



WCRI MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION, THIRD EDITION (MPI-WC)

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with the assistance of
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QUICK REFERENCE GUIDE TO STATE TREND FIGURES

State	Trends in Medical Prices			
	Overall	E&M	Surgery	By Service Group
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

MEDICAL PRICE INDEX FOR WORKERS' COMPENSATION (MPI-WC)

INTRODUCTION

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 business decision makers need to know what areas of medical care are the key drivers for rapidly increasing overall costs. This study focuses on prices paid for 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 workers' compensation medical price index (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. 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 (MPI-WC) includes only those medical services that are commonly provided to injured workers—largely related to diagnosis and treatment of trauma and orthopedic conditions.

SCOPE OF THE STUDY

WCRI developed the medical price index for workers' compensation to aid policymakers and business decision makers in identifying states and medical services where medical prices are unusually high or low, or are rising rapidly. The index measures prices actually paid and takes into account any network or other discounts. It 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 testing, pain management injections, and emergency care. The indices exclude services billed by hospitals or ambulatory surgical centers, and services billed for durable medical equipment as well as pharmaceuticals.

This third edition covers 25 large states that represent more than three quarters of the workers' compensation benefits paid in the U.S. For each state, the indices track medical prices from calendar year 2002 through June 2010. Interstate comparisons are made for 2010.

We do not seek to identify the possible causes of interstate differences in prices paid, or increases or decreases in prices paid over time within a state. In general, these differences or changes are driven by market conditions (e.g., negotiated fee levels) and state regulations (e.g., fee schedules).

¹ Radeva, E., B. Savych, C. Telles, R. Yang, and R. Tanabe. 2011. *CompScope™ Medical Benchmarks, 11th Edition*. 13 vols. Cambridge, MA: Workers Compensation Research Institute.

ORGANIZATION OF THE REPORT

After a brief discussion of data and methods, we present the trends in workers' compensation medical prices paid for each of the 25 states from calendar year 2002 through June 2010. Then, we show the interstate comparisons of prices paid for services delivered and paid for in calendar year 2010^P. The Technical Appendix describes the methods, data, and limitations of the price index in detail.

DATA AND METHODS

The price index measures prices for professional services holding the utilization of those services constant across study states and over study years. 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 across study states and over the study years. 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 methodology.

THE DATA

The WCRI MPI-WC is based on the detailed medical bill data in the WCRI Detailed Benchmark/Evaluation (DBE) database. Across the study states, the data used in this study comprise 33 to 61 percent of the claims in each state. The data in most of the 25 study states are reasonably representative of the state systems, with the caveats described in the "Limitations and Caveats" section of this chapter and the Technical Appendix. For Arizona, Missouri, New York, and Oklahoma, the data may not be necessarily representative because they are missing data from a larger data source that is significant in the state. The information to construct the marketbasket and to compute the price index comes from the medical bills associated with the set of 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 hold the utilization of medical services constant, we created a collection of medical services most commonly used to treat injured workers. This collection is called a marketbasket. The marketbasket of procedures is held constant across states and from year to year. Holding utilization constant allows us to isolate the effect of price changes and interstate differences in prices. The professional services provided to injured workers generally falls 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 that comprise at least 80 percent of expenditures in each service group. There were two exceptions: major surgery and minor radiology, where the codes in the marketbasket captured 59 percent and 62 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

^P 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.² We computed the average price level of each service group as the weighted average of the individual service prices for the services in each group. The weights are the frequency of each procedure—that is, the number of times each service was provided to injured workers in the marketbasket. 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 total number of all services in the marketbasket.

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 2010 means that the average price paid in 2010 was 20 percent higher than in 2002.

LIMITATIONS AND CAVEATS

To provide more recent information, we report prices in 2010 based on January through June 30, 2010. The interstate rankings based on the 2010 figures should provide a reasonable approximation for a state’s ranking relative to other states in 2010—especially for states that adjusted their fee schedules early in 2010. For states that adjusted their fee schedules after June 30, the index may understate or overstate their comparable price index for 2010. That is also true to a lesser extent for states that adjusted their fee schedules in the second quarter of 2010. 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.

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 are reasonably representative of the state systems; however, in a few states our data are not necessarily representative because they are missing data from a larger data source that is significant in the state. These states include Arizona, Missouri, New York, and Oklahoma, as noted throughout the tables.

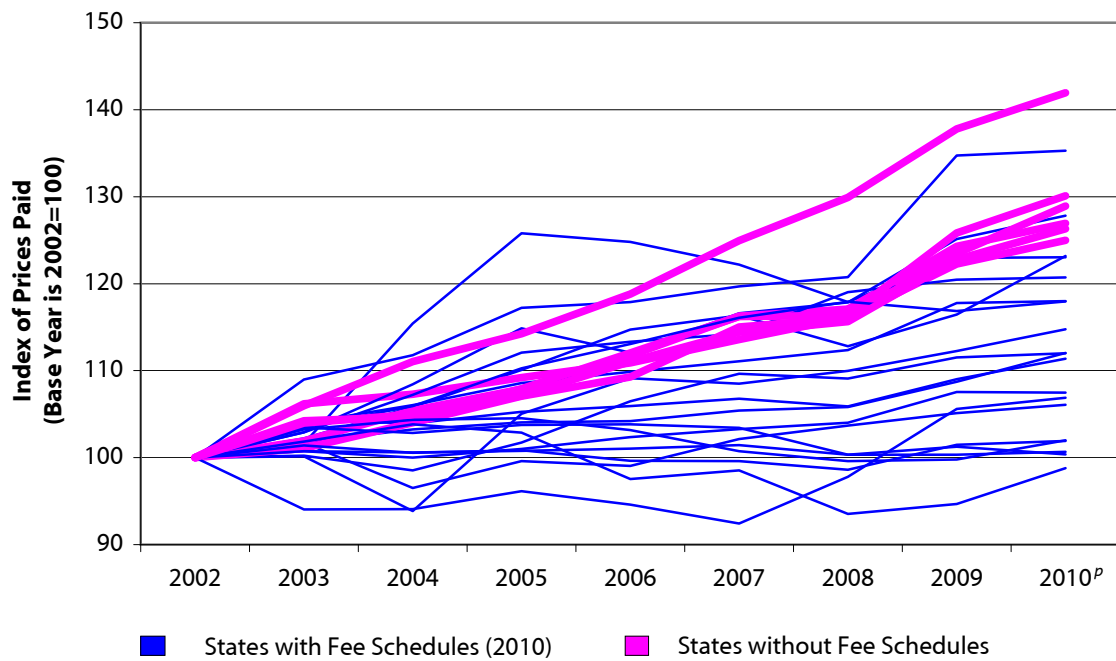
Third, we use a single marketbasket of procedure codes across all states and years to hold utilization constant in order to isolate the effects of prices. In a few states, there are a limited number of unique state-specific procedure codes. Often these codes are mapped to the standard codes in the marketbasket. In a few states, such a mapping is not possible. In these cases, we omit 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. In addition, the fixed marketbasket approach does not reflect the changes in the intensity of services or the shifts in sites of services over time; to the extent that these factors may affect the service mix and pricing behaviors, this may lead to under or over estimations in the results.

Fourth, radiology procedure codes often use modifiers to distinguish the technical component versus the

² 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.

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. For this study, we developed an algorithm to identify the services billed for the professional component separately from those for the technical component or for the whole procedure. This allows us to more accurately compute the average prices for radiology services. However, we were not able to identify the services billed for the technical component and for the whole procedure separately due to data limitations (see the Technical Appendix for more discussion).

Finally, in this edition we report the pain management injections category, the largest subset of the category that we called “surgical treatment” in prior editions of this study. We do so because of the growing importance of pain management services in public policy debates. The pain management injections 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.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010**Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid 2002 to 2010**

	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
AR	100	104	104	105	106	107	106	109	111
AZ ^{a,b}	100	102	106	110	115	116	113	116	123
CA	100	102	97	100	99	102	104	105	106
CT ^b	100	102	103	104	104	105	106	109	112
FL	100	102	115	126	125	122	118	123	123
GA	100	100	99	102	106	110	109	112	112
IA ^c	100	106	107	109	111	114	116	122	125
IL	100	103	108	115	112	117	118	125	128
IN ^c	100	102	105	108	112	116	117	124	127
LA	100	101	100	101	102	103	104	108	107
MA	100	109	112	117	118	120	121	135	135
MD	100	100	94	105	109	108	110	112	115
MI ^b	100	103	107	112	113	114	119	120	121
MN ^b	100	104	106	109	110	111	112	118	118
MO ^{a,c}	100	101	104	107	109	115	116	123	129
NC	100	101	101	101	100	100	99	101	102
NJ ^c	100	104	105	108	112	116	116	126	130
NY ^{a,b}	100	101	101	101	101	101	100	100	101
OK ^a	100	103	104	105	103	101	100	100	102
PA	100	103	106	110	113	116	118	117	118
SC ^b	100	103	103	104	104	103	100	101	100
TN	100	102	104	103	98	99	94	95	99
TX	100	94	94	96	95	92	98	106	107
VA ^c	100	104	105	107	111	114	116	123	126
WI ^c	100	106	111	114	119	125	130	138	142

continued

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010 (continued)

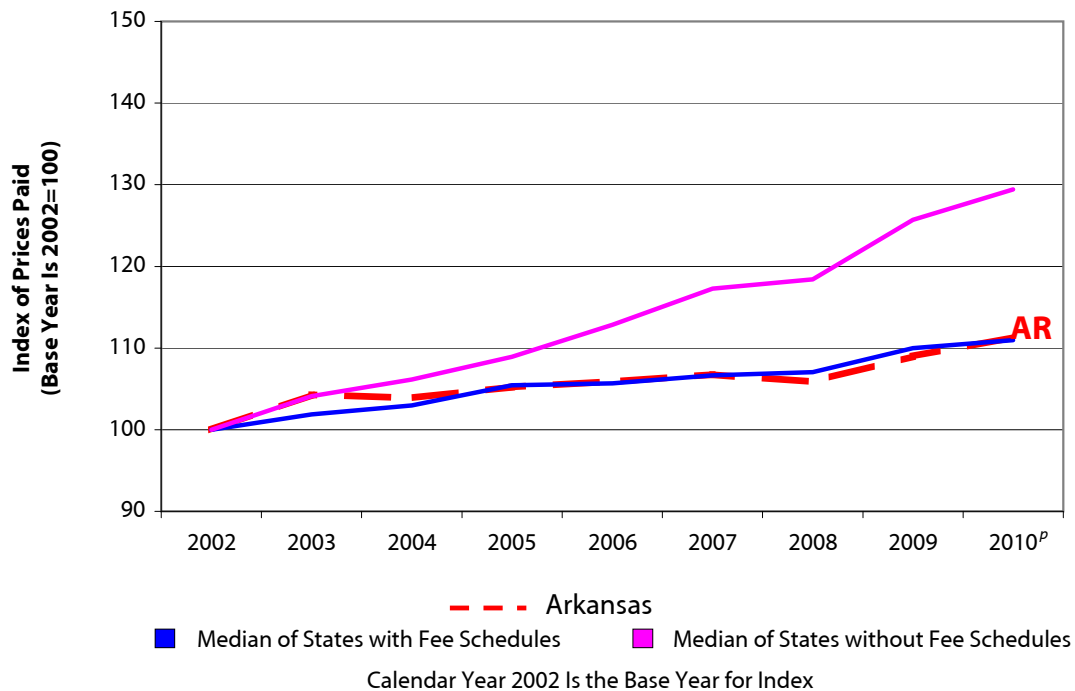
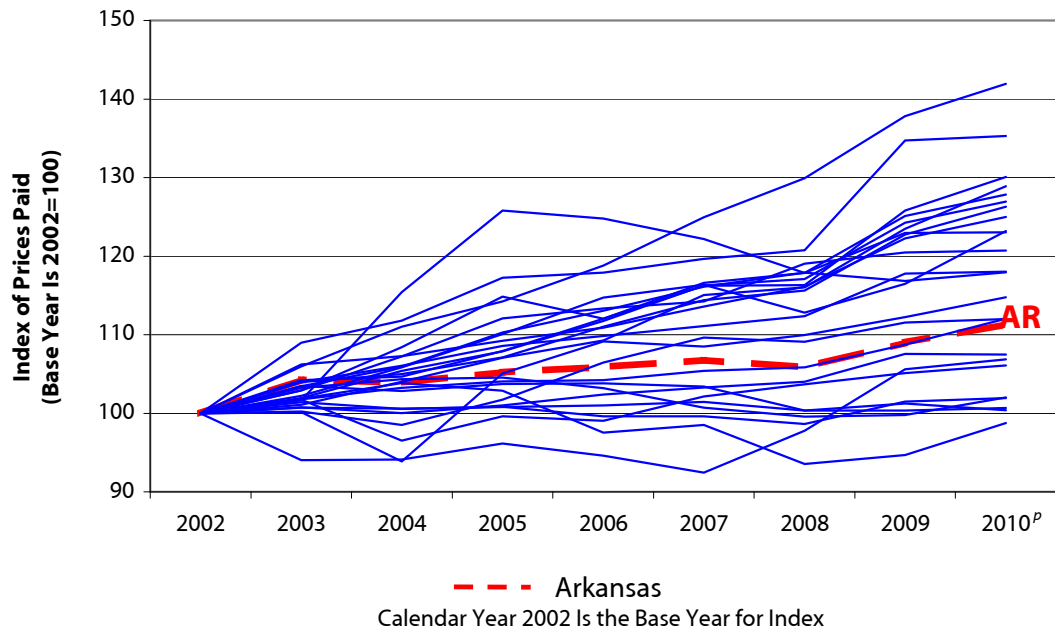
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Calendar year 2002 is the base year for the index = 100.

^a The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

^b This state had fee schedule changes after June 30, 2010, that are not reflected in the results.

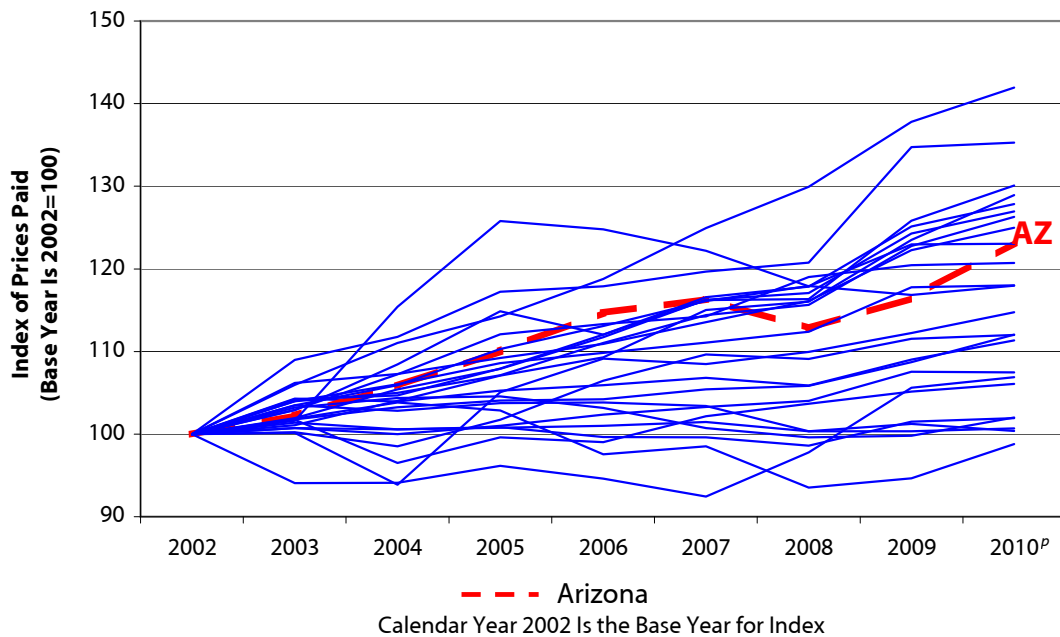
^c This state had no workers' compensation fee schedule in 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Arkansas' fee schedule for professional services has regular updates on the RVUs tied to the most recent Medicare RBRVS, with applied state conversion factors adopted in May 2000 for the services included in this study.

Key: RBRVS: Resource-based relative value scale; RVUs: Relative value units.

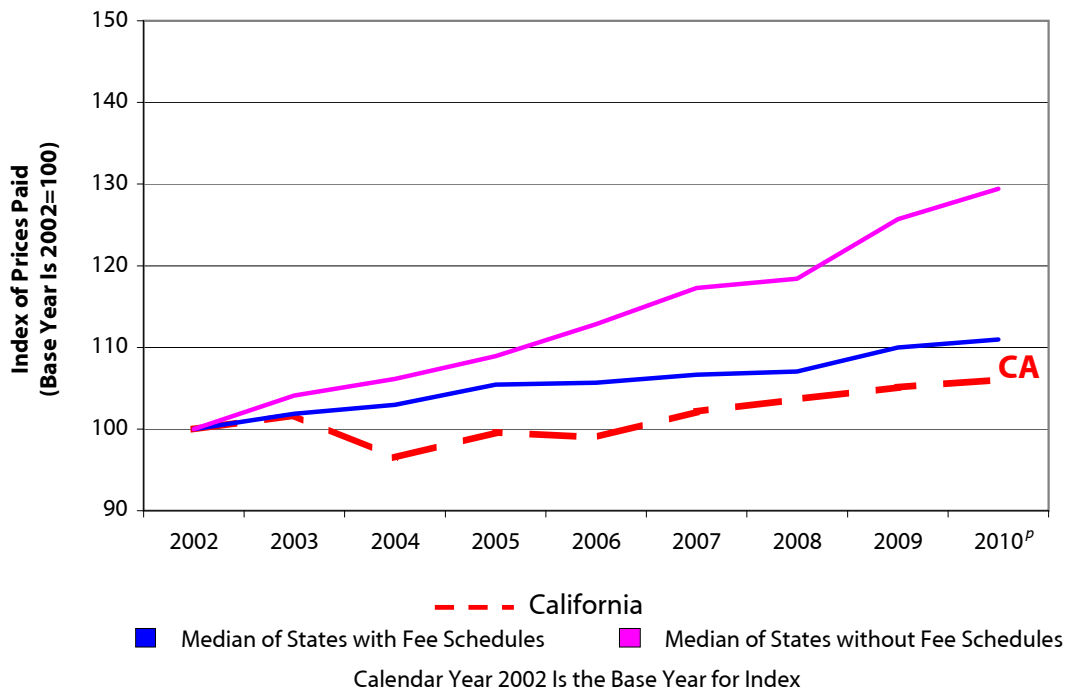
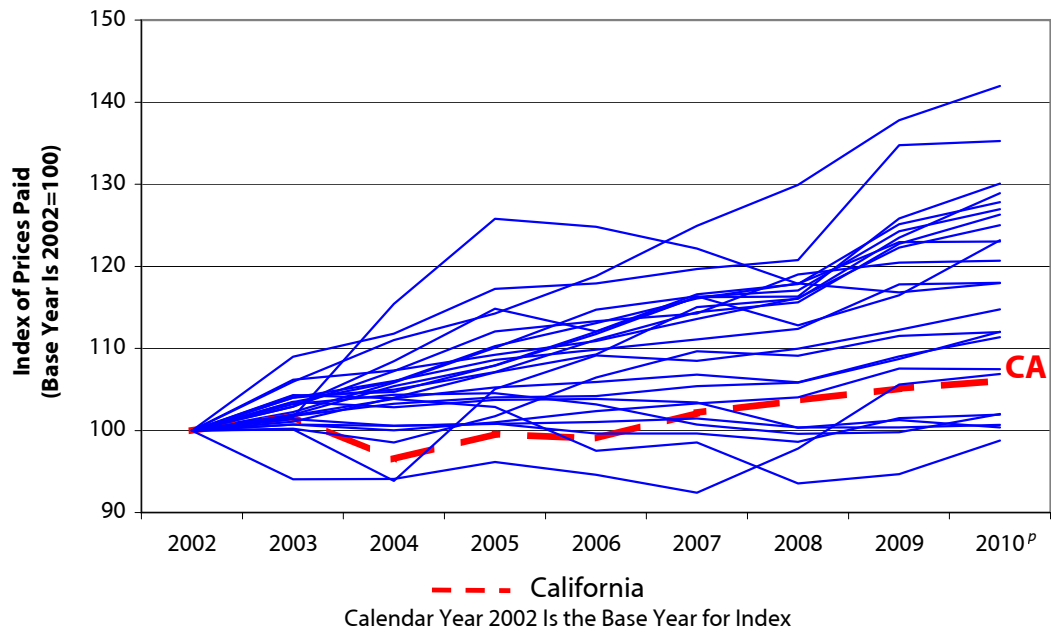
Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

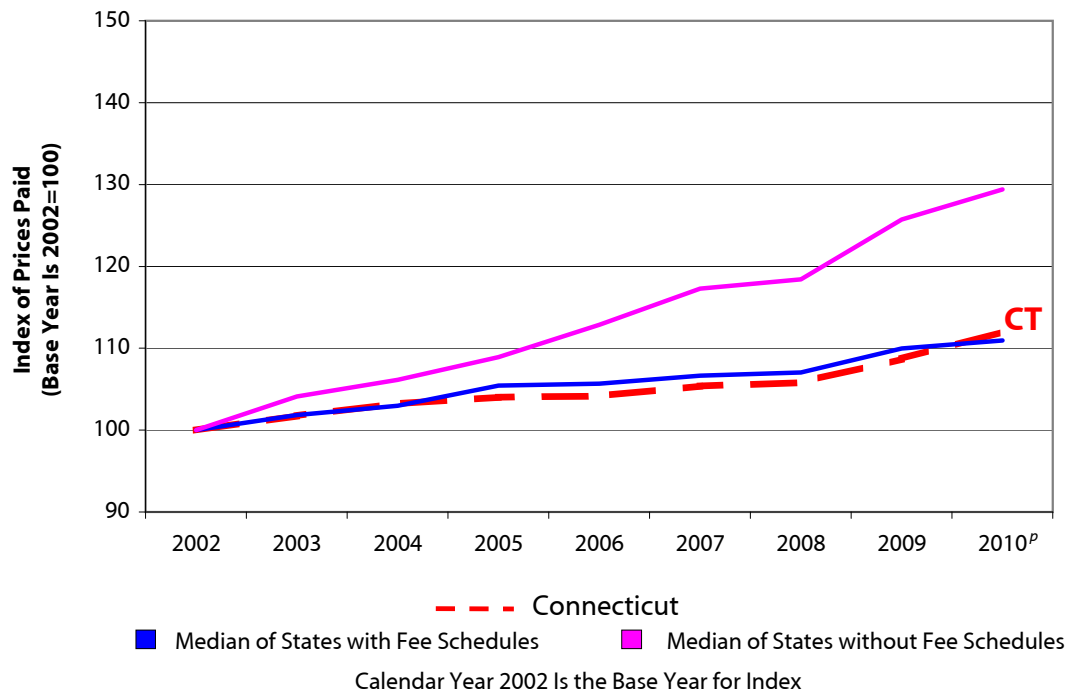
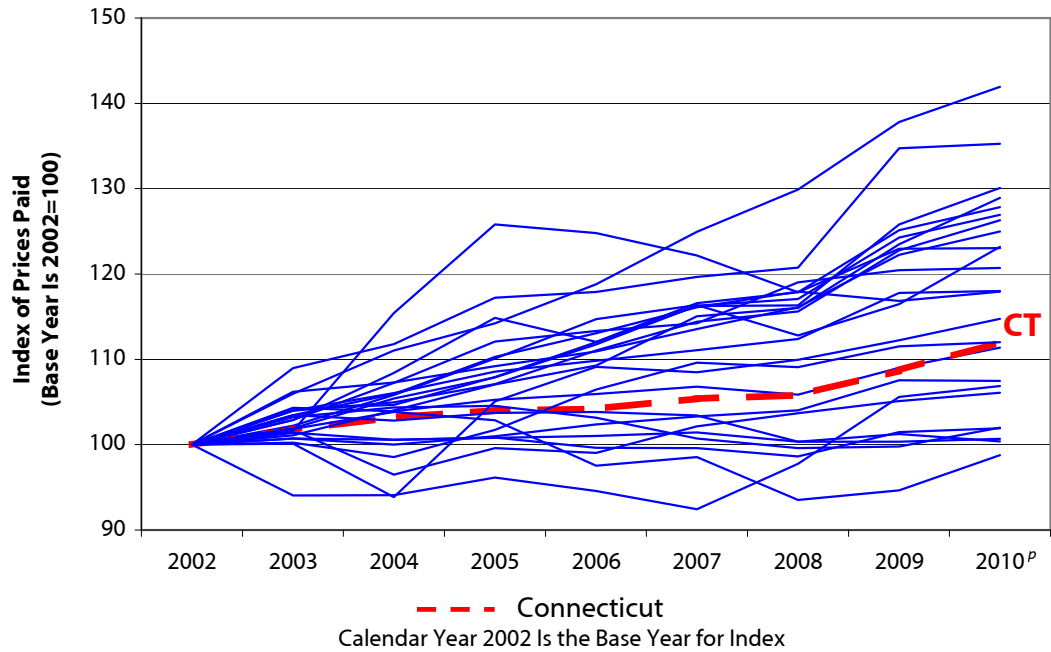
The data for this state are not necessarily representative because it is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared to other data sources in the state, this may lead to under or over estimations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

Arizona updates its fee schedule for professional services annually in October. Results in Arizona do not reflect fee schedule changes effective October 1, 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


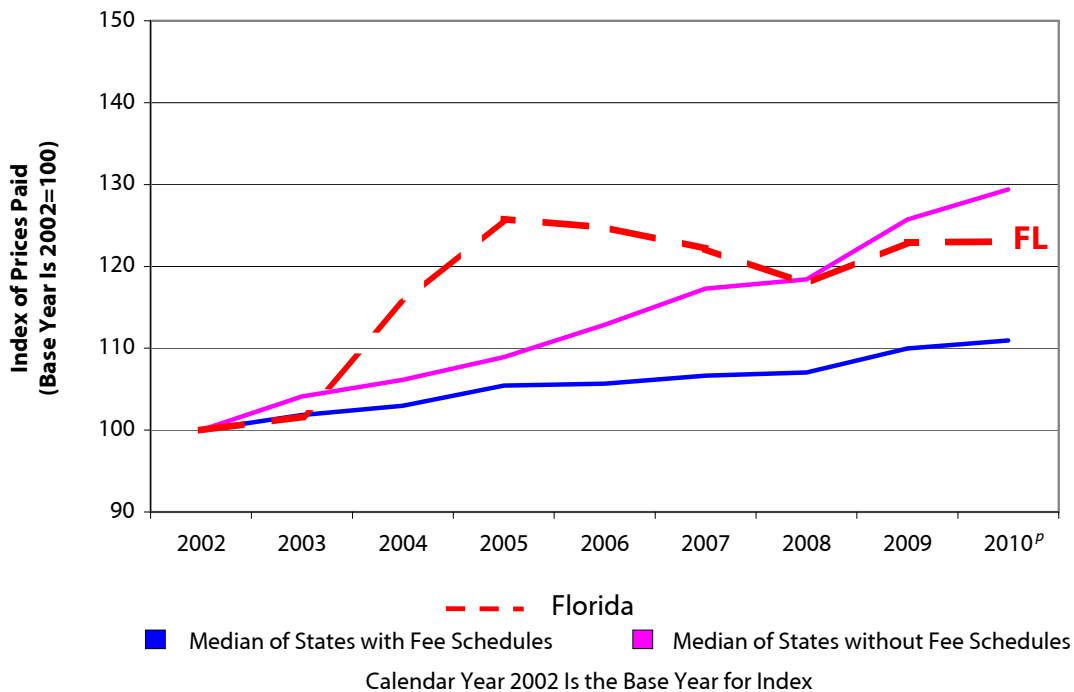
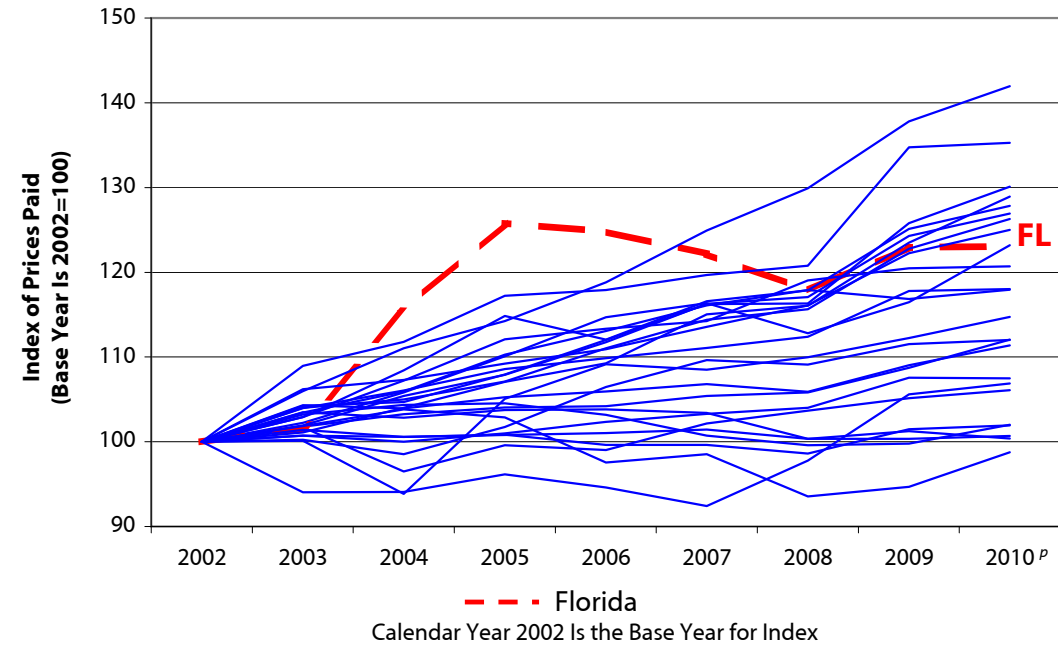
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

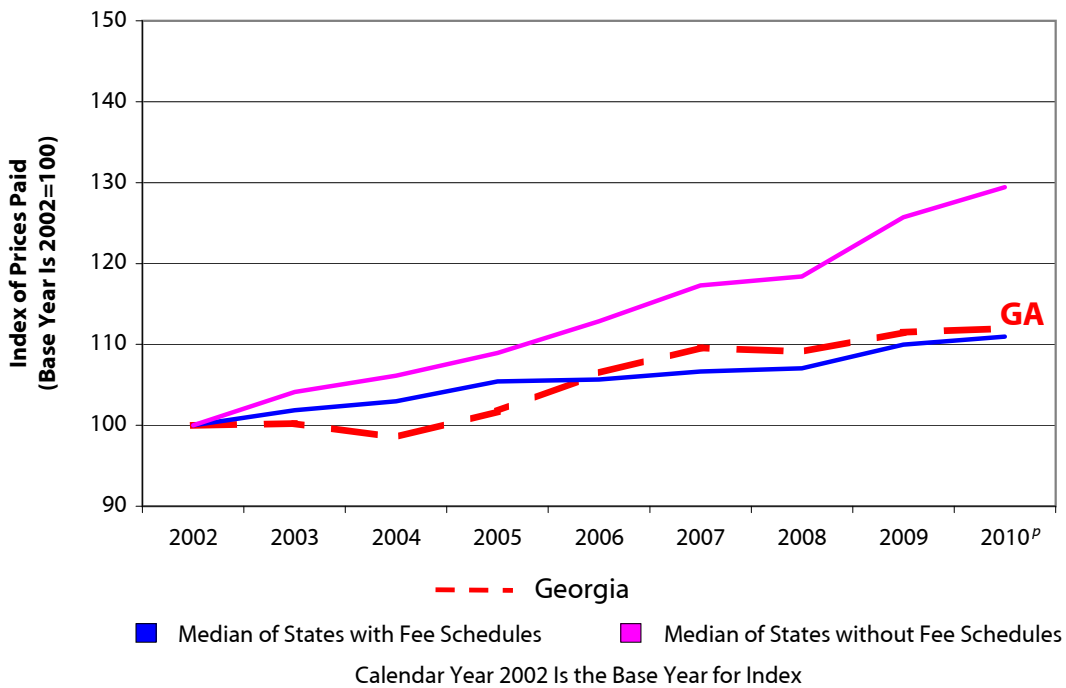
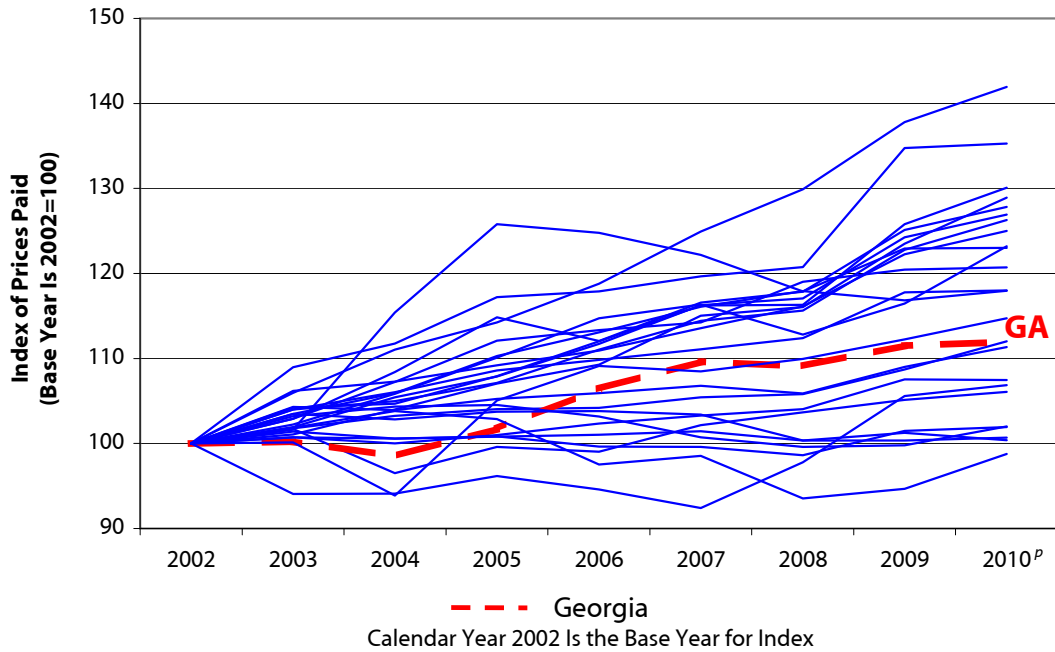
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Connecticut has updated its fee schedule for professional services annually in July since 2008; in prior years updates were effective in April. Results in Connecticut do not reflect fee schedule changes effective July 15, 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

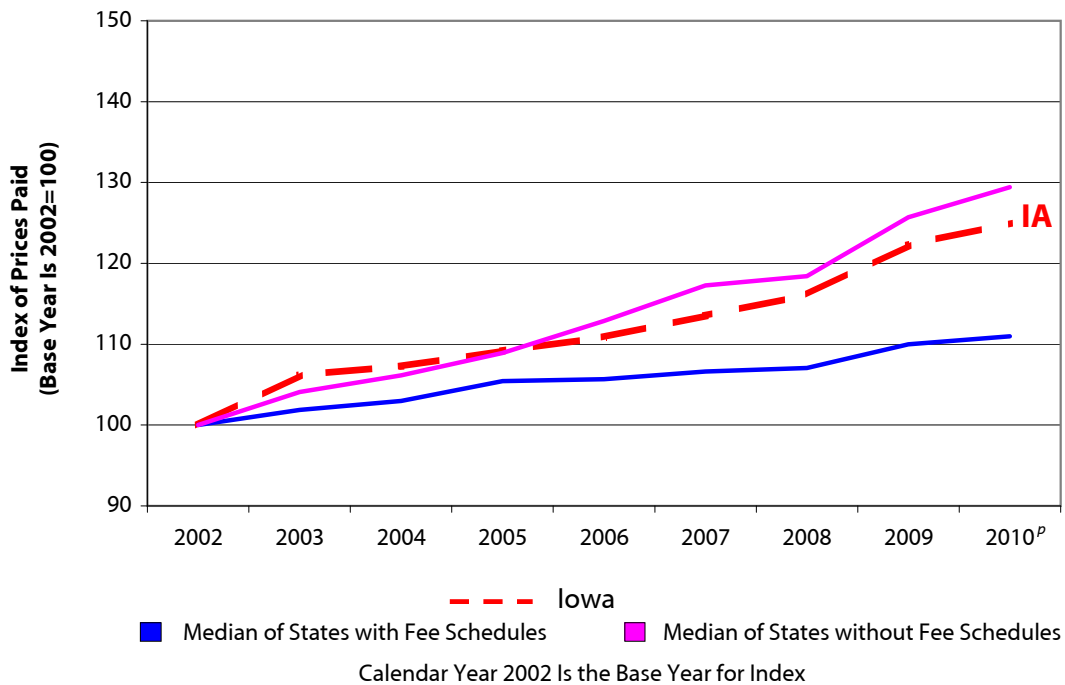
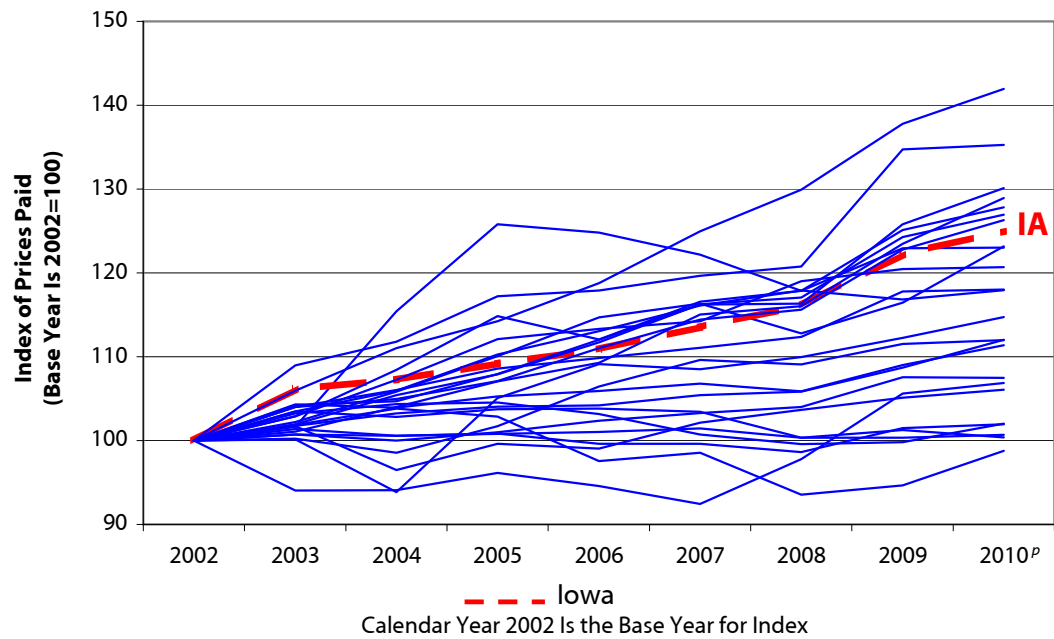
Notes: Florida had significant increases in fee schedule rates for physician services in January 2004, and increases in fee schedule rates for services provided by chiropractors and physical/occupational therapists in May 2005. After that Florida had fee schedule updates for professional services in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

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

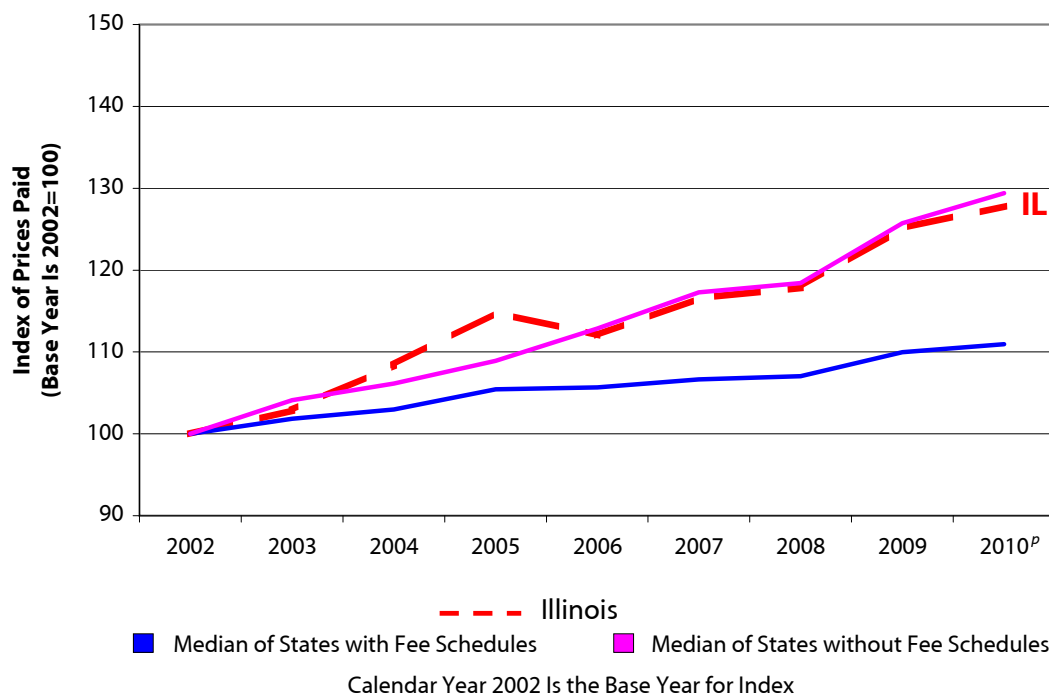
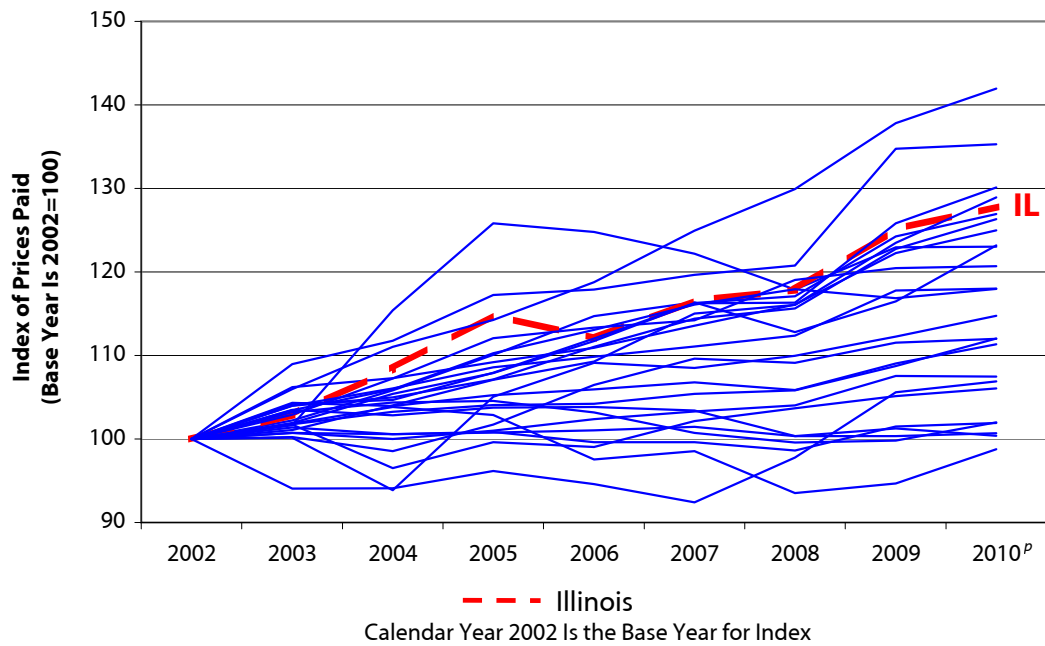
Note: Georgia updates its fee schedule for professional services annually in April.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010



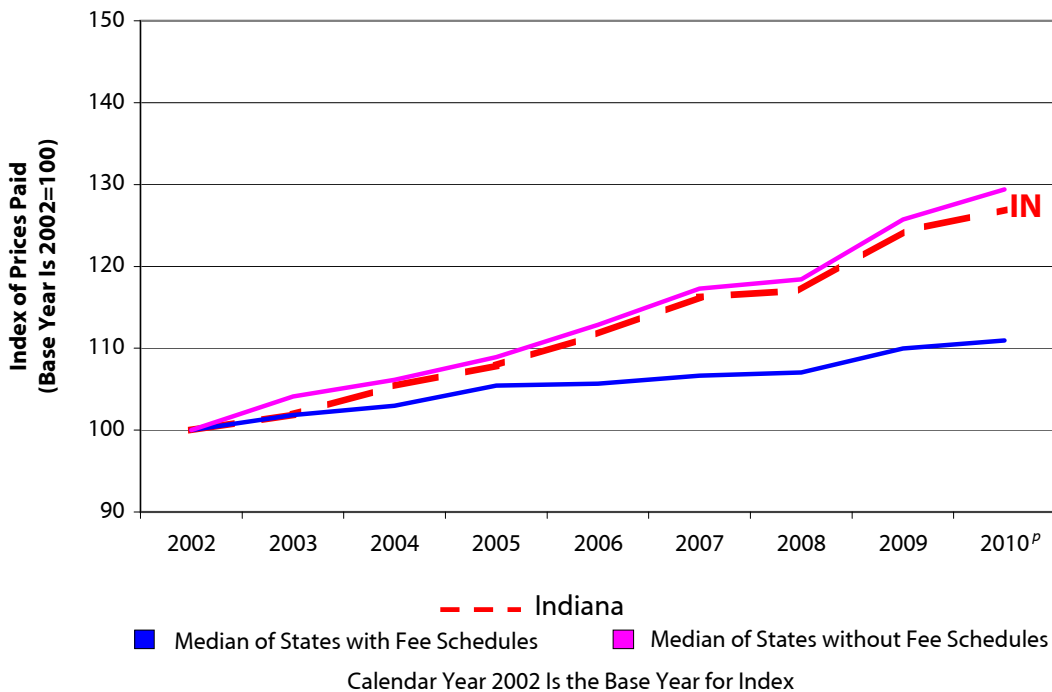
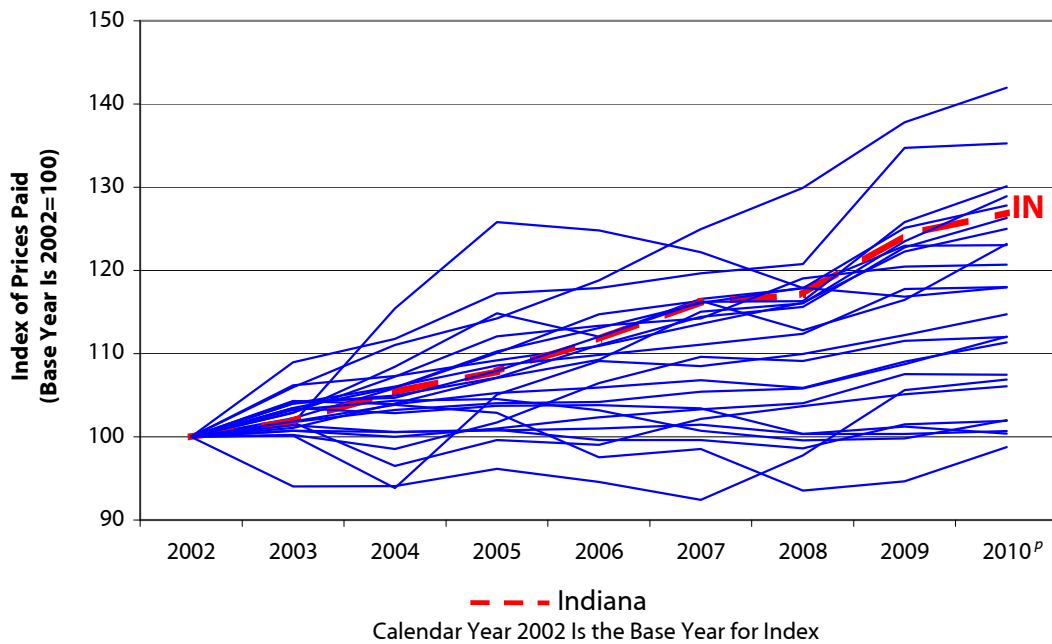
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Iowa did not have a workers' compensation fee schedule in 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

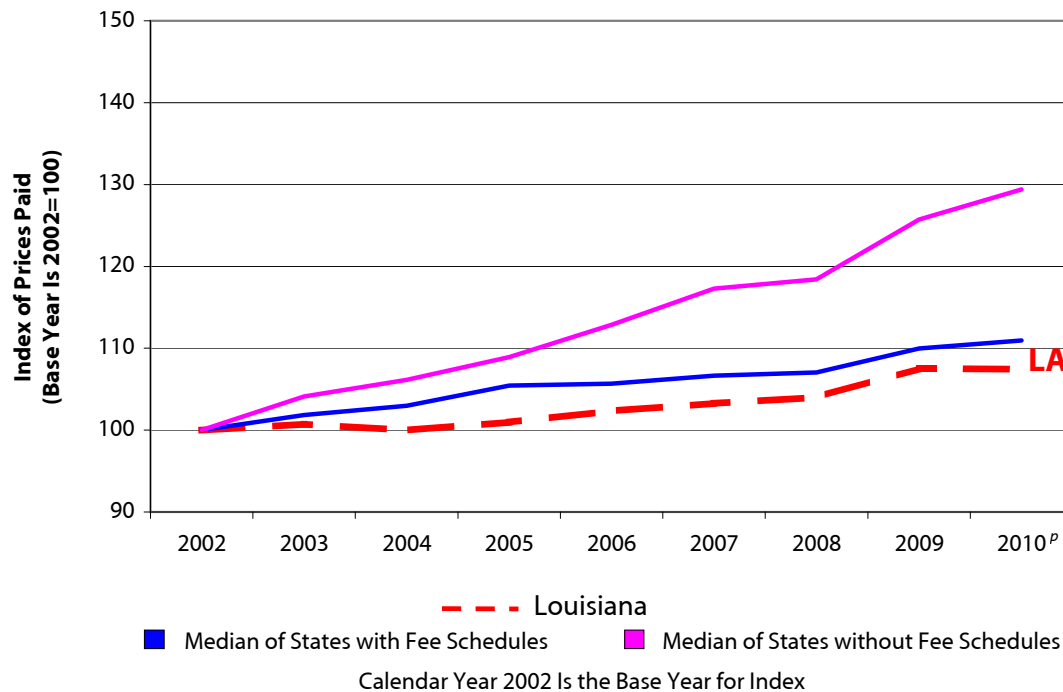
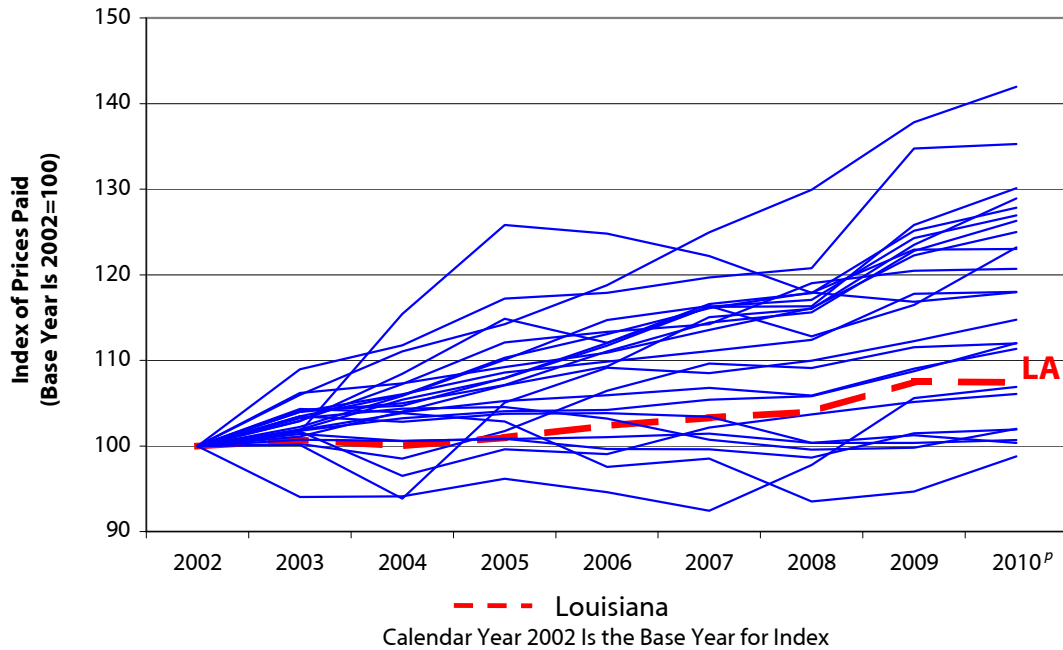
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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, which might create unintended incentives for providers to control revenues 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.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

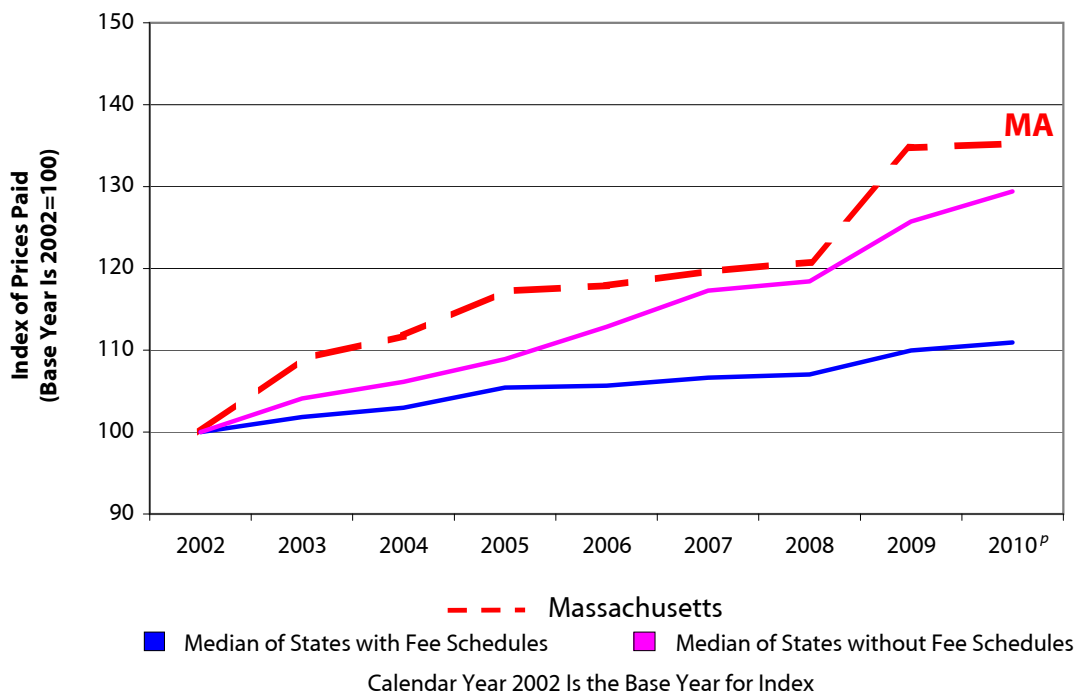
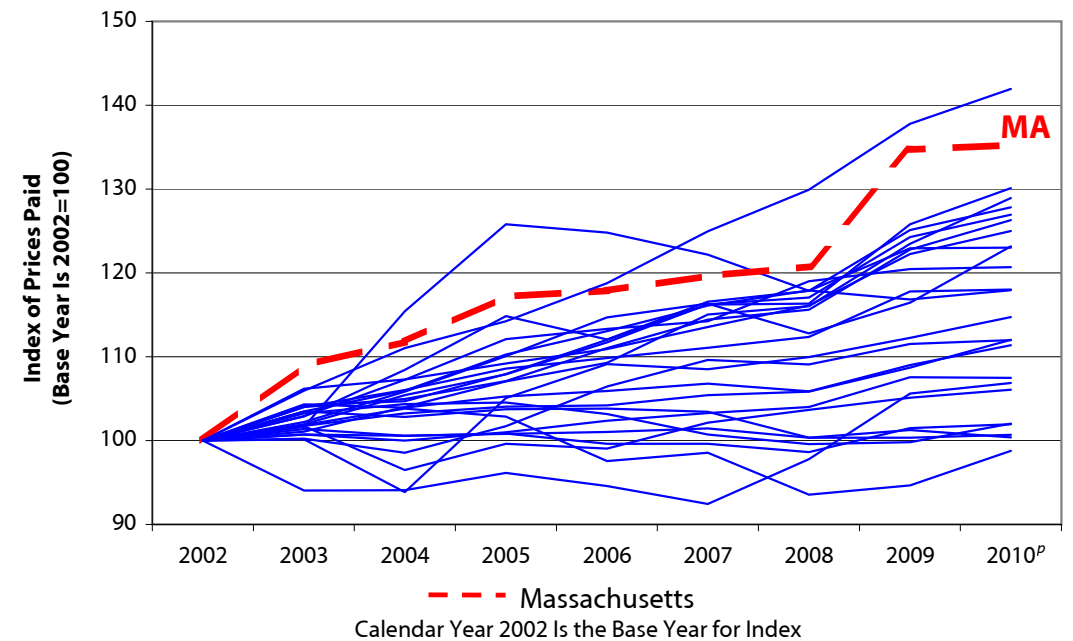
Note: Indiana did not have a workers' compensation fee schedule in 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

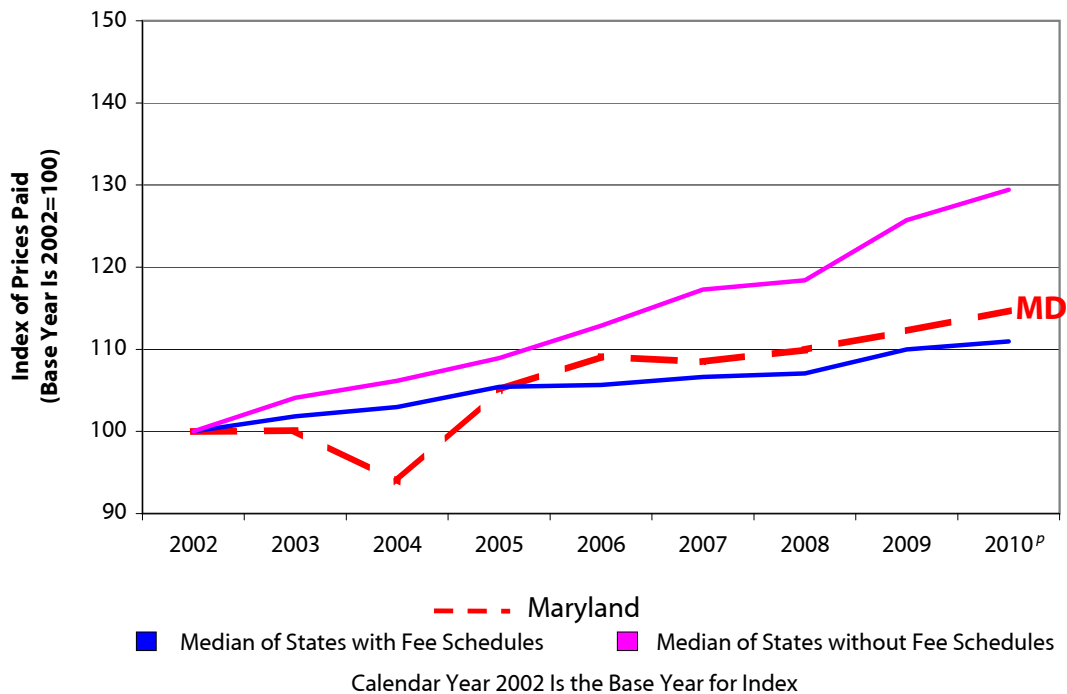
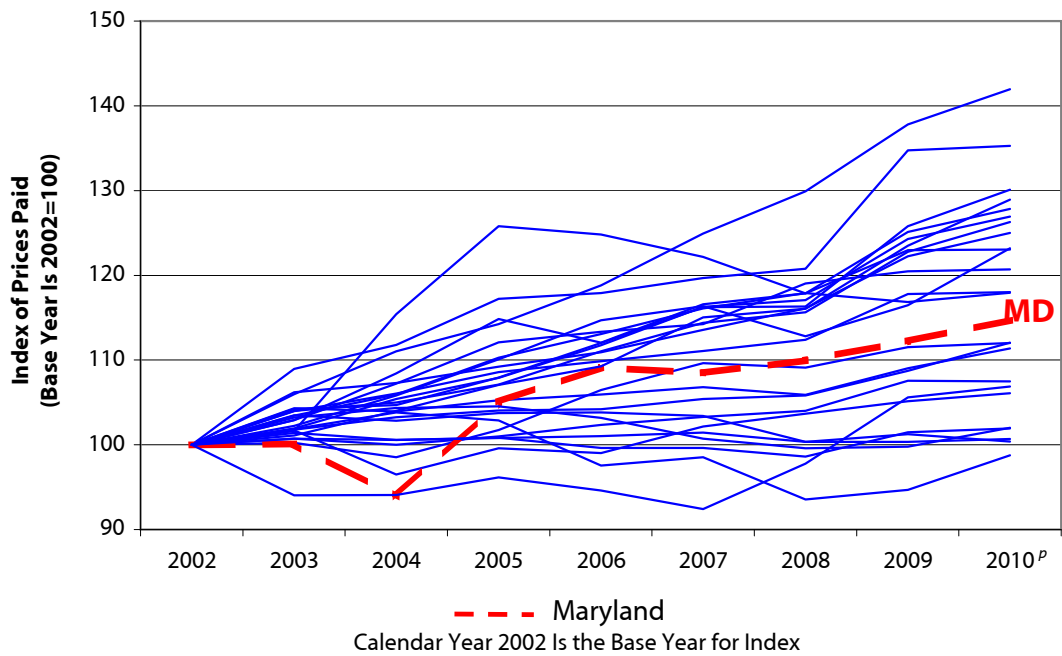
Note: Louisiana's fee schedule for professional services uses the 1999 CPT list published by the AMA and maximum allowable reimbursement rates effective as of March 2001.

Key: AMA: American Medical Association; CPT: Current Procedural Terminology.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


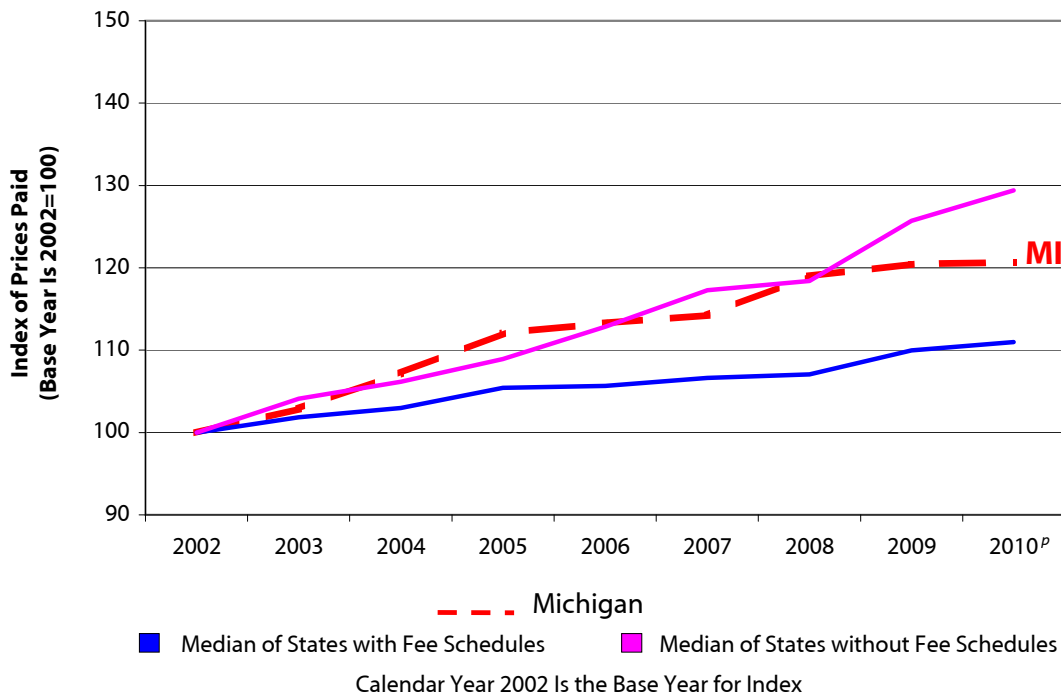
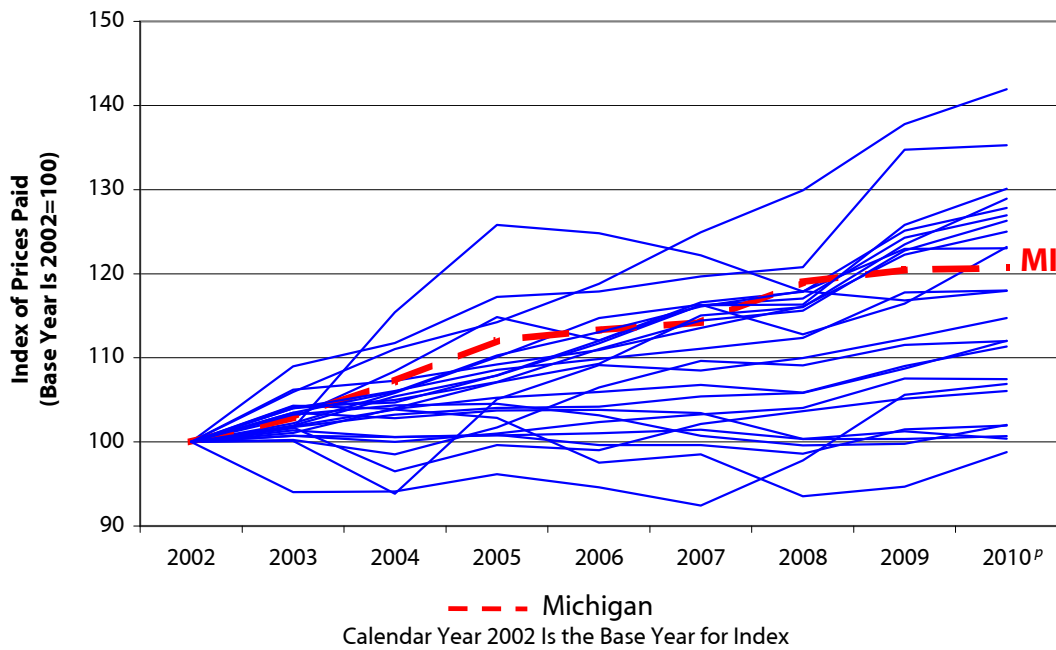
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Massachusetts increased 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 two to three times above the previous rates. Prior to that the fee schedule for professional services had not been updated since September 2004.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

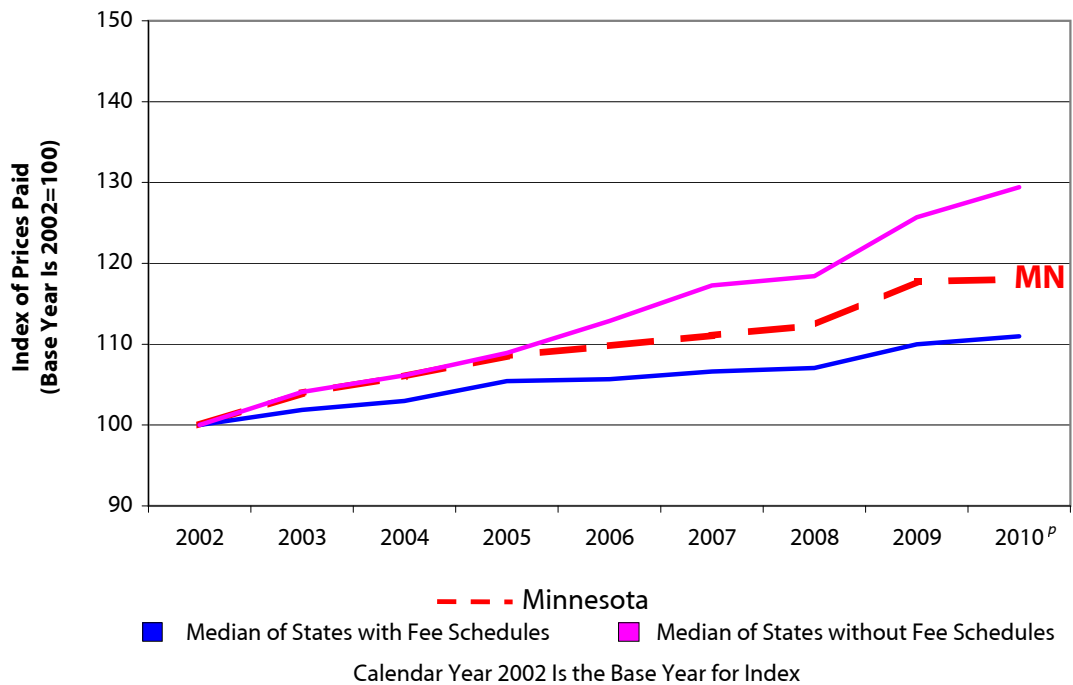
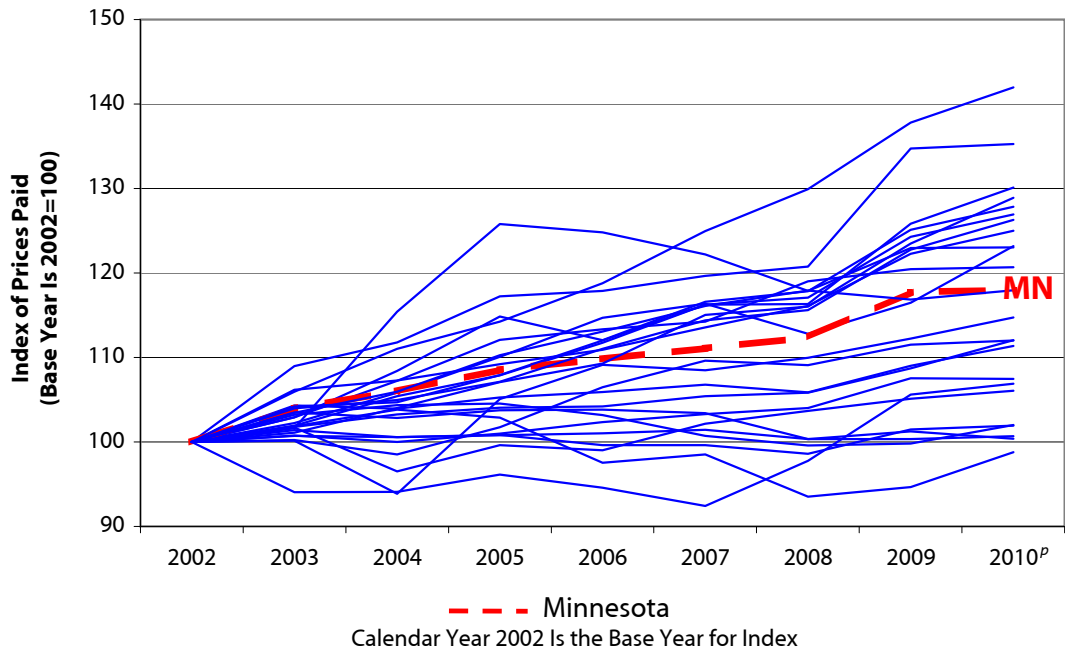
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

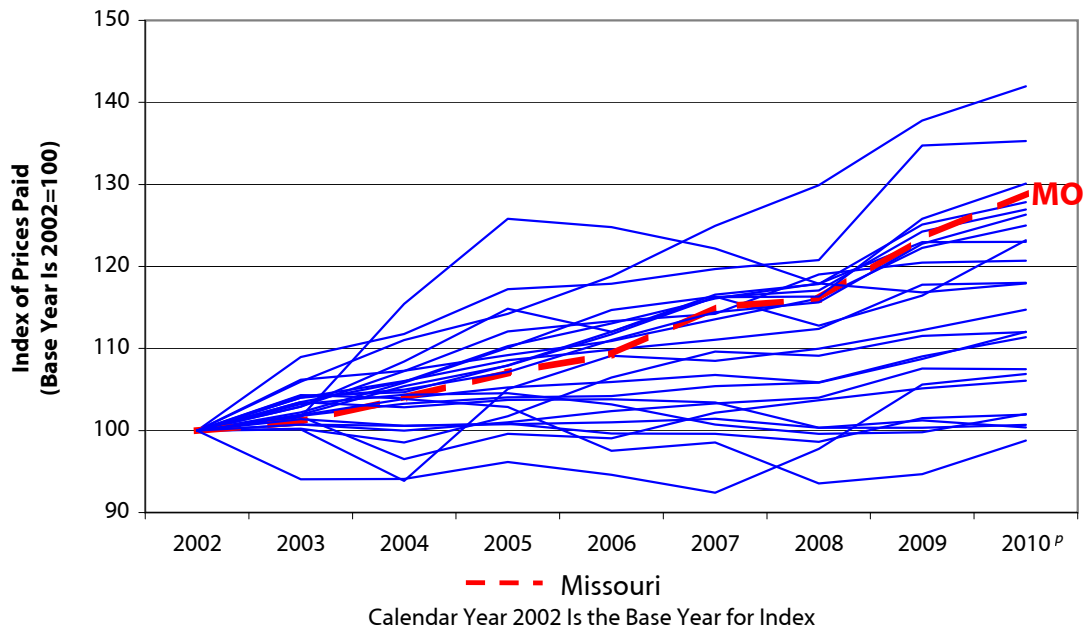
Notes: Michigan updates its fee schedule for professional services annually. Results in Michigan do not reflect fee schedule changes effective December 8, 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Minnesota's fee schedule for professional services from 2002 to 2010 was based on 1998 Medicare RVUs, with annual updates in the conversion factor. Results in Minnesota do not reflect fee schedule changes effective October 1, 2010.

Key: RVU: Relative value unit.

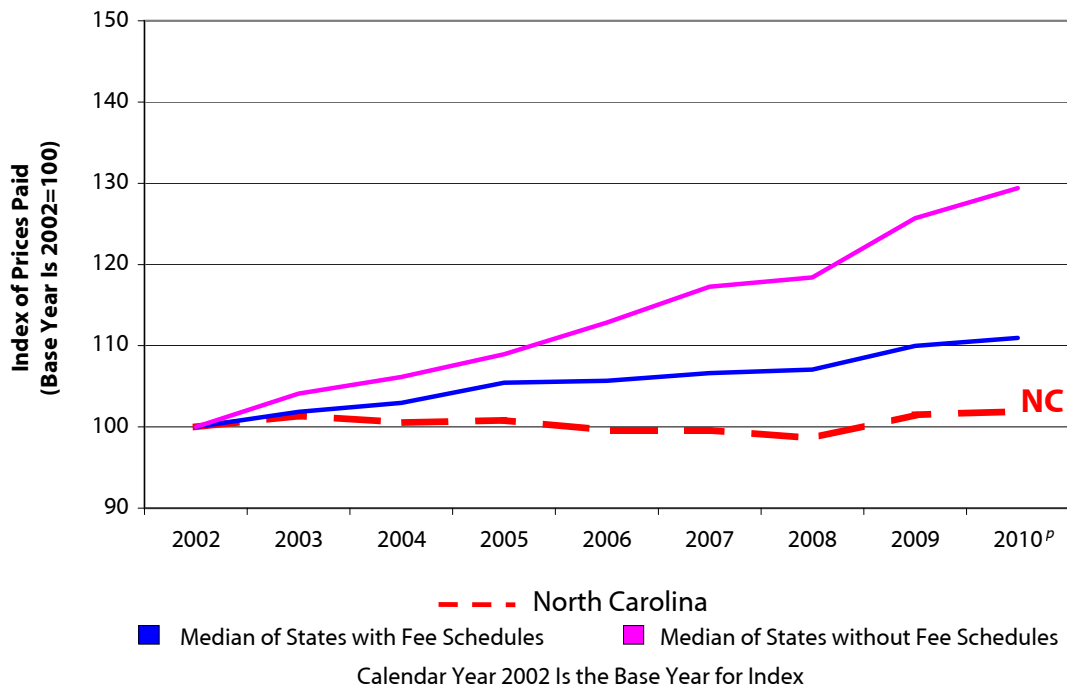
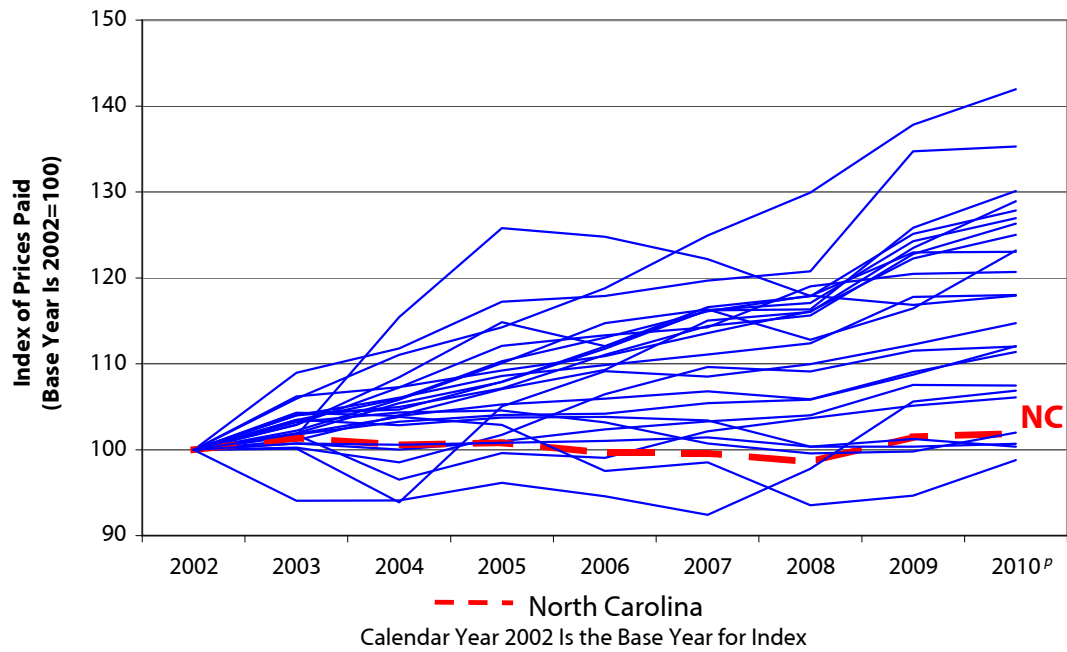
Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

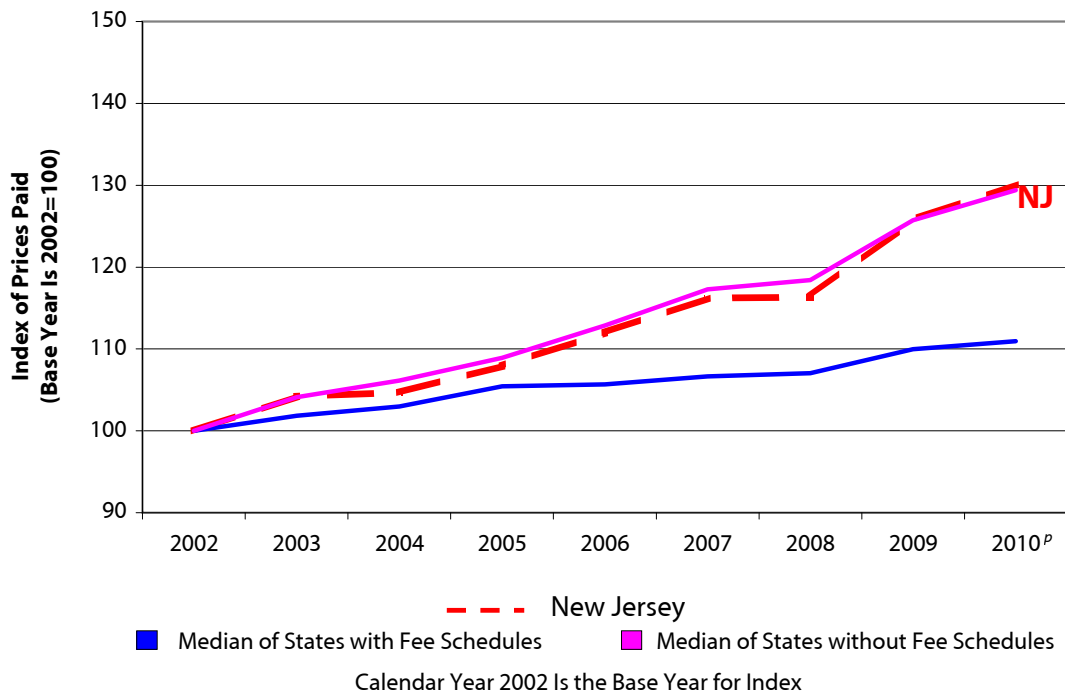
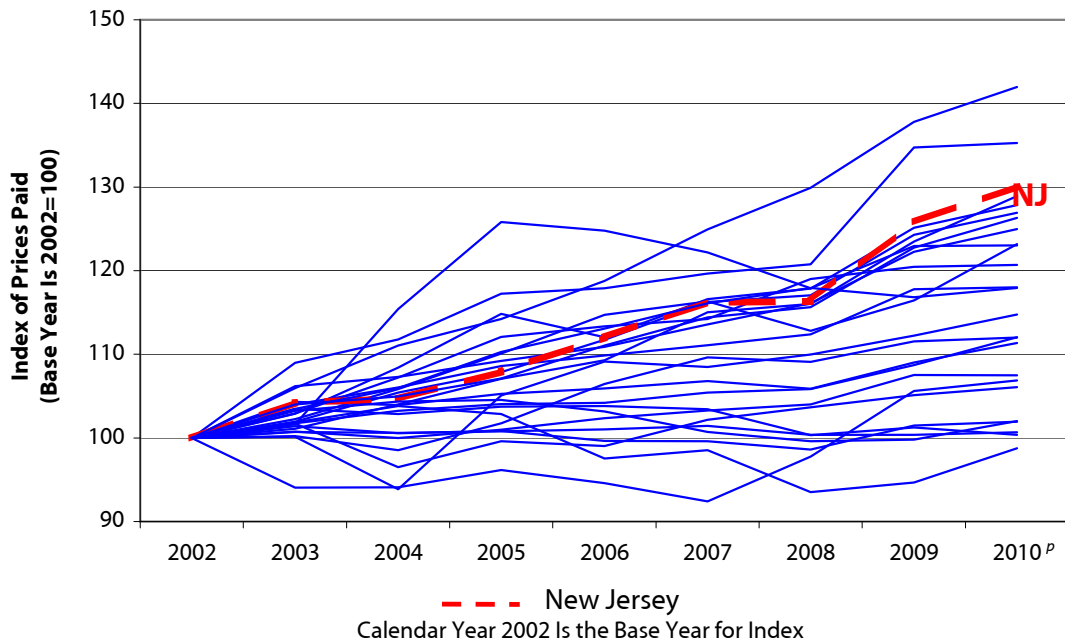
Missouri did not have a workers' compensation fee schedule in 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

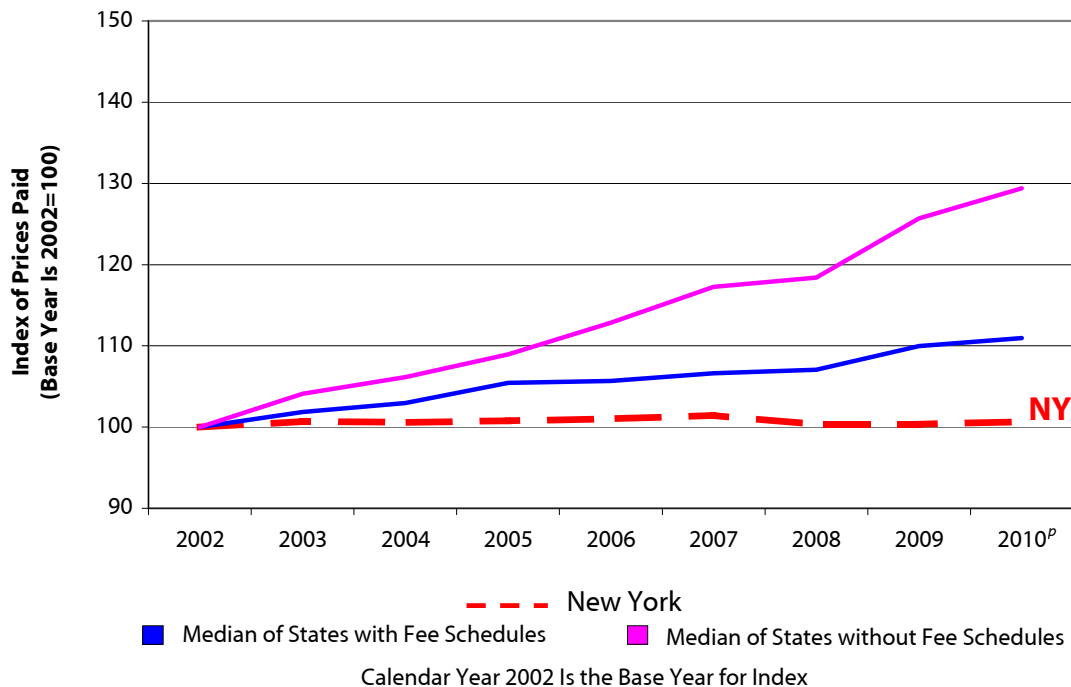
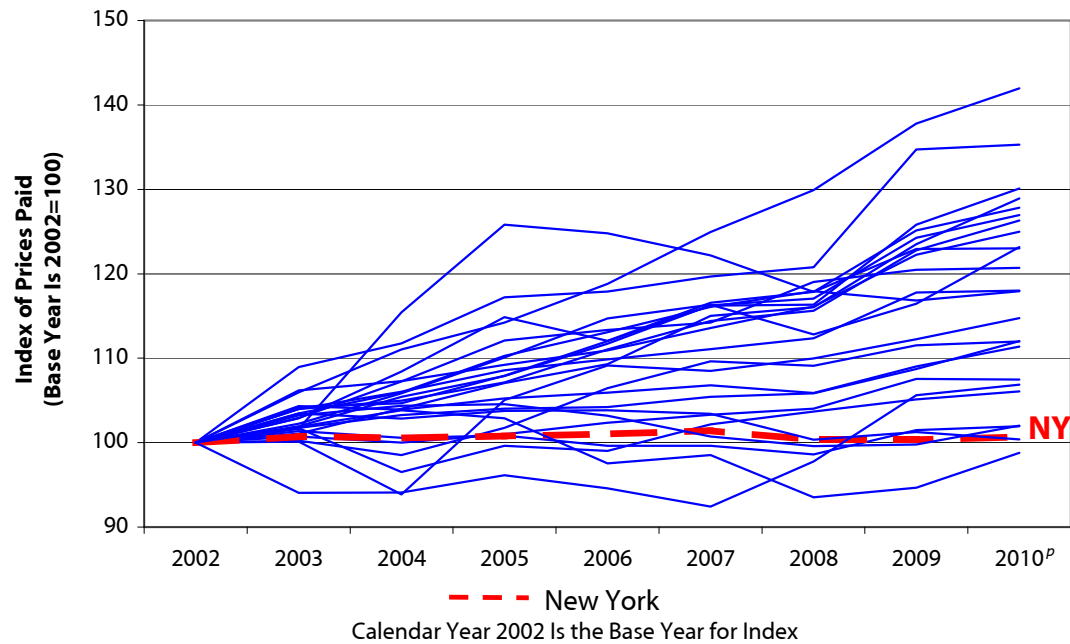
Notes: Maximum reimbursement amounts in the North Carolina fee schedule for professional services are based on those adopted by the North Carolina Industrial Commission effective January 1996. North Carolina updates its fee schedule annually in January to account for new and discontinued CPT codes published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

Key: AMA: American Medical Association; CPT: Current Procedural Terminology.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: New Jersey did not have a workers' compensation fee schedule in 2010.

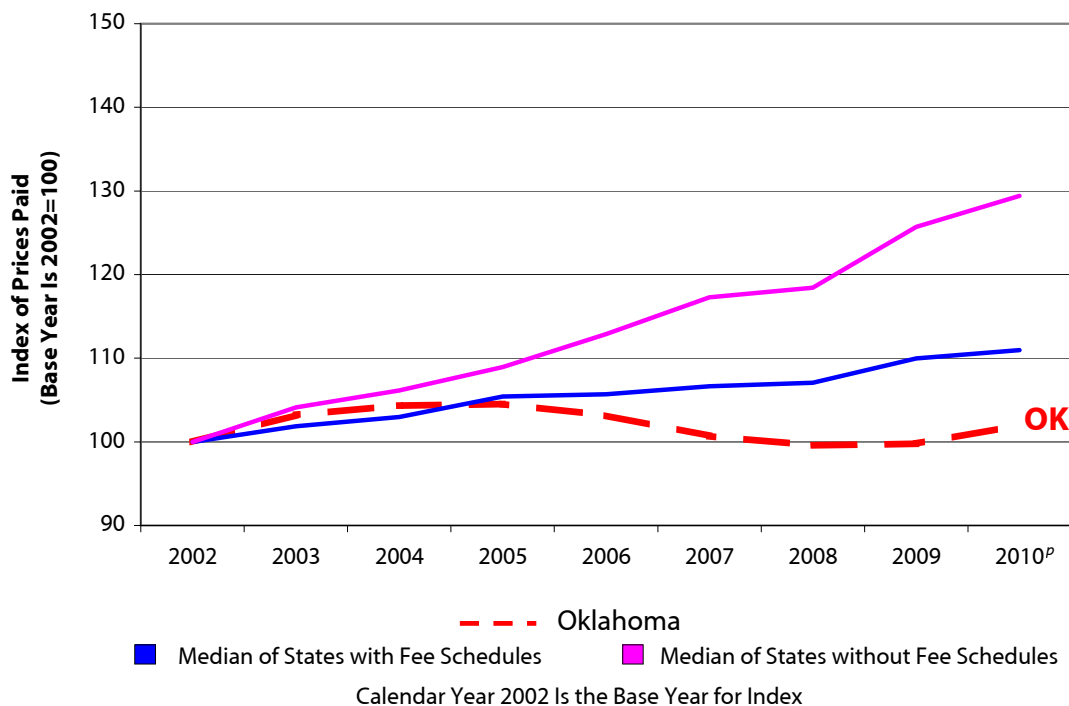
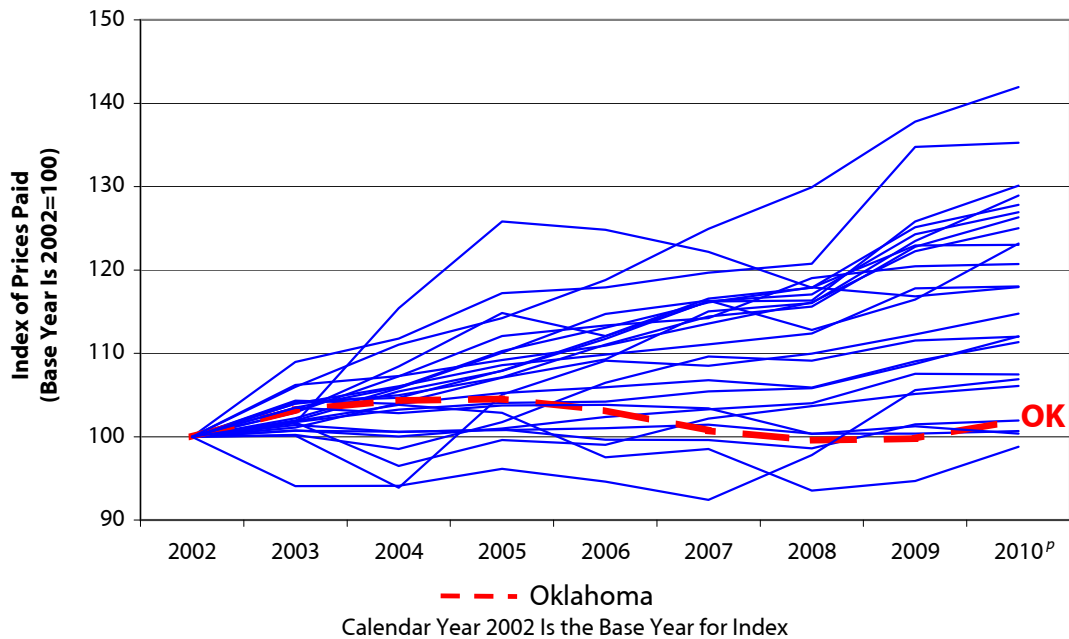
Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations 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 during the study period did not change. Results in New York do not reflect fee schedule changes effective December 1, 2010.

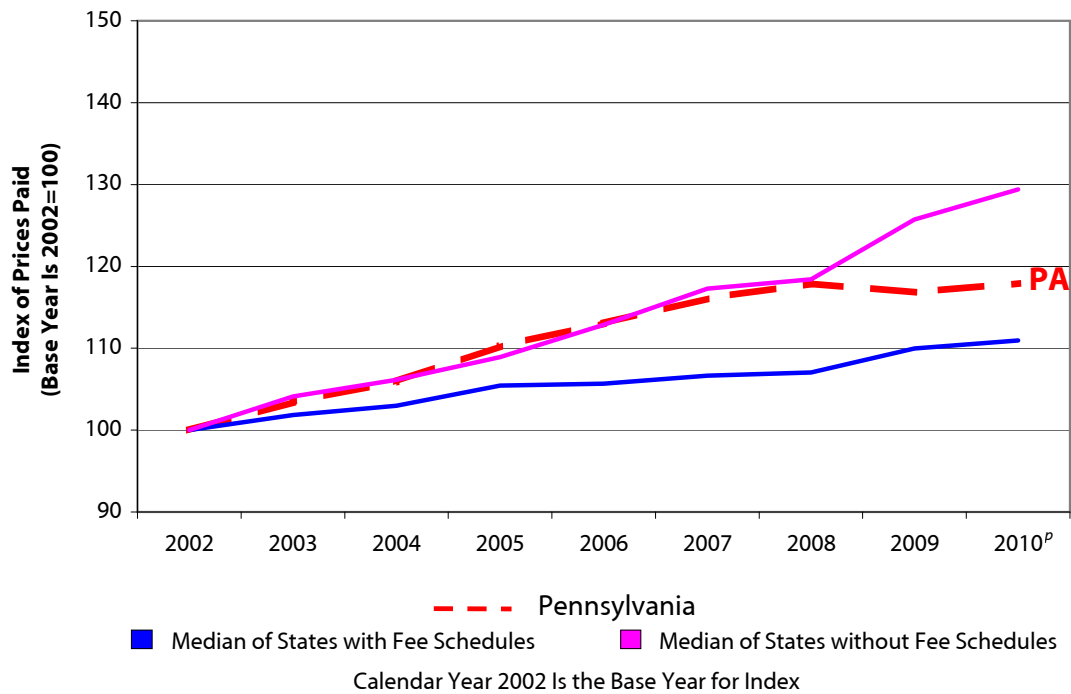
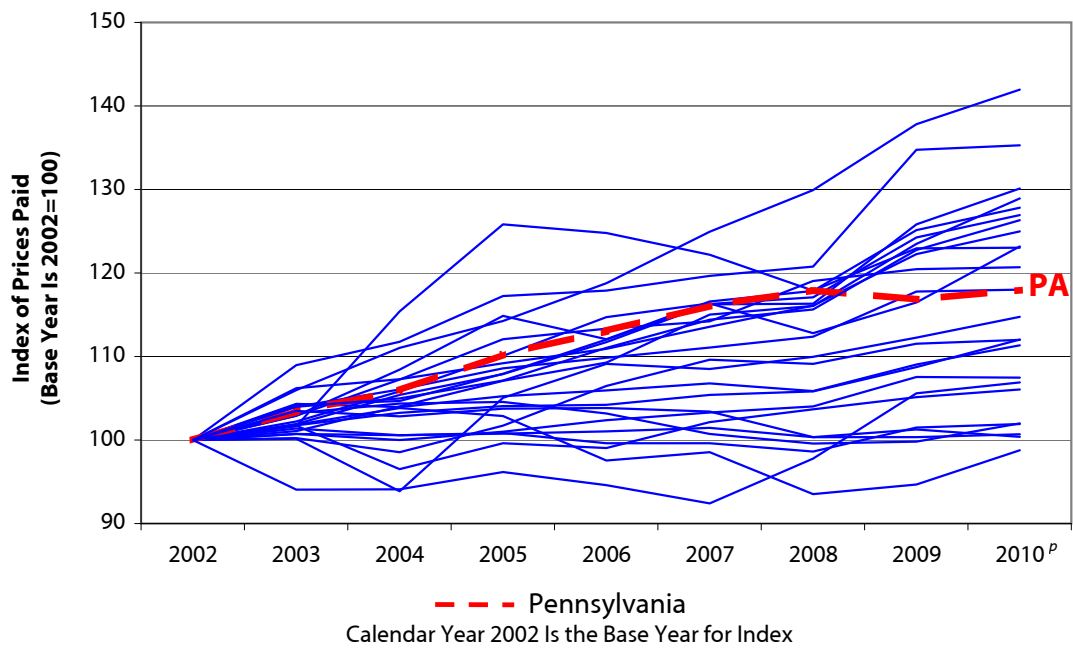
Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

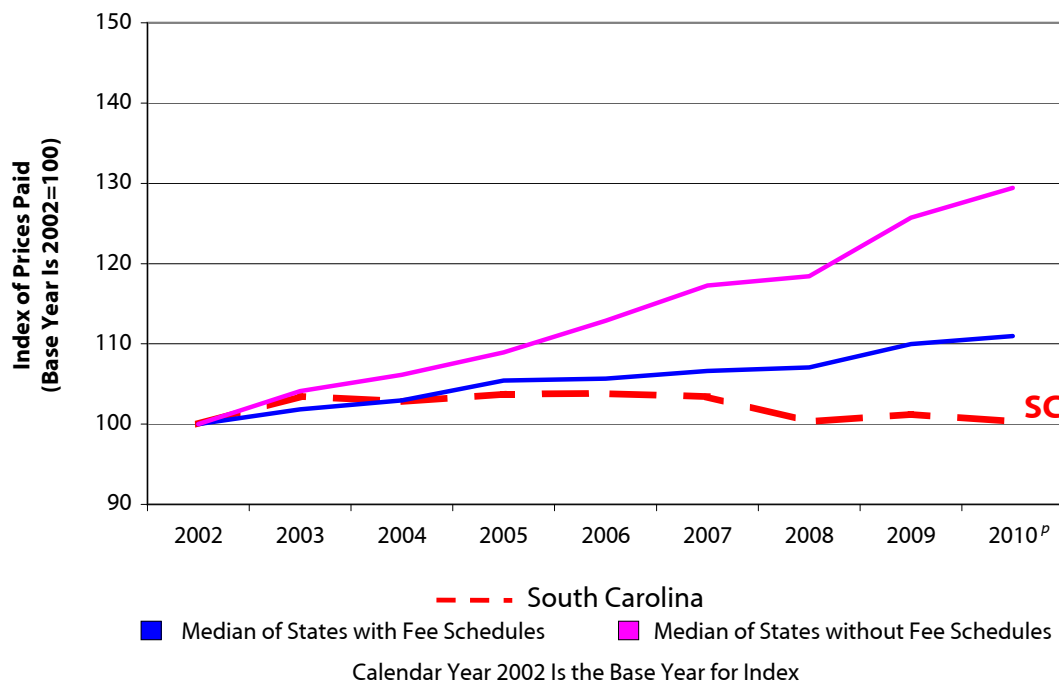
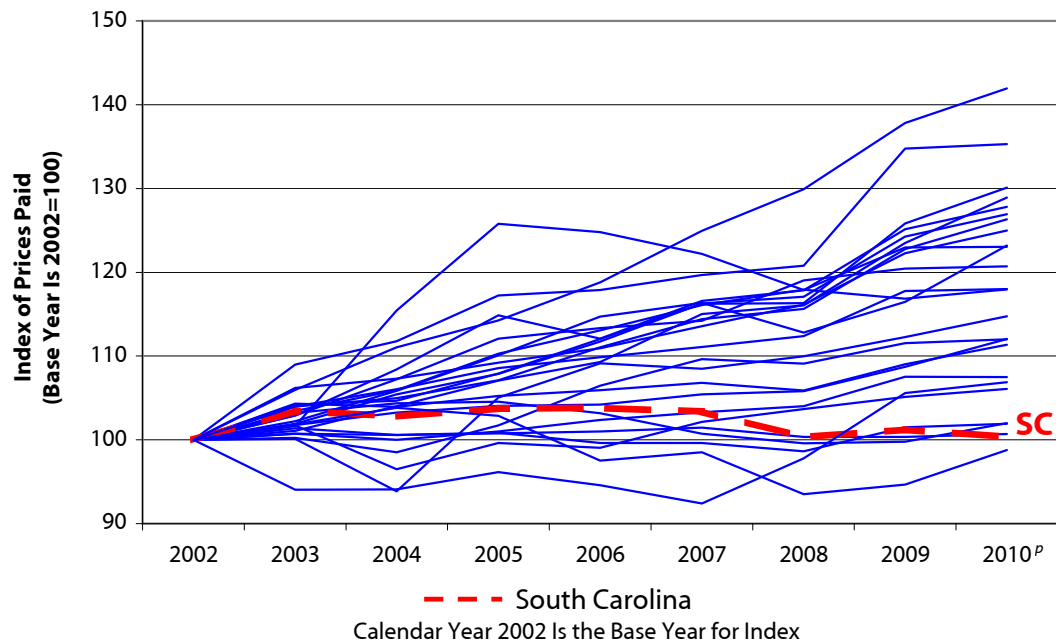
The data for this state are not necessarily representative because it is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared to other data sources in the state, this may lead to under or over estimations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

Oklahoma had regular updates to its fee schedule for professional services over the study period. The most recent update during the period covered by this study was effective January 1, 2010, with updates in March 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


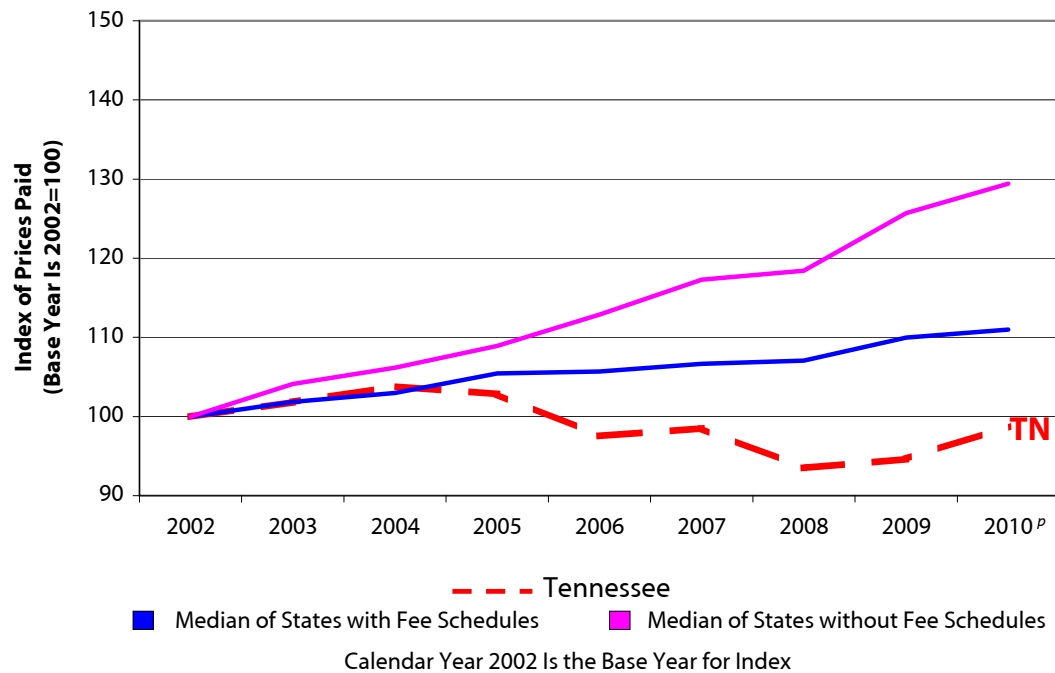
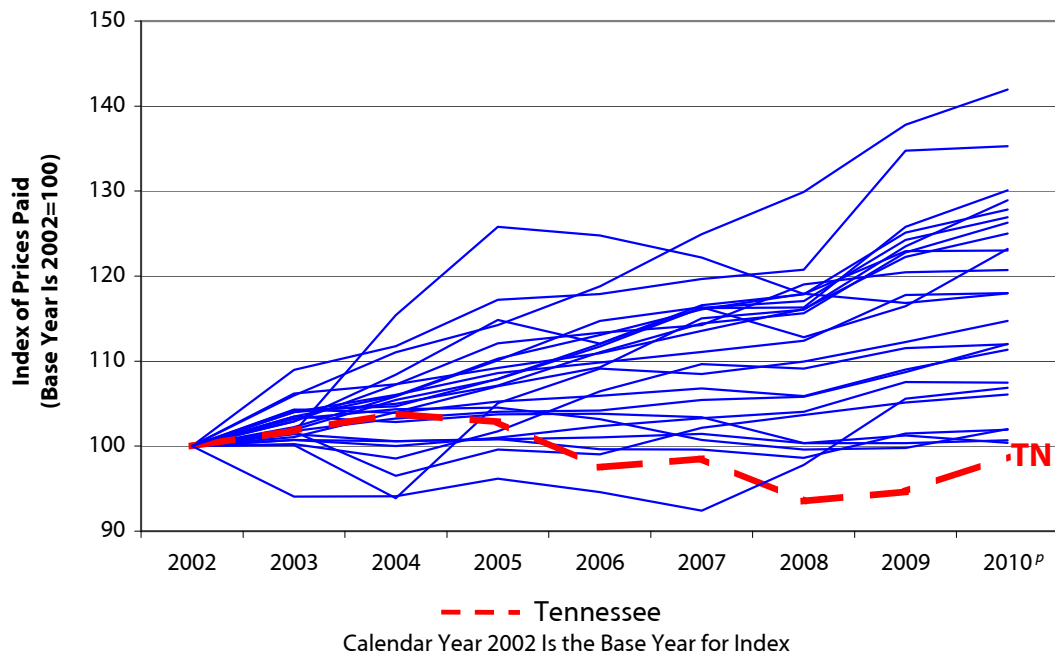
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

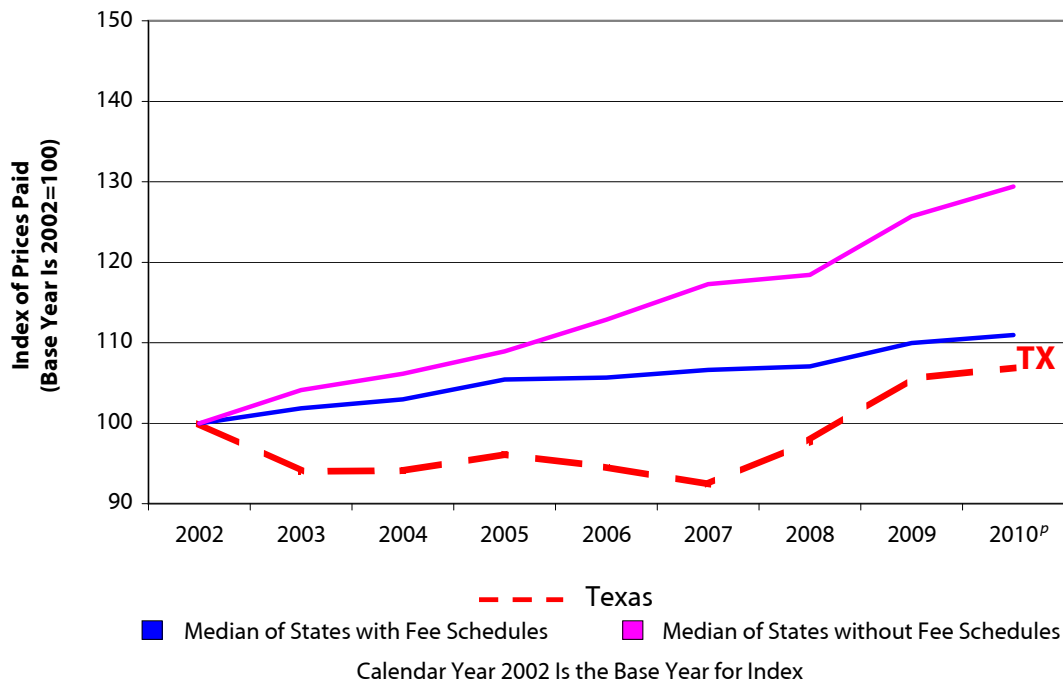
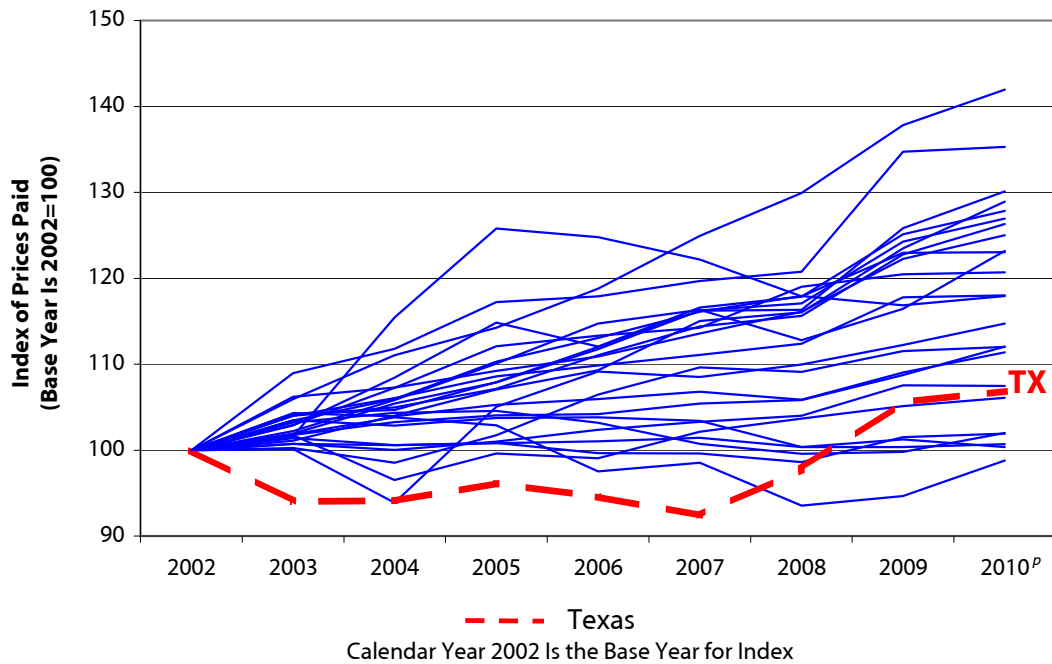
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: During the period covered by this study, South Carolina's fee schedule for professional services had not been changed after the update in January 2003. Results in South Carolina do not reflect fee schedule changes effective July 1, 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

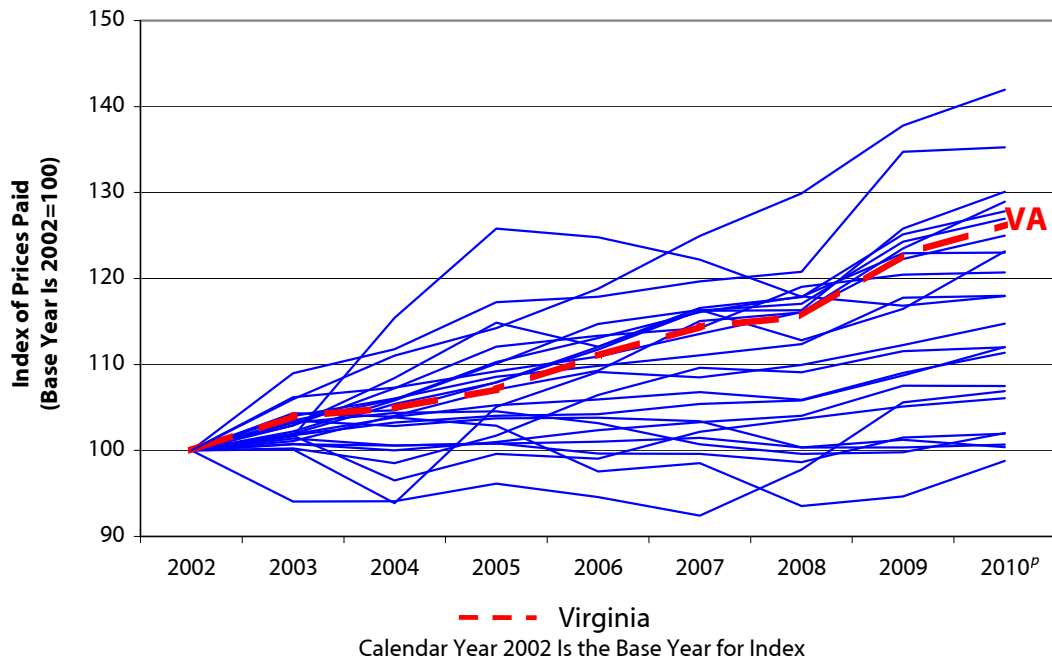
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

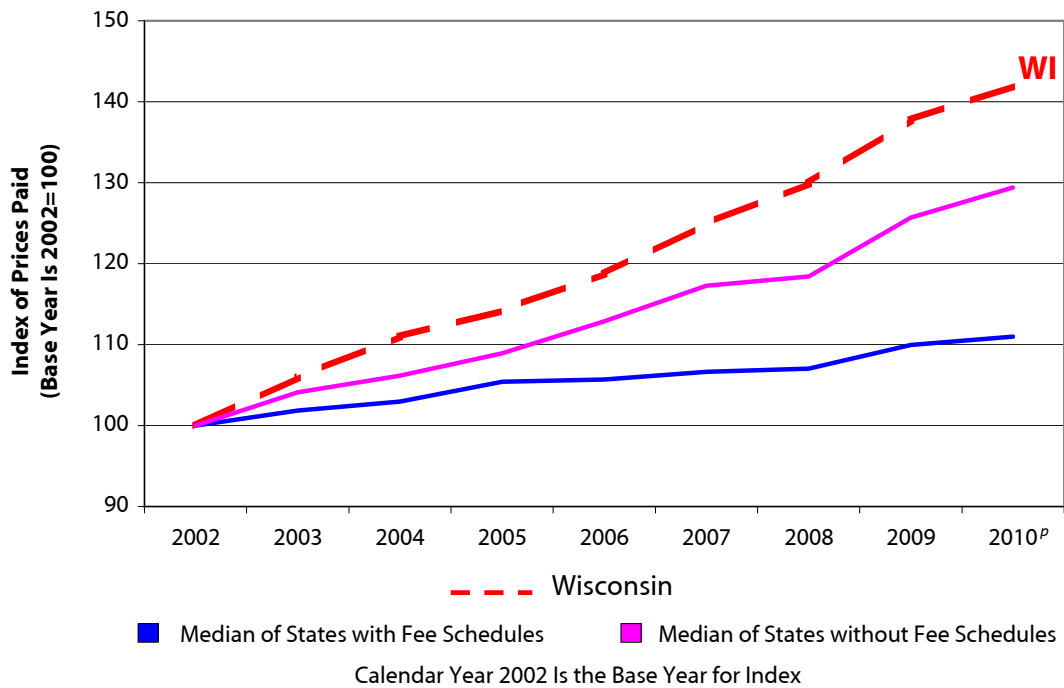
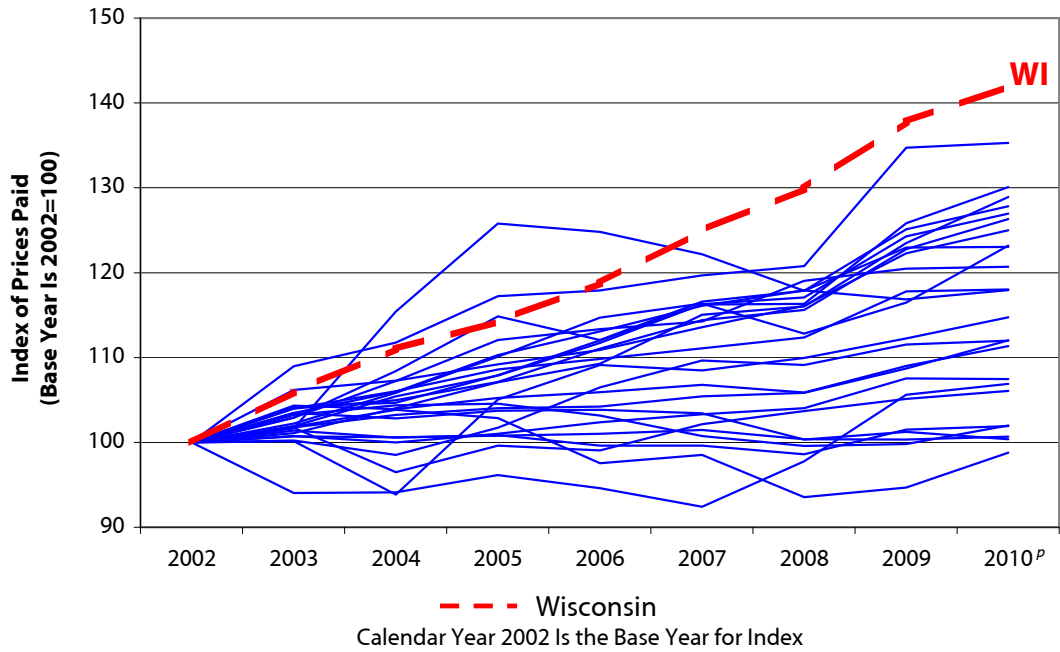
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

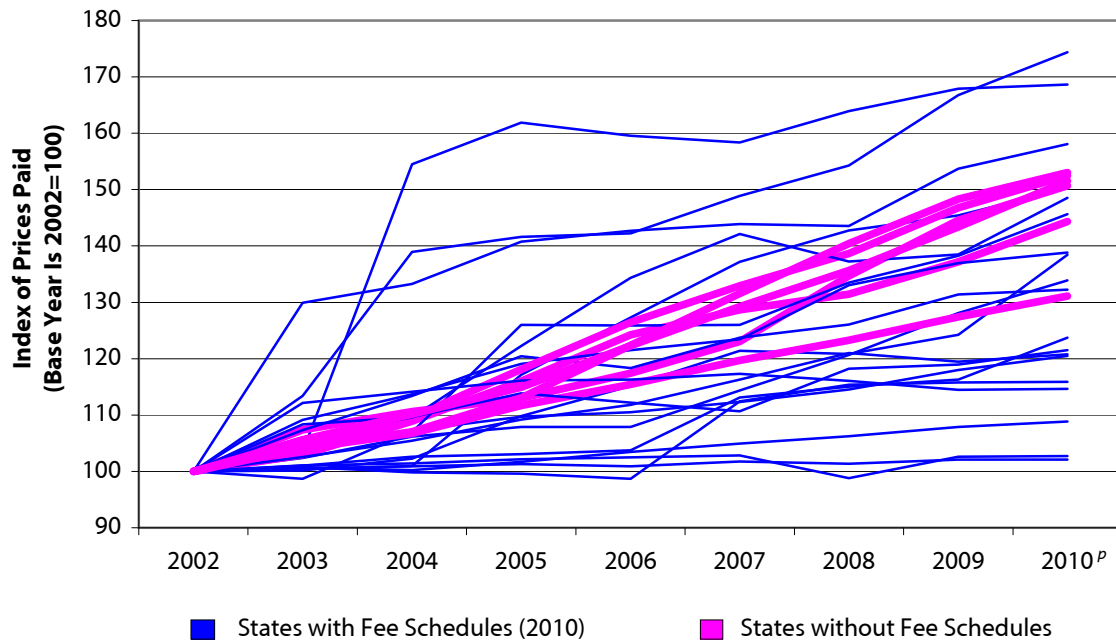
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Virginia did not have a workers' compensation fee schedule in 2010.

Nonhospital Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Wisconsin did not have a conventional workers' compensation fee schedule in 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
AR	100	101	103	103	104	113	115	116	124
AZ ^{a,b}	100	100	102	110	115	121	121	124	138
CA	100	101	100	100	99	112	115	116	116
CT ^b	100	102	106	108	108	114	121	128	134
FL	100	104	155	162	160	158	164	168	169
GA	100	100	101	117	127	137	143	145	150
IA ^c	100	107	111	113	117	123	135	145	151
IL	100	107	113	120	118	124	126	131	132
IN ^c	100	103	109	116	124	129	131	137	144
LA	100	101	100	102	103	105	106	108	109
MA	100	130	133	141	143	144	144	154	158
MD	100	99	107	126	126	126	133	138	146
MI ^b	100	109	114	119	121	123	133	137	139
MN ^b	100	104	107	110	110	112	115	118	120
MO ^{a,c}	100	104	110	118	126	133	139	147	153
NC	100	101	101	101	101	102	101	102	102
NJ ^c	100	104	107	112	115	120	123	127	131
NY ^{a,b}	100	101	101	102	103	103	99	103	103
OK ^a	100	108	110	114	112	111	118	119	122
PA	100	103	105	109	112	116	121	119	121
SC ^b	100	112	114	116	116	117	116	114	115
TN	100	106	110	122	134	142	137	139	149
TX	100	113	139	142	142	149	154	167	174
VA ^c	100	104	107	113	122	132	140	148	153
WI ^c	100	106	110	115	122	129	136	143	152

continued

**Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid,
2002 to 2010 (continued)**

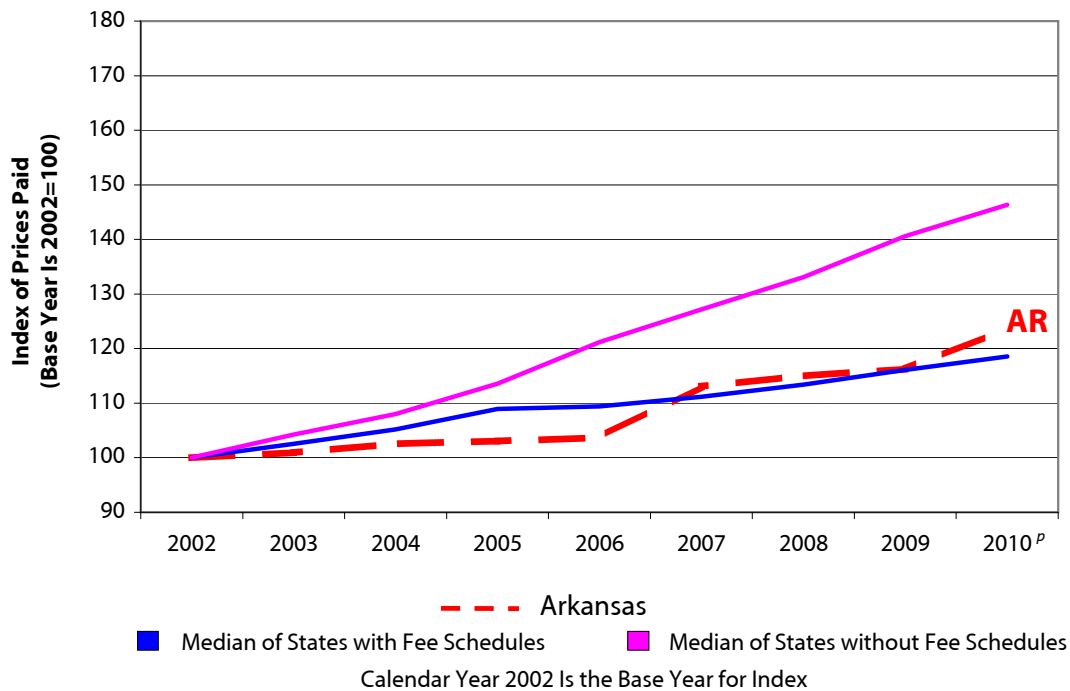
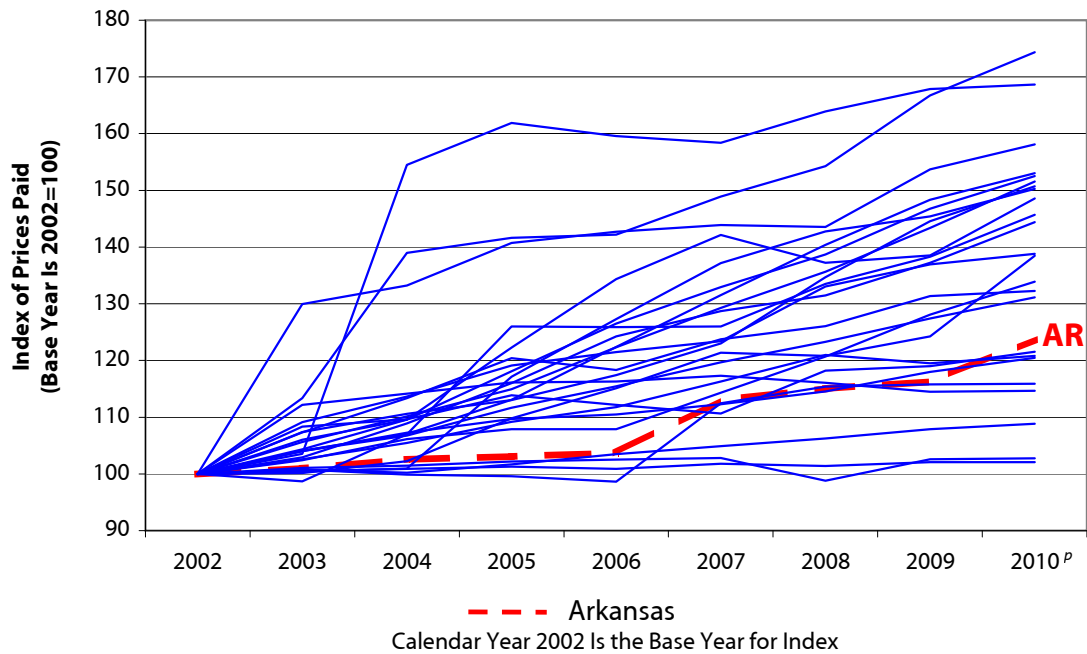
Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Calendar year 2002 is the base year for the index = 100.

^a The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

^b This state had fee schedule changes after June 30, 2010, that are not reflected in the results.

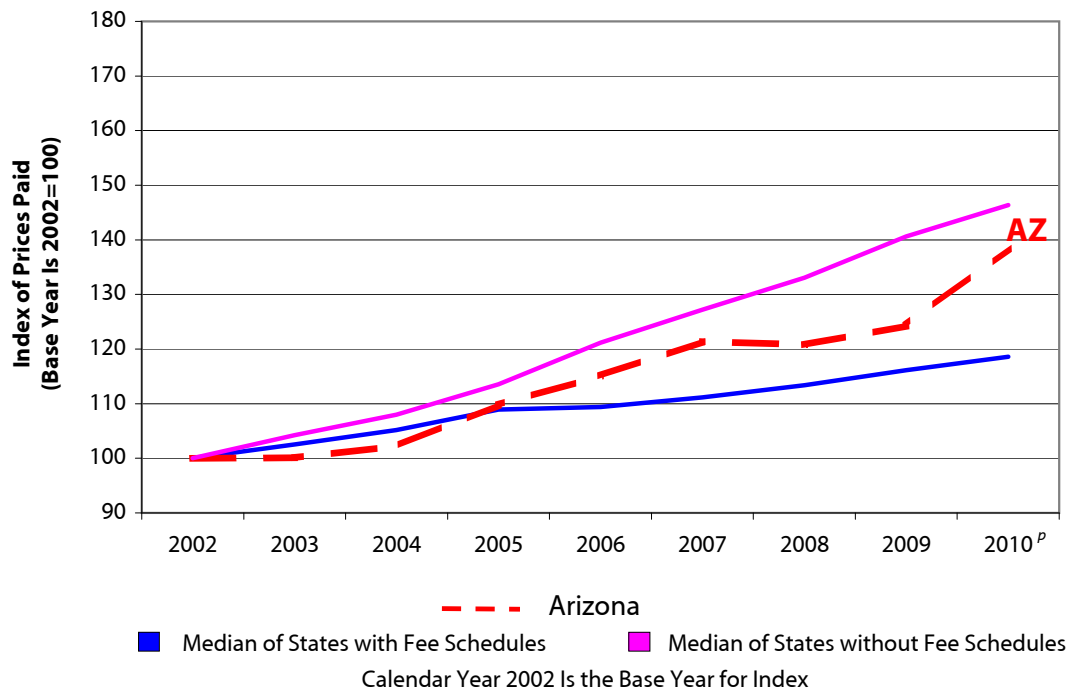
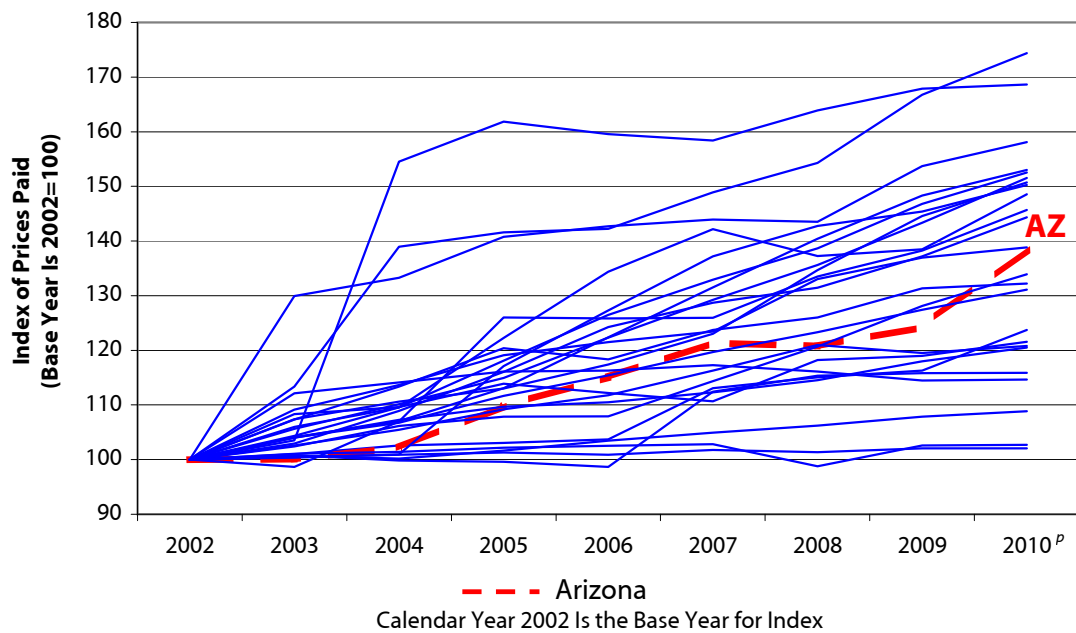
^c This state had no workers' compensation fee schedule in 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Arkansas' fee schedule for professional services has regular updates on the RVUs tied to the most recent Medicare RBRVS, with applied state conversion factors adopted in May 2000 for the services included in this study.

Key: RBRVS: Resource-based relative value scale; RVUs: Relative value units.

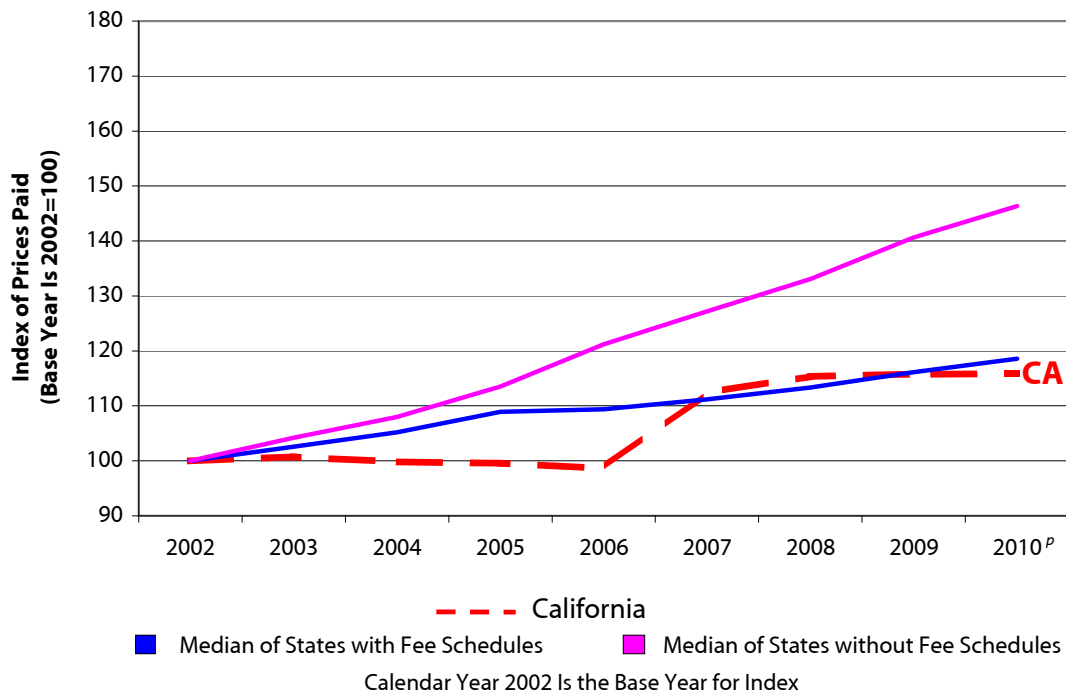
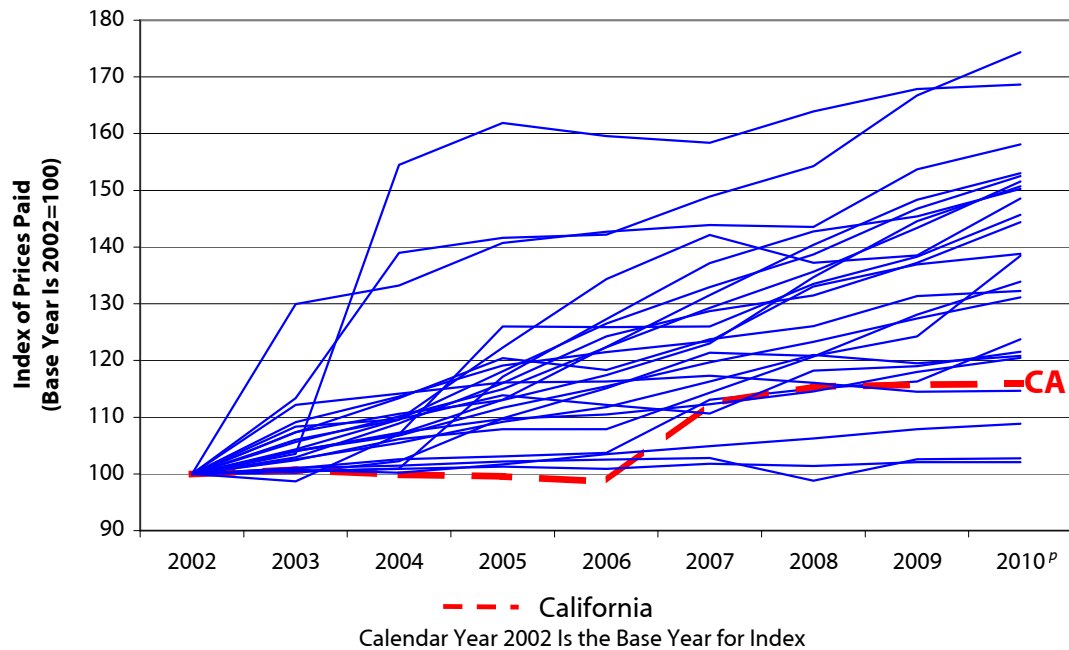
Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

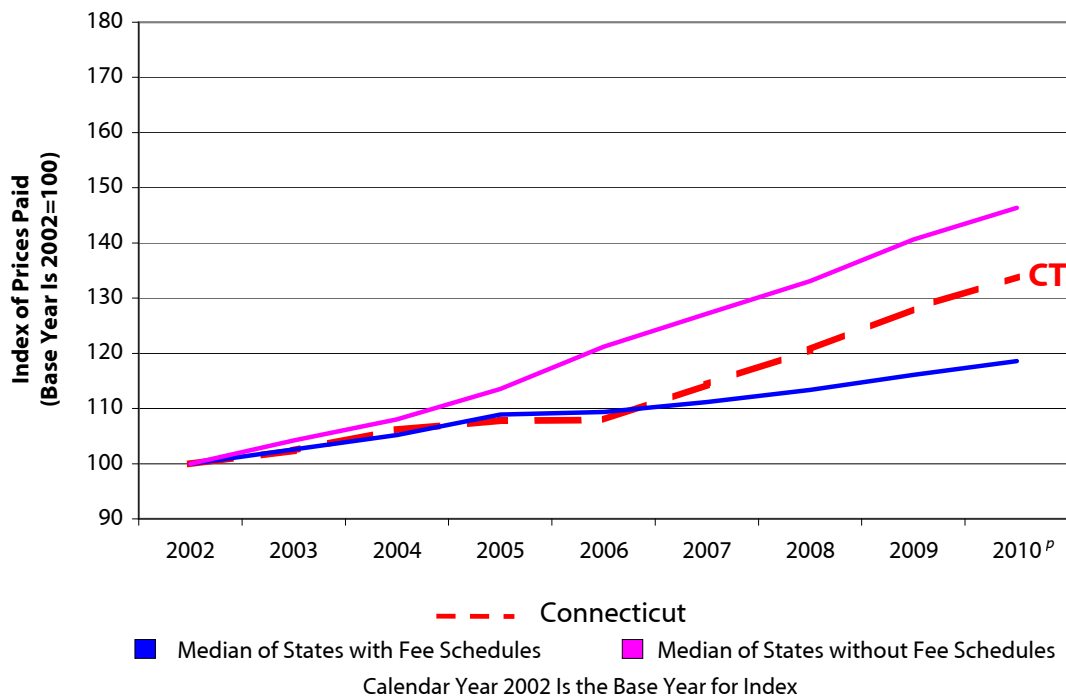
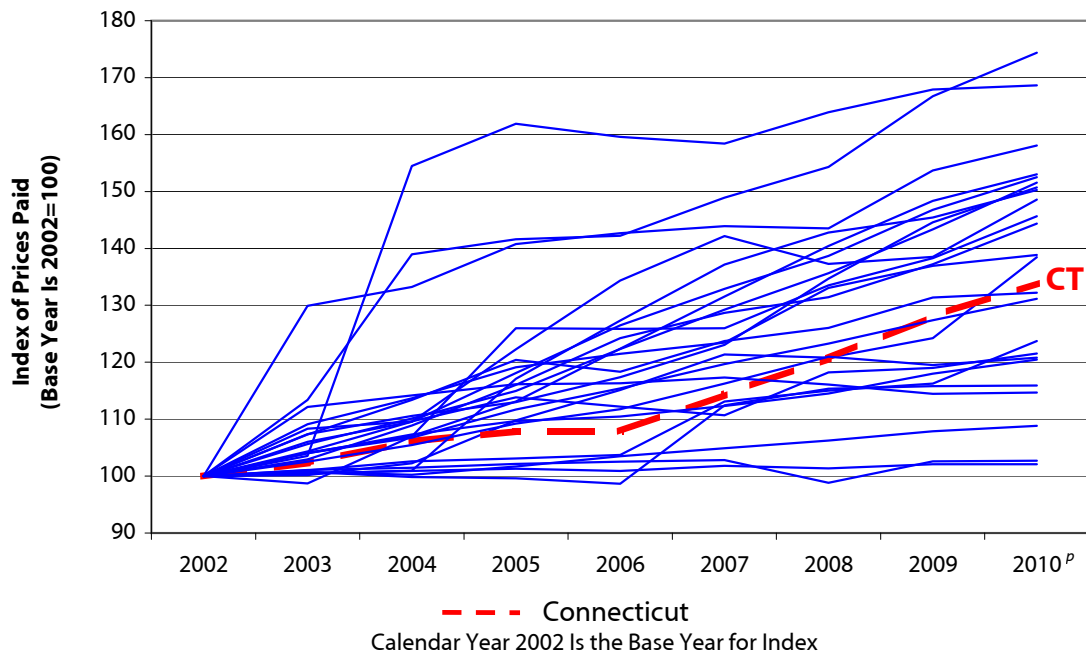
The data for this state are not necessarily representative because it is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared to other data sources in the state, this may lead to under or over estimations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

Arizona updates its fee schedule for professional services annually in October. Results in Arizona do not reflect fee schedule changes effective October 1, 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


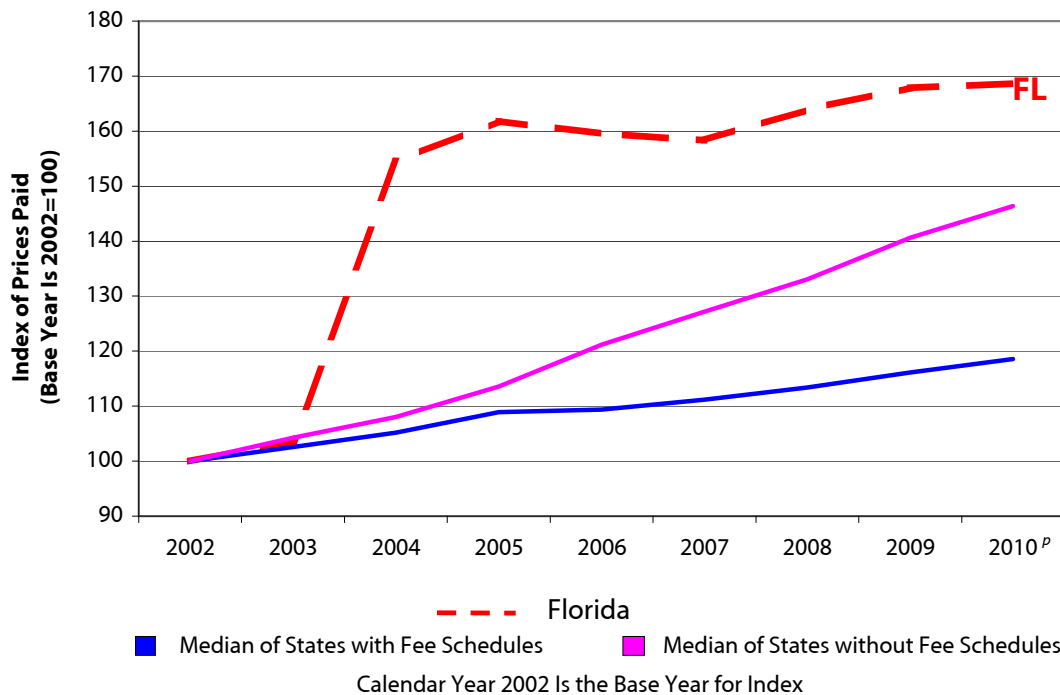
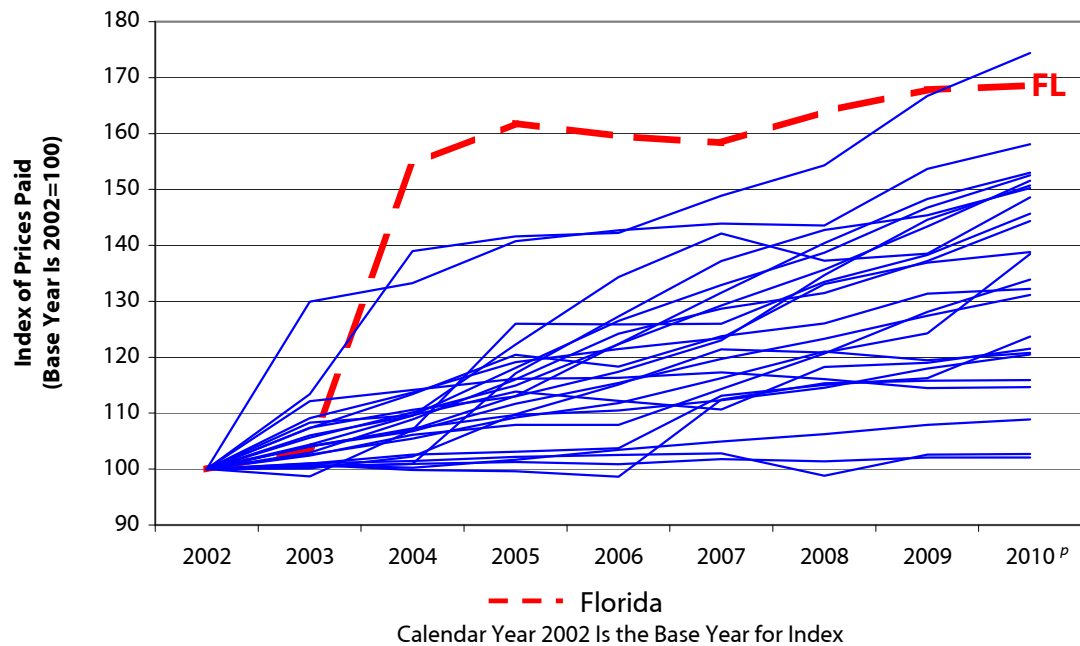
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


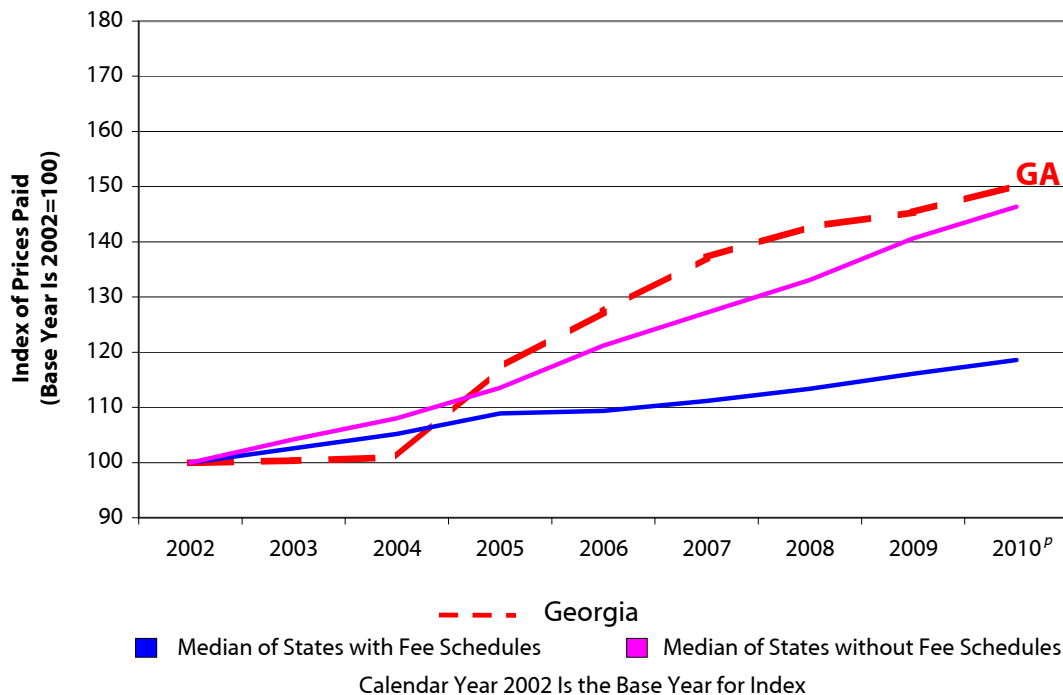
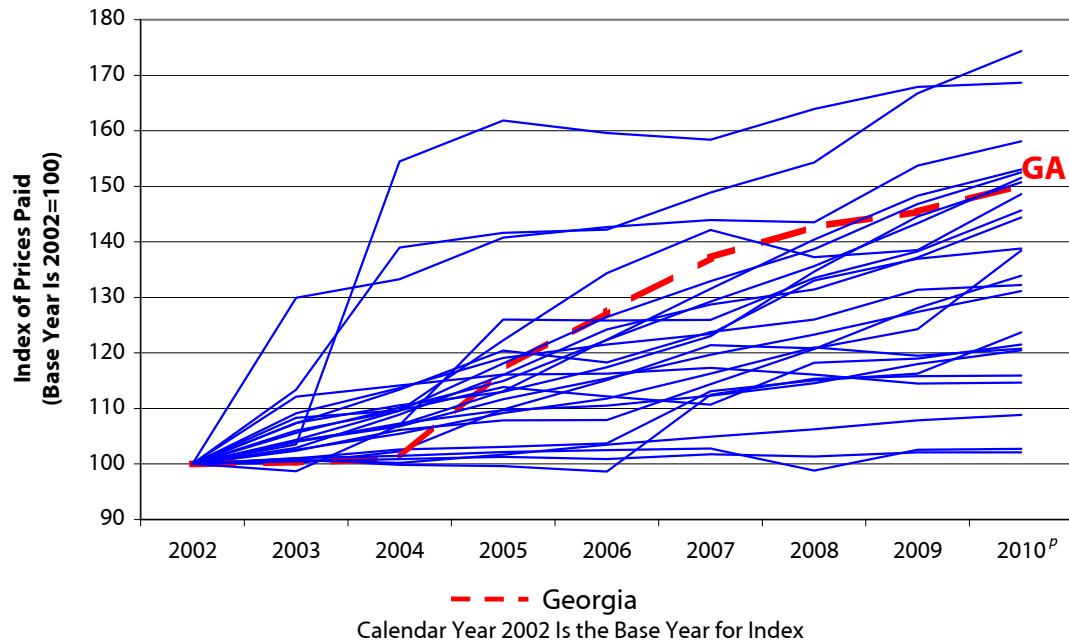
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Connecticut has updated its fee schedule for professional services annually in July since 2008; in prior years updates were effective in April. Results in Connecticut do not reflect fee schedule changes effective July 15, 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


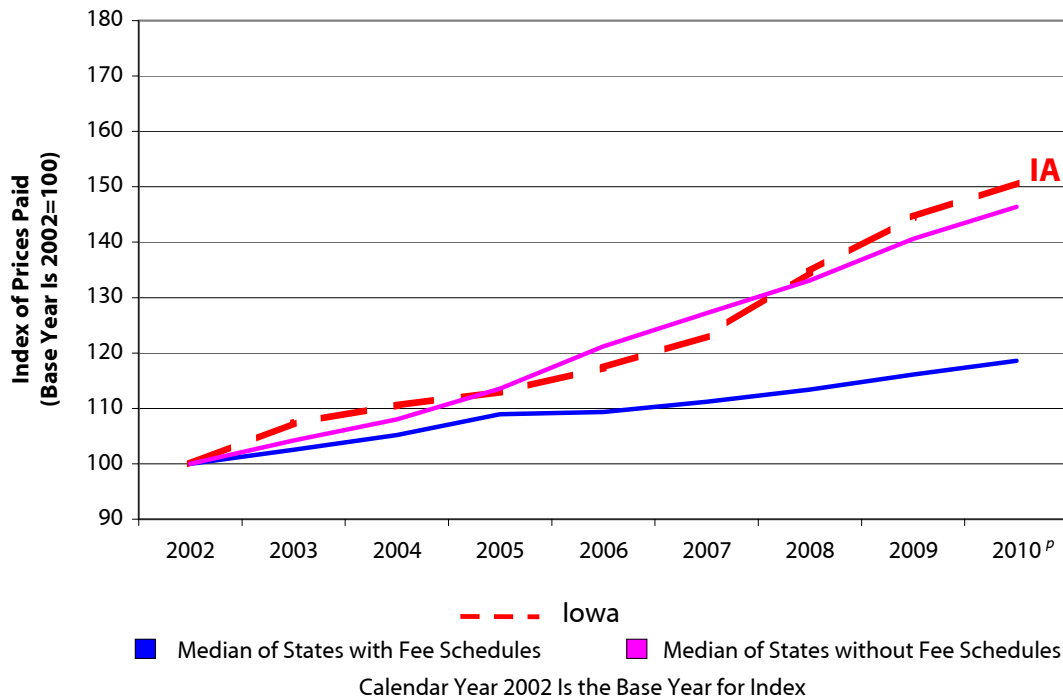
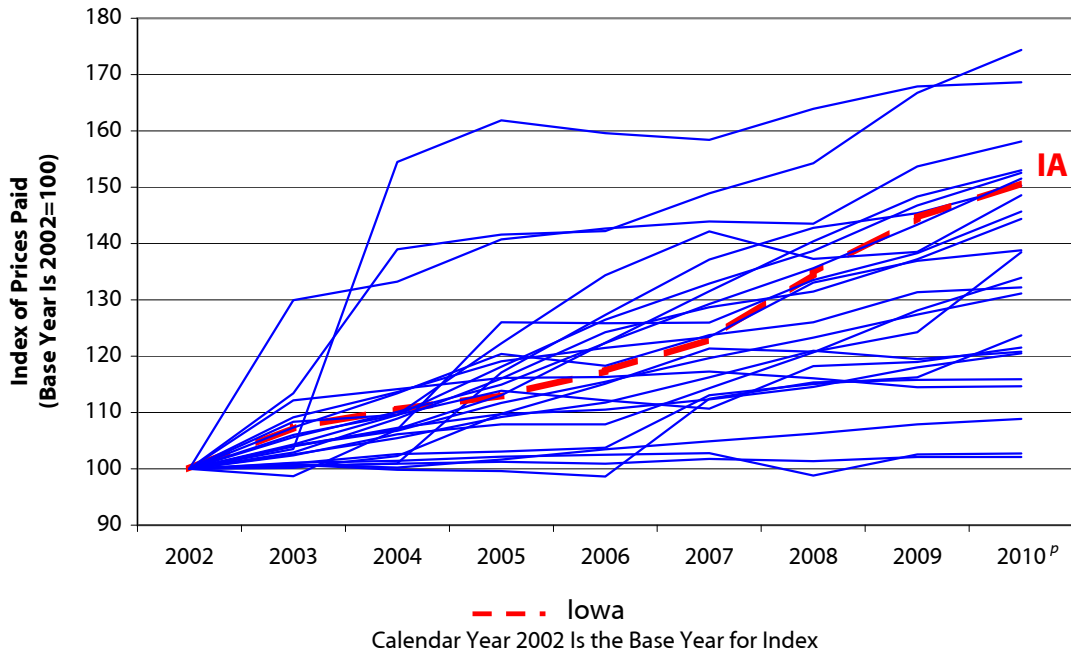
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


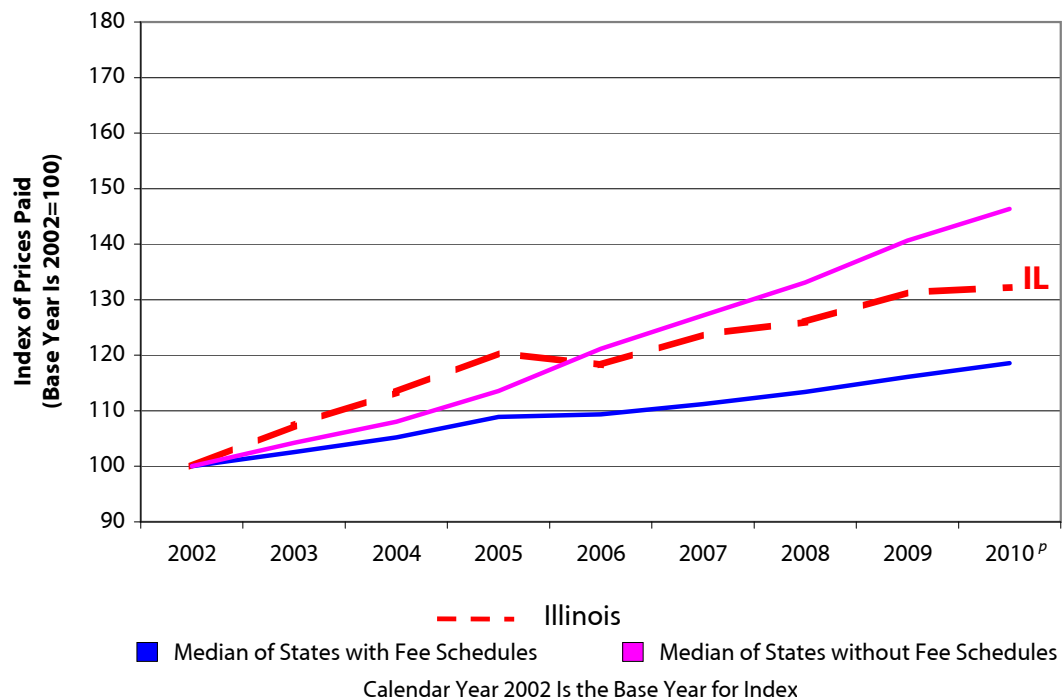
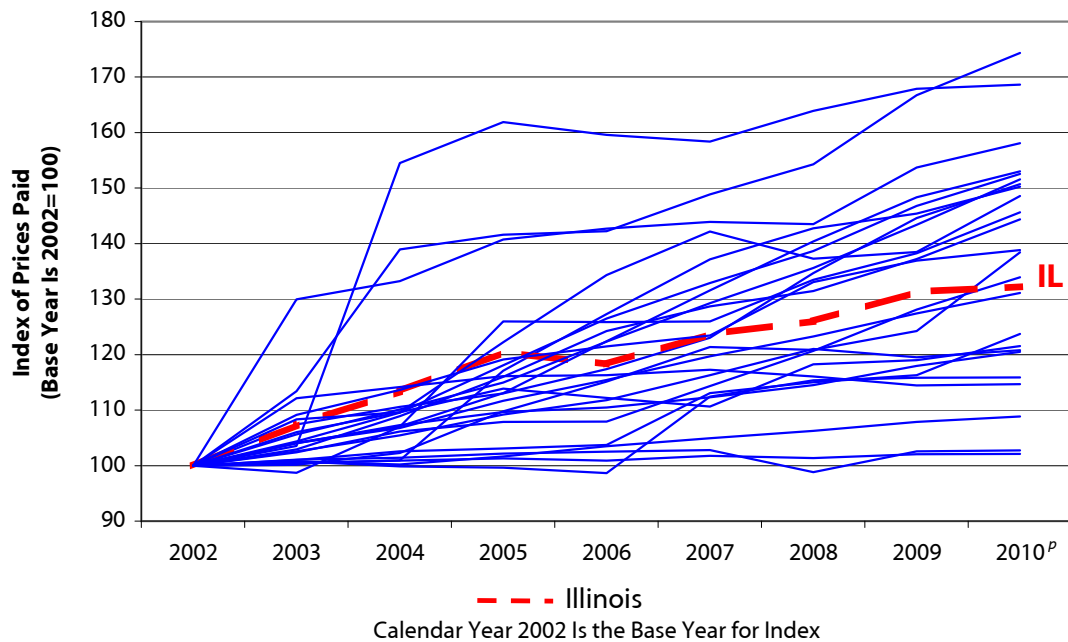
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Georgia updates its fee schedule for professional services annually in April. For example, in 2005 the fee schedule rates had material increases in certain evaluation and management and physical medicine services, and decreases in many services such as emergency, minor radiology, neurological testing, and certain major surgery procedures.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


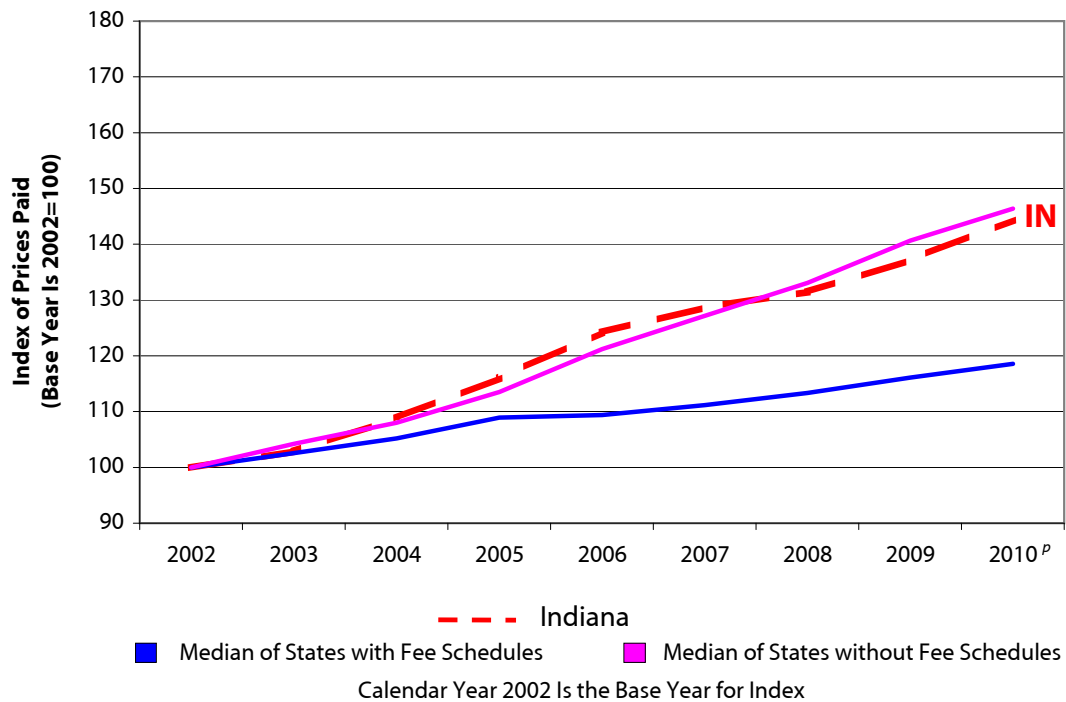
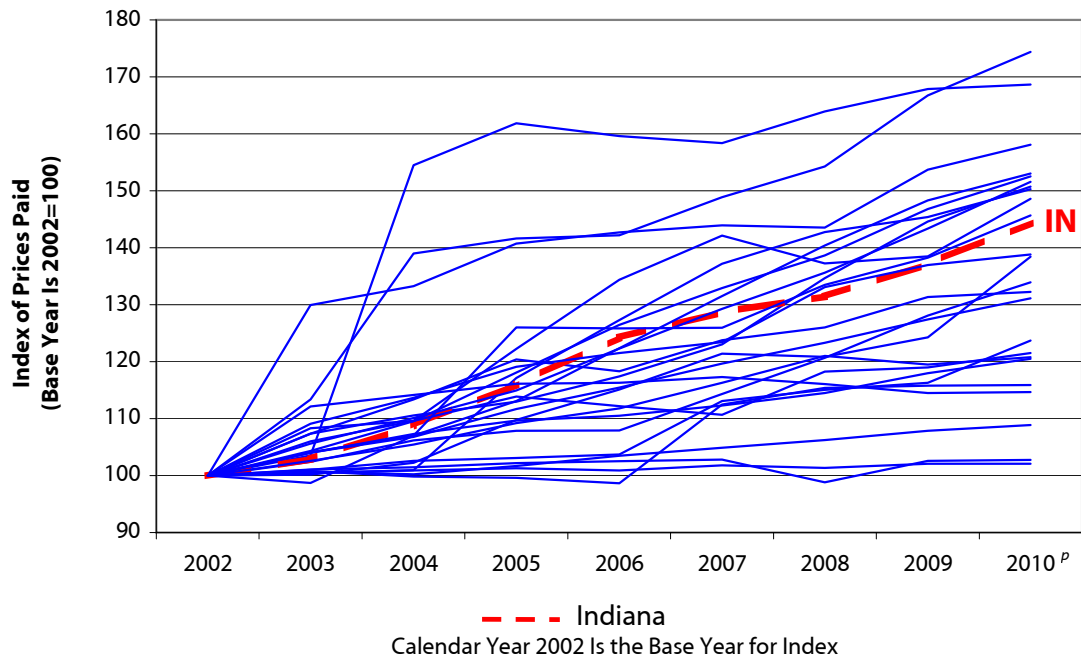
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Iowa did not have a workers' compensation fee schedule in 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


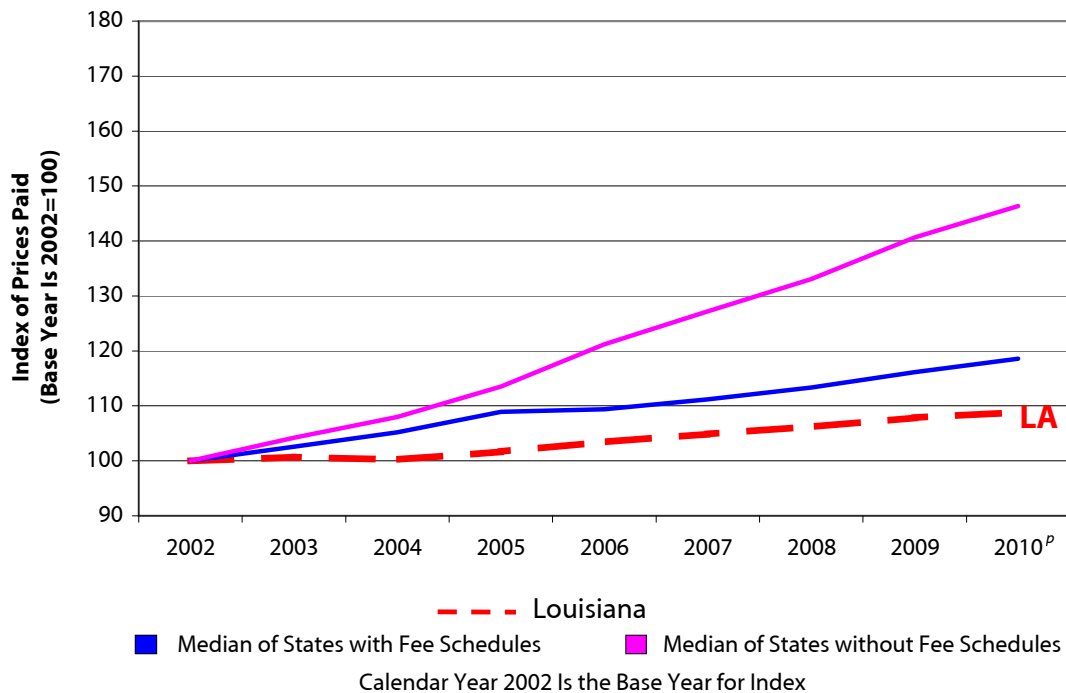
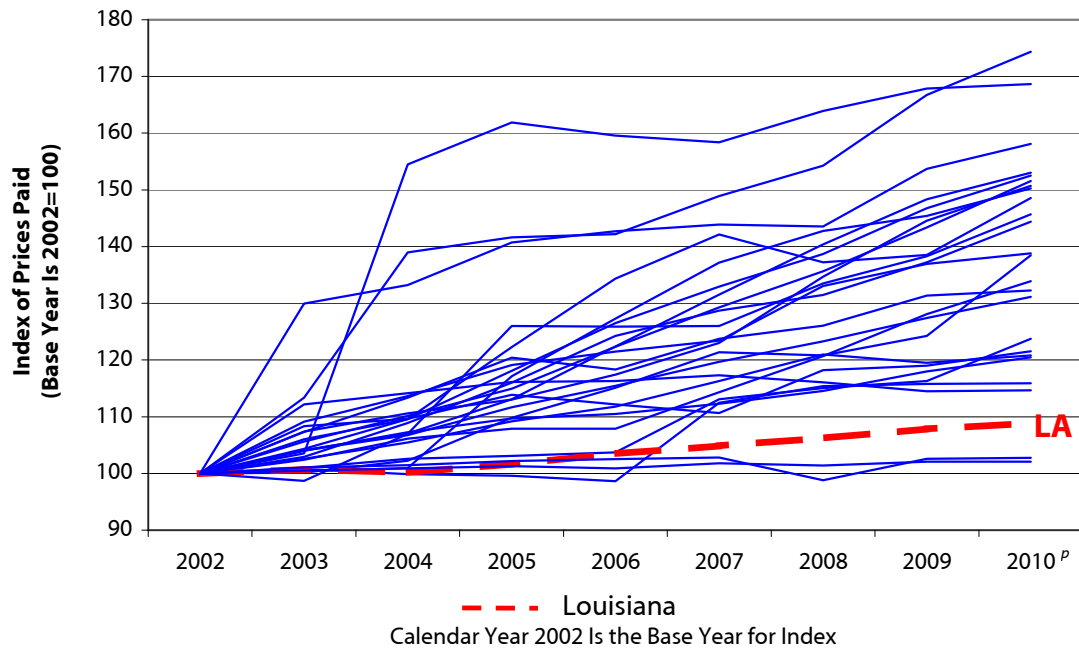
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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, which might create unintended incentives for providers to control revenues 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.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

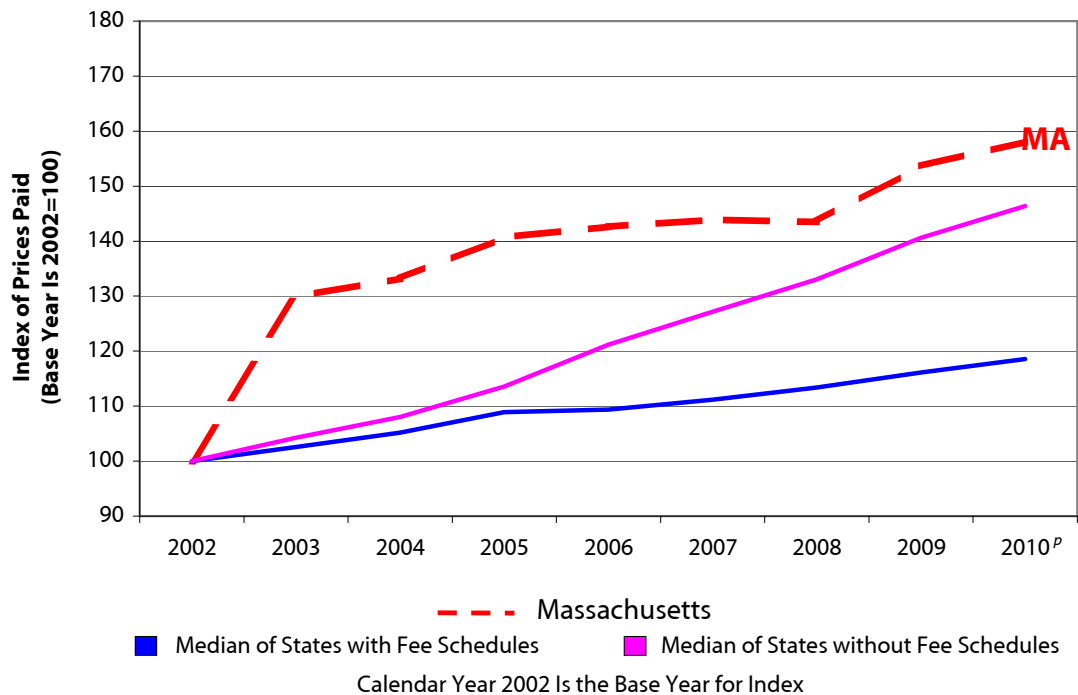
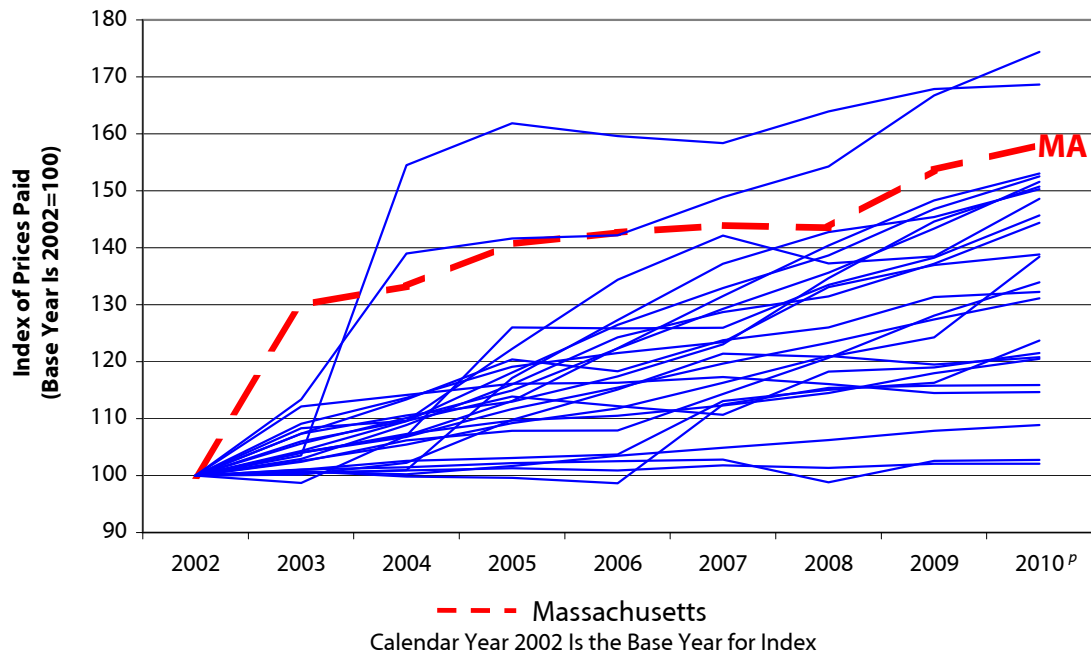
Note: Indiana did not have a workers' compensation fee schedule in 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

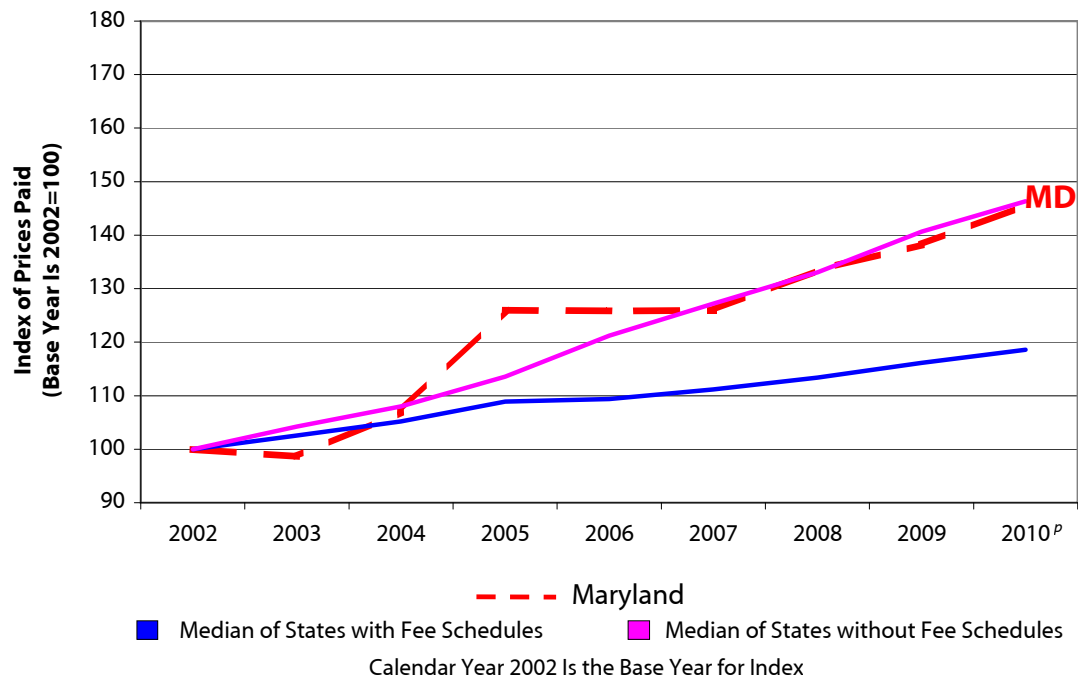
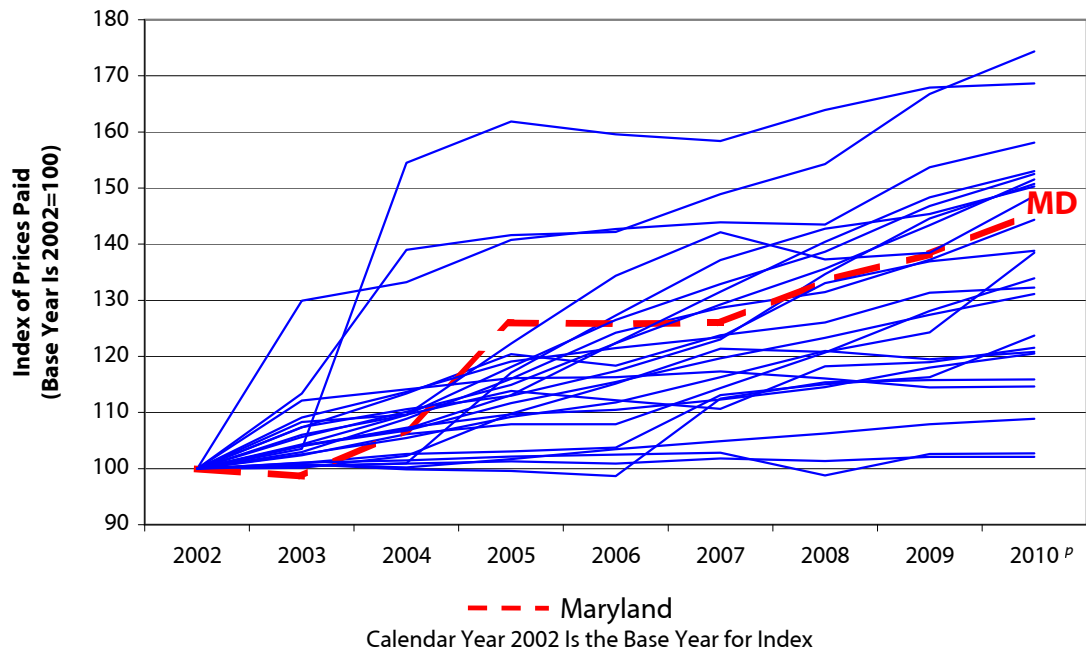
Notes: Louisiana's fee schedule for professional services uses the 1999 CPT list published by the AMA and maximum allowable reimbursement rates effective as of March 2001.

Key: AMA: American Medical Association; CPT: Current Procedural Terminology.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


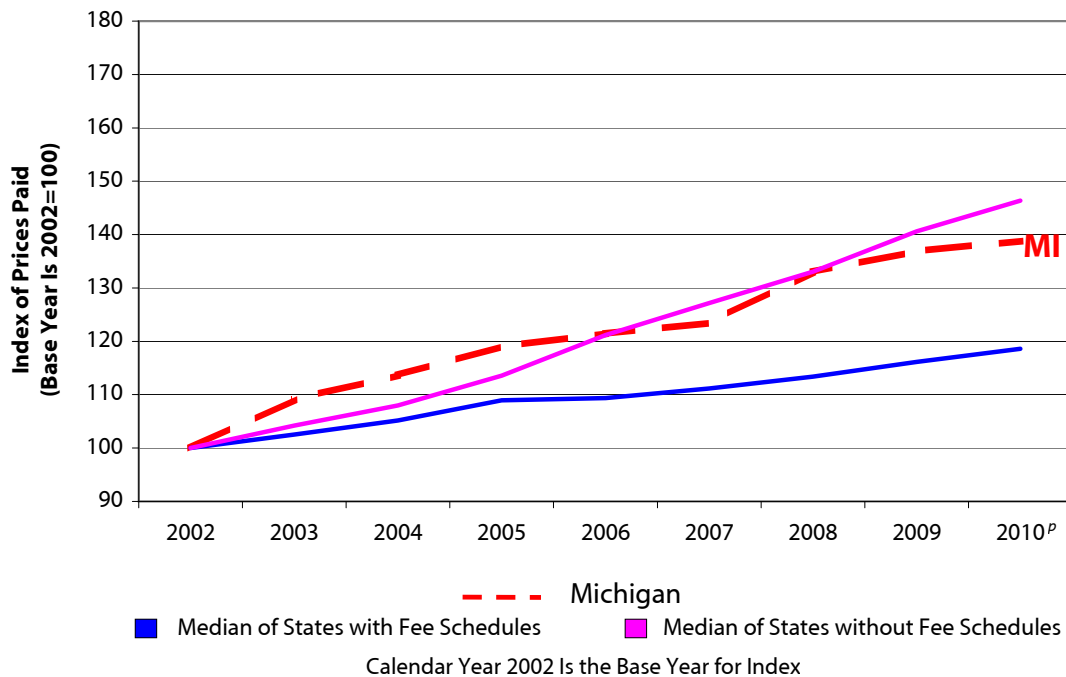
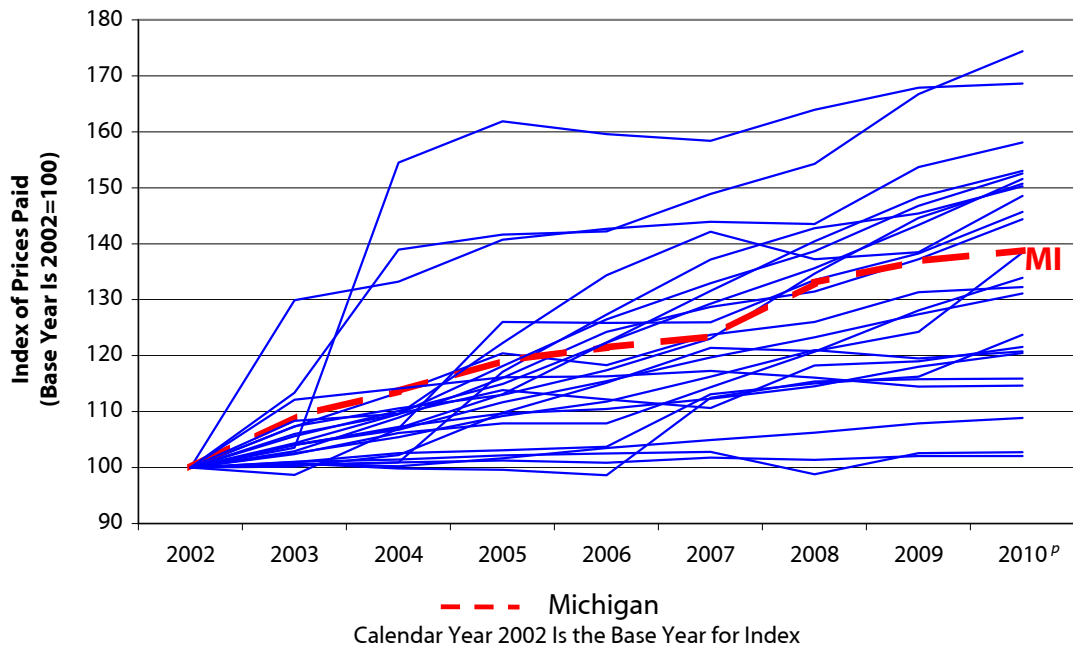
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Massachusetts increased 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 two to three times above the previous rates. Prior to that the fee schedule for professional services had not been updated since September 2004.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


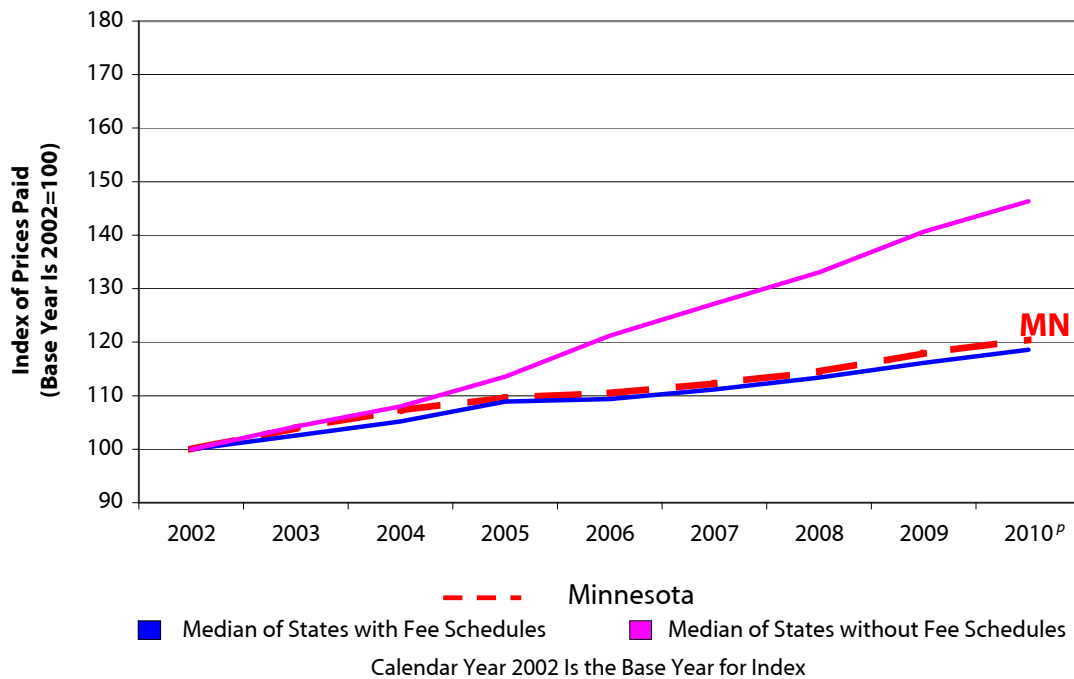
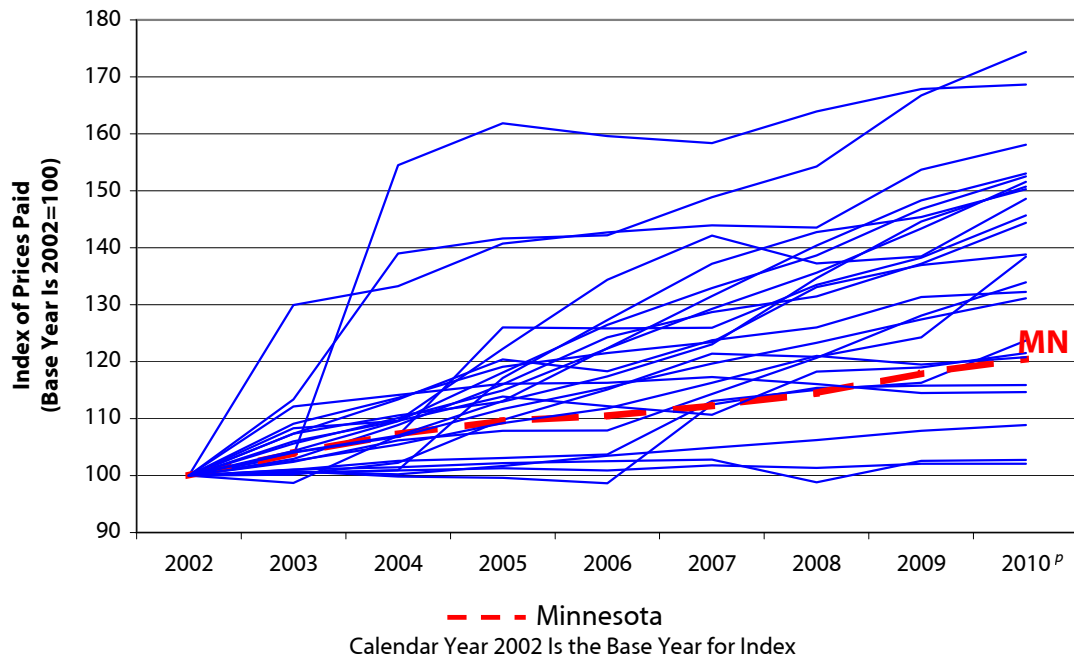
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

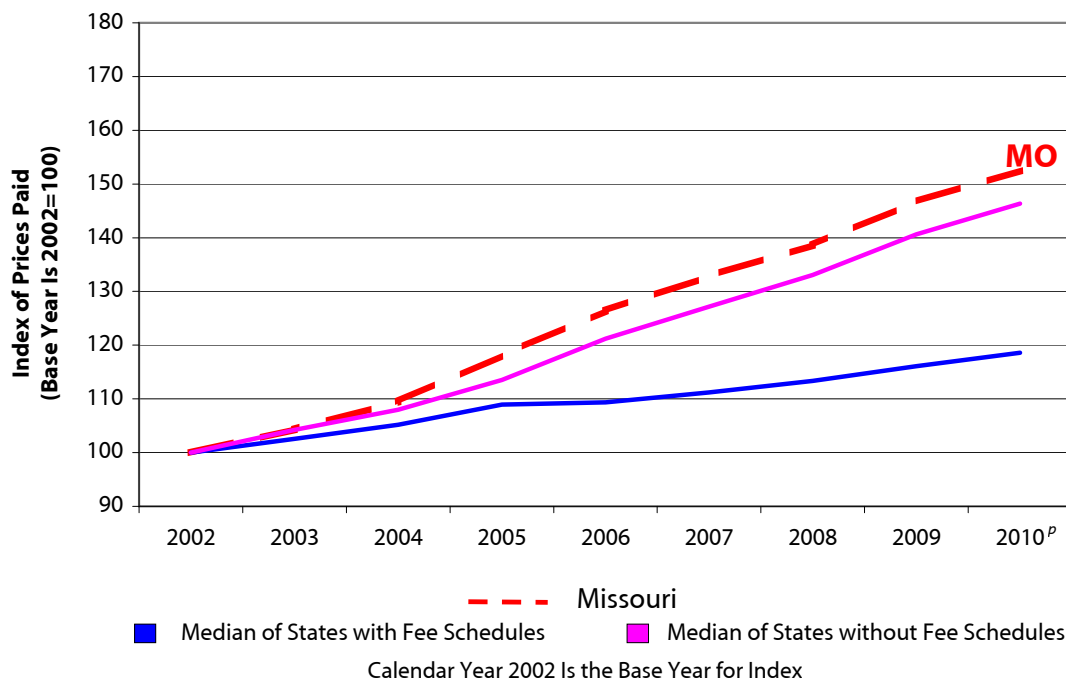
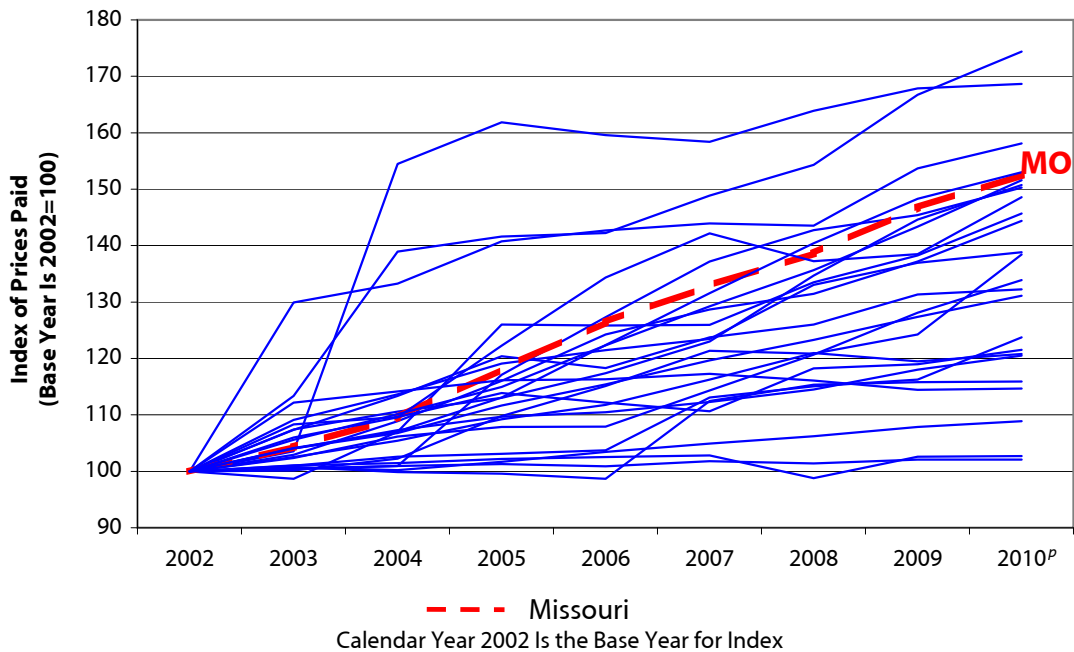
Notes: Michigan updates its fee schedule for professional services annually. Results in Michigan do not reflect fee schedule changes effective December 8, 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Minnesota's fee schedule for professional services from 2002 to 2010 was based on 1998 Medicare RVUs, with annual updates in the conversion factor. Results in Minnesota do not reflect fee schedule changes effective October 1, 2010.

Key: RVUs: Relative value units.

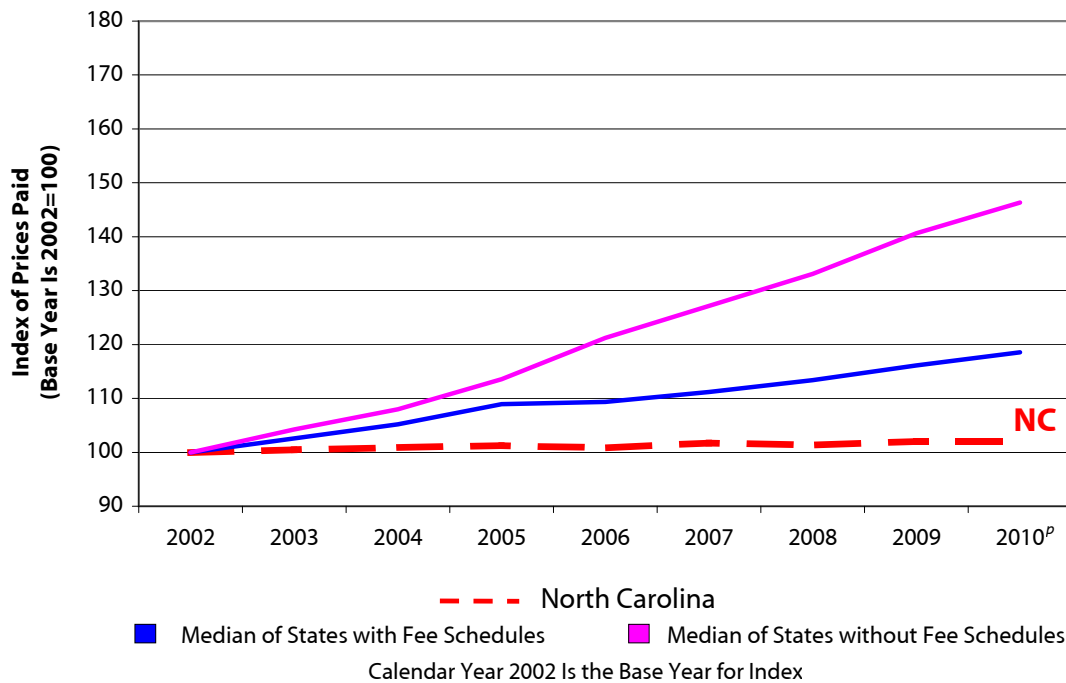
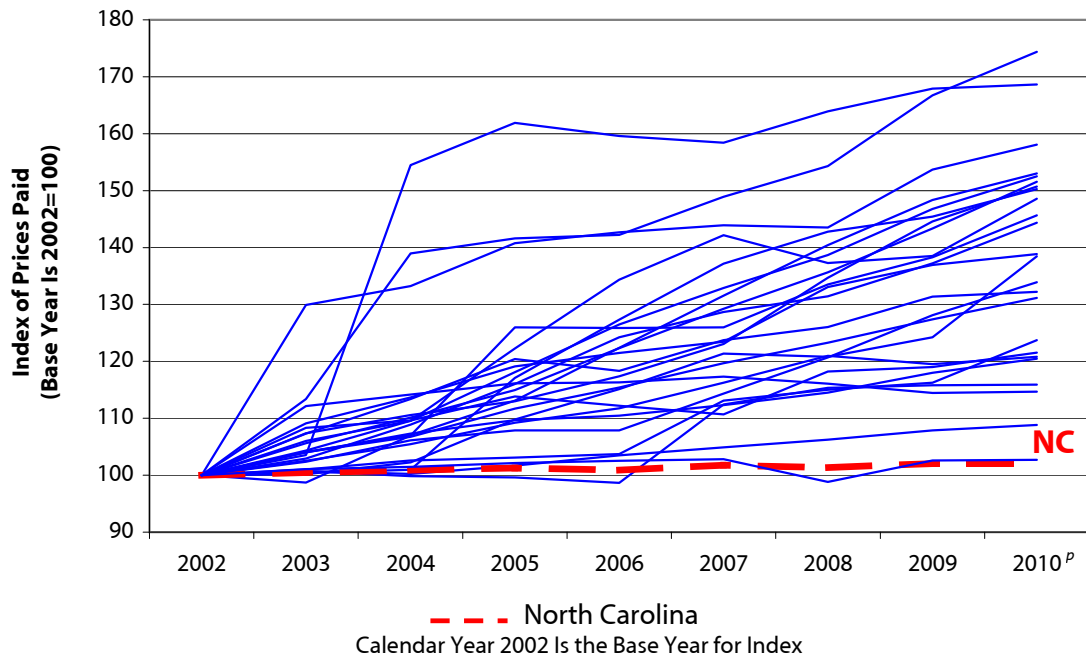
Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

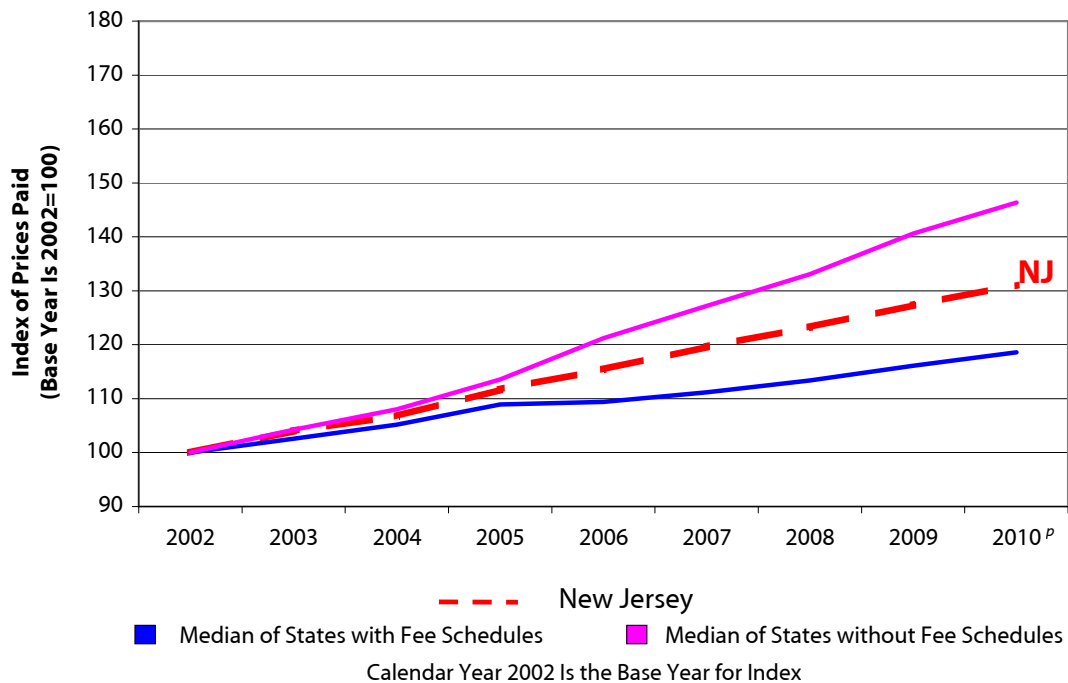
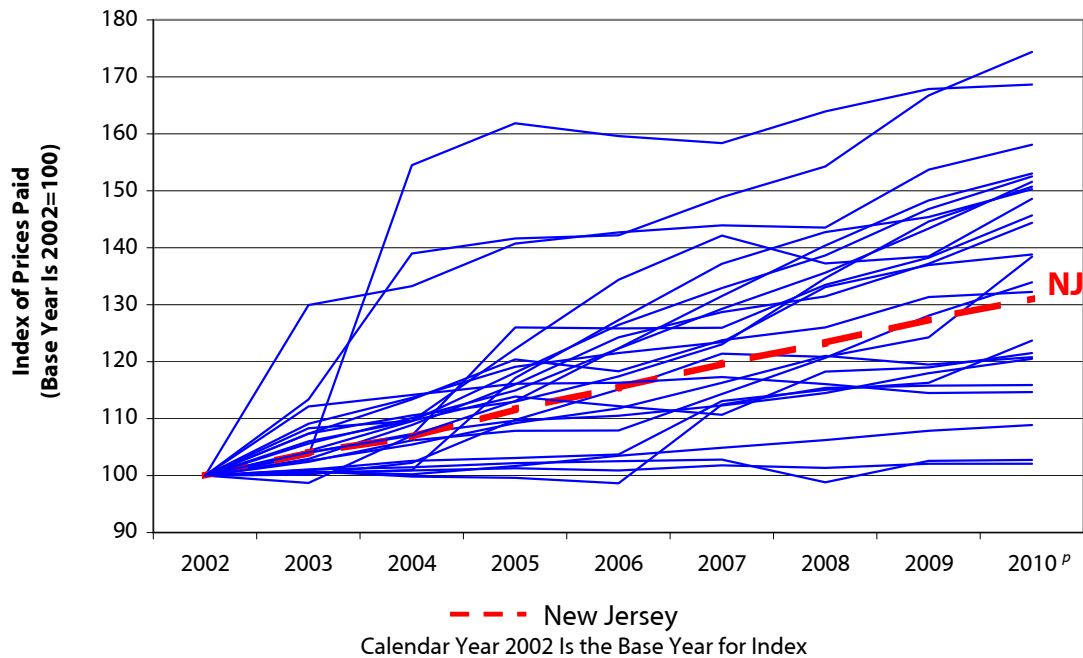
Missouri did not have a workers' compensation fee schedule in 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

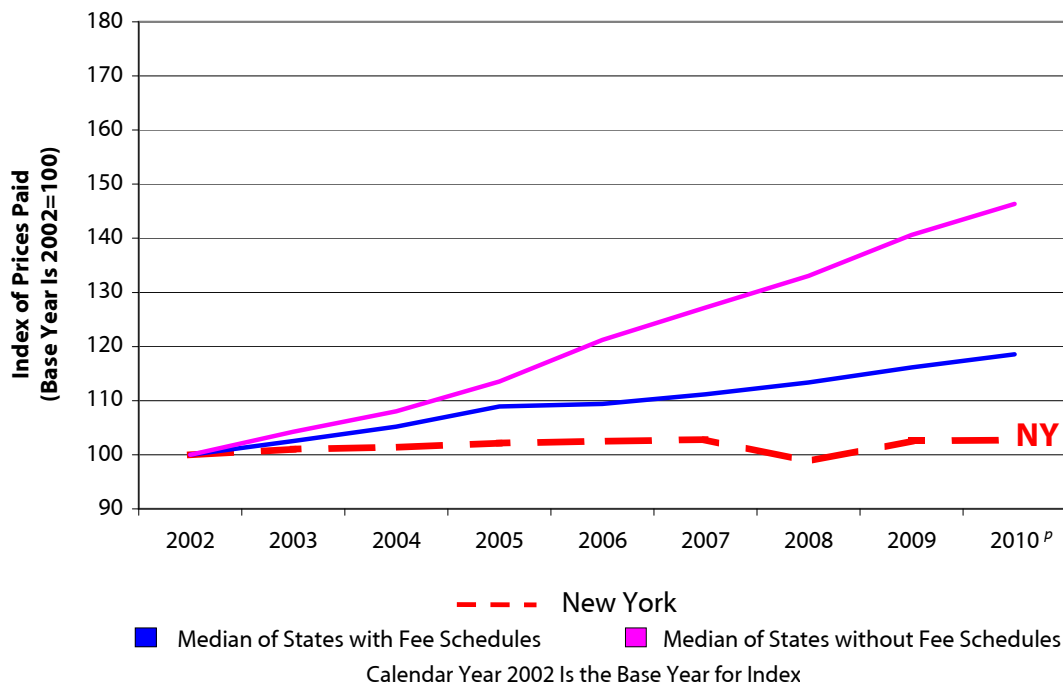
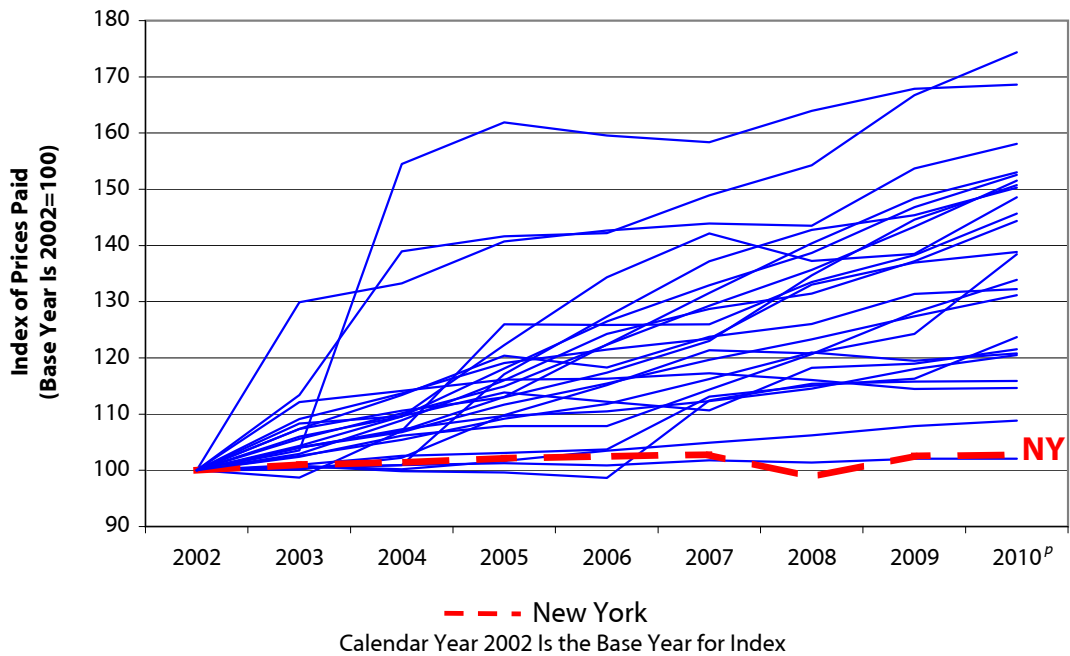
Notes: Maximum reimbursement amounts in the North Carolina fee schedule for professional services are based on those adopted by the North Carolina Industrial Commission effective January 1996. North Carolina updates its fee schedule annually in January to account for new and discontinued CPT codes published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

Key: AMA: American Medical Association; CPT: Current Procedural Terminology.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: New Jersey did not have a workers' compensation fee schedule in 2010.

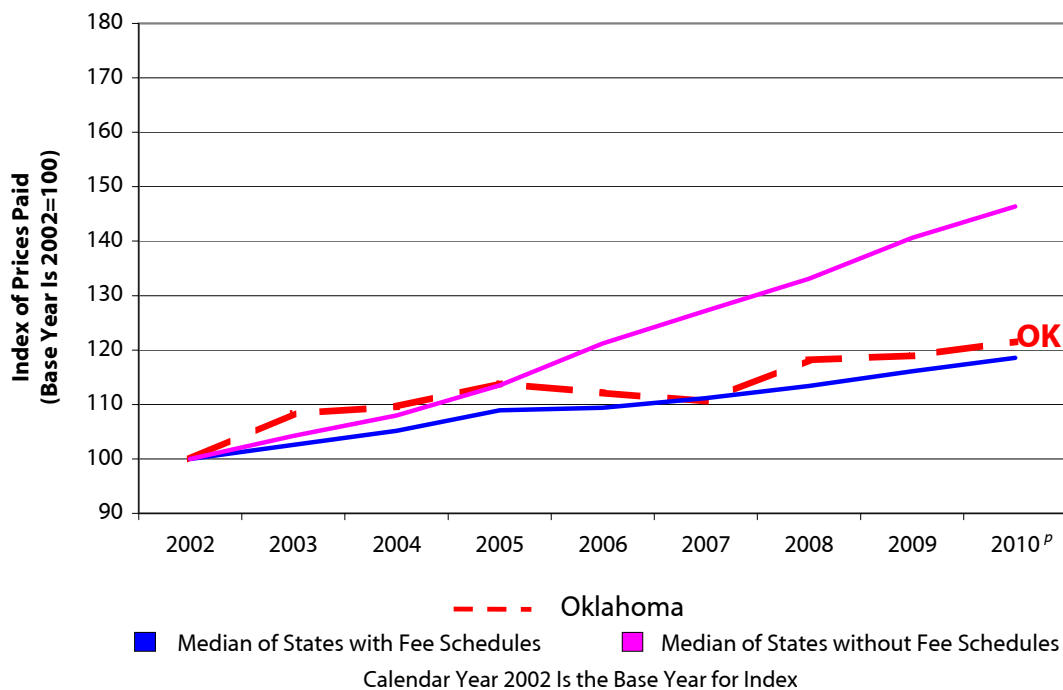
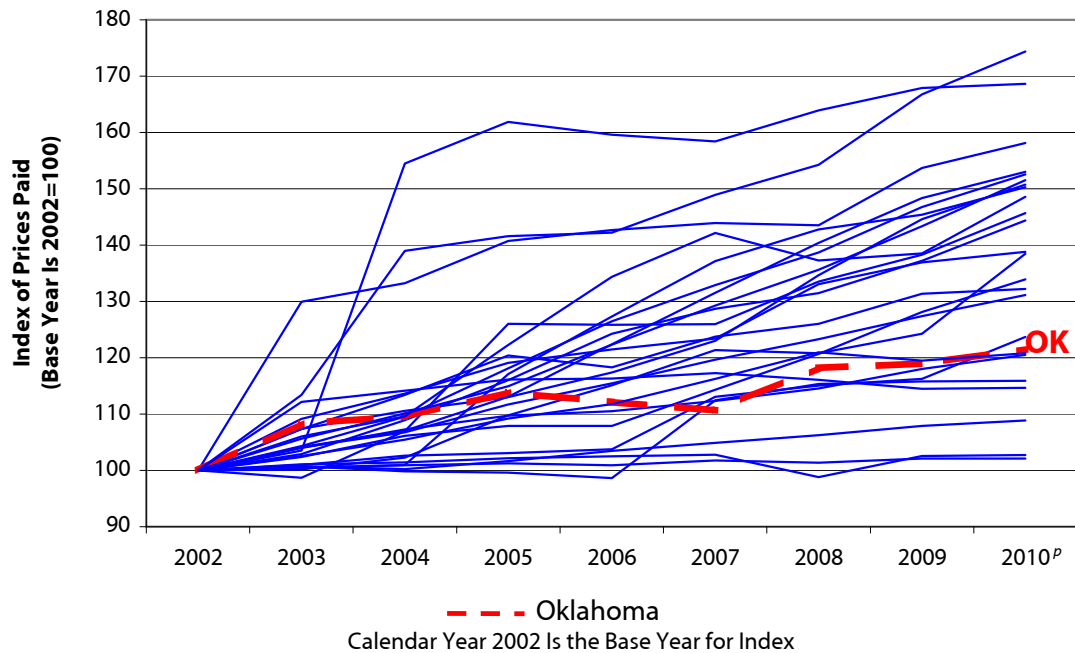
Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations 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 during the study period did not change. Results in New York do not reflect fee schedule changes effective December 1, 2010.

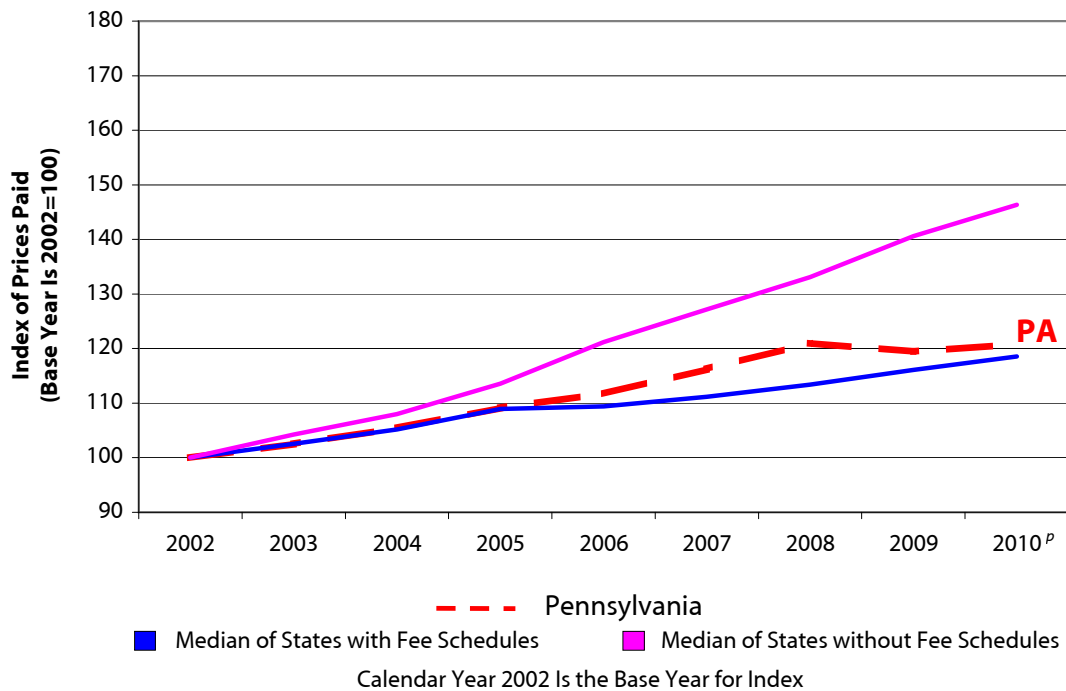
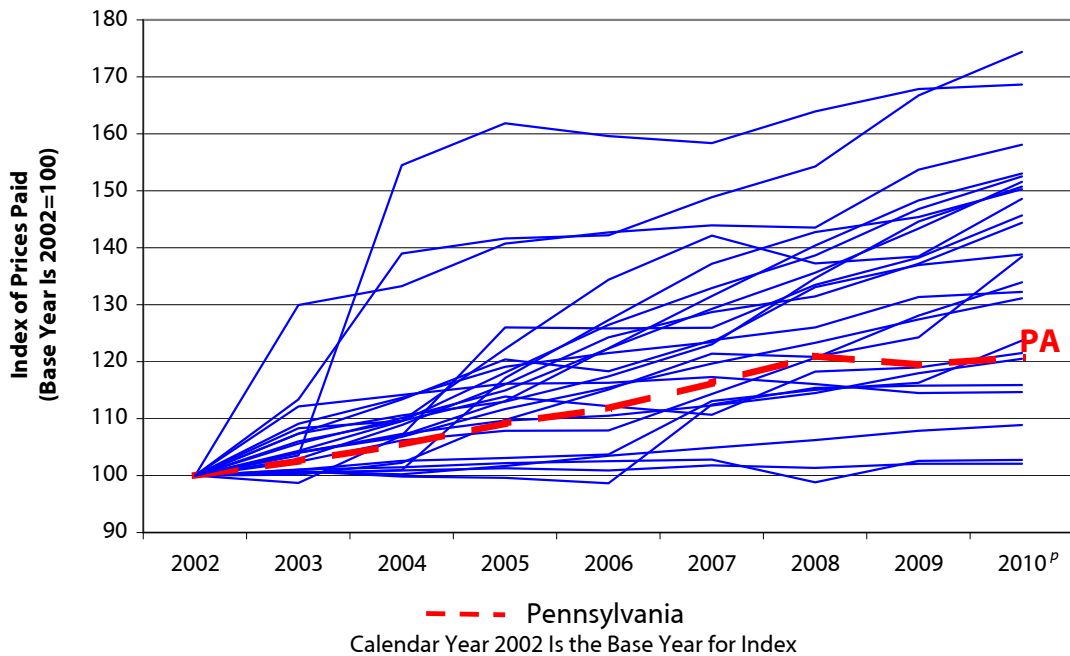
Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

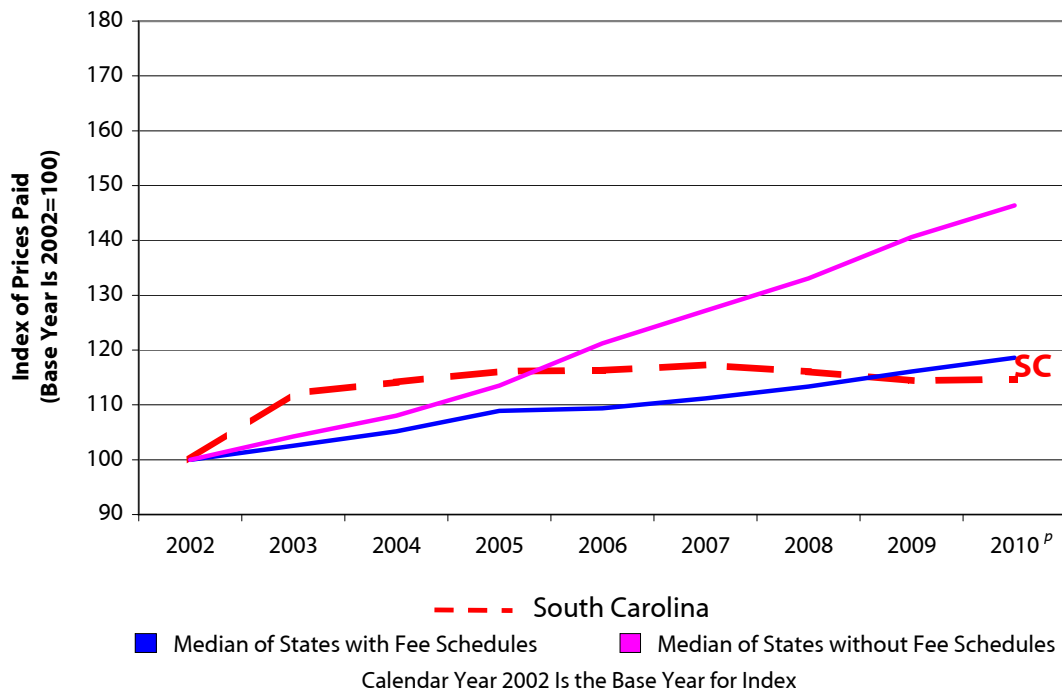
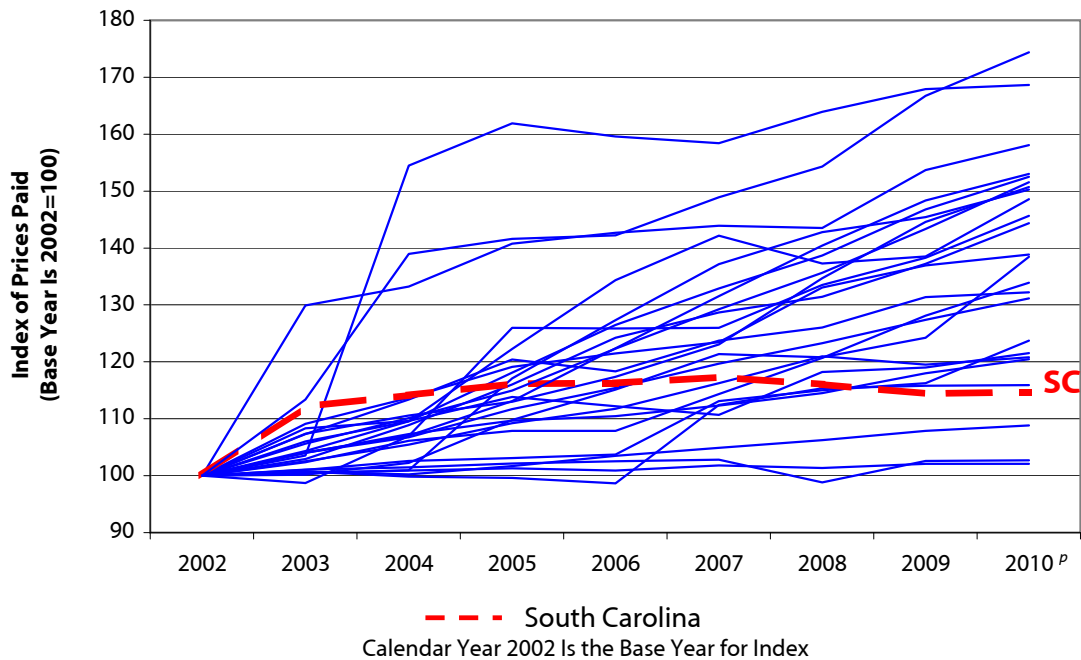
The data for this state are not necessarily representative because it is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared to other data sources in the state, this may lead to under or over estimations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

Oklahoma had regular updates to its fee schedule for professional services over the study period. For example, in 2006 the fee schedule rates had material increases in many pain management injection procedures, and decreases in many services such as emergency, radiology, neurological testing, and many surgery procedures. The most recent update during the period covered by this study was effective January 1, 2010, with updates in March 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


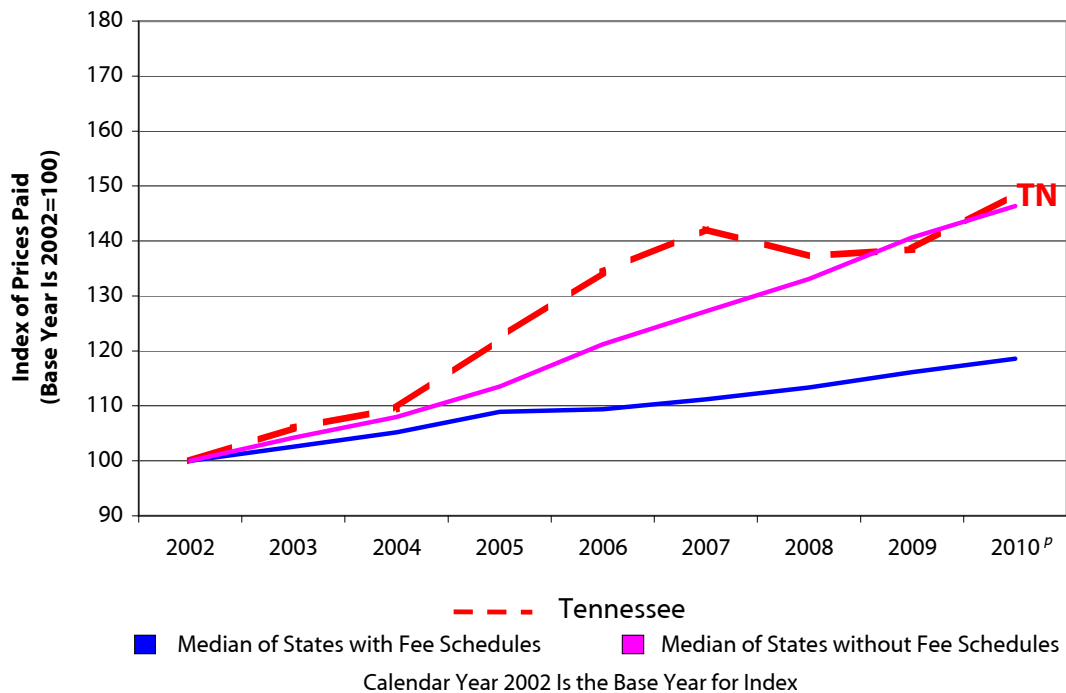
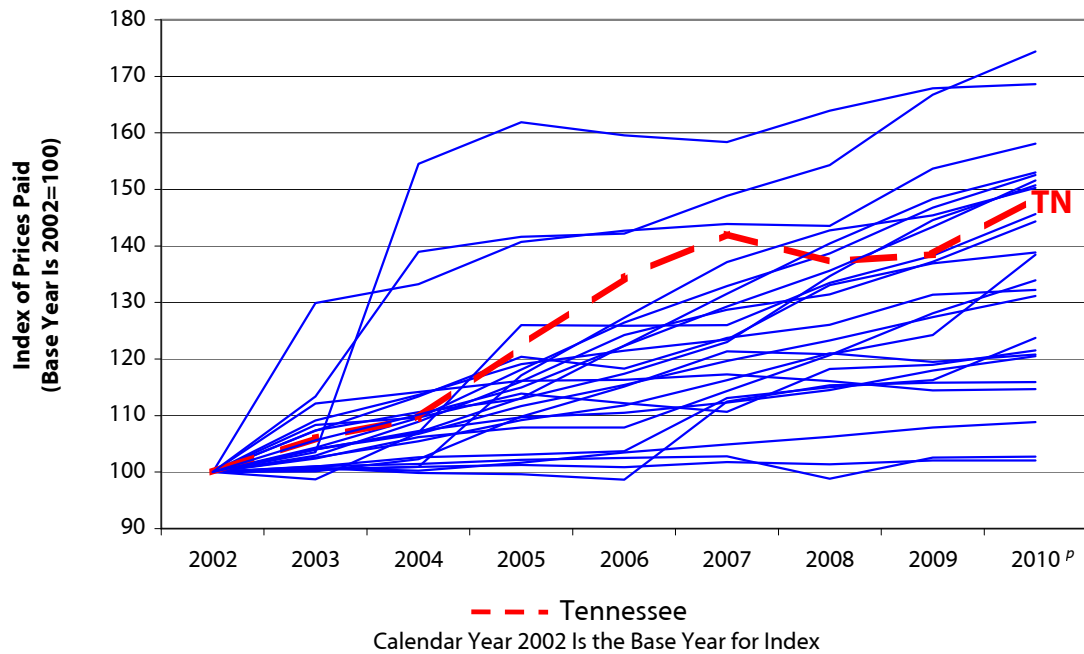
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


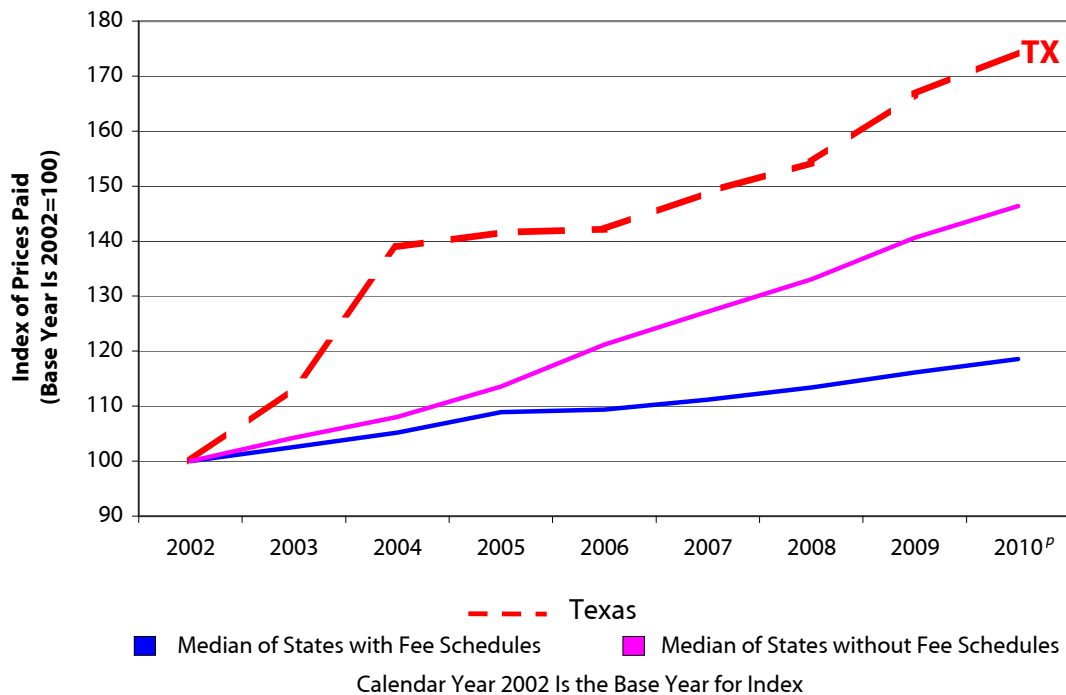
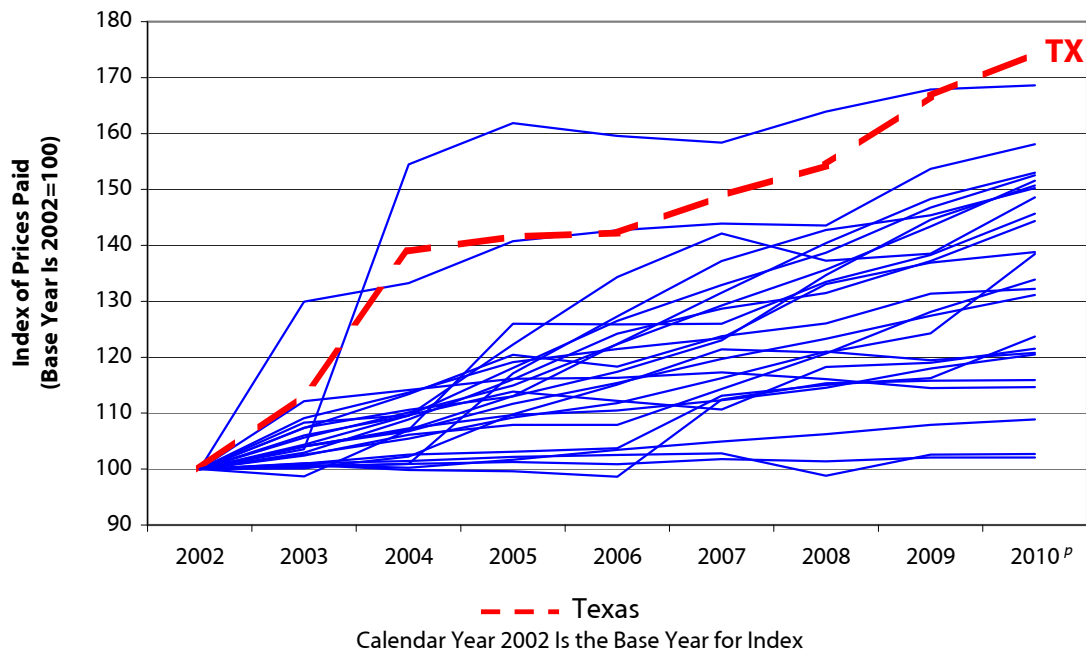
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: During the period covered by this study, South Carolina's fee schedule for professional services had not been changed after the update in January 2003. Results in South Carolina do not reflect fee schedule changes effective July 1, 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


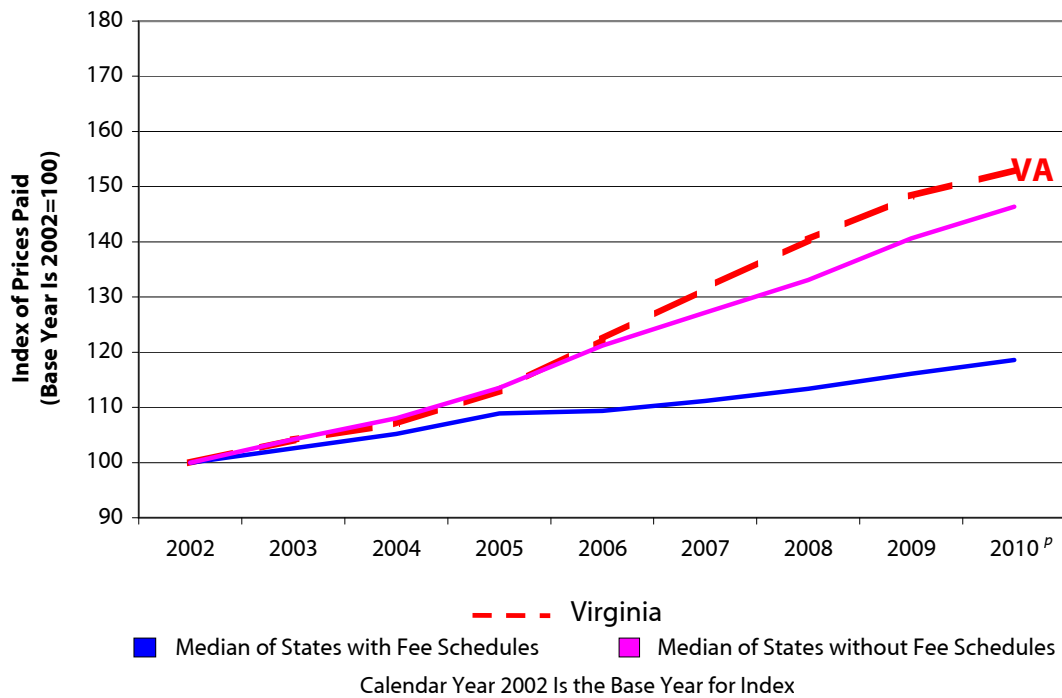
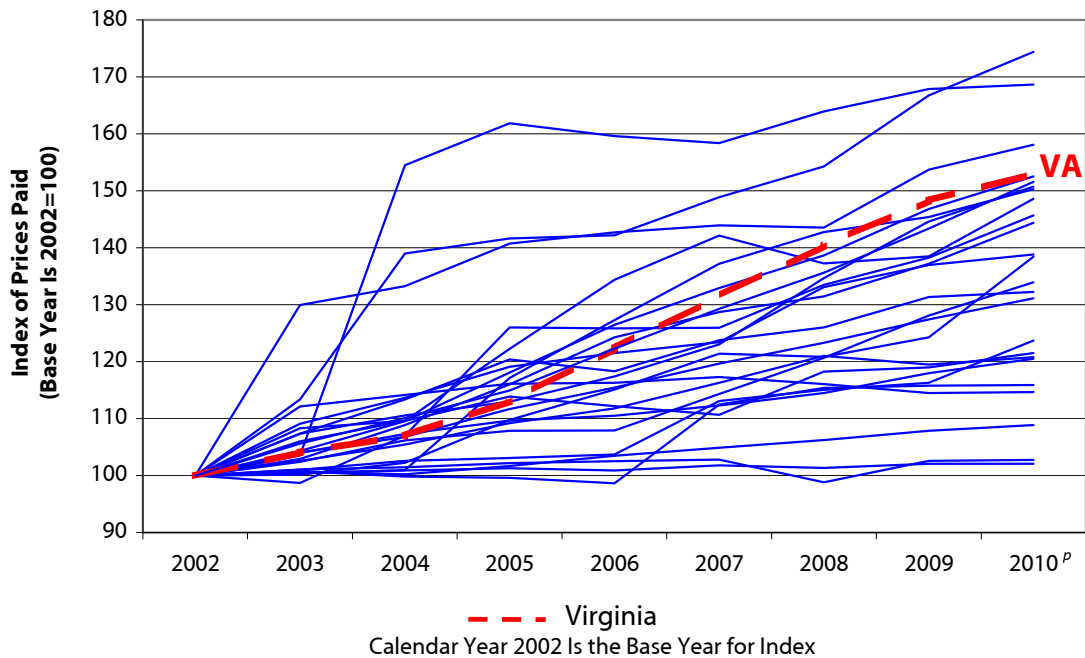
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


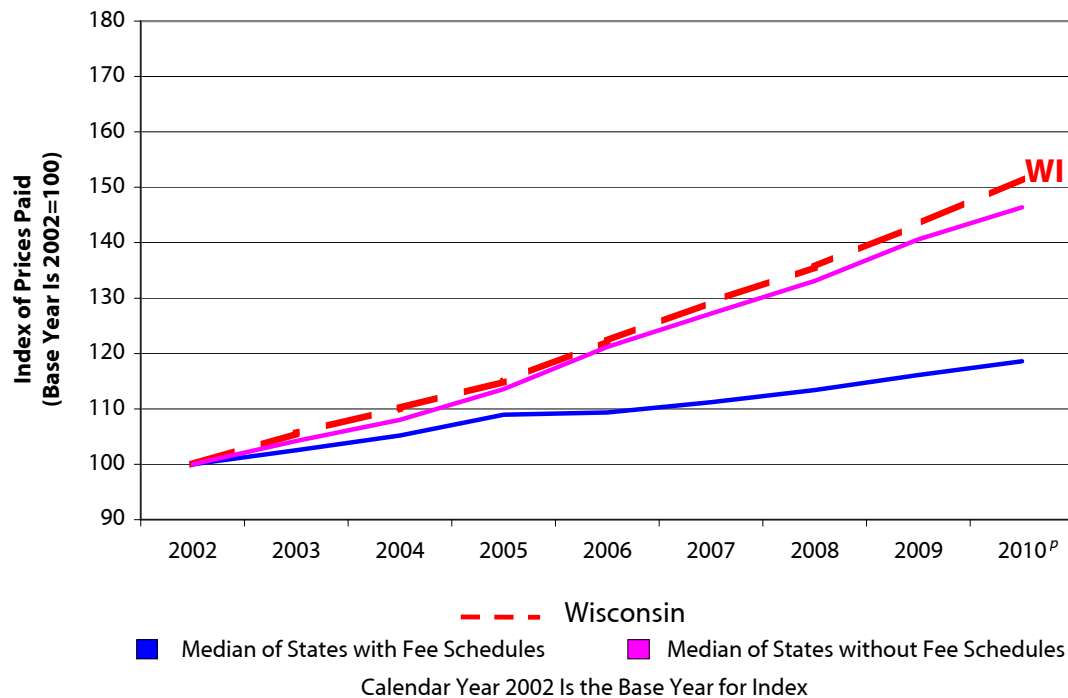
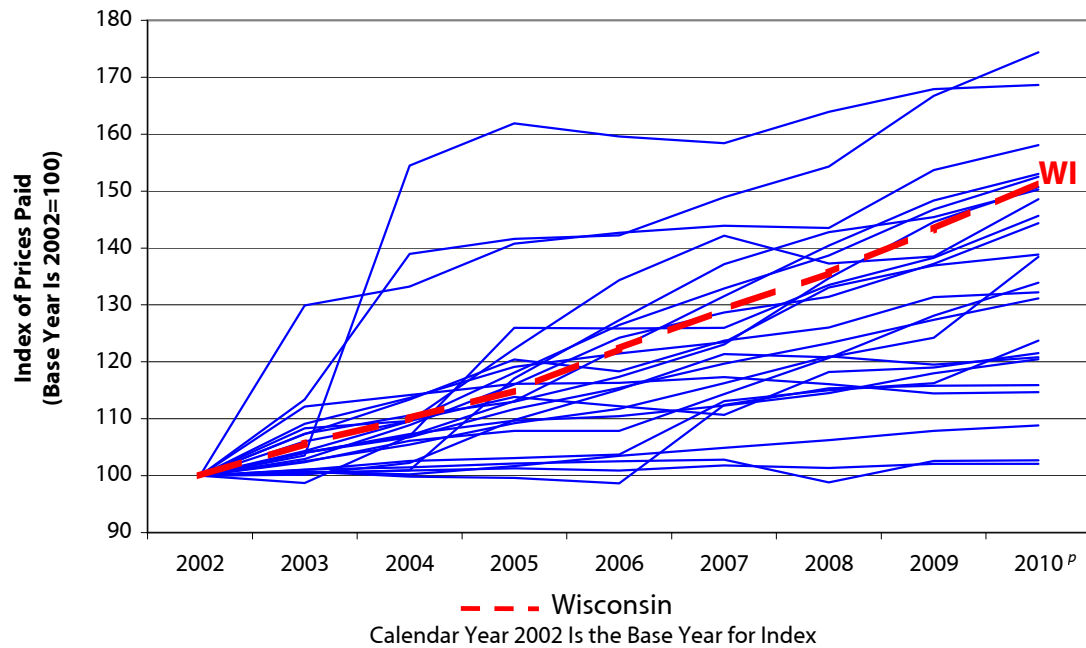
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


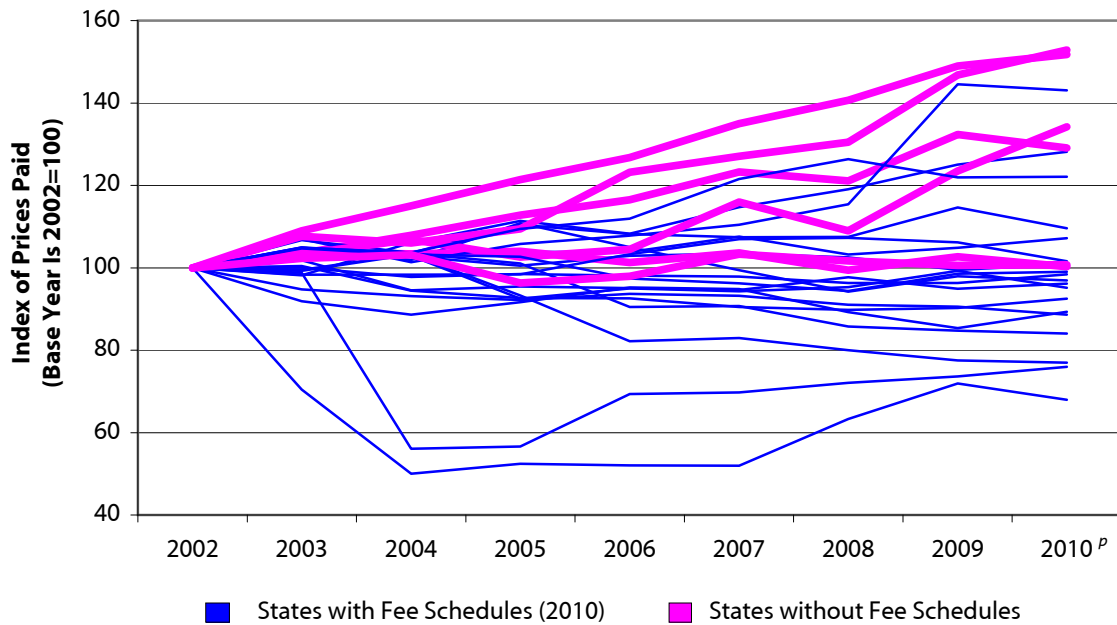
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Virginia did not have a workers' compensation fee schedule in 2010.

Nonhospital Evaluation & Management Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Wisconsin did not have a conventional workers' compensation fee schedule in 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010**Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010**

	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^p
AR	100	100	94	93	93	91	90	90	93
AZ ^{a,b}	100	100	103	104	104	108	103	105	107
CA	100	102	95	95	95	95	98	95	96
CT ^b	100	103	103	101	103	103	103	99	101
FL	100	105	102	111	105	99	94	98	97
GA	100	103	103	92	95	94	95	99	95
IA ^c	100	104	103	104	101	104	99	103	100
IL	100	98	106	111	108	115	119	125	128
IN ^c	100	104	108	113	116	123	121	132	129
LA	100	98	98	98	103	107	107	106	102
MA	100	107	101	106	108	110	115	145	143
MD	100	99	56	57	69	70	72	74	76
MI ^b	100	92	89	92	95	95	89	85	89
MN ^b	100	107	104	110	108	107	107	115	110
MO ^{a,c}	100	103	107	103	104	116	109	123	134
NC	100	105	103	103	97	96	94	99	99
NJ ^c	100	108	106	109	123	127	130	147	153
NY ^{a,b}	100	100	98	98	98	98	96	96	98
OK ^a	100	105	104	101	90	91	86	85	84
PA	100	105	104	109	112	122	126	122	122
SC ^b	100	95	93	92	94	93	91	91	89
TN	100	99	103	93	82	83	80	78	77
TX	100	70	50	52	52	52	63	72	68
VA ^c	100	102	103	96	98	103	102	101	101
WI ^c	100	109	115	121	127	135	141	149	152

continued

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010 (continued)

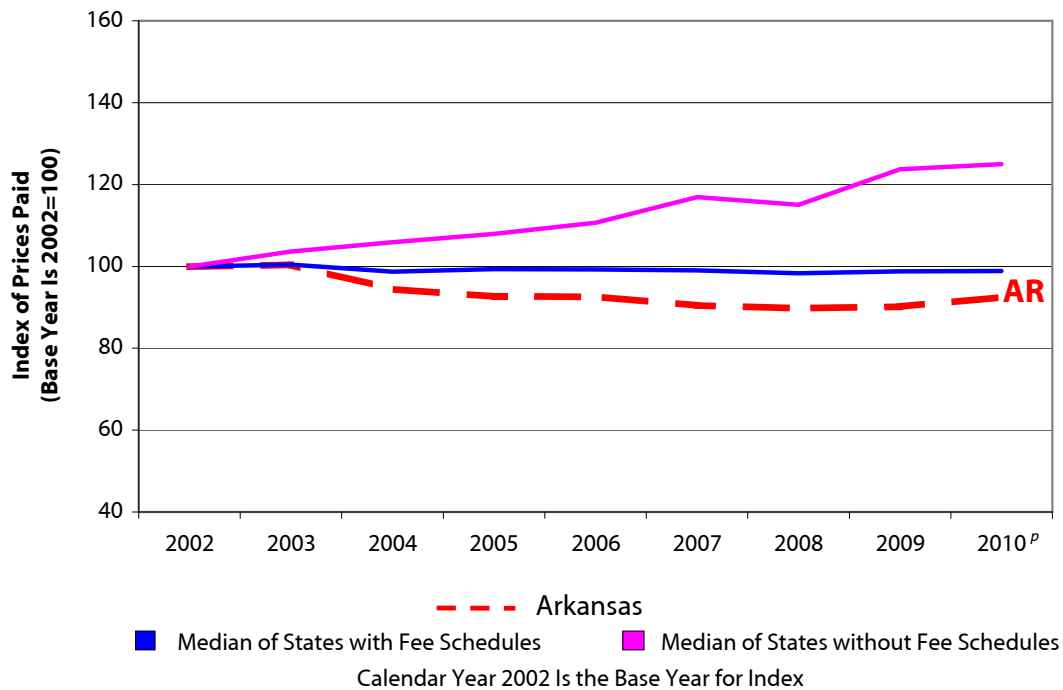
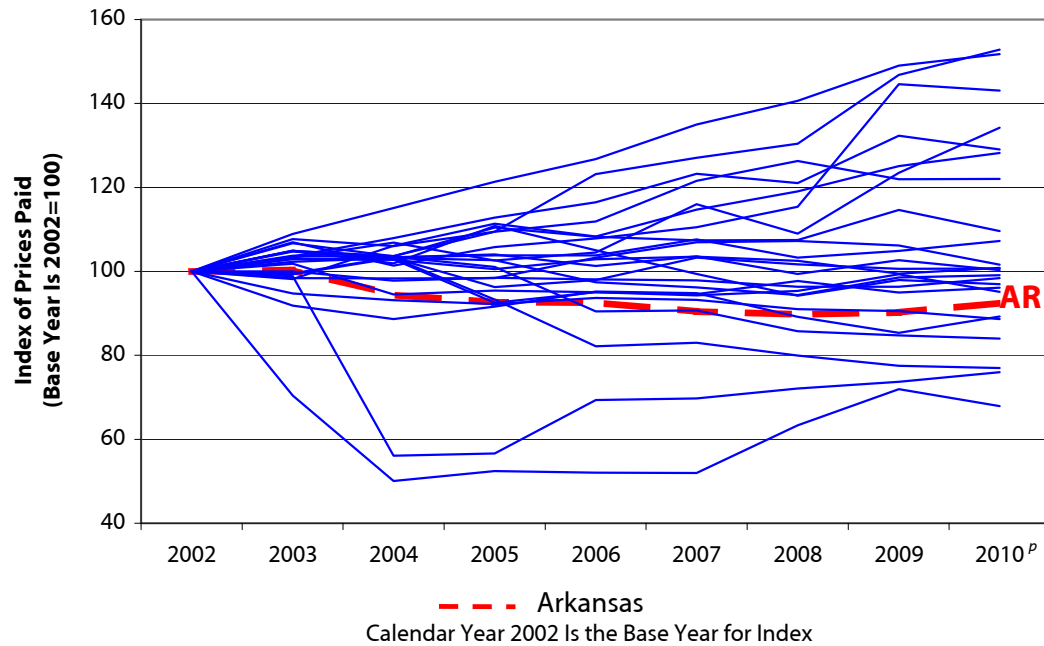
Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Calendar year 2002 is the base year for the index = 100.

^a The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

^b This state had fee schedule changes after June 30, 2010, that are not reflected in the results.

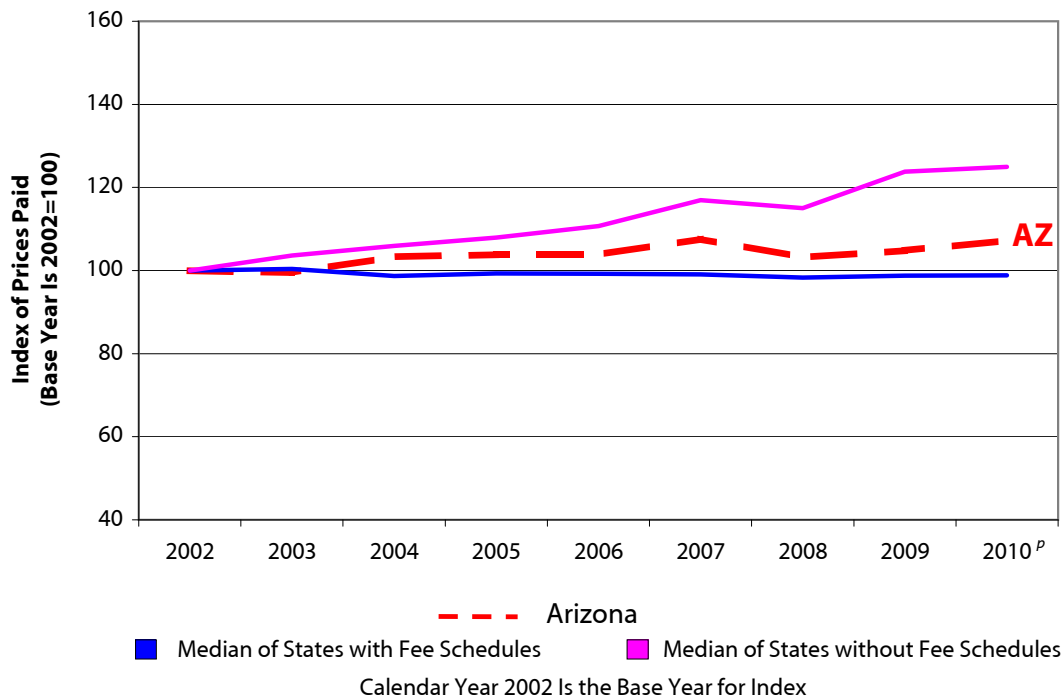
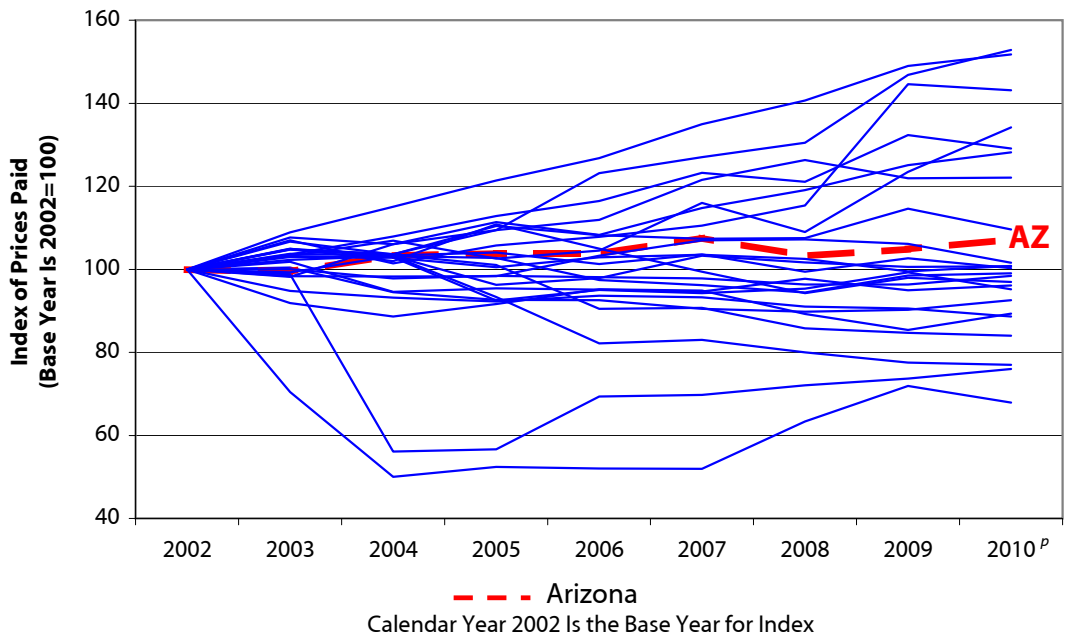
^c This state had no workers' compensation fee schedule in 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Arkansas' fee schedule for professional services has regular updates on the RVUs tied to the most recent Medicare RBRVS, with applied state conversion factors adopted in May 2000 for the services included in this study.

Key: RBRVS: Resource-based relative value scale; RVUs: Relative value units.

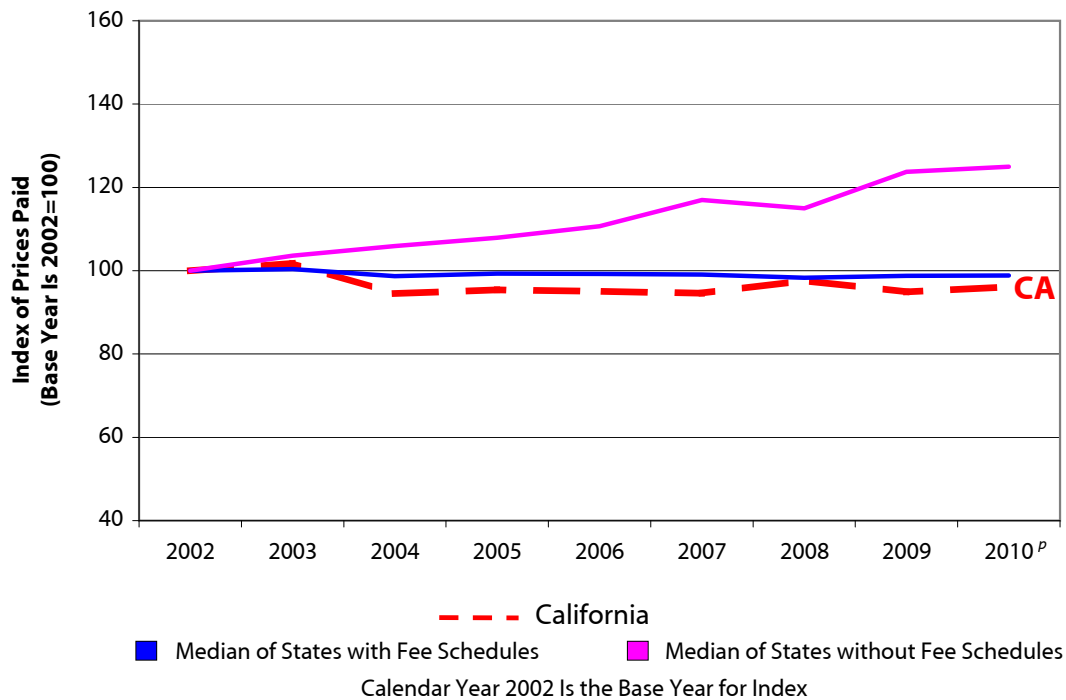
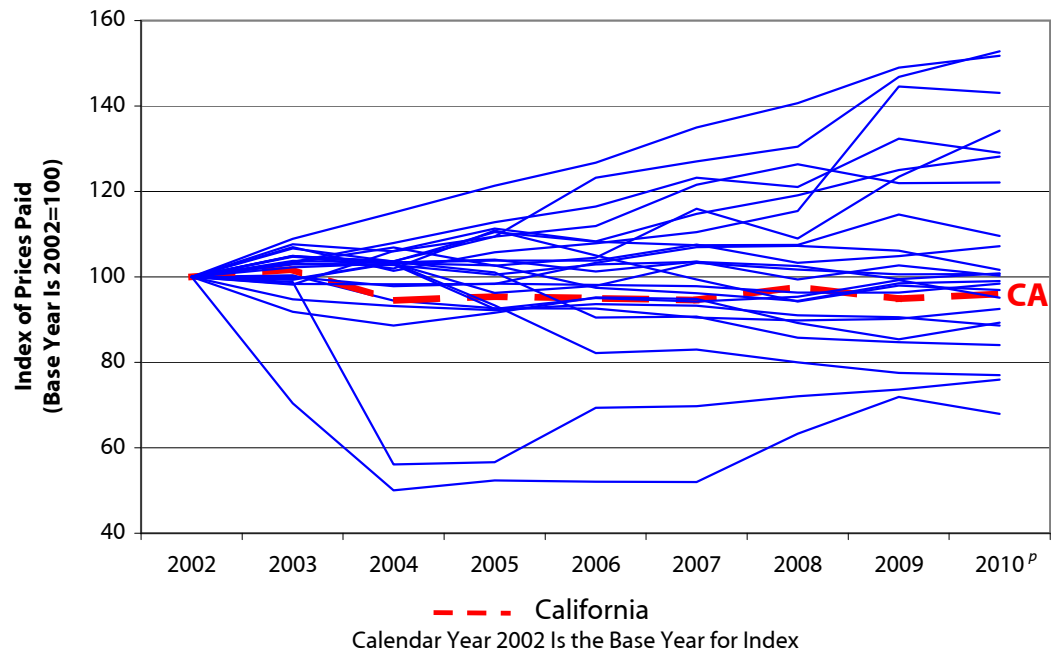
Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

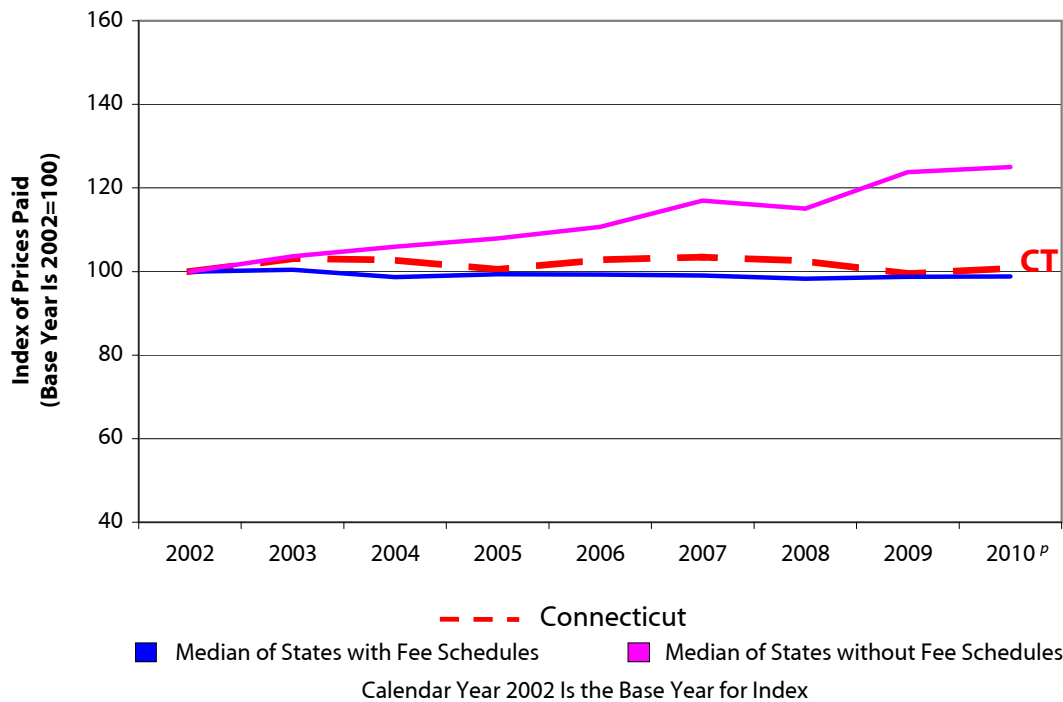
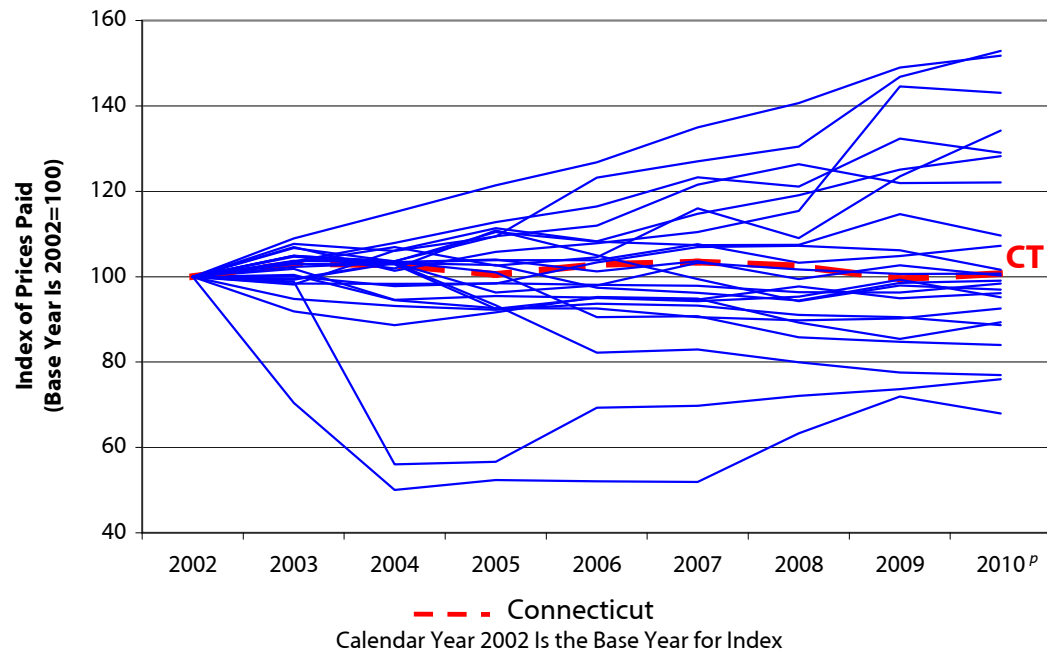
The data for this state are not necessarily representative because it is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared to other data sources in the state, this may lead to under or over estimations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

Arizona updates its fee schedule for professional services annually in October. Results in Arizona do not reflect fee schedule changes effective October 1, 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

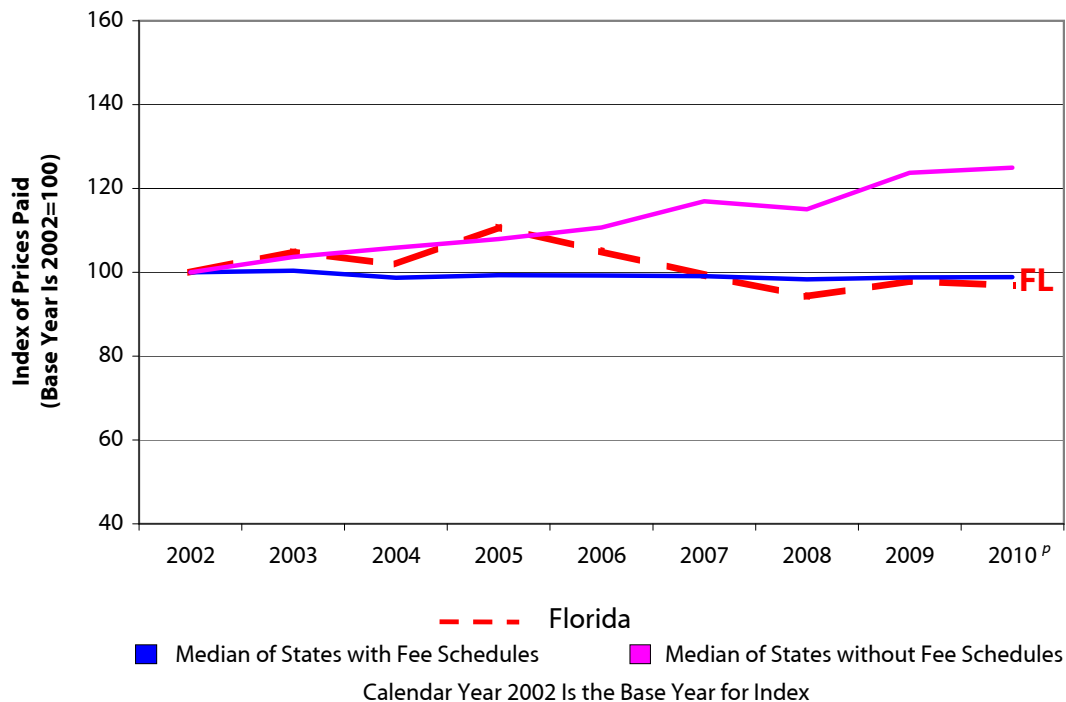
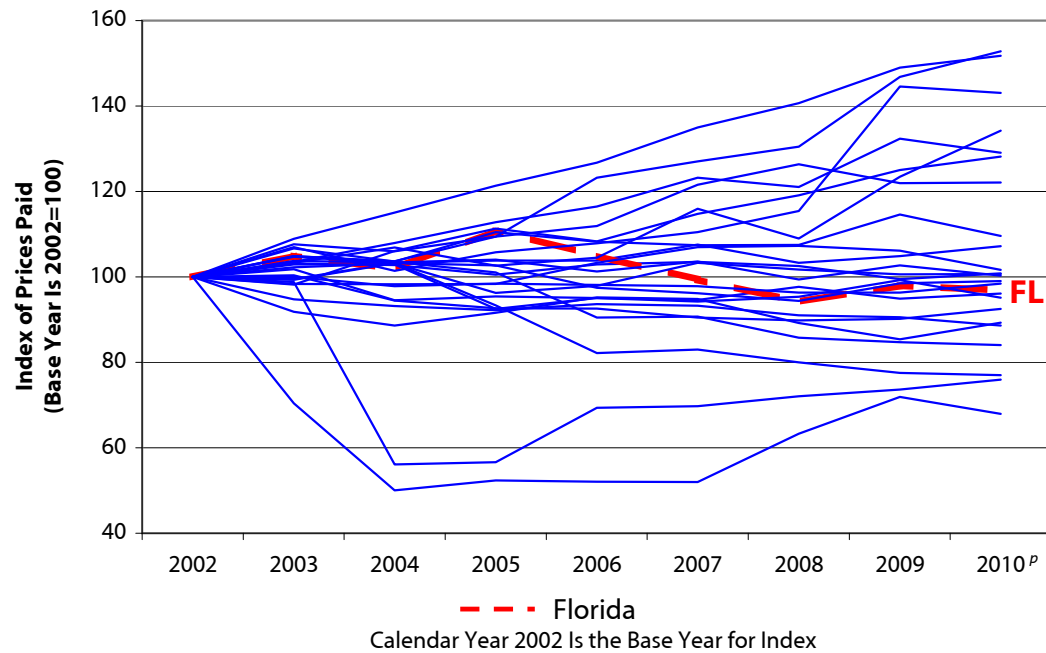
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

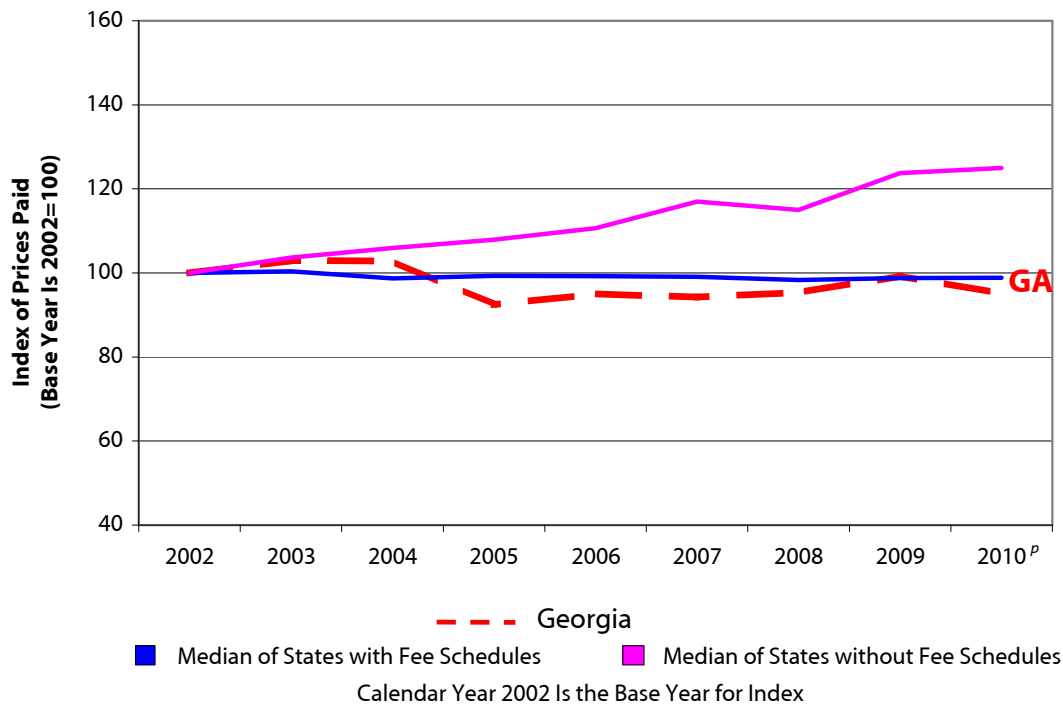
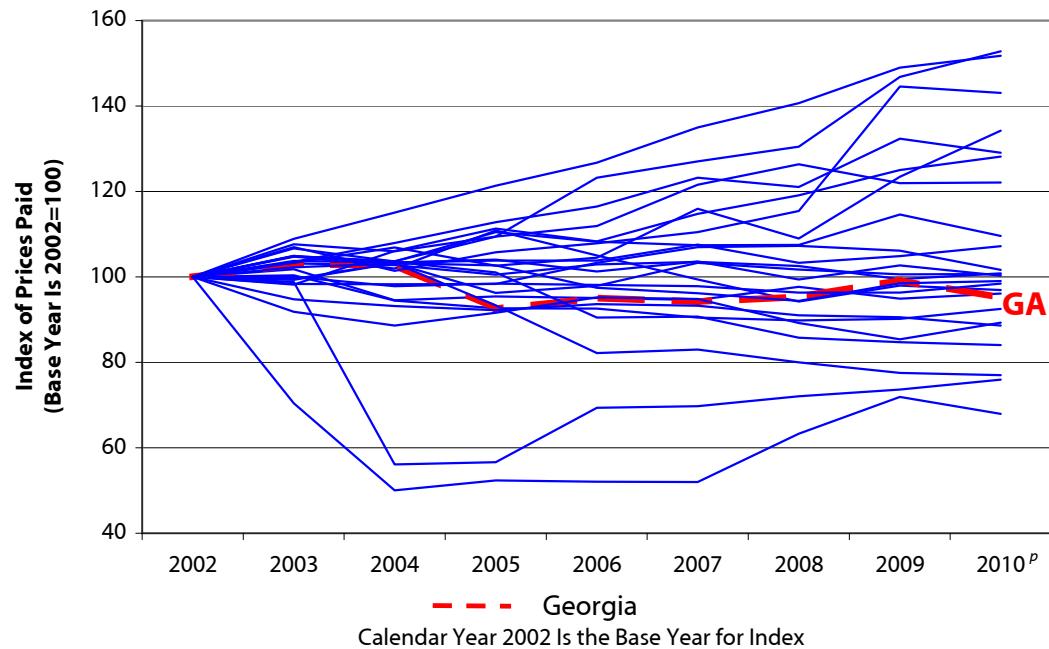
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Connecticut has updated its fee schedule for professional services annually in July since 2008; in prior years updates were effective in April. Results in Connecticut do not reflect fee schedule changes effective July 15, 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

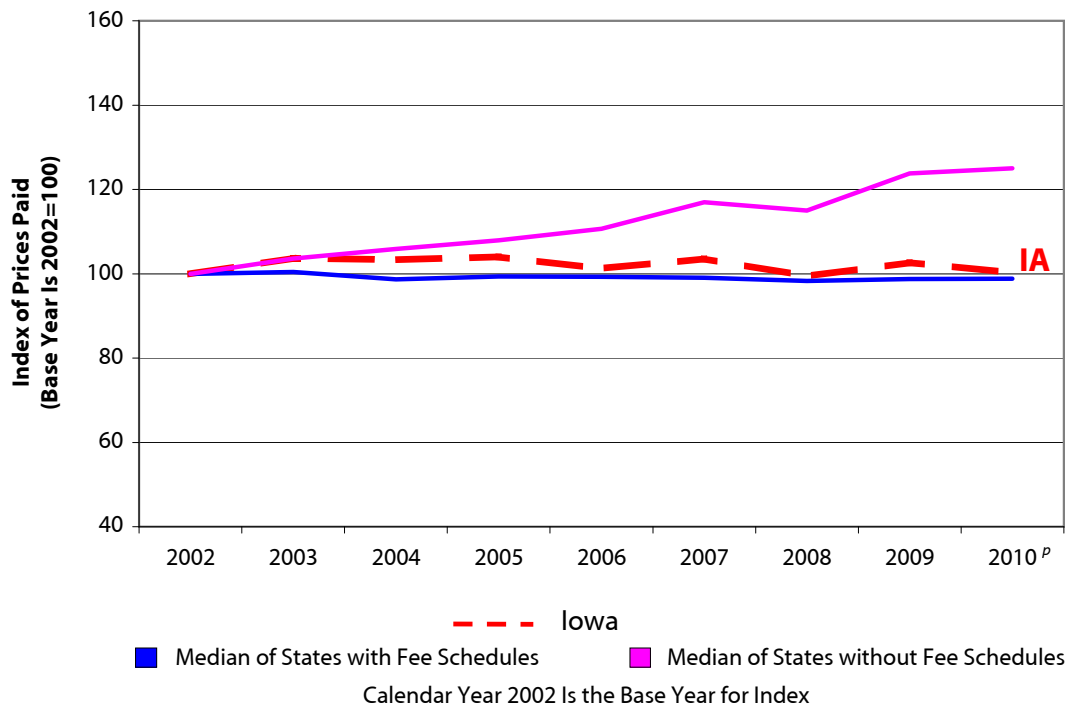
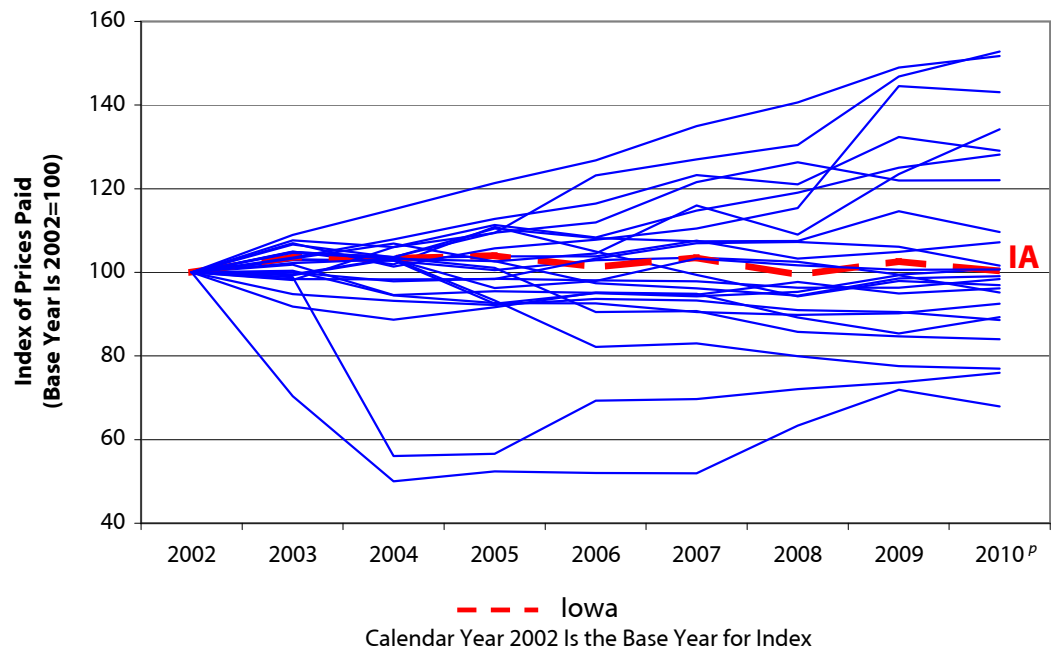
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

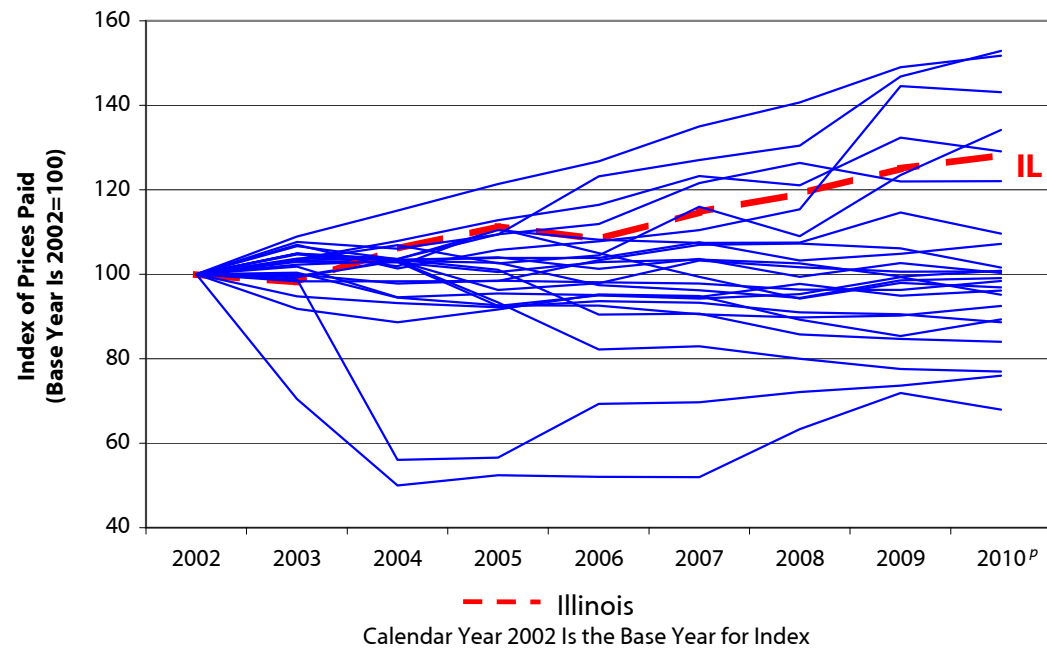
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Georgia updates its fee schedule for professional services annually in April. For example, in 2005 the fee schedule rates had material increases in certain evaluation and management and physical medicine services, and decreases in many services such as emergency, minor radiology, neurological testing, and certain major surgery procedures.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

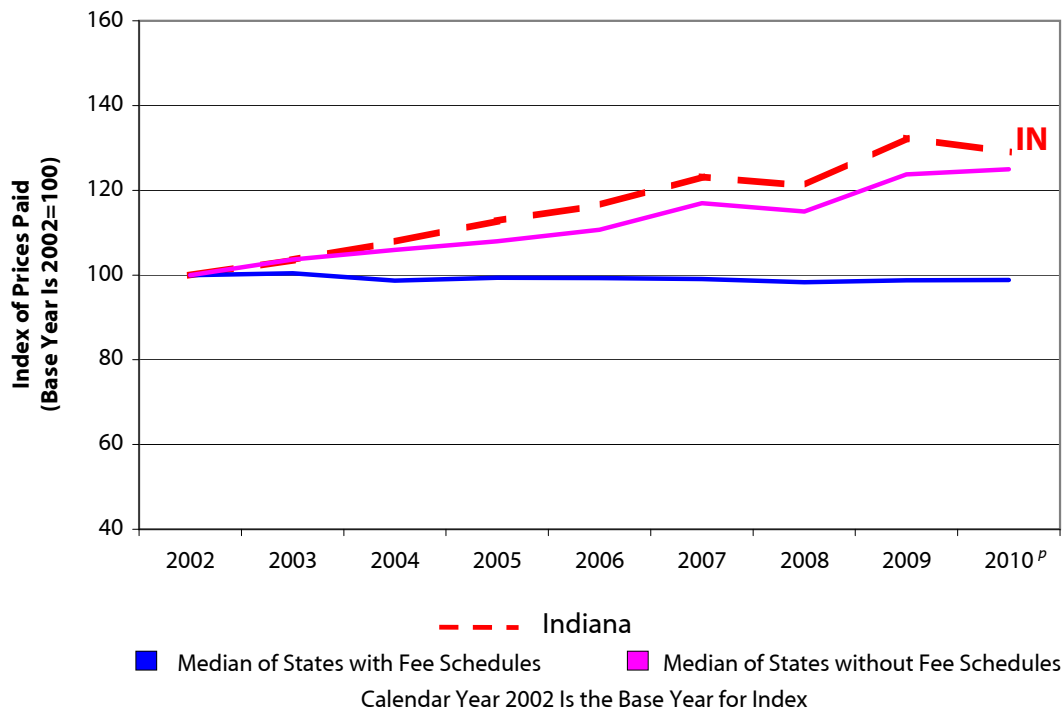
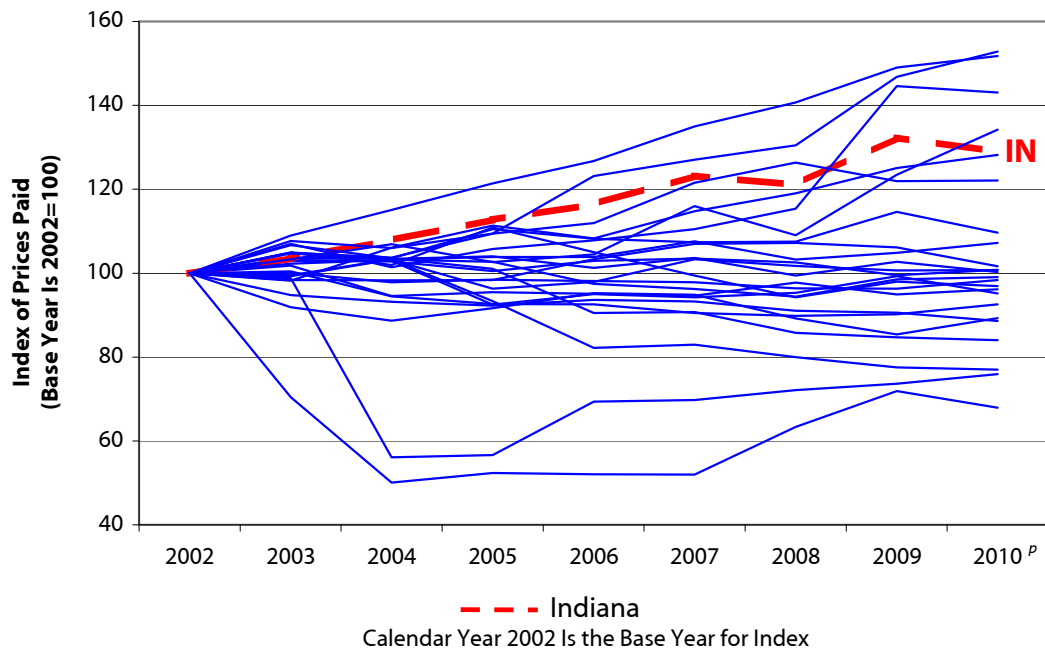
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Iowa did not have a workers' compensation fee schedule in 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

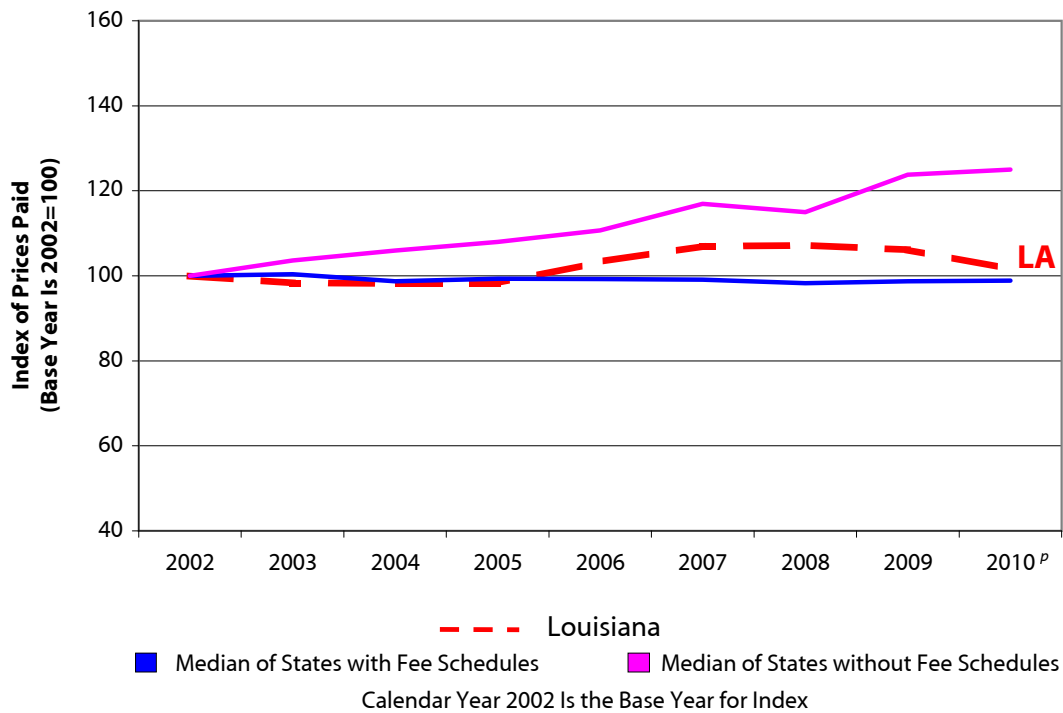
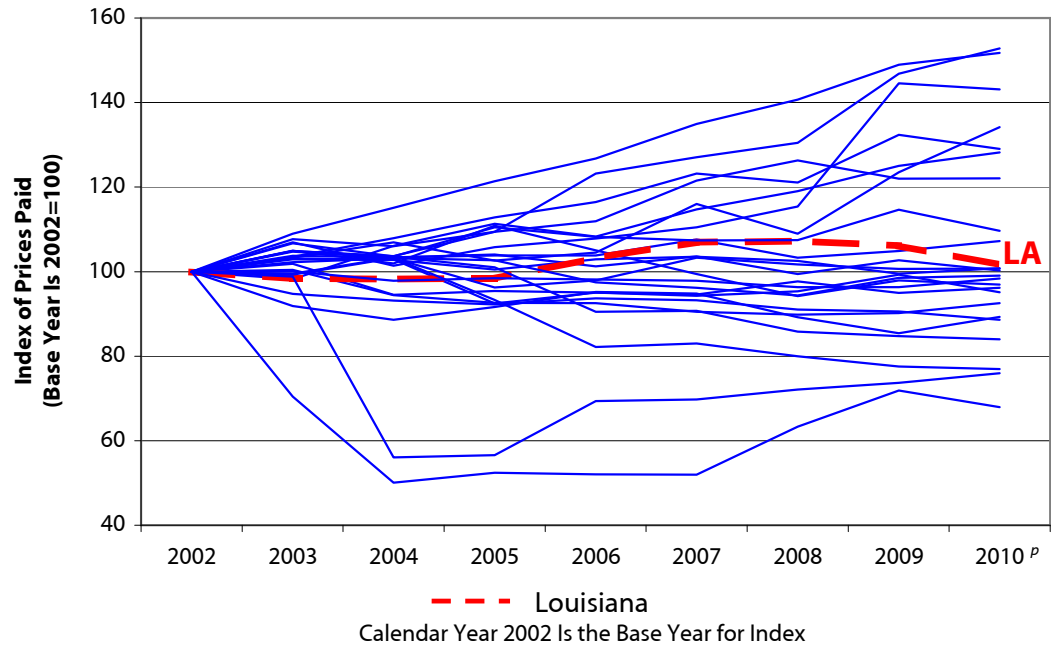
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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, which might create unintended incentives for providers to control revenues 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.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

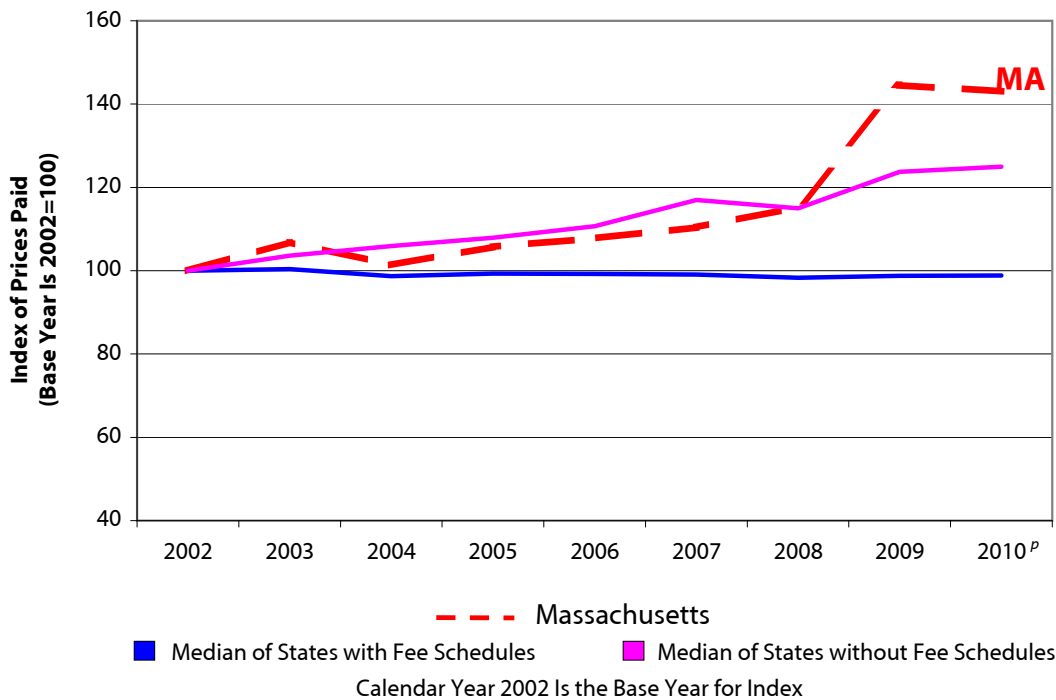
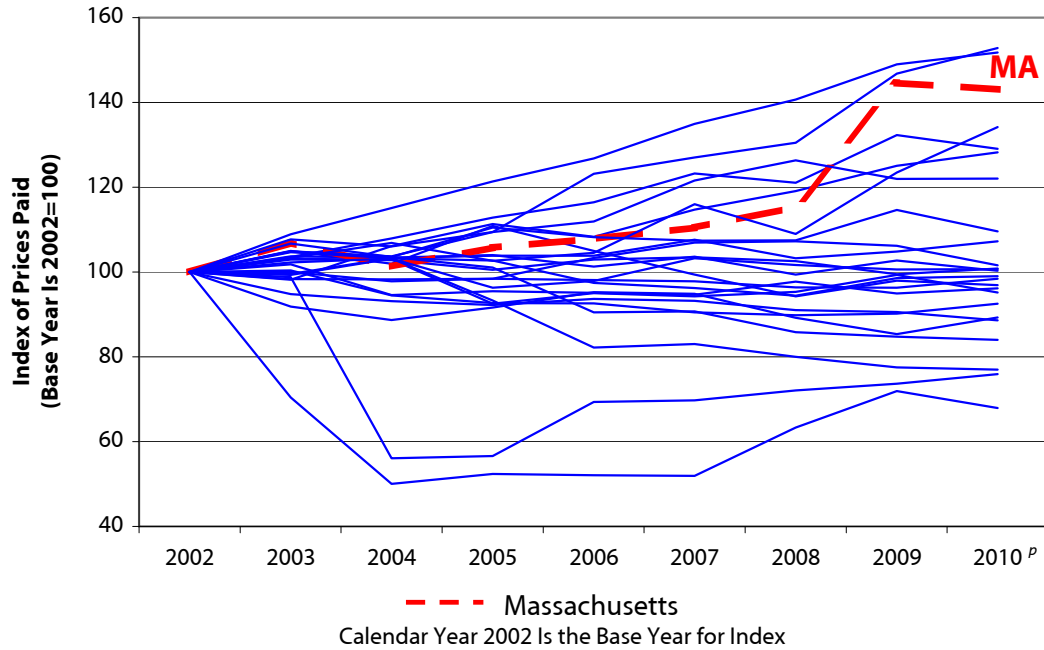
Note: Indiana did not have a workers' compensation fee schedule in 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

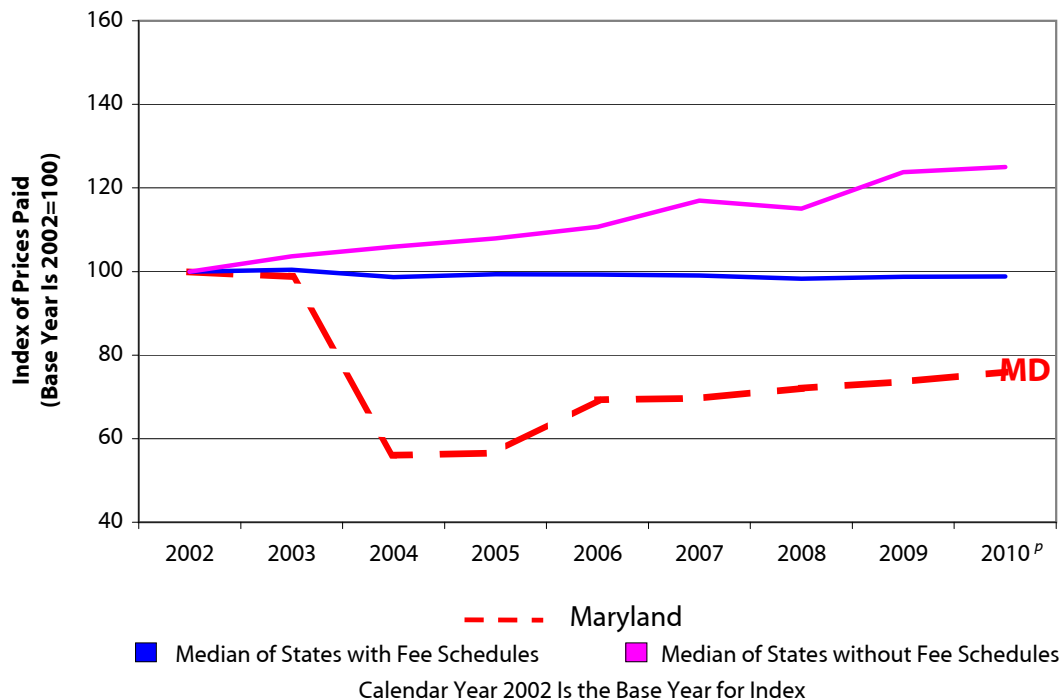
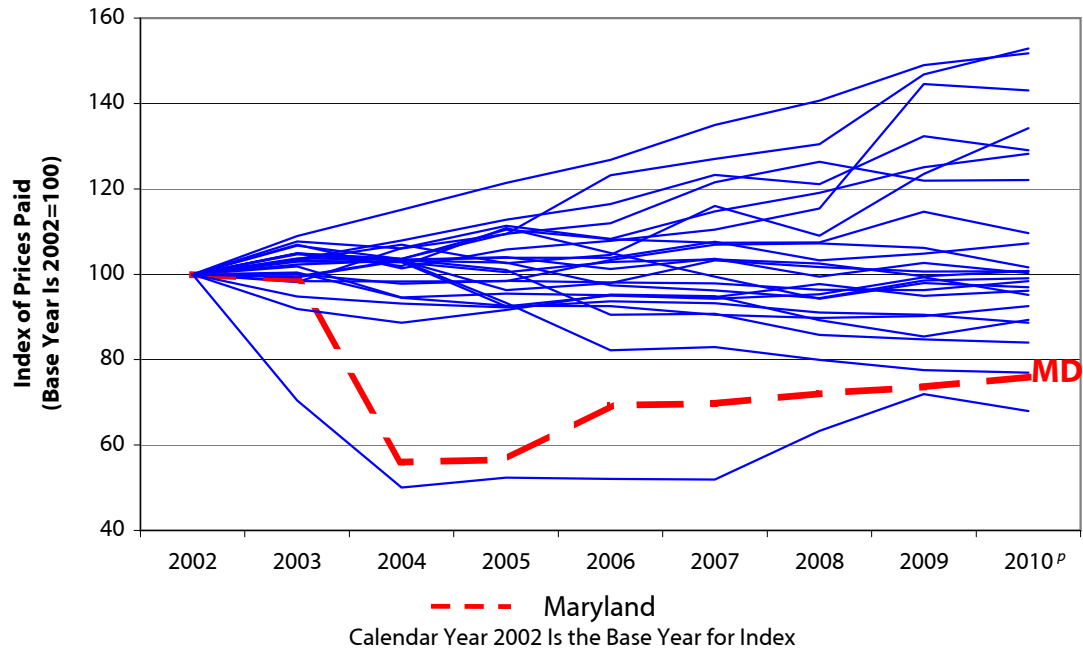
Note: Louisiana's fee schedule for professional services uses the 1999 CPT list published by the AMA and maximum allowable reimbursement rates effective as of March 2001.

Key: AMA: American Medical Association; CPT: Current Procedural Terminology.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

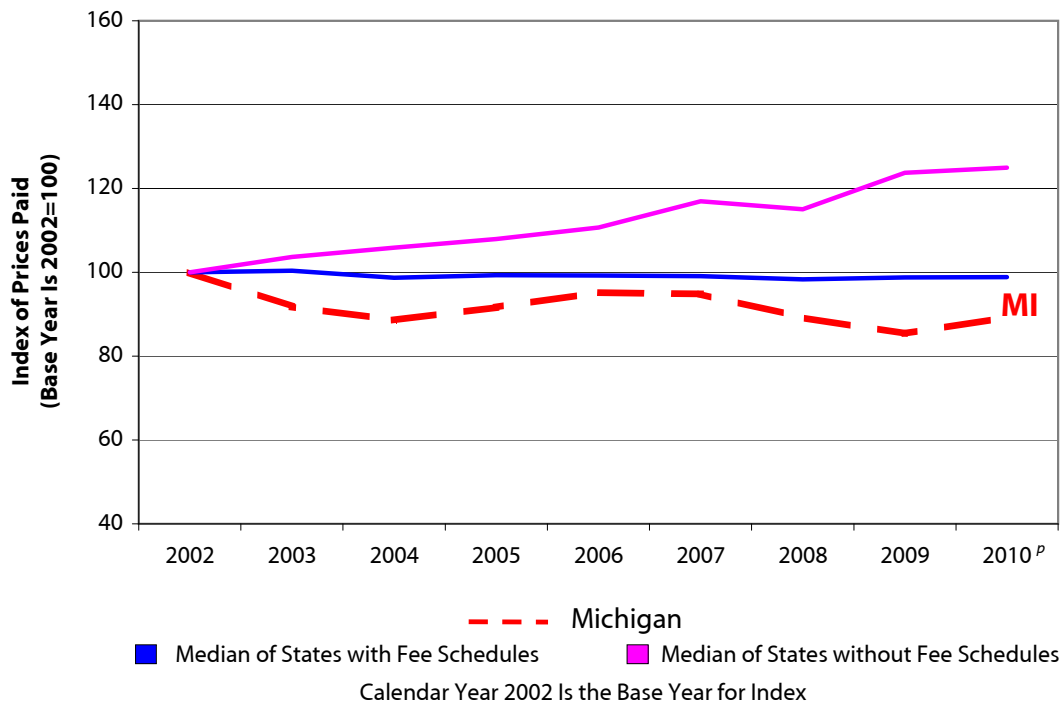
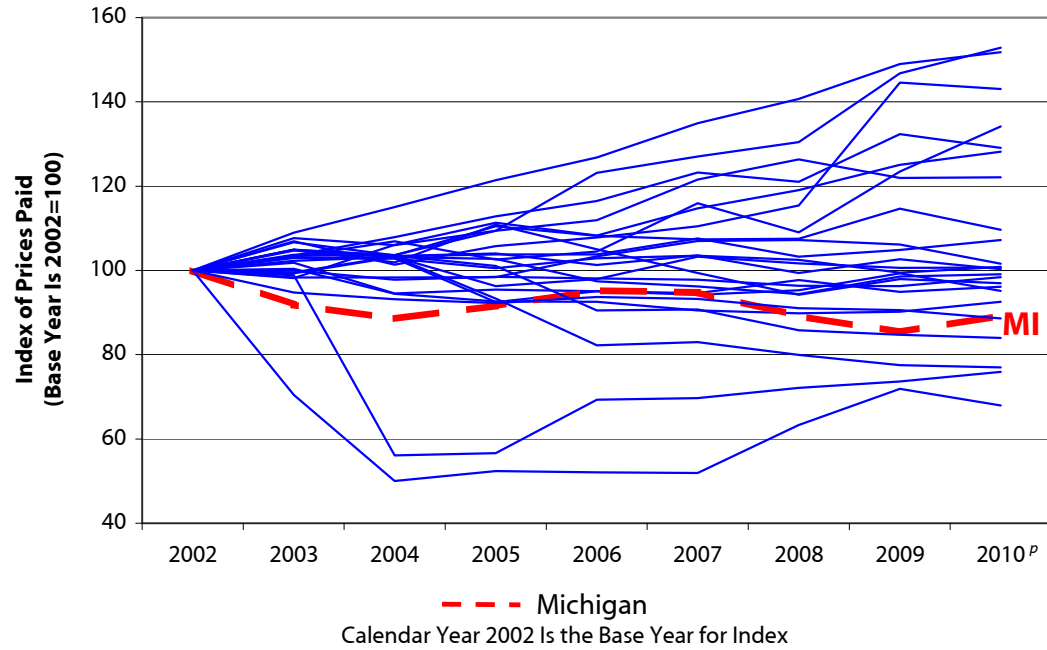
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Massachusetts increased 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 two to three times above the previous rates. Prior to that the fee schedule for professional services had not been updated since September 2004.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

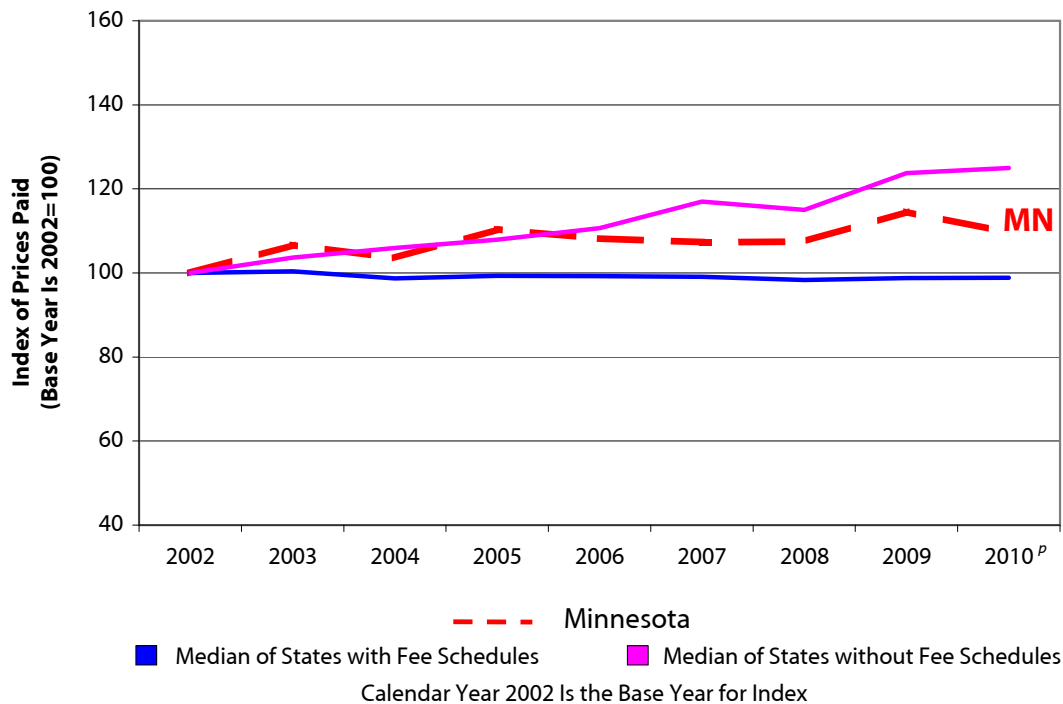
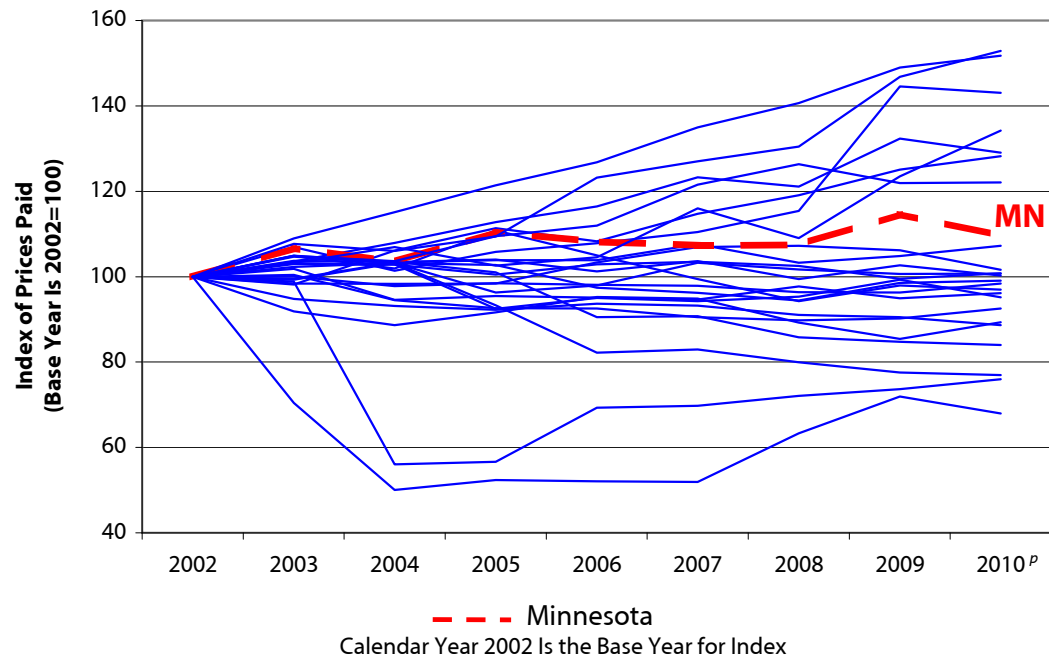
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

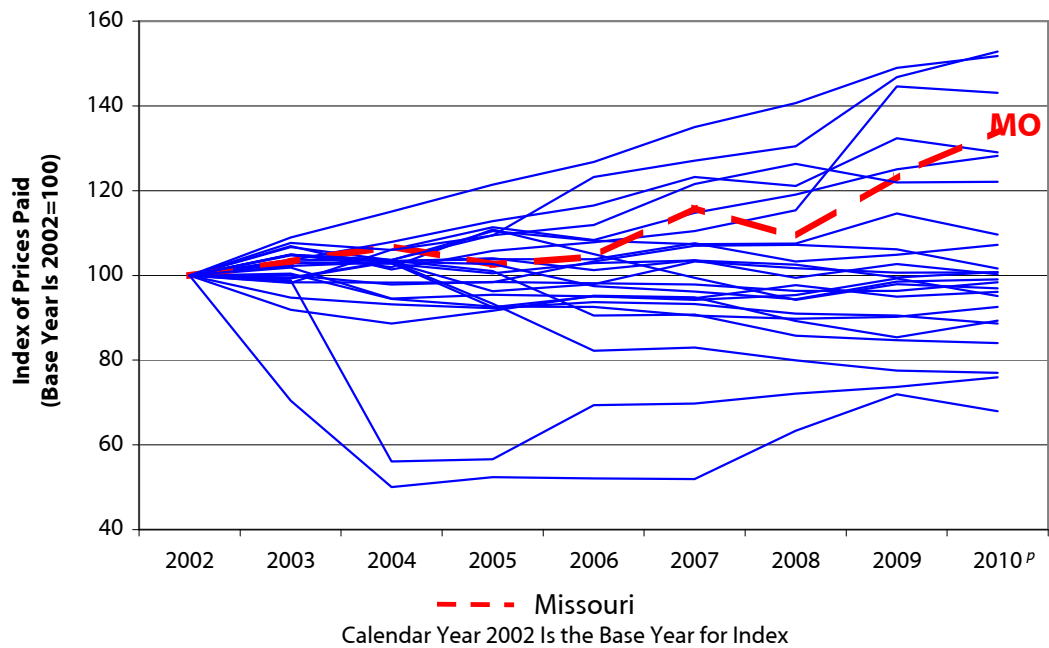
Notes: Michigan updates its fee schedule for professional services annually. Results in Michigan do not reflect fee schedule changes effective December 8, 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Minnesota's fee schedule for professional services from 2002 to 2010 was based on 1998 Medicare RVUs, with annual updates in the conversion factor. Results in Minnesota do not reflect fee schedule changes effective October 1, 2010.

Key: RVUs: Relative value units.

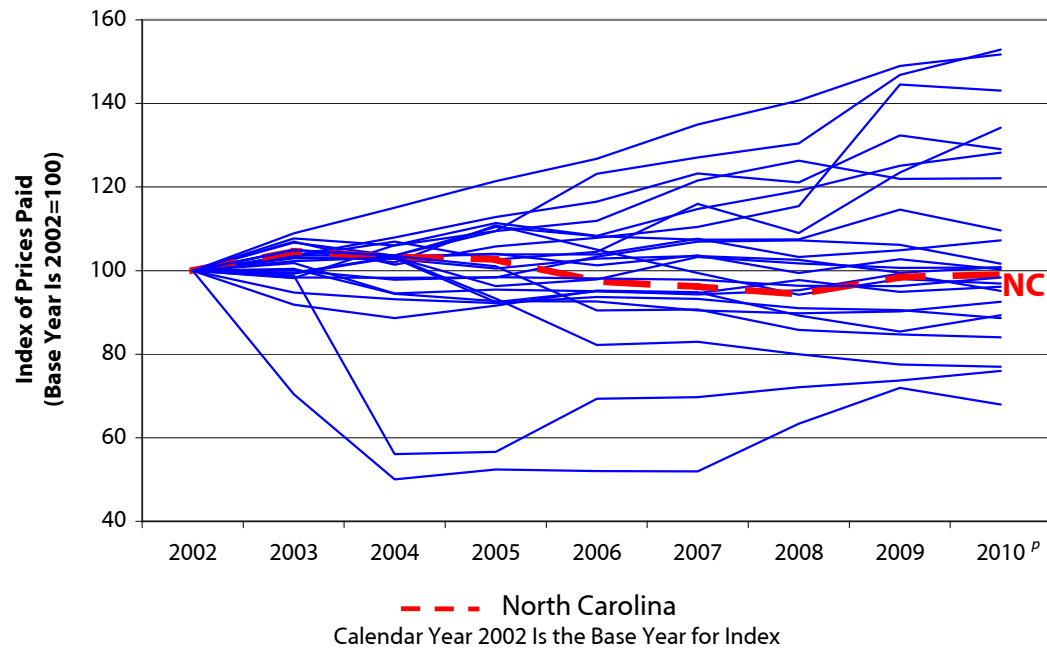
Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010


Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

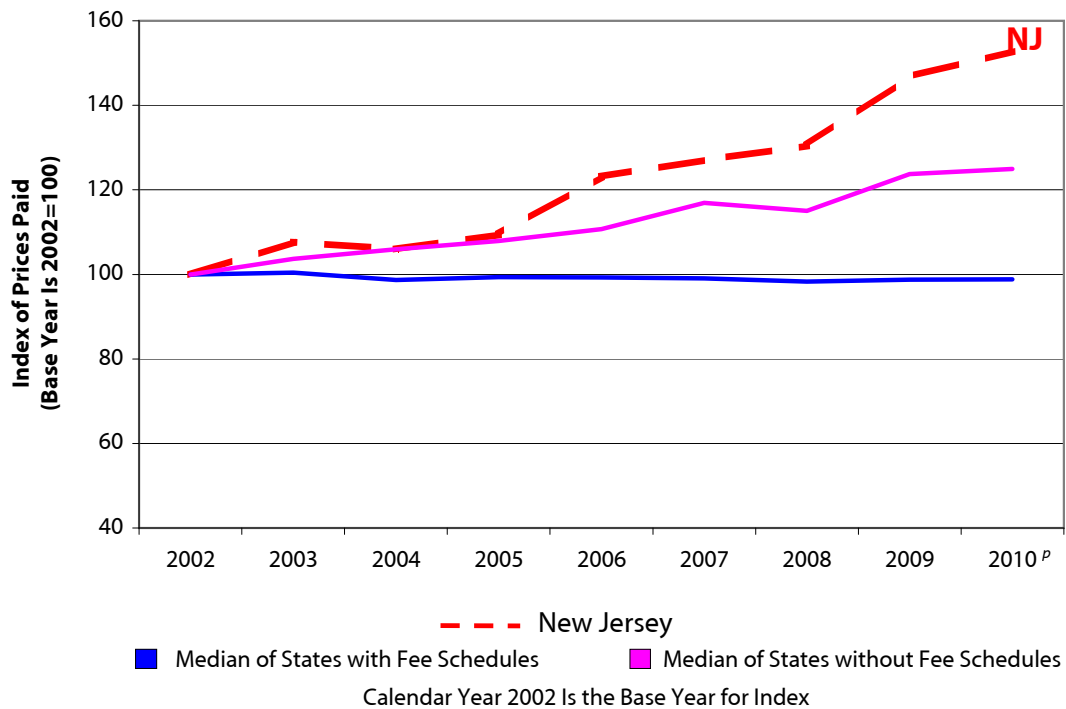
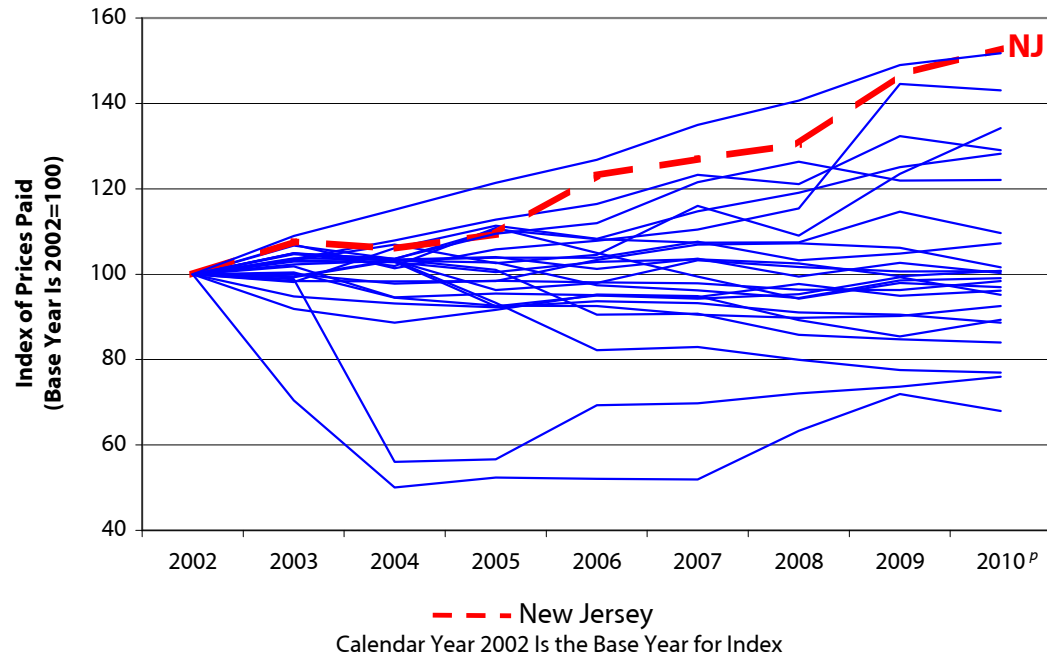
Missouri did not have a workers' compensation fee schedule in 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

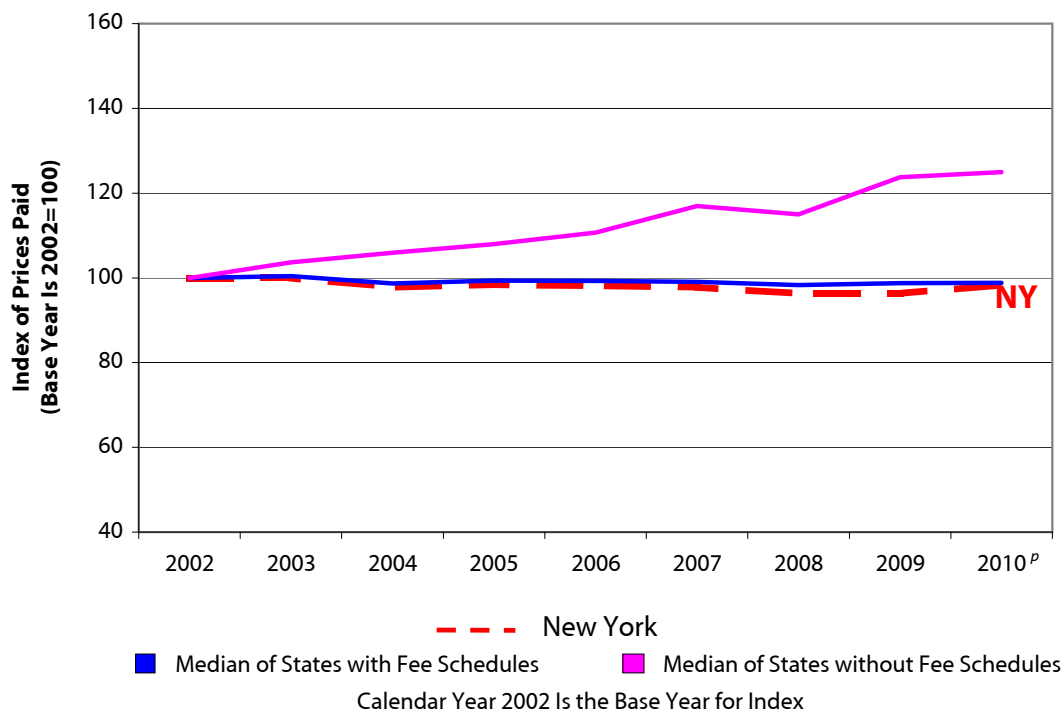
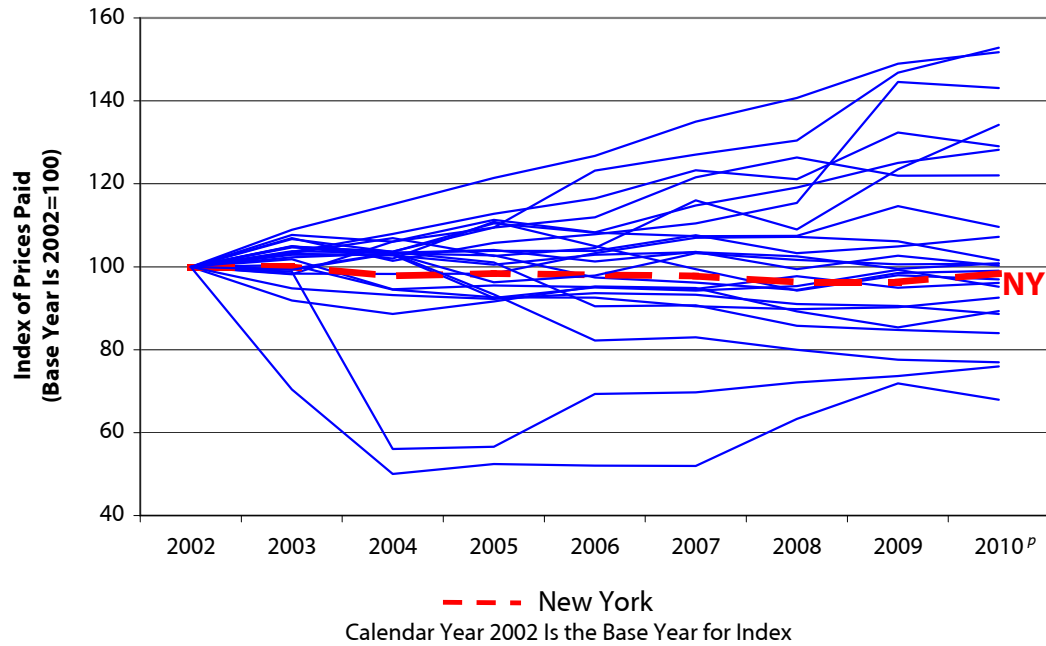
Notes: Maximum reimbursement amounts in the North Carolina fee schedule for professional services are based on those adopted by the North Carolina Industrial Commission effective January 1996. North Carolina updates its fee schedule annually in January to account for new and discontinued CPT codes published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

Key: AMA: American Medical Association; CPT: Current Procedural Terminology.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: New Jersey did not have a workers' compensation fee schedule in 2010.

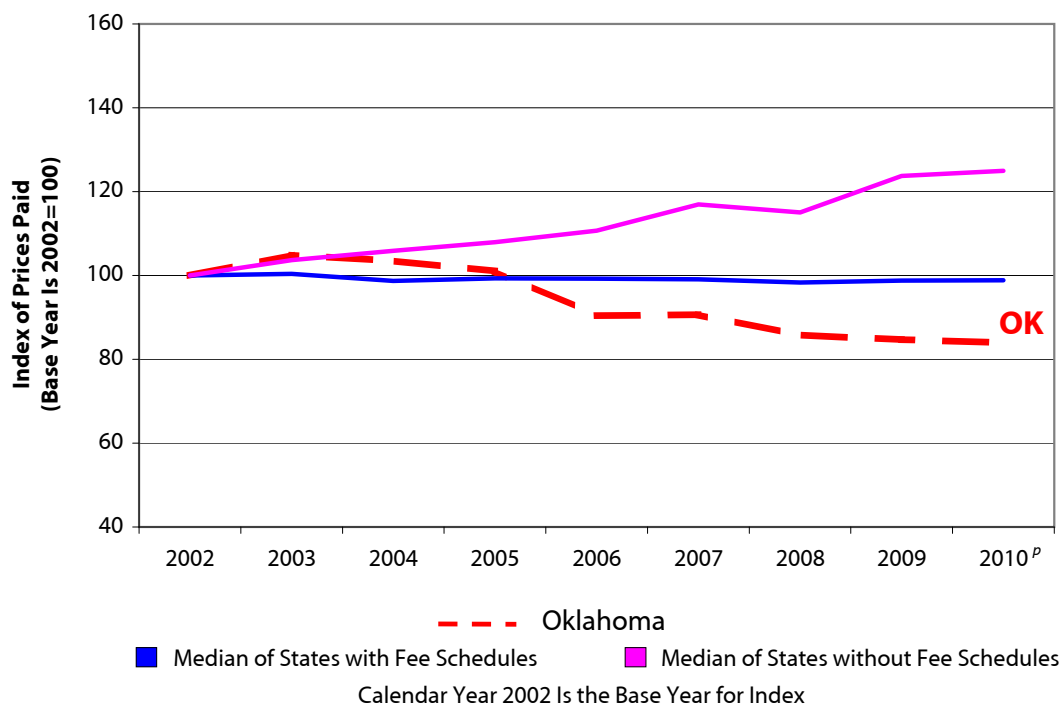
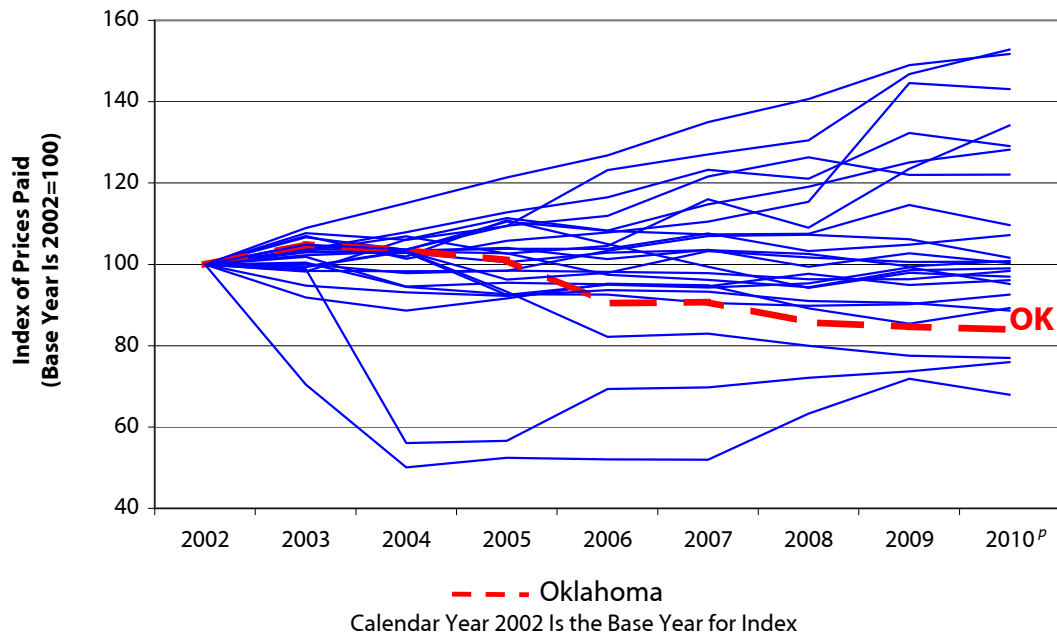
Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations 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 during the study period did not change. Results in New York do not reflect fee schedule changes effective December 1, 2010.

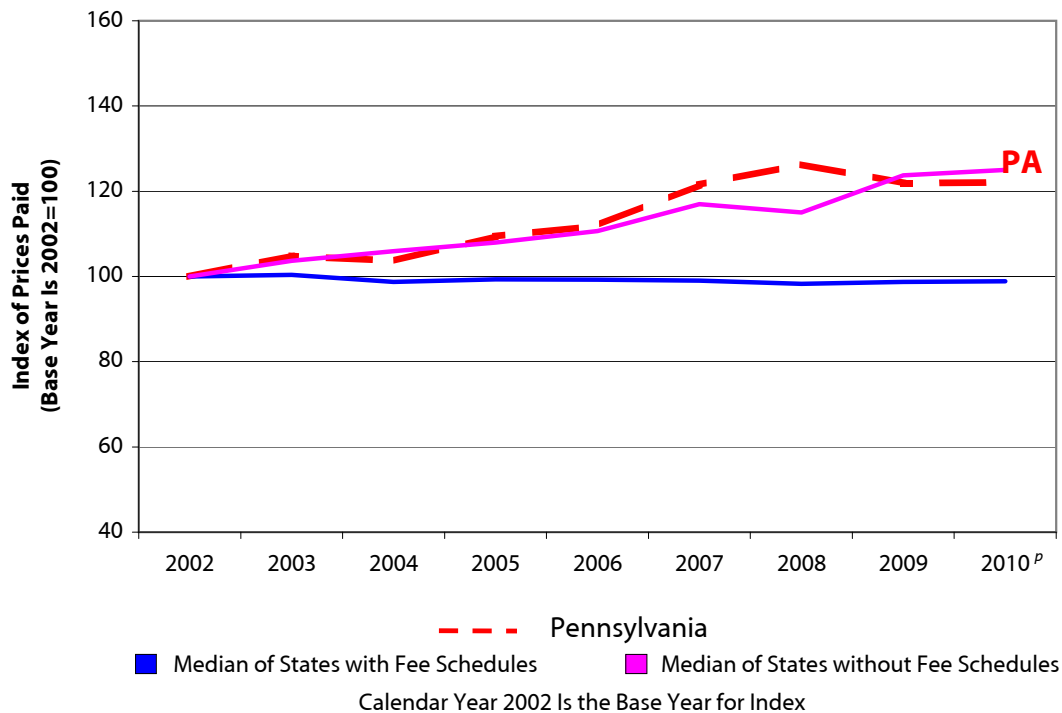
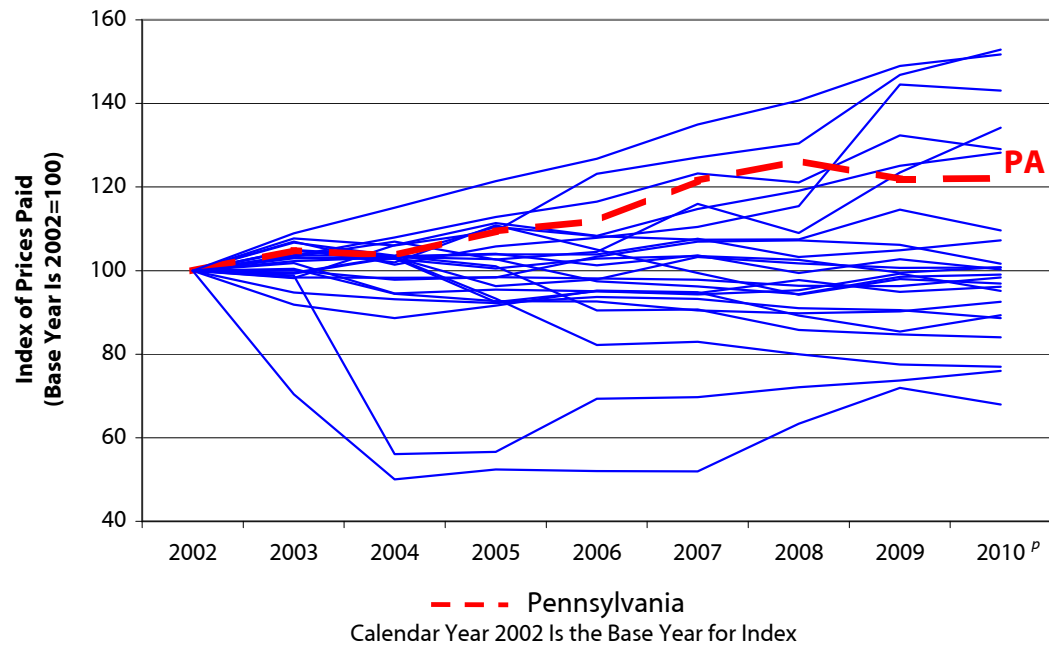
Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

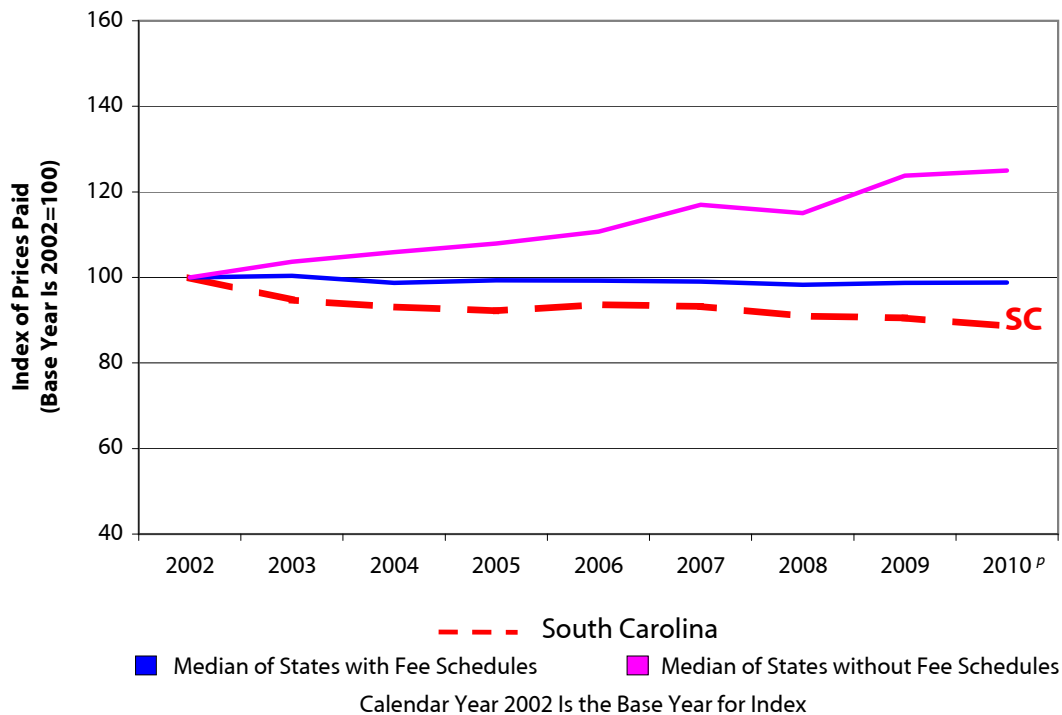
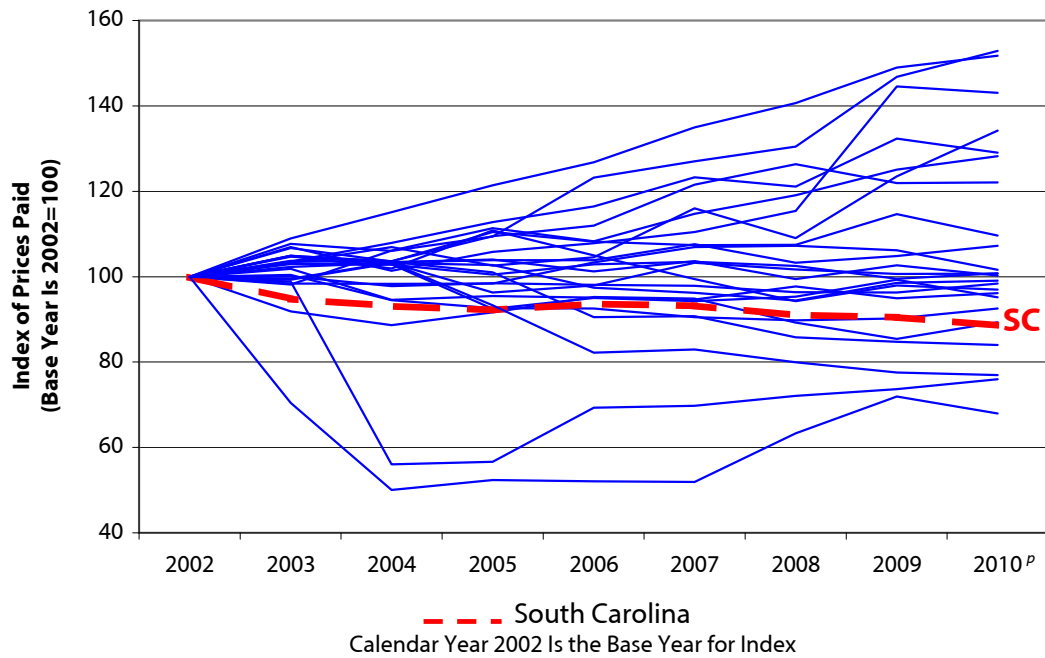
The data for this state are not necessarily representative because it is missing data from a larger data source that is significant in the state. To the extent that prices paid may differ for the missing data source compared to other data sources in the state, this may lead to under or over estimations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

Oklahoma had regular updates to its fee schedule for professional services over the study period. For example, in 2006 the fee schedule rates had material increases in many pain management injection procedures, and decreases in many services such as emergency, radiology, neurological testing, and many surgery procedures. The most recent update during the period covered by this study was effective January 1, 2010, with updates in March 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

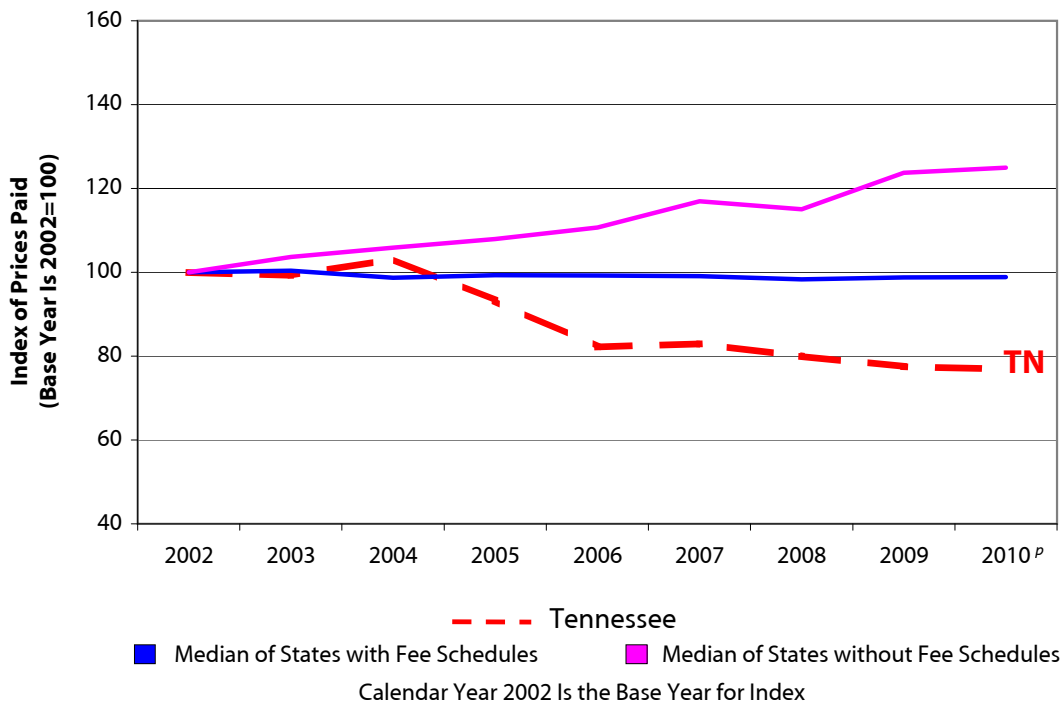
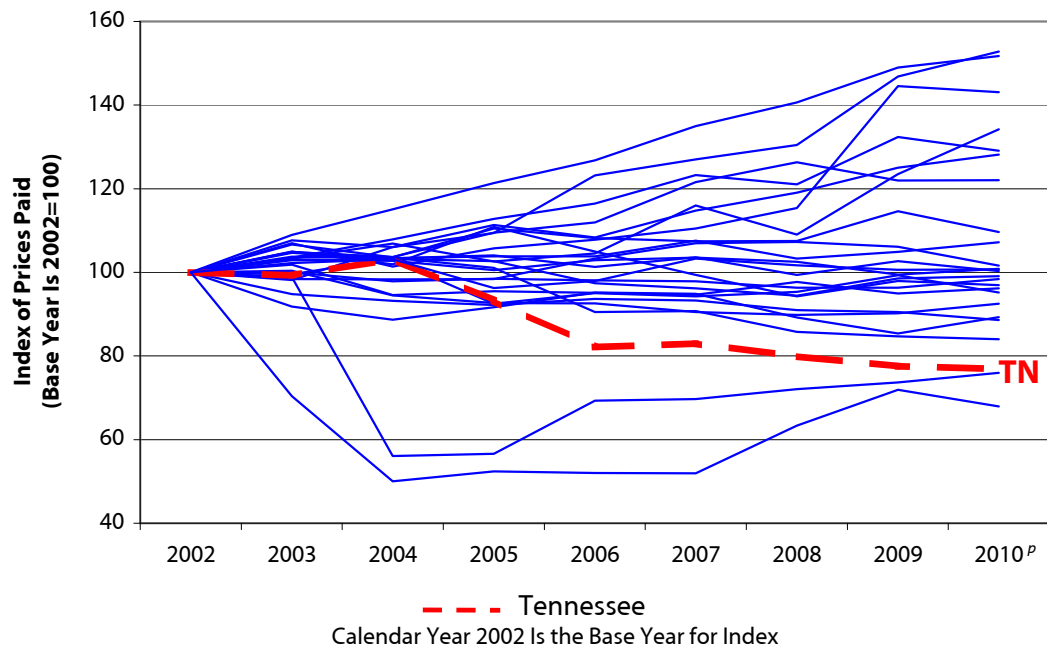
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

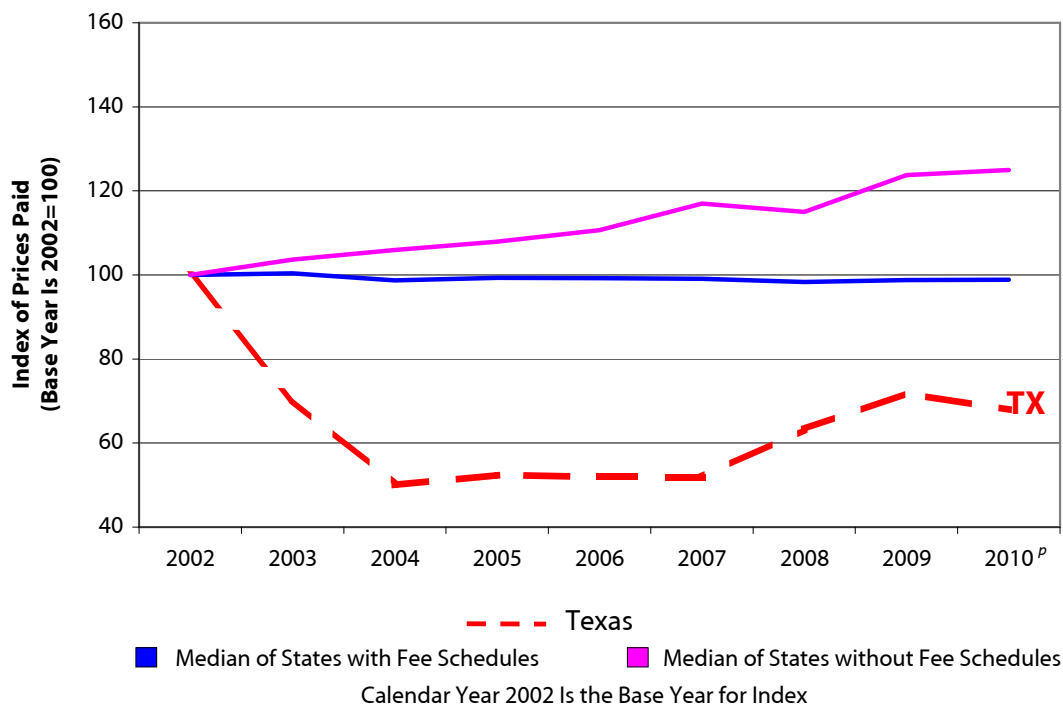
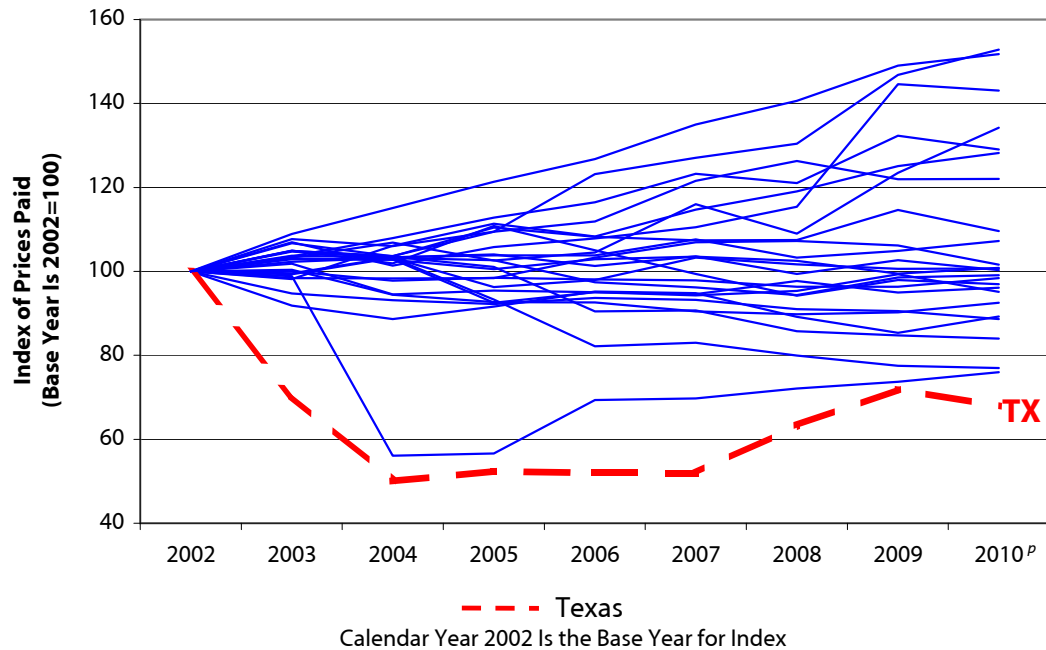
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: During the period covered by this study, South Carolina's fee schedule for professional services had not been changed after the update in January 2003. Results in South Carolina do not reflect fee schedule changes effective July 1, 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

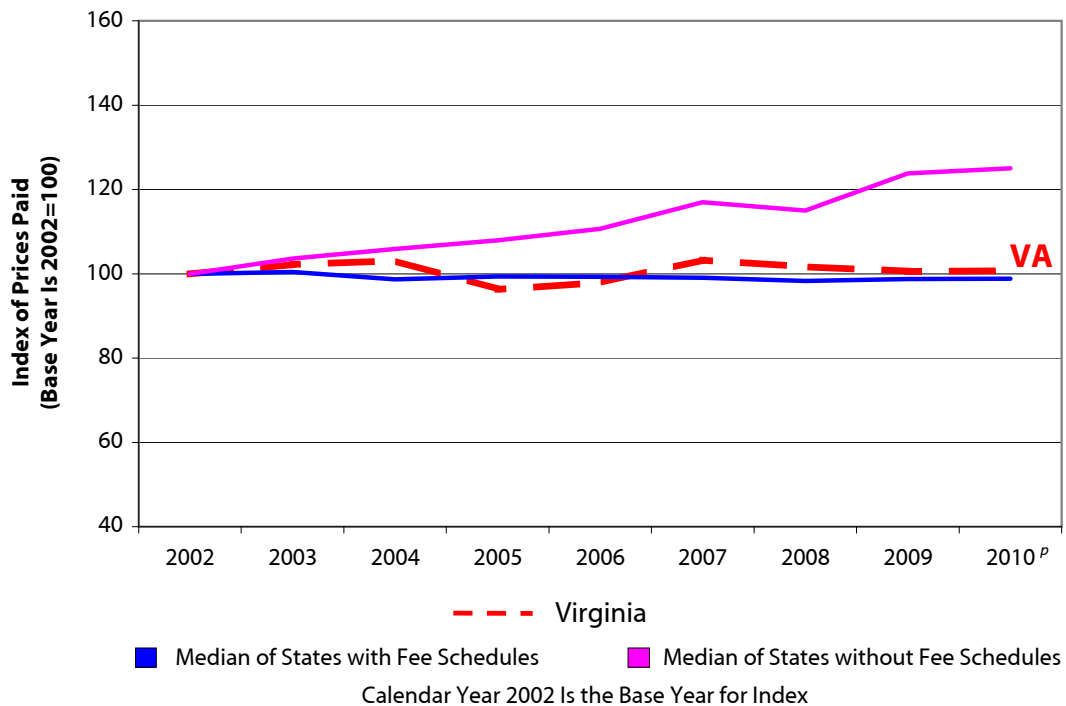
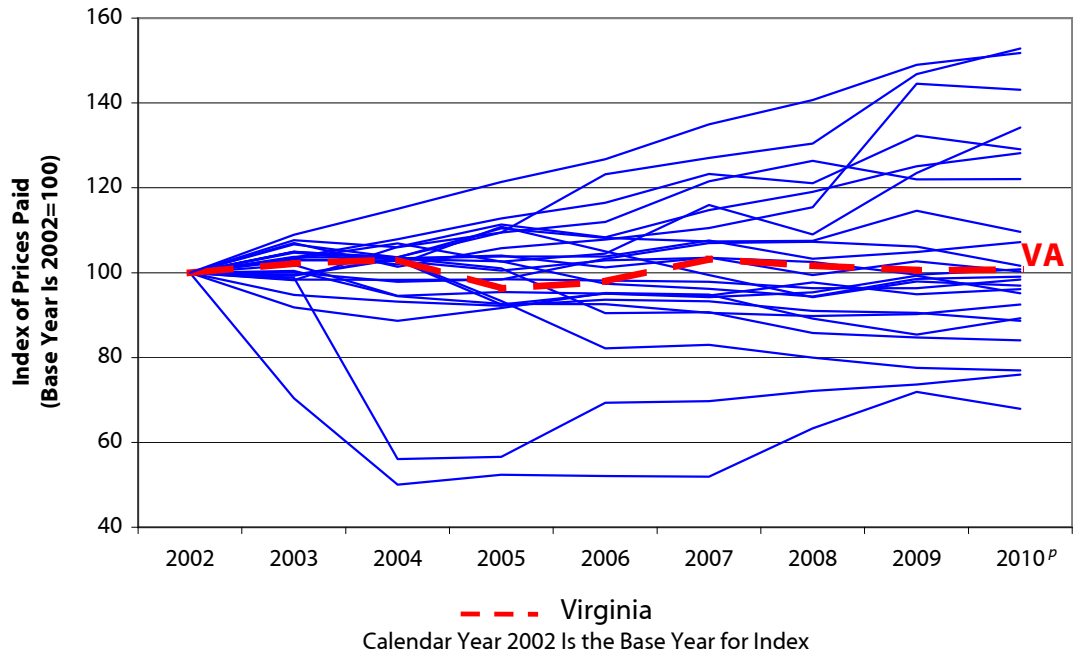
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

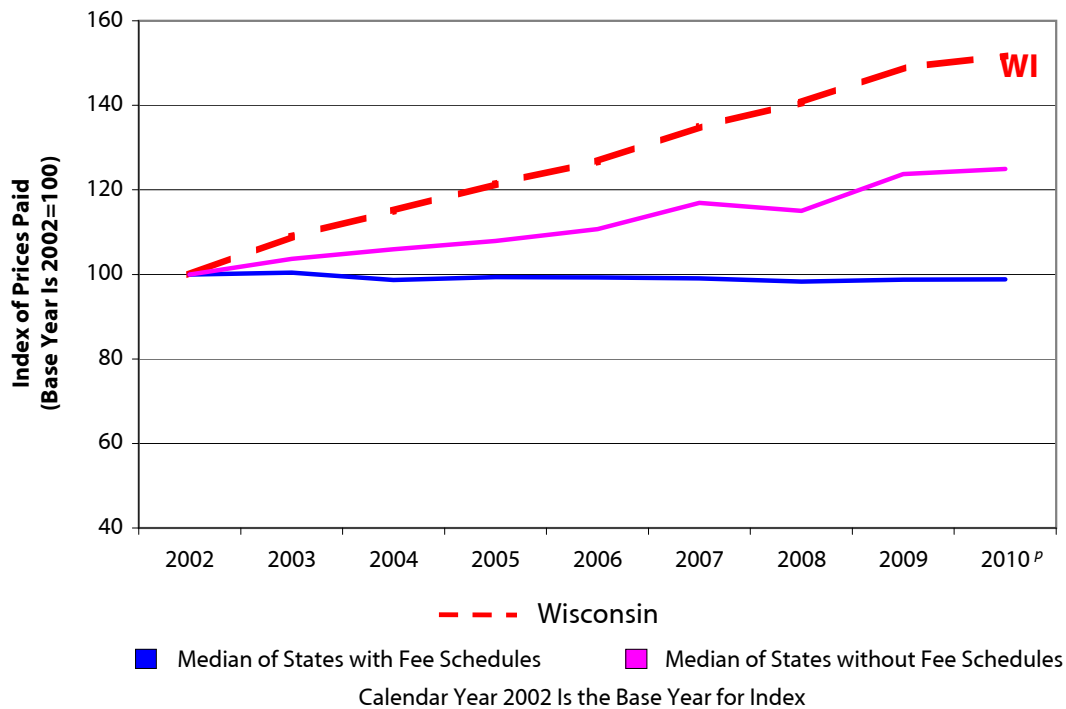
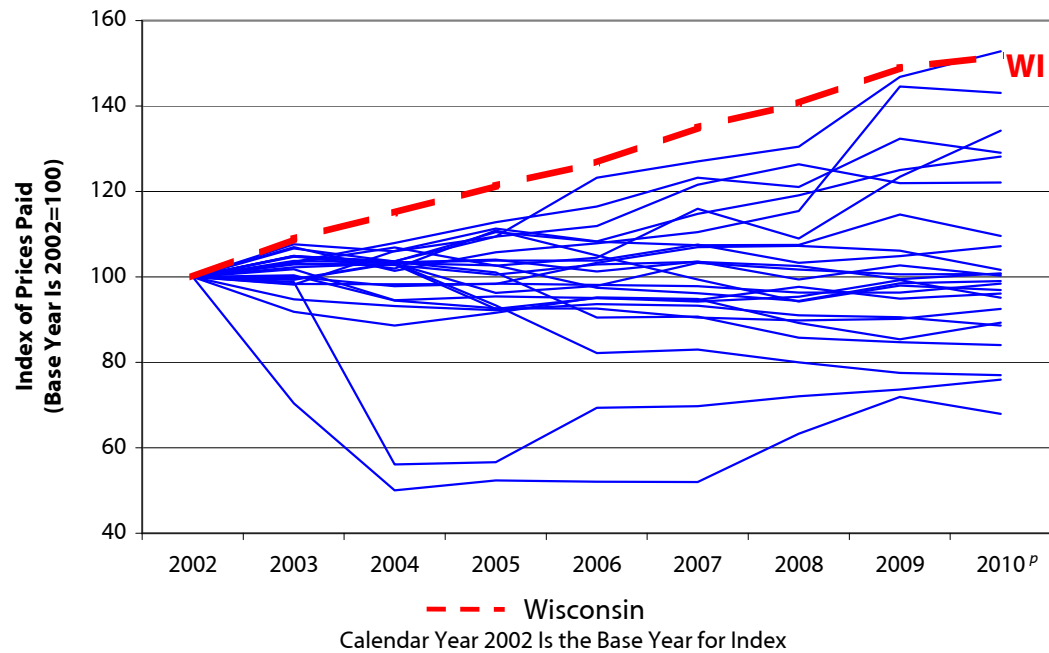
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

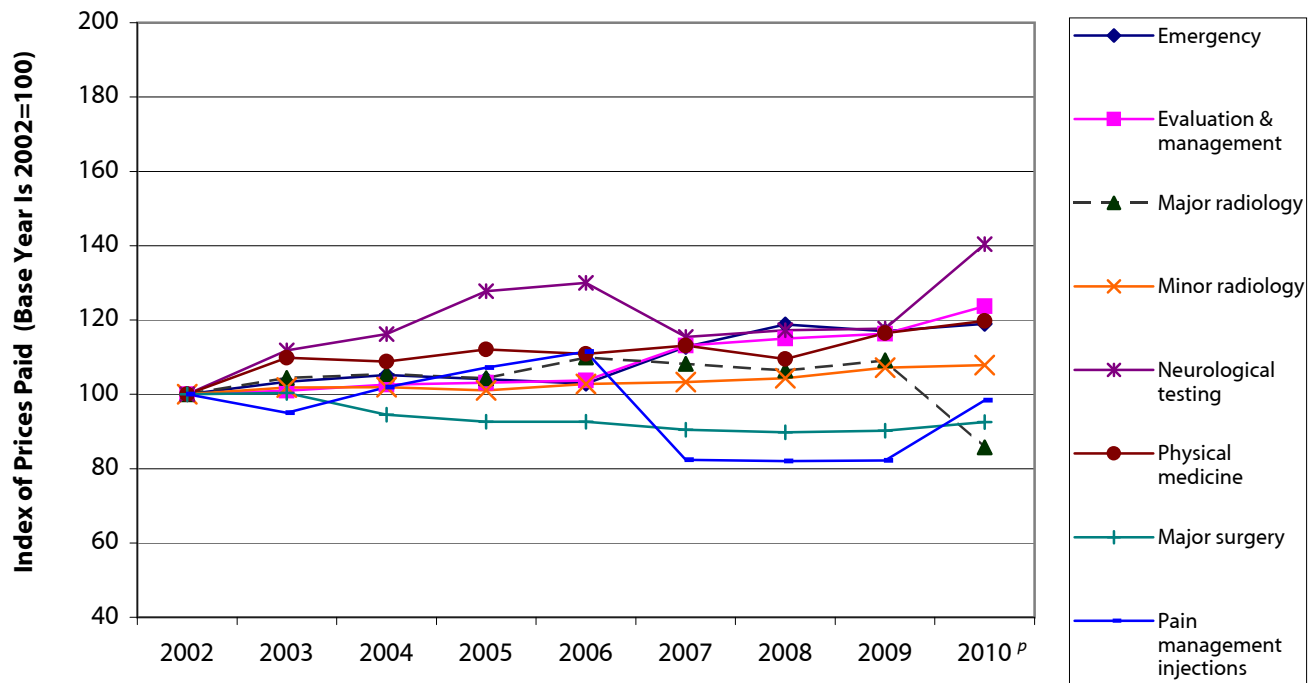
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Virginia did not have a workers' compensation fee schedule in 2010.

Nonhospital Surgery Services, WCRI MPI-WC Trends in Medical Prices Paid, 2002 to 2010

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Wisconsin did not have a conventional workers' compensation fee schedule in 2010.

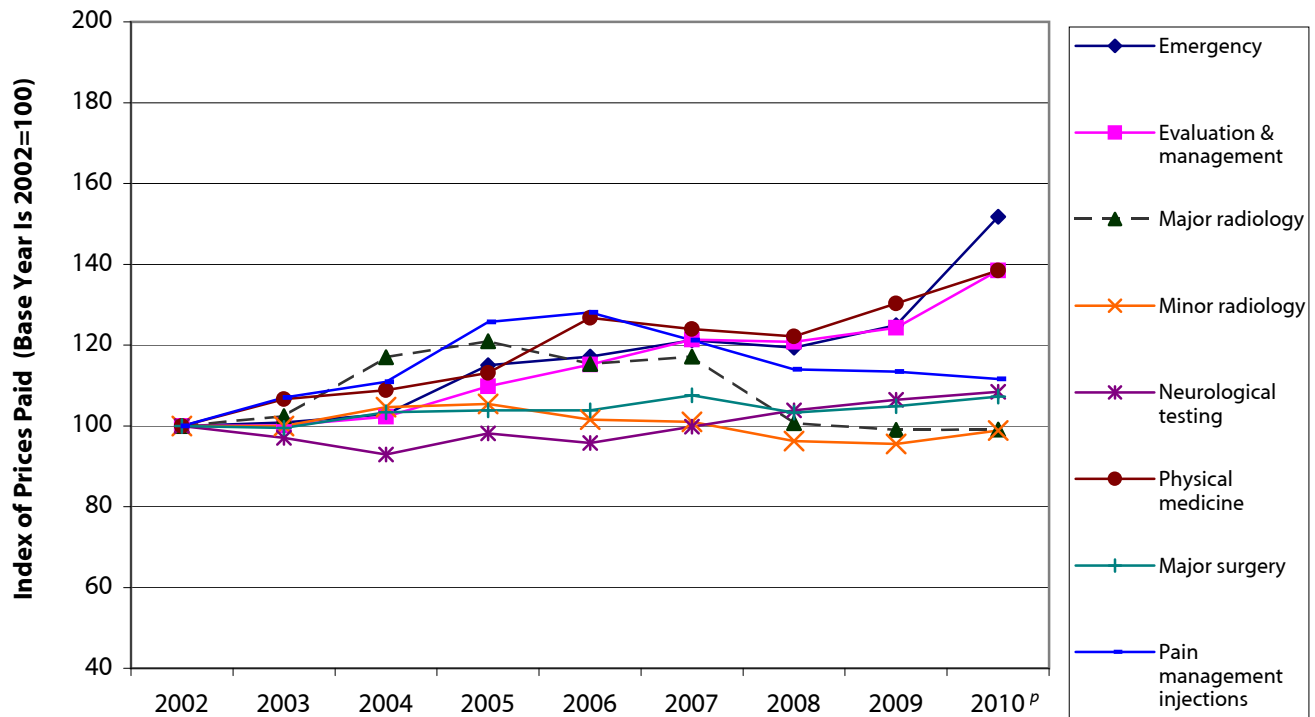
Arkansas Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Arkansas Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^p
Emergency	100	103	105	104	103	113	119	117	119
Evaluation & management	100	101	103	103	104	113	115	116	124
Major radiology	100	104	105	104	110	108	106	109	86
Minor radiology	100	102	102	101	103	103	104	107	108
Neurological testing	100	112	116	128	130	115	117	118	140
Physical medicine	100	110	109	112	111	113	109	116	120
Major surgery	100	100	94	93	93	91	90	90	93
Pain management injections	100	95	102	107	112	82	82	82	98
Overall	100	104	104	105	106	107	106	109	111

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Arkansas' fee schedule for professional services has regular updates on the RVUs tied to the most recent Medicare RBRVS, with applied state conversion factors adopted in May 2000 for the services included in this study.

Key: RBRVS: Resource-based relative value scale; RVUs: Relative value units.

Arizona Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Arizona Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	101	103	115	117	121	119	125	152
Evaluation & management	100	100	102	110	115	121	121	124	138
Major radiology	100	102	117	121	115	117	101	99	99
Minor radiology	100	100	105	105	102	101	96	96	99
Neurological testing	100	97	93	98	96	100	104	106	108
Physical medicine	100	107	109	113	127	124	122	130	138
Major surgery	100	100	103	104	104	108	103	105	107
Pain management injections	100	107	111	126	128	121	114	113	112
Overall	100	102	106	110	115	116	113	116	123

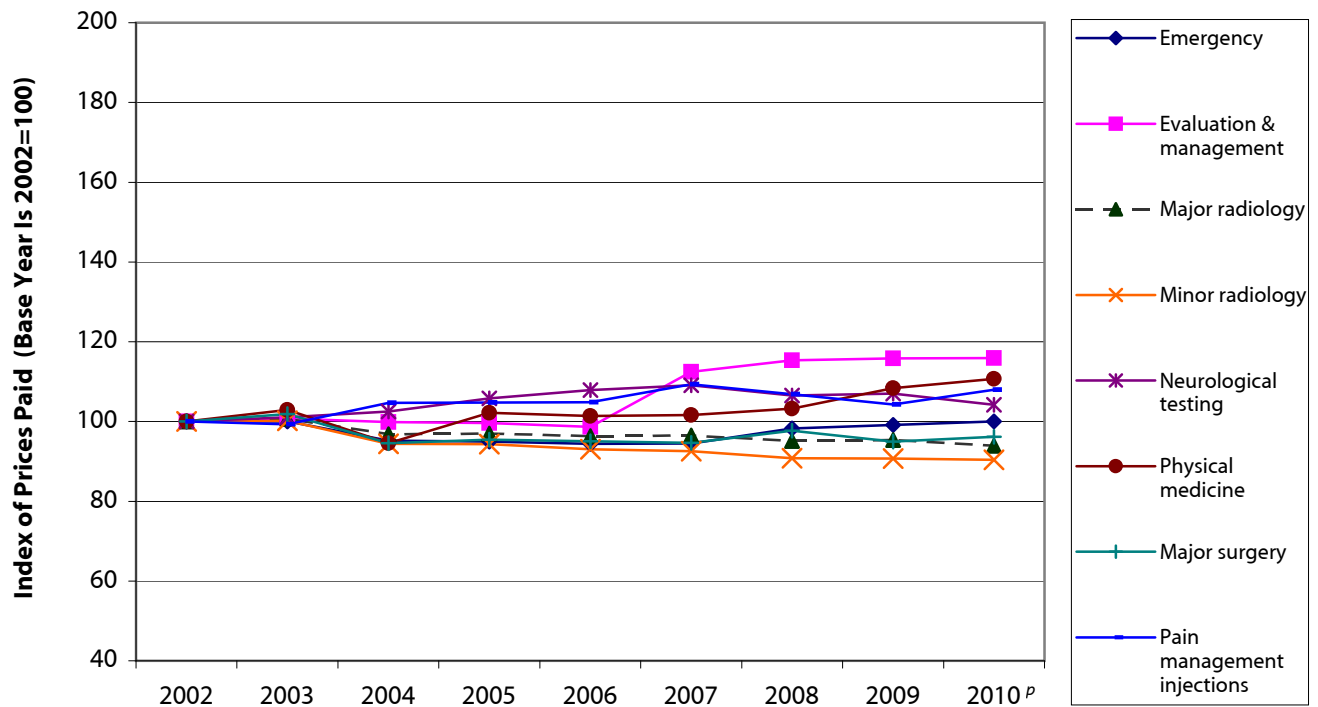
Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

Arizona updates its fee schedule for professional services annually in October. Results in Arizona do not reflect fee schedule changes effective October 1, 2010.

California Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

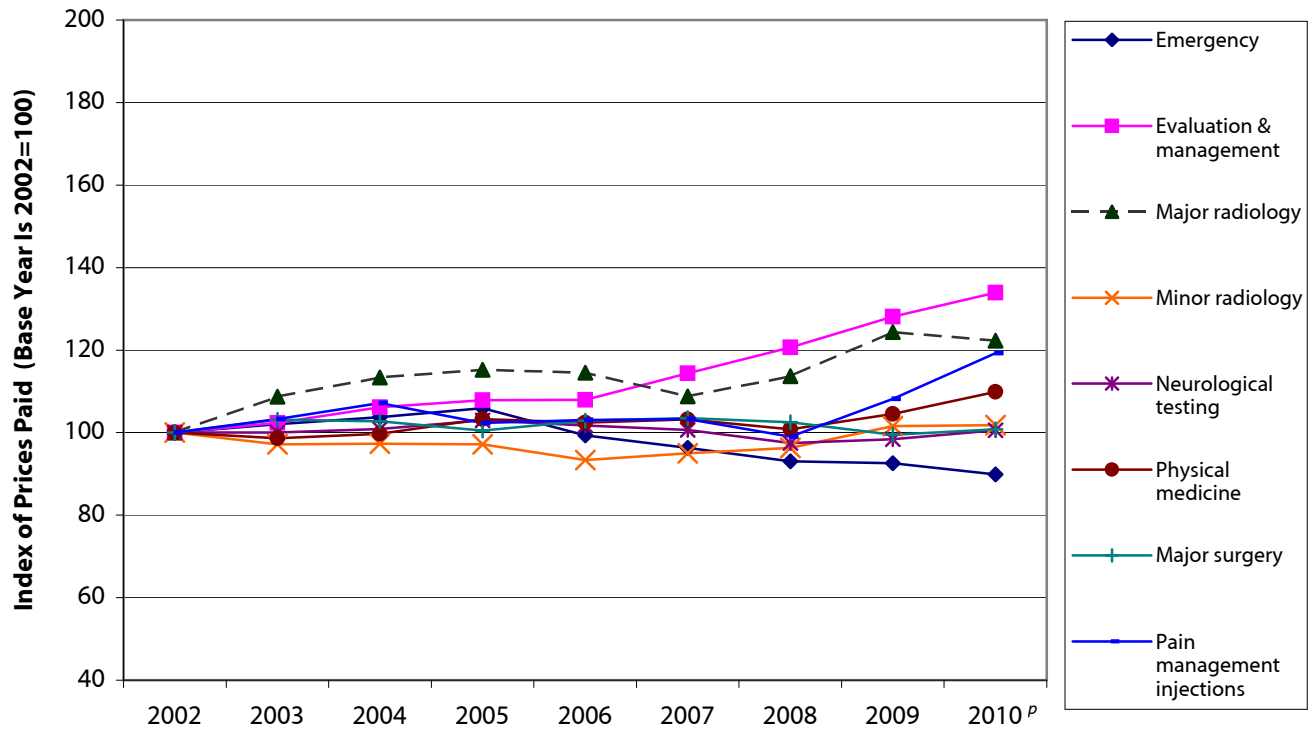


California Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	100	95	95	94	94	98	99	100
Evaluation & management	100	101	100	100	99	112	115	116	116
Major radiology	100	101	97	97	96	96	95	95	94
Minor radiology	100	100	94	94	93	93	91	91	90
Neurological testing	100	101	103	106	108	109	107	107	104
Physical medicine	100	103	95	102	101	102	103	108	111
Major surgery	100	102	95	95	95	95	98	95	96
Pain management injections	100	99	105	105	105	109	107	104	108
Overall	100	102	97	100	99	102	104	105	106

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

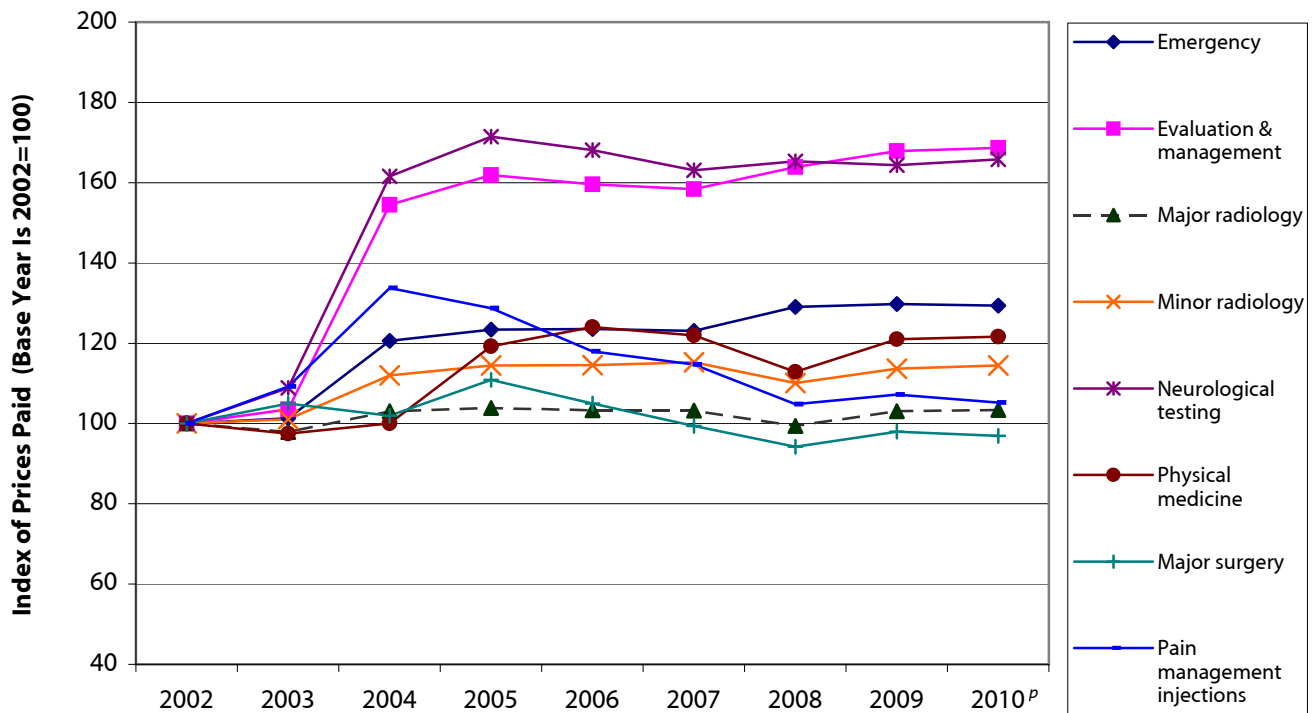
Connecticut Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Connecticut Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	102	104	106	99	96	93	93	90
Evaluation & management	100	102	106	108	108	114	121	128	134
Major radiology	100	109	113	115	115	109	114	124	122
Minor radiology	100	97	97	97	93	95	96	102	102
Neurological testing	100	100	101	103	102	101	97	98	101
Physical medicine	100	99	100	103	102	103	101	105	110
Major surgery	100	103	103	101	103	103	103	99	101
Pain management injections	100	103	107	102	103	103	99	108	119
Overall	100	102	103	104	104	105	106	109	112

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Connecticut has updated its fee schedule for professional services annually in July since 2008; in prior years updates were effective in April. Results in Connecticut do not reflect fee schedule changes effective July 15, 2010.

Florida Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

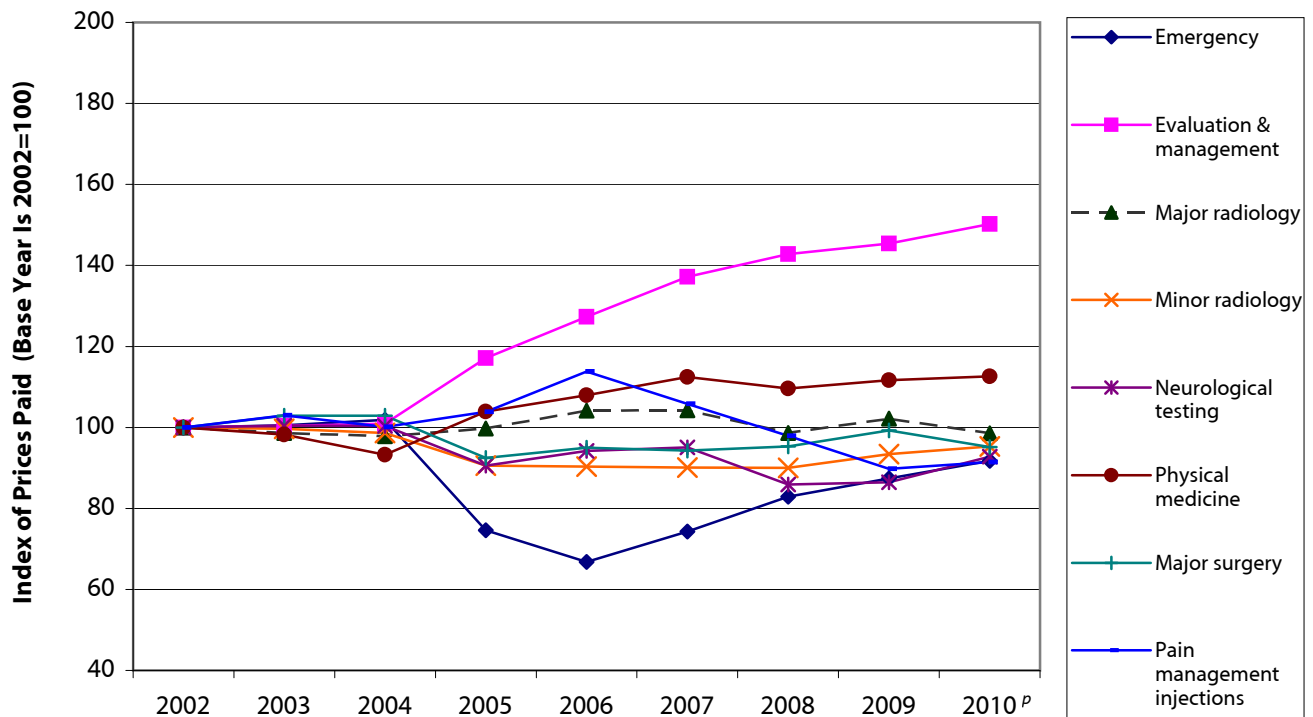


Florida Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^p
Emergency	100	101	121	123	124	123	129	130	129
Evaluation & management	100	104	155	162	160	158	164	168	169
Major radiology	100	98	103	104	103	103	99	103	103
Minor radiology	100	101	112	114	115	115	110	114	114
Neurological testing	100	109	162	171	168	163	165	164	166
Physical medicine	100	97	100	119	124	122	113	121	122
Major surgery	100	105	102	111	105	99	94	98	97
Pain management injections	100	109	134	129	118	115	105	107	105
Overall	100	102	115	126	125	122	118	123	123

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

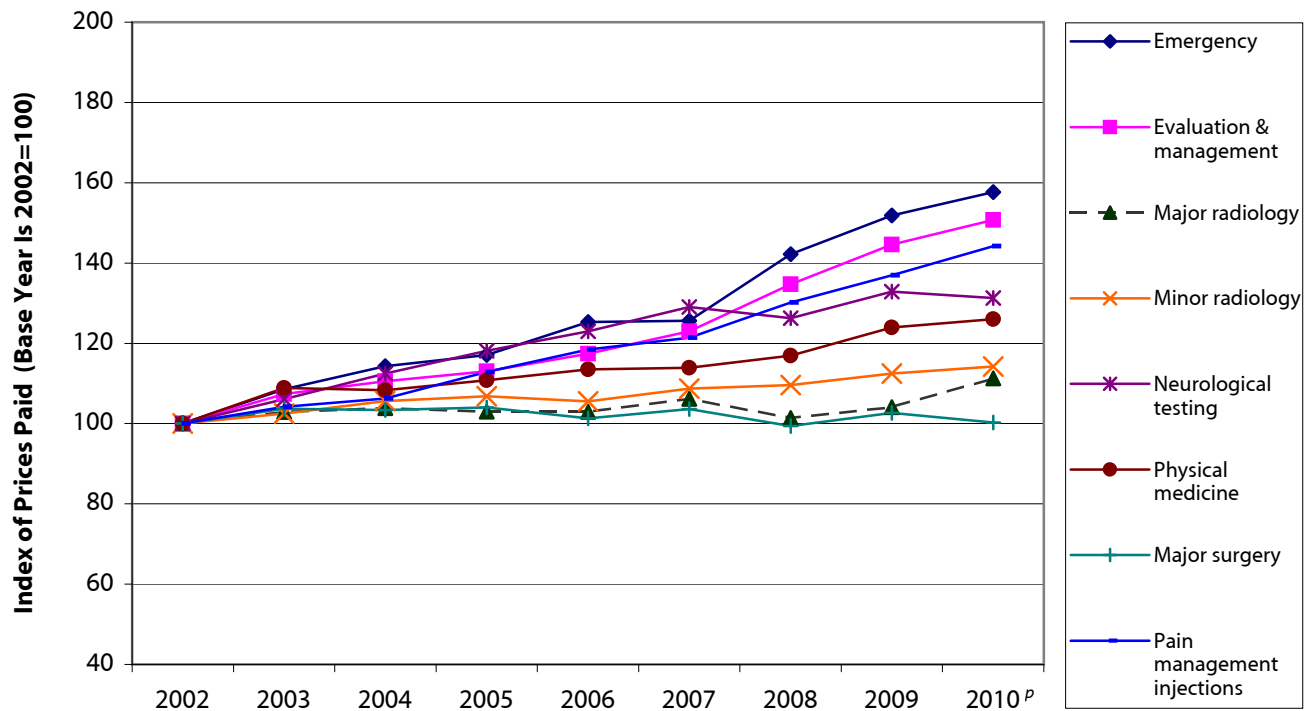
Notes: Florida had significant increases in fee schedule rates for physician services in January 2004, and increases in fee schedule rates for services provided by chiropractors and physical/occupational therapists in May 2005. After that Florida had fee schedule updates for professional services in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

Georgia Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Georgia Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^p
Emergency	100	101	102	75	67	74	83	87	92
Evaluation & management	100	100	101	117	127	137	143	145	150
Major radiology	100	99	98	100	104	104	99	102	99
Minor radiology	100	100	99	91	90	90	90	93	95
Neurological testing	100	100	100	91	94	95	86	86	93
Physical medicine	100	98	93	104	108	112	110	112	113
Major surgery	100	103	103	92	95	94	95	99	95
Pain management injections	100	103	100	104	114	106	98	90	91
Overall	100	100	99	102	106	110	109	112	112

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

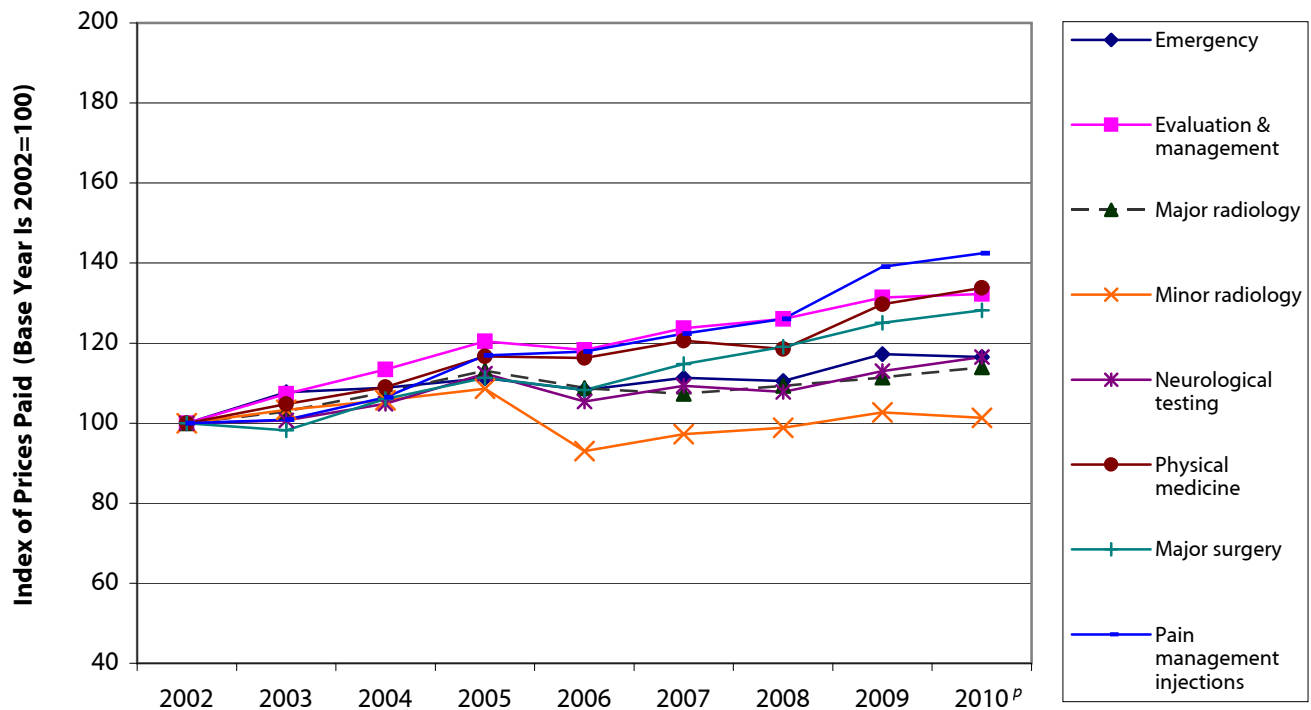
Notes: Georgia updates its fee schedule for professional services annually in April. For example, in 2005 the fee schedule rates had material increases in certain evaluation and management and physical medicine services, and decreases in many services such as emergency, minor radiology, neurological testing, and certain major surgery procedures.

Iowa Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Iowa Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	109	114	117	125	126	142	152	158
Evaluation & management	100	107	111	113	117	123	135	145	151
Major radiology	100	103	104	103	103	106	101	104	111
Minor radiology	100	102	106	107	106	109	110	112	114
Neurological testing	100	106	112	118	123	129	126	133	131
Physical medicine	100	109	108	111	113	114	117	124	126
Major surgery	100	104	103	104	101	104	99	103	100
Pain management injections	100	104	106	113	118	121	130	137	144
Overall	100	106	107	109	111	114	116	122	125

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

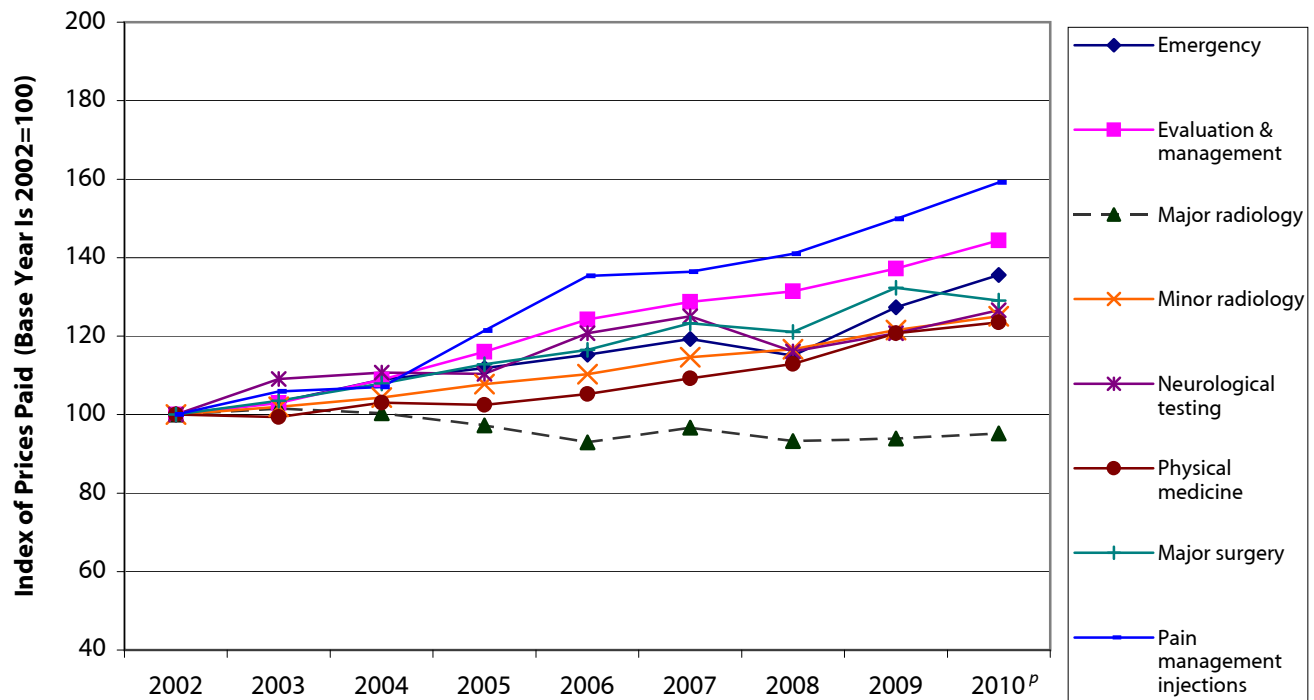
Note: Iowa did not have a workers' compensation fee schedule in 2010.

Illinois Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Illinois Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	108	109	111	108	111	110	117	117
Evaluation & management	100	107	113	120	118	124	126	131	132
Major radiology	100	103	108	113	109	107	109	111	114
Minor radiology	100	103	106	109	93	97	99	103	101
Neurological testing	100	101	105	112	105	109	108	113	116
Physical medicine	100	105	109	117	116	121	119	130	134
Major surgery	100	98	106	111	108	115	119	125	128
Pain management injections	100	101	106	117	118	122	126	139	142
Overall	100	103	108	115	112	117	118	125	128

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

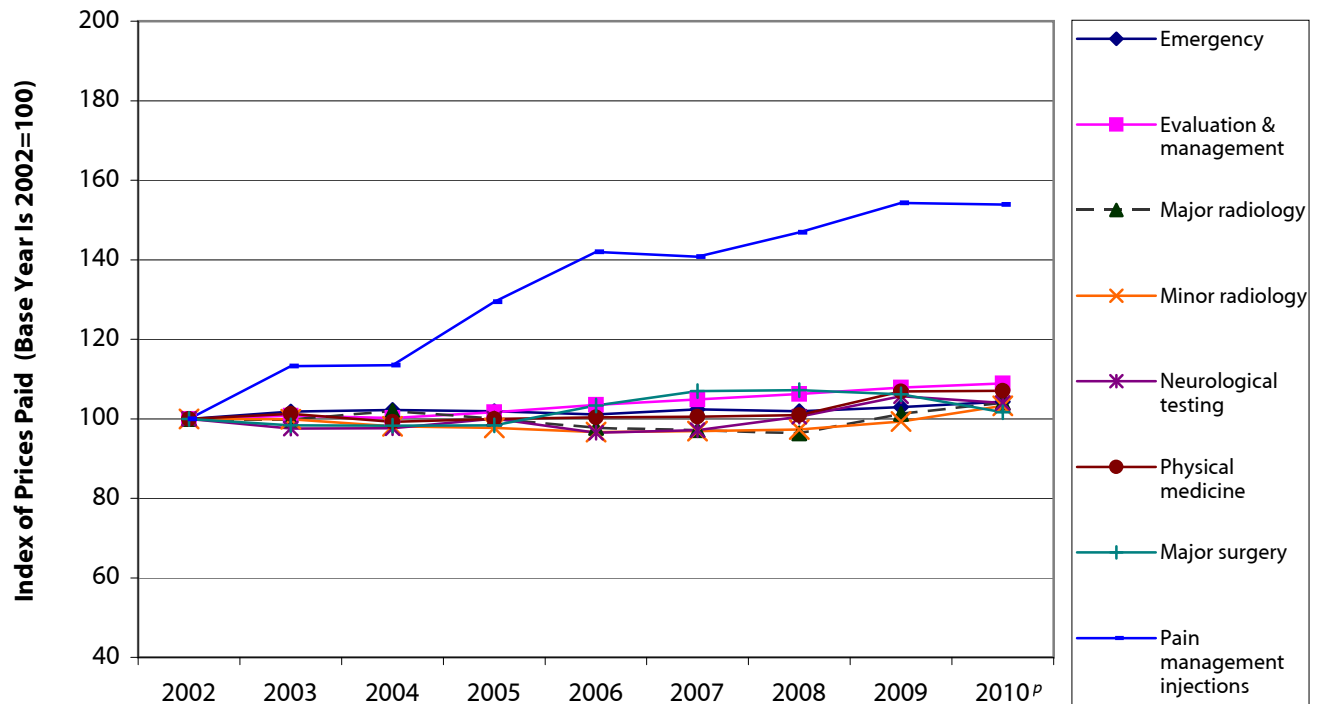
Notes: Illinois implemented a workers' compensation fee schedule in February 2006. This workers' compensation fee schedule for professional services set different maximum reimbursement rates for the same services for each of 29 different areas of the state based on the first three digits of the zip code 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, which might create unintended incentives for providers to control revenues 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.

Indiana Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Indiana Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	103	109	112	115	119	115	127	136
Evaluation & management	100	103	109	116	124	129	131	137	144
Major radiology	100	102	100	97	93	97	93	94	95
Minor radiology	100	102	104	108	110	115	117	122	125
Neurological testing	100	109	111	110	121	125	116	121	127
Physical medicine	100	99	103	103	105	109	113	121	124
Major surgery	100	104	108	113	116	123	121	132	129
Pain management injections	100	106	107	121	135	136	141	150	159
Overall	100	102	105	108	112	116	117	124	127

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Note: Indiana did not have a workers' compensation fee schedule in 2010.

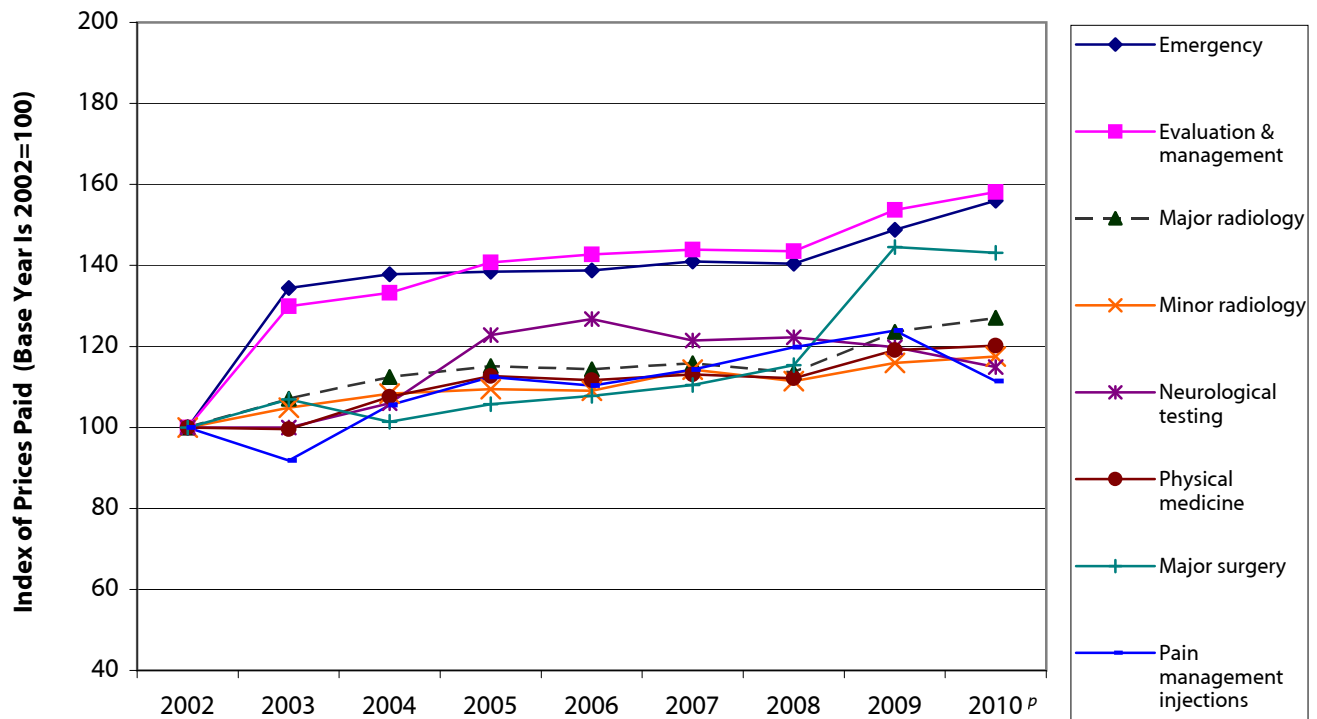
Louisiana Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Louisiana Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	102	102	102	101	102	102	103	104
Evaluation & management	100	101	100	102	103	105	106	108	109
Major radiology	100	100	102	100	98	97	96	101	104
Minor radiology	100	100	98	98	97	97	97	99	103
Neurological testing	100	98	98	100	96	97	101	106	104
Physical medicine	100	101	99	100	100	101	101	107	107
Major surgery	100	98	98	98	103	107	107	106	102
Pain management injections	100	113	113	129	142	141	147	154	154
Overall	100	101	100	101	102	103	104	108	107

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Louisiana's fee schedule for professional services uses the 1999 CPT list published by the AMA and maximum allowable reimbursement rates effective as of March 2001.

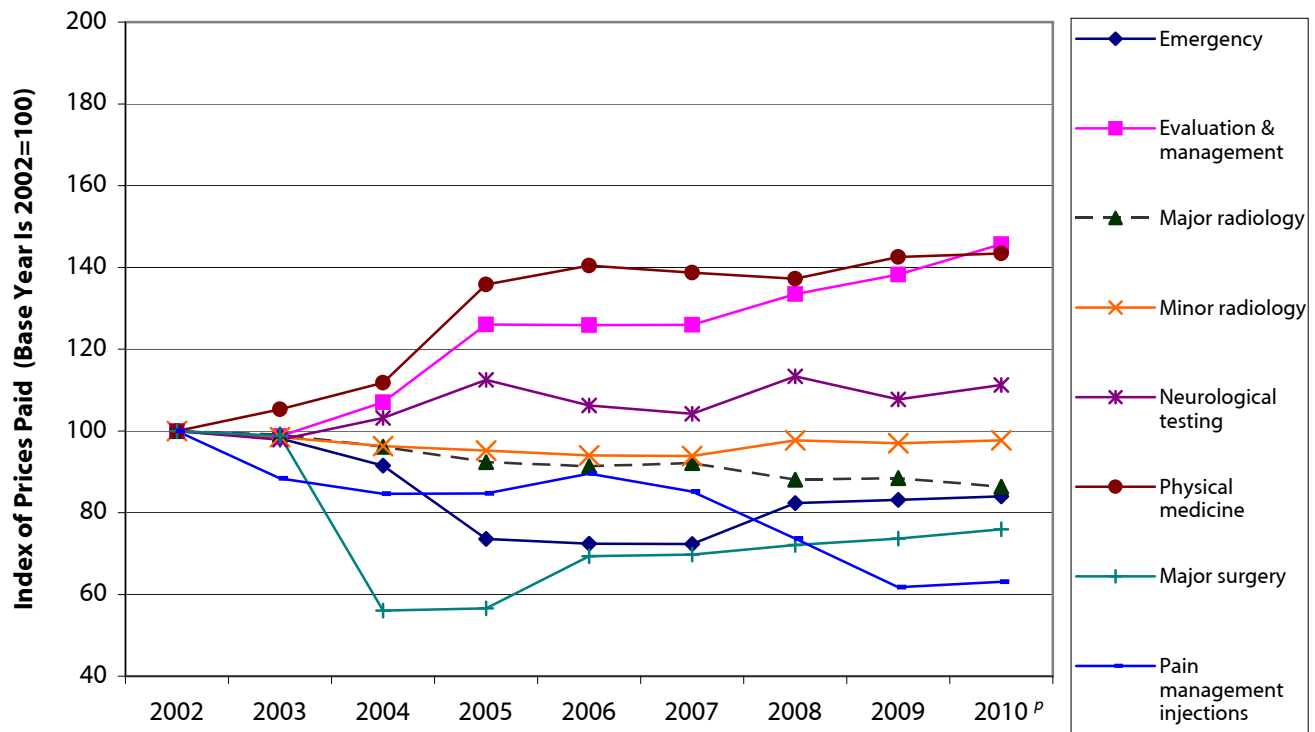
Key: AMA: American Medical Association; CPT: Current Procedural Terminology.

Massachusetts Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Massachusetts Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	134	138	138	139	141	140	149	156
Evaluation & management	100	130	133	141	143	144	144	154	158
Major radiology	100	107	112	115	114	116	114	124	127
Minor radiology	100	105	108	109	109	114	111	116	118
Neurological testing	100	100	106	123	127	121	122	120	115
Physical medicine	100	100	108	113	112	113	112	119	120
Major surgery	100	107	101	106	108	110	115	145	143
Pain management injections	100	92	105	112	110	114	120	124	111
Overall	100	109	112	117	118	120	121	135	135

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Massachusetts increased 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 two to three times above the previous rates. Prior to that the fee schedule for professional services had not been updated since September 2004.

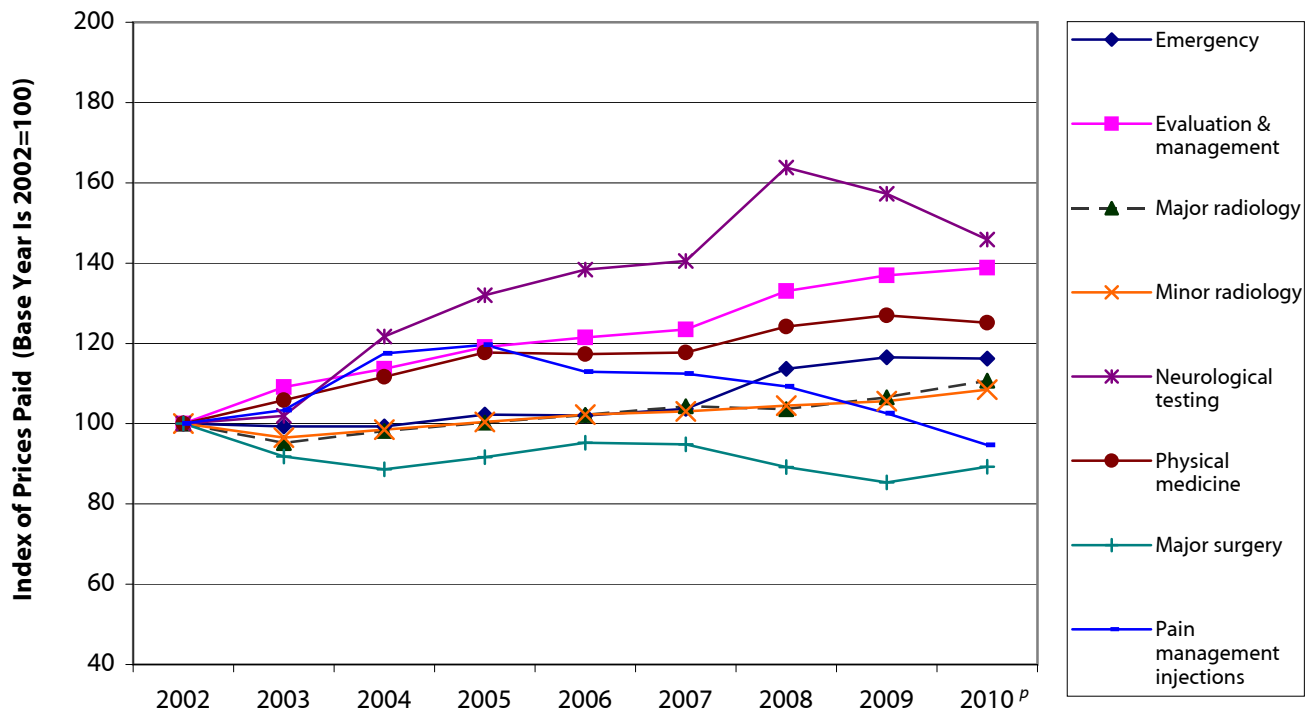
Maryland Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Maryland Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^p
Emergency	100	98	92	74	72	72	82	83	84
Evaluation & management	100	99	107	126	126	126	133	138	146
Major radiology	100	99	96	92	91	92	88	88	86
Minor radiology	100	98	96	95	94	94	98	97	98
Neurological testing	100	98	103	113	106	104	113	108	111
Physical medicine	100	105	112	136	140	139	137	143	143
Major surgery	100	99	56	57	69	70	72	74	76
Pain management injections	100	88	85	85	90	85	74	62	63
Overall	100	100	94	105	109	108	110	112	115

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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.

Michigan Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

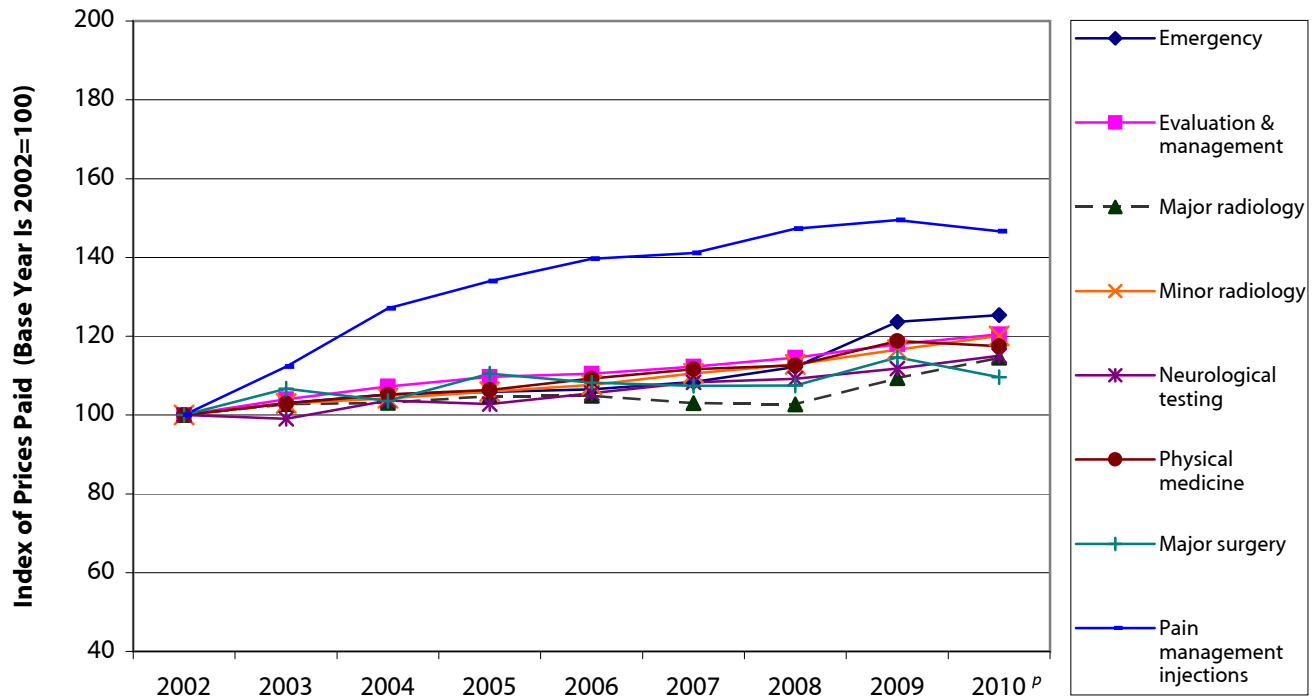


Michigan Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	99	99	102	102	104	114	117	116
Evaluation & management	100	109	114	119	121	123	133	137	139
Major radiology	100	95	98	100	102	104	104	107	111
Minor radiology	100	97	99	100	102	103	105	106	109
Neurological testing	100	102	122	132	138	141	164	157	146
Physical medicine	100	106	112	118	117	118	124	127	125
Major surgery	100	92	89	92	95	95	89	85	89
Pain management injections	100	103	118	120	113	112	109	103	95
Overall	100	103	107	112	113	114	119	120	121

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Michigan updates its fee schedule for professional services annually. Results in Michigan do not reflect fee schedule changes effective December 8, 2010.

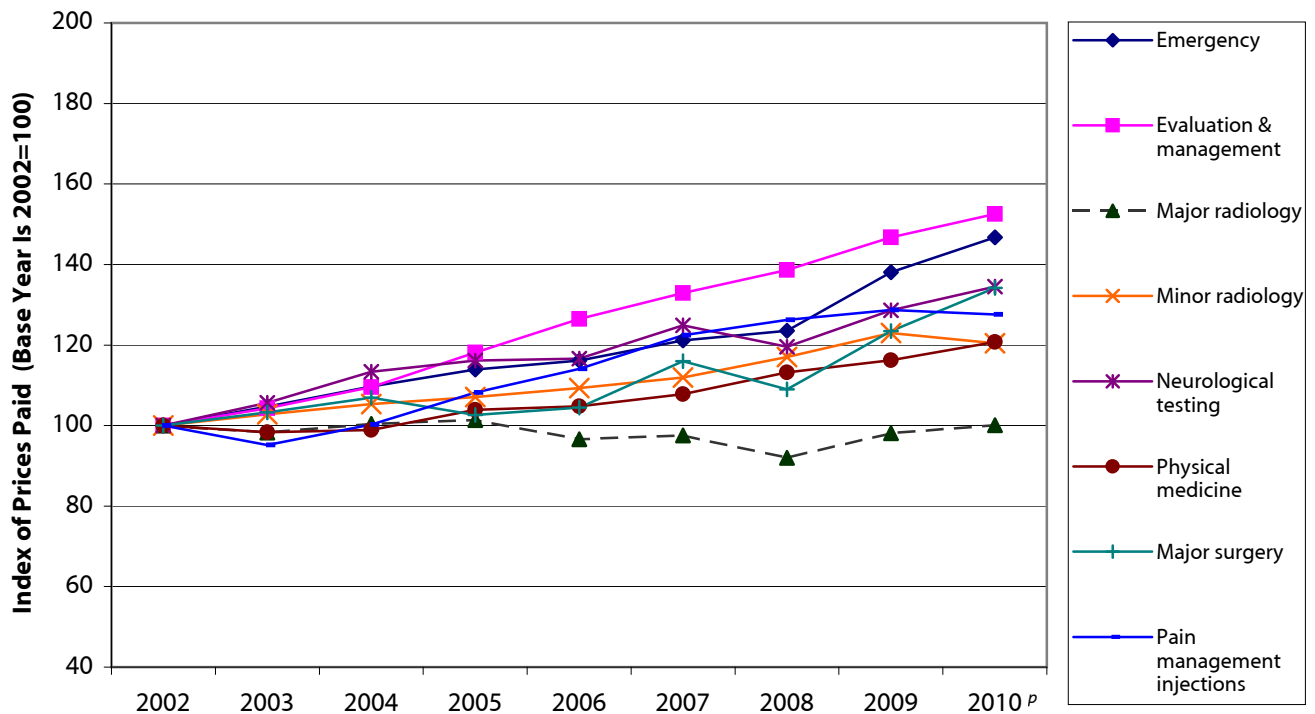
Minnesota Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Minnesota Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	103	105	106	107	108	112	124	125
Evaluation & management	100	104	107	110	110	112	115	118	120
Major radiology	100	103	103	105	105	103	103	109	115
Minor radiology	100	103	104	106	108	111	113	117	120
Neurological testing	100	99	104	103	106	108	109	112	115
Physical medicine	100	103	105	106	109	112	113	119	117
Major surgery	100	107	104	110	108	107	107	115	110
Pain management injections	100	112	127	134	140	141	147	149	147
Overall	100	104	106	109	110	111	112	118	118

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Minnesota's fee schedule for professional services from 2002 to 2010 was based on 1998 Medicare RVUs, with annual updates in the conversion factor. Results in Minnesota do not reflect fee schedule changes effective October 1, 2010.

Key: RVUs: Relative value units.

Missouri Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Missouri Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^p
Emergency	100	105	110	114	116	121	124	138	147
Evaluation & management	100	104	110	118	126	133	139	147	153
Major radiology	100	98	100	101	97	98	92	98	100
Minor radiology	100	103	105	107	109	112	117	123	120
Neurological testing	100	106	113	116	117	125	120	129	134
Physical medicine	100	98	99	104	105	108	113	116	121
Major surgery	100	103	107	103	104	116	109	123	134
Pain management injections	100	95	100	108	114	122	126	129	128
Overall	100	101	104	107	109	115	116	123	129

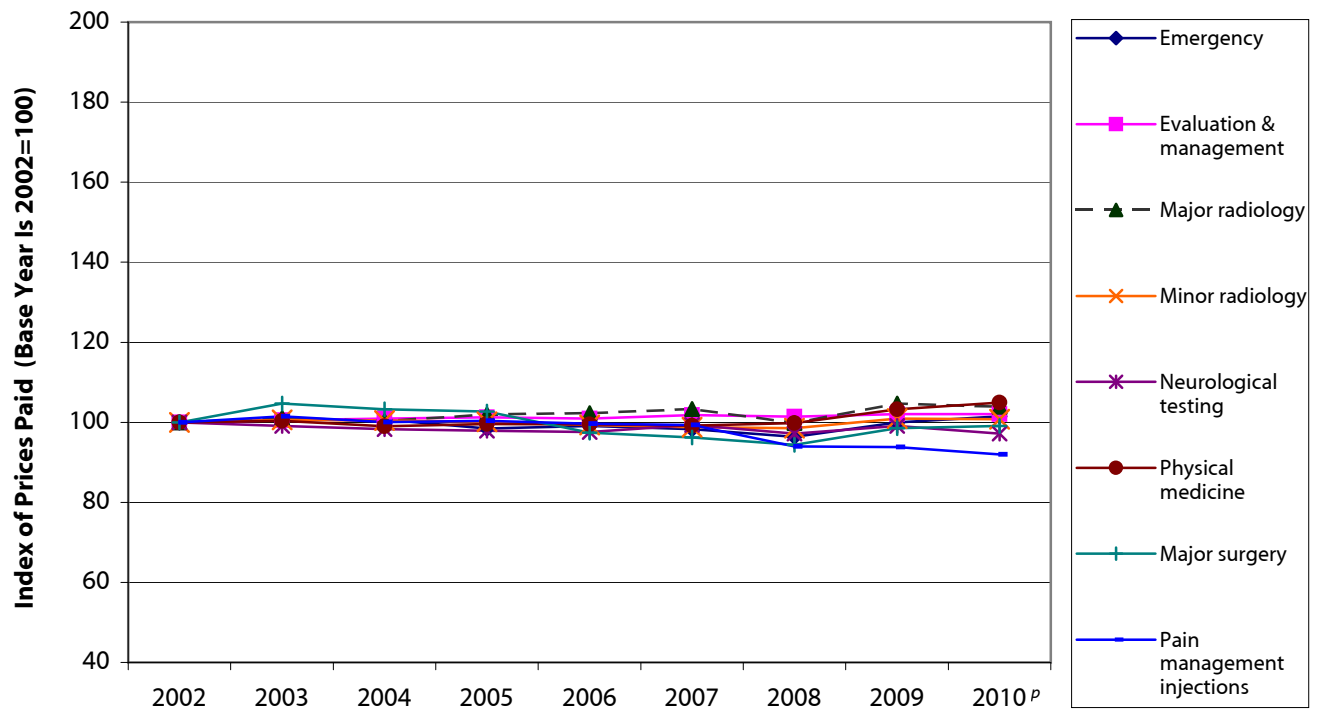
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

Missouri did not have a workers' compensation fee schedule in 2010.

North Carolina Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010



North Carolina Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

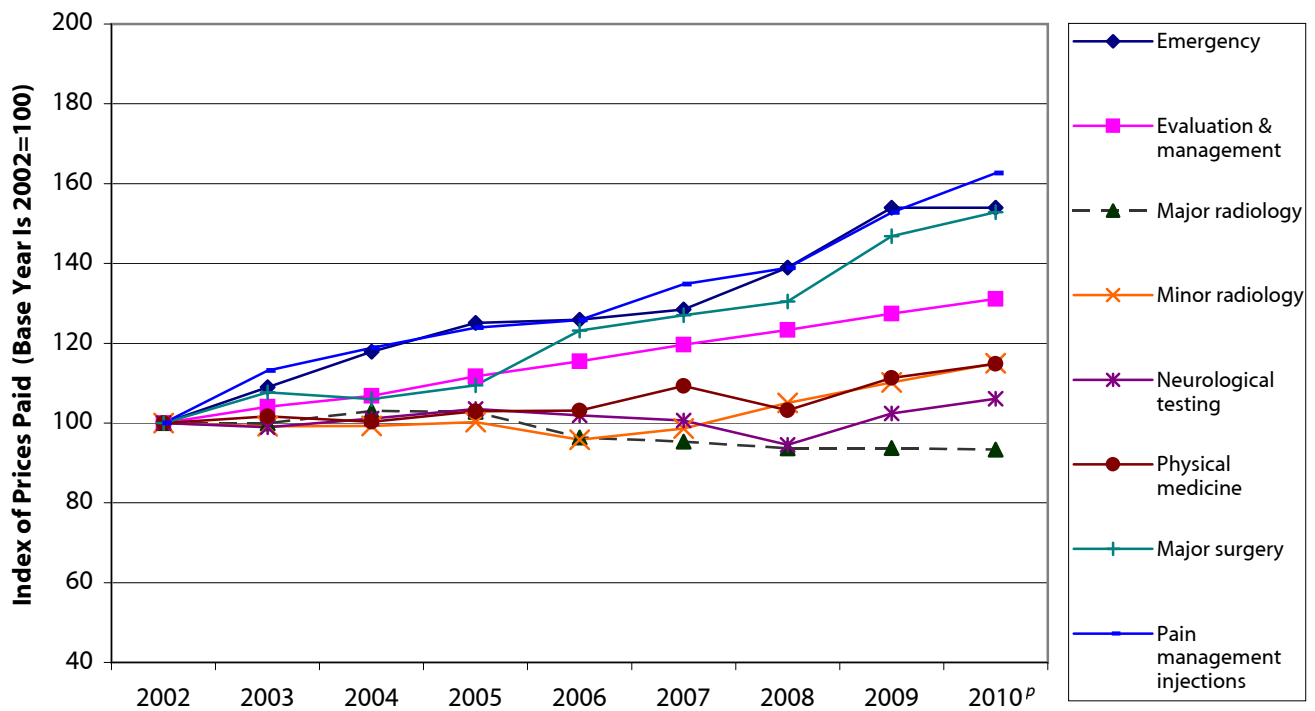
Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	101	101	98	99	98	96	100	102
Evaluation & management	100	101	101	101	101	102	101	102	102
Major radiology	100	101	100	102	102	103	100	105	104
Minor radiology	100	101	100	100	99	99	98	101	101
Neurological testing	100	99	98	98	98	99	97	99	97
Physical medicine	100	100	99	100	99	99	100	103	105
Major surgery	100	105	103	103	97	96	94	99	99
Pain management injections	100	101	100	100	100	99	94	94	92
Overall	100	101	101	101	100	100	99	101	102

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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 CPT codes published by the AMA.

Key: AMA: American Medical Association; CPT: Current Procedural Terminology.

New Jersey Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010



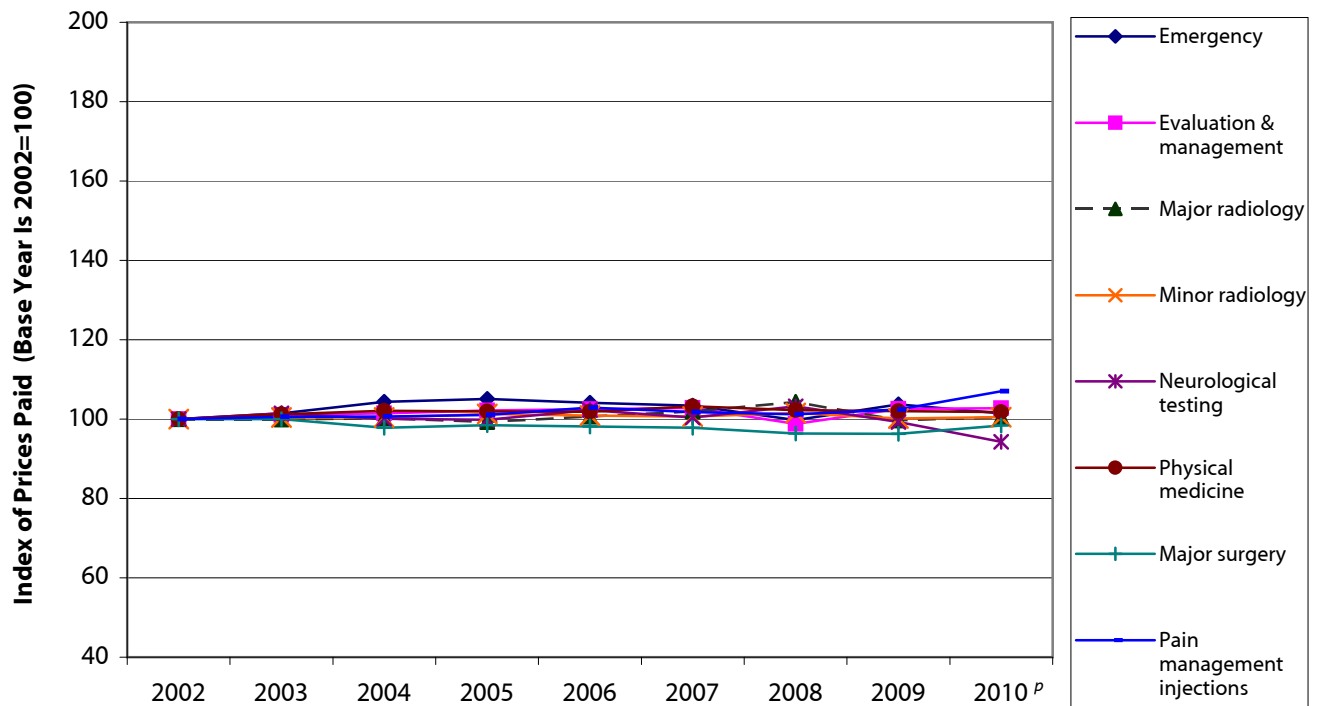
New Jersey Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	109	118	125	126	128	139	154	154
Evaluation & management	100	104	107	112	115	120	123	127	131
Major radiology	100	100	103	103	96	95	94	94	93
Minor radiology	100	99	99	100	96	99	105	110	115
Neurological testing	100	99	101	104	102	101	95	102	106
Physical medicine	100	102	100	103	103	109	103	111	115
Major surgery	100	108	106	109	123	127	130	147	153
Pain management injections	100	113	119	124	126	135	139	153	163
Overall	100	104	105	108	112	116	116	126	130

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: New Jersey did not have a workers' compensation fee schedule in 2010.

New York Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010



New York Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

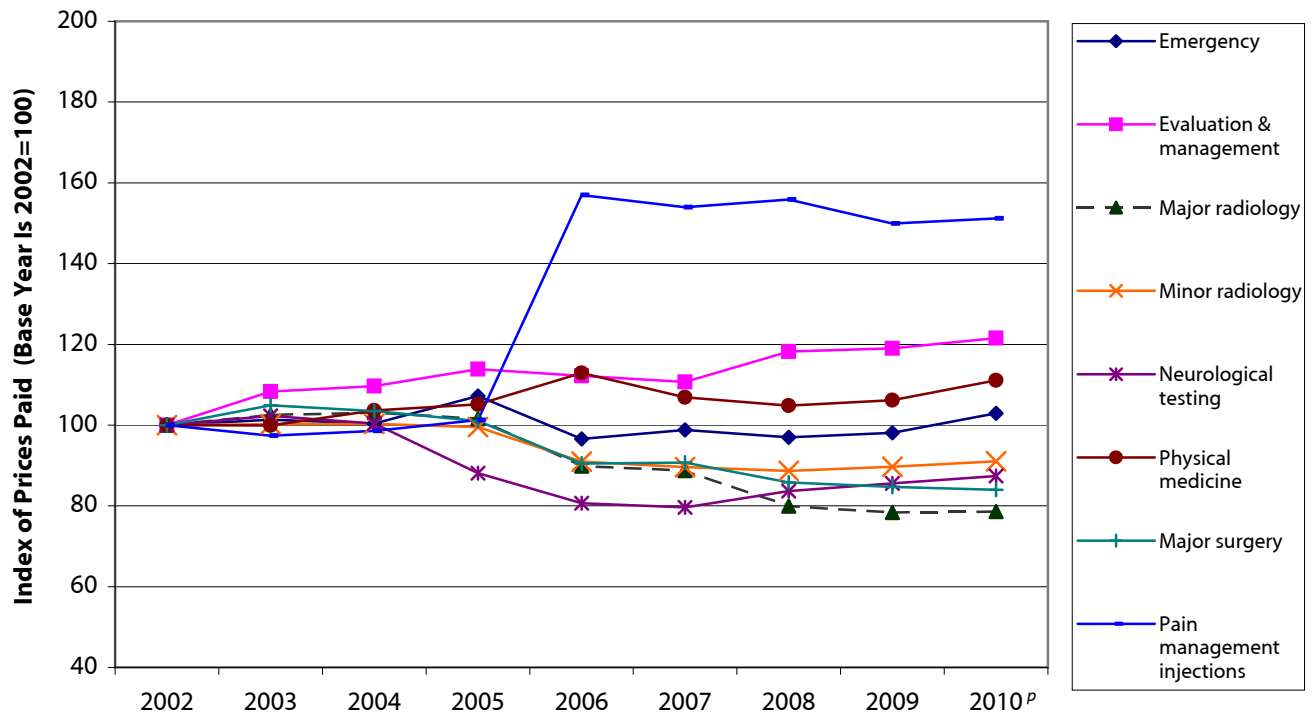
Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	101	104	105	104	103	100	104	101
Evaluation & management	100	101	101	102	103	103	99	103	103
Major radiology	100	100	100	99	101	102	104	100	100
Minor radiology	100	100	100	101	101	101	102	100	100
Neurological testing	100	101	100	100	102	100	103	99	94
Physical medicine	100	101	102	102	102	103	102	102	102
Major surgery	100	100	98	98	98	98	96	96	98
Pain management injections	100	101	101	101	103	102	101	102	107
Overall	100	101	101	101	101	101	100	100	101

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations 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 during the study period did not change. Results in New York do not reflect fee schedule changes effective December 1, 2010.

Oklahoma Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Oklahoma Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

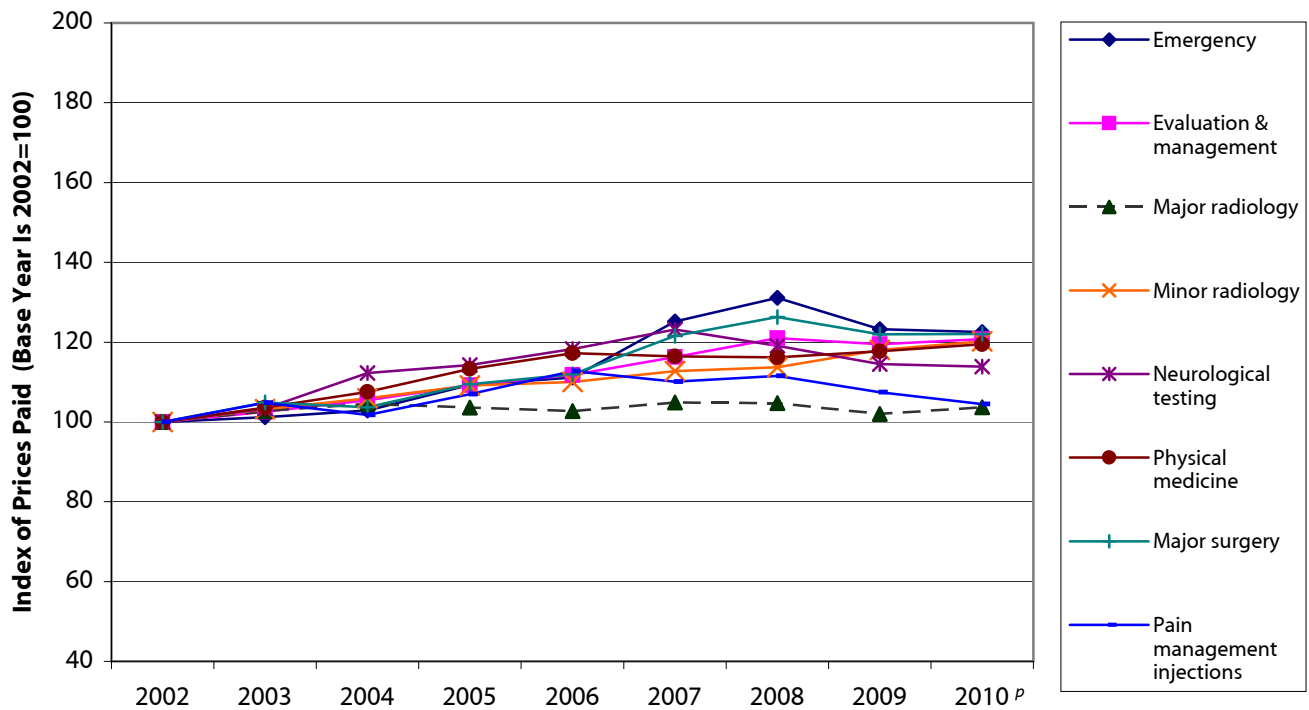
Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^p
Emergency	100	101	100	107	97	99	97	98	103
Evaluation & management	100	108	110	114	112	111	118	119	122
Major radiology	100	103	103	102	90	89	80	78	79
Minor radiology	100	100	100	100	91	90	89	90	91
Neurological testing	100	102	100	88	81	80	84	86	87
Physical medicine	100	100	104	105	113	107	105	106	111
Major surgery	100	105	104	101	90	91	86	85	84
Pain management injections	100	97	99	101	157	154	156	150	151
Overall	100	103	104	105	103	101	100	100	102

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes:

The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

Oklahoma had regular updates to its fee schedule for professional services over the study period. For example, in 2006 the fee schedule rates had material increases in many pain management injection procedures, and decreases in many services such as emergency, radiology, neurological testing, and many surgery procedures. The most recent update during the period covered by this study was effective January 1, 2010, with updates in March 2010.

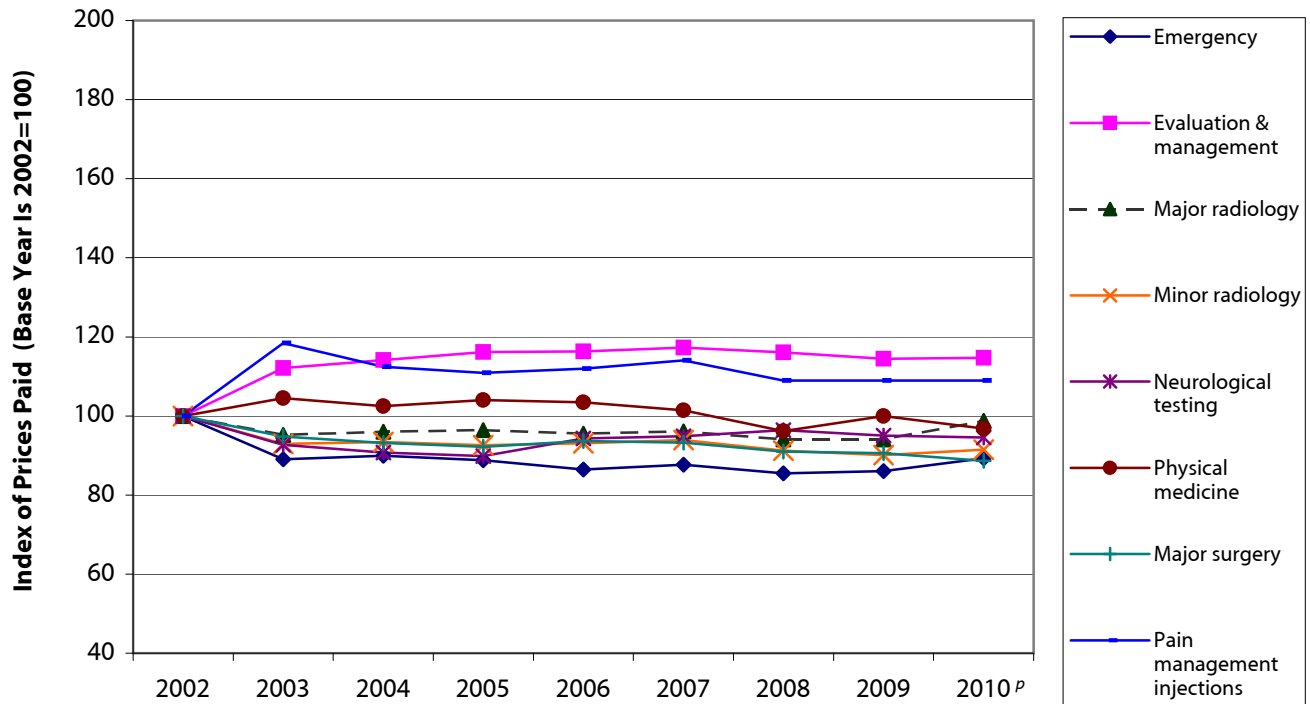
Pennsylvania Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Pennsylvania Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	101	103	109	111	125	131	123	123
Evaluation & management	100	103	105	109	112	116	121	119	121
Major radiology	100	103	105	104	103	105	105	102	104
Minor radiology	100	103	106	109	110	113	114	118	120
Neurological testing	100	103	112	114	118	123	119	115	114
Physical medicine	100	104	108	113	117	116	116	118	119
Major surgery	100	105	104	109	112	122	126	122	122
Pain management injections	100	105	102	107	113	110	112	107	104
Overall	100	103	106	110	113	116	118	117	118

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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

South Carolina Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

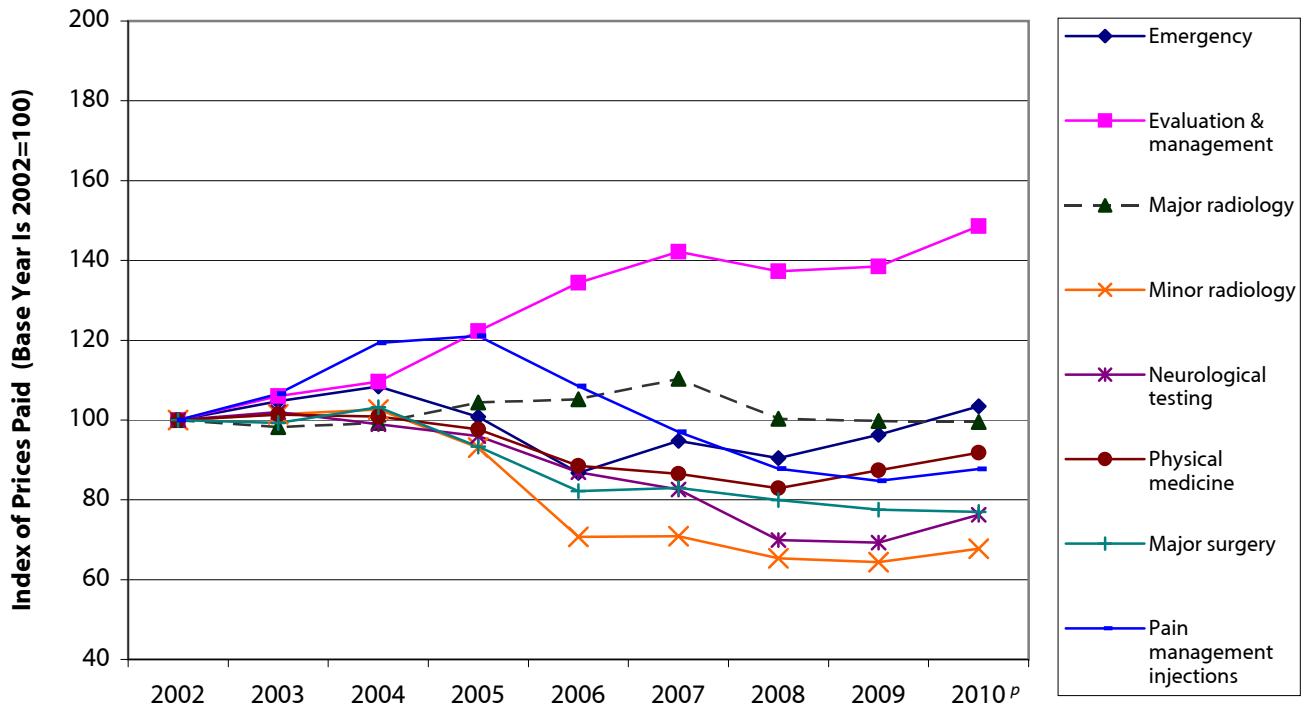


South Carolina Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	89	90	89	86	88	85	86	89
Evaluation & management	100	112	114	116	116	117	116	114	115
Major radiology	100	95	96	96	95	96	94	94	99
Minor radiology	100	93	93	93	93	94	91	90	91
Neurological testing	100	93	91	90	94	95	96	95	95
Physical medicine	100	104	102	104	103	101	96	100	97
Major surgery	100	95	93	92	94	93	91	91	89
Pain management injections	100	118	112	111	112	114	109	109	109
Overall	100	103	103	104	104	103	100	101	100

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

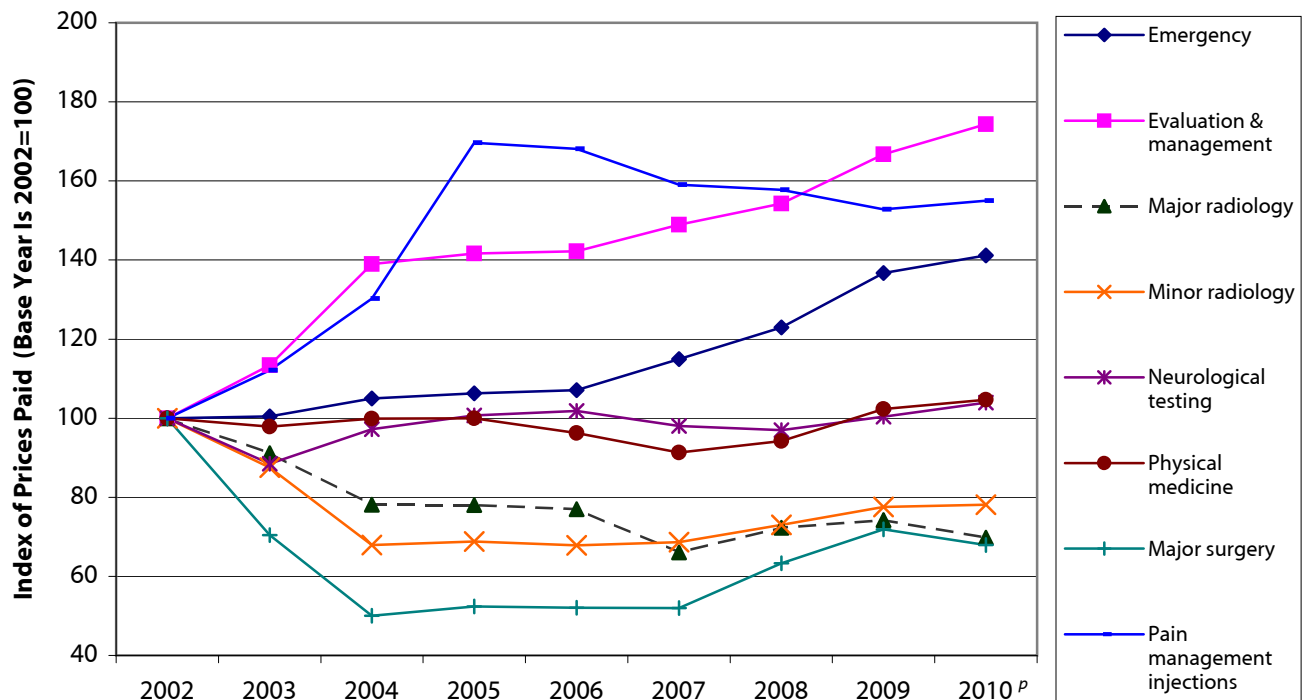
Note: During the period covered by this study, South Carolina's fee schedule for professional services had not been changed after the update in January 2003. Results in South Carolina do not reflect fee schedule changes effective July 1, 2010.

Tennessee Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Tennessee Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	105	108	101	87	95	90	96	103
Evaluation & management	100	106	110	122	134	142	137	139	149
Major radiology	100	98	99	104	105	110	100	100	100
Minor radiology	100	101	103	93	71	71	65	64	68
Neurological testing	100	102	99	96	87	83	70	69	76
Physical medicine	100	101	101	98	89	87	83	87	92
Major surgery	100	99	103	93	82	83	80	78	77
Pain management injections	100	107	119	121	108	97	88	85	88
Overall	100	102	104	103	98	99	94	95	99

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

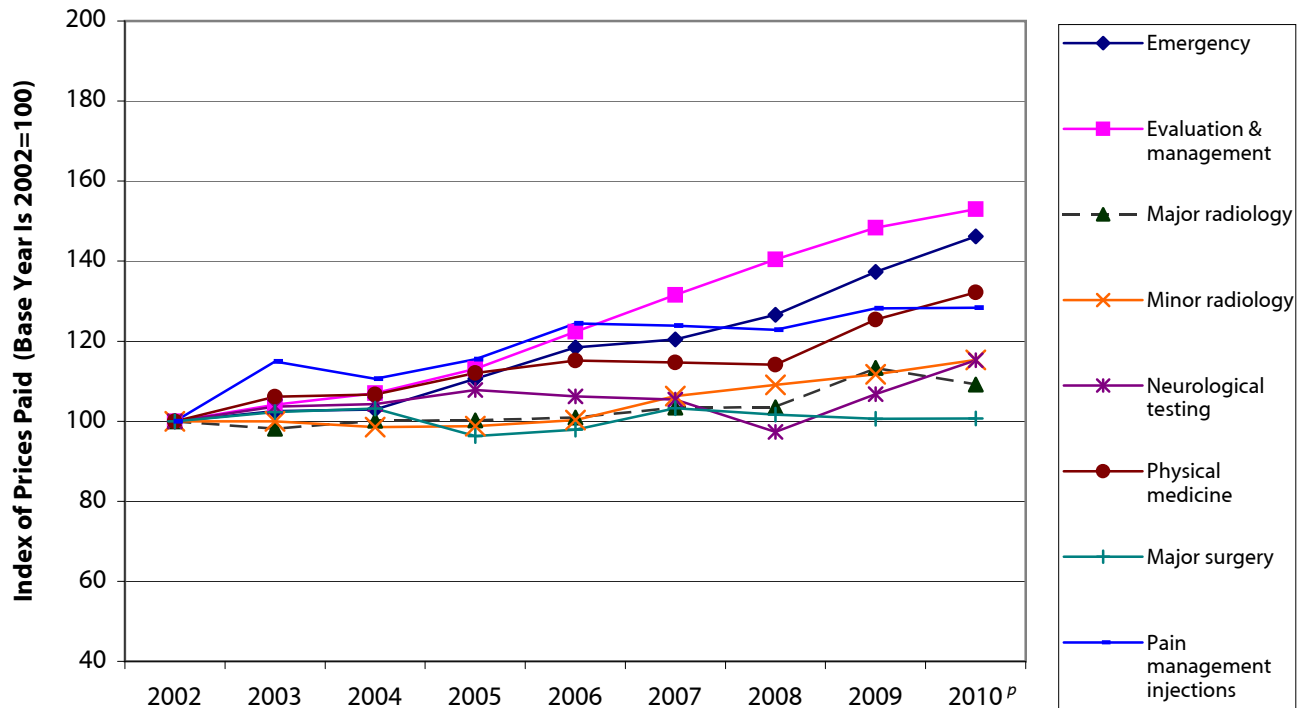
Notes: Tennessee implemented a fee schedule in July 2005 and had regular updates in the following years.

Texas Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Texas Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^p
Emergency	100	100	105	106	107	115	123	137	141
Evaluation & management	100	113	139	142	142	149	154	167	174
Major radiology	100	91	78	78	77	66	72	74	70
Minor radiology	100	87	68	69	68	69	73	78	78
Neurological testing	100	88	97	101	102	98	97	100	104
Physical medicine	100	98	100	100	96	91	94	102	105
Major surgery	100	70	50	52	52	52	63	72	68
Pain management injections	100	112	130	170	168	159	158	153	155
Overall	100	94	94	96	95	92	98	106	107

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

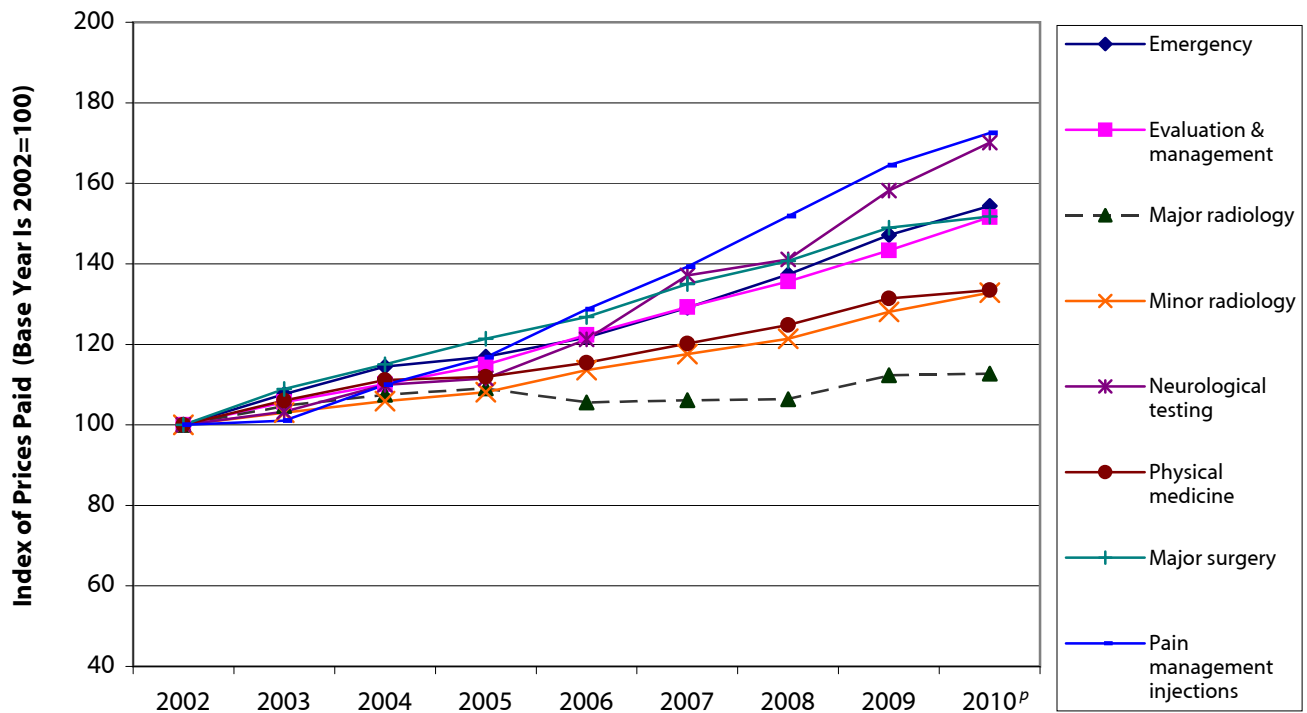
Notes: Texas decreased fee schedule rates for surgery and radiology and increased rates for evaluation and management services in August 2003. In March 2008, Texas increased fee schedule rates for professional services, especially for surgeries, and allowed annual increases based on changes in the Medicare Economic Index.

Virginia Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Virginia Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	103	103	111	118	120	127	137	146
Evaluation & management	100	104	107	113	122	132	140	148	153
Major radiology	100	98	100	100	101	103	103	113	109
Minor radiology	100	100	99	99	100	106	109	112	115
Neurological testing	100	104	104	108	106	105	97	107	115
Physical medicine	100	106	107	112	115	115	114	125	132
Major surgery	100	102	103	96	98	103	102	101	101
Pain management injections	100	115	111	116	124	124	123	128	128
Overall	100	104	105	107	111	114	116	123	126

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

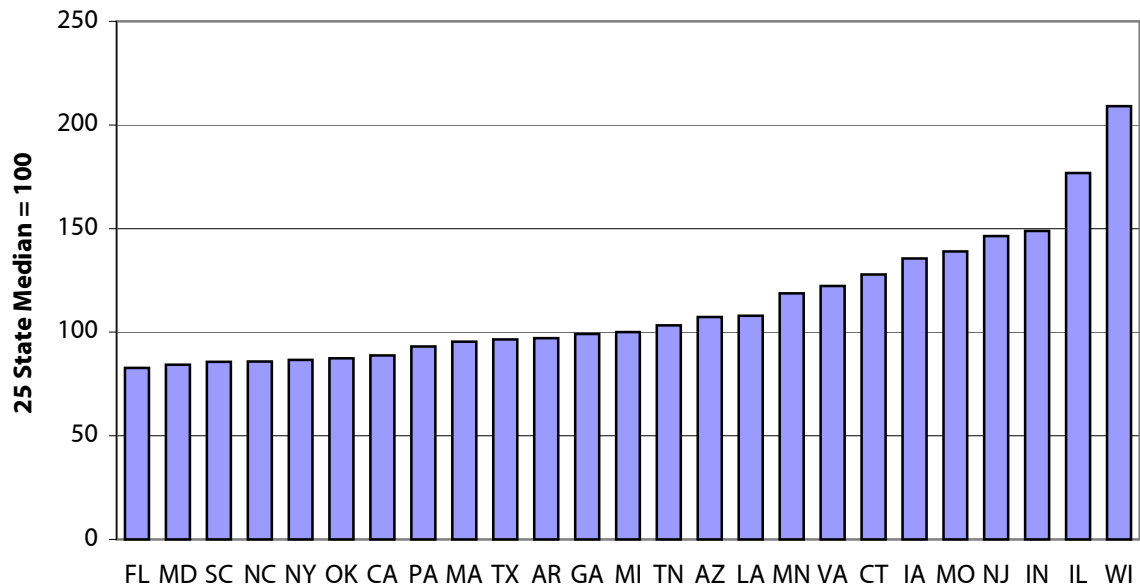
Note: Virginia did not have a workers' compensation fee schedule in 2010.

Wisconsin Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**Wisconsin Trend in Medical Prices Paid by Nonhospital Service Group, 2002 to 2010**

Nonhospital Services	2002	2003	2004	2005	2006	2007	2008	2009	2010 ^P
Emergency	100	108	114	117	122	129	137	147	154
Evaluation & management	100	106	110	115	122	129	136	143	152
Major radiology	100	105	107	109	106	106	106	112	113
Minor radiology	100	103	106	108	114	118	121	128	133
Neurological testing	100	103	110	112	121	137	141	158	170
Physical medicine	100	106	111	112	115	120	125	131	133
Major surgery	100	109	115	121	127	135	141	149	152
Pain management injections	100	101	110	117	129	139	152	164	172
Overall	100	106	111	114	119	125	130	138	142

Special notation: ^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Notes: Wisconsin did not have a conventional workers' compensation fee schedule in 2010.

Nonhospital Services, WCRI MPI-WC in 25 States, 2010^p

Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

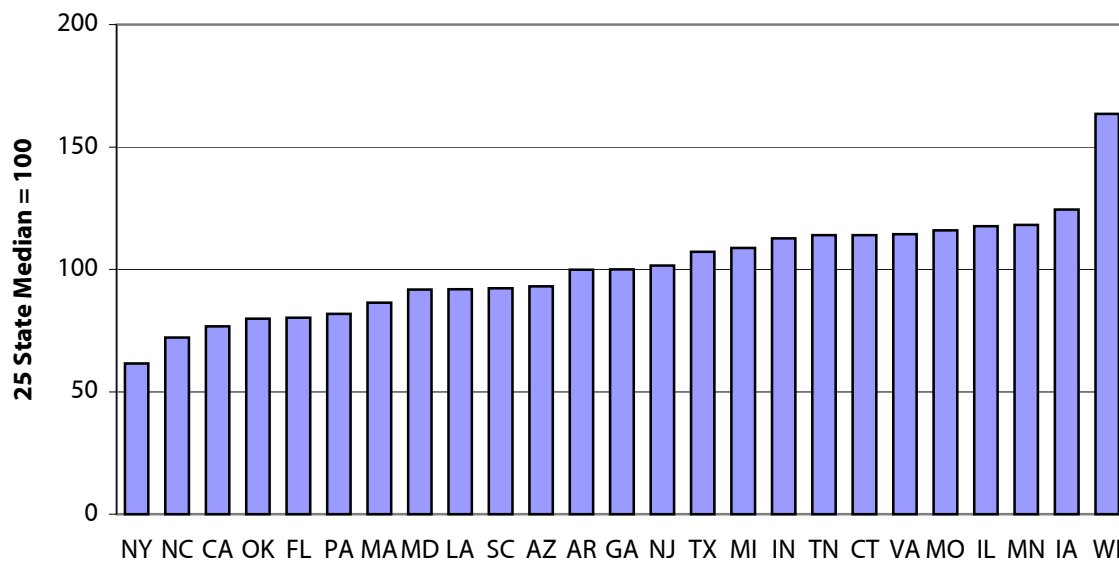
Notes:

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

Nonhospital Evaluation and Management, WCRI MPI-WC in 25 States, 2010^P



Special notation:^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

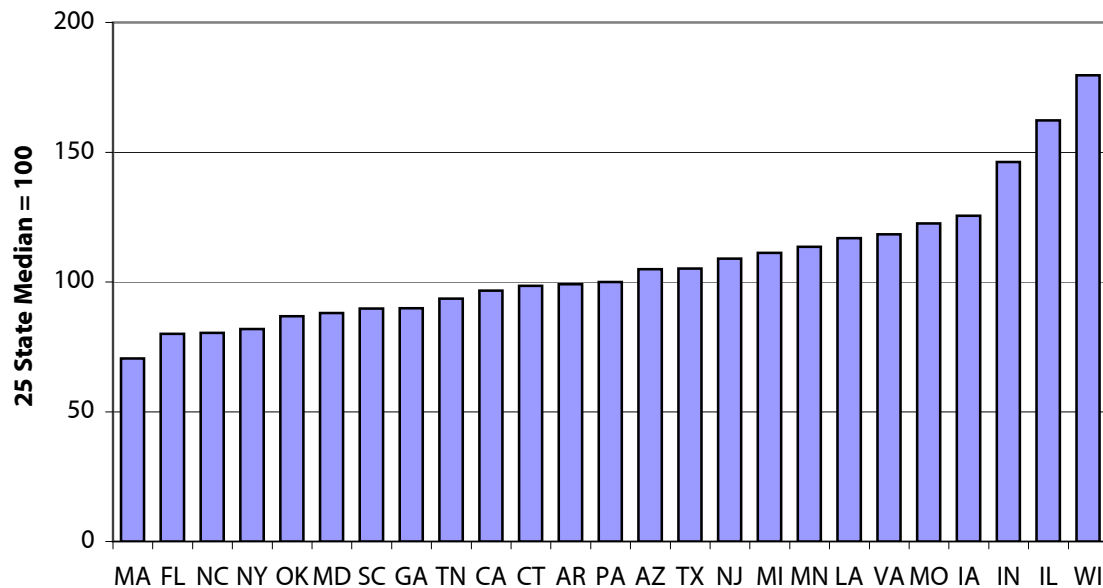
Notes:

Evaluation & management: The services in this group are new and established patient office visits. These consist of office visits which requires 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 included service codes in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

Nonhospital Physical Medicine, WCRI MPI-WC in 25 States, 2010^p

Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

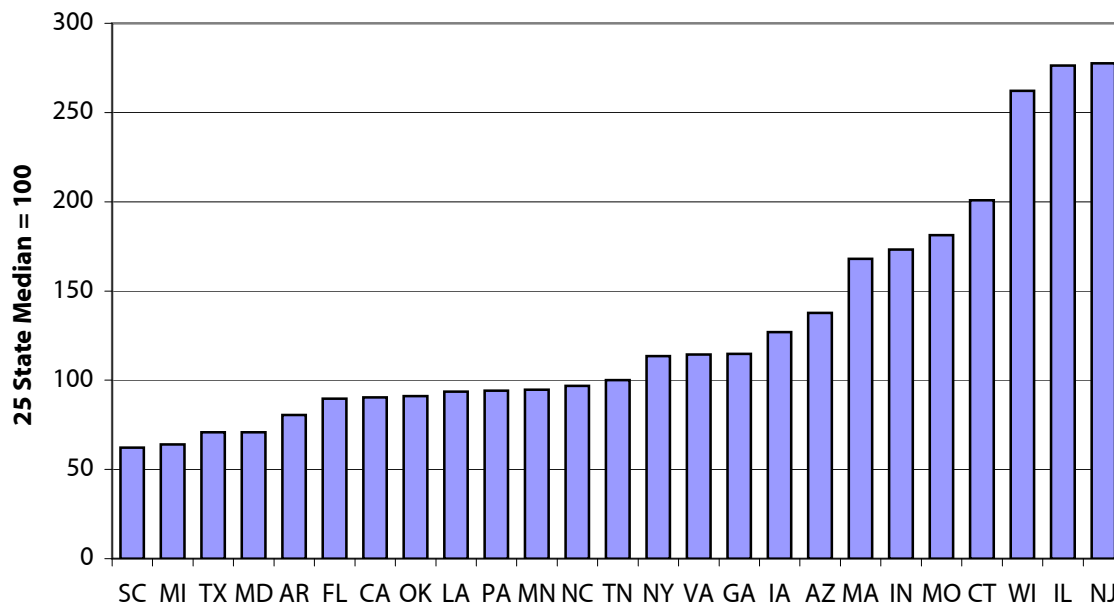
Notes:

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 included service codes in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

Nonhospital Major Surgery, WCRI MPI-WC in 25 States, 2010^P

Special notation:^P We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

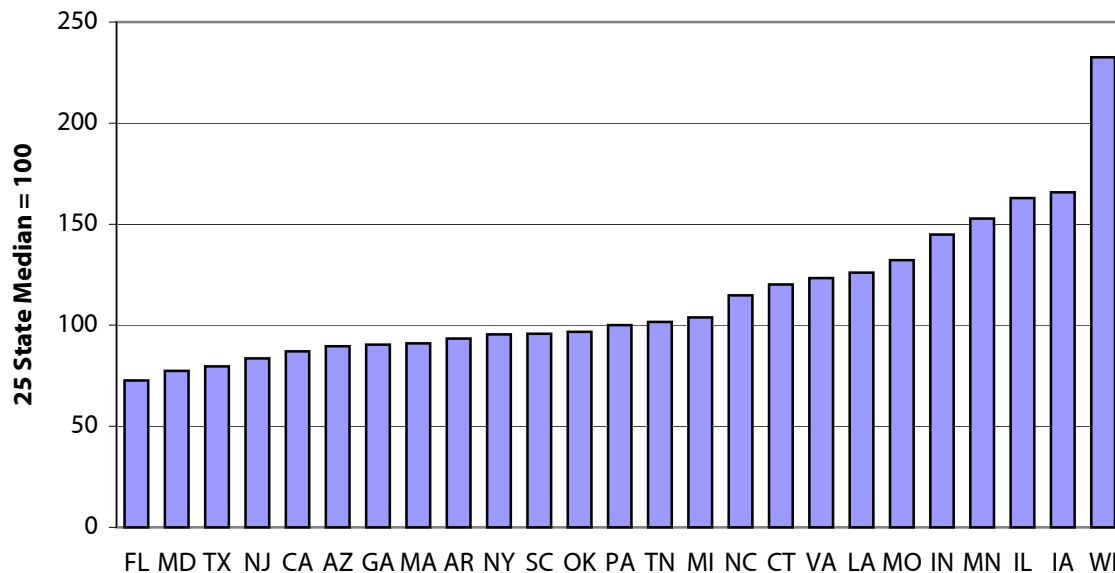
Notes:

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

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

Nonhospital Major Radiology, WCRI MPI-WC in 25 States, 2010^p

Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

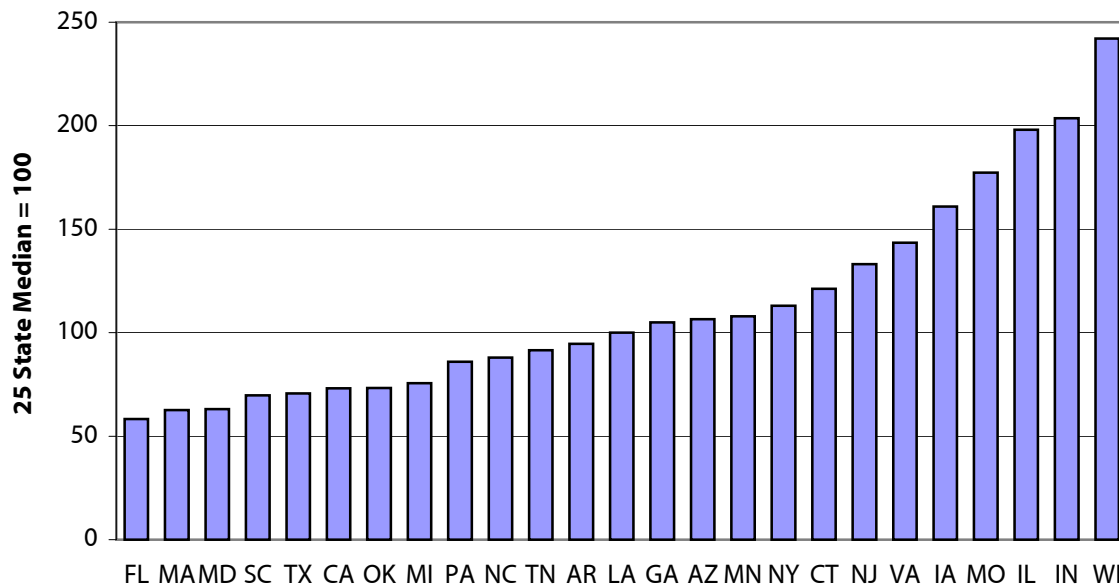
Notes:

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, without contrast material. See Table TA.2 for a detailed description of all included service codes in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

Nonhospital Minor Radiology, WCRI MPI-WC in 25 States, 2010^p

Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

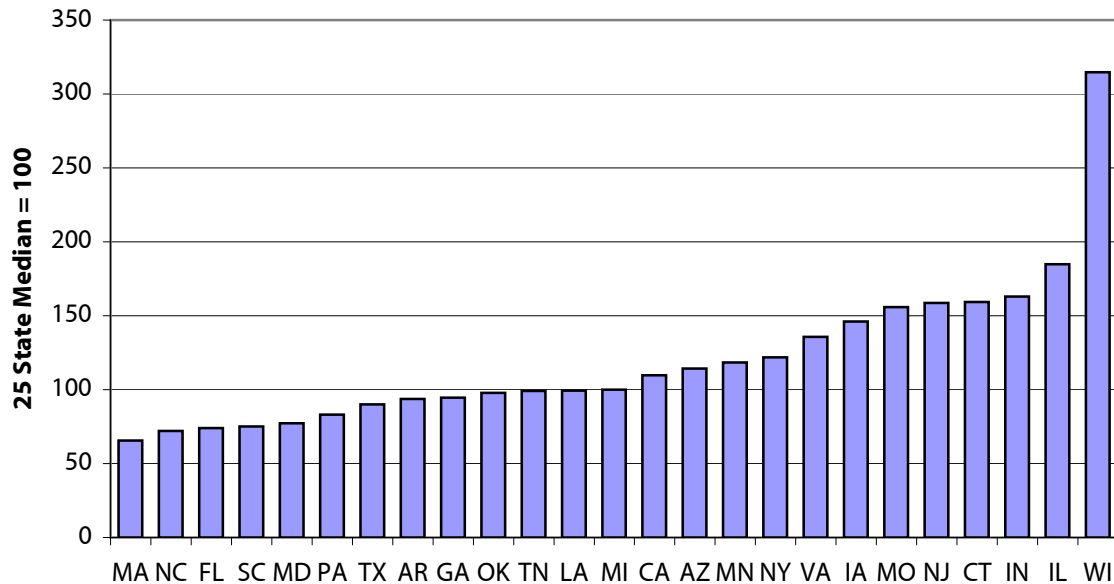
Notes:

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 included service codes in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

Nonhospital Neurological/Neuromuscular Testing, WCRI MPI-WC in 25 States, 2010^p

Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

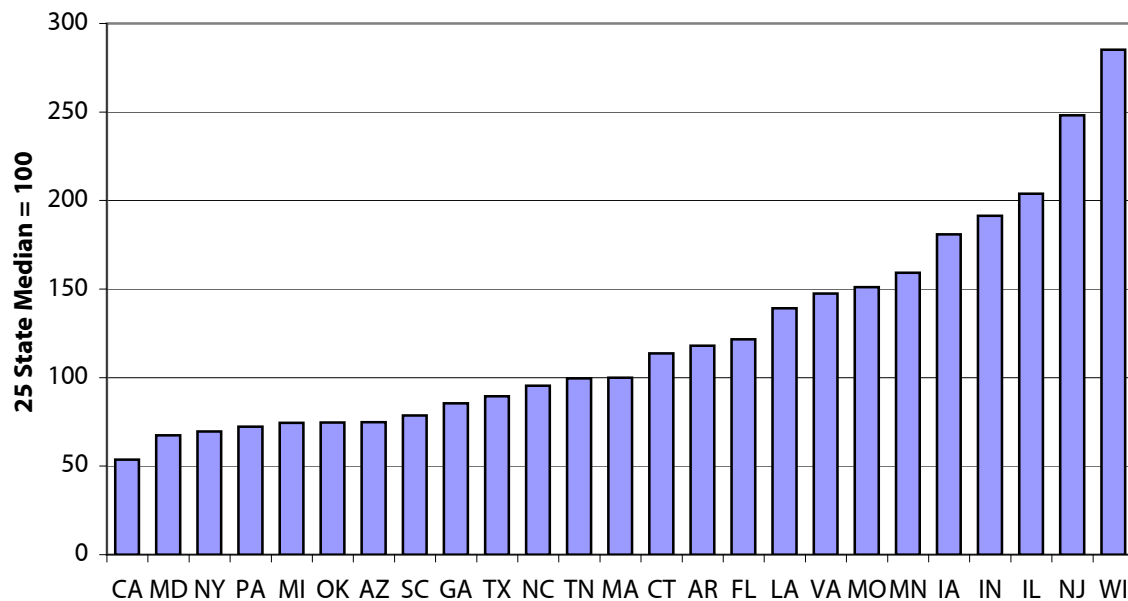
Notes:

Neurological/neuromuscular testing: The services in this group include nerve and muscle testing such as needle electromyography for multiple extremities and nerve conduction testing. See Table TA.2 for a detailed description of all included service codes in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

Nonhospital Pain Management Injections, WCRI MPI-WC in 25 States, 2010^p

Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

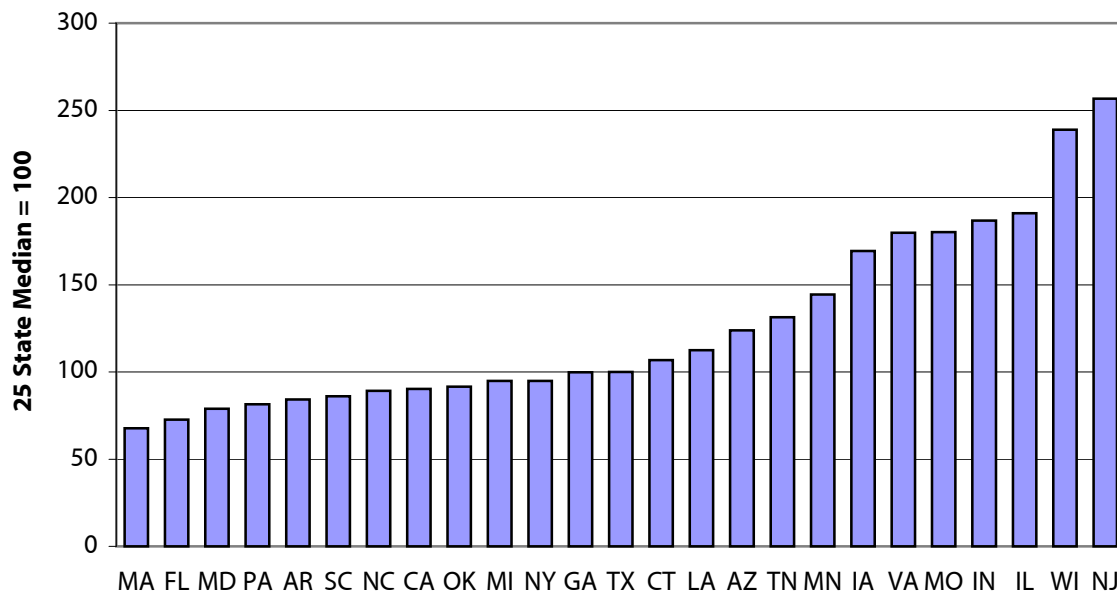
Notes:

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 included service codes in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

Nonhospital Emergency Services, WCRI MPI-WC in 25 States, 2010^p

Special notation:^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

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 included service codes in this group.

AZ, MO, NY, OK: The data for each of these states are not necessarily representative because they are 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 to other data sources in the state, this may lead to under or over estimations in the results.

IA, IN, MO, NJ, VA, WI: These states had no workers' compensation fee schedule in 2010.

AZ, CT, MI, MN, NY, SC: These states had fee schedule changes after June 30, 2010, that are not reflected in the results.

MPI-WC—2010^p Interstate Comparisons

Nonhospital Services	Overall	Emergency	Evaluation & Management	Major Radiology	Minor Radiology	Neurological Testing	Physical Medicine	Major Surgery	Pain Management Injections
AR	97	84	100	93	95	94	99	80	118
AZ ^{a,b}	107	124	93	90	106	114	105	138	75
CA	89	90	77	87	73	110	97	90	54
CT ^b	128	107	114	120	121	159	98	201	114
FL	83	73	80	73	58	74	80	90	122
GA	99	100	100	90	105	95	90	115	86
IA ^c	136	169	124	166	161	146	126	127	181
IL	177	191	118	163	198	185	162	276	204
IN ^c	149	187	113	145	204	163	146	173	191
LA	108	113	92	126	100	99	117	94	139
MA	96	68	86	91	63	66	71	168	100
MD	84	79	92	77	63	77	88	71	67
MI ^b	100	95	109	104	76	100	111	64	74
MN ^b	119	144	118	153	108	118	114	95	159
MO ^{a,c}	139	180	116	132	177	156	123	181	151
NC	86	89	72	115	88	72	80	97	95
NJ ^c	146	257	102	84	133	159	109	278	248
NY ^{a,b}	87	95	62	95	113	122	82	113	70
OK ^a	87	91	80	97	73	98	87	91	75
PA	93	81	82	100	86	83	100	94	72
SC ^b	86	86	92	96	70	75	90	62	79
TN	103	131	114	102	92	99	94	100	100
TX	97	100	107	80	71	90	105	71	89
VA ^c	122	180	114	123	143	136	118	114	147
WI ^c	209	239	164	233	242	315	180	262	285

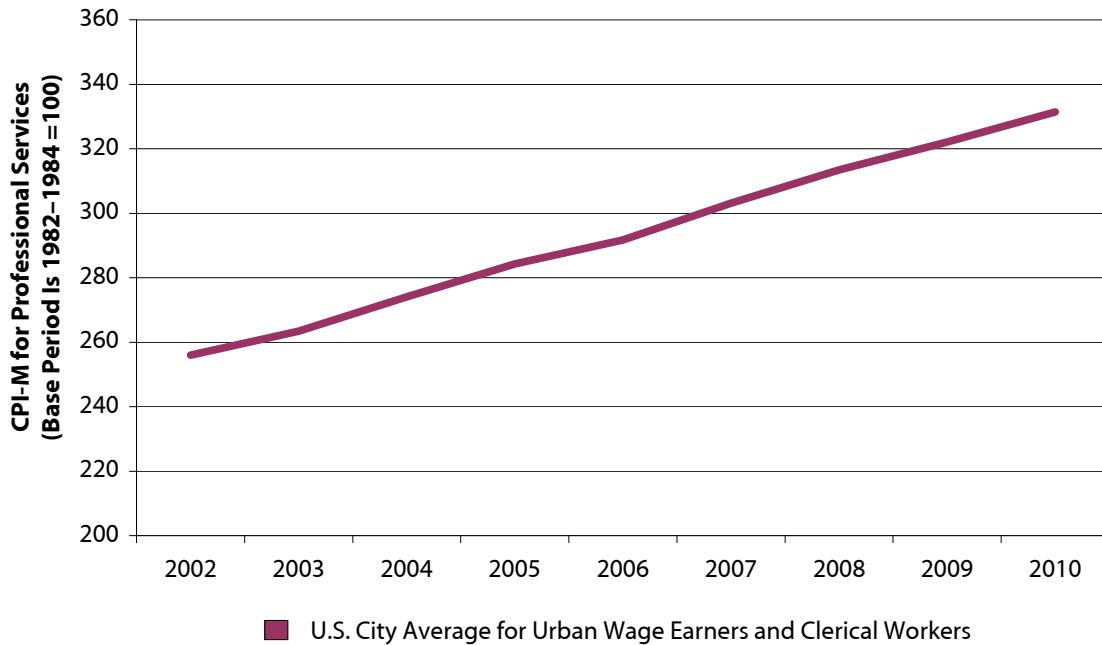
Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

^a The data for this state are not necessarily representative because it 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 to other data sources in the state, this may lead to under or over estimations in the results.

^b This state had fee schedule changes after June 30, 2010, that are not reflected in the results.

^c This state had no workers' compensation fee schedule in 2010.

Trends in Consumer Price Index for Medical Care (CPI-M), Professional Services, 2002 to 2010
U.S. City Average, for Urban Wage Earners and Clerical Workers, Not Seasonally Adjusted



Consumer Price Index for Medical Care (CPI-M), Professional Services, 2002 to 2010
U.S. City Average, for Urban Wage Earners and Clerical Workers, Not Seasonally Adjusted

	2002	2003	2004	2005	2006	2007	2008	2009	2010
CPI-M	256	263	274	284	292	303	313	322	331

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, CWUS0000SEMC located at <http://www.bls.gov/cpi>.

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, creating the price indices, and data cleaning. The last section addresses the limitations and caveats of this study.

STUDY SCOPE

The WCRI Workers’ Compensation Medical Price Index (MPI-WC) focuses on nonhospital, nonfacility services provided to injured workers with workers’ compensation claims. Nonhospital, nonfacility services typically make up about 50 percent of total workers’ compensation medical expenditures in workers’ compensation in a given state.¹ The rest include payments for hospital inpatient and outpatient services, ambulatory surgical centers, and pharmaceuticals and supplies. The price index is based on the following service groups provided in a nonhospital/nonfacility setting: emergency, evaluation and management, physical medicine, both major and minor radiology, neurological testing, surgery, and pain management injections. 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 on prices paid for each of those eight types of services provided by any nonhospital/nonfacility 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 2010 within each of these 25 states and compare prices paid in calendar year 2010^p across these 25 states.

DATA AND METHODS

THE DATA

The data in this MPI-WC study are from the medical transaction information in WCRI’s Detailed Benchmark/Evaluation (DBE) database. In this study, we constructed two analysis datasets—expenditure data and price data. We used the expenditure data to establish the marketbasket and the 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.

The price data in this study include services rendered from 2002 through June 2010 in the 25 study states. We obtained the actual amount paid by payors for each medical bill line item for each of the services included

¹ Radeva, E., B. Savych, C. Telles, R. Yang, and R. Tanabe. 2011. *CompScope™ Medical Benchmarks, 11th Edition*. 13 vols. Cambridge, MA: Workers Compensation Research Institute.

^p 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

in the marketbasket. Across the study states, the DBE database includes approximately 44 to 80 percent of the workers' compensation claims in each state. The data used in this study are a subset of the DBE database and consist of 33 to 61 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 are reasonably representative of the state systems; however, in a few states the data may not be necessarily representative because they are missing data from a larger data source that is significant in the state. These states include Arizona, Missouri, New York, and Oklahoma, as noted throughout the tables.

The expenditure data for creating the marketbasket include the medical services paid on a subset of claims from 14 large states over a 24-month period from 2005 and 2006 in the CompScope™ Medical benchmarks study.² We used the same expenditure data across several different WCRI studies in order to maintain continuity of the marketbasket and enhance the comparability of the results across the studies. We ensured that this marketbasket was still representative of more recent 2009 and 2010 data across the 25 study states (see Table TA.3). In this expenditure dataset, to insure accurate representation of the volume of services and payments in each service group, we selected the medical data associated with claims that had relatively complete medical detailed bill review information; this dataset is representative of the distribution of services and payments in WCRI's DBE database.

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 and years to hold utilization constant so that we are able to report pure price changes over time 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 the majority of 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 is 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 nonhospital 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 80 percent or above of expenditures in all service groups except for major surgery and minor radiology, where the codes in the marketbasket captured 59 percent and 62 percent of total expenditures in those groups respectively (Table TA.4). This is because there is a broader list of codes in these groups and adding additional codes adds only a small percentage of payments each time. After the initial choice, the expenditures were broken down by state to see if any states were under-represented or had an overly large effect on the marketbasket.

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

² The 14 states in *CompScope™ Medical Benchmarks, 9th Edition* are California, Florida, Iowa, Illinois, Indiana, Louisiana, Massachusetts, Maryland, Michigan, North Carolina, Pennsylvania, Tennessee, Texas, and Wisconsin.

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 represent a lower percentage of the total expenditures than in other study states. For example, for 2009, the marketbasket codes for physical medicine services in Louisiana represent 51 percent of the total expenditures, compared to the more typical 76 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, a new code introduced in the 1999 CPT manual) and labeled as 97140 in 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 study period. To accomplish this, we created two sets of weights. The procedure-level frequency weight for a marketbasket code was calculated as the total number of services with the code divided by the total number of services across all marketbasket procedures within the service group. The frequency weight for a service group is the percentage of the total number of services associated with this service group divided by the total number of all nonhospital services.

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 service group i ,
 $j = 1 \dots M_i$ and M_i is the total number of procedures in service group i .

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

$$w_i = \frac{\sum_{j=1}^{M_i} NS_{ij}}{\sum_{i=1}^N \sum_{j=1}^{M_i} NS_{ij}}$$

where, w_i is the frequency weight for service group i ,
 NS_{ij} is the number of services for code j in service group i ,
 $j = 1 \dots M_i$ and M_i is the total number of services in service group i ,
 $i = 1 \dots N$ and N is the total number of service groups.

Because we selected the marketbasket codes from the state-pooled dataset, one may be concerned that the distribution of service frequencies in relatively larger states (such as California and Texas) might dominate the whole distribution in the pooled data, and hence introduce potential bias in the 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.

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

1. Compute the price for each procedure code 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 nonhospital 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 provider group 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:

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

where, P_i is the aggregated price for service group i ,

P_{ij} is the estimated price for procedure j in service group i ,

v_{ij} is the procedure – level frequency weight for procedure j in service group i ,

$j = 1 \dots A_i$ and A_i is the total number of procedures in service group i .

Step 3 can be expressed as the following:

$$P_0 = \sum_{i=1}^B w_i * P_i$$

where P_0 is the aggregate price for overall nonhospital services,

P_i is the aggregate price for service group i ,

w_i is the service – group – level frequency weight for service group i ,

$i = 1 \dots B$ and B is the total number of service groups.

And steps 4 and 5 can be expressed as the following:

$$I = \frac{P^{st}}{P^{mdn}} \quad \text{or} \quad I^{yr} = \frac{P^{yr}}{P^{02}}$$

where, I is the price index for a state, and I^{yr} is the price trend index for a year,

P^{st} is the price (either for a service group or for overall) in a state,

P^{mdn} is the price (either for a service group or for overall) in the 25 – state median,

P^{yr} is the price (either for a service group or for overall) in a year later than 2002,

P^{02} is the price (either for a service group or for overall) in calendar year 2002.

Note that there are two ways to compute the state level price index. One is to first compute the state level average price by aggregating the prices at the service group level using the service group frequency weights, and then to create the state level price index by holding the base price at 100. This is the method used in this study. An alternative way is to first compute the price indices for each service group by holding the base prices at 100, and then to create the state level price index by aggregating the indices at the service group level using the service group expenditure weights; the expenditure weights are the share of the expenditure for each service group as a percentage of total expenditure of all services. These two methods are mathematically equivalent and generate the same results.

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 at once, missing procedure modifier information, and small sample sizes in some cells of the data.

TRIMMING OUTLIER VALUES

A small proportion of the lines in the data had unusually large or small values in medical payments. Those unusual values contributed disproportionately to the average due to skewed distributions. 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.

The algorithm basically identified implausible increases from one percentile to the next and removed the lines with amounts beyond the point of the increases. For the upper bound, the algorithm starts at the 90th percentile of the price distribution for a unique procedure and searches upwards through percentiles one by one until the upper bound is set or the maximum is reached. The upper bound is set to 120 percent of P_i if the ratio of P_{i+1} to P_i is greater than 1.5. For the lower bound, the algorithm starts at the 10th percentile and searches downward through percentiles, one by one, until the lower bound is set or the minimum is reached. The lower bound is set to 80 percent of P_i if the ratio of P_i to P_{i-1} is greater than 2. If the increase or decrease was larger than expected, those lines were removed from the data.

MULTIPLE UNITS OF SERVICE

Some services, such as physical medicine modalities and procedures and neuromuscular/neurological 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 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 were picked, we then checked line items with that service against those prevailing prices. If the paid amount in a line item was a whole multiple of any of the prevailing prices, we assumed that line represented 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 use modifiers to distinguish the technical component versus the professional component 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 10 to 30 percent of the price for the whole procedure is paid for the professional component, and 70 to 90 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, and often this leads to shifts in the mix of different components from one year to another. Therefore, estimating price for radiology procedures without identifying different components separately and holding the mix of them constant would lead to biased price results across states as well as over time.

For this study, we developed an algorithm to identify medical bill line items for the professional component and 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 governments as benchmarks to set up the threshold.³ 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.

³ 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.

For states with no 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 discounts information in our data, 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 for each procedure code. Specifically, for each state without a fee schedule, we found a group of “neighboring states” with fee schedules in the same general geographic region as the non-fee-schedule state. Next, for each procedure code, using the fee schedules in these “neighboring states,” we found the typical ratio between the maximum allowance amount for the professional component and the amount for the whole procedure. Then, for each procedure code in the non-fee-schedule state, we set up the threshold of the potential maximum price for the professional component by multiplying the typical ratio by the estimated price for the whole procedure. 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.⁴

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 frequency of these two types of services for each procedure constant across states and years. Then we aggregated prices to the service group level.

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, because in the detailed percentile distributions of actual prices paid, we do not observe clear data clusters between the potential prices for technical components and those for whole procedures. This is because in most states’ fee schedules, the maximum reimbursement rates for the technical components often accounted for 80–90 percent of those for the whole procedures, and the actual prices often reflected network discounts. Therefore, there are no obvious data stepping points that allow us to consistently separate the two prices. To estimate the potential magnitude of the problem and its effect on the interstate comparisons, we used the available data and performed a simulation using one of the most common MRI services, the lumbar MRI (CPT code 72148). For states with lower prices, we assumed the average technical/whole prices we captured represented only the prices paid for the technical component; for states with higher prices, we assumed the average prices currently captured represented only the prices paid for the whole procedure. We also assumed that the true mix of services in the population of these services was half and half between the technical component and whole procedure. These assumptions provided us with the maximum potential understatement for the states with lower prices, and the maximum potential overstatement for the states with higher prices. In most states’ fee schedules, for this procedure, the maximum reimbursement rates for the technical component account for 85 percent or more of those for the whole procedure. Using this ratio, we estimated that the maximum potential under- and over-statements were both about 8 percent. Even under this extreme scenario, there were no significant changes in the interstate rankings. We further performed sensitivity tests by changing the assumptions on what type of mix between technical component and whole procedure our average prices represented, and the assumptions on the true mix of those services in the population. We found that the estimated potential under- and over-statement

⁴ We checked the estimated threshold against the price distribution by two percentiles for each procedure codes to assure the threshold was around the breaking point between two data clusters.

ranged from 2 to 6 percent, and there were no material changes in interstate rankings.

IDENTIFYING MODIFIED SERVICES FOR SURGERY

For surgery procedures, modifier codes are often used to distinguish the different intensity or scope of the modified services, such as services provided by assistant surgeons, multiple procedures performed at the same operative session, reduced services, and so on. The prices paid for these modified services are usually much lower than the prices for the whole procedures. Unfortunately, the modifiers are not always consistently and accurately reported in the data, and often they are missing. In this study we intended to report the prices paid for the whole surgery procedure only. Without identifying the modified services and excluding them from the price estimation, the results would be underestimated.

For this study, we developed an algorithm to identify the modified surgery services. First, we identified a list of common modifiers based on the price regulations in the study states and recognized all the medical bill line items with those modifiers as modified services. Then, we identified the potential modified services with missing modifier codes by a state-specific, procedure-specific method. For states with fee schedules, we estimated the threshold of the potential maximum price for modified services for each surgery procedure code, using the maximum allowance amount for the whole procedure and the regulation of reimbursement for the modified procedures. For example, if the maximum allowance amount for a shoulder arthroscopy (CPT 29826) whole procedure was \$1,000 in a state and this state's regulation indicated that, in a multiple procedure situation, the second procedure should be reimbursed no more than 50 percent of the maximum allowance for the whole procedure. Assume this state's regulation also indicated that the reimbursement for modified services provided by assistant surgeons should be no more than 25 percent of the maximum allowance for the whole procedure. In such a case, we multiplied the maximum allowance amount for the whole procedure (\$1,000) by the highest percentage allowed for a modified procedure (50 percent), and estimated the threshold for the potential maximum price for a modified service as \$500. For states with no fee schedules, we used a data-driven approach and estimated the threshold for the potential maximum price for modified services at half of the median amount paid for each procedure code. After the threshold for each surgery procedure code was set up, services with paid amounts below the thresholds were identified as modified services, despite that the modifier codes were missing for these services.

We then excluded all of the modified services, either identified through original modifier codes in the data or identified through the method described above, from the computation of the prices for whole procedures. Please note that it is possible that a few modified surgery services may still not be identified by the algorithm; however, it is unlikely that such cases would generate biased results because we have rigorously examined the estimated prices and price trends against state regulations and other system features and found no systematic underestimations.

IMPUTING SMALL CELL SIZES

Another data concern arose for procedures with small cell sizes, which are more likely to occur in data for smaller states and especially for surgical procedures or the radiology codes with modifiers. If the frequency of a procedure code is too small, the average price calculated may be more vulnerable to random variation, reducing the accuracy and reliability of the price index. To avoid this, we imputed the average price per service for the procedures that have fewer than 15 line items. The price imputation used the annual growth rate in prices at the service group level (derived from procedures in the same category) to impute prices for

the small cells. The assumption underlying the price imputation is that the growth rate of a price at the category level is highly correlated with the growth rate of the price for an individual procedure in the category. We imputed both forward (e.g., imputing 2003 from 2002 prices) and backward (e.g., imputing 2003 from 2004 if we were not able to estimate 2003 previously). If three years in a row had cell sizes less than 15, then the middle cell would be considered missing. Where a price could not be imputed, the cell was left blank and the prices for that service group were calculated based on the remaining services (effectively, the weights of the other services within the group were increased).

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 and 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 2010 based on January through June 30, 2010. The interstate rankings based on the 2010 figures should provide a reasonable approximation for a state's ranking relative to other states in 2010—especially for states that adjusted their fee schedules early in 2010. For states that adjusted their fee schedules after June 30, the index may understate or overstate their comparable price index for 2010. That is also true to a lesser extent for states that adjusted their fee schedules in the second quarter of 2010. For states without fee schedules, it would not be surprising if the price index based on six months of data understated the value of the price index based on a full year of data.

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 are reasonably representative of the state systems; however, in a few states our data are not necessarily representative because they are missing data from a larger data source that is significant in that state. To the extent that prices paid may differ for the missing payors compared to other payors in the state, this may lead to under or over estimations in the results. These states include Arizona, Missouri, New York, and Oklahoma, as noted throughout the tables.

Third, we use a single marketbasket of procedure codes across all states and years 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 is not possible. In these cases, we omit 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. In addition, the fixed marketbasket approach does not reflect the changes in the intensity of services or the shifts in sites of services over time; to the extent that these factors may affect the service mix and pricing behaviors, this may lead to under or over estimations in the results.

Fourth, radiology procedure codes often use modifiers to distinguish the technical component 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. For this report, we developed an algorithm to identify the services billed for the professional component separately from those for the technical component or for the whole procedure. This allows us to more accurately compute the average prices for radiology services. However, we were not able to identify the

services billed for the technical component and for the whole procedure separately, because the detailed percentile distributions of actual prices paid do not show clear data clusters between the potential prices for technical components and those for whole procedures. This is because in most states' fee schedules, the maximum reimbursement rates for the technical components often accounted for 80–90 percent of those for the whole procedures, and the actual prices often reflected network discounts. Therefore, there are no obvious data stepping points that allow us to consistently separate the two prices.

Finally, in this edition we report the pain management injections category, the largest subset of the category that we called “surgical treatment” in prior editions of this study. We do so because of the growing importance of pain management services in public policy debates. The pain management injections 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.

Table TA.1 Brief Marketbasket Service Group Definitions

Service Group	Definition
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 included service codes in this group.
Evaluation & management	The services in this group are new and established patient office visits. These consist of office visits which requires 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 included service codes 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, without contrast material. See Table TA.2 for a detailed description of all included service codes 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 included service codes in this group.
Neurological/neuromuscular testing	The services in this group include nerve and muscle testing such as needle electromyography for multiple extremities and nerve conduction testing. See Table TA.2 for a detailed description of all included service codes 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 included service codes 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 median nerve at carpal tunnel and hernia repair. See Table TA.2 for a detailed description of all included service codes 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 included service codes in this group.

Table TA.2 Marketbasket Procedures

Procedure	Percentage Frequency ^a	CPT Code	Description
Emergency			
1	55.1%	99283	Emergency department visit, moderate severity
2	21.2%	99284	Emergency department visit, high severity, urgent evaluation
3	12.2%	99282	Emergency department visit, low-moderate severity
4	7.3%	99285	Emergency department visit, high severity, immediate significant threat
5	2.4%	99281	Emergency department visit, self-limited/minor
6	1.8%	99058	Office services provided on an emergency basis
Evaluation & management			
7	37.9%	99213	Established patient office visit, low-moderate severity, 15 minutes
8	23.4%	99214	Established patient office visit, moderate-high severity, 25 minutes
9	9.9%	99212	Established patient office visit, self-limited/minor, 10 minutes
10	6.0%	99203	New patient office visit, moderate severity, 30 minutes
11	5.7%	99215	Established patient office visit, moderate-high severity, 40 minutes
12	4.9%	99204	New patient office visit, moderate-high severity, 45 minutes
13	2.4%	99244	Office consultation, new/established patient, moderate-high severity, 60 minutes
14	2.0%	99243	Office consultation, new/established patient, moderate severity, 40 minutes
15	2.0%	99245	Office consultation, new/established patient, moderate-high severity, 80 minutes
16	1.7%	99211	Established patient office visit, no physician necessary, 5 minutes
17	1.6%	99202	New patient visit, low-moderate severity, 20 minutes
18	1.3%	99205	New patient office visit, moderate-high severity, 60 minutes
19	1.2%	99232	Subsequent hospital care, minor complication, 25 minutes
Major radiology			
20	21.0%	72148	MRI, spinal canal & contents, lumbar, without contrast material
21	20.2%	73221	MRI, any joint of upper extremity, without contrast material
22	20.1%	73721	MRI, any joint of lower extremity, without contrast material
23	9.7%	72141	MRI, spinal canal & contents, cervical, without contrast material
24	8.1%	70450	Computed tomography, head or brain, without contrast material
25	4.3%	72158	MRI, spinal canal & contents, without, then with contrast material, lumbar
26	3.5%	72125	Computed tomography, cervical spine, without contrast material
27	2.9%	72131	Computed tomography, lumbar spine, without contrast material
28	2.9%	72193	Computed tomography, pelvis, with contrast material
29	2.4%	72146	MRI, spinal canal & contents, thoracic, without contrast material
30	2.9%	74160	Computed tomography, abdomen, with contrast material
31	2.1%	73700	Computed tomography, lower extremity, without contrast material
Minor radiology			
32	8.7%	73030	Radiologic exam, shoulder, complete, minimum of two views
33	7.7%	72100	Radiologic exam, spine, lumbosacral, two or three views
34	7.5%	73140	Radiologic exam, finger(s), minimum of two views
35	6.6%	73110	Radiologic exam, wrist, complete, minimum of three views
36	7.0%	73610	Radiologic exam, ankle, complete, minimum of three views
37	6.1%	73130	Radiologic exam, hand, minimum of three views
38	5.8%	73630	Radiologic exam, foot, complete, minimum of three views
39	4.0%	72110	Radiologic exam, spine, lumbosacral, minimum of four views

continued

Table TA.2 Marketbasket Procedures (continued)

Procedure	Percentage Frequency ^a	CPT Code	Description
40	3.9%	71020	Radiologic exam, chest, two views, frontal & lateral
41	4.2%	73560	Radiologic exam, knee, one or two views
42	3.7%	73562	Radiologic exam, knee, three views
43	3.2%	72040	Radiologic exam, spine, cervical, two or three views
44	3.1%	71010	Radiologic exam, chest, single view, frontal
45	2.6%	73564	Radiologic exam, knee, complete, four or more views
46	2.9%	73100	Radiologic exam, wrist, two views
47	2.4%	73080	Radiologic exam, elbow, complete, minimum of three views
48	2.2%	72050	Radiologic exam, spine, cervical, minimum of four views
49	2.5%	73590	Radiologic exam, tibia & fibula, two views
50	1.6%	72070	Radiologic exam, spine, thoracic, two views
51	1.9%	72170	Radiologic exam, pelvis, one or two views
52	1.7%	73090	Radiologic exam, forearm, two views
53	1.5%	73600	Radiological exam, ankle, two views
54	1.3%	73120	Radiologic exam, hand, two views
55	1.2%	73620	Radiologic exam, foot, two views
56	0.8%	72052	Radiologic exam, spine, cervical, complete, including oblique, flexion and/or extension studies
57	0.9%	73550	Radiologic exam, femur, two views
58	0.9%	73060	Radiologic exam, humerus, minimum of two views
59	0.8%	73650	Radiologic exam, calcaneus, minimum of two views
60	0.8%	70030	Radiologic exam, eye, for detection of foreign body
61	0.6%	73660	Radiologic exam, toe(s), minimum of two views
62	0.6%	71100	Radiologic exam, ribs, unilateral, two views
63	0.6%	73565	Radiologic exam, both knees, standing, anteroposterior
64	0.5%	72072	Radiologic exam, spine, thoracic, three views
Neurological testing			
65	33.6%	95904	Nerve conduction, each nerve, sensory
66	20.1%	95903	Nerve conduction, each nerve, motor, with F-wave study
67	15.6%	95900	Nerve conduction, each nerve, motor, without F-wave study
68	8.1%	95851	ROM measurements and report, each extremity (excluding hand) or each trunk section
69	6.3%	95934	H-reflex, amplitude & latency study, record gastrocnemius/soleus muscle
70	4.5%	95861	Needle EMG, two extremities with or without related paraspinal areas
71	4.5%	95860	Needle EMG, one extremity with or without related paraspinal areas
72	3.6%	95831	Muscle test, manual with report, extremity (excluding hand) or trunk
73	2.3%	95832	Muscle test, manual with report, hand, with or without comparison with normal side
74	1.4%	95852	ROM measurements and report, hand, with or without comparison with normal side
Physical medicine			
75	37.4%	97110	Therapeutic procedure, one or more areas, each 15 minutes, therapeutic exercises
76	15.1%	97140	Manual therapy techniques, one or more regions, each 15 minutes
77	9.3%	97014	Electrical stimulation (unattended), one or more areas
78	6.5%	97530	Therapeutic activities, direct patient contact, each 15 minutes
79	4.8%	97035	Ultrasound, one or more areas, each 15 minutes
80	3.4%	97010	Hot/cold packs, one or more areas

continued

Table TA.2 Marketbasket Procedures (continued)

Procedure	Percentage Frequency ^a	CPT Code	Description
81	3.4%	97112	Therapeutic procedure, one or more areas, each 15 minutes, neuromuscular re-education of movement
82	2.6%	98940	Chiropractic manipulative treatment, spinal, 1–2 regions
83	1.9%	97032	Electric stimulation, one or more areas, each 15 minutes
84	1.8%	97012	Traction, mechanical, one or more areas
85	1.7%	97001	Physical therapy evaluation
86	1.7%	97124	Therapeutic procedure, one or more areas, each 15 minutes, massage
87	1.5%	97546	Work hardening/conditioning, each additional hour
88	1.5%	98941	Chiropractic manipulative treatment, spinal, 3–4 regions
89	1.1%	97545	Work hardening/conditioning, initial two hours
90	0.9%	97026	Infrared, one or more areas
91	0.9%	97018	Paraffin bath, one or more areas
92	0.8%	97033	Iontophoresis, one or more areas, each 15 minutes
93	0.8%	97022	Whirlpool, one or more areas
94	0.8%	97750	Physical performance test or measurement, with written report, each 15 minutes
95	0.6%	97113	Therapeutic procedure, one or more areas, each 15 minutes, aquatic therapy with therapeutic exercises
96	0.5%	97016	Vasopneumatic devices, one or more areas
97	0.4%	97002	Physical therapy re-evaluation
98	0.4%	98943	Chiropractic manipulative treatment, extraspinal, one or more regions
Major surgery			
99	12.3%	29826	Arthroscopy, shoulder surgery, decompression of subacromial space
100	11.0%	29881	Arthroscopy, knee surgery, with meniscectomy, medial or lateral
101	8.9%	64721	Neuroplasty and/or transposition, median nerve at carpal tunnel
102	5.8%	29877	Arthroscopy, knee surgery, debridement/shaving of articular cartilage
103	4.2%	29823	Arthroscopy, shoulder surgery, debridement, extensive
104	3.8%	49505	Repair initial inguinal hernia, age 5 years or over, reducible
105	3.8%	29824	Arthroscopy, shoulder, distal claviclectomy
106	3.7%	29880	Arthroscopy, knee surgery, with meniscectomy, medial and lateral
107	3.6%	63030	Laminotomy with decompression of nerve root, one interspace, lumbar
108	3.4%	22851	Application of intervertebral biomechanical device to vertebral defect or interspace
109	3.2%	29827	Arthroscopy, shoulder surgery, rotator cuff repair
110	2.8%	23120	Claviclectomy, partial
111	2.6%	29888	Arthroscopically aided ACL repair, augmentation, reconstruction
112	2.6%	23412	Repair of ruptured musculotendinous cuff, chronic
113	2.6%	29822	Arthroscopy, shoulder surgery, debridement, limited
114	2.5%	22612	Arthrodesis, posterior or posterolateral technique, single level, lumbar
115	2.3%	22845	Anterior instrumentation, 2 to 3 vertebral segments
116	2.2%	22554	Arthrodesis, anterior interbody technique, with minimal discectomy, cervical below C2
117	2.2%	63047	Laminectomy, facetectomy and foraminotomy, unilateral/bilateral, single vertebral segment, lumbar
118	2.0%	29876	Arthroscopy, knee surgery, synovectomy, major, two or more compartments
119	1.8%	64718	Neuroplasty, ulnar nerve at elbow
120	1.7%	23420	Reconstruction of complete shoulder cuff avulsion, chronic

continued

Table TA.2 Marketbasket Procedures (continued)

Procedure	Percentage Frequency ^a	CPT Code	Description
121	1.7%	29807	Arthroscopy, shoulder surgery, repair of SLAP lesion
122	1.6%	29879	Arthroscopy, knee surgery, abrasion arthroplasty
123	1.5%	26418	Repair, extensor tendon, finger, primary or secondary, without free graft, each tendon
124	1.4%	22630	Arthrodesis, posterior interbody technique, including laminectomy and/or discectomy, single interspace; lumbar
125	1.4%	22585	Arthrodesis, anterior interbody technique, with minimal discectomy, each additional interspace
126	1.3%	22614	Arthrodesis, posterior or posterolateral technique, single level, each additional vertebral segment
127	1.2%	29875	Arthroscopy, knee surgery, synovectomy, limited
128	1.1%	22840	Posterior non-segmental instrumentation
Pain management injections			
129	20.7%	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)
130	14.0%	64483	Injection, anesthetic agent and/or steroid, transforaminal epidural; lumbar or sacral, single level
131	9.4%	64475	Injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; lumbar or sacral, single level
132	8.6%	64476	Injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; lumbar or sacral, each additional level
133	6.0%	64415	Injection, anesthetic agent; brachial plexus, single
134	5.9%	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
135	5.6%	64484	Injection, anesthetic agent and/or steroid, transforaminal epidural; lumbar or sacral, each additional level
136	5.6%	20552	Injection(s), single or multiple trigger point(s), one or two muscle(s)
137	5.1%	64450	Injection, anesthetic agent; other peripheral nerve or branch
138	3.8%	62290	Injection procedure for discography, each level; lumbar
139	3.6%	62284	Injection procedure for myelography and/or computed tomography, spinal (other than C1-C2 and posterior fossa)
140	2.8%	64470	Injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; cervical or thoracic, single level
141	2.7%	20553	Injection(s), single or multiple trigger point(s), three or more muscle(s)
142	2.6%	64472	Injection, anesthetic agent and/or steroid, paravertebral facet joint or facet joint nerve; cervical or thoracic, each additional level
143	2.0%	64510	Injection, anesthetic agent; stellate ganglion (cervical sympathetic)
144	1.6%	64520	Injection, anesthetic agent; lumbar or thoracic (paravertebral sympathetic)

^a Percentage frequency is the frequency of each CPT code within the service group.

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.

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

State	Emergency	Evaluation and Management	Major Radiology	Minor Radiology	Neurological/ Neuromuscular Testing	Physical Medicine	Major Surgery	Pain Management Injections	Overall
Calendar Year 2009									
Arkansas	93%	94%	78%	74%	80%	96%	53%	93%	82%
Arizona	90%	95%	74%	75%	84%	94%	56%	93%	85%
California	97%	88%	87%	62%	86%	81%	57%	90%	78%
Connecticut	87%	96%	83%	68%	83%	98%	59%	95%	83%
Florida	97%	95%	81%	55%	89%	91%	58%	89%	80%
Georgia	91%	95%	81%	67%	84%	94%	56%	92%	83%
Iowa	91%	92%	80%	69%	94%	95%	62%	95%	82%
Illinois	93%	93%	82%	60%	82%	98%	62%	92%	83%
Indiana	95%	96%	80%	67%	90%	95%	62%	89%	83%
Louisiana	92%	90%	85%	56%	68%	51%	52%	93%	67%
Massachusetts	88%	95%	84%	58%	89%	94%	63%	92%	80%
Maryland	96%	95%	83%	61%	83%	92%	56%	90%	84%
Michigan	97%	96%	78%	71%	92%	96%	56%	92%	87%
Minnesota	90%	95%	81%	59%	90%	92%	60%	92%	84%
Missouri	90%	94%	78%	69%	94%	96%	65%	91%	82%
North Carolina	92%	94%	80%	65%	83%	88%	62%	93%	81%
New Jersey	98%	93%	83%	59%	67%	83%	59%	93%	74%
New York	98%	93%	88%	60%	83%	94%	61%	95%	84%
Oklahoma	91%	95%	85%	68%	47%	96%	62%	95%	80%
Pennsylvania	96%	92%	76%	58%	86%	87%	58%	94%	82%
South Carolina	93%	93%	84%	52%	83%	96%	58%	94%	81%
Tennessee	99%	95%	83%	72%	88%	95%	65%	93%	83%
Texas	99%	95%	80%	70%	82%	76%	55%	88%	78%
Virginia	93%	95%	81%	64%	85%	96%	55%	94%	84%
Wisconsin	96%	94%	82%	68%	93%	94%	63%	94%	81%
Calendar Year 2010^p									
Arkansas	95%	93%	80%	72%	90%	95%	47%	93%	80%
Arizona	87%	95%	73%	75%	84%	96%	52%	89%	85%
California	96%	88%	88%	62%	86%	83%	59%	88%	79%
Connecticut	82%	97%	83%	67%	80%	96%	60%	94%	82%
Florida	90%	96%	82%	57%	89%	92%	60%	86%	81%
Georgia	91%	96%	80%	68%	79%	91%	59%	89%	82%
Iowa	89%	94%	78%	67%	95%	95%	62%	93%	82%
Illinois	90%	94%	80%	63%	81%	98%	64%	93%	84%
Indiana	90%	96%	78%	69%	89%	95%	60%	89%	82%
Louisiana	79%	92%	85%	55%	60%	50%	55%	90%	66%
Massachusetts	75%	96%	82%	57%	90%	94%	65%	91%	80%
Maryland	90%	97%	84%	67%	82%	91%	60%	83%	85%
Michigan	95%	97%	75%	72%	93%	96%	56%	88%	87%
Minnesota	81%	96%	81%	57%	90%	92%	57%	93%	84%
Missouri	78%	95%	77%	67%	94%	96%	67%	90%	82%
North Carolina	86%	94%	80%	64%	81%	88%	61%	88%	80%
New Jersey	94%	94%	83%	57%	67%	81%	63%	93%	75%
New York	95%	93%	89%	56%	81%	94%	63%	95%	84%
Oklahoma	86%	95%	84%	69%	46%	96%	62%	94%	79%
Pennsylvania	89%	93%	81%	58%	83%	85%	57%	86%	81%
South Carolina	80%	94%	84%	50%	80%	96%	64%	89%	83%
Tennessee	100%	97%	84%	74%	86%	95%	66%	92%	84%
Texas	99%	96%	81%	74%	84%	75%	55%	86%	78%
Virginia	90%	96%	78%	64%	79%	96%	57%	91%	84%
Wisconsin	94%	96%	82%	71%	91%	94%	66%	92%	83%

Special notation: ^p We use the notation "p" to indicate the 2010 numbers are preliminary results based on half-year price data through June 30, 2010.

Table TA.4 Description of Marketbasket Contents

Service Group	Number of Codes	% Expenditures Captured by Marketbasket Codes	% Expenditures in Population
Emergency	6	92%	2%
Evaluation and management	13	89%	23%
Major radiology	12	84%	10%
Minor radiology	33	62%	3%
Neurological testing	10	88%	4%
Physical medicine	24	86%	37%
Major surgery	30	59%	18%
Pain management injections	16	90%	4%
Totals	144	79%	100%

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

Rui Yang

Cambridge, Massachusetts
August 2011

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