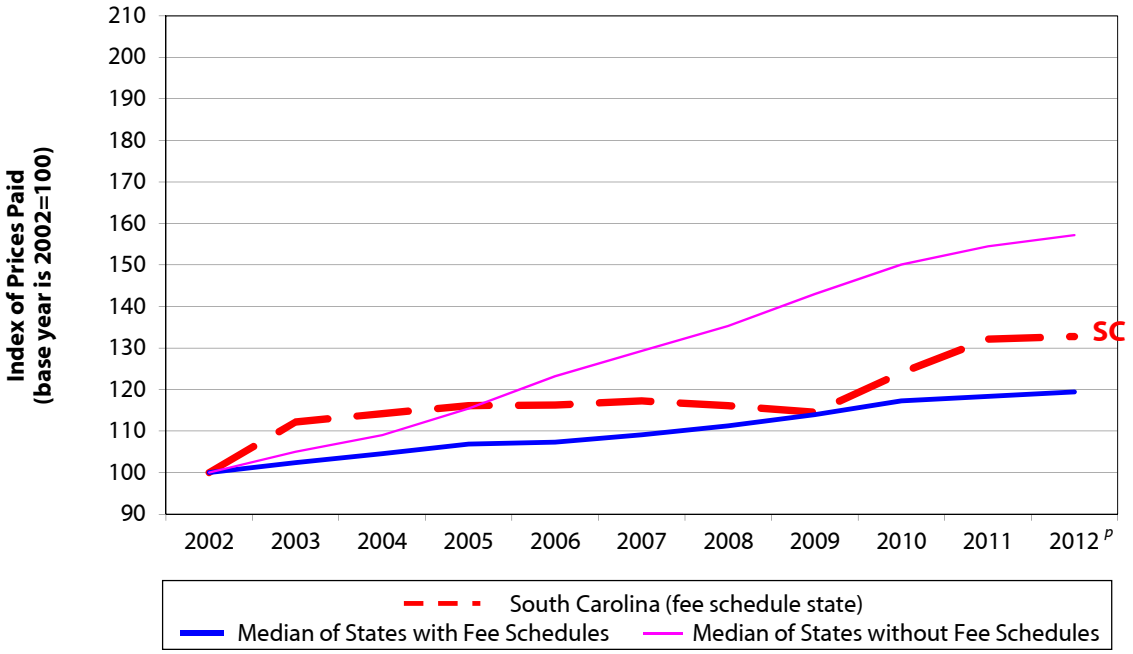
Figure B.22 South Carolina Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: South Carolina's fee schedule for professional services remained unchanged (after the update in January 2003) until 2009. Effective July 1, 2010, South Carolina had another update to its fee schedule, which increased the fee schedule rates for many professional services (such as evaluation and management, emergency, etc.) and decreased the rates for others (such as pain management injections, radiology services, etc.).

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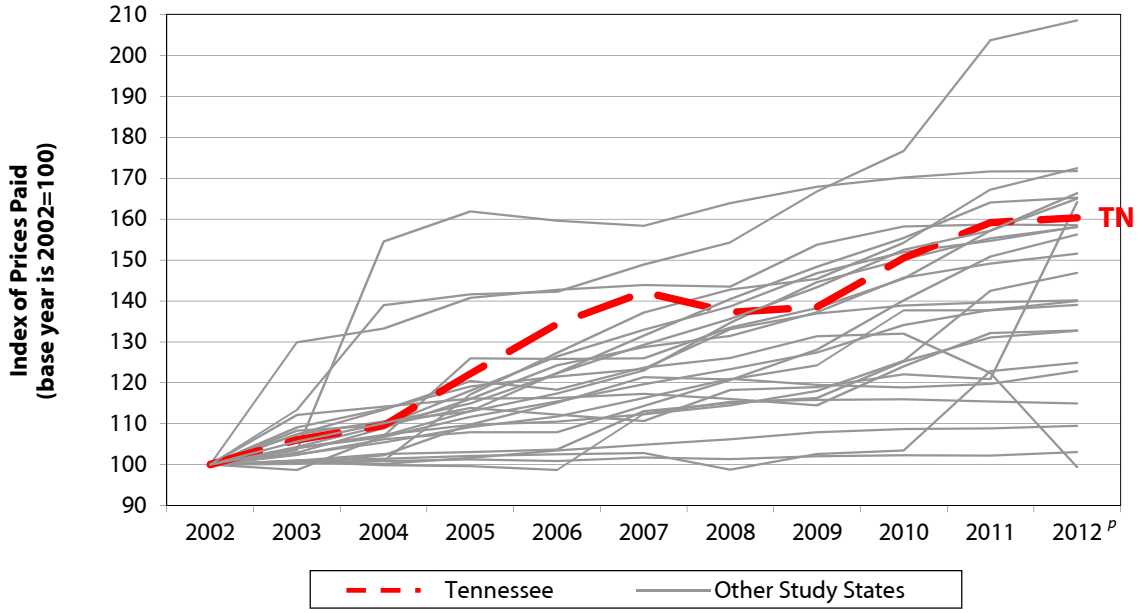
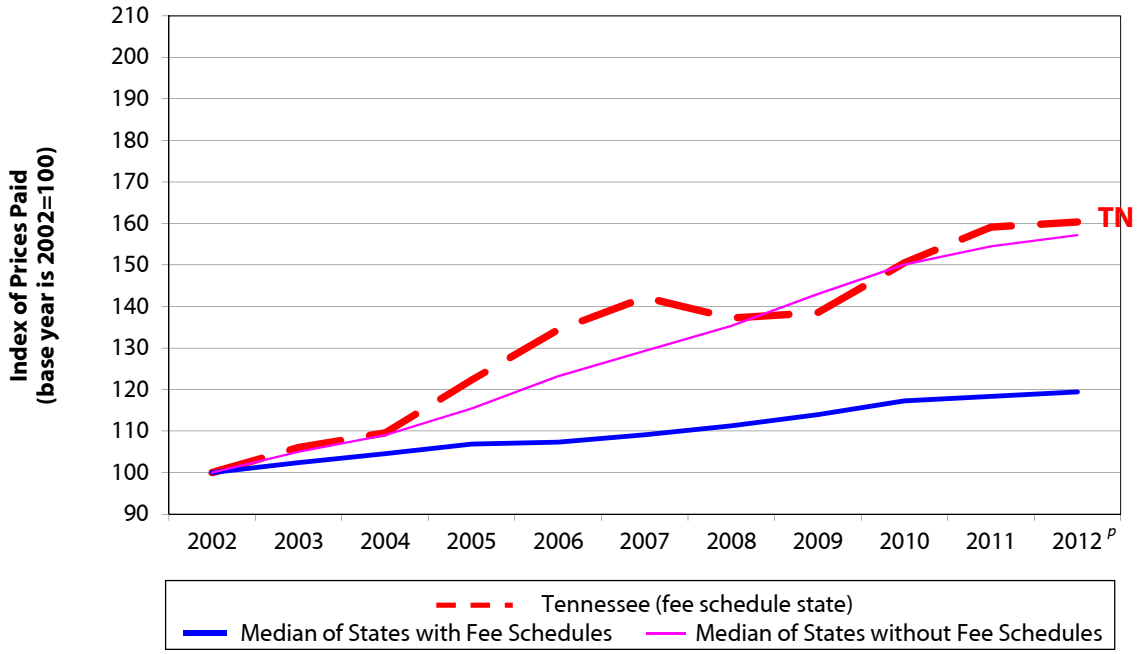
Figure B.23 Tennessee Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Tennessee implemented a fee schedule in July 2005 and had regular updates in the following years.

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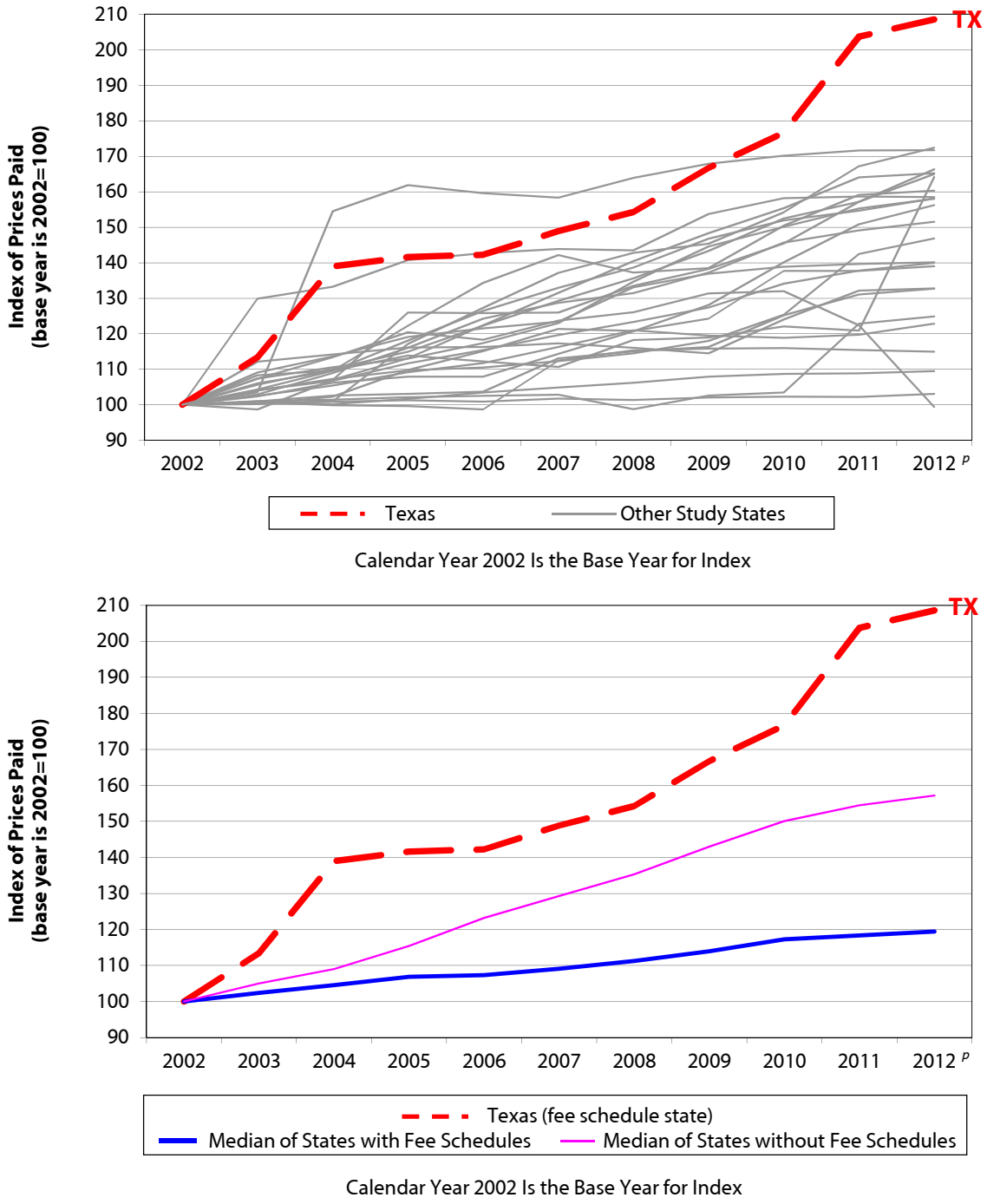
Figure B.24 Texas Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Texas decreased fee schedule rates for surgery and radiology, and increased rates for evaluation and management services, in August 2003. In March 2008, Texas increased fee schedule rates for professional services, especially for surgeries, and allowed annual increases based on changes in the Medicare Economic Index. In 2011, the fee schedule rates in Texas increased for most professional services following the Medicare updates. The most recent update covered in the study period in this report was effective January 1, 2012.

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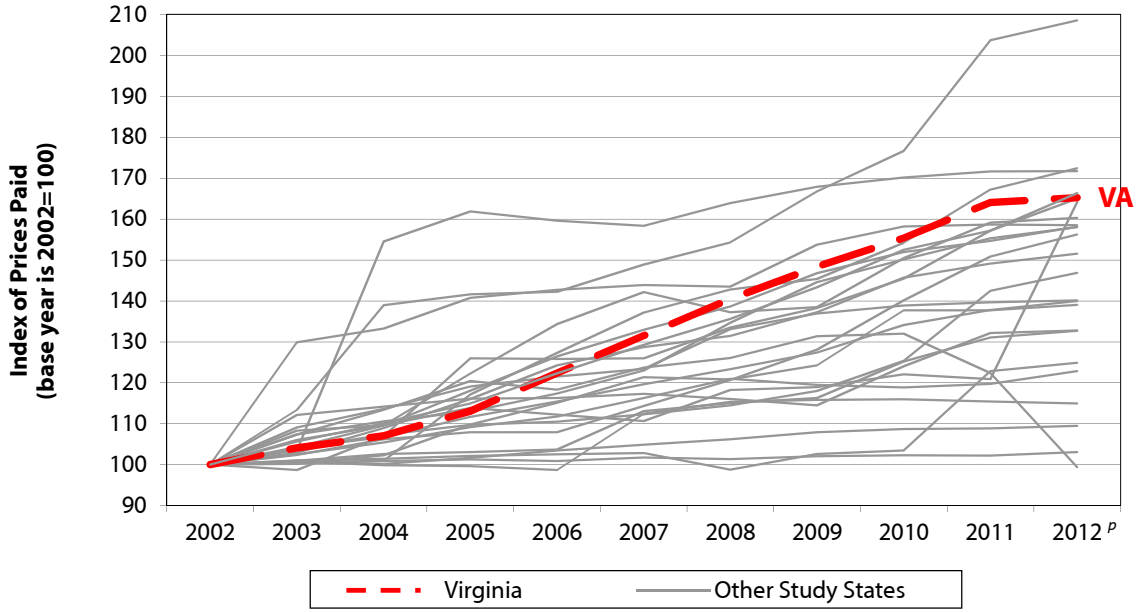
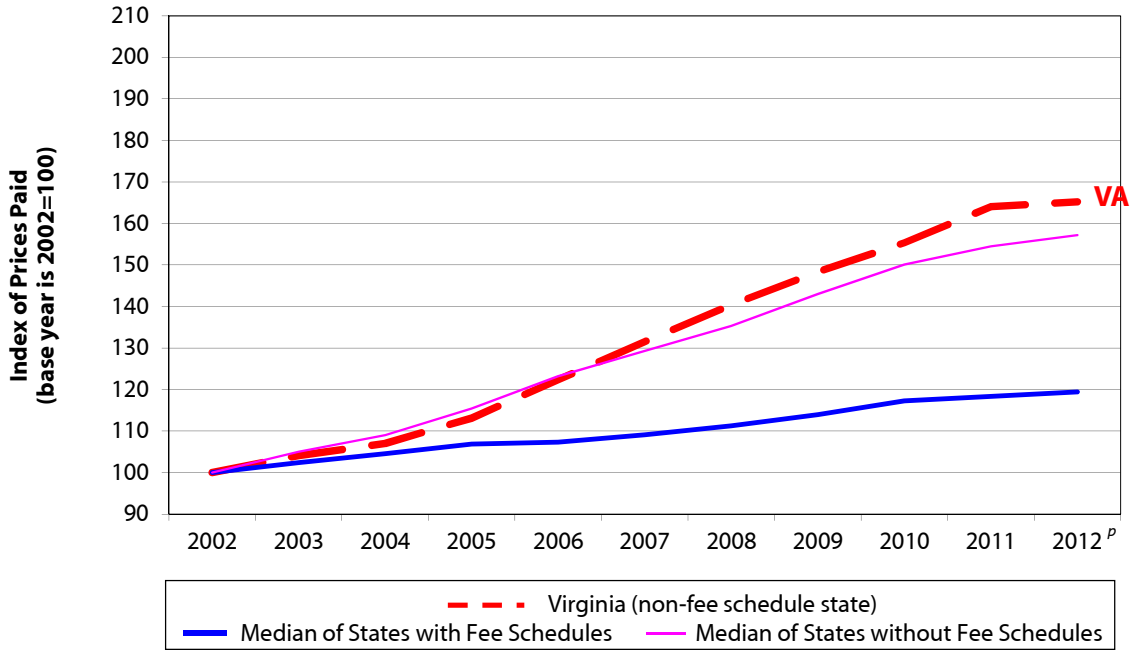
Figure B.25 Virginia Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Virginia did not have a workers' compensation fee schedule as of 2012.

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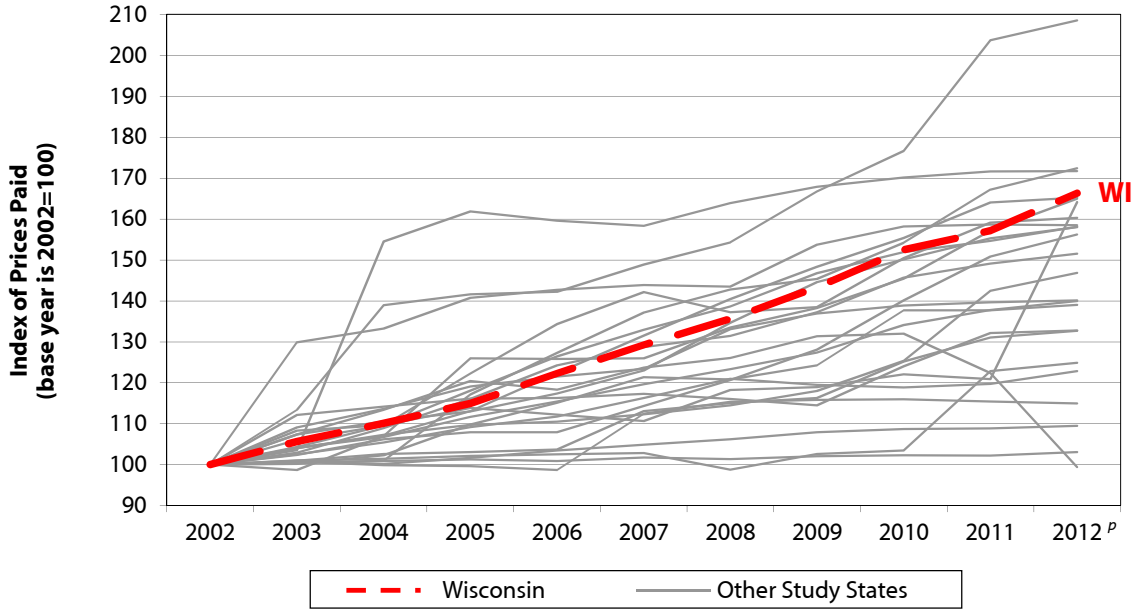
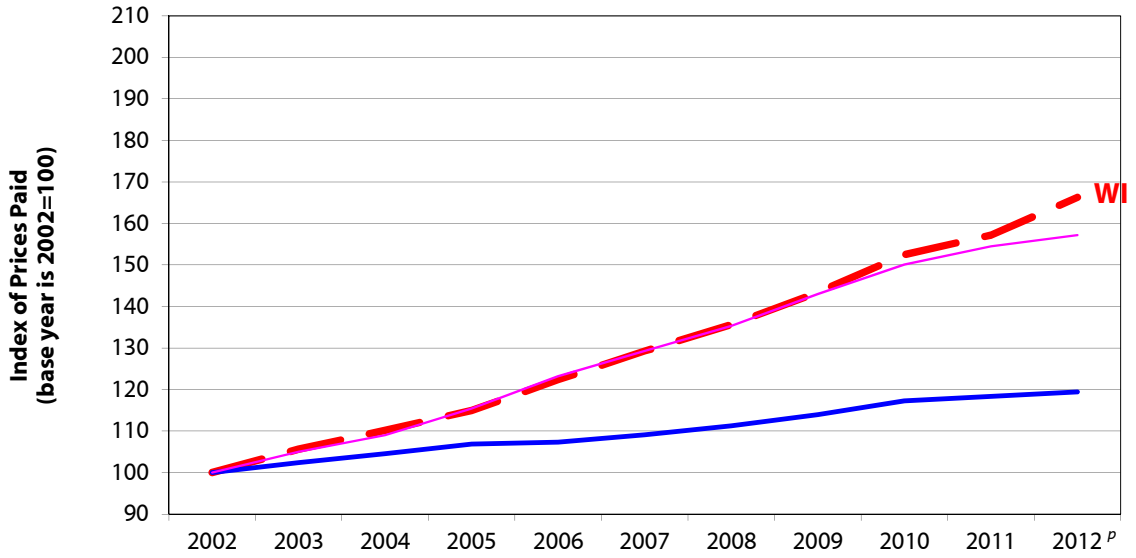
Figure B.26 Wisconsin Trends in Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Wisconsin did not have a conventional workers' compensation fee schedule as of 2012.

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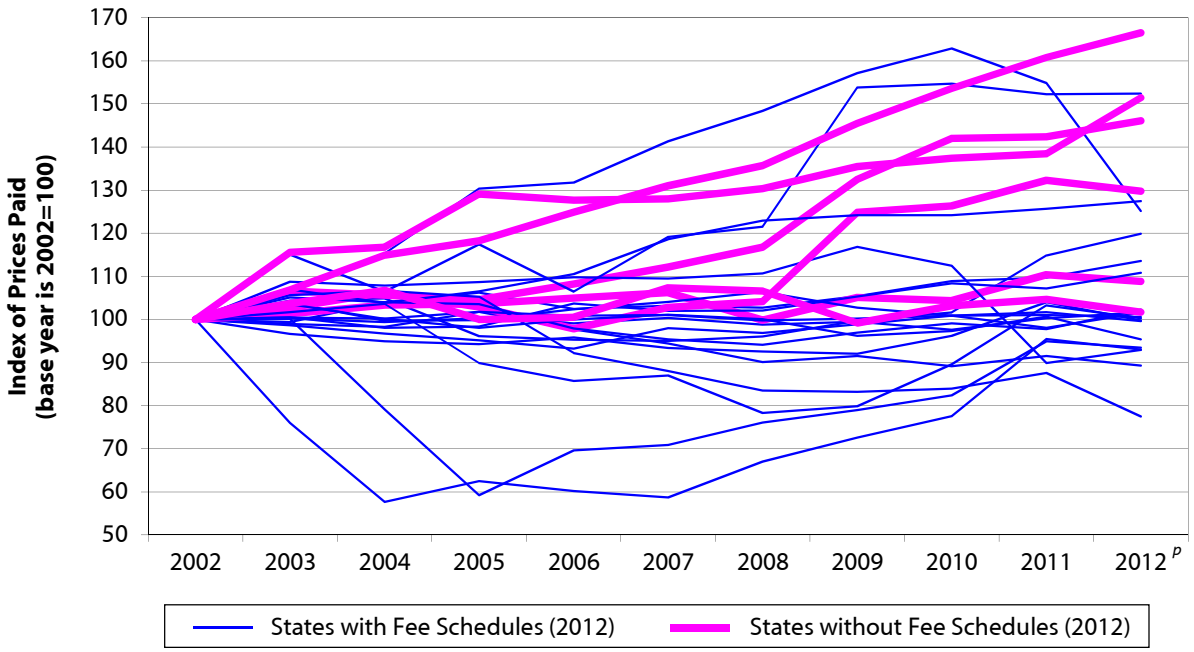
Figure C.1 Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
AR	100	97	95	94	96	93	93	92	96	104	100
AZ[a,b]	100	99	97	95	93	98	97	99	101	101	101
CA	100	99	104	106	102	103	103	105	109	110	114
CT[b]	100	100	99	100	99	100	99	99	98	100	102
FL	100	99	98	102	98	94	90	92	89	92	89
GA	100	104	105	96	95	95	96	100	102	115	120
IA[c]	100	101	103	104	105	106	100	105	104	110	109
IL	100	107	115	130	132	141	148	157	163	155	125
IN[c]	100	107	106	105	108	112	117	133	142	142	146
LA	100	101	98	98	104	102	102	105	108	107	111
MA	100	115	106	117	106	119	122	154	155	152	152
MD	100	100	79	59	70	71	76	79	82	95	93
MI	100	104	100	100	102	104	106	103	101	102	100
MN[b]	100	109	108	109	110	109	111	117	112	90	93
MO[a,c]	100	103	106	103	98	103	104	125	126	132	130
NC	100	105	104	104	98	95	94	97	99	98	102
NJ[c]	100	116	117	129	128	128	130	135	137	138	151
NY[a]	100	100	100	102	101	101	100	100	101	98	102
OK[a]	100	106	107	105	92	88	84	83	84	88	78
PA	100	107	104	107	111	119	123	124	124	126	127
SC	100	104	100	98	100	101	100	96	97	101	95
TN	100	102	104	90	86	87	78	80	90	103	100
TX	100	76	58	62	60	59	67	73	78	95	93
VA[c]	100	104	107	100	101	107	107	99	103	105	102
WI[c]	100	107	115	118	125	131	136	146	154	161	166

continued

Figure C.1 Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012 (continued)

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes:
Calender year 2002 is the base year, which is equal to 100 in the index.
For definitions of the service groups, please see Table TA.1.

[a] The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

[b] This state had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

[c] This state had no workers' compensation fee schedule in 2012.

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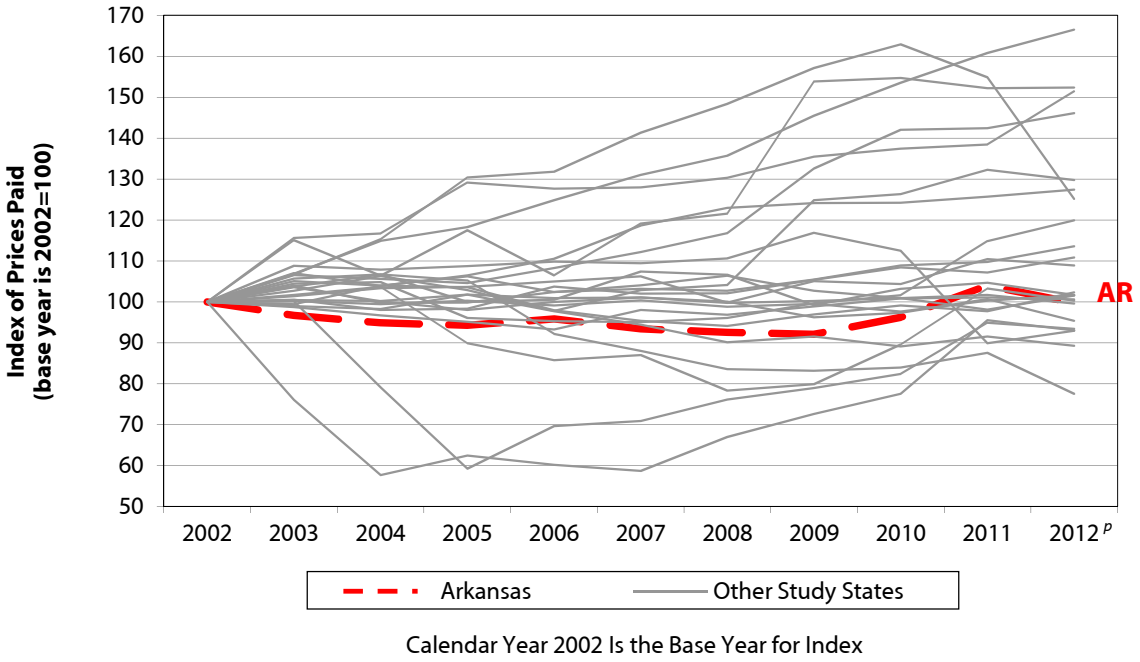
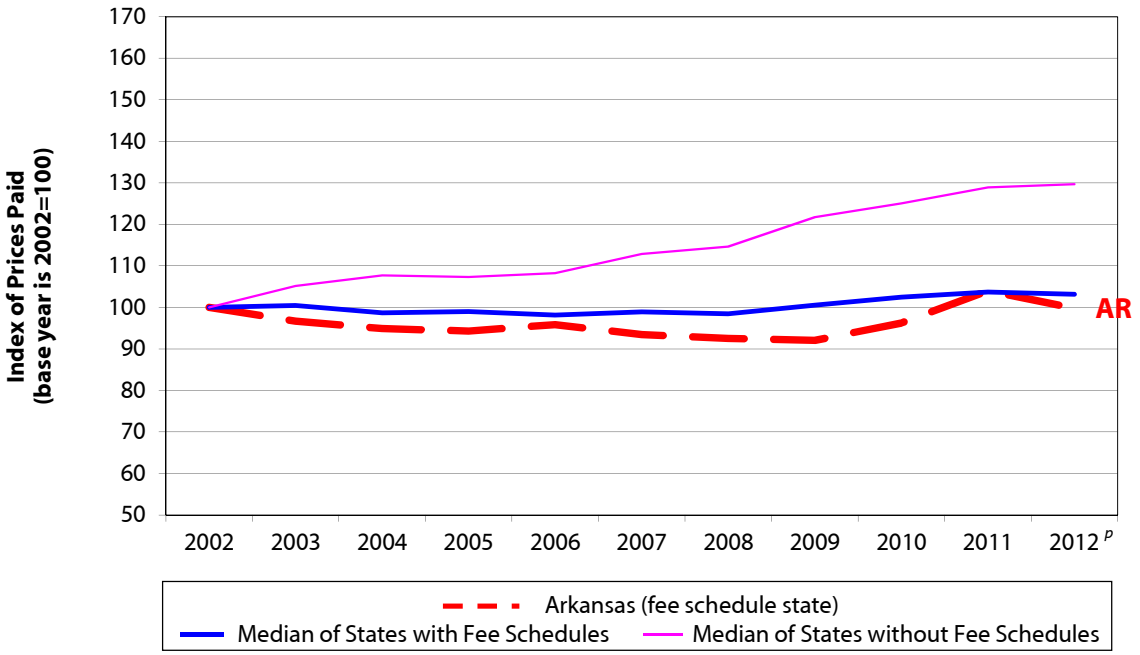
Figure C.2 Arkansas Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012





Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Arkansas' fee schedule for professional services has regular updates on the relative value units tied to the most recent Medicare resource-based relative value scale, with applied state conversion factors adopted in May 2000 for the services included in this study. The most recent update covered in the study period in this report was effective April 1, 2012.

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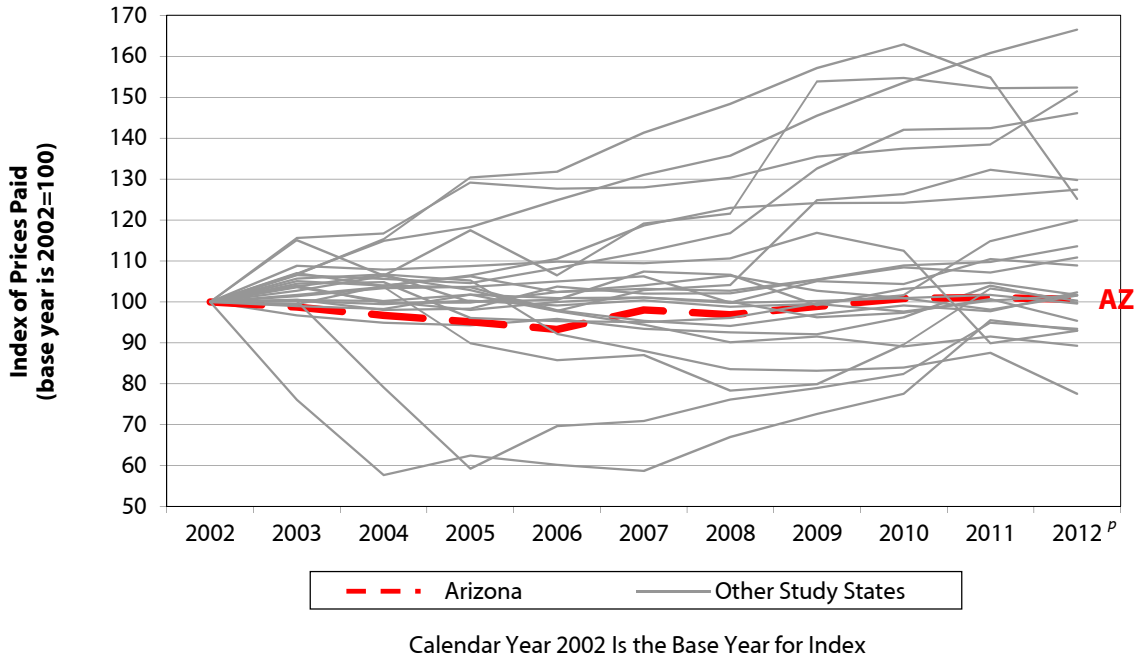
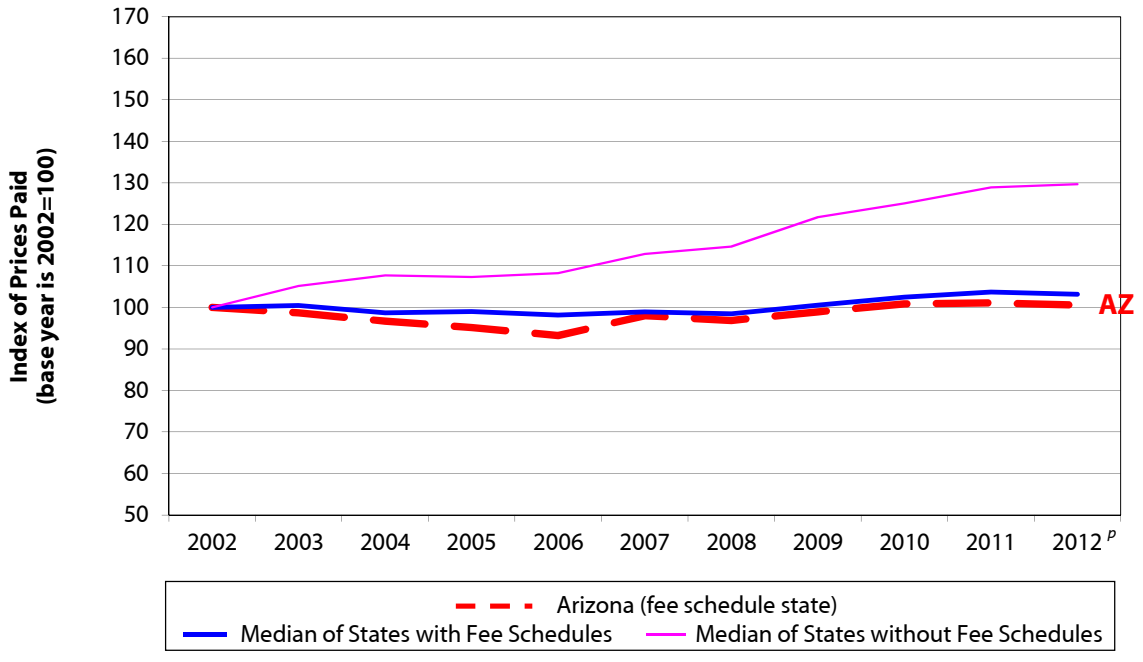
Figure C.3 Arizona Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012





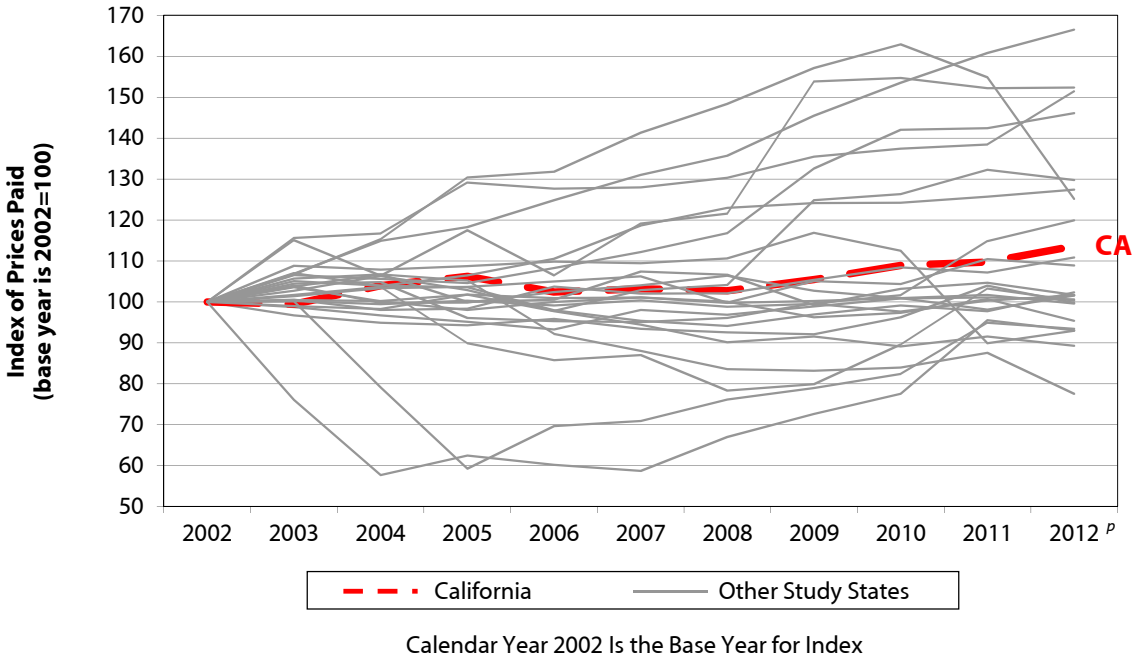
Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

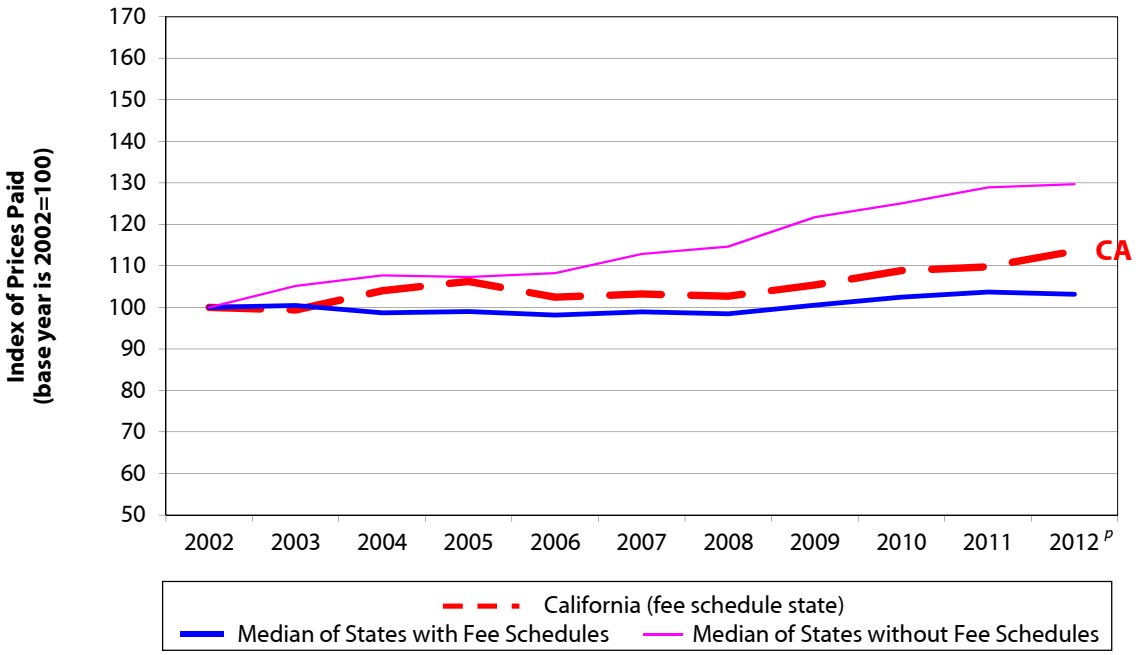
The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Arizona updates its fee schedule for professional services annually in October. The most recent update covered in the study period in this report was effective October 1, 2011.

Figure C.4 California Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: California had a reduction of 5 percent in fee schedule rates for professional services in 2004; except for increases in fee schedule rates for evaluation and management services in February 15, 2007, there have not been additional updates.

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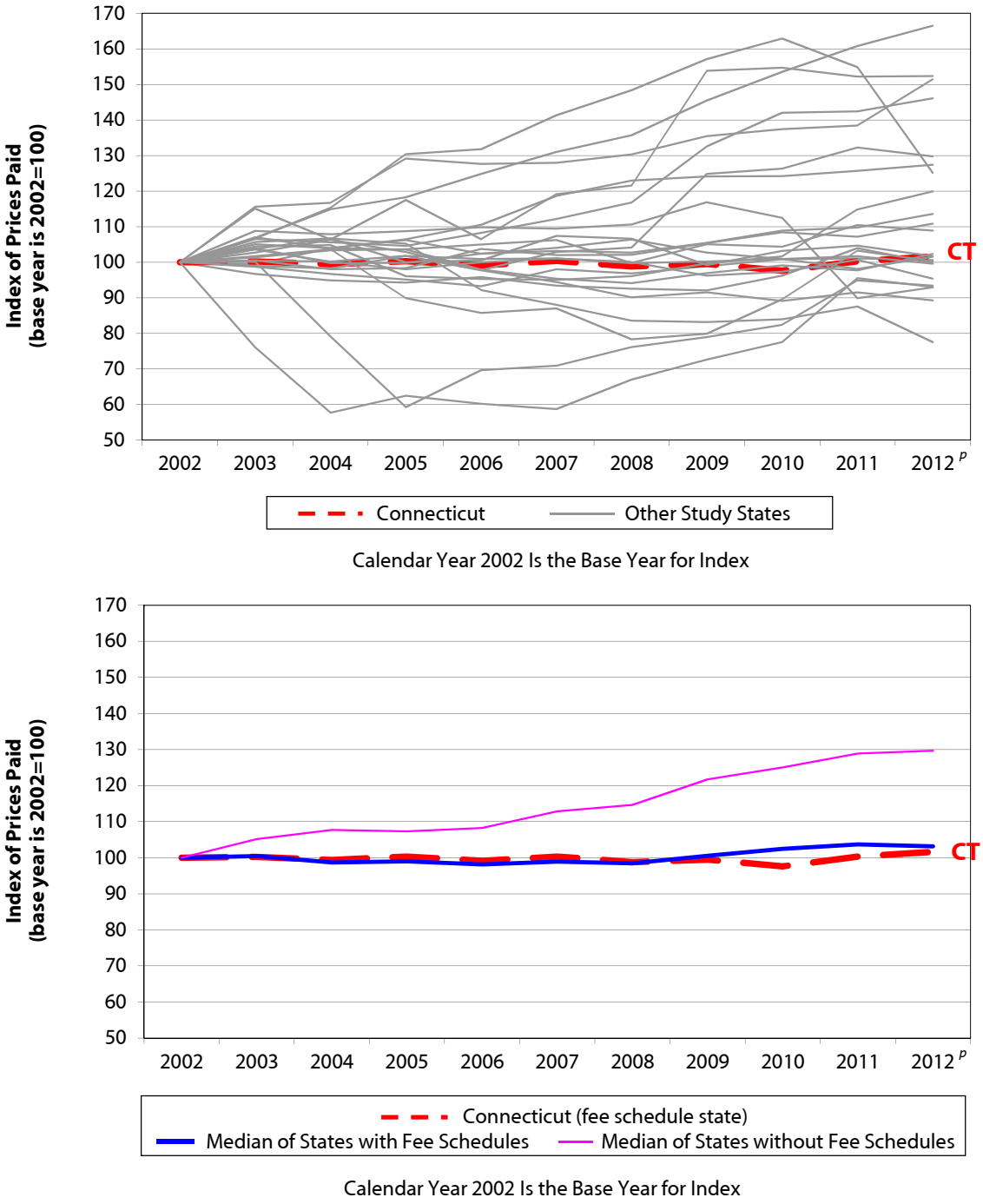
Figure C.5 Connecticut Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Connecticut has updated its fee schedule for professional services annually in July since 2008; in prior years, updates were effective in April. The most recent update covered in the study period in this report was effective July 15, 2011.

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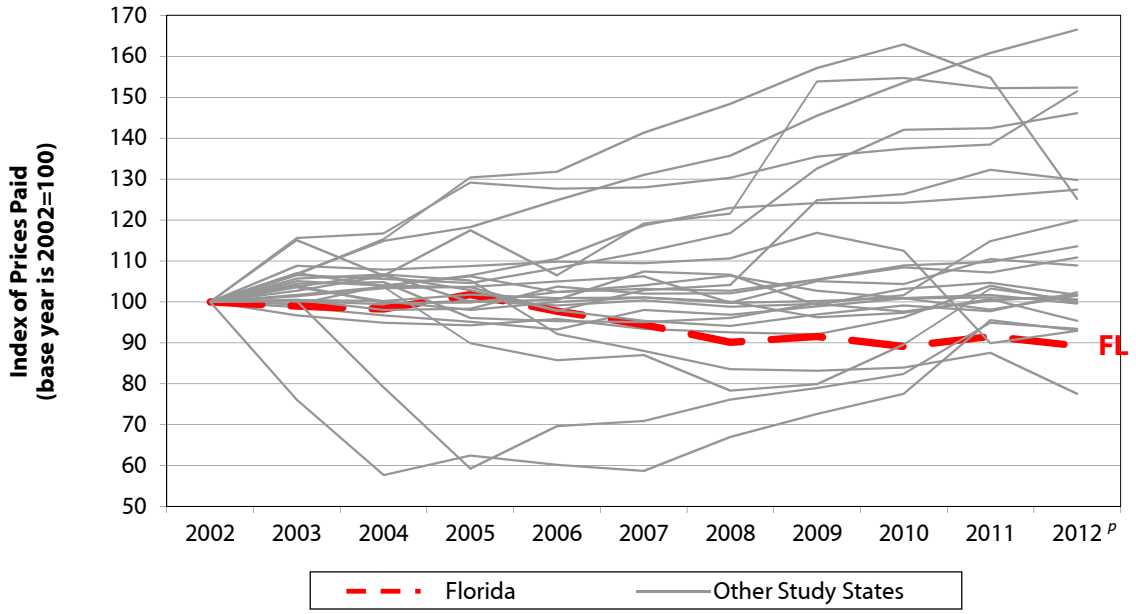
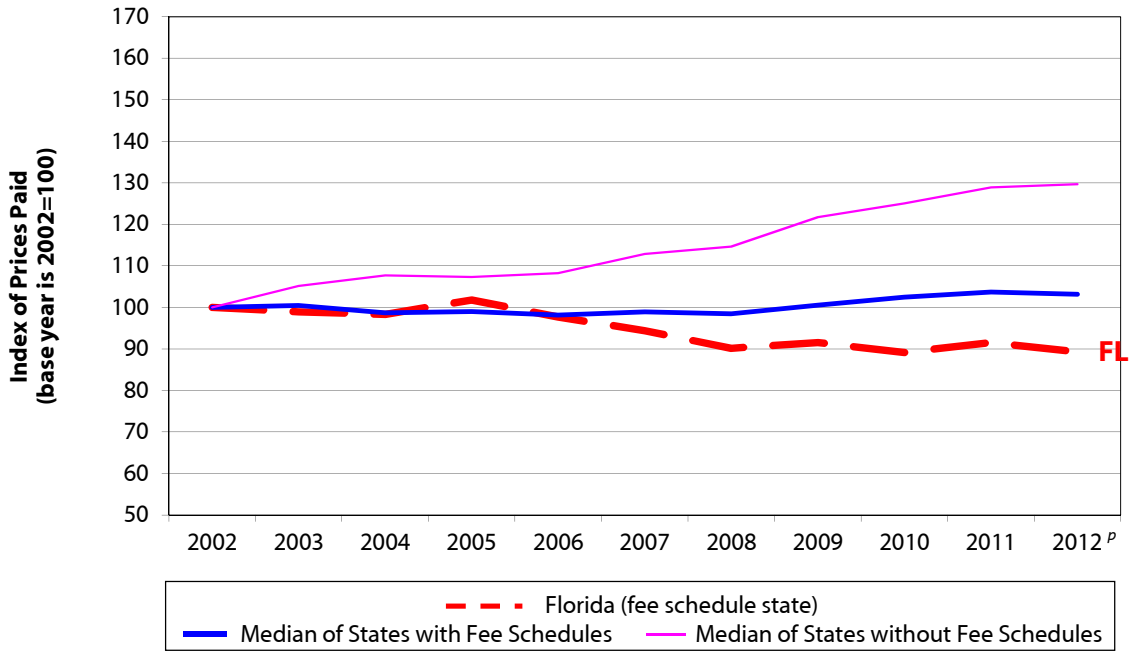
Figure C.6 Florida Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012





Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Florida had significant increases in fee schedule rates for physician services in January 2004 and increases in fee schedule rates for services provided by chiropractors and physical/occupational therapists in May 2005. After that, Florida had fee schedule updates for professional services in 2006, 2007, and 2009.

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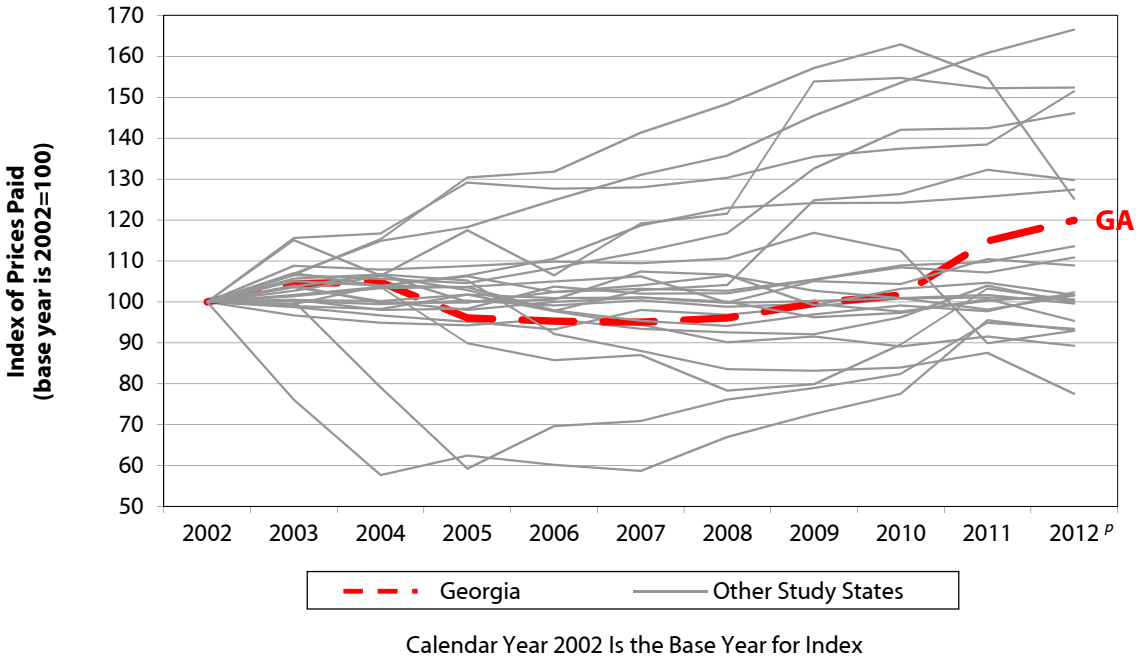
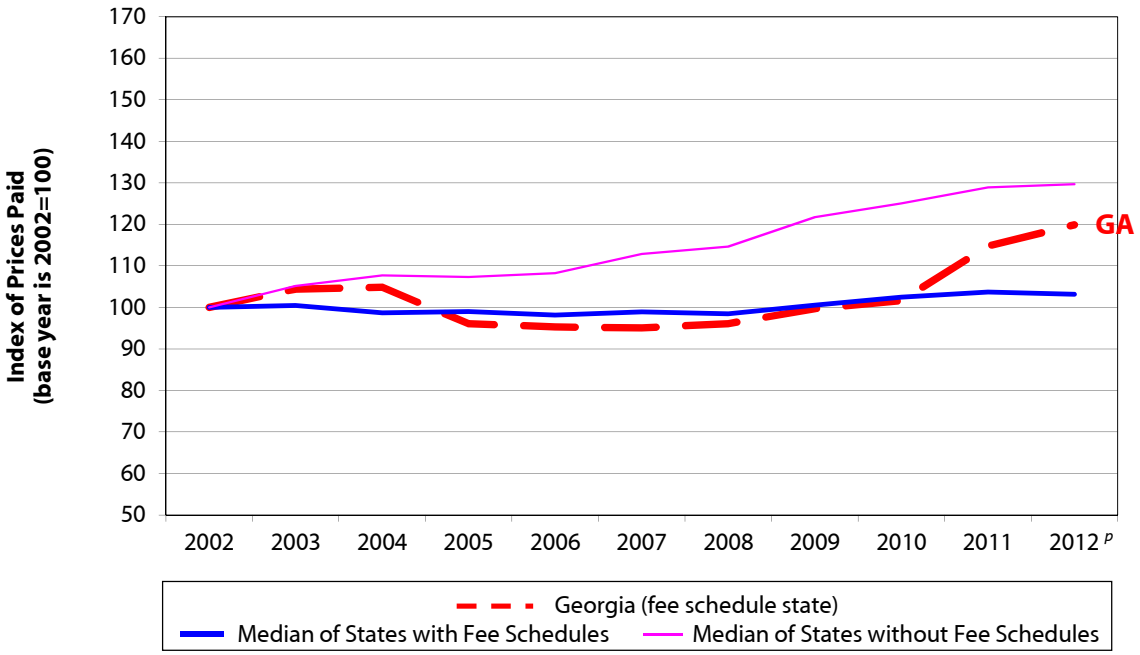
Figure C.7 Georgia Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{P} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Georgia updates its fee schedule for professional services annually in April. For example, in 2005, the fee schedule rates increased materially for evaluation and management and physical medicine services and decreased for many services, such as emergency, minor radiology, neurological and neuromuscular testing, and certain major surgery procedures. The most recent update covered in the study period in this report was effective April 1, 2012.

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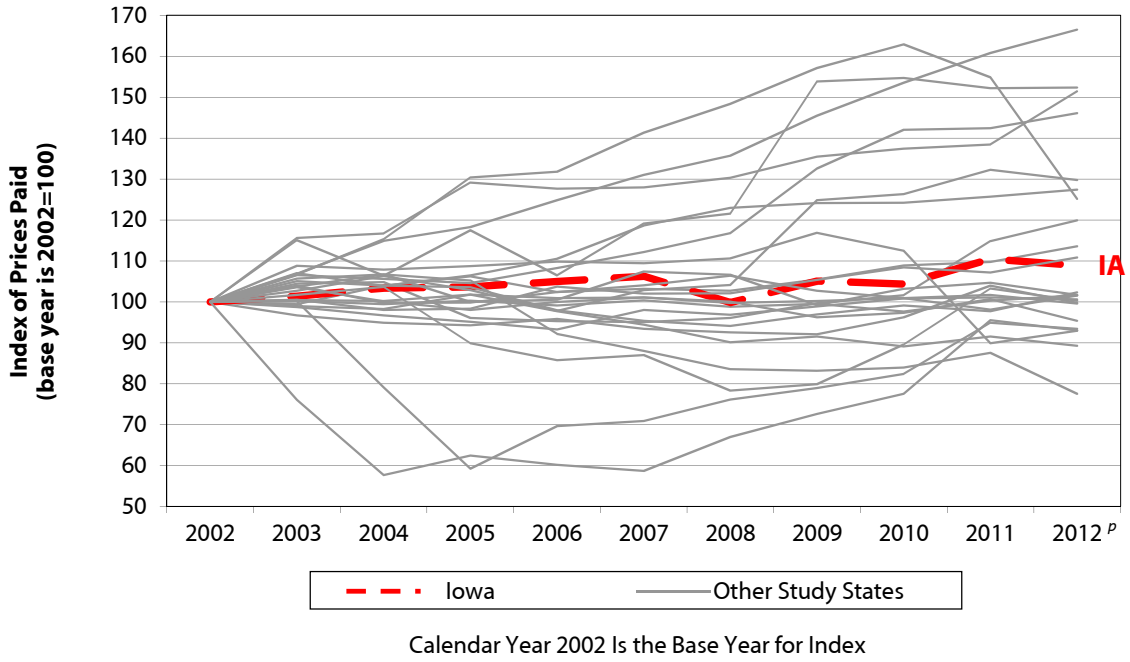
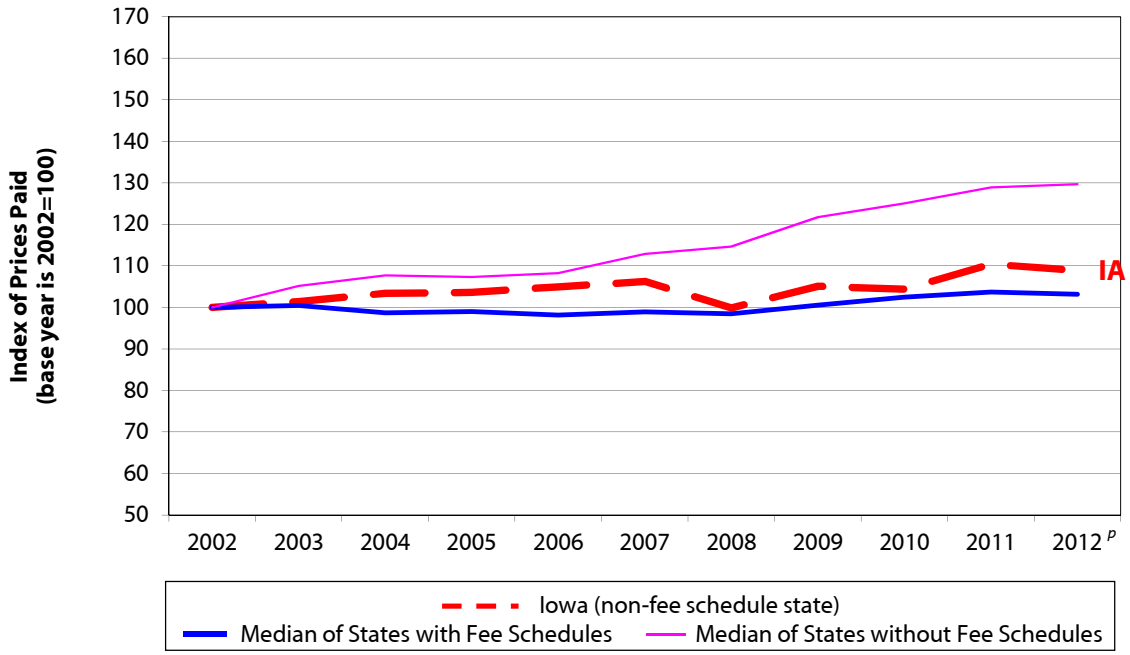
Figure C.8 Iowa Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012

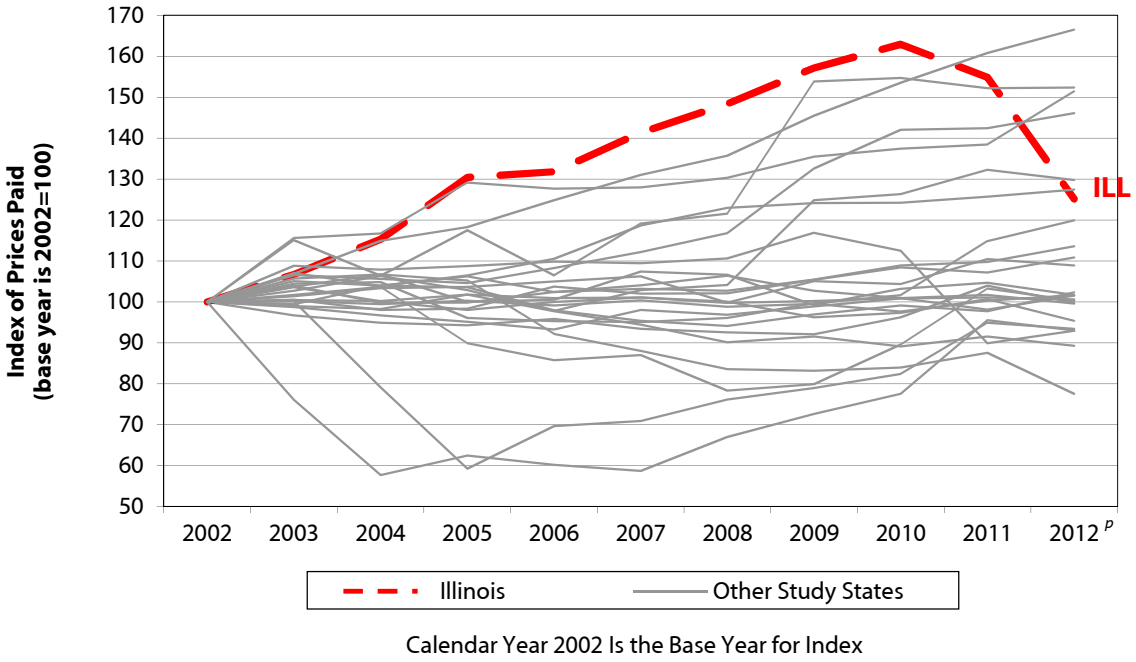




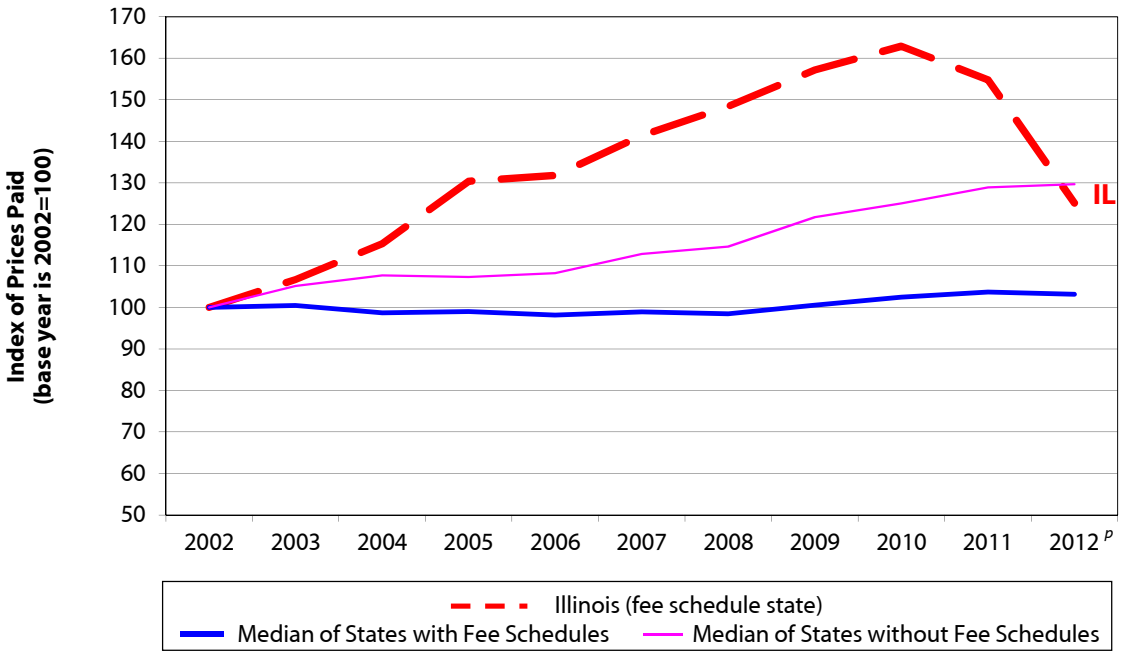
Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Iowa did not have a workers' compensation fee schedule as of 2012.

Figure C.9 Illinois Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Illinois implemented a workers' compensation fee schedule in February 2006. This workers' compensation fee schedule for professional services set different maximum reimbursement rates for the same services for each of 29 different areas of the state based on the first three digits of the zip code where the service was delivered. The 29 fee schedules ranged from a low of 115 percent above Medicare to a high of 219 percent above Medicare—a difference of 104 percentage points. This difference might create unintended incentives for providers to control revenue by moving the site of service. Prices in this study represent the aggregate state-level estimation without drilling down to the 29 geo-zip areas; therefore, the price trends after 2006 could be influenced by the potential behavior changes of the providers. In September 2011, Illinois enacted new legislation that introduced a 30 percent decrease in the fee schedule rates. On January 1, 2012, Illinois discontinued its use of the 29 geo-zip areas for physicians and other providers in favor of four county-based regions.

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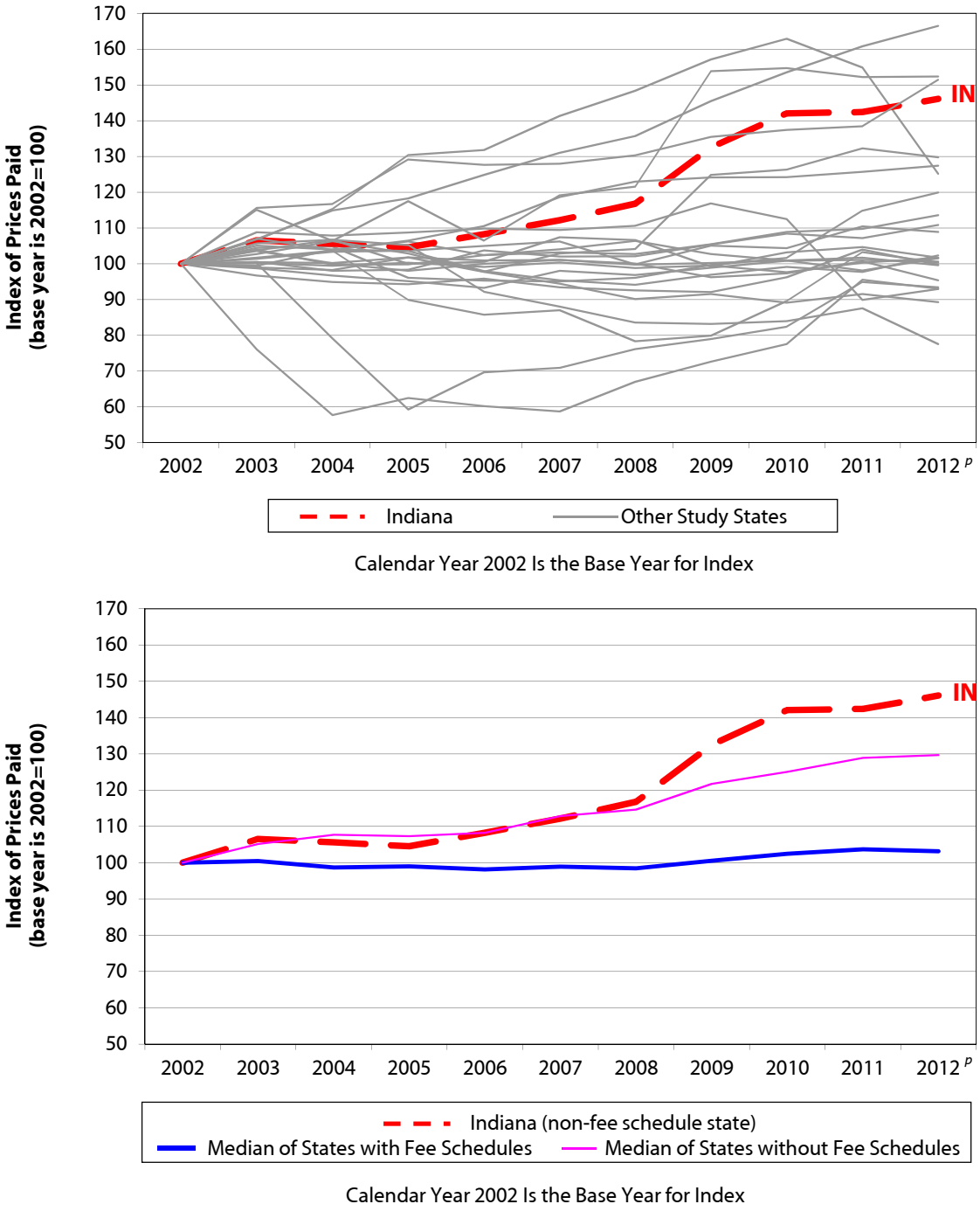
Figure C.10 Indiana Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Indiana did not have a workers' compensation fee schedule as of 2012.

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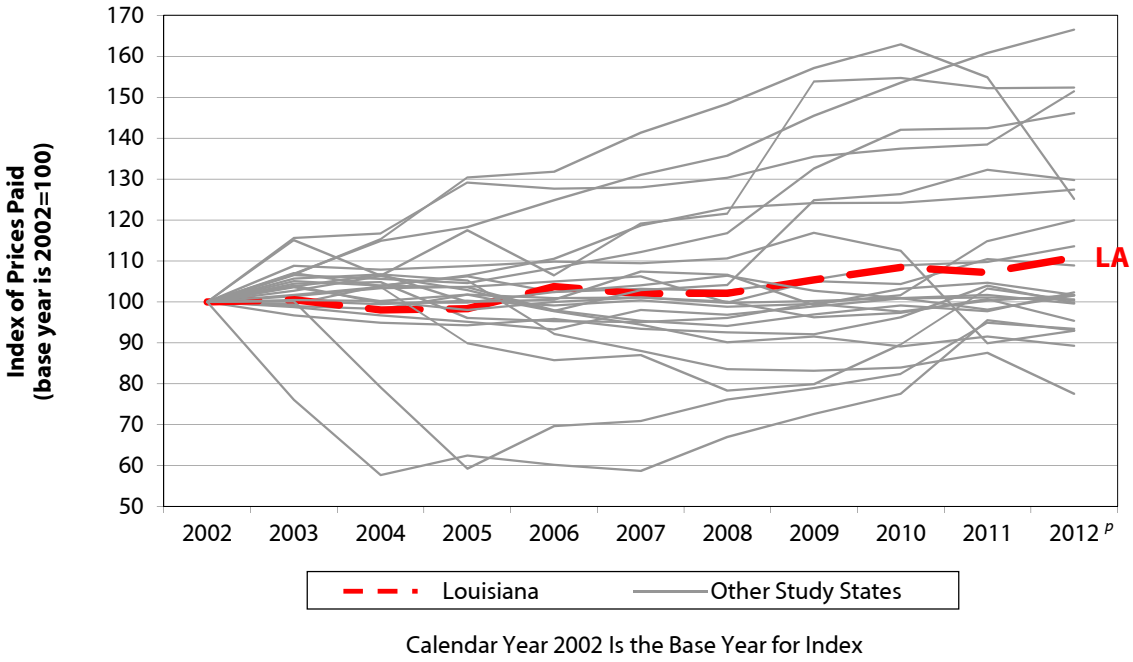
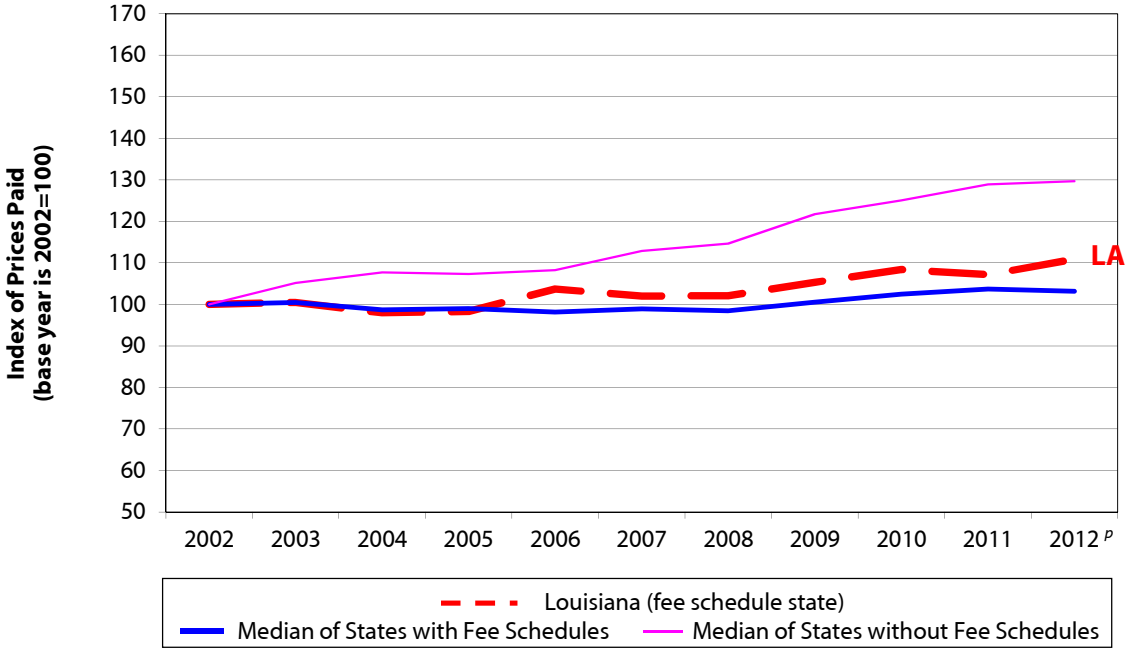
Figure C.11 Louisiana Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index

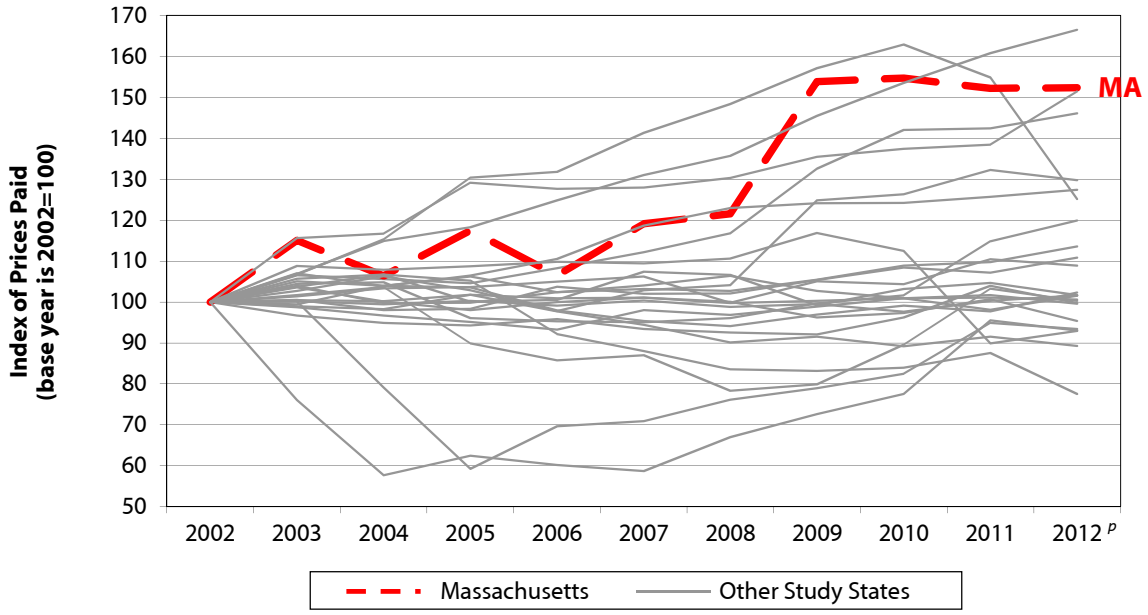


Calendar Year 2002 Is the Base Year for Index

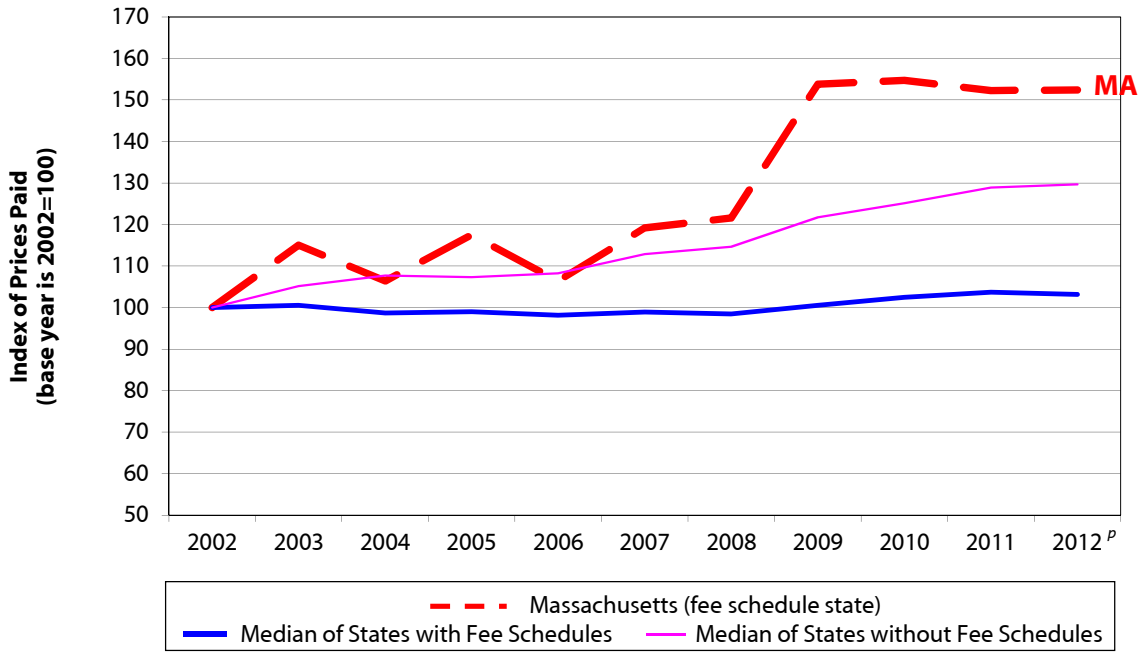
Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Louisiana's fee schedule for professional services uses the 1999 Current Procedural Terminology (CPT) list published by the American Medical Association and the maximum allowable reimbursement rates effective as of March 2001.

Figure C.12 Massachusetts Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Massachusetts increased the fee schedule rates for many professional services, effective April 2009. The fee schedule increases for major surgeries were especially significant; the rates for some procedures increased to two to three times the previous rates. Prior to that, the fee schedule for professional services had not been updated since September 2004.

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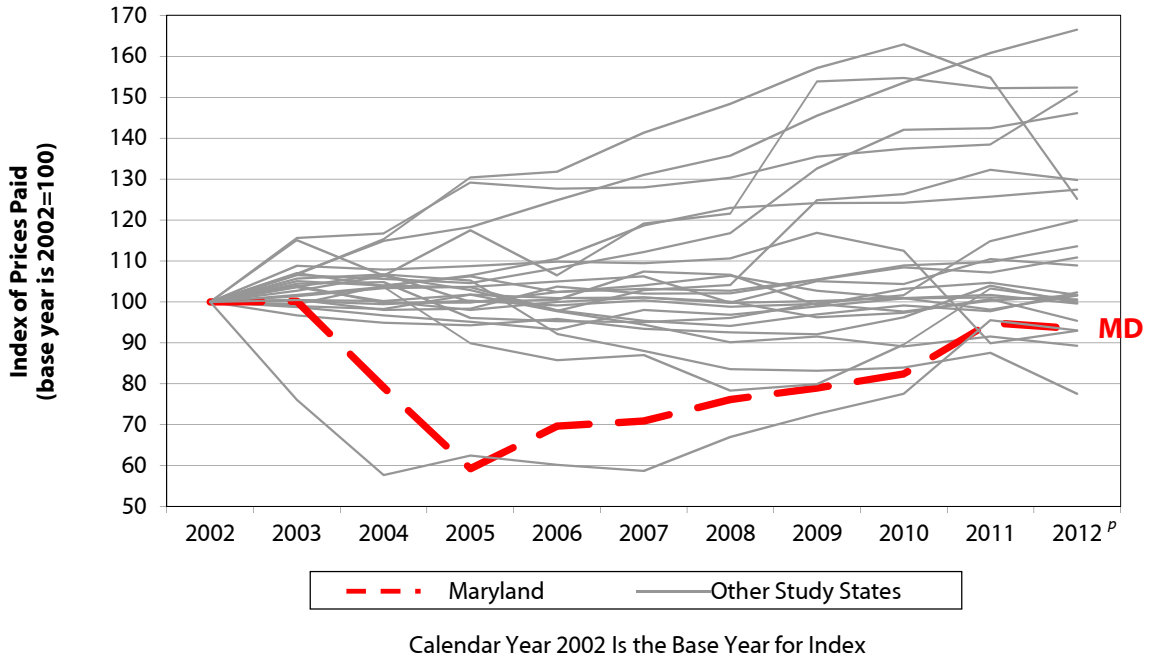
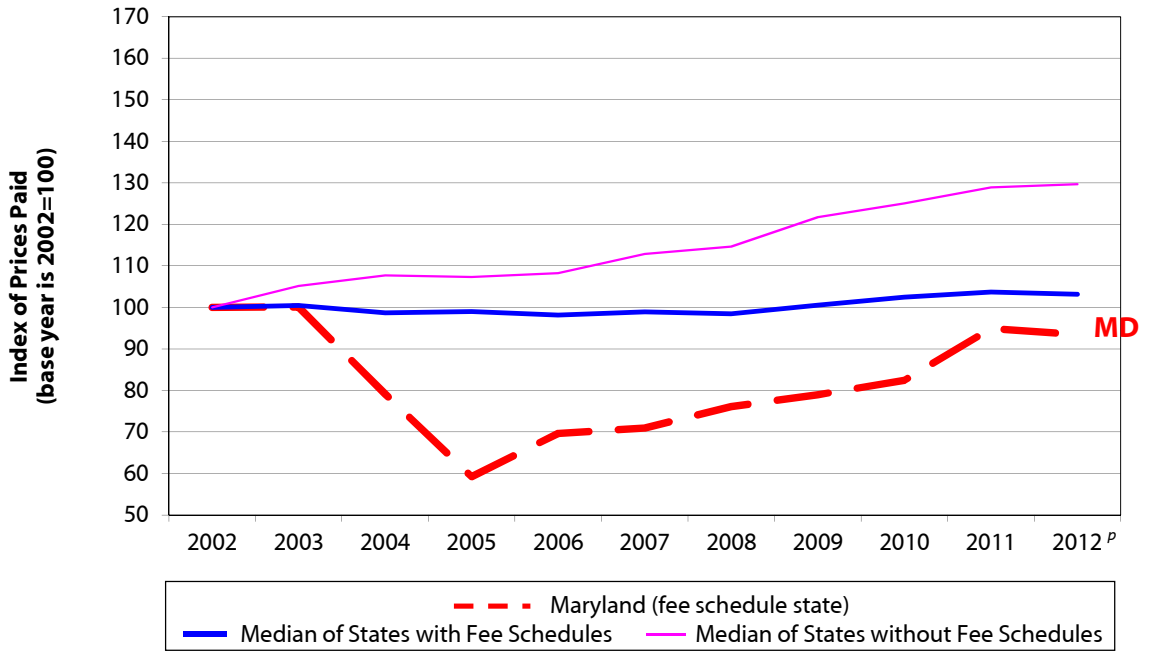
Figure C.13 Maryland Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index

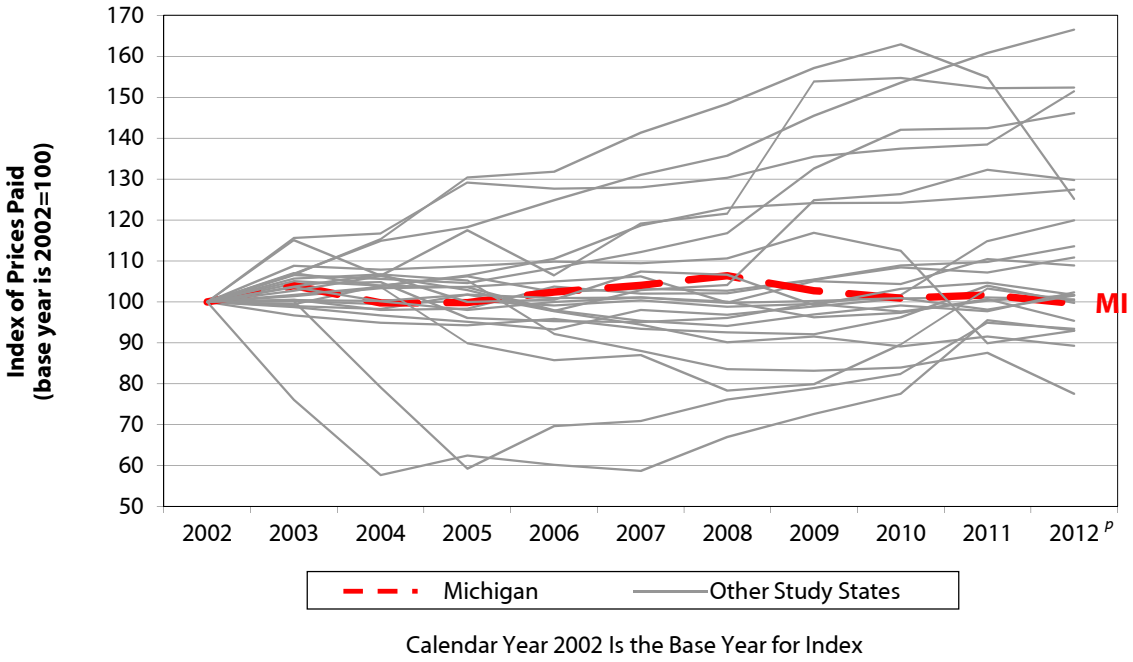


Calendar Year 2002 Is the Base Year for Index

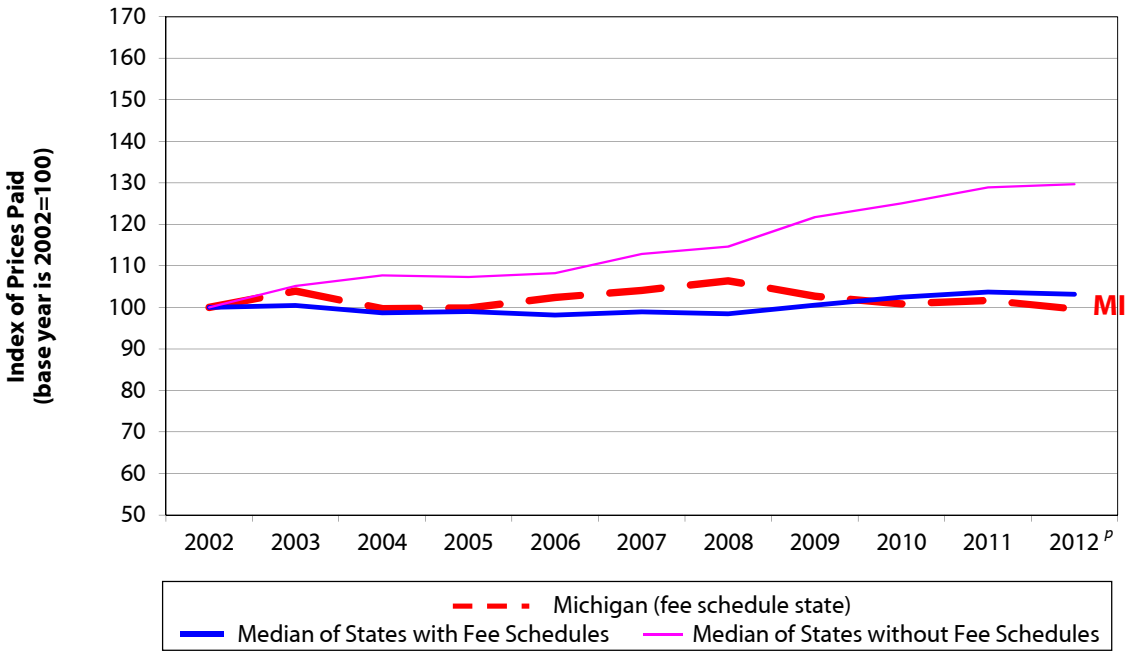
Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Maryland increased fee schedule rates for evaluation and management and physical medicine services, and decreased rates for surgery, in September 2004. In February 2006, Maryland increased fee schedule rates for neurological and orthopedic surgeries. Starting in March 2008, Maryland allowed annual increases in fee schedule rates for professional services based on changes in the Medicare Economic Index. The most recent update covered in the study period in this report was effective March 1, 2012.

Figure C.14 Michigan Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Michigan updates its fee schedule for professional services annually. The most recent update covered in the study period in this report was effective December 8, 2010.

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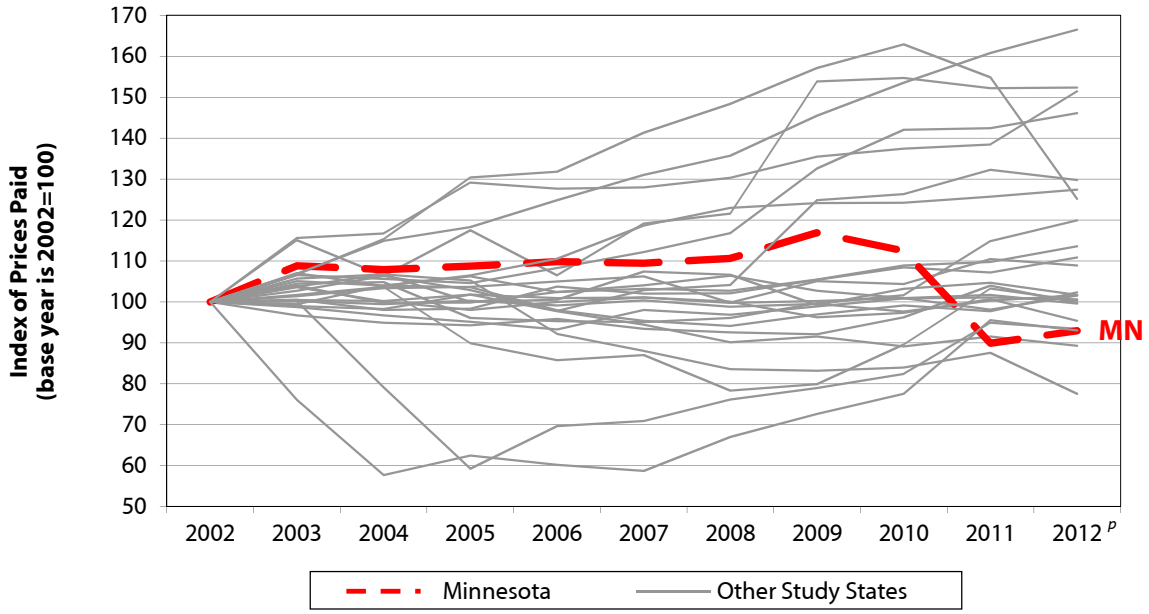
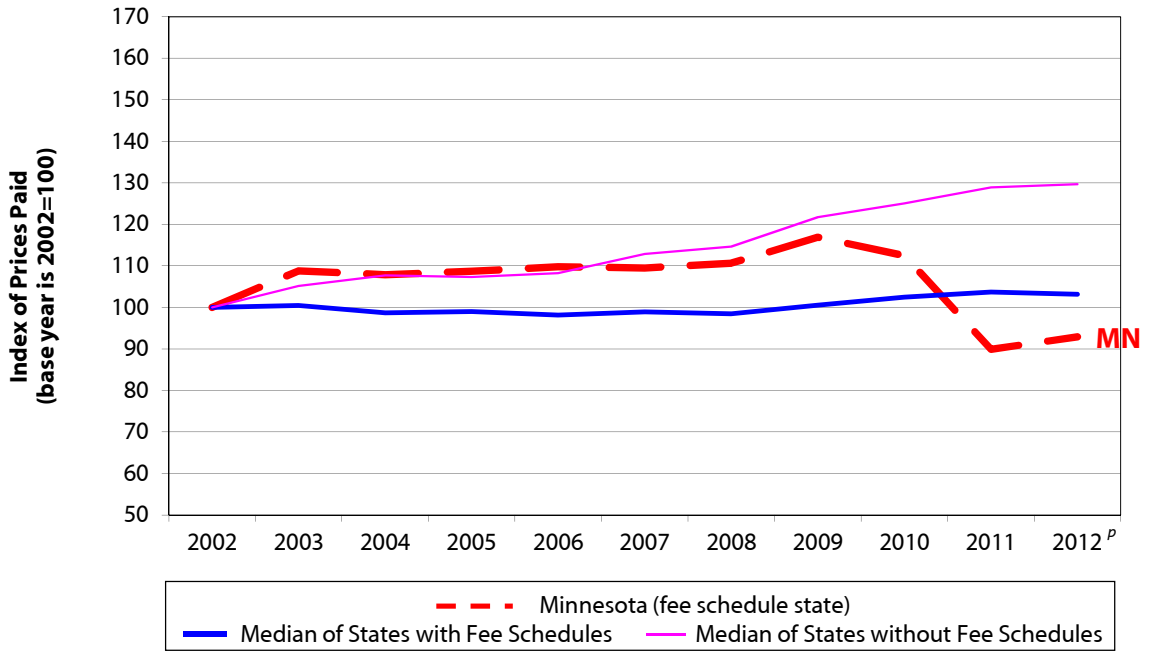
Figure C.15 Minnesota Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Minnesota's fee schedule for professional services from 2002 to September 2010 was based on 1998 Medicare relative value units (RVUs), with annual updates in the conversion factor. Effective October 1, 2010, Minnesota updated its fee schedule by using 2009 Medicare RVUs and decreasing the state conversion factor. The most recent update covered in the study period in this report was effective October 1, 2011.

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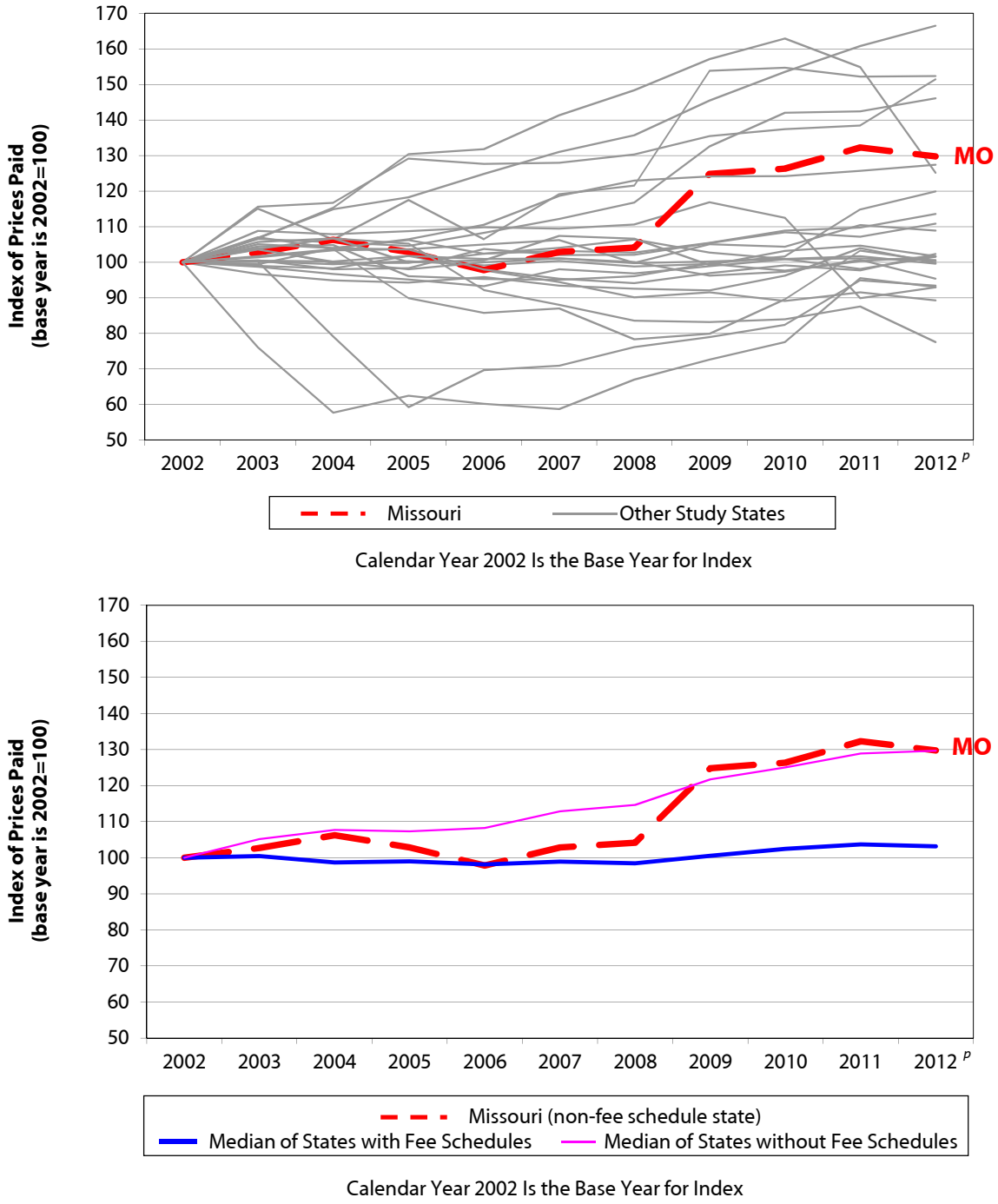
Figure C.16 Missouri Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Missouri did not have a workers' compensation fee schedule as of 2012.

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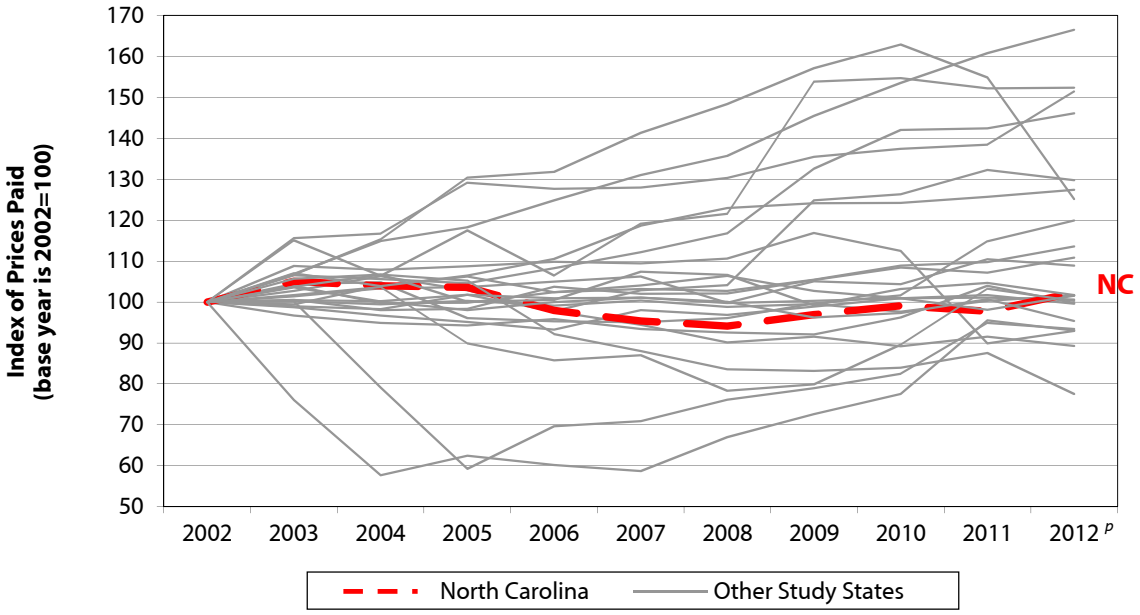
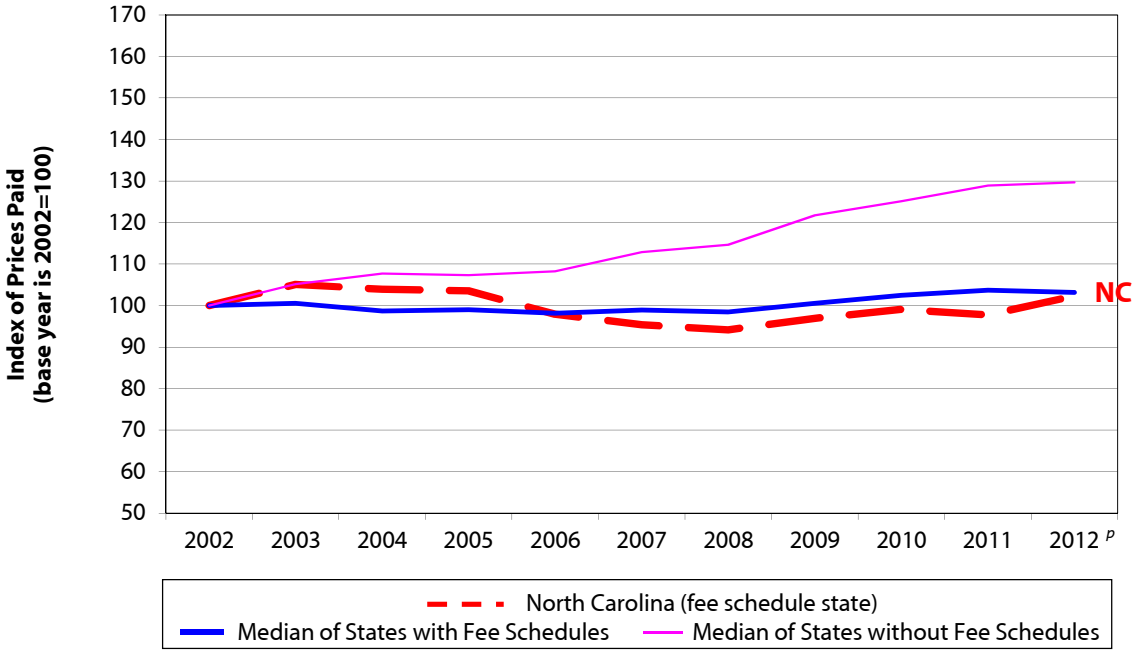
Figure C.17 North Carolina Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Maximum reimbursement amounts in the North Carolina fee schedule for professional services are based on those adopted by the North Carolina Industrial Commission effective January 1996. North Carolina updates its fee schedule annually in January to account for new and discontinued Current Procedural Terminology (CPT) codes published by the American Medical Association.

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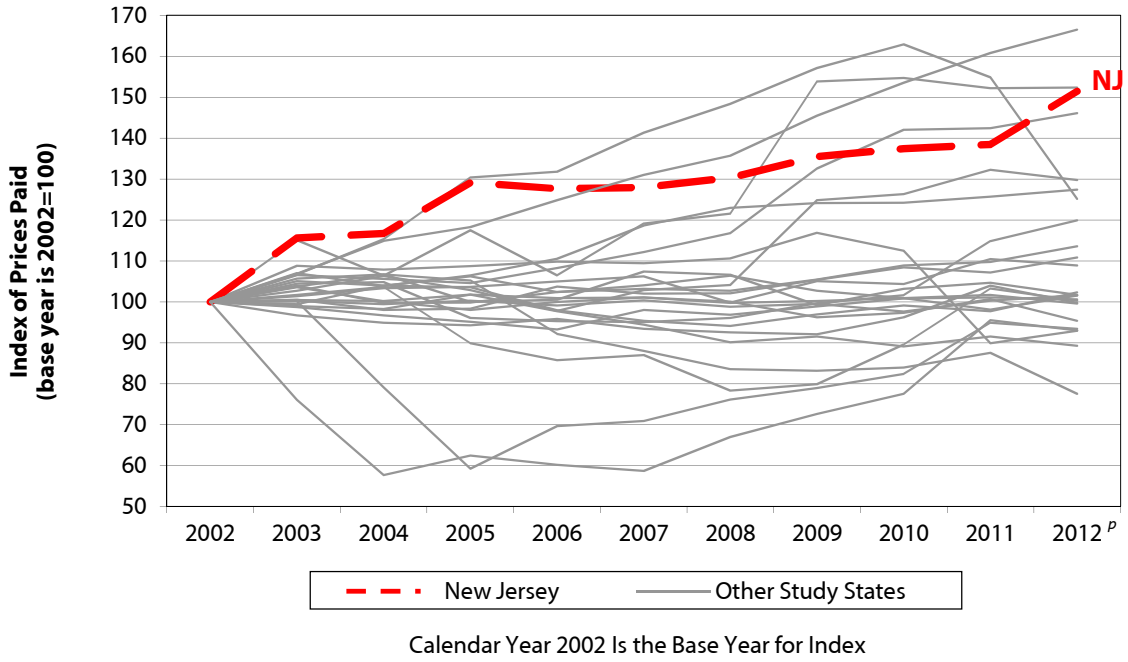
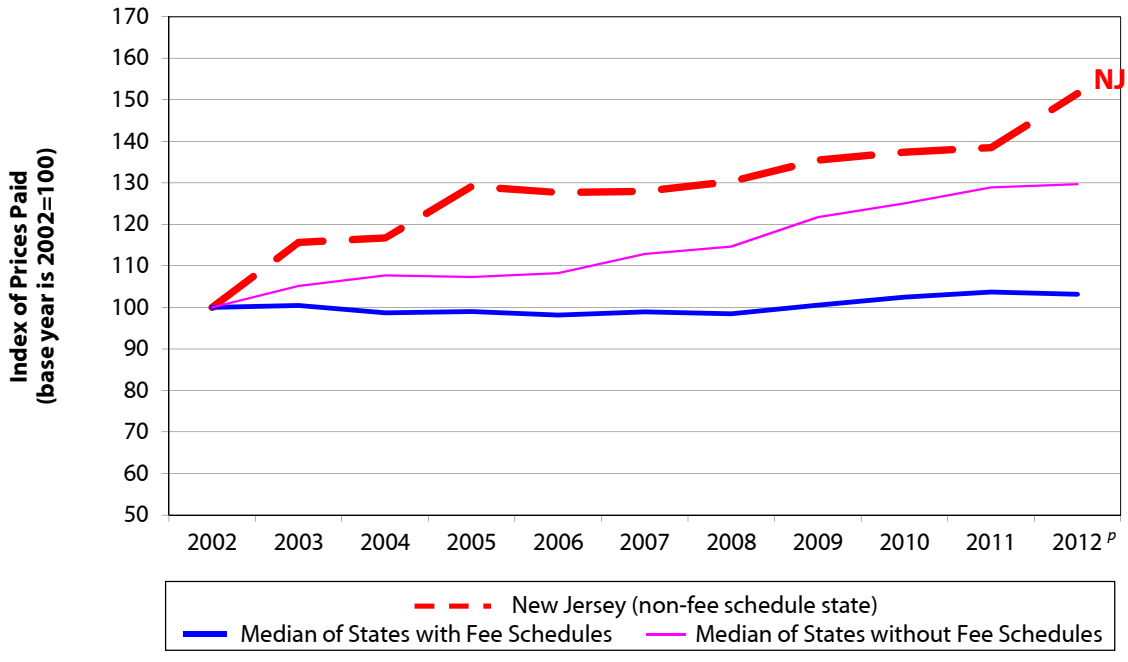
Figure C.18 New Jersey Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012





Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: New Jersey did not have a workers' compensation fee schedule as of 2012.

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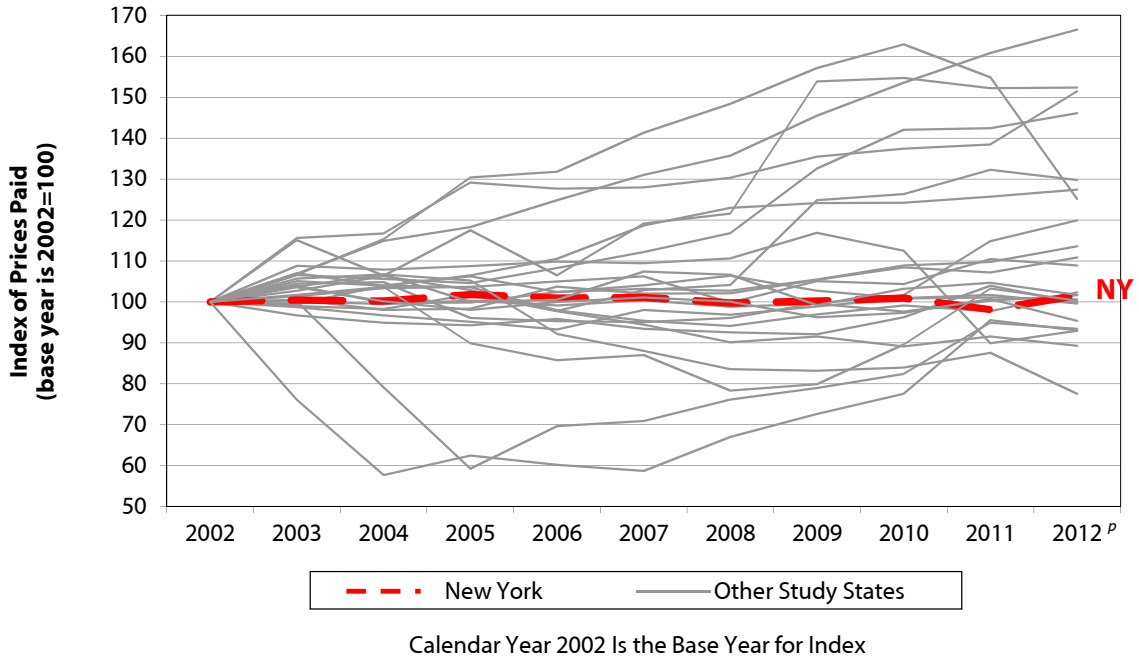
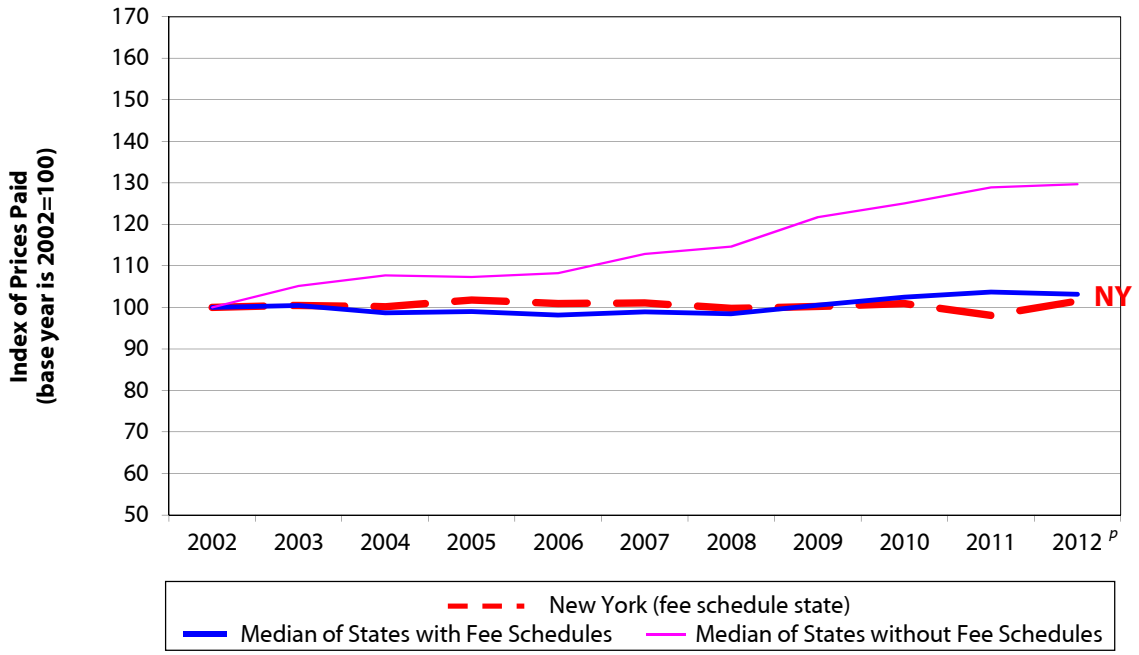
Figure C.19 New York Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

New York periodically updates its fee schedule for professional services; however, the maximum allowable reimbursement rates for most procedures covered in this report did not change from 2002 to November 2010. Effective December 1, 2010, the fee schedule rates in New York increased for evaluation and management services and emergency services. The most recent update covered in the study period in this report was effective June 1, 2012.

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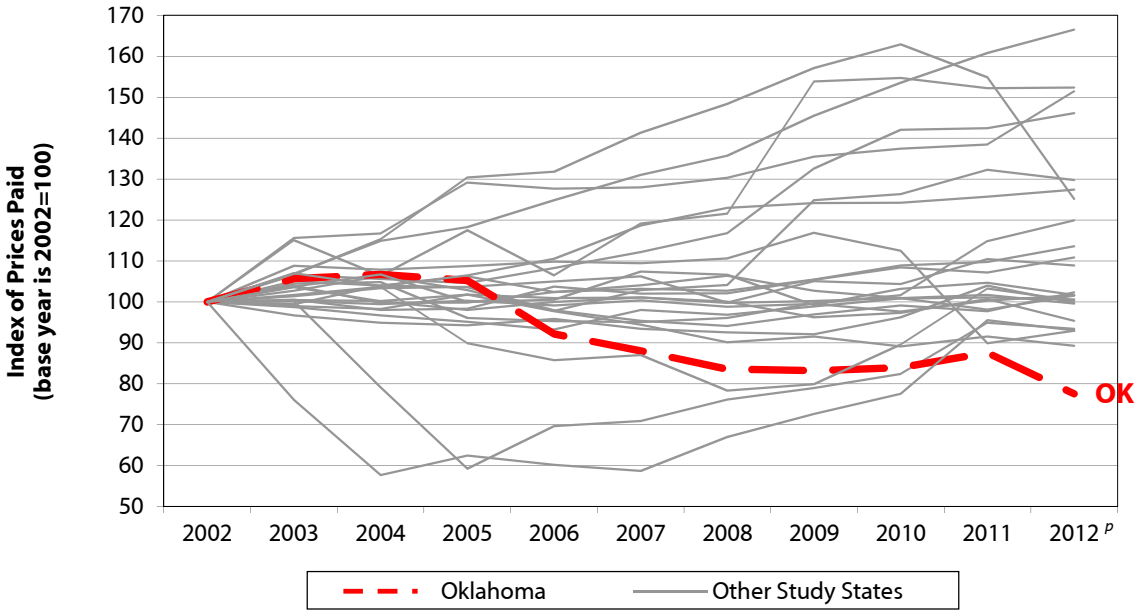
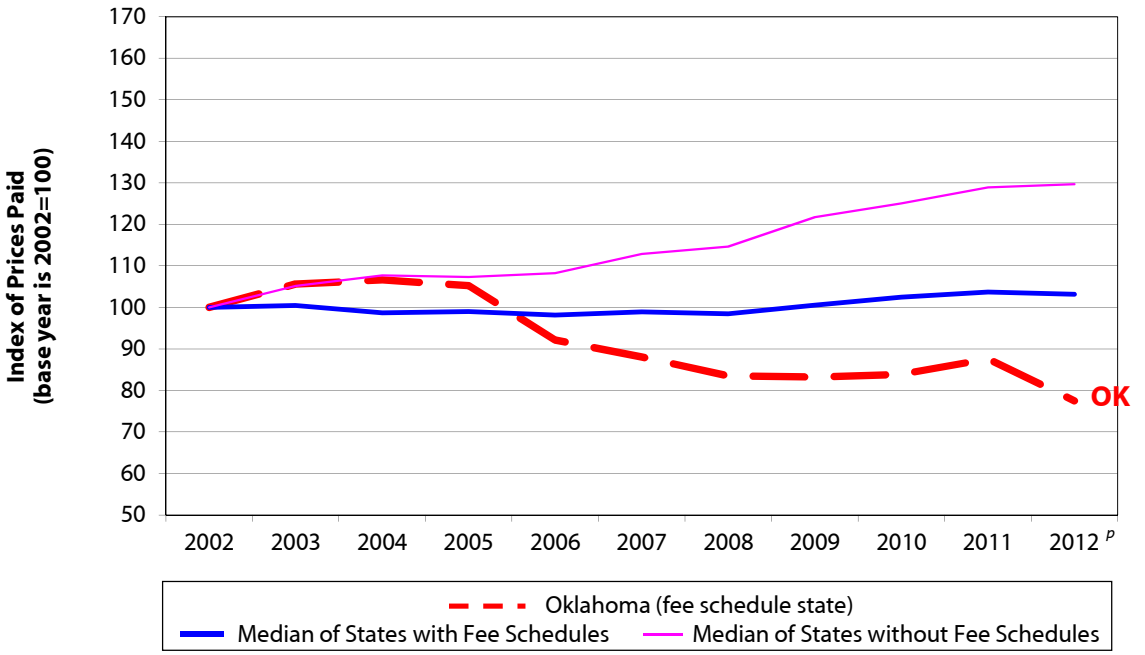
Figure C.20 Oklahoma Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Oklahoma regularly updated its fee schedule for professional services over the study period. For example, in 2006, the fee schedule rates increased materially for many pain management injection procedures and decreased for many services, such as emergency, radiology, neurological and neuromuscular testing, and many surgery procedures. The most recent update during the period covered by this study was effective January 1, 2012.

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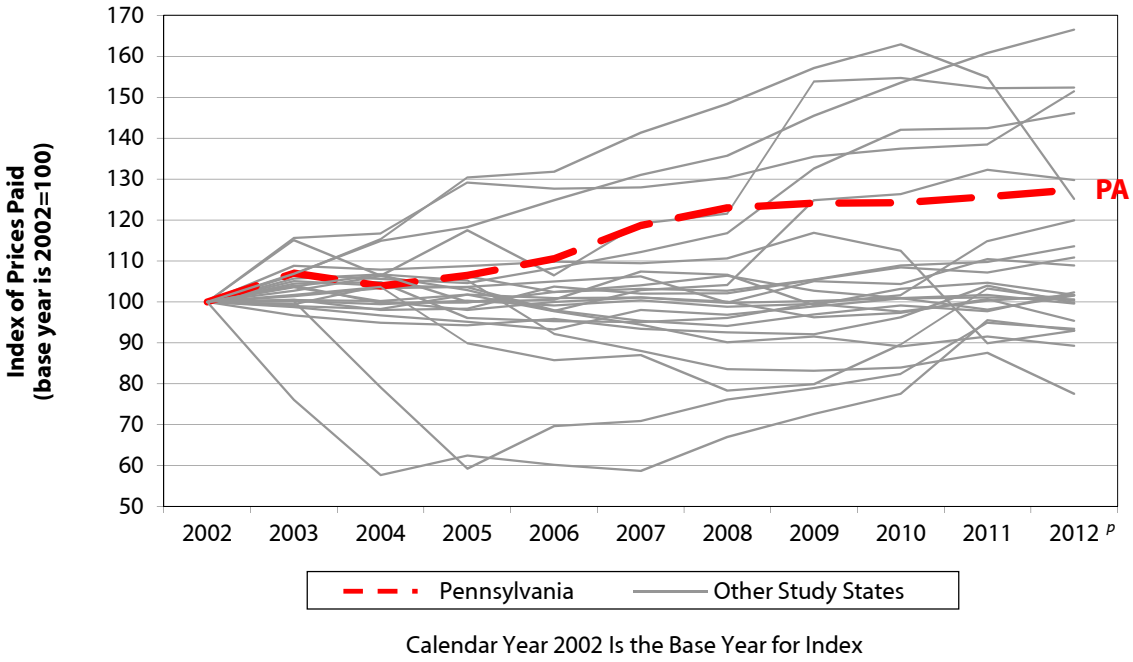
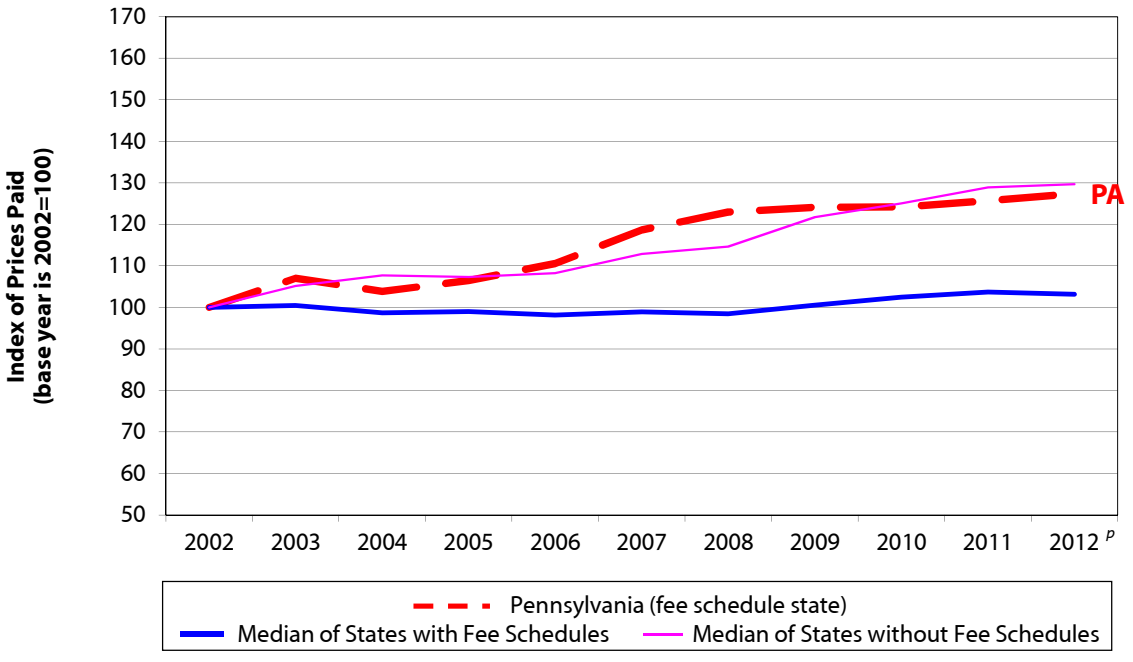
Figure C.21 Pennsylvania Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Pennsylvania updates its fee schedule for professional services annually, based on the percentage change in the statewide average weekly wage.

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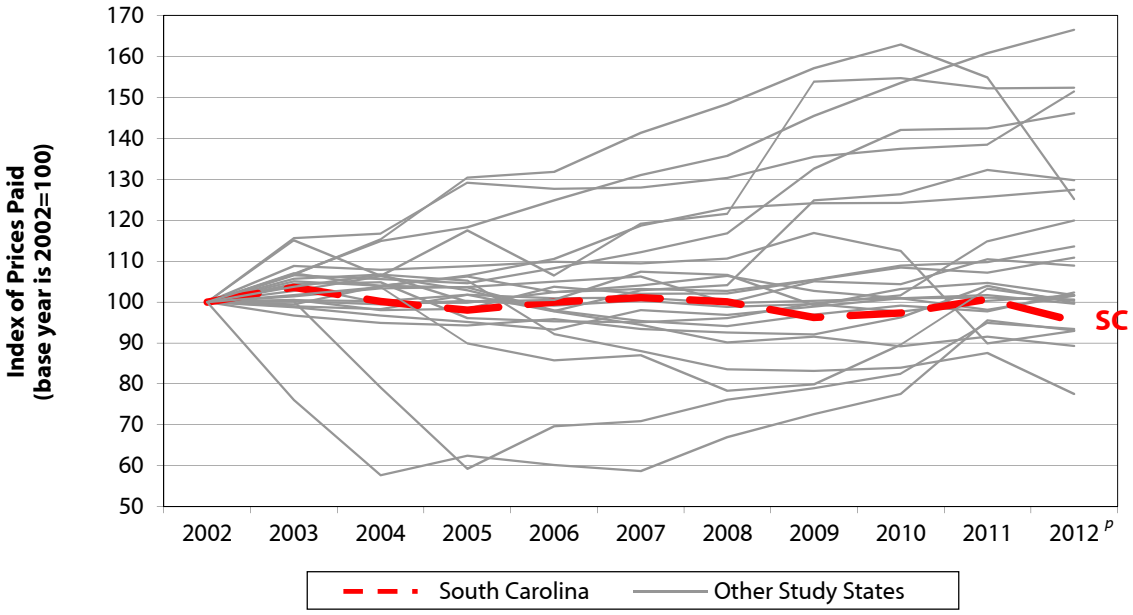
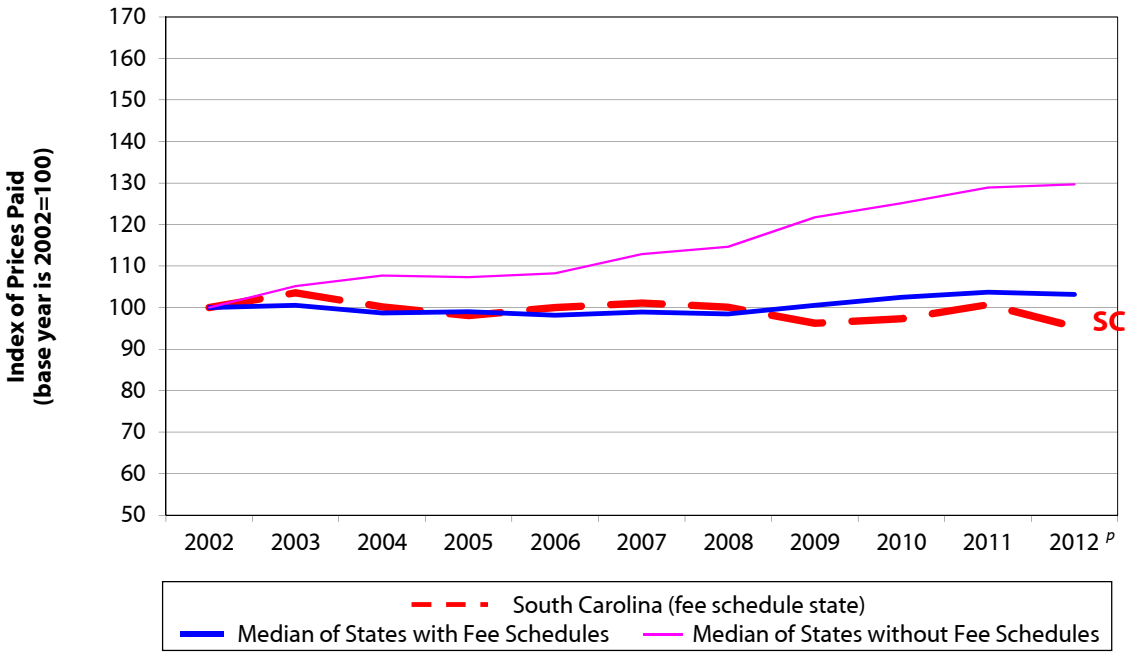
Figure C.22 South Carolina Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index

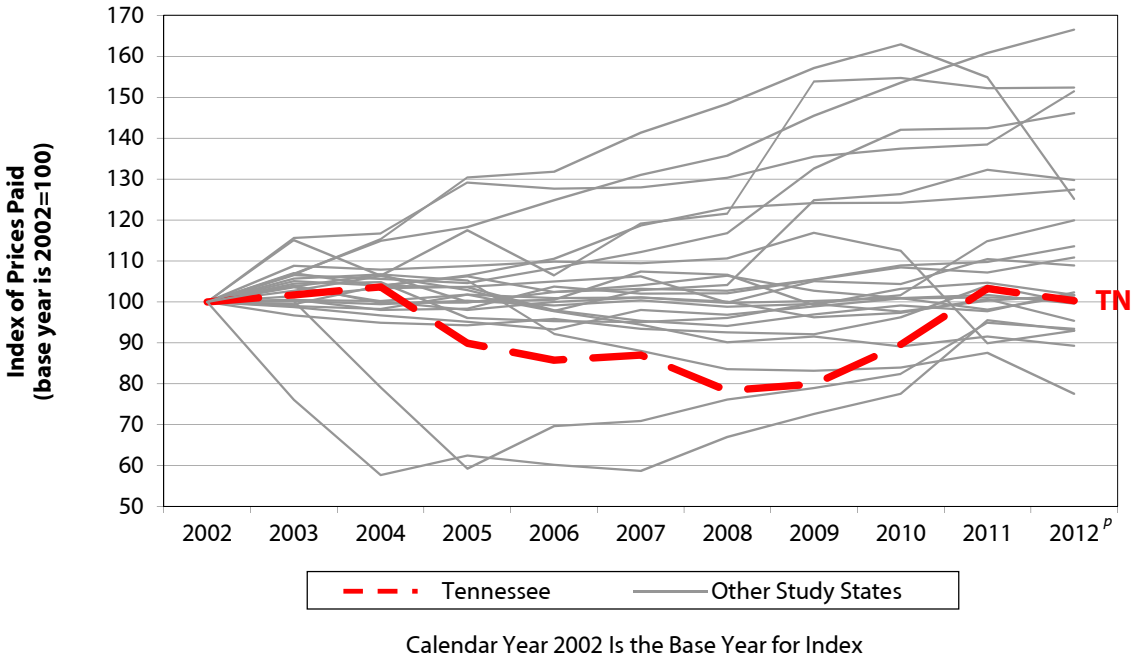


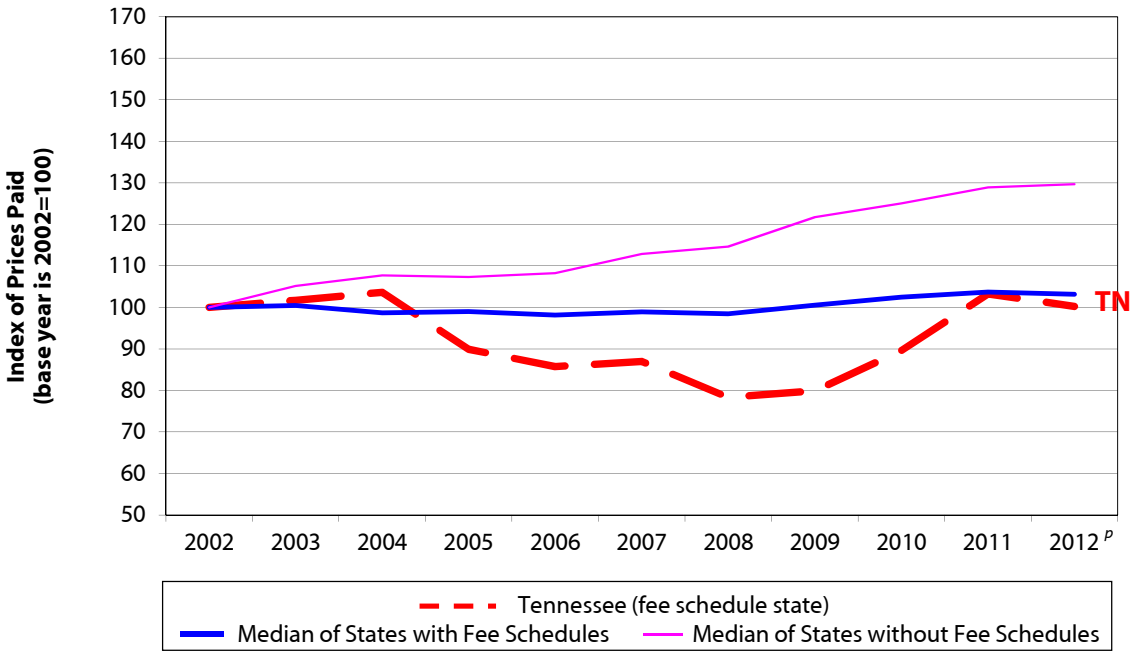
Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: South Carolina's fee schedule for professional services remained unchanged (after the update in January 2003) until 2009. Effective July 1, 2010, South Carolina had another update to its fee schedule, which increased the fee schedule rates for many professional services (such as evaluation and management, emergency, etc.) and decreased the rates for others (such as pain management injections, radiology services, etc.).

Figure C.23 Tennessee Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012





Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Tennessee implemented a fee schedule in July 2005 and had regular updates in the following years.

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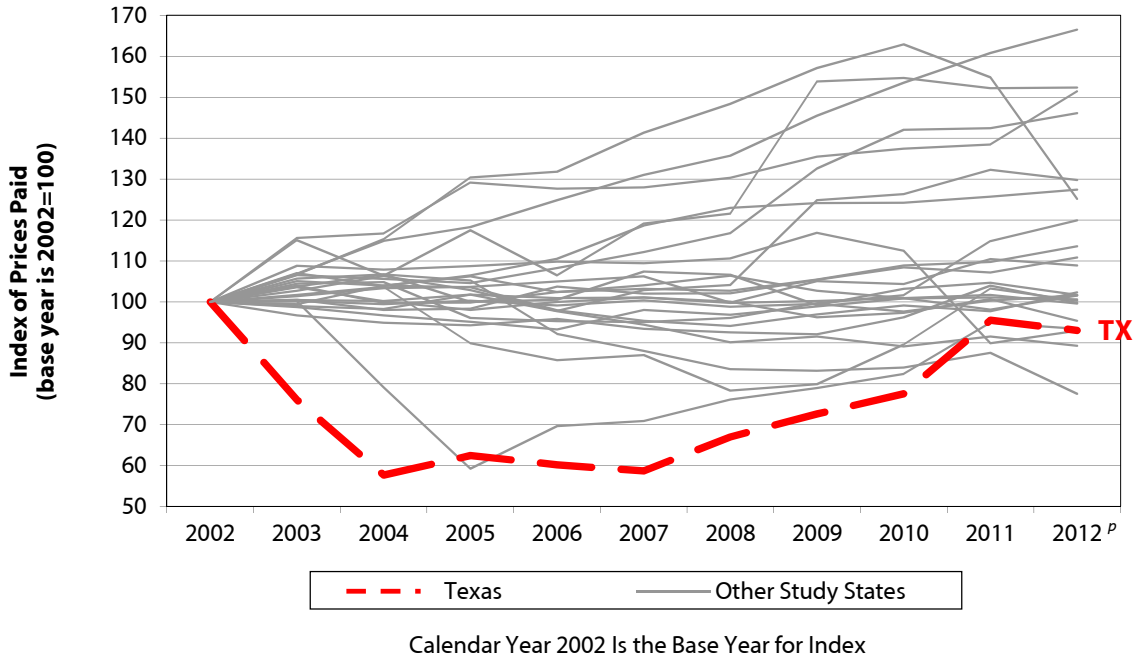
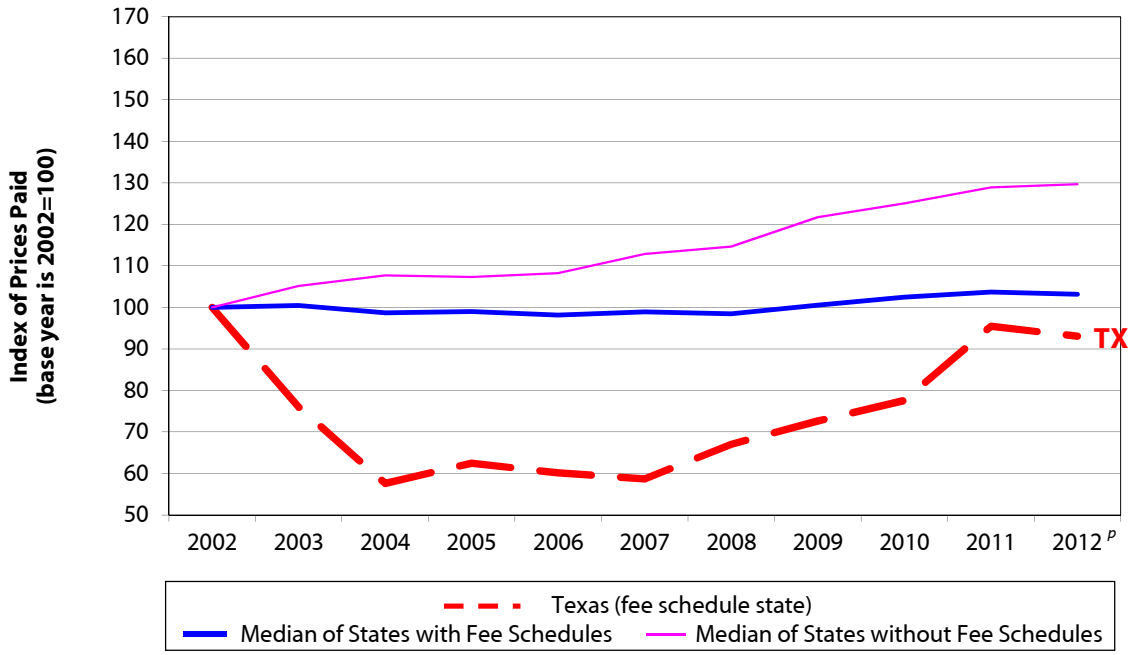
Figure C.24 Texas Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index



Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Notes: Texas decreased fee schedule rates for surgery and radiology, and increased rates for evaluation and management services, in August 2003. In March 2008, Texas increased fee schedule rates for professional services, especially for surgeries, and allowed annual increases based on changes in the Medicare Economic Index. In 2011, the fee schedule rates in Texas increased for most professional services following the Medicare updates. The most recent update covered in the study period in this report was effective January 1, 2012.

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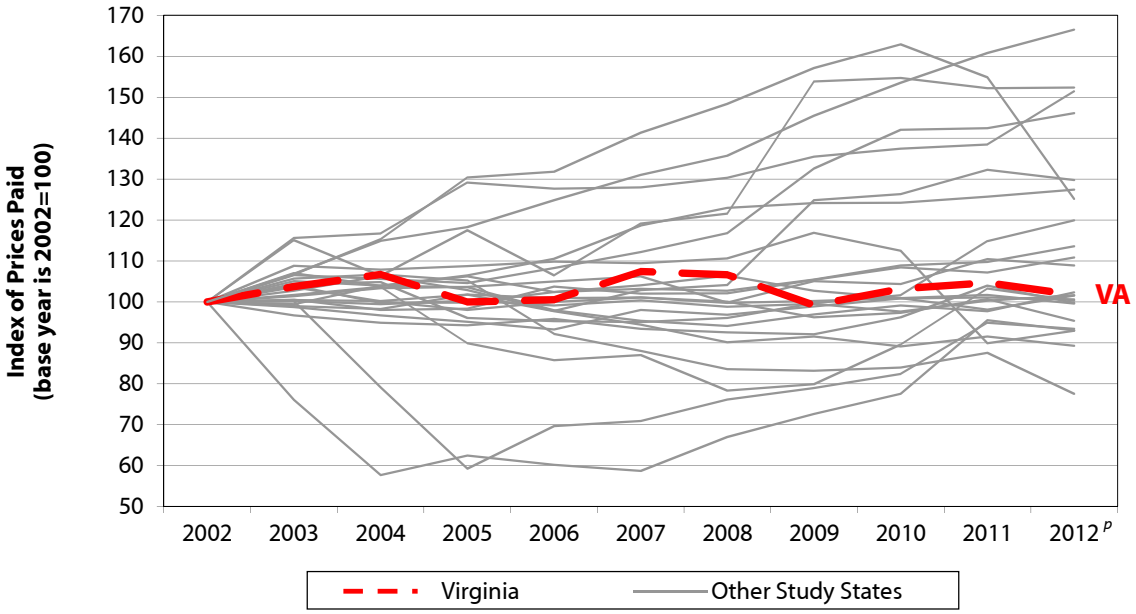
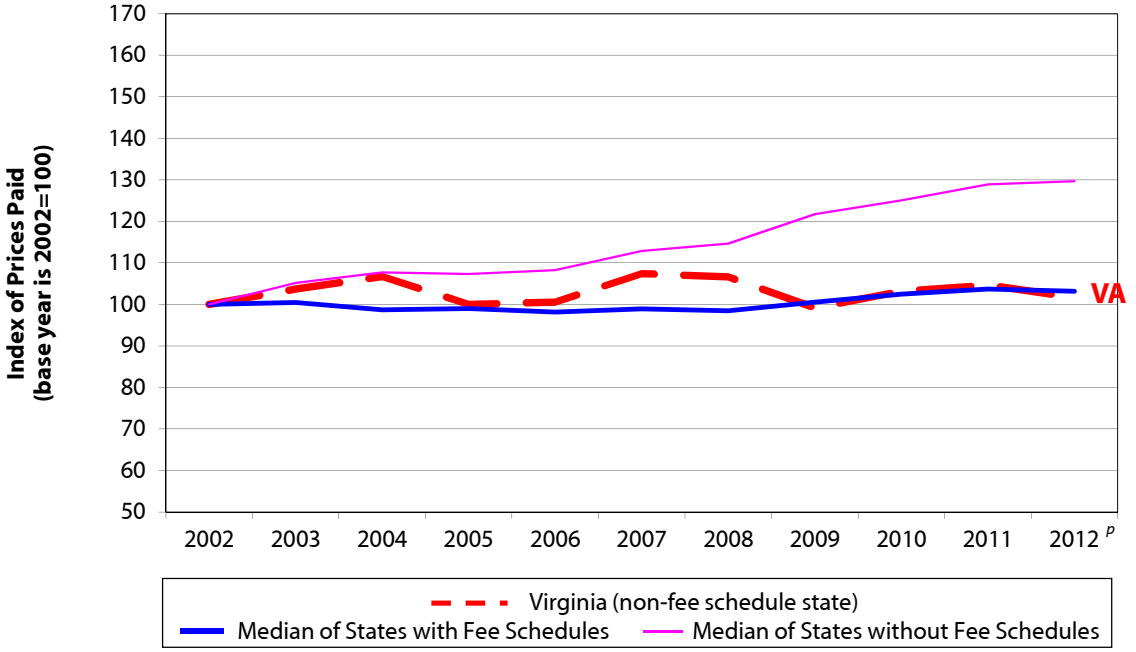
Figure C.25 Virginia Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012



Calendar Year 2002 Is the Base Year for Index

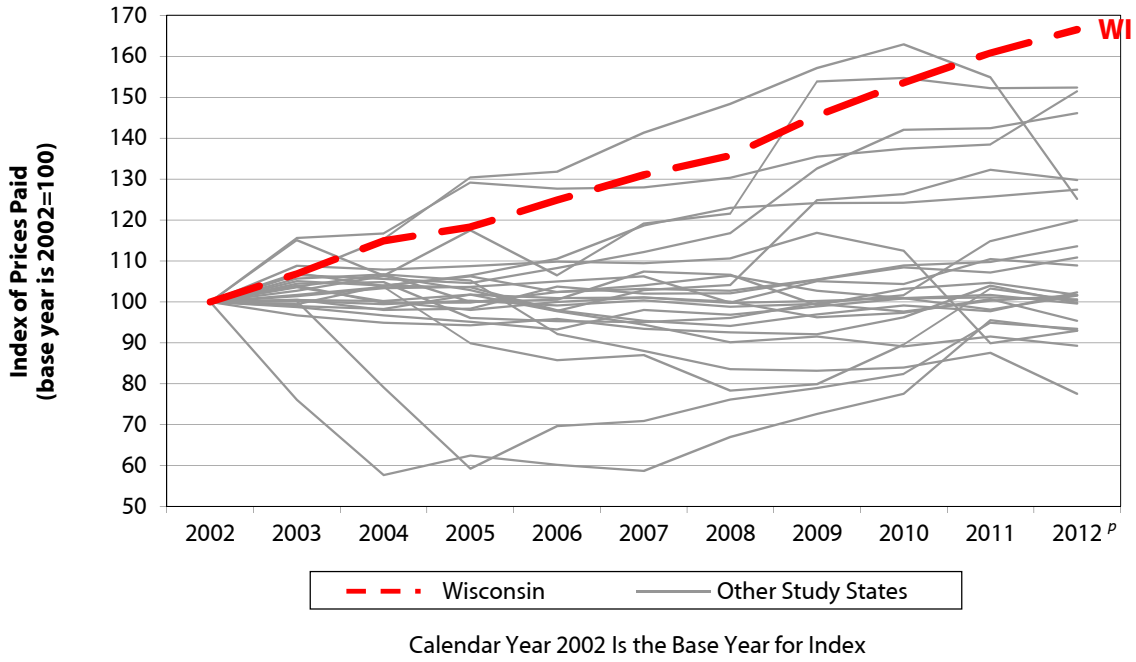


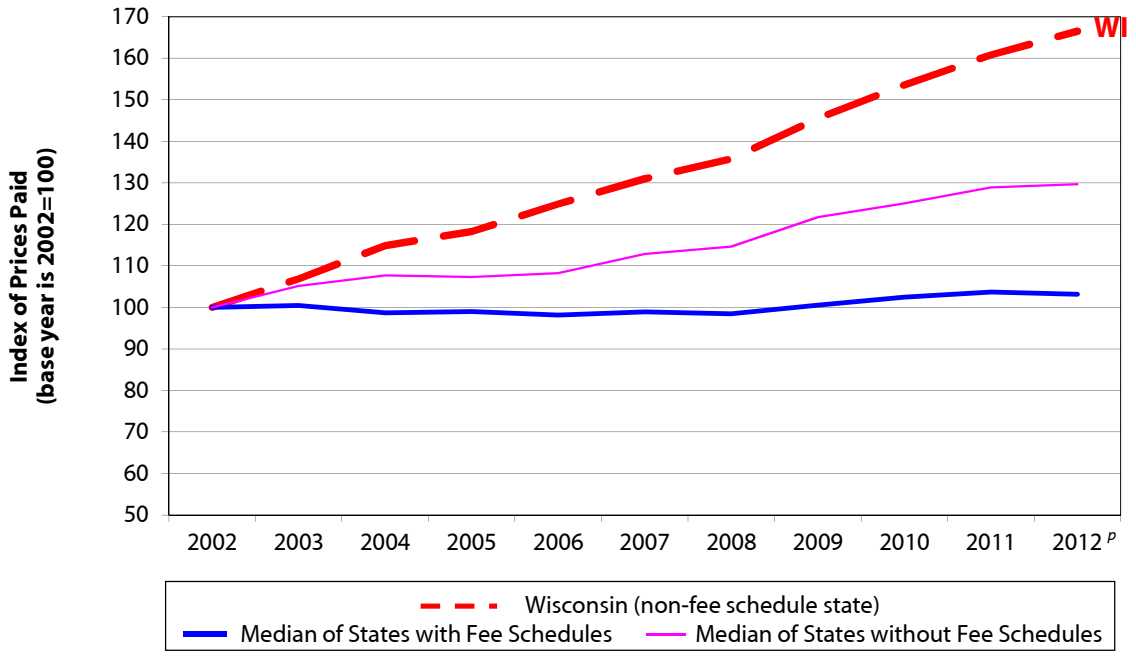
Calendar Year 2002 Is the Base Year for Index

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Virginia did not have a workers' compensation fee schedule as of 2012.

Figure C.25 Wisconsin Trends in Prices Paid for Professional Surgery Services, WCRI MPI-WC, 2002 to 2012





Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the trend lines for the median of states with fee schedules and the median of states without fee schedules represent the median rates of growth of prices paid among states with and without fee schedules from year to year.

Note: Wisconsin did not have a conventional workers' compensation fee schedule as of 2012.

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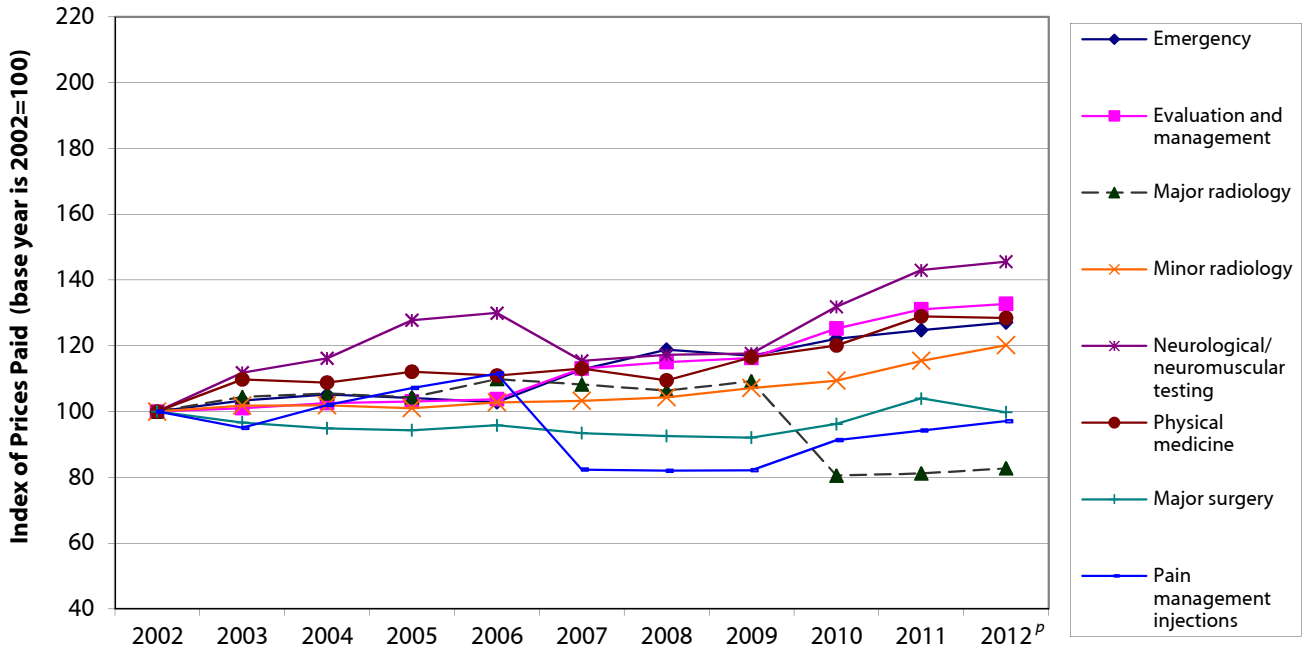
Figure D.1 Arkansas Trend in Professional Prices Paid by Service Group, 2002 to 2012



Arkansas Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012^{p}
Emergency	100	103	105	104	103	113	119	117	122	125	127
Evaluation and management	100	101	103	103	104	113	115	116	125	131	133
Major radiology	100	104	105	104	110	108	106	109	81	81	83
Minor radiology	100	102	102	101	103	103	104	107	109	115	120
Neurological/ neuromuscular testing	100	112	116	128	130	115	117	118	132	143	146
Physical medicine	100	110	109	112	111	113	109	116	120	129	128
Major surgery	100	97	95	94	96	93	93	92	96	104	100
Pain management injections	100	95	102	107	112	82	82	82	91	94	97
Overall	100	103	103	104	105	107	106	109	111	117	117

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Arkansas' fee schedule for professional services has regular updates on the relative value units tied to the most recent Medicare resource-based relative value scale, with applied state conversion factors adopted in May 2000 for the services included in this study. The most recent update covered in the study period in this report was effective April 1, 2012.

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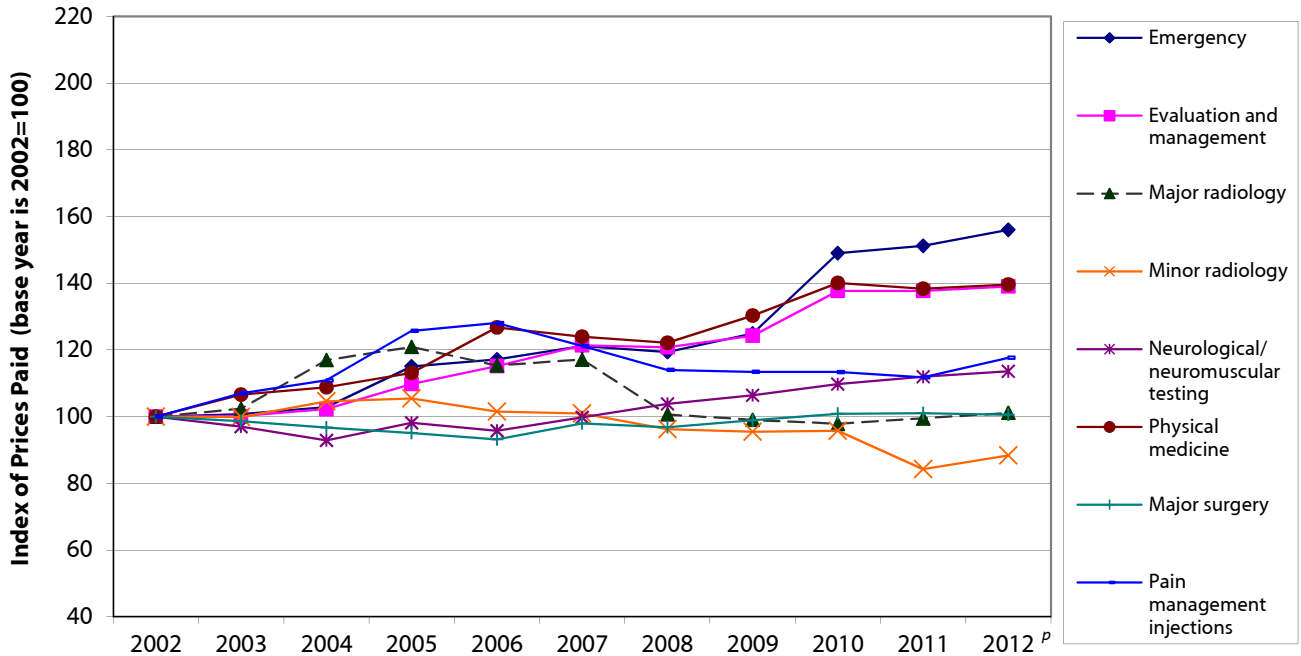
Figure D.2 Arizona Trend in Professional Prices Paid by Service Group, 2002 to 2012



Arizona Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	101	103	115	117	121	119	125	149	151	156
Evaluation and management	100	100	102	110	115	121	121	124	138	138	139
Major radiology	100	102	117	121	115	117	101	99	98	99	101
Minor radiology	100	100	105	105	102	101	96	96	96	84	88
Neurological/ neuromuscular testing	100	97	93	98	96	100	104	106	110	112	114
Physical medicine	100	107	109	113	127	124	122	130	140	138	140
Major surgery	100	99	97	95	93	98	97	99	101	101	101
Pain management injections	100	107	111	126	128	121	114	113	113	112	118
Overall	100	102	104	107	110	112	109	113	119	118	119

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Arizona updates its fee schedule for professional services annually in October. The most recent update covered in the study period in this report was effective October 1, 2011.

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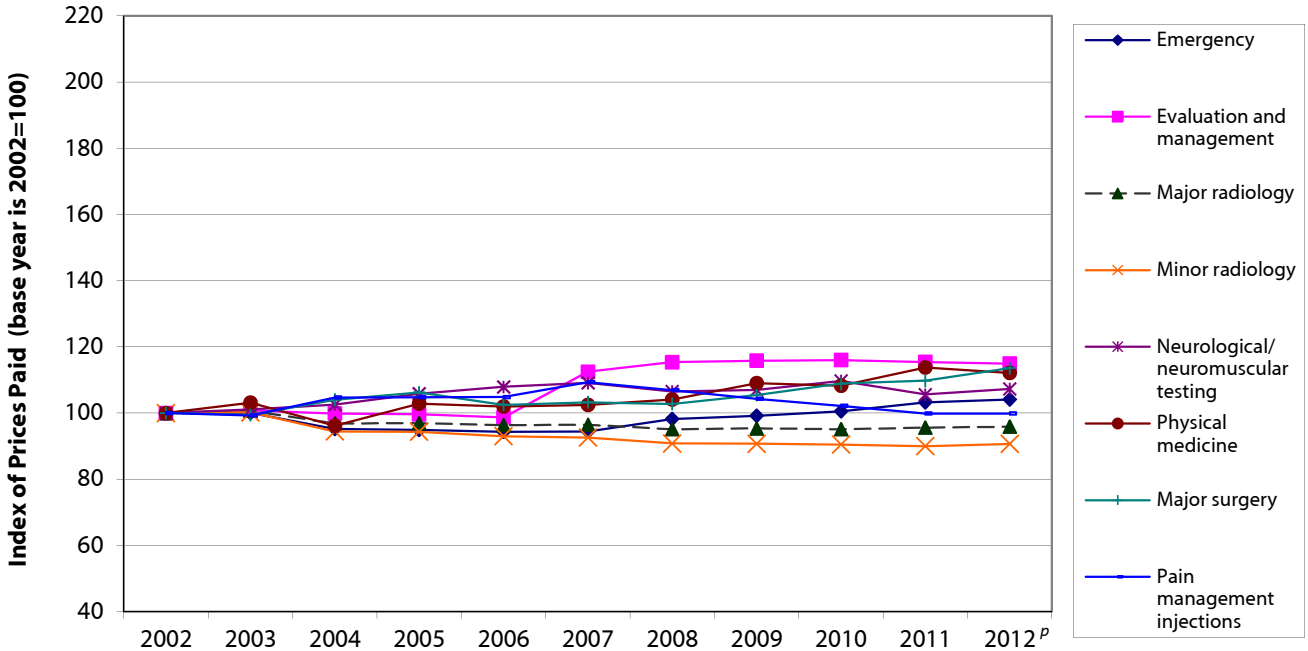
Figure D.3 California Trend in Professional Prices Paid by Service Group, 2002 to 2012



California Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	100	95	95	94	94	98	99	101	103	104
Evaluation and management	100	101	100	100	99	112	115	116	116	115	115
Major radiology	100	101	97	97	96	96	95	95	95	96	96
Minor radiology	100	100	94	94	93	93	91	91	90	90	91
Neurological/ neuromuscular testing	100	101	103	106	108	109	107	107	110	106	107
Physical medicine	100	103	96	103	102	102	104	109	108	114	112
Major surgery	100	99	104	106	102	103	103	105	109	110	114
Pain management injections	100	99	105	105	105	109	107	104	102	100	100
Overall	100	101	99	102	100	104	105	107	108	109	110

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: California had a reduction of 5 percent in fee schedule rates for professional services in 2004; except for increases in fee schedule rates for evaluation and management services in February 15, 2007, there have not been additional updates.

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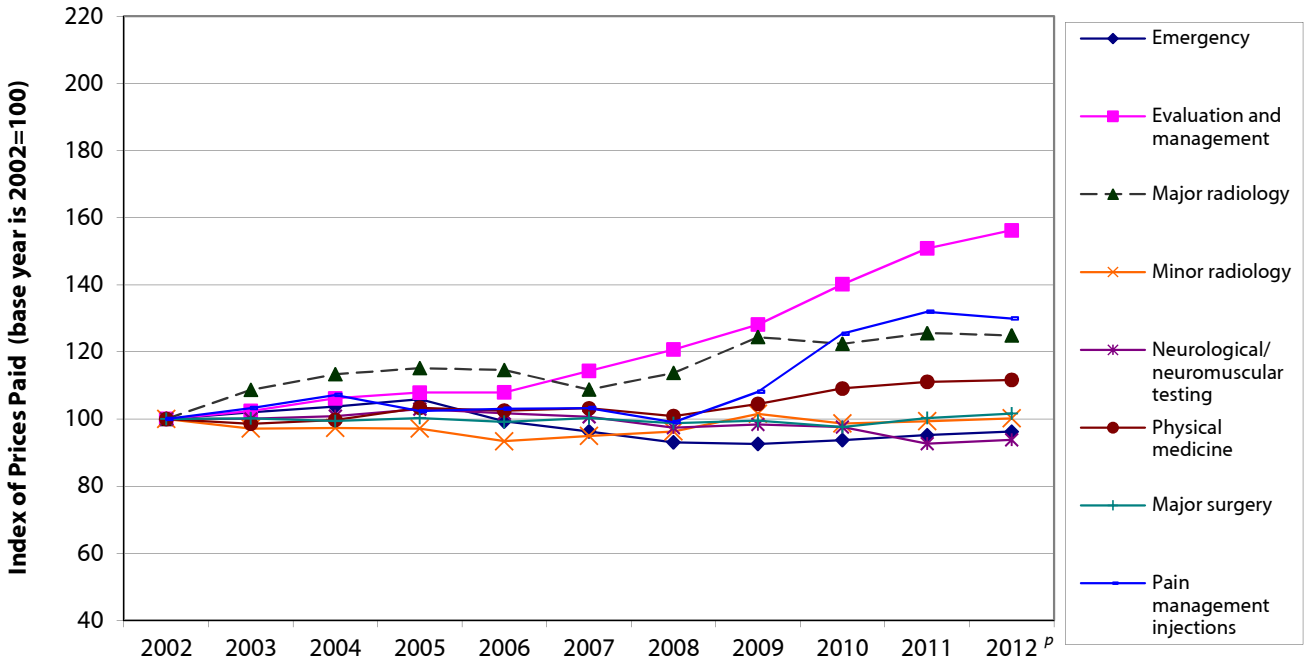
Figure D.4 Connecticut Trend in Professional Prices Paid by Service Group, 2002 to 2012



Connecticut Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
Emergency	100	102	104	106	99	96	93	93	94	95	96
Evaluation and management	100	102	106	108	108	114	121	128	140	151	156
Major radiology	100	109	113	115	115	109	114	124	122	126	125
Minor radiology	100	97	97	97	93	95	96	102	99	99	100
Neurological/ neuromuscular testing	100	100	101	103	102	101	97	98	98	93	94
Physical medicine	100	99	100	103	102	103	101	105	109	111	112
Major surgery	100	100	99	100	99	100	99	99	98	100	102
Pain management injections	100	103	107	102	103	103	99	108	125	132	130
Overall	100	101	102	104	103	104	105	108	111	115	116

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Connecticut has updated its fee schedule for professional services annually in July since 2008; in prior years, updates were effective in April. The most recent update covered in the study period in this report was effective July 15, 2011.

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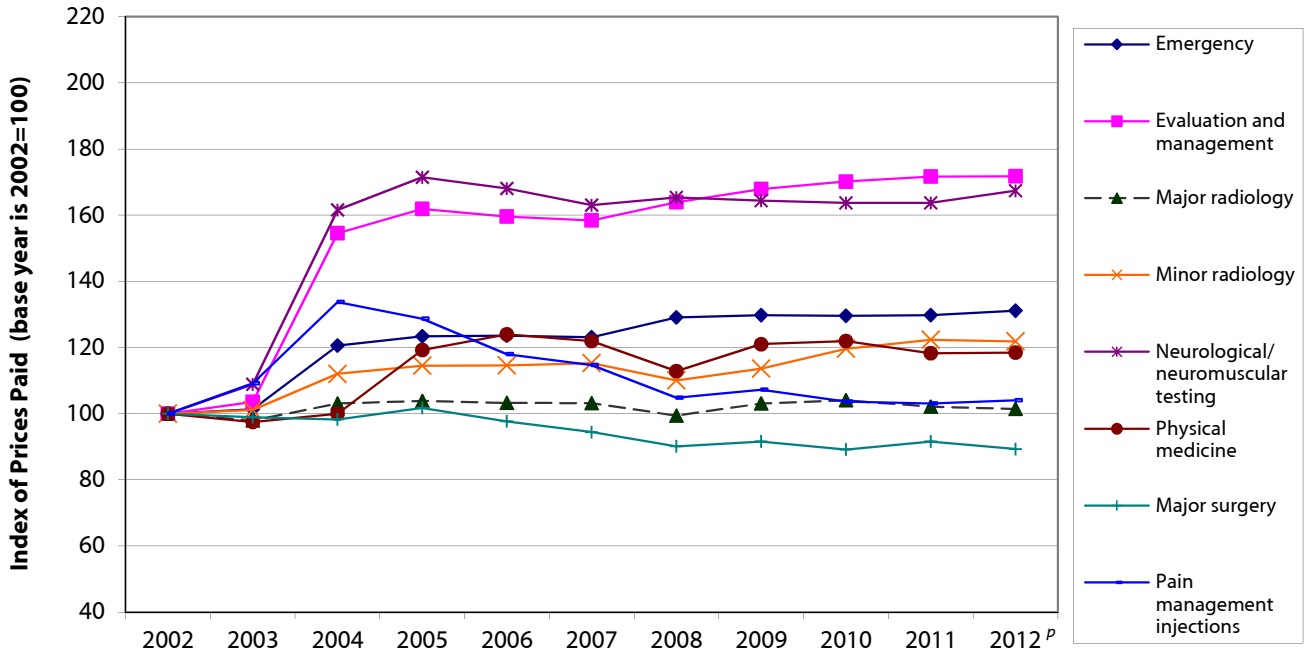
Figure D.5 Florida Trend in Professional Prices Paid by Service Group, 2002 to 2012



Florida Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
Emergency	100	101	121	123	124	123	129	130	130	130	131
Evaluation and management	100	104	155	162	160	158	164	168	170	172	172
Major radiology	100	98	103	104	103	103	99	103	104	102	101
Minor radiology	100	101	112	114	115	115	110	114	120	122	122
Neurological/ neuromuscular testing	100	109	162	171	168	163	165	164	164	164	167
Physical medicine	100	97	100	119	124	122	113	121	122	118	118
Major surgery	100	99	98	102	98	94	90	92	89	92	89
Pain management injections	100	109	134	129	118	115	105	107	104	103	104
Overall	100	100	114	123	122	120	117	121	121	121	120

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Florida had significant increases in fee schedule rates for physician services in January 2004 and increases in fee schedule rates for services provided by chiropractors and physical/occupational therapists in May 2005. After that, Florida had fee schedule updates for professional services in 2006, 2007, and 2009.

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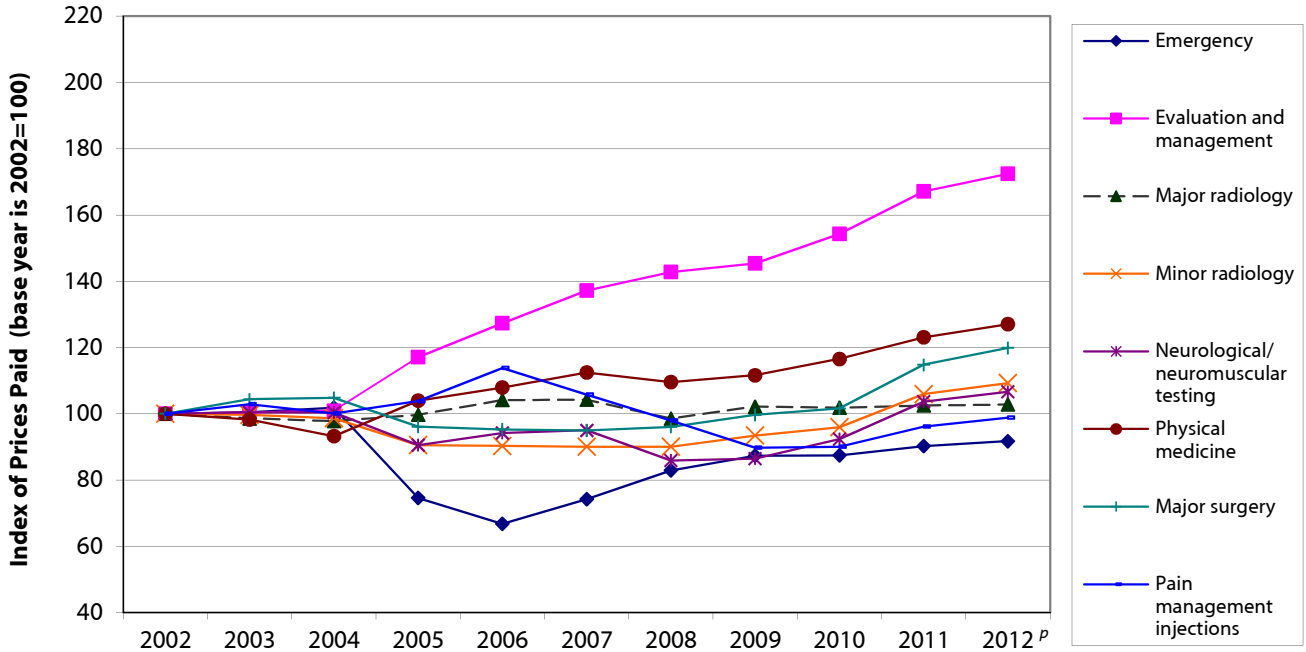
Figure D.6 Georgia Trend in Professional Prices Paid by Service Group, 2002 to 2012



Georgia Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
Emergency	100	101	102	75	67	74	83	87	87	90	92
Evaluation and management	100	100	101	117	127	137	143	145	154	167	172
Major radiology	100	99	98	100	104	104	99	102	102	103	103
Minor radiology	100	100	99	91	90	90	90	93	96	106	109
Neurological/ neuromuscular testing	100	100	100	91	94	95	86	86	92	104	107
Physical medicine	100	98	93	104	108	112	110	112	117	123	127
Major surgery	100	104	105	96	95	95	96	100	102	115	120
Pain management injections	100	103	100	104	114	106	98	90	90	96	99
Overall	100	101	100	102	105	108	108	111	115	125	129

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Georgia updates its fee schedule for professional services annually in April. For example, in 2005, the fee schedule rates increased materially for evaluation and management and physical medicine services and decreased for many services, such as emergency, minor radiology, neurological and neuromuscular testing, and certain major surgery procedures. The most recent update covered in the study period in this report was effective April 1, 2012.

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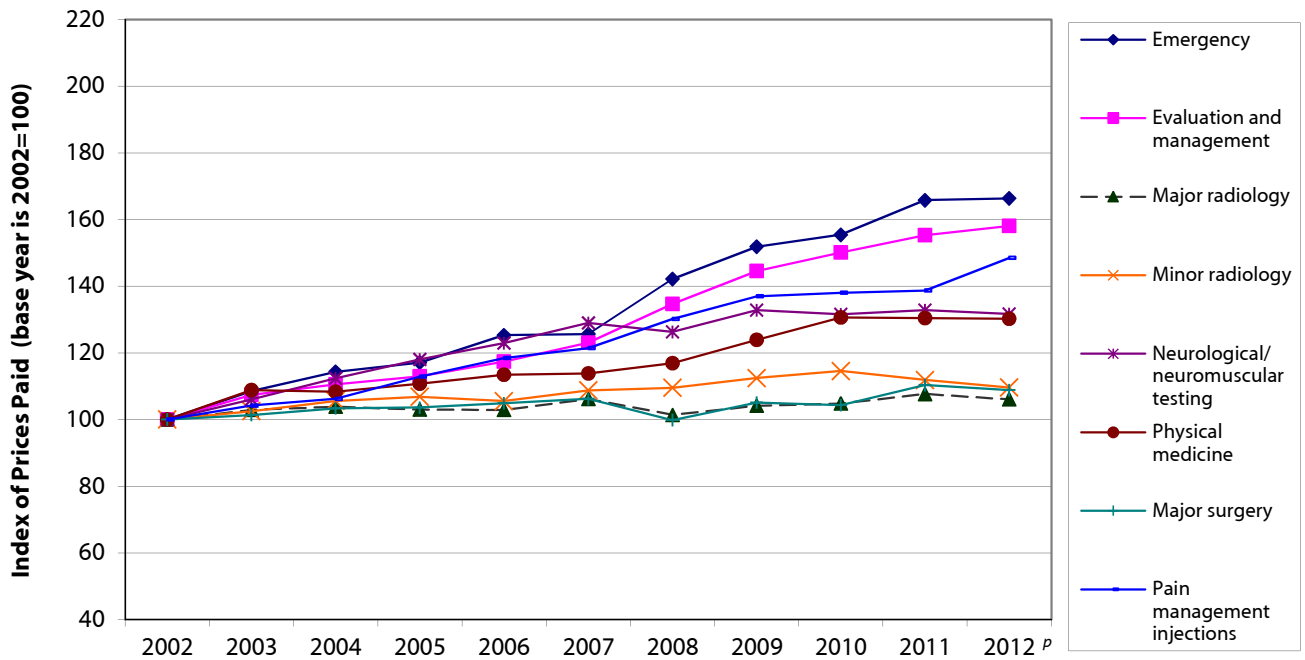
Figure D.7 Iowa Trend in Professional Prices Paid by Service Group, 2002 to 2012



Iowa Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
Emergency	100	109	114	117	125	126	142	152	155	166	166
Evaluation and management	100	107	111	113	117	123	135	145	150	155	158
Major radiology	100	103	104	103	103	106	101	104	105	108	106
Minor radiology	100	102	106	107	106	109	110	112	115	112	110
Neurological/ neuromuscular testing	100	106	112	118	123	129	126	133	132	133	132
Physical medicine	100	109	108	111	113	114	117	124	131	130	130
Major surgery	100	101	103	104	105	106	100	105	104	110	109
Pain management injections	100	104	106	113	118	121	130	137	138	139	149
Overall	100	105	107	108	111	113	115	121	124	127	127

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: Iowa did not have a workers' compensation fee schedule as of 2012.

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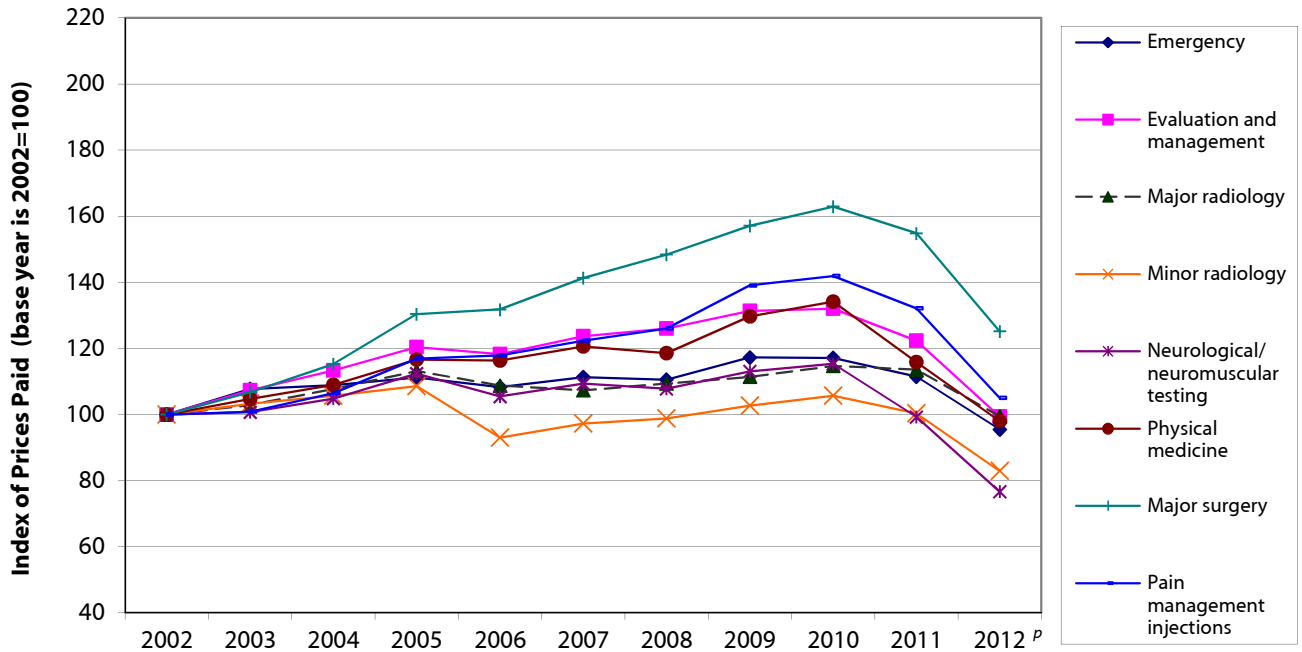
Figure D.8 Illinois Trend in Professional Prices Paid by Service Group, 2002 to 2012



Illinois Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	108	109	111	108	111	110	117	117	111	95
Evaluation and management	100	107	113	120	118	124	126	131	132	122	99
Major radiology	100	103	108	113	109	107	109	111	115	114	99
Minor radiology	100	103	106	109	93	97	99	103	106	100	83
Neurological/ neuromuscular testing	100	101	105	112	105	109	108	113	115	99	77
Physical medicine	100	105	109	117	116	121	119	130	134	116	98
Major surgery	100	107	115	130	132	141	148	157	163	155	125
Pain management injections	100	101	106	117	118	122	126	139	142	132	105
Overall	100	105	111	120	118	124	126	134	138	127	105

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Illinois implemented a workers' compensation fee schedule in February 2006. This workers' compensation fee schedule for professional services set different maximum reimbursement rates for the same services for each of 29 different areas of the state based on the first three digits of the zip code where the service was delivered. The 29 fee schedules ranged from a low of 115 percent above Medicare to a high of 219 percent above Medicare—a difference of 104 percentage points. This difference might create unintended incentives for providers to control revenue by moving the site of service. Prices in this study represent the aggregate state-level estimation without drilling down to the 29 geo-zip areas; therefore, the price trends after 2006 could be influenced by the potential behavior changes of the providers. In September 2011, Illinois enacted new legislation that introduced a 30 percent decrease in the fee schedule rates. On January 1, 2012, Illinois discontinued its use of the 29 geo-zip areas for physicians and other providers in favor of four county-based regions.

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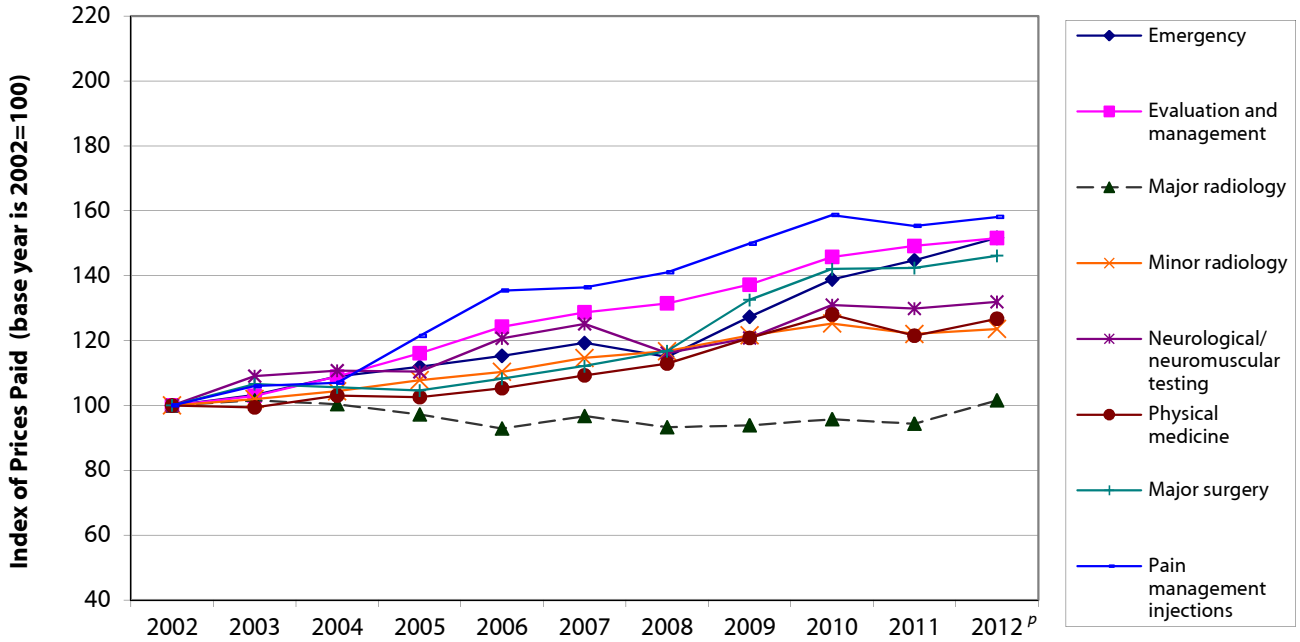
Figure D.9 Indiana Trend in Professional Prices Paid by Service Group, 2002 to 2012



Indiana Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	103	109	112	115	119	115	127	139	145	152
Evaluation and management	100	103	109	116	124	129	131	137	146	149	152
Major radiology	100	102	100	97	93	97	93	94	96	94	102
Minor radiology	100	102	104	108	110	115	117	122	125	122	124
Neurological/ neuromuscular testing	100	109	111	110	121	125	116	121	131	130	132
Physical medicine	100	99	103	103	105	109	113	121	128	121	127
Major surgery	100	107	106	105	108	112	117	133	142	142	146
Pain management injections	100	106	107	121	135	136	141	150	159	155	158
Overall	100	103	105	106	109	113	116	124	132	130	134

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: Indiana did not have a workers' compensation fee schedule as of 2012.

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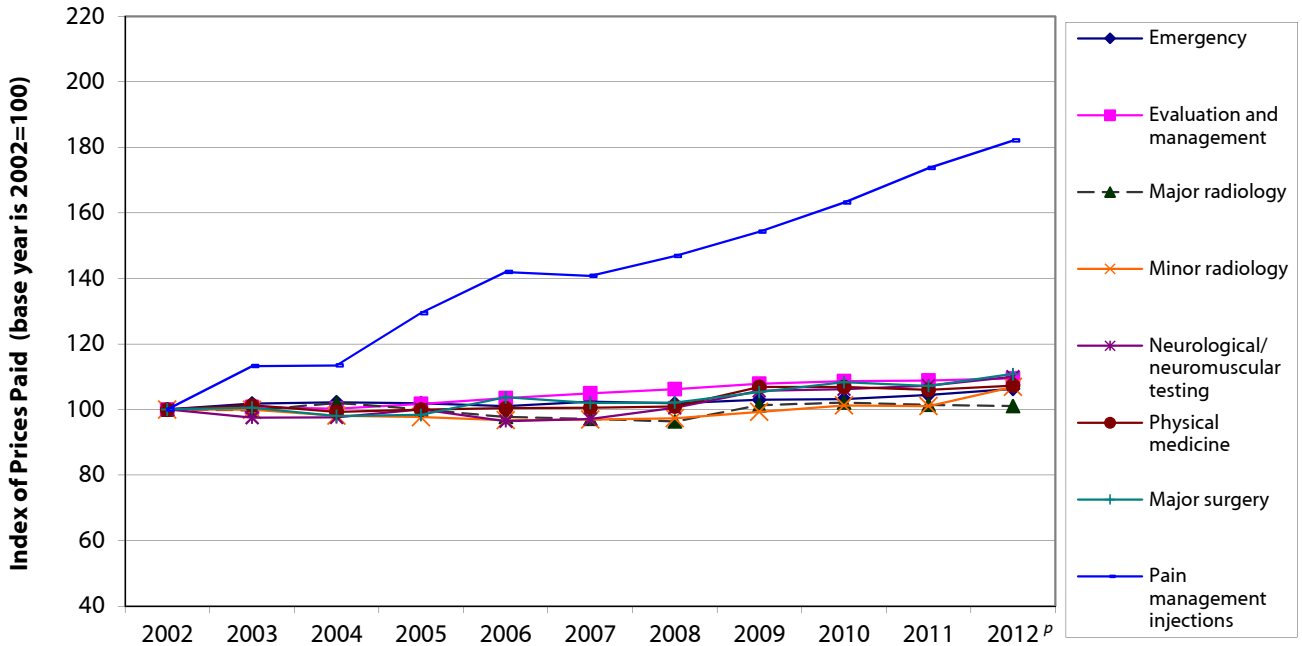
Figure D.10 Louisiana Trend in Professional Prices Paid by Service Group, 2002 to 2012



Louisiana Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	102	102	102	101	102	102	103	103	104	106
Evaluation and management	100	101	100	102	103	105	106	108	109	109	109
Major radiology	100	100	102	100	98	97	96	101	102	101	101
Minor radiology	100	100	98	98	97	97	97	99	101	101	107
Neurological/ neuromuscular testing	100	98	98	100	96	97	101	106	106	107	110
Physical medicine	100	101	99	100	100	101	101	107	107	106	107
Major surgery	100	101	98	98	104	102	102	105	108	107	111
Pain management injections	100	113	113	129	142	141	147	154	163	174	182
Overall	100	101	100	100	102	102	102	106	108	107	109

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: Louisiana's fee schedule for professional services uses the 1999 Current Procedural Terminology (CPT) list published by the American Medical Association and the maximum allowable reimbursement rates effective as of March 2001.

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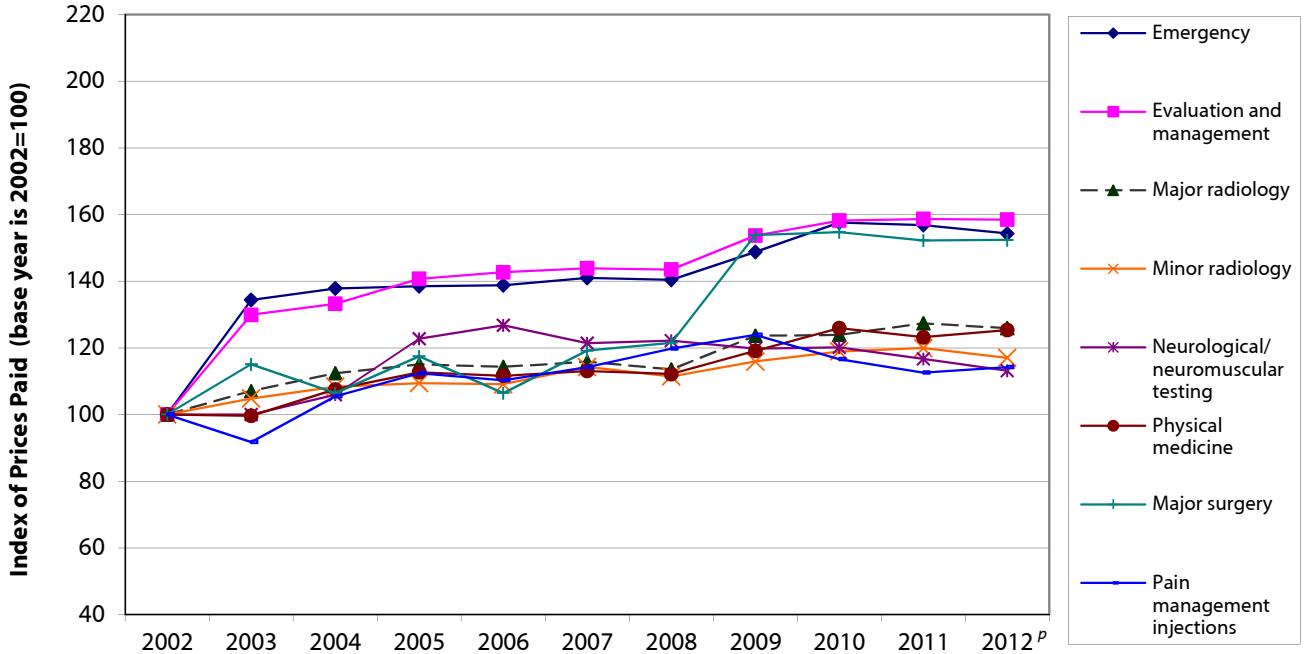
Figure D.11 Massachusetts Trend in Professional Prices Paid by Service Group, 2002 to 2012



Massachusetts Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	134	138	138	139	141	140	149	158	157	154
Evaluation and management	100	130	133	141	143	144	144	154	158	159	158
Major radiology	100	107	112	115	114	116	114	124	124	127	126
Minor radiology	100	105	108	109	109	114	111	116	119	120	117
Neurological/ neuromuscular testing	100	100	106	123	127	121	122	120	120	117	113
Physical medicine	100	100	108	113	112	113	112	119	126	123	125
Major surgery	100	115	106	117	106	119	122	154	155	152	152
Pain management injections	100	92	105	112	110	114	120	124	117	113	114
Overall	100	112	114	121	118	123	123	139	142	140	141

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Massachusetts increased the fee schedule rates for many professional services, effective April 2009. The fee schedule increases for major surgeries were especially significant; the rates for some procedures increased to two to three times the previous rates. Prior to that, the fee schedule for professional services had not been updated since September 2004.

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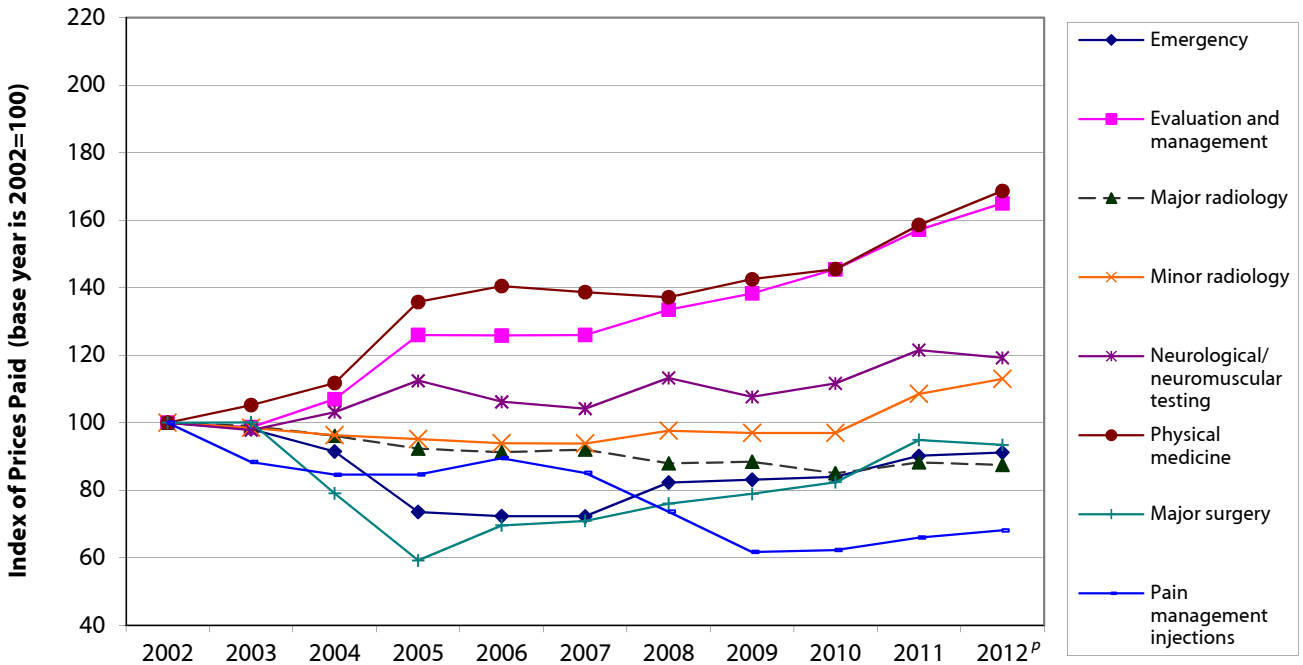
Figure D.12 Maryland Trend in Professional Prices Paid by Service Group, 2002 to 2012



Maryland Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	98	92	74	72	72	82	83	84	90	91
Evaluation and management	100	99	107	126	126	126	133	138	145	157	165
Major radiology	100	99	96	92	91	92	88	88	85	88	88
Minor radiology	100	98	96	95	94	94	98	97	97	109	113
Neurological/ neuromuscular testing	100	98	103	113	106	104	113	108	112	122	119
Physical medicine	100	105	112	136	140	139	137	143	146	159	169
Major surgery	100	100	79	59	70	71	76	79	82	95	93
Pain management injections	100	88	85	85	90	85	74	62	62	66	68
Overall	100	100	98	102	106	106	108	111	114	126	130

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Maryland increased fee schedule rates for evaluation and management and physical medicine services, and decreased rates for surgery, in September 2004. In February 2006, Maryland increased fee schedule rates for neurological and orthopedic surgeries. Starting in March 2008, Maryland allowed annual increases in fee schedule rates for professional services based on changes in the Medicare Economic Index. The most recent update covered in the study period in this report was effective March 1, 2012.

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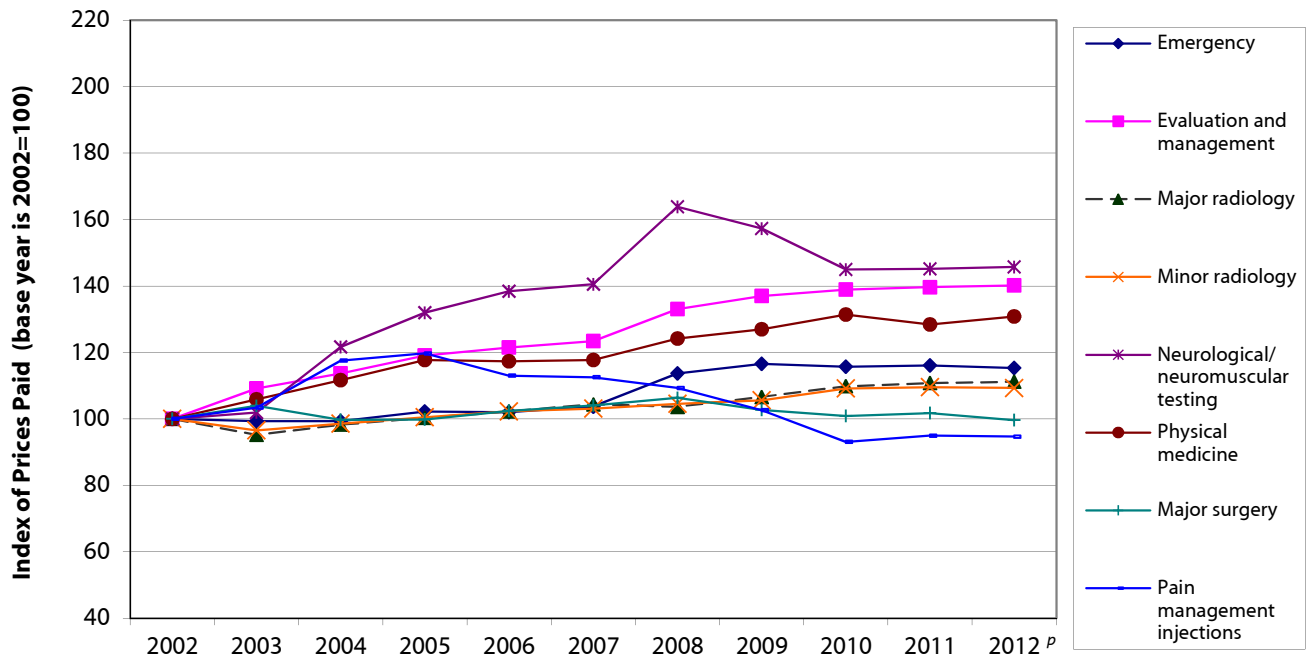
Figure D.13 Michigan Trend in Professional Prices Paid by Service Group, 2002 to 2012



Michigan Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	99	99	102	102	104	114	117	116	116	115
Evaluation and management	100	109	114	119	121	123	133	137	139	140	140
Major radiology	100	95	98	100	102	104	104	107	110	111	111
Minor radiology	100	97	99	100	102	103	105	106	109	110	109
Neurological/ neuromuscular testing	100	102	122	132	138	141	164	157	145	145	146
Physical medicine	100	106	112	118	117	118	124	127	131	128	131
Major surgery	100	104	100	100	102	104	106	103	101	102	100
Pain management injections	100	103	118	120	113	112	109	103	93	95	95
Overall	100	104	108	112	113	115	120	122	123	123	123

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Michigan updates its fee schedule for professional services annually. The most recent update covered in the study period in this report was effective December 8, 2010.

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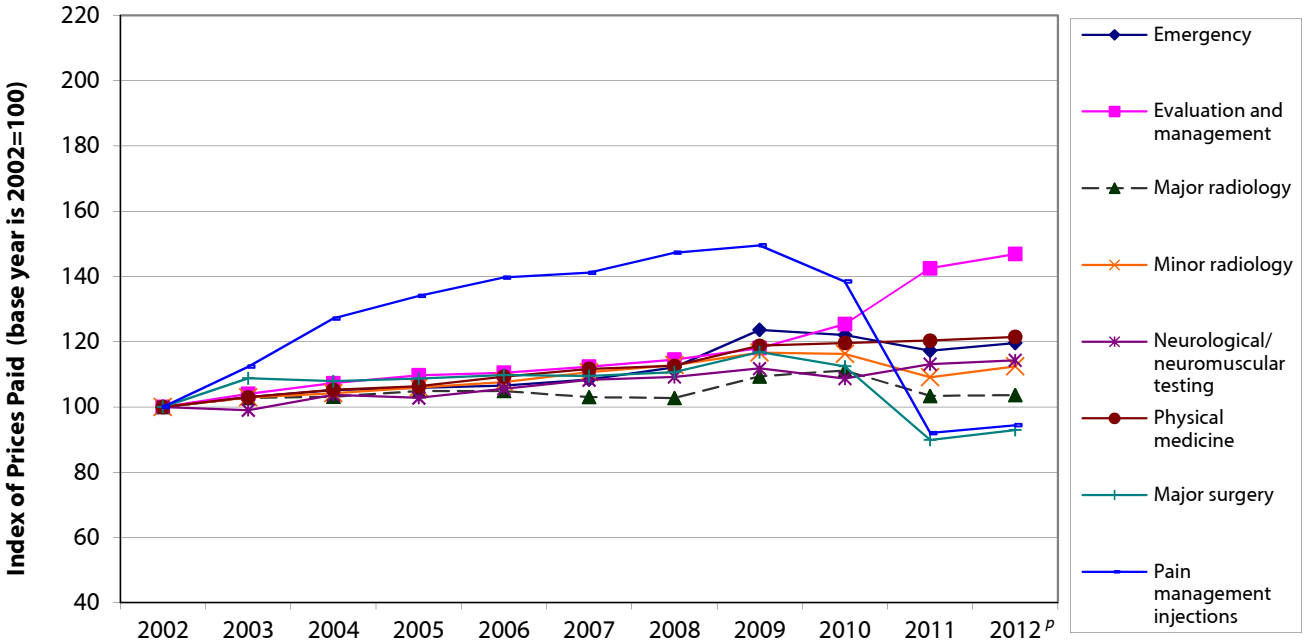
Figure D.14 Minnesota Trend in Professional Prices Paid by Service Group, 2002 to 2012



Minnesota Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	103	105	106	107	108	112	124	122	117	120
Evaluation and management	100	104	107	110	110	112	115	118	125	142	147
Major radiology	100	103	103	105	105	103	103	109	111	103	104
Minor radiology	100	103	104	106	108	111	113	117	116	109	112
Neurological/ neuromuscular testing	100	99	104	103	106	108	109	112	109	113	114
Physical medicine	100	103	105	106	109	112	113	119	120	120	121
Major surgery	100	109	108	109	110	109	111	117	112	90	93
Pain management injections	100	112	127	134	140	141	147	149	138	92	94
Overall	100	104	106	108	109	111	112	117	118	115	117

Special notation: ^{p} We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Minnesota's fee schedule for professional services from 2002 to September 2010 was based on 1998 Medicare relative value units (RVUs), with annual updates in the conversion factor. Effective October 1, 2010, Minnesota updated its fee schedule by using 2009 Medicare RVUs and decreasing the state conversion factor. The most recent update covered in the study period in this report was effective October 1, 2011.

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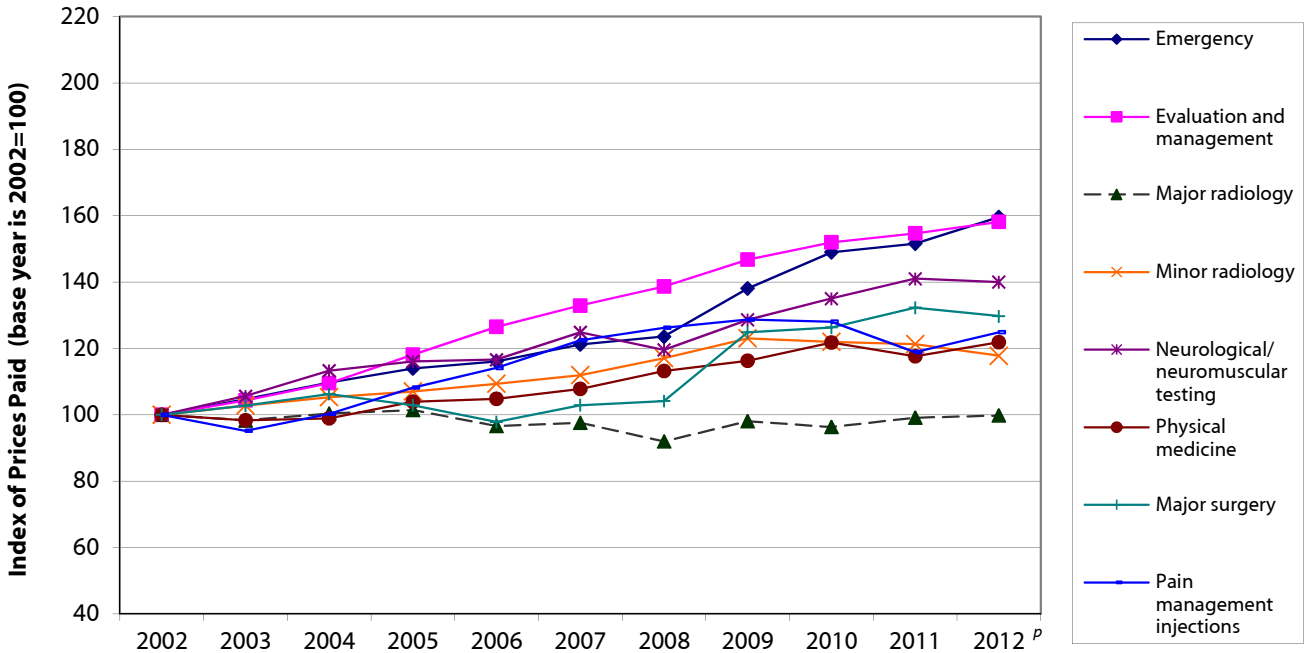
Figure D.15 Missouri Trend in Professional Prices Paid by Service Group, 2002 to 2012



Missouri Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	105	110	114	116	121	124	138	149	152	160
Evaluation and management	100	104	110	118	126	133	139	147	152	155	158
Major radiology	100	98	100	101	97	98	92	98	96	99	100
Minor radiology	100	103	105	107	109	112	117	123	122	121	118
Neurological/ neuromuscular testing	100	106	113	116	117	125	120	129	135	141	140
Physical medicine	100	98	99	104	105	108	113	116	122	118	122
Major surgery	100	103	106	103	98	103	104	125	126	132	130
Pain management injections	100	95	100	108	114	122	126	129	128	119	125
Overall	100	101	104	107	107	111	114	124	127	128	129

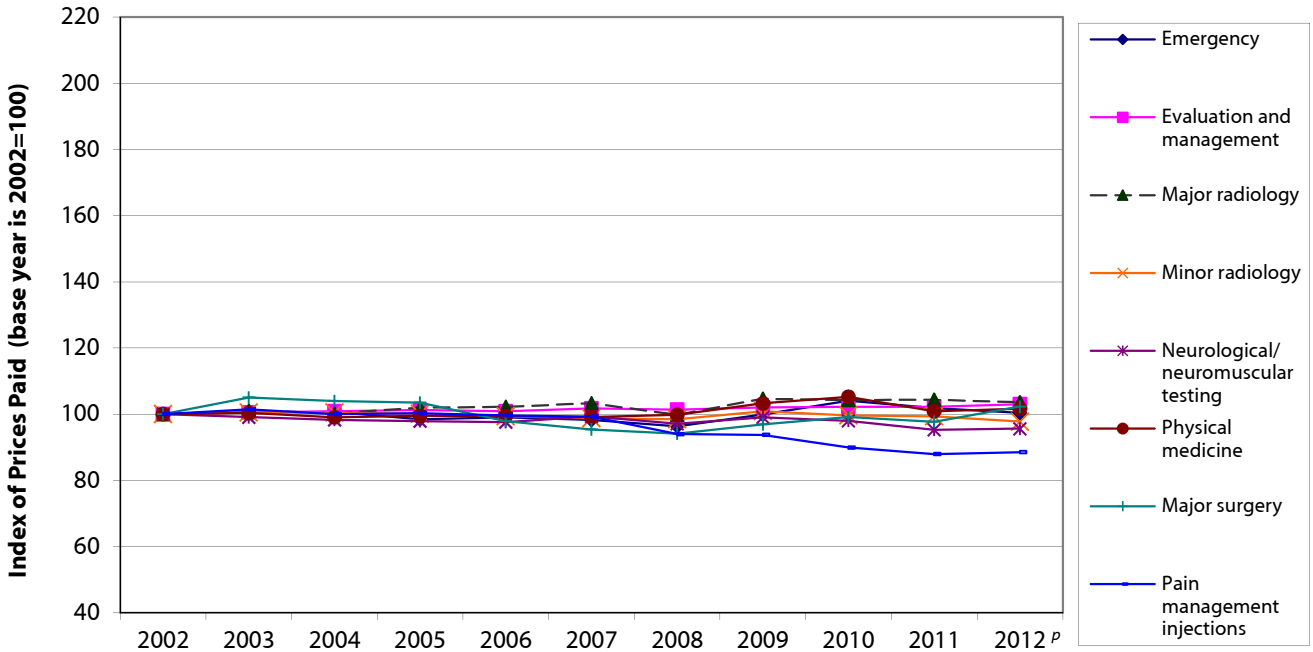
Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Missouri did not have a workers' compensation fee schedule as of 2012.

Figure D.16 North Carolina Trend in Professional Prices Paid by Service Group, 2002 to 2012



North Carolina Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
Emergency	100	101	101	98	99	98	96	100	104	102	100
Evaluation and management	100	101	101	101	101	102	101	102	102	102	103
Major radiology	100	101	100	102	102	103	100	105	104	104	104
Minor radiology	100	101	100	100	99	99	98	101	100	99	98
Neurological/ neuromuscular testing	100	99	98	98	98	99	97	99	98	95	96
Physical medicine	100	100	99	100	99	99	100	103	105	101	102
Major surgery	100	105	104	104	98	95	94	97	99	98	102
Pain management injections	100	101	100	100	100	99	94	94	90	88	89
Overall	100	102	101	101	100	99	98	101	102	100	102

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Maximum reimbursement amounts in the North Carolina fee schedule for professional services are based on those adopted by the North Carolina Industrial Commission effective January 1996. North Carolina updates its fee schedule annually in January to account for new and discontinued Current Procedural Terminology (CPT) codes published by the American Medical Association.

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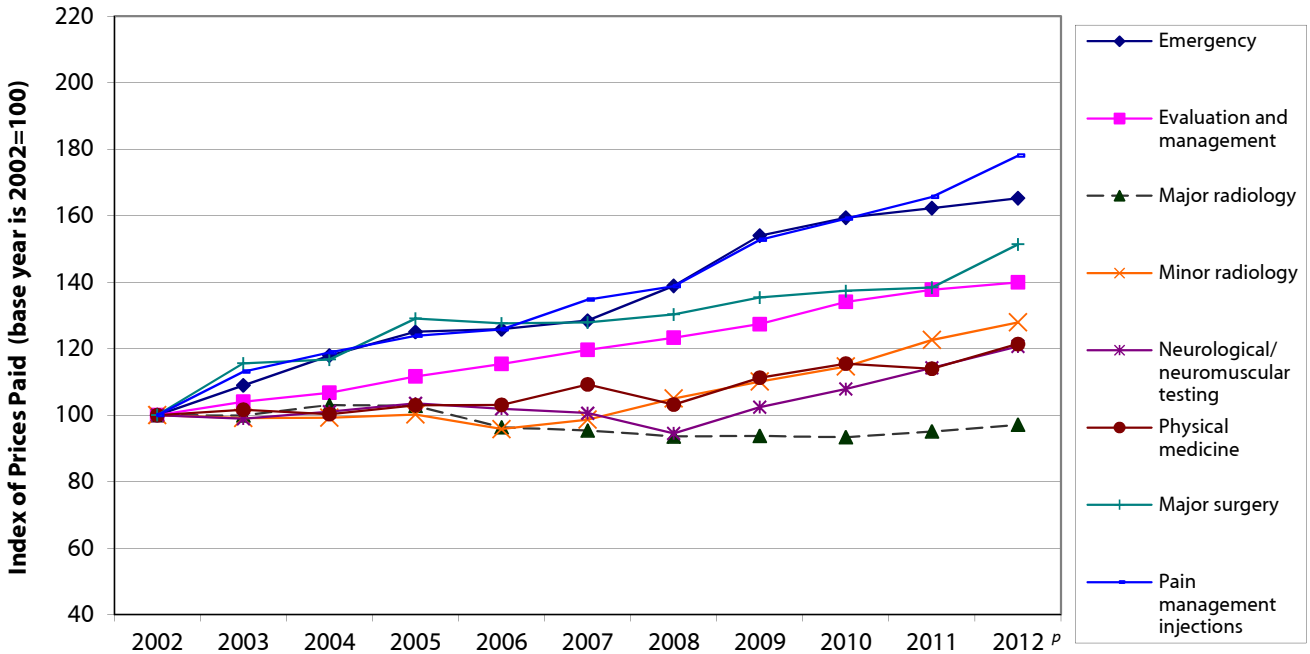
Figure D.17 New Jersey Trend in Professional Prices Paid by Service Group, 2002 to 2012



New Jersey Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
Emergency	100	109	118	125	126	128	139	154	159	162	165
Evaluation and management	100	104	107	112	115	120	123	127	134	138	140
Major radiology	100	100	103	103	96	95	94	94	93	95	97
Minor radiology	100	99	99	100	96	99	105	110	115	123	128
Neurological/ neuromuscular testing	100	99	101	104	102	101	95	102	108	114	121
Physical medicine	100	102	100	103	103	109	103	111	116	114	121
Major surgery	100	116	117	129	128	128	130	135	137	138	151
Pain management injections	100	113	119	124	126	135	139	153	159	166	178
Overall	100	107	109	115	115	117	118	124	127	129	137

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: New Jersey did not have a workers' compensation fee schedule as of 2012.

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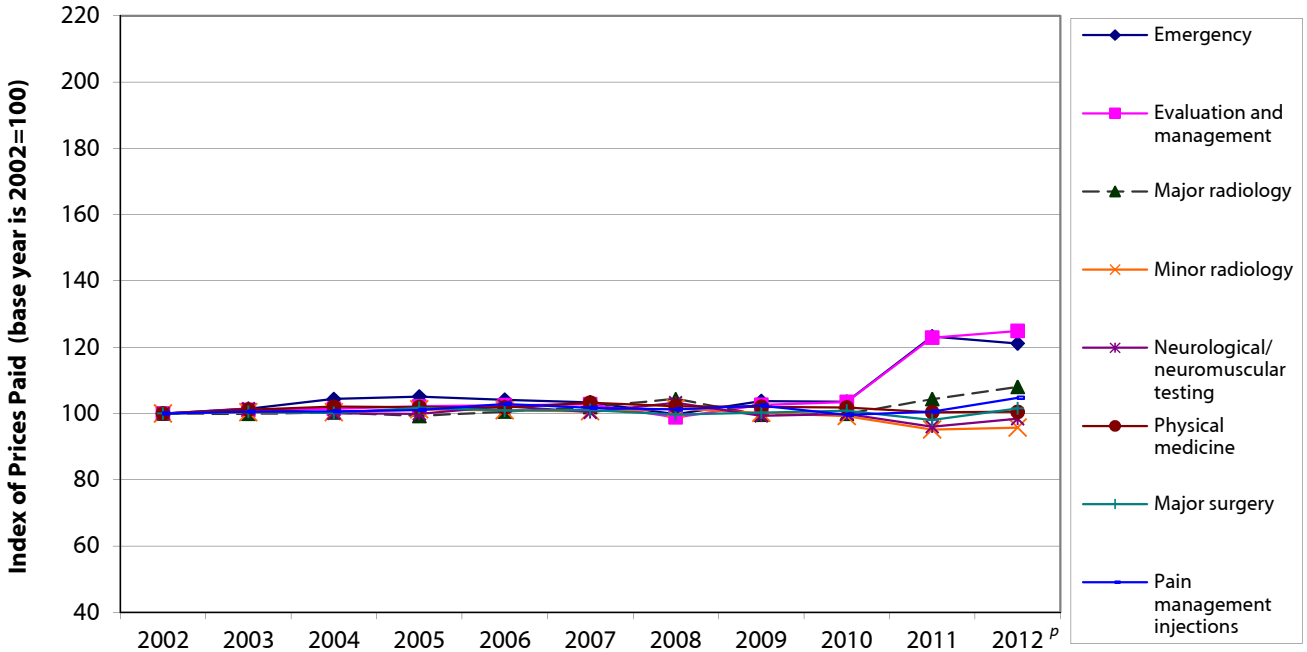
Figure D.18 New York Trend in Professional Prices Paid by Service Group, 2002 to 2012



New York Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	101	104	105	104	103	100	104	104	123	121
Evaluation and management	100	101	101	102	103	103	99	103	103	123	125
Major radiology	100	100	100	99	101	102	104	100	100	104	108
Minor radiology	100	100	100	101	101	101	102	100	99	95	96
Neurological/ neuromuscular testing	100	101	100	100	102	100	103	99	100	96	98
Physical medicine	100	101	102	102	102	103	102	102	102	100	101
Major surgery	100	100	100	102	101	101	100	100	101	98	102
Pain management injections	100	101	101	101	103	102	101	102	100	101	105
Overall	100	101	101	102	102	102	101	101	101	104	106

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

New York periodically updates its fee schedule for professional services; however, the maximum allowable reimbursement rates for most procedures covered in this report did not change from 2002 to November 2010. Effective December 1, 2010, the fee schedule rates in New York increased for evaluation and management services and emergency services. The most recent update covered in the study period in this report was effective June 1, 2012.

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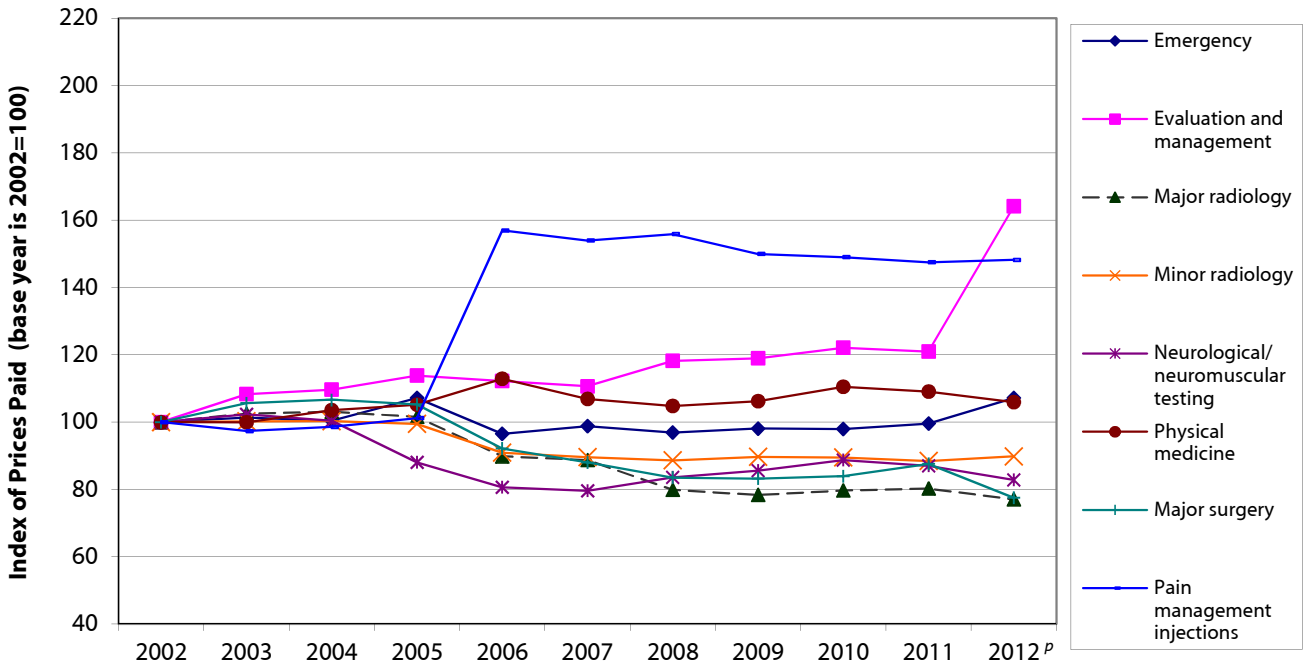
Figure D.19 Oklahoma Trend in Professional Prices Paid by Service Group, 2002 to 2012



Oklahoma Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012[p]
Emergency	100	101	100	107	97	99	97	98	98	100	107
Evaluation and management	100	108	110	114	112	111	118	119	122	121	164
Major radiology	100	103	103	102	90	89	80	78	80	80	77
Minor radiology	100	100	100	100	91	90	89	90	90	88	90
Neurological/ neuromuscular testing	100	102	100	88	81	80	84	86	89	87	83
Physical medicine	100	100	104	105	113	107	105	106	111	109	106
Major surgery	100	106	107	105	92	88	84	83	84	88	78
Pain management injections	100	97	99	101	157	154	156	150	149	147	148
Overall	100	104	105	106	102	99	97	98	100	100	104

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes:

The data for this state are not necessarily representative because the state is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

Oklahoma regularly updated its fee schedule for professional services over the study period. For example, in 2006, the fee schedule rates increased materially for many pain management injection procedures and decreased for many services, such as emergency, radiology, neurological and neuromuscular testing, and many surgery procedures. The most recent update during the period covered by this study was effective January 1, 2012.

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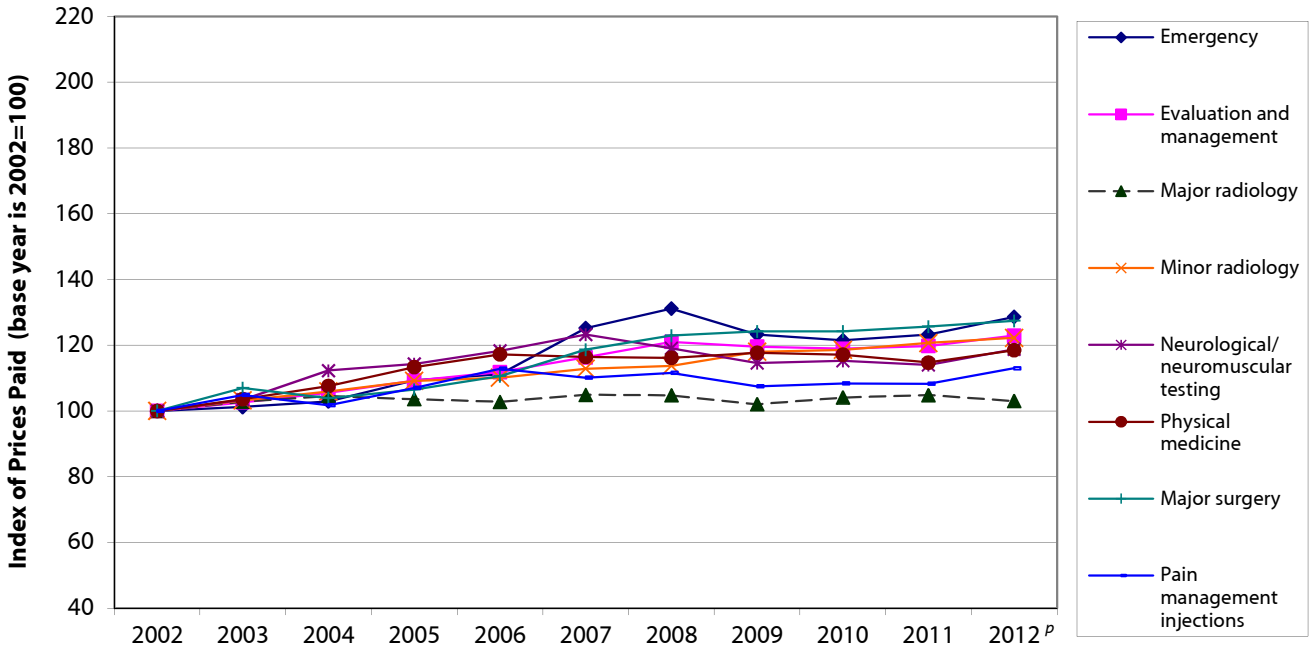
Figure D.20 Pennsylvania Trend in Professional Prices Paid by Service Group, 2002 to 2012



Pennsylvania Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	101	103	109	111	125	131	123	122	123	129
Evaluation and management	100	103	105	109	112	116	121	119	119	120	123
Major radiology	100	103	105	104	103	105	105	102	104	105	103
Minor radiology	100	103	106	109	110	113	114	118	119	121	122
Neurological/ neuromuscular testing	100	103	112	114	118	123	119	115	115	114	119
Physical medicine	100	104	108	113	117	116	116	118	117	115	118
Major surgery	100	107	104	107	111	119	123	124	124	126	127
Pain management injections	100	105	102	107	113	110	112	107	108	108	113
Overall	100	104	106	109	112	116	118	118	117	117	120

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: Pennsylvania updates its fee schedule for professional services annually, based on the percentage change in the statewide average weekly wage.

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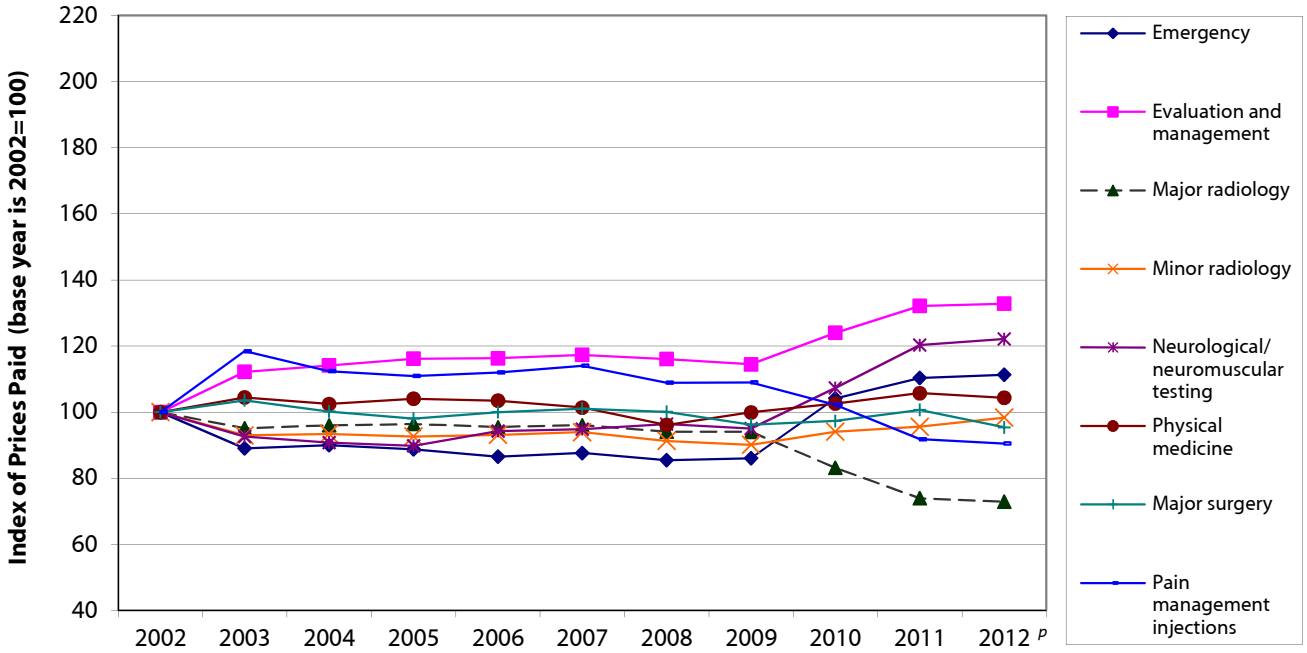
Figure D.21 South Carolina Trend in Professional Prices Paid by Service Group, 2002 to 2012



South Carolina Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	89	90	89	86	88	85	86	104	110	111
Evaluation and management	100	112	114	116	116	117	116	114	124	132	133
Major radiology	100	95	96	96	95	96	94	94	83	74	73
Minor radiology	100	93	93	93	93	94	91	90	94	96	98
Neurological/ neuromuscular testing	100	93	91	90	94	95	96	95	107	120	122
Physical medicine	100	104	102	104	103	101	96	100	103	106	104
Major surgery	100	104	100	98	100	101	100	96	97	101	95
Pain management injections	100	118	112	111	112	114	109	109	102	92	90
Overall	100	104	103	104	104	104	101	102	104	108	106

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: South Carolina's fee schedule for professional services remained unchanged (after the update in January 2003) until 2009. Effective July 1, 2010, South Carolina had another update to its fee schedule, which increased the fee schedule rates for many professional services (such as evaluation and management, emergency, etc.) and decreased the rates for others (such as pain management injections, radiology services, etc.).

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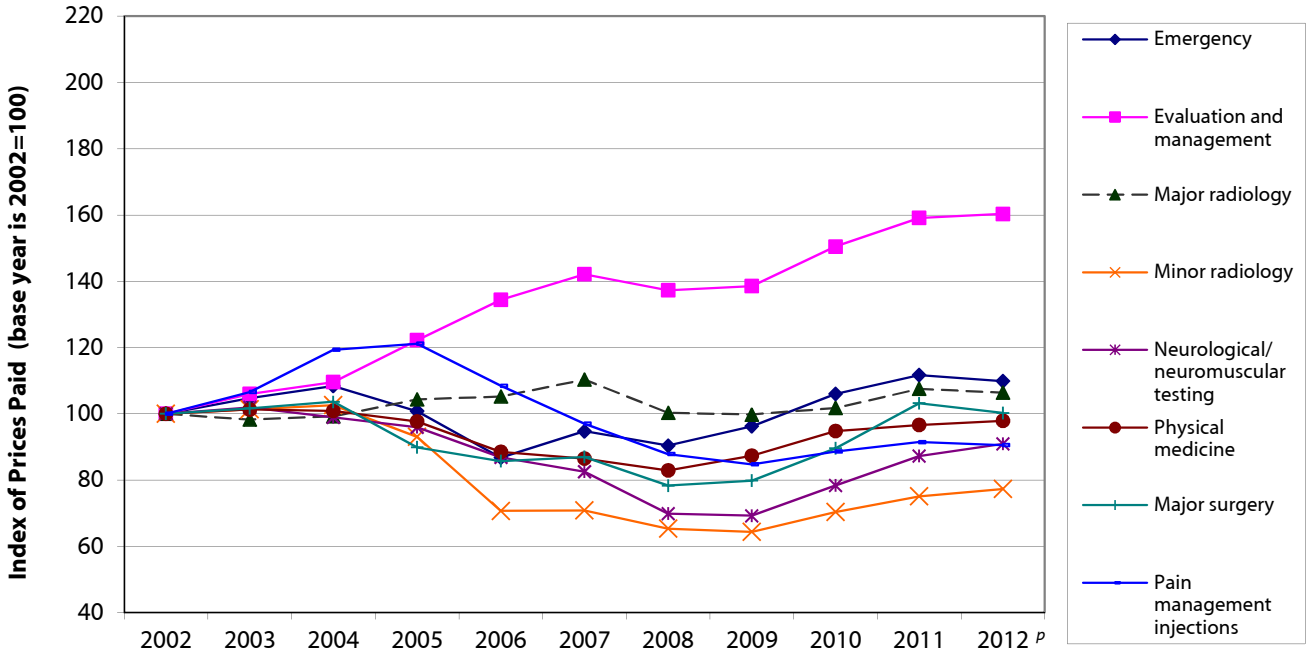
Figure D.22 Tennessee Trend in Professional Prices Paid by Service Group, 2002 to 2012



Tennessee Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	105	108	101	87	95	90	96	106	112	110
Evaluation and management	100	106	110	122	134	142	137	139	150	159	160
Major radiology	100	98	99	104	105	110	100	100	102	108	106
Minor radiology	100	101	103	93	71	71	65	64	70	75	77
Neurological/ neuromuscular testing	100	102	99	96	87	83	70	69	78	87	91
Physical medicine	100	101	101	98	89	87	83	87	95	97	98
Major surgery	100	102	104	90	86	87	78	80	90	103	100
Pain management injections	100	107	119	121	108	97	88	85	89	91	91
Overall	100	102	104	101	97	99	93	95	103	111	111

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: Tennessee implemented a fee schedule in July 2005 and had regular updates in the following years.

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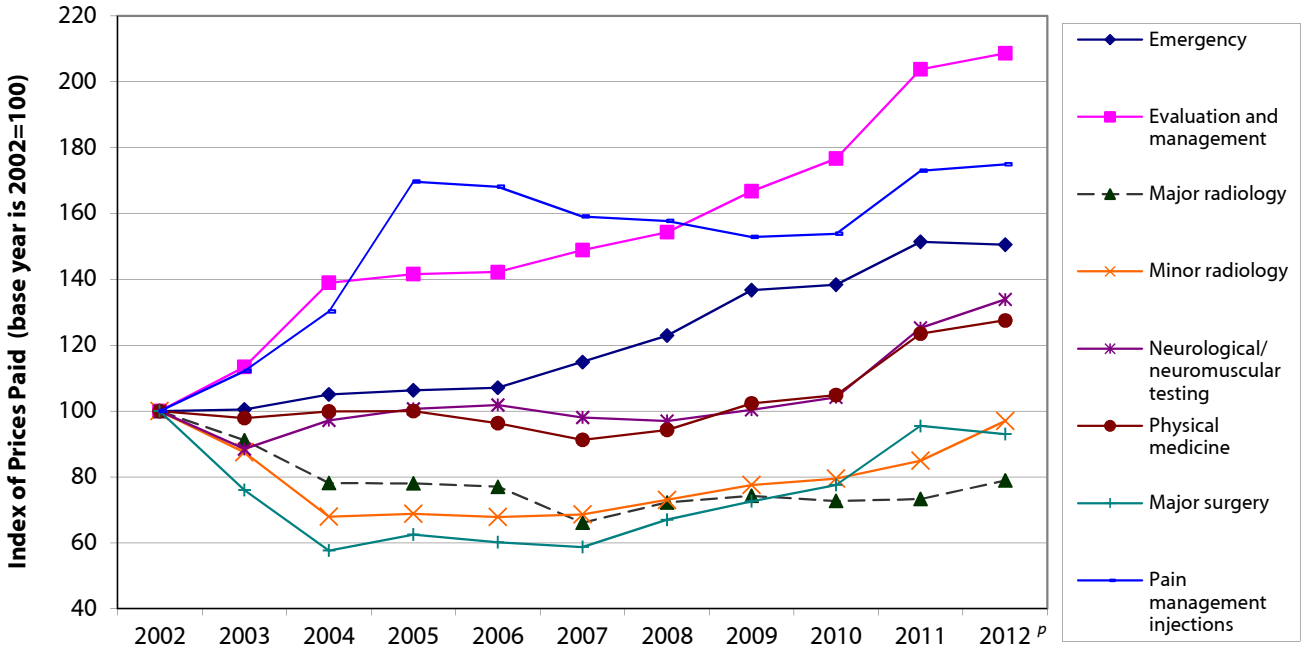
Figure D.23 Texas Trend in Professional Prices Paid by Service Group, 2002 to 2012



Texas Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	100	105	106	107	115	123	137	138	151	151
Evaluation and management	100	113	139	142	142	149	154	167	177	204	209
Major radiology	100	91	78	78	77	66	72	74	73	73	79
Minor radiology	100	87	68	69	68	69	73	78	79	85	97
Neurological/ neuromuscular testing	100	88	97	101	102	98	97	100	104	125	134
Physical medicine	100	98	100	100	96	91	94	102	105	123	128
Major surgery	100	76	58	62	60	59	67	73	78	95	93
Pain management injections	100	112	130	170	168	159	158	153	154	173	175
Overall	100	94	93	95	94	91	97	104	108	125	128

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Notes: Texas decreased fee schedule rates for surgery and radiology, and increased rates for evaluation and management services, in August 2003. In March 2008, Texas increased fee schedule rates for professional services, especially for surgeries, and allowed annual increases based on changes in the Medicare Economic Index. In 2011, the fee schedule rates in Texas increased for most professional services following the Medicare updates. The most recent update covered in the study period in this report was effective January 1, 2012.

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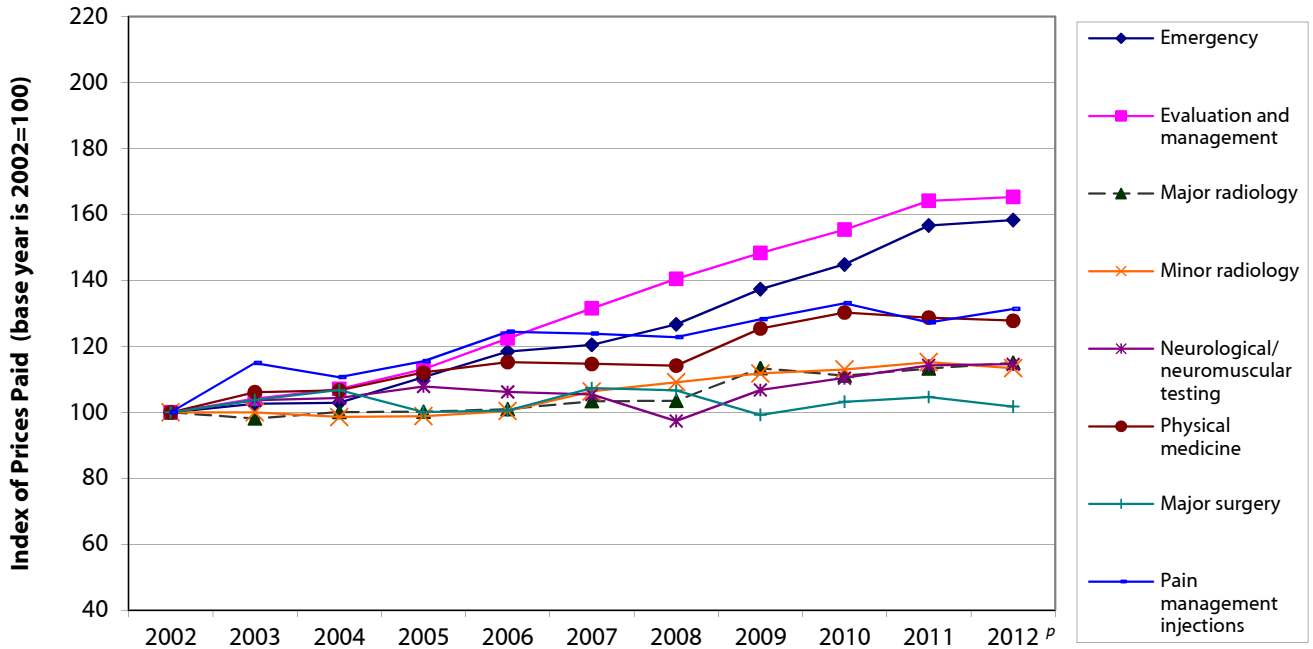
Figure D.24 Virginia Trend in Professional Prices Paid by Service Group, 2002 to 2012



Virginia Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	103	103	111	118	120	127	137	145	157	158
Evaluation and management	100	104	107	113	122	132	140	148	155	164	165
Major radiology	100	98	100	100	101	103	103	113	111	113	115
Minor radiology	100	100	99	99	100	106	109	112	113	115	113
Neurological/ neuromuscular testing	100	104	104	108	106	105	97	107	110	114	115
Physical medicine	100	106	107	112	115	115	114	125	130	129	128
Major surgery	100	104	107	100	101	107	107	99	103	105	102
Pain management injections	100	115	111	116	124	124	123	128	133	127	131
Overall	100	104	105	107	110	115	116	121	125	127	126

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: Virginia did not have a workers' compensation fee schedule as of 2012.

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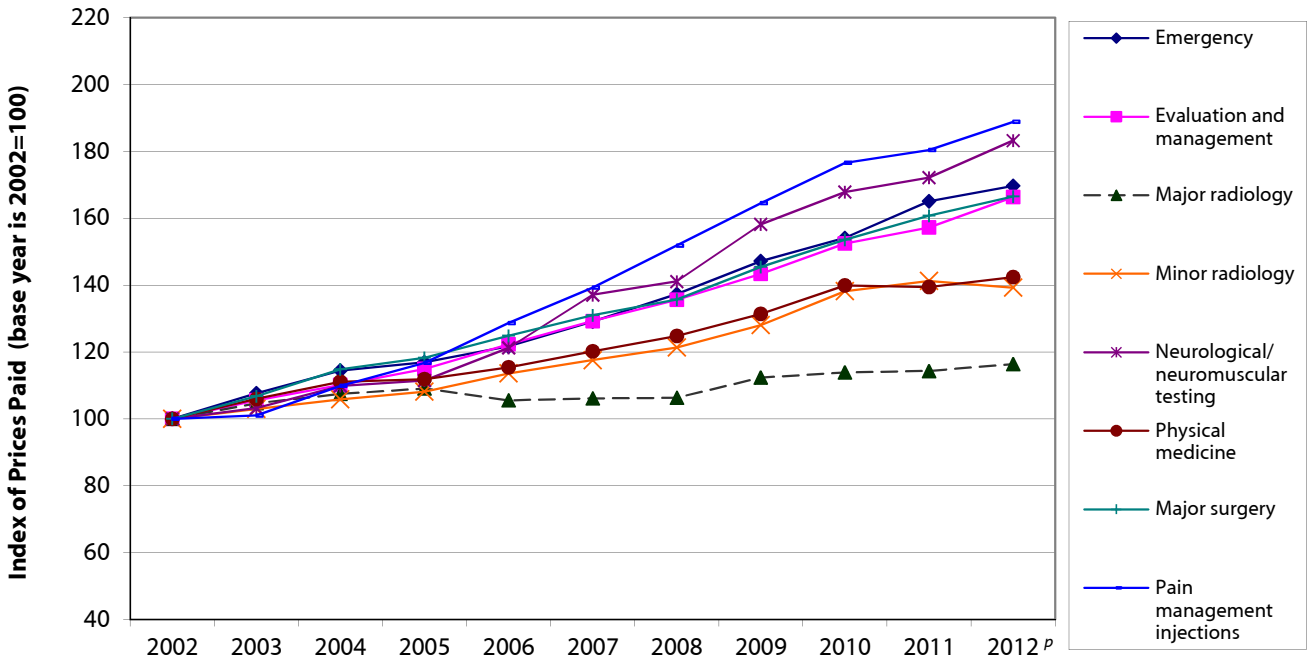
Figure D.25 Wisconsin Trend in Professional Prices Paid by Service Group, 2002 to 2012



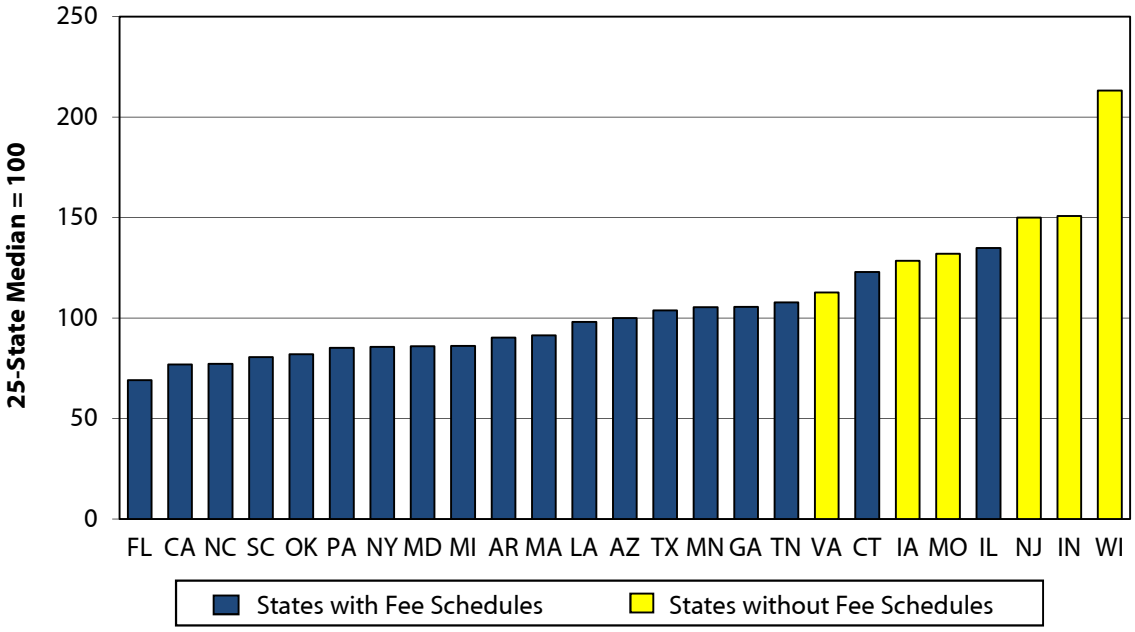
Wisconsin Trend in Professional Prices Paid by Service Group, 2002 to 2012

Professional Services	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012 p
Emergency	100	108	114	117	122	129	137	147	154	165	170
Evaluation and management	100	106	110	115	122	129	136	143	152	157	166
Major radiology	100	105	107	109	106	106	106	112	114	114	116
Minor radiology	100	103	106	108	114	118	121	128	138	141	139
Neurological/ neuromuscular testing	100	103	110	112	121	137	141	158	168	172	183
Physical medicine	100	106	111	112	115	120	125	131	140	139	142
Major surgery	100	107	115	118	125	131	136	146	154	161	166
Pain management injections	100	101	110	117	129	139	152	164	177	180	189
Overall	100	106	111	114	119	124	129	137	145	148	153

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

Note: Wisconsin did not have a conventional workers' compensation fee schedule as of 2012.

Figure E.1 Interstate Comparison of Prices Paid for Professional Services, WCRI MPI-WC in 25 States, 2012[P]



Special notation: [P] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Professional services in this study refer to nonhospital, nonfacility services billed by physicians, physical therapists, and chiropractors, excluding bills for durable medical equipment or pharmaceuticals.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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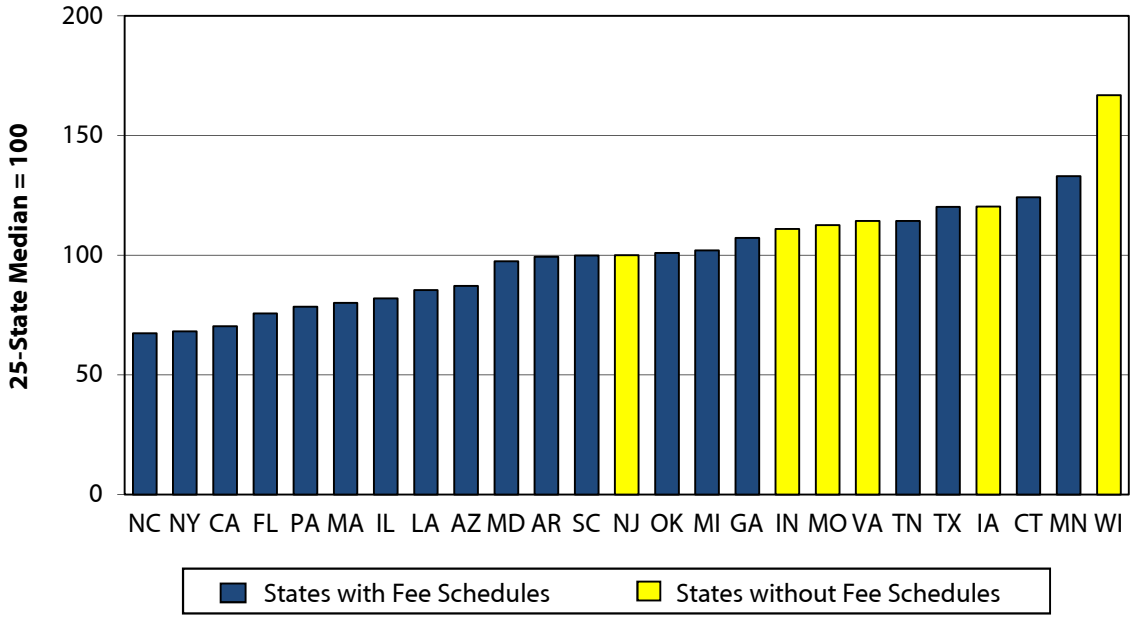
Figure E.2 Interstate Comparison of Prices Paid for Professional Evaluation and Management Services, WCRI MPI-WC in 25 States, 2012[p]



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Evaluation and management: The services in this group are new and established patient office visits. These consist of office visits that require at least two of three parts: a problem focused history, a problem focused examination, and/or straightforward medical decision making of various complexities. See Table TA.2 for a detailed description of all service codes included in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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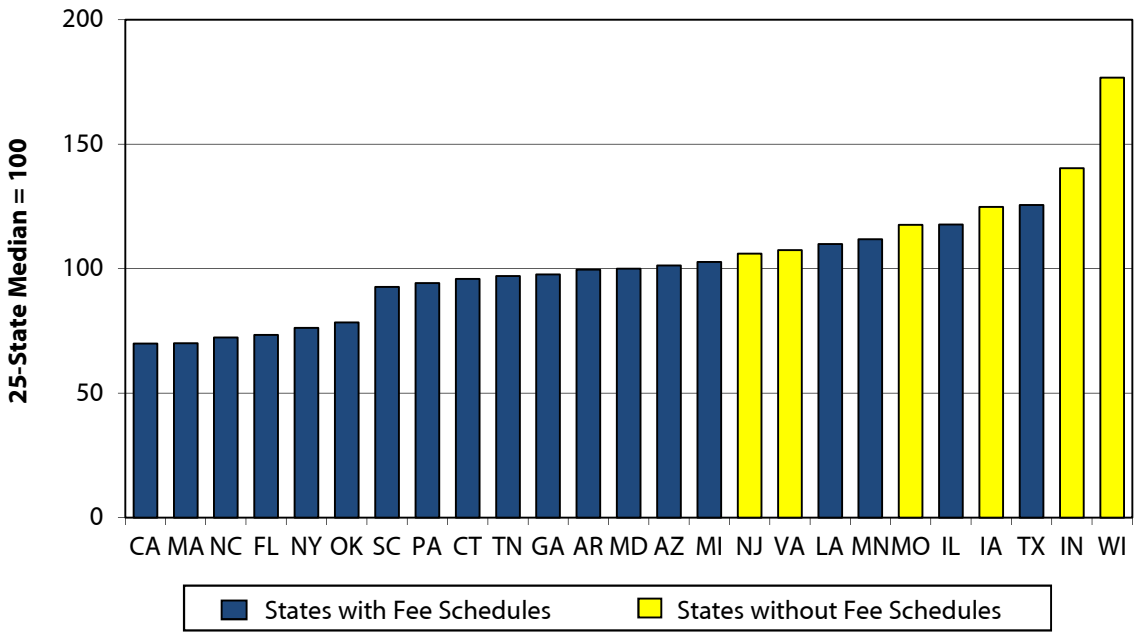
Figure E.3 Interstate Comparison of Prices Paid for Professional Physical Medicine Services, WCRI MPI-WC in 25 States, 2012[p]



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Physical medicine: The services in this group include physical medicine procedures and modalities, chiropractic care such as therapeutic activities, procedures and manual therapy techniques involving one or more areas, and electronic stimulation. See Table TA.2 for a detailed description of all service codes included in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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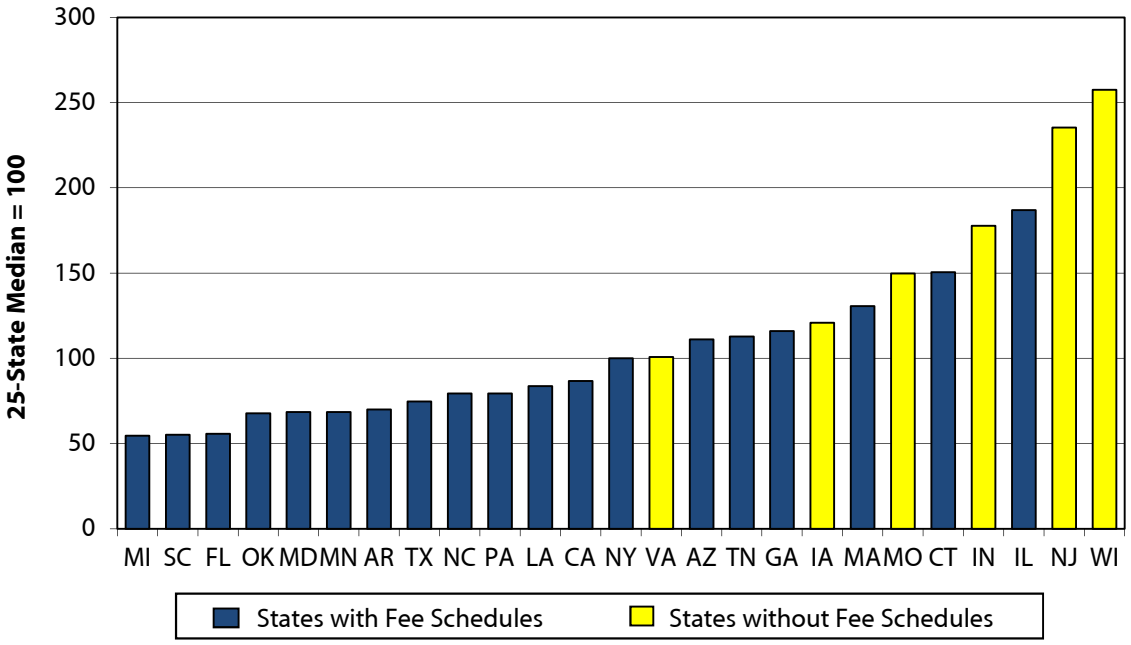
Figure E.4 Interstate Comparison of Prices Paid for Professional Major Surgery Services, WCRI MPI-WC in 25 States, 2012[p]



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Major surgery: The majority of the services in this group include orthopedic surgeries, such as arthroscopy of the shoulder or knee and lumbar laminotomies; neuroplasty and/or transposition of the median nerve at the carpal tunnel; and hernia repair. See Table TA.2 for a detailed description of all service codes included in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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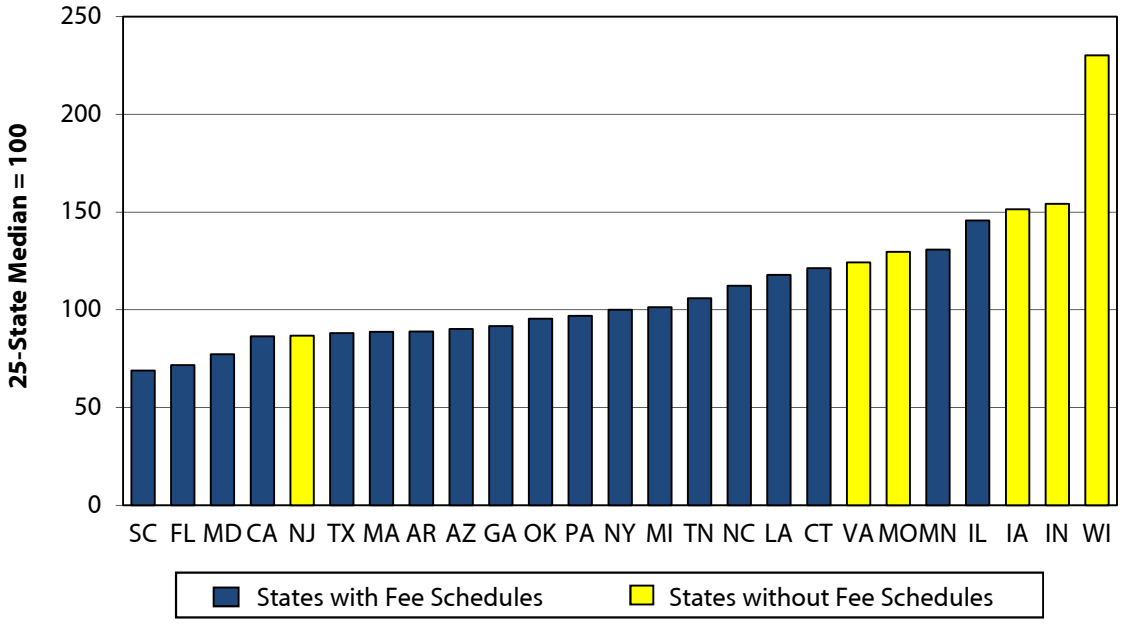
Figure E.5 Interstate Comparison of Prices Paid for Professional Major Radiology Services, WCRI MPI-WC in 25 States, 2012[p]



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Major radiology: The services in this group mostly include magnetic resonance imaging of various areas, including, but not limited to, spinal canal and contents, cervical, lumbar, and any joint of the upper or lower extremity. See Table TA.2 for a detailed description of all service codes included in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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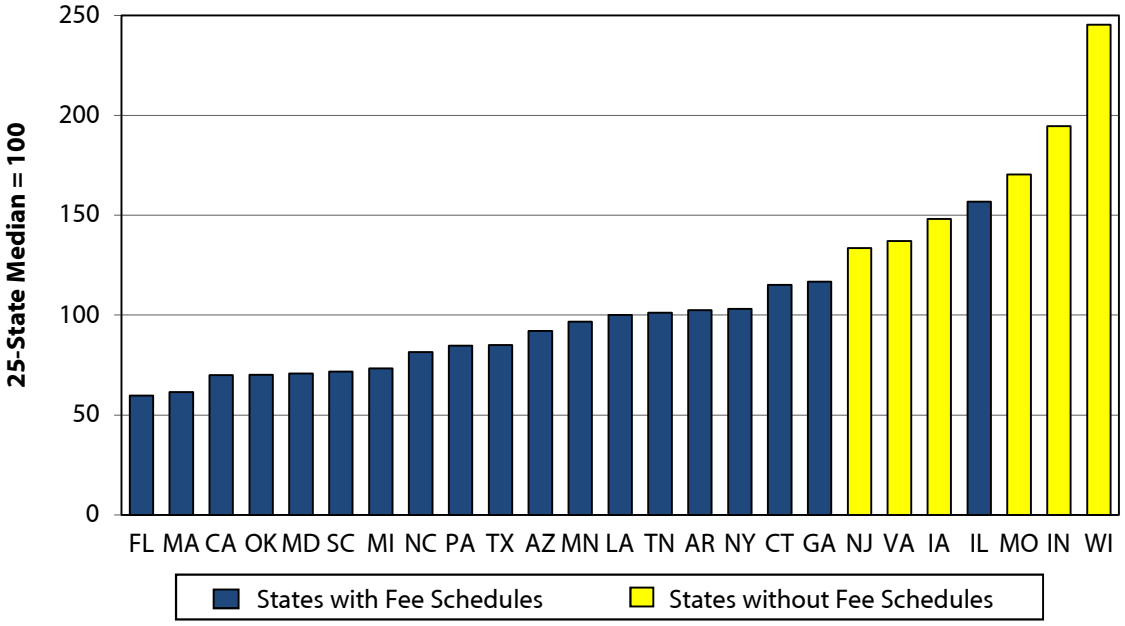
Figure E.6 Interstate Comparison of Prices Paid for Professional Minor Radiology Services, WCRI MPI-WC in 25 States, 2012[p]



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Minor radiology: The services in this group mostly include radiologic exams (X rays or ultrasounds) involving at least two views of various areas of the body, including, but not limited to, the spine, lumbosacral, shoulder, and wrist. See Table TA.2 for a detailed description of all service codes included in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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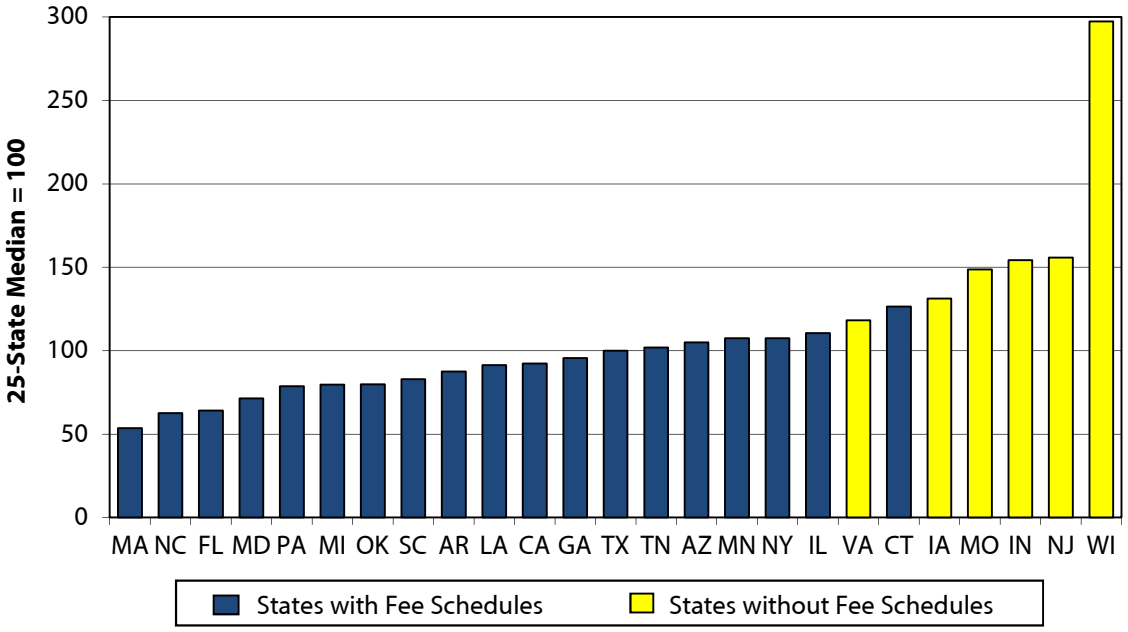
Figure E.7 Interstate Comparison of Prices Paid for Professional Neurological/Neuromuscular Testing Services, WCRI MPI-WC in 25 States, 2012[p]



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Neurological/neuromuscular testing: The services in this group are largely made up of sensory and motor nerve conduction tests but also include range of motion tests and application of neurostimulators; these services may be billed by physicians, as well as by chiropractors and physical therapists. See Table TA.2 for a detailed description of all service codes included in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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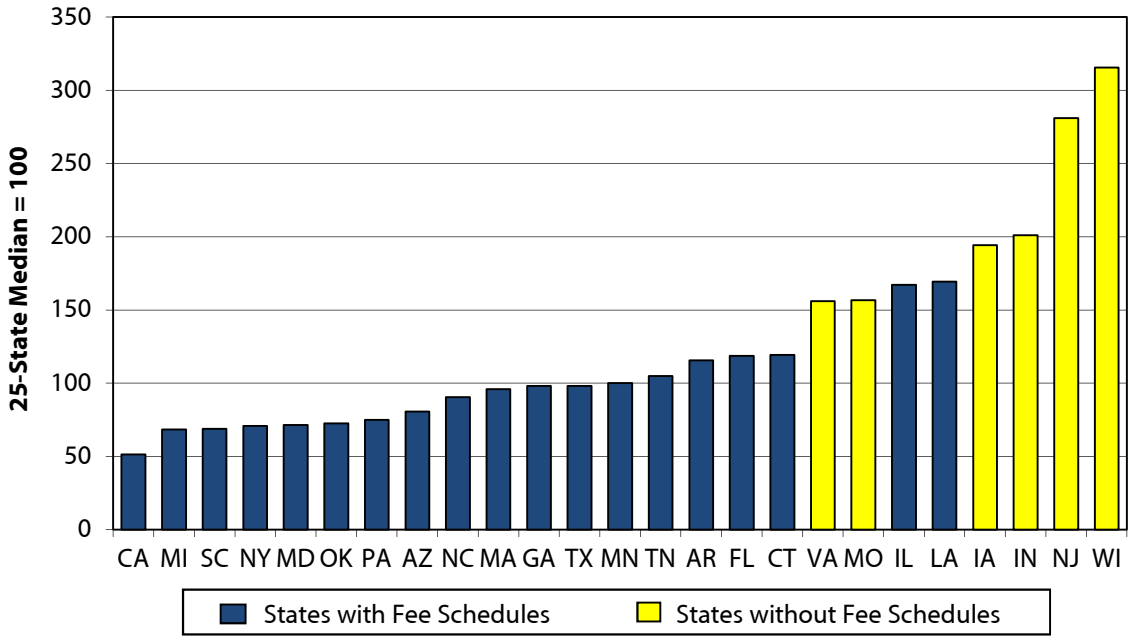
Figure E.8 Interstate Comparison of Prices Paid for Professional Pain Management Injection Services, WCRI MPI-WC in 25 States, 2012[p]



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Pain management injections: The services in this group include 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. See Table TA.2 for a detailed description of all service codes included in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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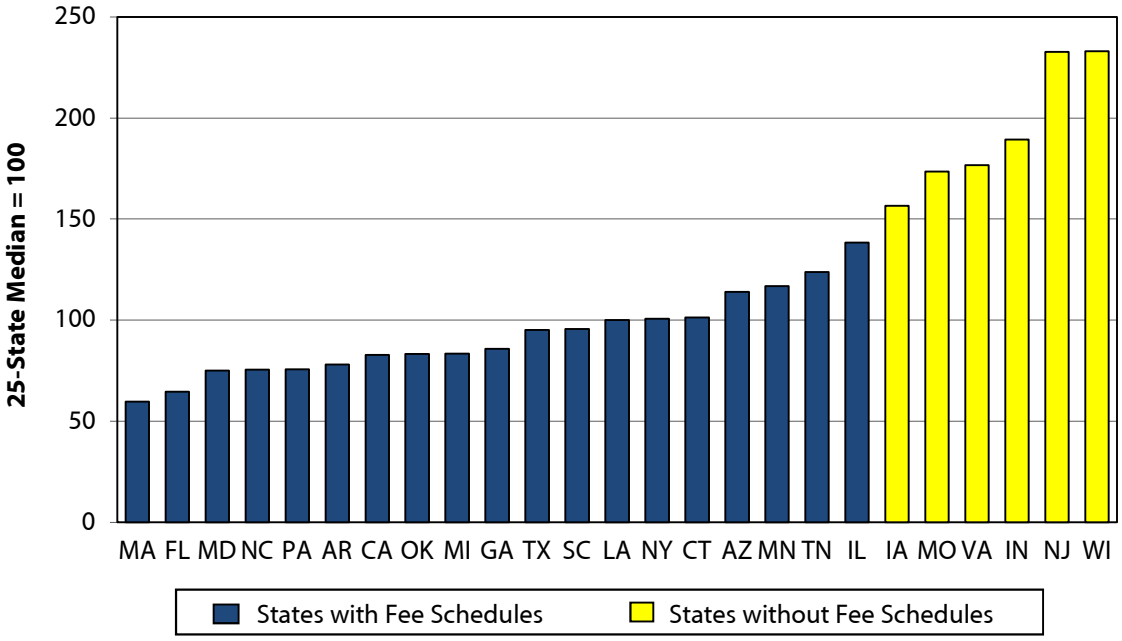
Figure E.9 Interstate Comparison of Prices Paid for Professional Emergency Services, WCRI MPI-WC in 25 States, 2012[p]



Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012. Note that the half-year data likely provide a reasonable approximation for interstate ranking across states in 2012, based on results for earlier years from the prior editions of this study (see Figure TA.1).

Notes:

Emergency services: The services in this group include emergency department visits for patients with various levels of severity and office services provided on an emergency basis. See Table TA.2 for a detailed description of all service codes included in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because each state is missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing data source compared with other data sources in the state, this may lead to under- or overestimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2012.

AZ, CT, MN: These states had fee schedule changes or updates within 2012, but after June 30, 2012, that are not reflected in the results.

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Figure F.1 Trends in Consumer Price Index for Medical Care (CPI-M), Professional Services, 2002 to 2012, for Urban Wage Earners and Clerical Workers, Not Seasonally Adjusted

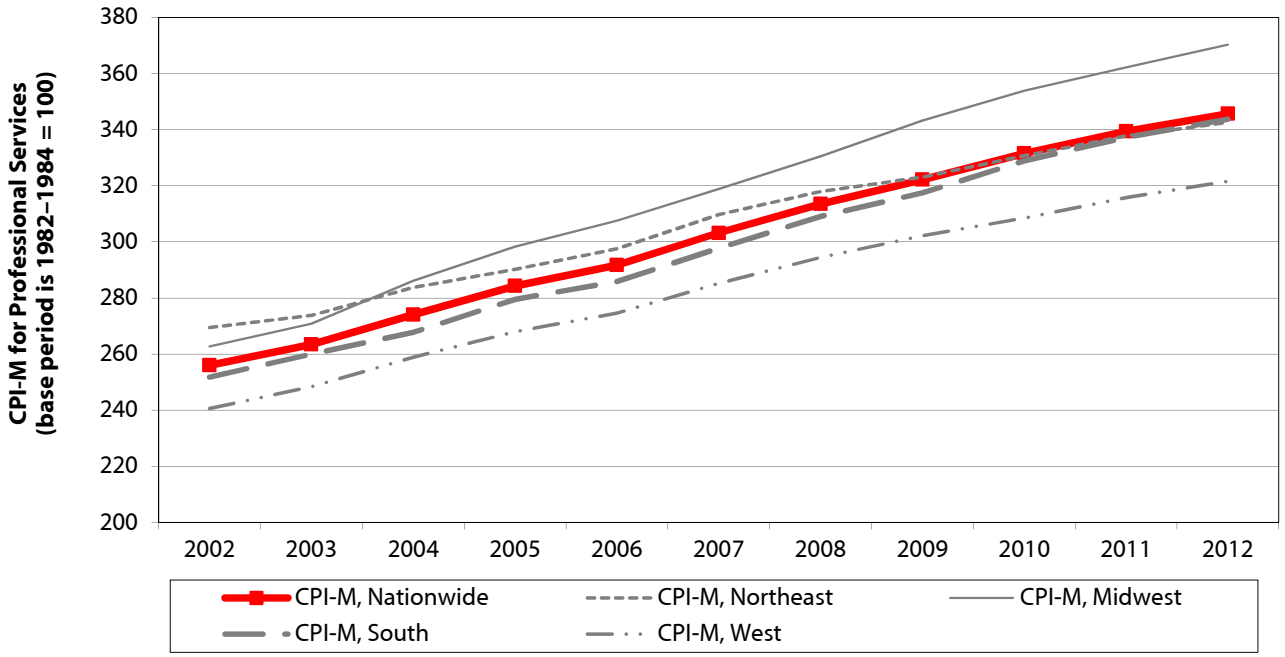

Table for Figure F.1: Consumer Price Index for Medical Care (CPI-M), Professional Services, 2002 to 2012, for Urban Wage Earners and Clerical Workers, Not Seasonally Adjusted

	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012
CPI-M, Nationwide	256	263	274	284	292	303	313	322	331	339	346
By region											
CPI-M, Northeast	270	274	284	290	298	310	318	323	331	338	343
CPI-M, Midwest	263	271	286	298	308	319	330	343	354	362	370
CPI-M, South	252	260	268	280	286	298	309	317	329	337	344
CPI-M, West	241	248	259	268	275	285	294	302	308	316	322

Note: The base period is 1982–1984, which is equal to 100 in the index.

Source: U.S. Bureau of Labor Statistics, not seasonally adjusted. Consumer Price Index - Urban Wage Earners and Clerical Workers, Series ID CWUR0000SEMC, CUUR0000SEMC located at http://www.bls.gov/cpi.

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TECHNICAL APPENDIX

This technical appendix for the MPI-WC contains three major sections: the first section, "Study Scope," lays out the conceptual structure of the WCRI medical price index and describes the covered providers and services. The second section, "Data and Methods," discusses the representativeness of the data, creation of the price indices, and data cleaning. The last section addresses the limitations and caveats of this study.

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STUDY SCOPE

The WCRI Medical Price Index for Workers' Compensation focuses on professional services (i.e., nonhospital, nonfacility services) provided by physicians, chiropractors, and physical or occupational therapists to injured workers with workers' compensation claims. Professional services typically make up about 50 percent of total workers' compensation medical expenditures in workers' compensation in a given state (Belton et al., 2013). The rest include payments for hospital inpatient and outpatient services, ambulatory surgical centers, and pharmaceuticals and supplies. The price indices are computed for the most common groups of medical professional services: emergency, evaluation and management, physical medicine, both major and minor radiology, neurological and neuromuscular testing, surgery, and pain management injections. These eight groups typically comprise about 70 percent of total medical payments for nonhospital, nonfacility services across states (Belton et al., 2013). Table TA.1 provides a brief description of these service groups. Detailed definitions of the specific Current Procedural Terminology (CPT) codes included under each group can be found in Table TA.2.

This study reports prices paid for each of those eight types of services provided by any nonhospital providers; it does not break out specific provider types (such as physicians, chiropractors, and physical/occupational therapists). Twenty-five states are included in this study: Arkansas, Arizona, California, Connecticut, Florida, Georgia, Illinois, Indiana, Iowa, Louisiana, Maryland, Massachusetts, Michigan, Minnesota, Missouri, New Jersey, New York, North Carolina, Oklahoma, Pennsylvania, South Carolina, Tennessee, Texas, Virginia, and Wisconsin. We monitor trends in prices paid from calendar years 2002 through June 2012 within each of these 25 states and compare them across states. Also, we report indices comparing medical prices across states for 2012 to provide a snapshot of interstate comparison of medical prices.[1]

DATA AND METHODS

THE DATA

The data in this MPI-WC study are from the medical transaction information in WCRI's DBE database. In this study, we constructed two analysis data sets—expenditure data and price data. We used the expenditure data to establish the marketbasket and the frequency weights on services in the marketbasket; after that, we used the price data to obtain prices for each marketbasket procedure and constructed price indices using the marketbasket weights.

[1] 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

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The price data in this study include services rendered from 2002 through June 2012 in the 25 study states. We obtained the actual amount paid for each medical bill line item for each of the services included in the marketbasket. Across the study states, the DBE database included approximately 49 to 82 percent of the workers' compensation claims in each state. The price data are from several large insurers, self-insurers, state funds, and third-party administrators in the 25 states. In most study states, our data were reasonably representative of the state systems; however, in a few states the data may not have been necessarily representative because they were missing data from a larger data source that was significant in the state. These states include Arizona, Missouri, New York, and Oklahoma, as noted throughout the tables. However, the results for Arizona, New York, and Oklahoma are unlikely to be significantly under- or overestimated, given that these states had fee schedules for professional services reimbursement, and, therefore, it is unlikely that the prices for the missing data source were materially different from other data sources included in this study.

The expenditure data for creating the marketbasket includes the medical services paid on a group of claims from the 25 study states. The expenditure data includes two separate periods of 24 months—from January 1, 2005, to December 31, 2006, and from January 1, 2008, to December 31, 2009. Each period supports a marketbasket, as we discuss in detail in the next section. We ensured that the marketbasket was representative of the most recent 2012 data in this report across the 25 study states (see Table TA.3).

CREATING THE PRICE INDICES

Selecting the Marketbasket

The price index is the weighted average of prices paid for a collection of the most common medical services provided to injured workers. This collection is called a marketbasket. See Table TA.2 for a list of CPT codes in the marketbasket. We use a single marketbasket of procedure codes across all states to hold utilization constant so that we are able to report pure price changes across states and provide more meaningful interstate comparisons. However, the marketbasket may represent a smaller percentage of the total expenditures in some states when state-specific codes are used. In most cases, we have been able to map these unique codes to the standard codes in the marketbasket, though some state-specific codes do not have a standard alternative. In states where this was common, the marketbasket may represent a smaller percentage of the total dollars spent.

In selecting the marketbasket procedures, we used eight service groups to characterize the professional services. Each of these groups represents a price index component. We reviewed the top procedure codes ranked by frequency for each of these groups. We then sequentially chose codes within each service group until we reached at least 85 percent or above of expenditures in all service groups except for major surgery and minor radiology, where the codes in the marketbasket captured 40 percent and 67 percent of total expenditures in those groups, respectively (Table TA.4). 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. Also the analysis of additional procedures would not be supported by the observed number of services in smaller states. After the initial choice, the expenditures were broken down by state to see if any states were underrepresented. The percentage of total expenditures represented across study states for 2012 was fairly stable for each service group (see Table TA.3).

This study covers a wide time span of 11 years. In order to account for potential changes in the utilization patterns over the study period, two marketbaskets were established. One is based on the expenditure data covering a 24-month period from 2008 to 2009, and the other uses expenditure data from an earlier

period—the 24-month period from 2005 to 2006. Table TA.4 provides a description of the 2008–2009 marketbasket, and the 2005–2006 marketbasket is fairly similar to the later one. The 2008–2009 marketbasket was used for computing the price indices in more recent years—2009, 2010, 2011, and 2012. The 2005–2006 marketbasket was employed for calculating the price indices in all the earlier study years. Then, we used a standard chained-index method to chain the price indices in the later years (from 2009 to 2012) with the indices in the earlier years (from 2002 to 2008). In this way, we maintained continuity of the price index across different studies and, meanwhile, adjusted for potential changes in utilization patterns over a long period. The chained-index method we employed in this report is commonly used in creating price index trends. For example, the trends in the CPI-M, published by the BLS, rely on essentially the same chained-index approach.[2] Specifically, in this report, calendar year 2009 was used as the transitioning year between the two series of price indices, where the later series includes 2009, 2010, 2011, and 2012 and the earlier series includes 2002 to 2008. The price indices in the later series were then chained back to the base year 2002 of the earlier series via the transitioning year 2009 (see the following formula):

$$I'^{yr}_s = \frac{P'^{yr}_s}{P'^{09}_s} \times \frac{P^{09}_s}{P^{02}_s}$$

where I'^{yr}_s is the price-trend index for a year in the later series for a state *s* (2009 to 2012),
P'^{yr}_s is the price in a year in the later series based on 2008-2009 marketbasket for a state *s*,
P'^{09}_s is the price in 2009 based on 2008-2009 marketbasket for a state *s*,
P^{09}_s is the price in 2009 based on 2005-2006 marketbasket for a state *s*, and
P^{02}_s is the price in 2002 based on 2005-2006 marketbasket for a state *s*.

In addition, two points are worth noting regarding the procedure codes: (1) CPT code conversion and crosswalking of the state-specific codes and (2) replacement of obsolete CPT codes 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 PT/OT codes, we mapped Louisiana code PT010/OT010 for hot or cold packs to CPT code 97010. The Louisiana 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 codes in the marketbasket for physical medicine services in Louisiana represented a lower percentage of the total expenditures than in other study states. For example, for 2012, the marketbasket codes for physical medicine services in Louisiana represented 64 percent of the total expenditures, compared with the more typical 81 to 98 percent (see Table TA.3). 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, the codes 97250, 97260, 97261, and 97265 were combined with 97140 (manual therapy technique), since 97140 was introduced in 1999 to replace the four codes used previously. However, states transitioned to the use of the new code over different periods of

[2] For more information on concepts, statistical procedures, and estimation methods used by BLS to compile the Chained CPI-U, refer to *Introducing the Chained Consumer Price Index* (Cage, Greelees, and Jackman, 2003).

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time, and to accommodate different timing of the new code adoption, we combined all five codes under a common label 97140 for our analysis.

Computing the Price Index

A key feature of the price index is to isolate the changes in price from the changes in utilization, which requires holding utilization constant across the states. To accomplish this, we created two sets of weights. The procedure-level frequency weight for a marketbasket code was used to average procedure-level prices to the service group level. It 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, which was used to further aggregate service group prices to the overall state level, was computed as the percentage of the total number of services associated with this service group divided by the total number of all professional services. The frequency weights at a service group level were not restricted to procedures captured by the marketbasket. Even though the marketbasket captured the majority of services for most service groups, the major surgery and minor radiology marketbasket codes represented a smaller fraction of all professional services within the two groups. Therefore, by computing service group weights for all professional services within each service group, the service-group weights reflected the relative frequency of services associated with each service group as it is observed in the data.

The procedure-level frequency weight can be expressed as the following:

$$v_{ij} = \frac{NS_{ij}}{\sum_{j=1}^{M_i} NS_{ij}}$$

where v_{ij} is the procedure-level frequency weight for procedure j in service group i,
NS_{ij} is the number of services for procedure j in marketbasket in service group i, and
M_i is the total number of procedures in marketbasket in service group i.

The frequency weight for a service group can be expressed as the following:

$$w_i = \frac{\sum_{j=1}^{M'_i} NS'_{ij}}{\sum_{i=1}^{8} \sum_{j=1}^{M'_i} NS'_{ij}}$$

where w_i is the frequency weight for service group i,
NS'_{ij} is the number of services for procedure j observed in the data in service group i,
M'_i is the total number of procedures observed in the data in service group i, and
$i = 1 \ldots 8$ and 8 is the total number of service groups.

Because we selected the marketbasket codes from the state-pooled data set, one may be concerned that the distribution of service frequencies in relatively larger states (such as California and Texas) might

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dominate the whole distribution in the pooled data and hence introduce potential bias in the 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 has essentially the same influence in computing the weights. The adjustment factor was computed as the inverse of the proportion of a state's number of services out of all services in the 25-state pooled data. For example, if there were two states, and one had twice as many services as the other one, the adjustment factor for the state with more claims would be half of the adjustment factor for the state with fewer claims.

Based on the established marketbasket, we computed unit prices and price indices by the following steps:

1. Compute the price for each procedure code in the marketbasket by averaging amounts paid for individual procedures using all occurrences with an identical procedure code.
2. Aggregate prices across marketbasket codes to the service group level using the procedure-level frequency weights.
3. Aggregate prices across service groups to the overall level using the service group level frequency weights.
4. For interstate comparisons, calculate price indices against the 25-state median prices at both service group and overall state levels for each state.
5. For trends, calculate price indices in the later years against the prices in calendar year 2002.

Step 2 can be expressed as the following:

$$P_{is} = \sum_{j=1}^{A_i} v_{ij} * P_{ijs}$$

where P_{is} is the aggregated price for service group i in a state s,
P_{ijs} is the estimated price for procedure j in service group i in a state s,
v_{ij} is the procedure-level frequency weight for procedure j in service group i, and
$j = 1 \ldots A_i$ and A_i is the total number of procedures in service group i.

Step 3 can be expressed as the following:

$$P_s = \sum_{i=1}^{8} w_i * P_{is}$$

where P_s is the aggregate price for overall professional services in a state s,
P_{is} is the aggregate price for service group i in a state s,
w_i is the service group level frequency weight for service group i, and
$i = 1 \ldots 8$ and 8 is the total number of service groups.

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Steps 4 and 5 can be expressed as the following:

$$I_s = \frac{P_s}{P^{mdn}}$$

$$I_s^{yr} = \frac{P_s^{yr}}{P_s^{02}} \qquad or \qquad I'^{yr}_s = \frac{P'^{yr}_s}{P'^{09}_s} \times \frac{P_s^{09}}{P_s^{02}}$$

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where I_s is the price index for a state *s*,
I_s^{yr} is the price-trend index for a year *yr* from 2002 to 2009 and a state *s*,
I'^{yr}_s is the price-trend index for a year in the later series for a state *s* (2010 to 2012),
P_s is the price (either for a service group or overall) in a state *s*,
P^{mdn} is the price (either for a service group or overall) in the 25-state median,
P_s^{yr} is the price (either for a service group or overall) in a year *yr* from 2002 to 2009 based on 2005-2006 marketbasket for a state *s*,
P'^{yr}_s is the price in a year in the later series based on 2008-2009 marketbasket for a state *s*,
P'^{09}_s is the price in 2009 based on 2008-2009 marketbasket for a state *s*,
P_s^{09} is the price in 2009 based on 2005-2006 marketbasket for a state *s*, and
P_s^{02} is the price in 2002 based on 2005-2006 marketbasket for a state *s*.

DATA CLEANING

Over the years, WCRI has developed algorithms to adjust for known limitations in the data. Some of these limitations include outlier payments for individual services, lines representing multiple services, and missing procedure modifier information.

Trimming Outlier Values

A small proportion of the lines in the data had unusually large or small values in medical payments. Also due to skewness of a distribution of medical payments, these extreme values contributed disproportionately to the average. In particular, since distribution of payments is bounded at zero, the distribution is skewed to the right, and large positive values are not offset by large negative values. To mitigate the influence of the extreme values on the average medical payments and ensure meaningful results, we applied a *price data cleaning* technique to trim the *outlier* values at both extremes of the distribution of the paid amounts across all services with the same procedure code.

To remove outliers for marketbasket procedures associated with all service groups, except major surgery and minor and major radiology, we excluded 5 percent of the services at the low and upper end of the price distribution for each procedure, year, and state. The data cleaning procedures for major surgery and minor and major radiology service groups are described in the "Identifying Modified Services for Surgery" and "Identifying Modified Services for Radiology" sections, respectively.

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Multiple Units of Service

Some services, such as physical medicine modalities and procedures and neurological/neuromuscular testing, 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 was necessary to adjust the data for these multiple unit billings.

To identify the multiple units of service, we first looked at the units of service field provided in each data source file. If the units of service field was populated with a value greater than one (default value), we treated that number as the number of services for which the payments were paid in a given line. The number of services provided by data sources, however, is not always accurate and is sometimes missing. For physical medicine and neurological/neuromuscular testing procedures (which are commonly billed in multiple units) where the units of service field was missing or equal to one, we did a further check on multiple units of service using *prevailing prices*. Prevailing price, by definition, is one or more of the most frequently paid prices for each procedure code picked from a data source within a calendar year. Once prevailing prices for each procedure code were picked, we then checked line items with that procedure against the respective prevailing prices. If the paid amount in a line item was a whole multiple of any of the prevailing prices for this procedure, we assumed that line indicated that multiple of services at that prevailing price and the number of services was reset to the whole multiple. We performed the units of service adjustment for each procedure code in each year for each data source.

Identifying Modified Services for Radiology

Major and minor radiology procedure codes often have modifiers to distinguish the technical component (e.g., using the radiology machine/devices) versus the professional component (e.g., reviewing the results) of the whole procedure. The professional component is typically identified with the modifier code 26, and the technical component is usually identified with the modifier code 27. For the same procedure, these components are paid at different levels—usually 20 to 30 percent of the price for the whole procedure is paid for the professional component, and 70 to 80 percent of the price for the whole procedure is paid for the technical component. The maximum allowances for these components are subject to price regulation.

Unfortunately, the modifier codes are often missing in the data. For this study, we developed an algorithm to identify medical bill line items for the professional component and to estimate the prices paid for the professional component separately from the prices paid for the technical component or the whole procedure. We used a regulation-driven method for states with fee schedules and a data-driven method for states without fee schedules. For the study states with fee schedules, we used the maximum allowance amounts for the professional components published by the state agencies as a benchmark to set up the threshold. The threshold was set at 10 percent above the maximum allowance amounts for professional components to take into consideration the potential deviation of actual prices paid from the rates indicated by regulation. Radiology services with paid amounts below the threshold were identified as services billed for the professional component; services with paid amounts above that threshold were identified as services billed for the technical component or the whole procedure.

For states without fee schedules (including Tennessee and Illinois in the period before the implementation of their fee schedules), we identified the group of services billed for the professional

component based on a data-driven method with the following major steps. First, in the states without fee schedule regulations, often there are major networks that offer discounted prices for whole procedures. Based on the network and discount information we acquired, we estimated the price for the whole procedure for each procedure code. Second, we estimated the threshold of the potential maximum price for the professional component by procedure, using the typical ratio between the maximum allowance amounts for the professional component and the amount for the whole procedure.[3] Then, radiology services with paid amounts below the threshold were identified as services billed for the professional component; the rest of the services were identified as services billed for the technical component or the whole procedure.

After we identified services billed for the professional component separately from services billed for the technical component/whole procedure for each CPT code, we held the proportional frequency of these two components of services for each procedure constant across states and years in computation of the average prices for each radiology procedure. Since the proportion of radiological services billed as a whole procedure (versus broken into professional and technical components) varied between states and years, it is important to hold the relative frequency of the professional and technical component/whole procedure constant. To trim for outliers, we excluded the bottom 5 percent of the price distribution for the professional component and the top 5 percent of the price distribution for the technical component/whole procedure for each CPT code, state, and year.

Please note that we were not able to identify the services billed for the technical component and for the whole procedure separately in this report. In most states' fee schedules, the maximum reimbursement rates for the technical components often accounted for 70 to 80 percent of those for the whole procedures, and the actual prices paid for the whole procedures often reflected network discounts. Therefore, there is no obvious discontinuity in the distribution of payments to allow us to separate the two prices. One may be concerned that the differences in the mix of these two types of services may affect the price levels across states. For example, states may have lower or higher prices because they have more technical components or more whole procedures, rather than having lower or higher unit prices for those services. We performed sensitivity tests to estimate the potential under- and overstatements on prices for one of the most common magnetic resonance imaging (MRI) services, the lumbar MRI (CPT code 72148). Based on different assumptions on mix of services between technical components and whole procedures across states, we found that the potential under- and overstatement ranged from 2 to 8 percent and that there were no material changes in interstate rankings.

Identifying Modified Services for Surgery

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

[3] Nationwide, across states with fee schedules, the ratios between the maximum allowance amounts for the professional component and the whole procedure fall within a narrow range of 20 to 30 percent, despite large interstate variations in the maximum allowance amounts themselves. This indicates a common pattern across states in terms of reimbursement for the professional component relative to the whole procedure. Therefore, we used the typical ratio from states with fee schedules to estimate the thresholds of the maximum price for the professional component in states without fee schedules. We also verified that the estimated thresholds were consistent with the discontinuity in the distribution of payments in states without fee schedules. Furthermore, we tested several different ratios (between 20 and 30 percent) and found that the differences in the service group level prices ranged from minimal to about 4 percent and that there were no material changes in the interstate comparisons.

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procedure is reimbursed when performed as primary by a primary surgeon.[4] 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.

For this edition of the study, we updated the algorithm to isolate the payments to the 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. After restricting distribution of actual payments to include only the highest payment on the surgery day, some number of misclassified facility payments (or unusually high values) and modified payments (or values around 15–25 percent or 50 percent of the full rate) still appeared in the price distribution, motivating additional trimming. 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. As part of the second step, 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 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.[5] 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.

[4] The discount rates for reduced payments are based on state fee schedule regulations.

[5] 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, 2010). In Tennessee, the facility rate associated with common shoulder arthroscopy was $4,679 versus $1,668 for the relevant professional services.

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LIMITATIONS AND CAVEATS

The price index reveals the pure price changes within a state and makes comparisons across state and service categories more meaningful. The changes in prices paid vary widely, as this report shows. Underlying the price changes are several factors, including changes in fee schedules, network penetration rates, negotiated prices, and provider billing practices.

We need to remind readers of several caveats to interpreting the price index. First, to provide more recent information, we report prices in 2012 based on January through June 30, 2012. The interstate rankings based on the 2012 figures should provide a reasonable approximation for a state's ranking relative to other states in 2012—especially for states that adjusted their fee schedules early in 2012.[6] For states that adjusted their fee schedules after June 30, the index may understate or overstate their comparable price index for 2012. Among the 25 study states, Arizona, Connecticut, and Minnesota had fee schedule changes or updates within 2012, but after June 30, 2012. The same concern is also true to a lesser extent for states that adjusted their fee schedules in the second quarter of 2012. For states without fee schedules, it would not be surprising if the price index based on six months of data understates the value of the price index based on a full year of data. For the same reasons, the price index trends from 2011 to 2012 in the report (based on half-year 2012 data) may understate or overstate the trends based on a full year of 2012 data in the study states.

Second, this study is based on data from 25 states and a group of large insurers, self-insurers, state funds, and third-party administrators in these states. The data in most study states were reasonably representative of the state systems; however, in a few states our data were not necessarily representative because they were missing data from a larger data source that was significant in that state. To the extent that prices paid may differ for the missing payors compared with for other payors in the state, this may have led to under- or overestimations in the results. These states include Arizona, Missouri, New York, and Oklahoma, as noted throughout the tables. However, the results for Arizona, New York, and Oklahoma are unlikely to be significantly under- or overestimated, given that these states had fee schedules for professional services reimbursement, and, therefore, it is unlikely that the prices for the missing data source were materially different from other data sources included in this study.

Third, we use a single marketbasket of procedure codes across all states to hold utilization and intensity of services constant in order to isolate the effects of prices. In a few states, there are a limited number of unique state-specific procedure codes. Often these codes are mapped to the standard codes in the marketbasket. In a few states, such a mapping was not possible. In these cases, we omitted the state-specific codes (for example, the physical medicine services in Louisiana). This might produce minor distortions in the interstate comparability, but should not affect the individual state trends.

Fourth, radiology procedure codes often use modifiers to distinguish the technical component (of the whole procedure) versus the professional component (of the whole procedure), and these components are paid at different levels for the same procedure. Unfortunately, the modifier codes are sometimes missing in the data reported to WCRI. Without a modifier, a paid amount can be for one of the following three things: the professional component, the technical component, or the whole procedure. For this study, we developed an algorithm to identify the payments for the professional component separately from the other two. This allows us to more accurately compute the average prices for radiology services. However, we were not able to identify the payments for the technical component and for the whole procedure separately due to data limitations. In most states' fee schedules, the maximum reimbursement rates for the technical components

[6] This is based on results for earlier years from the prior editions of this study, shown in Figure TA.1.

often accounted for 70 to 80 percent of those for the whole procedures, and the actual prices paid for the whole procedures often reflected network discounts. Therefore, there is no obvious discontinuity in the distribution of payments to allow us to separate the two prices. One may be concerned that the differences in the mix of these two types of services may affect the price levels across states. We performed sensitivity tests for one of the most common MRI services, lumbar MRI (CPT code 72148), and found that the potential under- and overstatement ranged from 2 to 8 percent and that there were no material changes in interstate rankings.

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Table TA.1 Brief Marketbasket Service Group Definitions

Service Group	Definition
Professional services	Professional services in this study refer to nonhospital, nonfacility services billed by physicians, physical therapists, and chiropractors, excluding bills for durable medical equipment or pharmaceuticals.
Emergency services	The services in this group include emergency department visits for patients with various levels of severity and office services provided on an emergency basis. See Table TA.2 for a detailed description of all service codes included in this group.
Evaluation and management	The services in this group are new and established patient office visits. These consist of office visits that require at least two of three parts: a problem focused history, a problem focused examination, and straightforward medical decision making of various complexities. See Table TA.2 for a detailed description of all service codes included in this group.
Major radiology	The services in this group mostly include magnetic resonance imaging (MRIs) and computed tomography (CT) scans of various areas, including, but not limited to, spinal canal and contents, cervical, lumbar, and any joint of the upper or lower extremity. See Table TA.2 for a detailed description of all service codes included in this group.
Minor radiology	The services in this group mostly include radiologic exams (X rays or ultrasounds) involving at least two views of various areas of the body, including, but not limited to, the spine, lumbosacral, shoulder, and wrist. See Table TA.2 for a detailed description of all service codes included in this group.
Neurological/neuromuscular testing	The services in this group include neurological and neuromuscular testing. They are largely made up of sensory and motor nerve conduction tests but also include range of motion tests and application of neurostimulators. These services may be billed by physicians, as well as by chiropractors and physical therapists. See Table TA.2 for a detailed description of all service codes included in this group.
Physical medicine	The services in this group include physical medicine procedures, modalities and chiropractic care such as therapeutic activities, procedures and manual therapy techniques involving one or more areas, electronic stimulation, and work hardening/conditioning, as well as chiropractic manipulations. Physical medicine codes may be billed by physicians, chiropractors, or physical therapists. See Table TA.2 for a detailed description of all service codes included in this group.
Major surgery	The majority of the services in this group include invasive orthopedic surgical procedures, such as arthroscopy of the shoulder or knee and lumbar laminotomies, as well as neuroplasty and/or transposition of the median nerve at the carpal tunnel and hernia repair. See Table TA.2 for a detailed description of all service codes included in this group.
Pain management injections	The services in this group include 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. See Table TA.2 for a detailed description of all service codes included in this group.

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Table TA.2 Marketbasket Procedures

Procedure	% of Services	CPT Code	Description
Emergency			
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
Evaluation and management			
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
Major radiology			
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
Minor radiology			
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

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Table TA.2 Marketbasket Procedures (continued)

Procedure	% of Services	CPT Code	Description
40	4.0%	73560	Radiologic exam, knee, one or two views
41	3.5%	72110	Radiologic exam, spine, lumbosacral, minimum of four views
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
Neurological/neuromuscular testing			
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
Physical medicine			
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

continued

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Table TA.2 Marketbasket Procedures (continued)

Procedure	% of Services	CPT Code	Description
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
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
Major surgery			
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
Pain management injections			
111	16.7%	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)
112	16.1%	64483	Injection, anesthetic agent and/or steroid, transforaminal epidural, lumbar or sacral, single level
113	15.1%	64415	Injection, anesthetic agent, brachial plexus, single
114	8.7%	20552	Injection(s), single or multiple trigger point(s), one or two muscle(s)
115	6.6%	64493	Injections, diagnostic or therapeutic agent, paravertebral facet joint (or nerves innervating that joint) with image guidance, lumbar or sacral, single level
116	5.9%	64484	Injection, anesthetic agent and/or steroid, transforaminal epidural, lumbar or sacral, each additional level

continued

Table TA.2 Marketbasket Procedures (continued)

Procedure	% of Services	CPT Code	Description
117	5.8%	64450	Injection, anesthetic agent, other peripheral nerve or branch
118	5.5%	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
119	5.3%	64494	Injections, diagnostic or therapeutic agent, paravertebral facet joint (or nerves innervating that joint) with image guidance, lumbar or sacral, second level
120	2.9%	20553	Injection(s), single or multiple trigger point(s), three or more muscle(s)
121	2.2%	62290	Injection procedure for discography, each level, lumbar
122	2.1%	62284	Injection procedure for myelography and/or computed tomography, spinal (other than C1-C2 and posterior fossa)
123	2.0%	64490	Injections, diagnostic or therapeutic agent, paravertebral facet joint (or nerves innervating that joint) with image guidance, cervical or thoracic, single level
124	2.0%	64510	Injection, anesthetic agent, stellate ganglion (cervical sympathetic)
125	1.7%	64491	Injections, diagnostic or therapeutic agent, paravertebral facet joint (or nerves innervating that joint) with image guidance, cervical or thoracic, second level
126	1.4%	64520	Injection, anesthetic agent, lumbar or thoracic (paravertebral sympathetic)

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.

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Table TA.3 Percentage of Expenditures Represented by the Marketbasket by State and Service Group

State	Emergency	Evaluation & Management	Major Radiology	Minor Radiology	Neurological/ Neuromuscular Testing	Physical Medicine	Major Surgery	Pain Management Injections
Calendar year 2012[p]								
AR	98%	96%	83%	85%	86%	94%	32%	93%
AZ	96%	95%	81%	85%	95%	95%	41%	94%
CA	95%	88%	87%	69%	92%	84%	39%	91%
CT	98%	98%	89%	84%	94%	97%	34%	92%
FL	97%	96%	84%	78%	94%	94%	34%	89%
GA	99%	98%	87%	83%	92%	96%	38%	94%
IA	98%	96%	86%	84%	98%	97%	44%	98%
IL	99%	92%	85%	81%	94%	98%	38%	95%
IN	99%	97%	88%	85%	96%	97%	40%	89%
LA	98%	92%	87%	79%	87%	64%	31%	90%
MA	97%	96%	87%	83%	92%	96%	47%	91%
MD	94%	96%	87%	81%	87%	91%	32%	94%
MI	99%	97%	83%	85%	95%	98%	44%	92%
MN	99%	97%	87%	84%	95%	92%	40%	91%
MO	98%	96%	85%	87%	97%	98%	41%	91%
NC	98%	93%	86%	80%	91%	94%	36%	94%
NJ	97%	95%	85%	73%	88%	96%	33%	94%
NY	99%	97%	90%	71%	90%	92%	37%	94%
OK	97%	96%	88%	77%	82%	97%	34%	97%
PA	96%	96%	85%	82%	94%	93%	41%	95%
SC	100%	96%	86%	83%	91%	97%	36%	91%
TN	100%	96%	87%	84%	94%	95%	42%	96%
TX	99%	96%	81%	83%	88%	81%	35%	91%
VA	95%	95%	85%	82%	89%	97%	37%	95%
WI	100%	96%	88%	85%	97%	96%	47%	92%

Special notation: [p] We use the notation *p* to indicate that the 2012 numbers are preliminary results based on half-year price data through June 30, 2012.

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Table TA.4 Description of Marketbasket Contents

Service Group	Number of CPT Codes	% of Expenditures Captured by Marketbasket Codes	% of Expenditures in Marketbasket	% of Services Captured by Marketbasket Codes	% of Services in Marketbasket
Emergency	5	95%	2%	90%	1%
Evaluation and management	13	93%	22%	93%	16%
Major radiology	13	86%	9%	84%	1%
Minor radiology	33	67%	5%	81%	6%
Neurological/neuromuscular testing	11	92%	3%	95%	3%
Physical medicine	23	92%	33%	94%	71%
Major surgery	12	40%	22%	41%	1%
Pain management injections	16	94%	3%	94%	1%
Totals	126	78%	100%	92%	100%

Key: CPT: Current Procedural Terminology.

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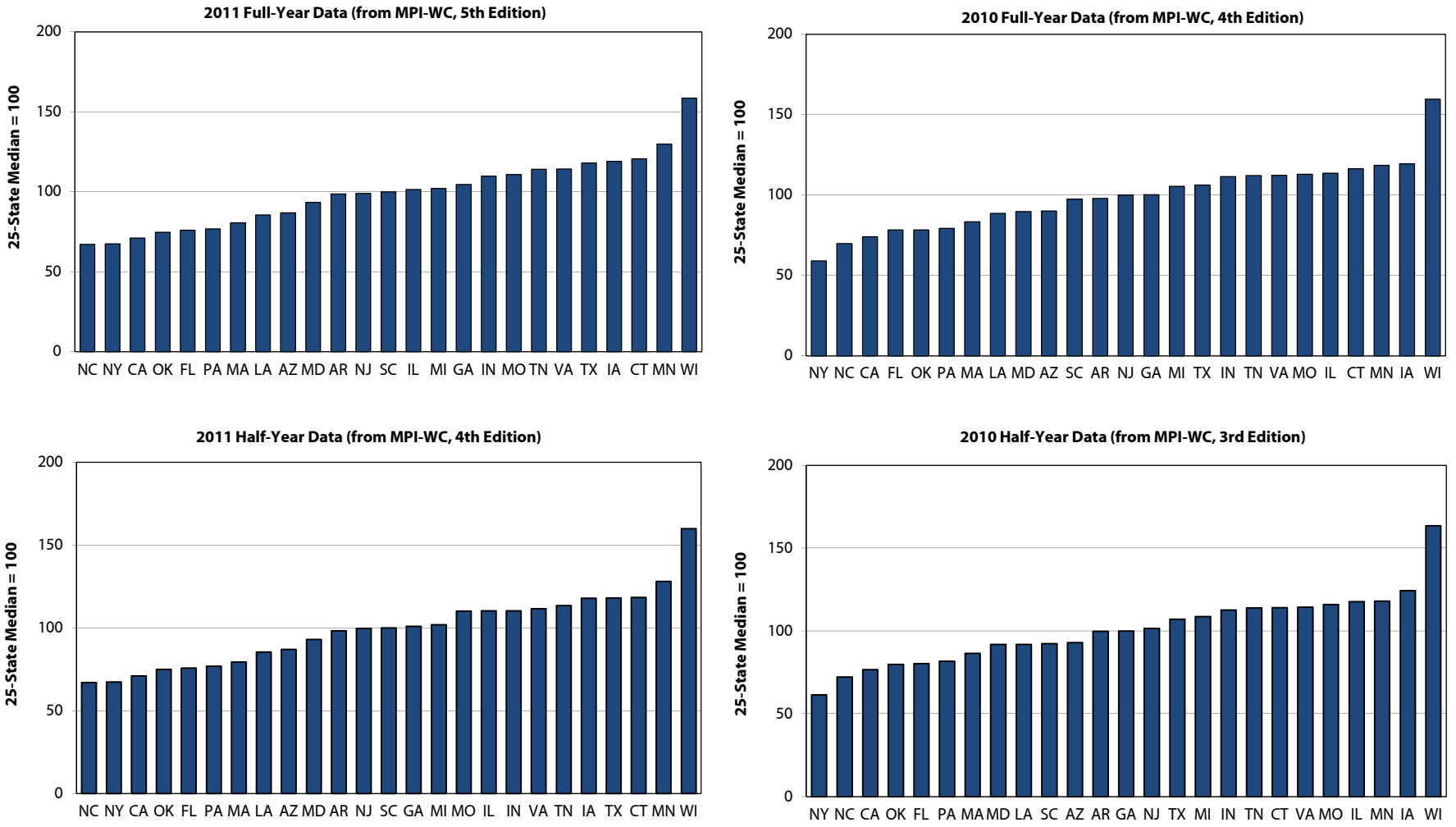
Figure TA.1 Interstate Comparison of Evaluation and Management Prices Paid, Full-Year versus Half-Year Data in 2011 and 2010, from Different Editions of the MPI-WC



Notes: This comparison demonstrates that interstate comparisons based on half-year data are reasonable approximations for the results using full-year data, as the relative rankings of states are largely similar. We show the comparisons for evaluation and management services here because there was little change in the marketbasket codes selection and computation methods for this service group between different editions of this study.

Key: MPI-WC: Medical Price Index for Workers' Compensation.

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