

A close-up photograph of a medical setting. A black stethoscope is coiled in the upper left corner. A black pen lies diagonally across a white medical billing form. The form has the word "Billing" in large blue letters. Below it, the patient's name "John Joenson" and address "321 Street NNN Town, 654 32" are printed. A table with dates is partially visible at the bottom of the form.

WHITE PAPER

# In-Network and Out-of-Network Utilization and Pricing

A Study of Private Healthcare Claims

A FAIR Health White Paper, February 20, 2024

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## Summary

State and federal efforts to address surprise billing have increased in recent years. On the federal level, the No Surprises Act (NSA) went into effect on January 1, 2022. To examine recent healthcare trends that may reflect in part the impact of state and federal surprise billing laws, FAIR Health delved into its database of private healthcare claim records, the largest such repository in the nation. The result is this study of in-network and out-of-network utilization and pricing from 2019 to 2023, a period that includes the first two years after the NSA took effect. The study focuses on professional services in facility settings, particularly in four specialties that have frequently been associated with surprise bills: anesthesia (including certified registered nurse anesthetists), emergency medicine, pathology and radiology. Changes in in-network percentage of claim lines are analyzed nationally and by region, as well as changes in the ratio of allowed to billed amounts for in-network and out-of-network services, and trends in average billed and allowed amounts.<sup>1,2</sup> Among the key findings:

- A large majority of professional services in facility settings were rendered in network both before and after the NSA went into effect in all specialties, nationally and regionally.
- In-network percentages increased across all specialties from the first quarter of 2019 to the third quarter of 2023 nationally and in all regions. During that period, in-network care as a percentage of all claim lines increased 7.0 percent nationally, from 84.1 percent of claim lines in the first quarter of 2019 to 90.0 percent in the third quarter of 2023. The increase varied from 4.8 percent in the Northeast to 8.3 percent in the Midwest and South.
- From the fourth quarter of 2021 to the first quarter of 2022, a relatively sharp increase in in-network percentages nationally (2.3 percent) and in all regions occurred across all specialties at the time the NSA went into effect.
- When the focus is narrowed from all specialties to specialties of interest, an increase in in-network care from 2019 to 2023 is still apparent, but the growth was smaller. The increase in in-network care for specialties of interest from the first quarter of 2019 to the third quarter of 2023 was 4.7 percent, versus 7.0 percent for all specialties.
- From the first quarter of 2019 to the third quarter of 2023, radiology had the highest in-network percentage (ranging from 89.3 percent to 92.0 percent over the course of the period) compared to the other specialties of interest. Emergency medicine had the lowest in-network percentage (ranging from 71.6 percent to 83.1 percent).
- From the first quarter of 2019 to the third quarter of 2023, the in-network percentage of emergency medicine had a greater increase (13.2 percent) than the other specialties of interest. Pathology had the smallest increase (0.6 percent).
- In the South, in 2023, there was a decrease in in-network care for three of the four specialties of interest: anesthesiology, pathology and radiology.
- On average, allowed amounts as a percentage of billed amounts for both in- and out-of-network services decreased during the study period. The gap between allowed and billed amounts widened. From the first quarter of 2019 to the third quarter of 2023, allowed amounts as a percentage of billed amounts for in-network services fell by 14.3 percent; on average, allowed amounts were 46.2 percent of the billed amounts at the beginning of the period, and 39.6 percent

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<sup>1</sup> A claim line is an individual service or procedure listed on an insurance claim.

<sup>2</sup> A billed or charge amount is the amount charged to a patient who is uninsured or obtaining an out-of-network service. An allowed amount is the total fee negotiated between an insurance plan and a provider for an in-network service, including both the portion to be paid by the plan member and the portion to be paid by the plan.

of the billed amounts at the end. For out-of-network services, the decrease was 9.6 percent and the drop was from 39.0 percent to 35.3 percent of the billed amounts.

- A trend toward convergence of average in-network and average out-of-network allowed amounts was seen with emergency medicine and radiology procedure codes sampled in this report, and was also seen in FAIR Health analyses of the top 10 codes by volume in each of the following specialties: emergency medicine, pathology and radiology.

## Background

A number of state and federal efforts to address surprise billing—which occurs when consumers unexpectedly receive services from an out-of-network provider and are billed for them—have been implemented recently. As of February 5, 2021, 33 states had enacted some form of protection for consumers from surprise bills.<sup>3</sup> On December 27, 2020, the federal No Surprises Act (NSA) was enacted, and it took effect on January 1, 2022. The NSA required health plans in states without a state law concerning surprise bills (and self-insured plans not covered by such laws) to cover surprise out-of-network bills, as defined in the statute, with patient cost-sharing requirements not greater than those that would apply if the bill were in network.<sup>4</sup> In addition, the law generally prohibits out-of-network providers who render emergency care (and nonemergency care at in-network facilities) from billing plan members for the difference between in-network and out-of-network rates, except in some nonemergency situations in which patients have waived their rights under the NSA.<sup>5</sup> If, after a 30-day open negotiation period, plans and providers cannot agree on the out-of-network rate to be paid to the provider for a service, they may enter the federal independent dispute resolution process to arbitrate the out-of-network rate.<sup>6</sup>

To contribute to the discussion about recent trends that may reflect the impact of state and federal surprise billing laws—as well as other complex factors—FAIR Health delved into its database of over 45 billion private healthcare claim records, the largest such repository in the nation. The result is this study of in-network and out-of-network utilization and pricing from 2019 to 2023, a period that reaches from the year prior to the COVID-19 pandemic to the first two years after the NSA took effect. The study focuses on professional services in facility settings, particularly in four specialties of interest: anesthesia (including certified registered nurse anesthetists), emergency medicine, pathology and radiology (because those services in those settings are frequently associated with surprise bills). Changes in in-network percentage of claim lines are analyzed nationally and by region for all specialties and specialties of interest, as well as changes in the ratio of allowed to billed amounts for in-network and out-of-network services, and trends in average billed and allowed amounts.

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<sup>3</sup> “State Balance-Billing Protections,” The Commonwealth Fund, last updated February 5, 2021, [https://www.commonwealthfund.org/sites/default/files/2021-03/Hoadley\\_state\\_balance\\_billing\\_protections\\_table\\_02052021.pdf](https://www.commonwealthfund.org/sites/default/files/2021-03/Hoadley_state_balance_billing_protections_table_02052021.pdf).

<sup>4</sup> Assistant Secretary for Planning and Evaluation (ASPE), US Department of Health & Human Services, *Evaluation of the Impact of the No Surprises Act on Health Care Market Outcomes: Baseline Trends and Framework for Analysis*, First Annual Report, July 6, 2023, <https://aspe.hhs.gov/sites/default/files/documents/48b874b63796dc6a68a783cf079ba42a/aspe-no-surprises-act-rtc.pdf>.

<sup>5</sup> Karen Pollitz, *No Surprises Act Implementation: What to Expect in 2022*, KFF issue brief, December 10, 2021, <https://www.kff.org/health-reform/issue-brief/no-surprises-act-implementation-what-to-expect-in-2022/>.

<sup>6</sup> ASPE, *Evaluation of the Impact of the No Surprises Act on Health Care Market Outcomes*.

## Methodology

From its private insurance claims database, FAIR Health retrieved professional claims billed in a facility setting (CMS-1500 form type), including ambulatory surgery center, emergency room, inpatient hospital and outpatient hospital, with service dates from the first quarter of 2019 to the third quarter of 2023.

The percentage of in-network claim lines was defined as the number of claim lines that were in network divided by the number of claim lines that were in network and out of network. Claim lines with unknown and missing network types (which account for about 4.5 percent of the data) were excluded.

Provider type was assigned using the provider's primary taxonomy. The following specialties were evaluated as specialties of interest: anesthesia, emergency medicine, pathology and radiology.

For analyses on allowed amounts, also excluded were claims from Medicare Advantage,<sup>7</sup> Medigap, Medicaid, automobile liability or workers' compensation amounts; missing or zero allowed amounts; or allowed amounts greater than the billed amounts.

For regional analyses, US census regions were used, defined as:

- **Midwest:** Illinois, Indiana, Iowa, Kansas, Michigan, Minnesota, Missouri, Nebraska, North Dakota, Ohio, South Dakota, Wisconsin;
- **Northeast:** Connecticut, Maine, Massachusetts, New Hampshire, New Jersey, New York, Pennsylvania, Rhode Island, Vermont;
- **South:** Alabama, Arkansas, Delaware, District of Columbia, Florida, Georgia, Kentucky, Louisiana, Maryland, Mississippi, North Carolina, Oklahoma, South Carolina, Tennessee, Texas, Virginia, West Virginia; and
- **West:** Alaska, Arizona, California, Colorado, Hawaii, Idaho, Montana, Nevada, New Mexico, Oregon, Utah, Washington, Wyoming.

## Limitations

The data used in this report comprise claims data for privately insured patients who are covered by insurers and third-party administrators who voluntarily participate in FAIR Health's data contribution program. Medicare Advantage (Medicare Part C) enrollees from contributing insurers are included, but not participants in Medicare Parts A, B and D.<sup>8</sup> In addition, data from Medicaid, CHIP and other state and local government insurance programs are not included, nor are data collected regarding uninsured patients.

This is an observational report based on the data FAIR Health receives from private payors regarding care rendered to covered patients.

The report was not subject to peer review.

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<sup>7</sup> Because of the potential for Medicare Advantage to affect allowed amounts, these data are excluded from analysis on allowed amounts. However, these data are used for analyses in this study that do not look at allowed amounts.

<sup>8</sup> FAIR Health also receives the entire collection of claims for traditional Medicare Parts A, B and D under the Centers for Medicare & Medicaid Services Qualified Entity Program, but those data are not a source for this report.

## Results

### Overall

Nationally, a large majority of professional services in facility settings across all specialties were rendered in network both before and after the NSA went into effect on January 1, 2022 (figure 1). For example, in the first quarter of 2019, the national in-network percentage of claim lines for such services was 84.1 percent.

In-network percentages for all specialties increased 7.0 percent from the first quarter of 2019 to the third quarter of 2023. The specialties of interest increased less, by 4.7 percent, while all specialties other than specialties of interest increased by 9.3 percent.

From the fourth quarter of 2021 to the first quarter of 2022, a relatively sharp increase across all specialties nationally (2.3 percent) occurred at the time the NSA went into effect. During that interval, specialties of interest increased 2.4 percent, while all other specialties increased 2.2 percent.



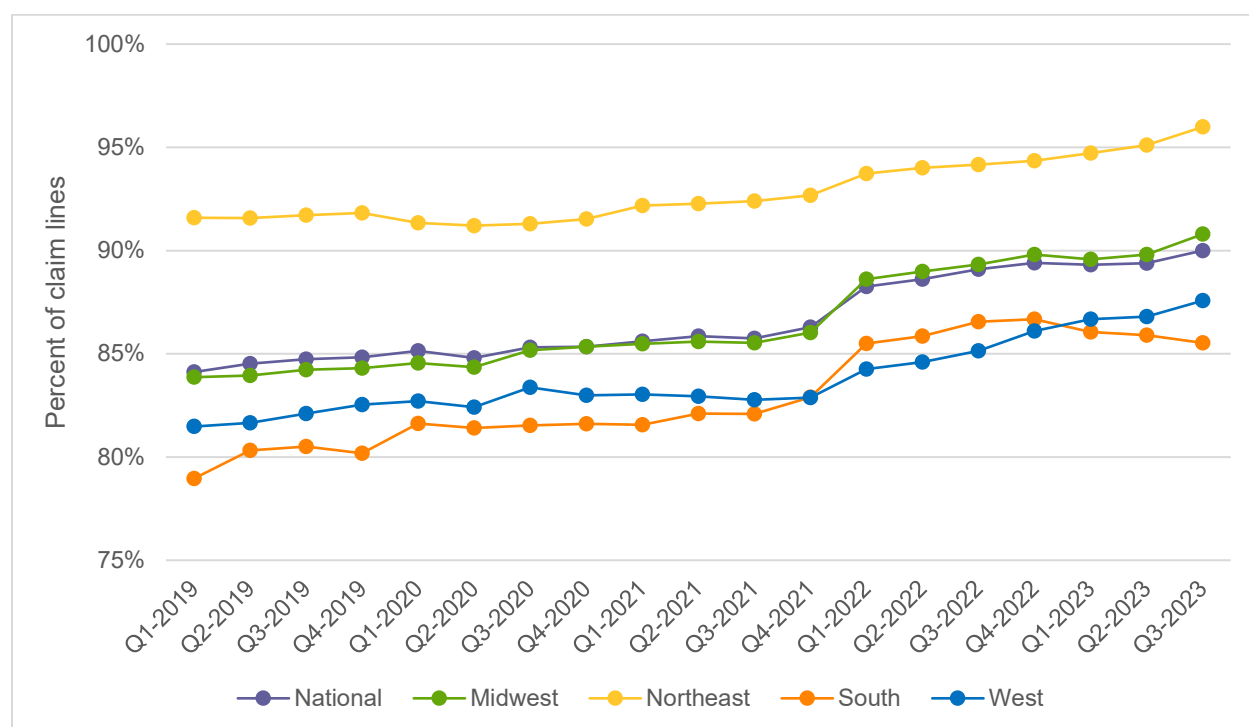
**Figure 1. National in-network percentage of claim lines for professional services in facility settings for all specialties, all specialties of interest and all other specialties, 2019-2023**

## Regional Analyses

In all four US census regions, a large majority of professional services in facility settings across all specialties were rendered in network both before and after the NSA went into effect, just as they were nationally (figure 2). For example, in the first quarter of 2019, the regional in-network percentages varied from 79.0 percent in the South to 91.6 percent in the Northeast. In-network percentages in all regions increased from the first quarter of 2019 to the third quarter of 2023. The increase during that period varied from 4.8 percent in the Northeast to 8.3 percent in the Midwest and South.

From the fourth quarter of 2021 to the first quarter of 2022, a relatively sharp increase occurred in all regions at the time the NSA went into effect, just as it did nationally.

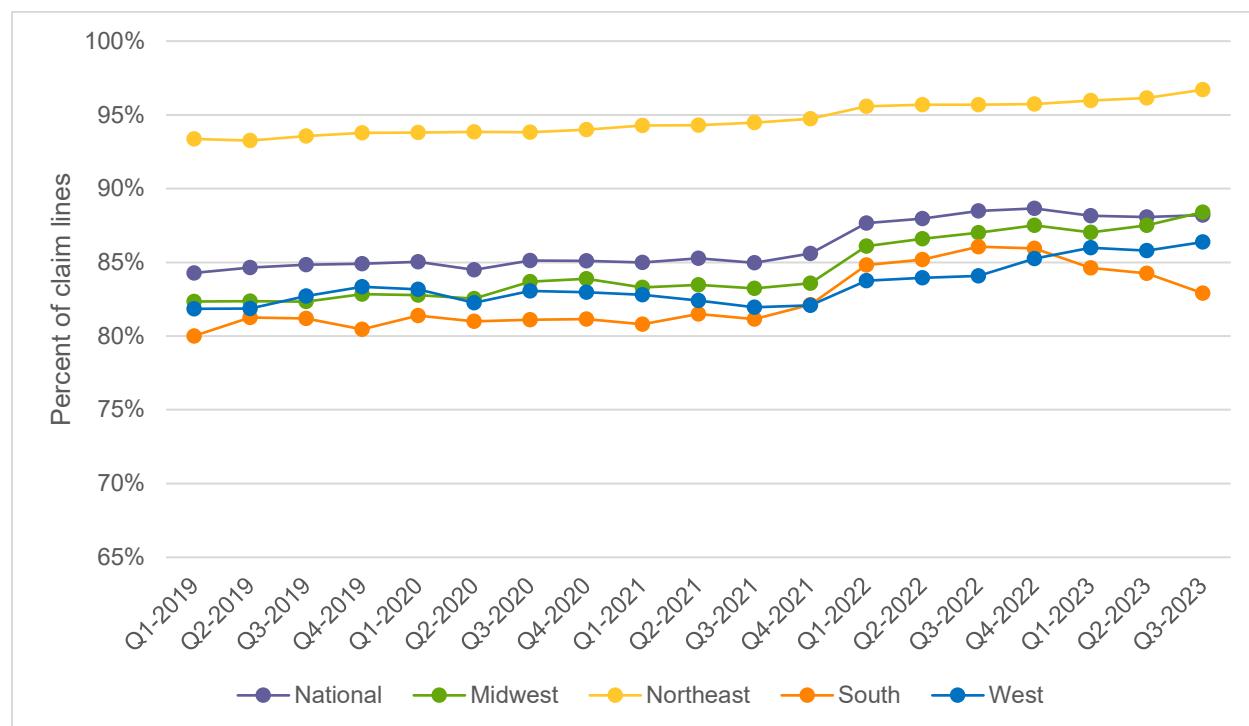
Although the overall trend from 2019 to 2023 was of increasing in-network care, decreases did occur. For example, in the South, the in-network percentage fell from 86.7 percent in the fourth quarter of 2022 to 85.5 percent in the third quarter of 2023.



**Figure 2. In-network percentage of claim lines for professional services in facility settings by region, all specialties, 2019-2023**

When the focus is narrowed from all specialties to specialties of interest (anesthesia, emergency medicine, pathology and radiology), the trend of growth in in-network percentages from 2019 to 2023 is still apparent, but the growth was smaller (figure 3). For specialties of interest nationally, as noted above (figure 1), the increase was 4.7 percent compared to 7.0 percent for all specialties. Regional increases were all lower as well. The greatest increase, 7.4 percent (from 82.3 percent to 88.4 percent), was in the Midwest. The increase across all specialties in the Midwest, by comparison, was 8.3 percent.

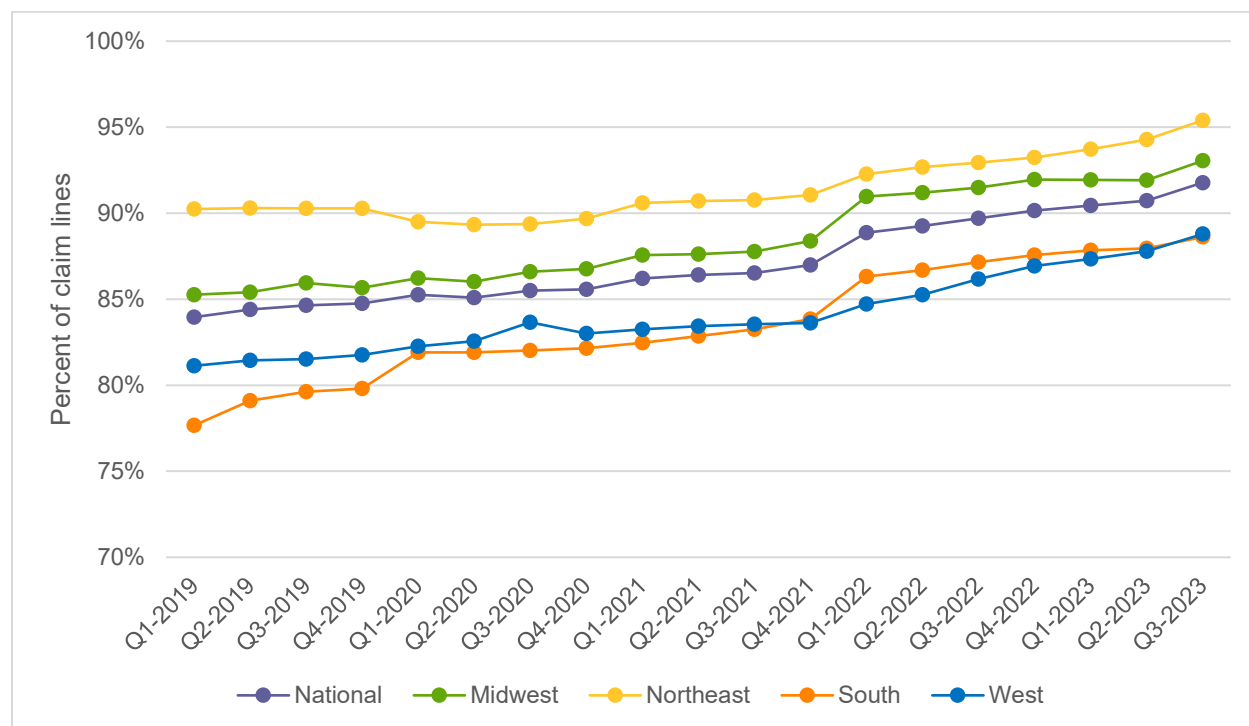
A relatively sharp increase from the fourth quarter of 2021 to the first quarter of 2022 occurred in all regions with specialties of interest, as it did with all specialties.



**Figure 3. In-network percentage of claim lines for professional services in facility settings by region, specialties of interest, 2019-2023**

Figure 4 shows the in-network percentage of claim lines for professional services in facility settings for all specialties other than the specialties of interest. The increase from 2019 to 2023 nationally and in all regions was greater than that of all specialties (figure 2) or specialties of interest (figure 3). Nationally, as noted above (figure 1), the in-network percentage for all other specialties increased 9.3 percent from the first quarter of 2019 to the third quarter of 2023. The greatest increase was in the South, where the increase was 14.1 percent.

A relatively sharp increase from the fourth quarter of 2021 to the first quarter of 2022 occurred in all regions with all other specialties, as it did with all specialties and specialties of interest.



**Figure 4. In-network percentage of claim lines for professional services in facility settings by region, all other specialties, 2019-2023**



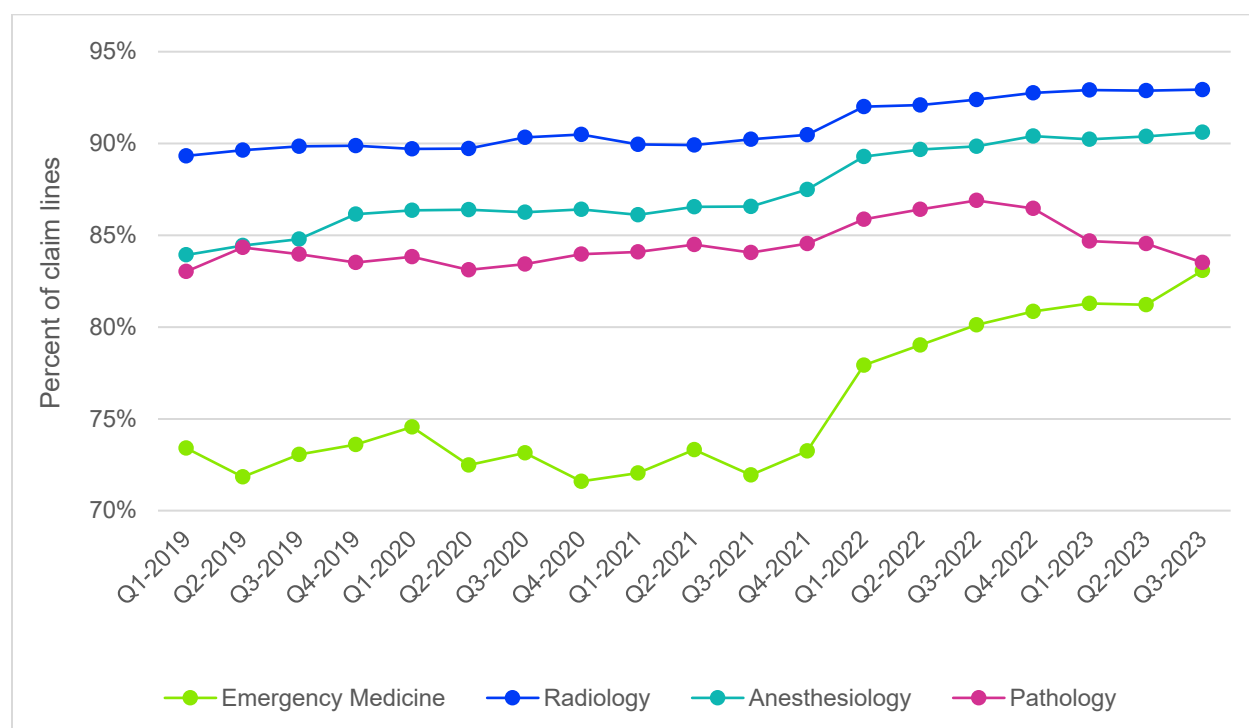
## Specialties

When individual specialties of interest were compared to each other, radiology had the highest percentage of in-network claim lines throughout the period 2019-2023 (figure 5). In-network claim lines for that specialty remained above 89 percent throughout the study period and increased by 4.0 percent.

Emergency medicine had the lowest percentage of in-network claim lines but the greatest increase overall. The percentage of in-network claim lines for emergency medicine was under 75 percent from 2019 to 2021 and under 84 percent from 2022 to 2023, but increased by 13.2 percent from the first quarter of 2019 to the third quarter of 2023. From the fourth quarter of 2021 to the first quarter of 2022, just as the NSA was implemented, the increase was particularly sharp. The percentage of emergency medicine in-network claim lines for that period jumped from 73.3 percent to 77.9 percent—a 6.4 percent increase.

Pathology had the smallest increase from 2019 to 2023 (0.6 percent). This was due in part to a 3.9 percent decrease in the in-network percentage of claim lines from the third quarter of 2022 to the third quarter of 2023. Due to the decrease in the percentage of in-network claim lines for pathology and a concomitant increase in those for emergency medicine, the two specialties' percentages almost converged in the third quarter of 2023; in-network emergency medicine made up 83.1 percent of claim lines, while in-network pathology made up 83.5 percent.

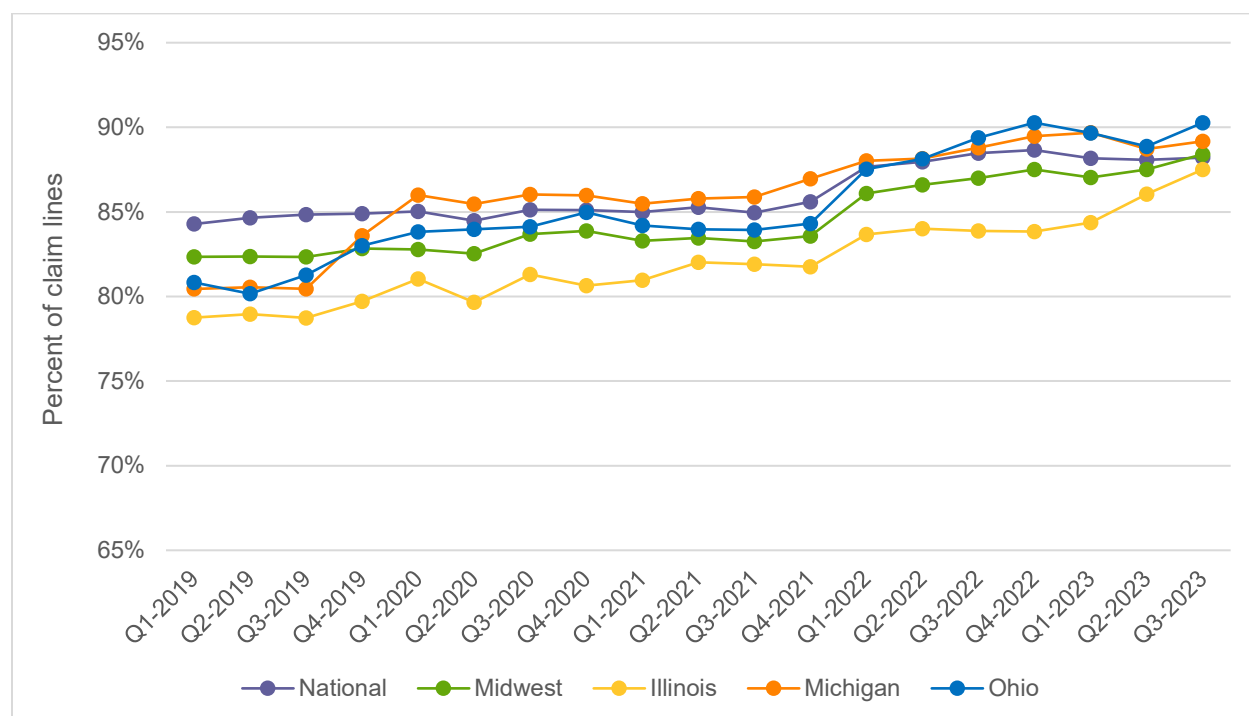
The percentage of anesthesiology in-network claim lines increased 8.0 percent from 2019 to 2023.



**Figure 5. In-network percentage of claim lines for professional services in facility settings by specialty, 2019-2023**

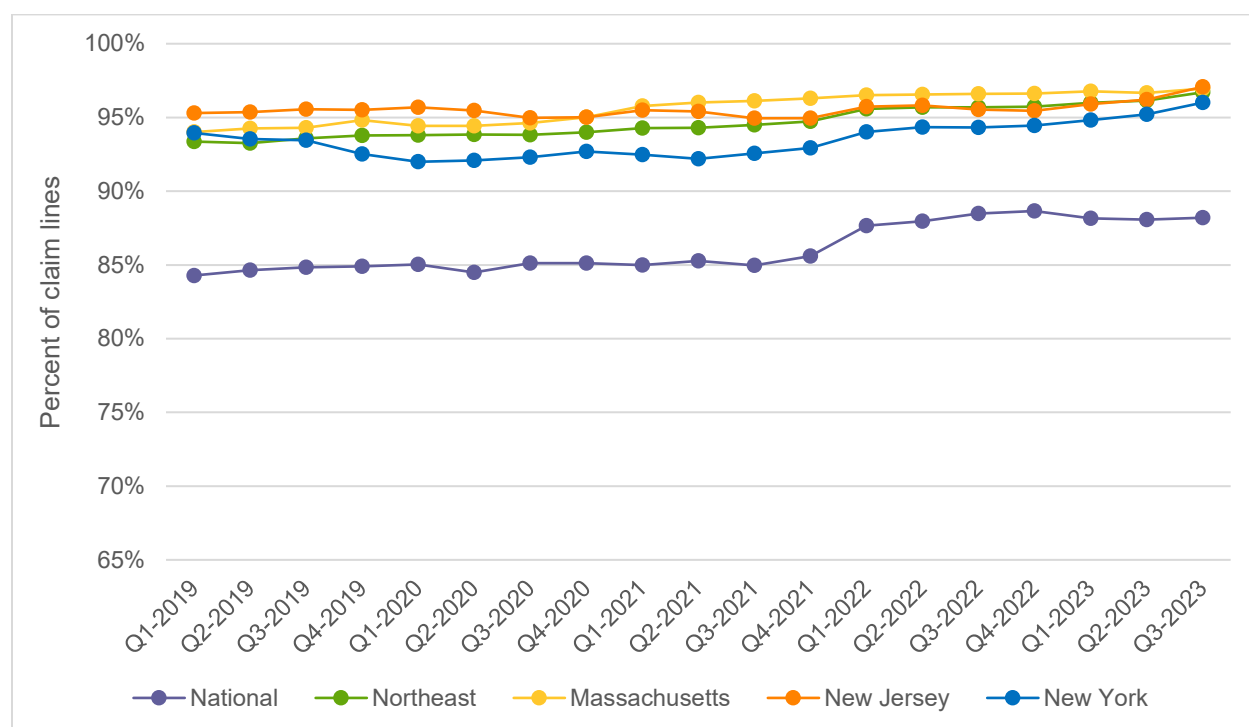
Figures 6-9 show the share of professional services in facility settings rendered in network at the national and regional level for all specialties of interest. They include sample states, selected to illustrate the trends in each region at a more granular scale.

The overall trend of increasing national percentages of in-network claim lines for all specialties of interest (figure 3) was also evident in three midwestern states from 2019 to 2023 (figure 6). Throughout the study period, Illinois had lower in-network percentages than Michigan, Ohio or the Midwest region overall. From 2020 onward, Ohio's share closely shadowed the national in-network percentage of claim lines and by the second quarter of 2022 had exceeded it. Ohio also had the largest percentage increase in in-network claim lines of the states studied, rising from 80.8 percent in the first quarter of 2019 to 90.3 percent in the third quarter of 2023, an increase of 11.7 percent. The smallest increase was in Michigan, where the percentage of in-network claim lines started at 80.4 percent in the first quarter of 2019 and ended at 89.2 percent in the third quarter of 2023, an increase of 10.8 percent. In-network services in Illinois for all specialties of interest climbed from 78.7 percent in the first quarter of 2019 to 87.5 percent of claim lines by the third quarter of 2023, an increase of 11.1 percent.



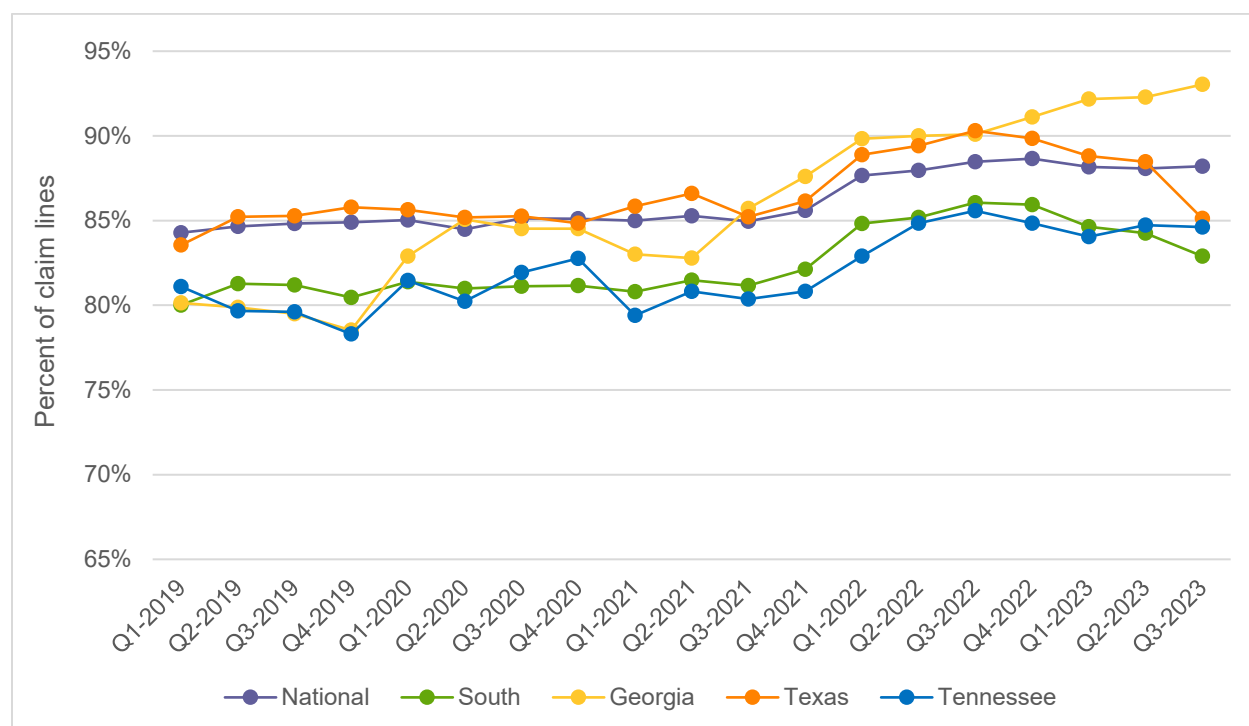
**Figure 6. In-network percentage of claim lines for professional services in facility settings by sample states in the Midwest, all specialties of interest, 2019-2023**

In three northeastern states and the region at large, the percentages of in-network claim lines for all specialties of interest were higher than the national percentages during the period 2019-2023 (figure 7). For most of the study period, New York had lower in-network percentages than either Massachusetts or New Jersey, though in all three states and the region, in-network claim lines remained above 90 percent. As in the Midwest, all areas increased over the study period. The increase was 3.6 percent in the Northeast overall; it varied among the sample states from 1.9 percent in New Jersey to 3.1 percent in Massachusetts.



**Figure 7. In-network percentage of claim lines for professional services in facility settings by sample states in the Northeast, all specialties of interest, 2019-2023**

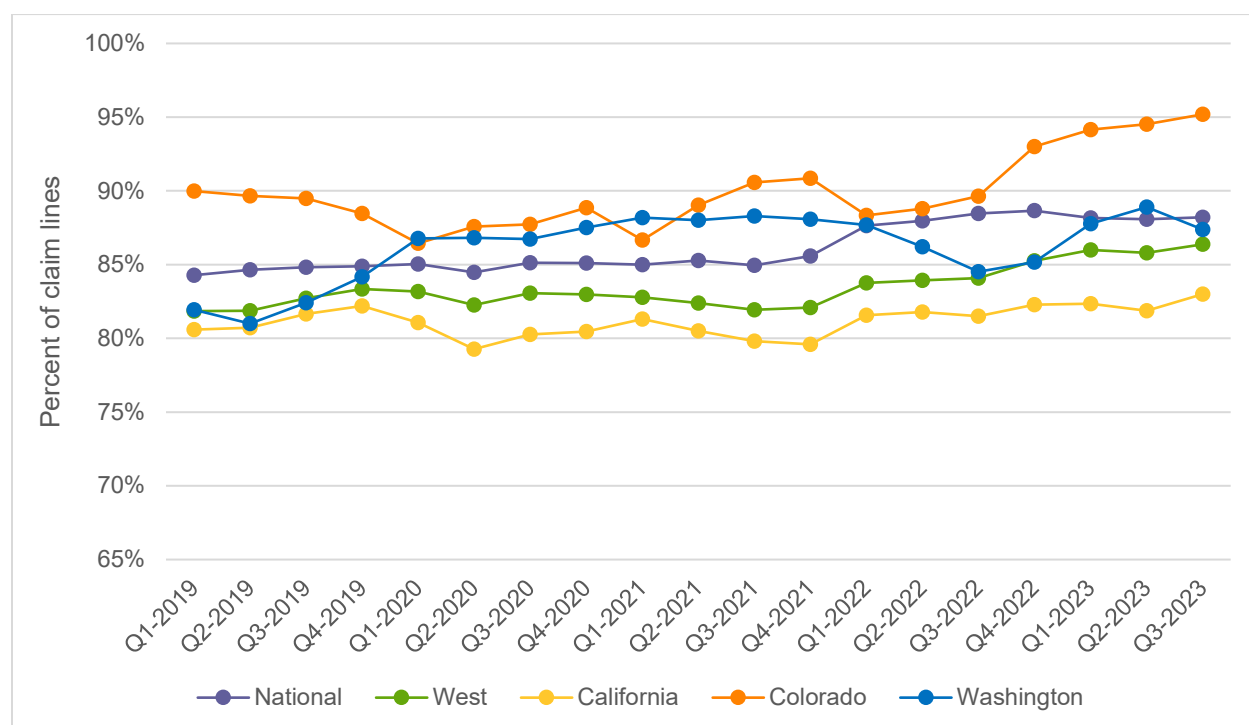
Figure 8 shows the in-network percentage of claim lines for all specialties of interest in the South and in three sample southern states during the period 2019-2023. As in the other regions, all areas increased in their percentage of in-network claim lines overall, though there was some fluctuation during the study period. For example, in Texas, Tennessee and the South, the percentage of in-network claim lines started to decline in the fourth quarter of 2022, while at the same time, the percentage of in-network claim lines in Georgia was increasing. The percentage of in-network claim lines in Texas continued to drop, doing so sharply in the third quarter of 2023, when it fell from 88.5 percent in the second quarter to 85.1 percent. From 2019 to 2023, Georgia showed the largest increase in percentage of in-network claim lines, rising from 80.1 percent to 93.0 percent, a 16.1 percent increase. Despite increases for periods in 2021 and 2022, the declines in Texas contributed to that state showing the smallest increase overall (1.9 percent). Tennessee, which had the lowest percentage of in-network claim lines for most of the period 2019-2023, increased by 4.3 percent.



**Figure 8. In-network percentage of claim lines for professional services in facility settings by sample states in the South, all specialties of interest, 2019-2023**

Variations in the percentage of in-network claim lines for all specialties of interest in the West are shown in figure 9. Values from the western sample state of Colorado were above the national values throughout the study period, while those from California and the region as a whole were below. Values from Washington were above the national values for as many quarters as they were below.

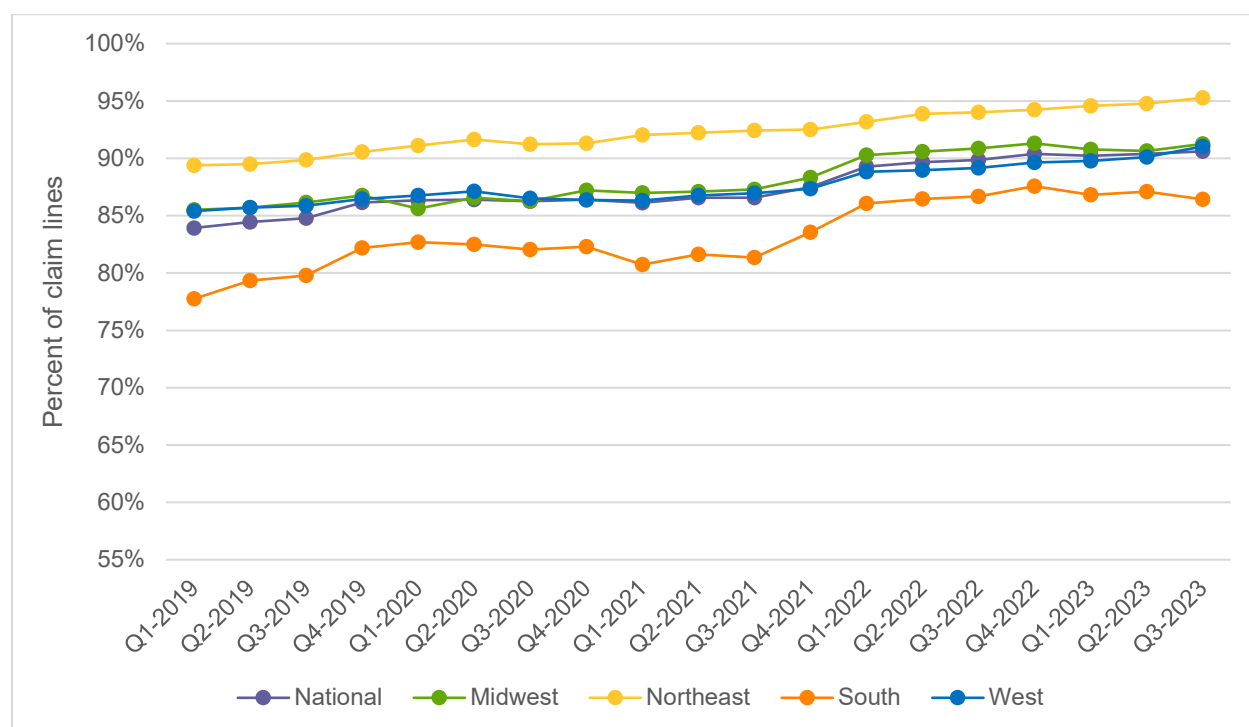
California had the lowest percentage of in-network claim lines of the sample states and showed the smallest increase during the period 2019-2023 (3.0 percent). For most of the period, Colorado had the highest percentage of in-network claim lines, especially in 2019 and from mid-2021 onward, reaching over 95 percent by the third quarter of 2023 and climbing by 5.8 percent during the study period. However, Washington had the largest increase over the study period, rising from 81.9 percent in the first quarter of 2019 to 87.4 percent in the third quarter of 2023 (a 6.6 percent rise). This was despite decreases in 2022 and in the third quarter of 2023.



**Figure 9. In-network percentage of claim lines for professional services in facility settings by sample states in the West, all specialties of interest, 2019-2023**

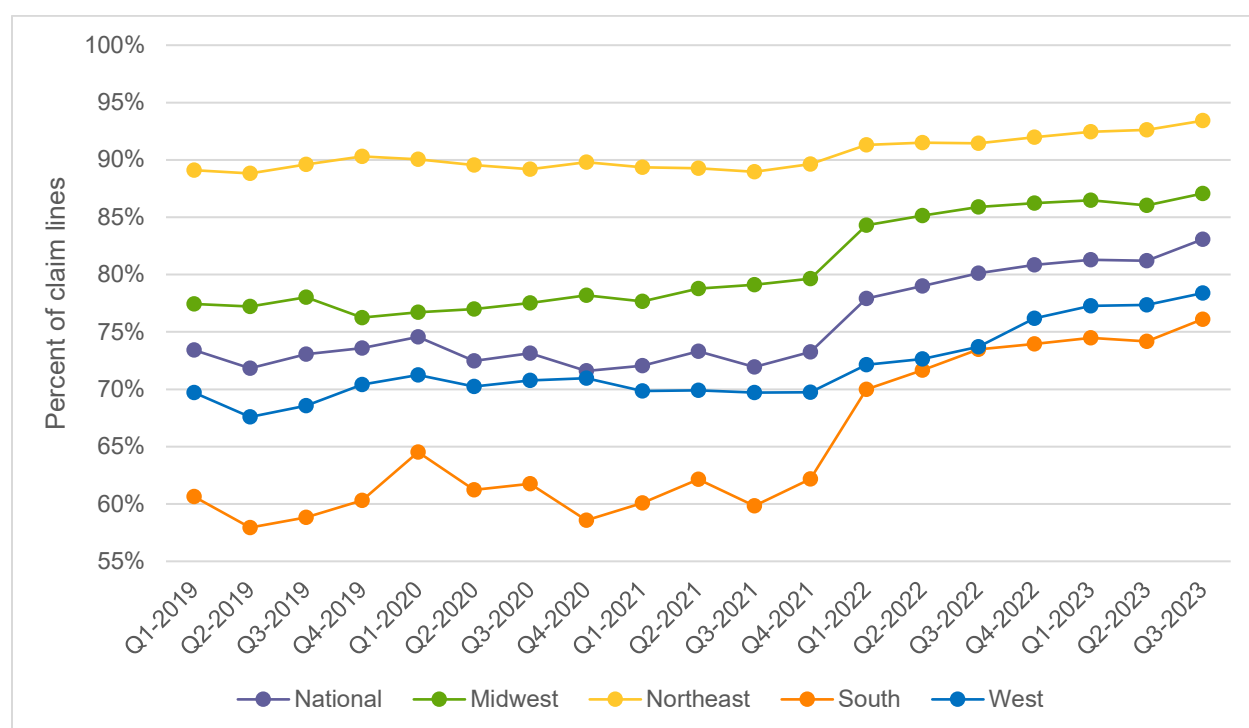
Figures 10-13 illustrate, by individual specialty, the percentage of professional services in facility settings that were rendered in network in the four US census regions and the nation.

Figure 10 shows the percentage of in-network claim lines for anesthesia by region. All regions showed a gradual overall increase from 2019 to 2023, though there were consistent differences in the share of in-network claim lines associated with each region. For example, the Northeast always had the highest percentage of in-network claim lines for anesthesia, with the majority of values over 90 percent during the period 2019-2023. The South always had the lowest percentage of in-network claim lines; it started with a low of 77.7 percent in 2019 and reached a high of 87.6 percent at the end of 2022. Although the South showed a decrease in the most recent quarter, it had the biggest increase in percentage of in-network claim lines over the study period (11.2 percent), while the Northeast had the smallest increase (6.6 percent). The Midwest and West closely matched the national percentages; the three started between 83.9 and 85.5 percent in the first quarter of 2019 and converged more over the period, ending at approximately 90-91 percent in the third quarter of 2023.



**Figure 10. In-network percentage of claim lines for professional services in facility settings by region, anesthesiology, 2019-2023**

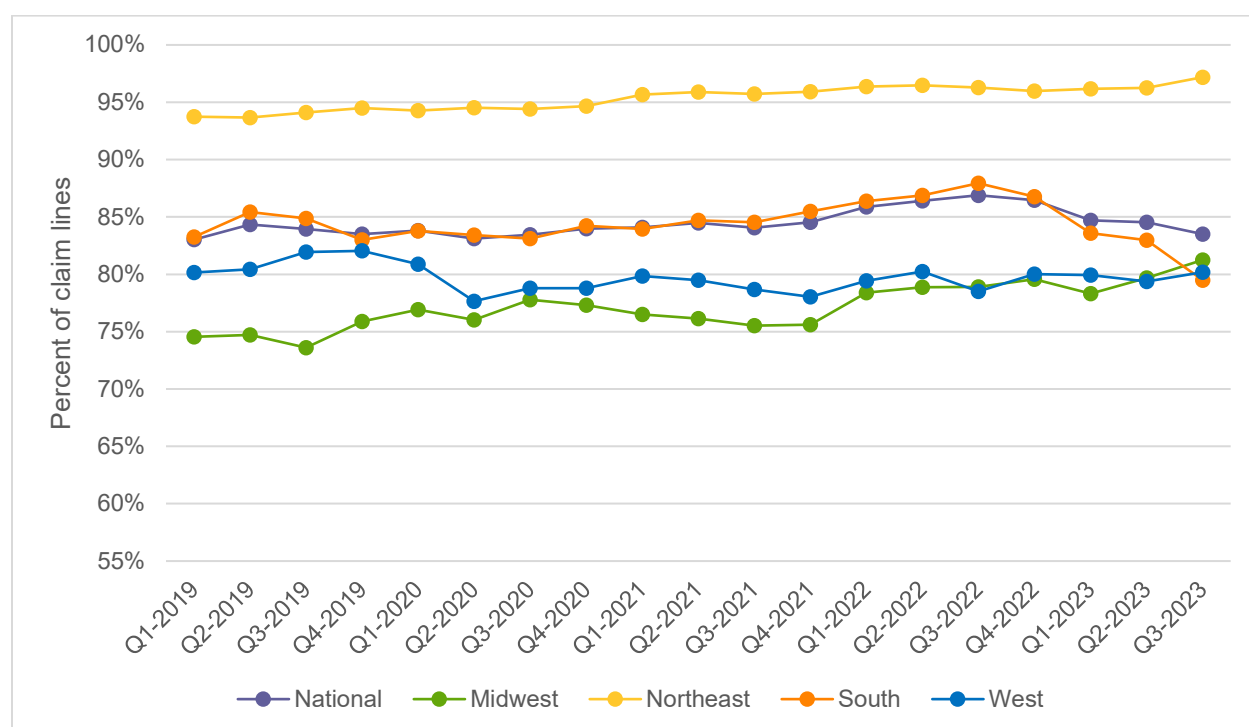
Compared to anesthesiology (figure 10), the percentage of in-network claim lines for emergency medicine varied more widely by region (figure 11). The Northeast still had the highest percentage of in-network claim lines—never below 88 percent—and the South still had the lowest, though the share in that region was lower than for anesthesiology, ranging from a low of 57.9 percent to a high of 76.1 percent. The Midwest and West straddled the national percentages, with the Midwest consistently higher and the West consistently lower. The rise in emergency medicine across the nation from the fourth quarter of 2021 to the first quarter of 2022, just as the NSA came into effect, was driven by steep increases in the South (12.6 percent) and the Midwest (5.9 percent). For the same quarter in the Northeast and West, the increases were 1.9 and 3.4 percent, respectively. The South showed the largest increase overall; the percentage of in-network claim lines there rose 25.5 percent from 2019 to 2023. The smallest increase was in the Northeast, which rose 4.8 percent during the same period. By comparison, the West and the Midwest both rose 12.4 percent.



**Figure 11. In-network percentage of claim lines for professional services in facility settings by region, emergency medicine, 2019-2023**

Figure 12 shows the percentage of in-network claim lines for pathology by region. Once again, the Northeast had the highest percentage, but unlike the specialties depicted in figures 10 and 11 for which the South had the lowest share, for pathology, the Midwest had the lowest percentage of in-network claim lines for most of the period 2019-2023. That region's share ranged from a low of 73.6 percent to a high of 81.3 percent. Also, unlike the previous two specialties, only the Midwest (9.0 percent) and Northeast (3.7 percent) showed overall increases during the study period, while in the West, the percentage of in-network claim lines started and ended the period 2019-2023 at approximately 80.2 percent, and the South showed an overall decrease of 4.5 percent.

Decreases in the South, beginning in the fourth quarter of 2022, also drove a national decrease, which persisted into the third quarter of 2023, resulting in a modest increase overall of 0.6 percent from 2019 to 2023. From the third quarter of 2022 to the third quarter of 2023, the percentage of in-network claim lines in the South declined from 87.9 percent to 79.5 percent. Nationally, the decrease in that same period was from 86.9 percent to 83.5 percent.

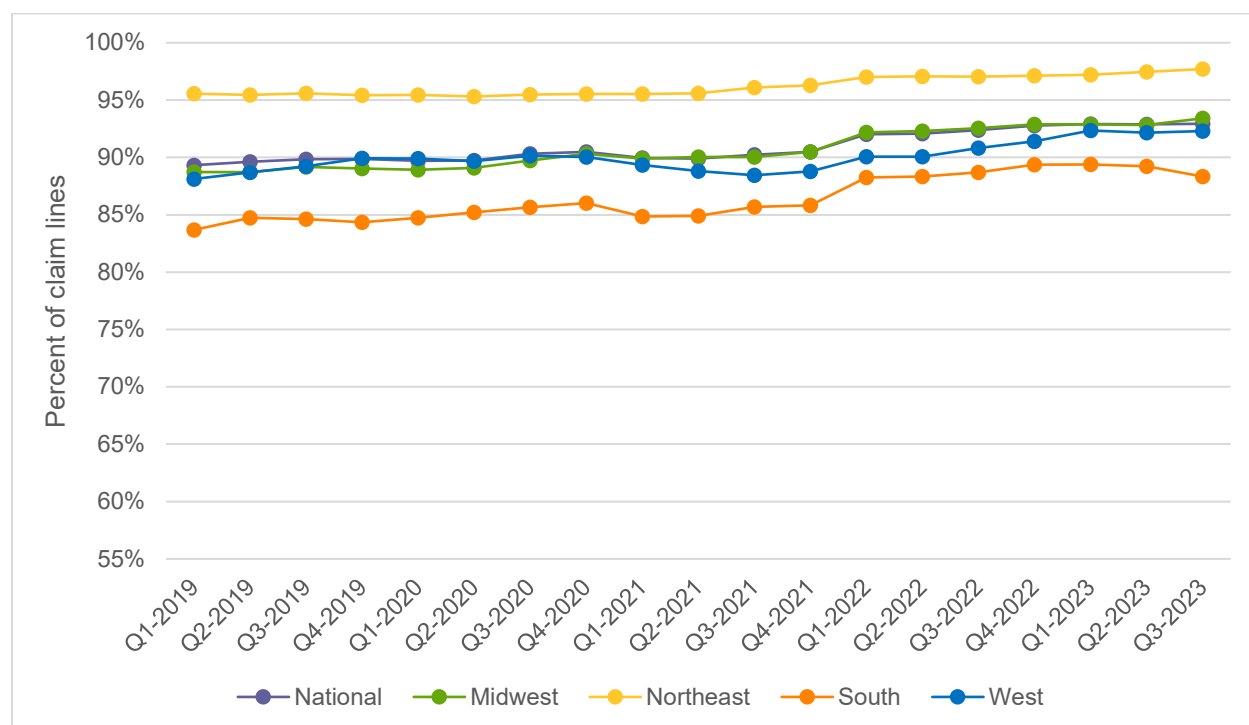


**Figure 12. In-network percentage of claim lines for professional services in facility settings by region, pathology, 2019-2023**



For radiology, the percentages of in-network claim lines in all regions and the nation were above 80 percent for the entire duration of the study period (figure 13). The Northeast had the highest percentages, which hovered around 95 percent until the third quarter of 2021, when they began to climb even higher. The Midwest and West converged at several time points just above or below 90 percent, closely matching the national shares.

All areas increased their share of in-network claim lines for radiology from 2019 to 2023. The largest increase was in the South (5.6 percent) and the smallest was in the Northeast (2.3 percent). Despite having the largest increase overall, the South had the lowest percentage of in-network claim lines for radiology and showed a decrease from the first quarter of 2023 (89.4 percent) to the third quarter (88.3 percent). During the period 2019-2023, the West showed an overall increase of 4.7 percent, while in the Midwest the increase was 5.3 percent.

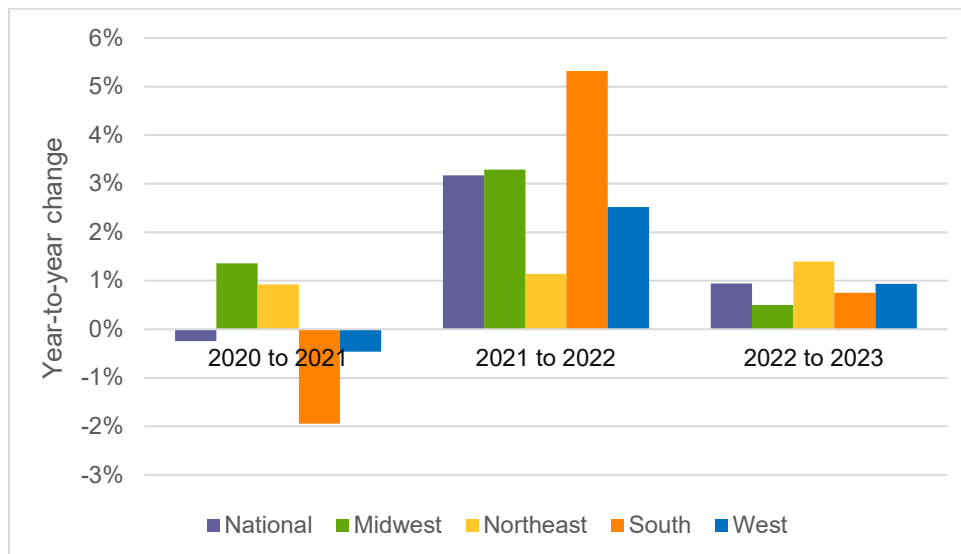


**Figure 13. In-network percentage of claim lines for professional services in facility settings by region, radiology, 2019-2023**

## Year-to-Year Changes

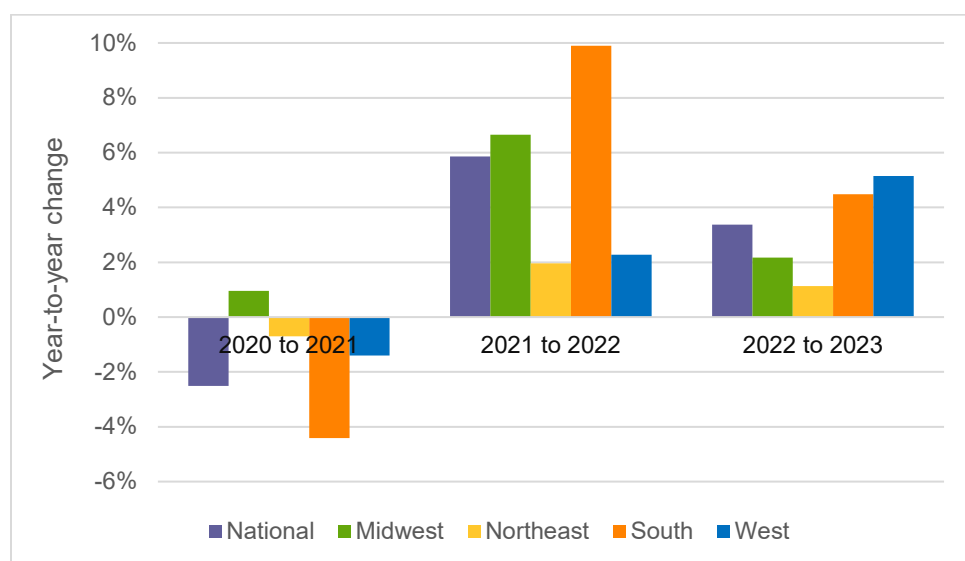
Figures 14-17 show the absolute changes in the in-network percentage of claim lines during each year from 2020 to 2023 for a particular specialty of interest in a particular geographic area; that is, the bars represent the percentage point difference from year to year. Nationally, the largest year-to-year change for all four specialties of interest was from 2021 to 2022, corresponding to the implementation of the NSA.

The in-network percentage of anesthesiology claim lines declined nationally and in the South and West from 2020 to 2021 (figure 14). Throughout the other years studied in this analysis, the in-network percentage of claim lines increased everywhere. The South showed the largest decline from 2020 to 2021 (1.9 percentage points, equivalent to a 2.4 percent decrease) and the largest increase from 2021 to 2022 (5.3 percentage points). From 2022 to 2023, the largest increase was in the Northeast (1.4 percentage points). The smallest changes were seen in different locations, depending on the years. From 2020 to 2021, the national decrease was the smallest change (0.2 percentage points), whereas from 2021 to 2022, the smallest change was the increase that occurred in the Northeast (1.1 percentage points), and from 2022 to 2023, the smallest change was in the Midwest, where there was an increase of 0.5 percentage points.



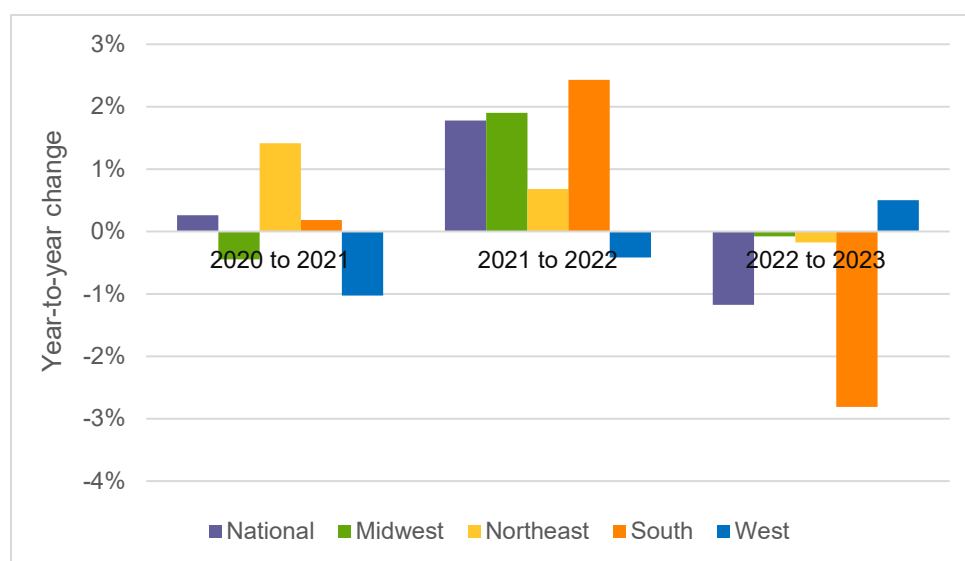
**Figure 14. In-network percentage point change in claim lines for professional services in facility settings by region, anesthesiology, 2020-2023**

The in-network percentage of claim lines for emergency medicine declined everywhere but the Midwest from 2020 to 2021 and increased everywhere from 2021 to 2022, and from 2022 to 2023 (figure 15). The South had the largest change from 2020 to 2021. In that region, at that time, the percentage of emergency medicine in-network claim lines declined by 4.4 percentage points. The South also had the largest change from 2021 to 2022: an increase of 9.9 percentage points. From 2022 to 2023, however, the largest change was in the West, where there was an increase of 5.1 percentage points. For emergency medicine, the Northeast had the most stable in-network percentage of claim lines, with the smallest year-to-year changes in each time period. In that region, there was a decrease of 0.7 percentage points from 2020 to 2021, an increase of 2.0 percentage points from 2021 to 2022 and an increase of 1.1 percentage points from 2022 to 2023.



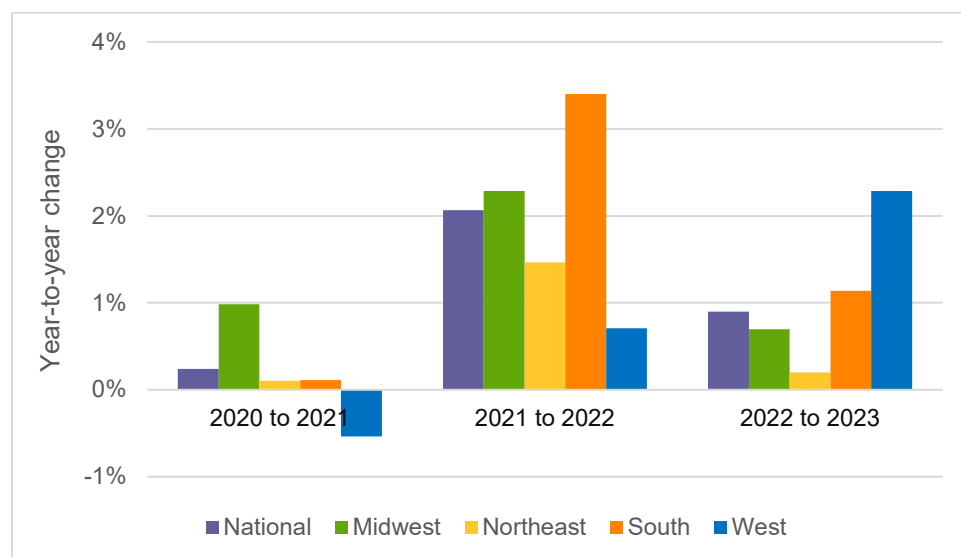
**Figure 15. In-network percentage point change in claim lines for professional services in facility settings by region, emergency medicine, 2020-2023**

A mixed pattern of year-to-year increases and decreases was evident for the in-network percentage of claim lines related to pathology (figure 16). Nationally, there was a small (0.3 percentage points) increase from 2020 to 2021, a larger increase from 2021 to 2022 (1.8 percentage points) and then a decrease from 2022 to 2023 (1.2 percentage points). The Midwest and the West showed declines from 2020 to 2021 (0.4 and 1.0 percentage points, respectively), while in that period, the percentage of pathology in-network claim lines increased in the Northeast and South. During the period 2021-2022, the percentage of in-network pathology claim lines grew everywhere except the West, where it declined by 0.4 percentage points. From 2022 to 2023, however, every geographic area except the West had declines; during this period, the percentage of in-network claim lines in the West grew by 0.5 percentage points. The biggest changes from 2020 to 2021 occurred in the Northeast, where the percentage of in-network claim lines increased by 1.4 percentage points, while in both subsequent time periods, the South had the biggest change: an increase of 2.4 percentage points from 2021 to 2022 and a decrease of 2.8 percentage points from 2022 to 2023.



**Figure 16. In-network percentage point change in claim lines for professional services in facility settings by region, pathology, 2020-2023**

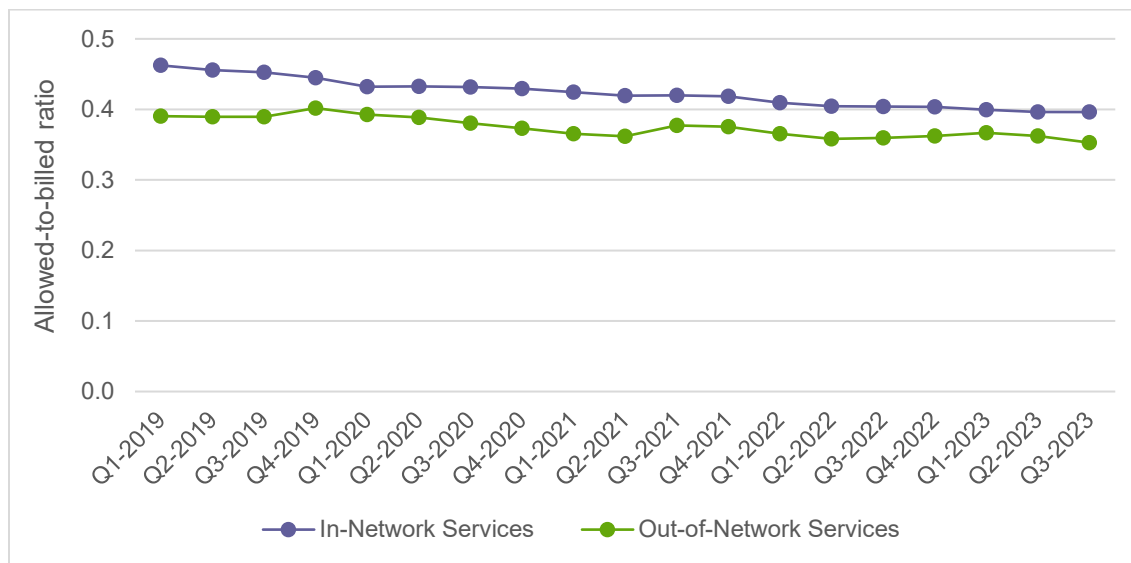
The in-network percentage of claim lines for radiology increased everywhere year to year, except in the West from 2020 to 2021, where it declined 0.5 percentage points (figure 17). The biggest increase in the percentage of radiology in-network claim lines was in the South from 2021 to 2022 (3.4 percentage points); in that period, all regions and the nation as a whole increased by over 0.5 percentage points. Only the West showed greater growth from 2022 to 2023 than from 2021 to 2022, increasing by 2.3 percentage points, compared to 0.7 percentage points the year before.



**Figure 17. In-network percentage point change in claim lines for professional services in facility settings by region, radiology, 2020-2023**

## Allowed Amounts

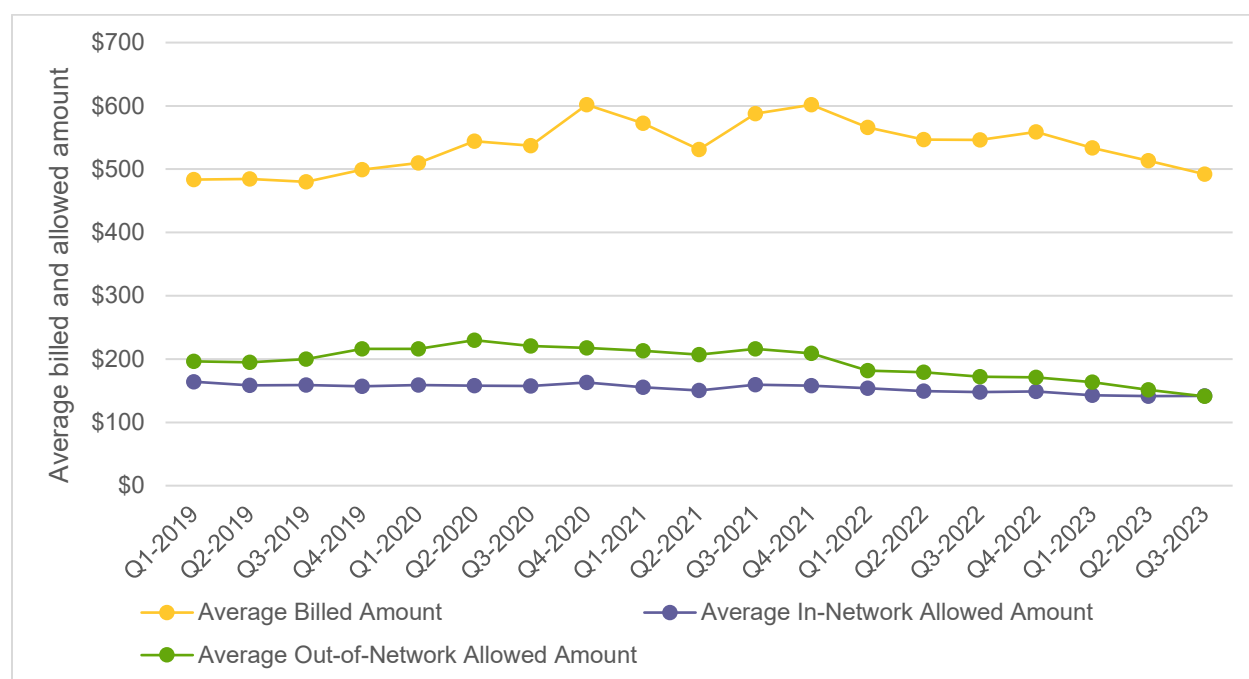
Figure 18 shows the ratio of allowed amount to billed amount for in-network and out-of-network services related to all specialties from 2019 to 2023. The ratios for both in- and out-of-network services fell during the study period. From the first quarter of 2019 to the third quarter of 2023, the allowed-to-billed ratio for in-network services fell by 14.3 percent; on average, allowed amounts were 46.2 percent of the billed amounts at the beginning of the period, and 39.6 percent of the billed amounts at the end. For out-of-network services, the decrease was 9.6 percent and the drop was from 39.0 percent to 35.3 percent of the billed amounts. The ratios for in-network and out-of-network services moved closer together over the study period.



**Figure 18. Ratio of allowed amount to billed amount for professional services in facility settings for in-network and out-of-network services, all specialties, 2019-2023**

Figures 19-22 display trends in average in-network and out-of-network allowed amounts, as well as average billed amounts, for several CPT<sup>®9</sup> codes used in emergency medicine, pathology and radiology. These CPT codes were chosen both because they are commonly billed in their specialty and because they are commonly associated with surprise billing.

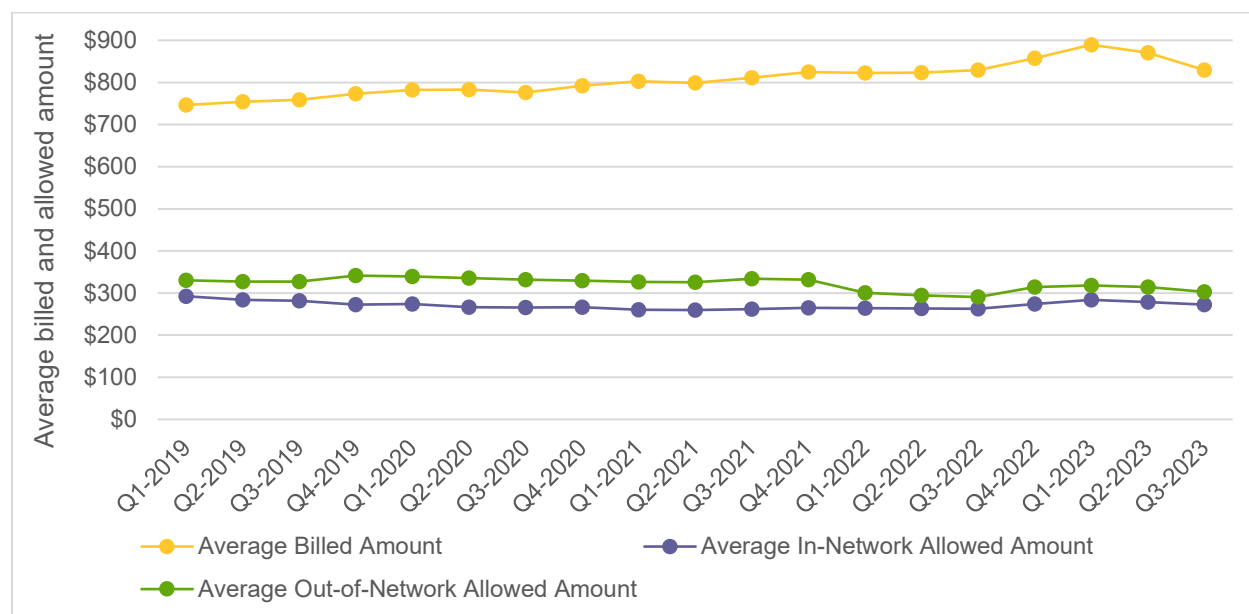
For CPT 99283 (emergency department visit with low level of medical decision making), the average out-of-network allowed amounts were typically higher than average in-network allowed amounts from 2019 to 2023 (figure 19). Since the first quarter of 2022, however, this gap narrowed, and in the third quarter of 2023, the two amounts almost converged: The average in-network allowed amount was \$142 and the average out-of-network allowed amount was \$141. While the average billed amount fluctuated from 2019 to 2023, it increased overall by 1.7 percent, rising from \$484 in the first quarter of 2019 to \$492 in the third quarter of 2023. By comparison, the average in-network allowed amount decreased by 13.6 percent, while the average out-of-network allowed amount decreased by 28.2 percent during the same period. The greater decrease in out-of-network allowed amounts when compared to in-network allowed amounts was driven by a relatively sharp decline between the fourth quarter of 2021 and the first quarter of 2022, coinciding with implementation of the NSA.



**Figure 19. Average billed and allowed amounts for CPT 99283 for in-network and out-of-network services, 2019-2023**

<sup>9</sup> CPT © 2023 American Medical Association (AMA). All rights reserved.

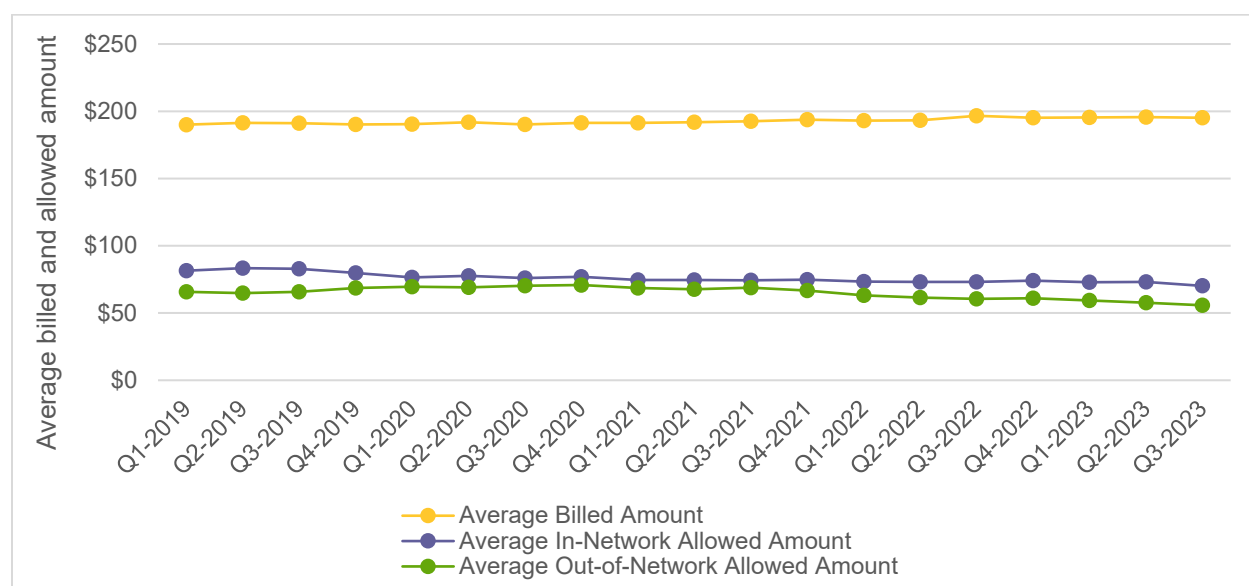
For CPT 99284 (emergency department visit with moderate level of medical decision making), as with CPT 99283 (figure 19), the gap between average out-of-network allowed amounts and average in-network allowed amounts narrowed during the study period (figure 20). Once again, a notable decrease in average out-of-network allowed amounts occurred in the first quarter of 2022. Overall, from 2019 to 2023, average out-of-network allowed amounts decreased by a greater amount (8.4 percent) than average in-network allowed amounts (6.9 percent). Average billed amounts for CPT 99284 increased 11.1 percent during the study period, which was over six times larger than the increase in average billed amounts for CPT 99283 (1.7 percent; figure 19).



**Figure 20. Average billed and allowed amounts for CPT 99284 for in-network and out-of-network services, 2019-2023**



When average allowed and billed amounts were analyzed for the pathology code CPT 88305 (pathology examination of tissue using a microscope, intermediate complexity), a different pattern was seen from those observed in figures 19 and 20. Figure 21 shows that the average out-of-network allowed amount for CPT 88305 was consistently lower than the average in-network allowed amount for that code. This is opposite to the pattern seen for the emergency medicine codes in the two previous charts. Like the previous charts, however, average billed amounts increased during the period 2019-2023 (2.6 percent) while average in-network and out-of-network amounts both decreased. The average in-network allowed amount decreased by 13.8 percent and the average out-of-network allowed amount decreased by 15.4 percent. As with the two previous codes, the out-of-network allowed amounts for CPT 88305 decreased by more than the in-network allowed amounts.

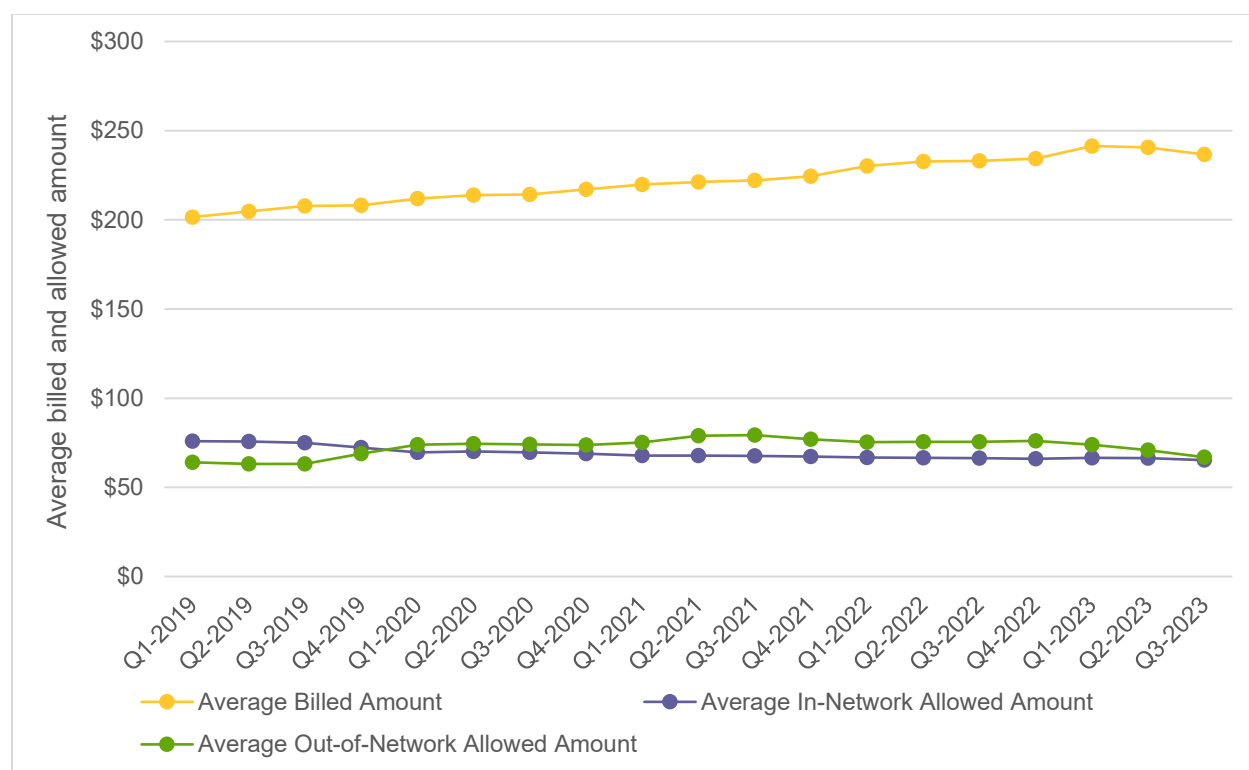


**Figure 21. Average billed and allowed amounts for CPT 88305 for in-network and out-of-network services, 2019-2023**

For the radiology code CPT 70450 (CT scan head or brain without contrast), the average in-network allowed amounts were higher than the average out-of-network allowed amounts in 2019, but in 2020, the pattern was reversed (figure 22). By the beginning of 2023, the newer pattern still held, though the two values were getting closer together. In the third quarter of 2023, the average in-network allowed amount was \$65 and the average out-of-network allowed amount was \$67.

Average billed amounts increased from 2019 to 2023 by 17.4 percent, climbing from \$202 to \$237. But in contrast to the previous codes, average out-of-network allowed amounts for CPT 70450 increased as well, by 4.5 percent. The average in-network allowed amounts decreased by 14.0 percent during the same period.

The trend toward convergence of average in-network and average out-of-network allowed amounts, seen with the emergency medicine codes and the radiology code sampled in this report, was also seen in FAIR Health analyses of the top 10 codes by volume in each of the following specialties: emergency medicine, pathology and radiology.



**Figure 22. Average billed and allowed amounts for CPT 70450 for in-network and out-of-network services, 2019-2023**

## Conclusion

This study of in-network and out-of-network utilization and pricing from 2019 to 2023 makes several notable findings. A large majority of professional services in facility settings across all specialties, nationally and regionally, were rendered in network both before and after the NSA went into effect. In-network percentages of claim lines nationally and in all regions increased across all specialties, with a relatively sharp increase from the fourth quarter of 2021 to the first quarter of 2022, at the time the NSA took effect. The national increase from 2019 to 2023 for specialties of interest (anesthesia, emergency medicine, pathology, radiology) was smaller than for all specialties.

From the first quarter of 2019 to the third quarter of 2023, emergency medicine had the lowest in-network percentage compared to other specialties of interest. But its in-network percentage increased more (13.2 percent) than the other specialties of interest. Of all four specialties of interest, radiology had the highest national percentage of in-network claim lines, which increased 4.0 percent. Pathology had the smallest increase nationally (0.6 percent). The in-network percentage of anesthesiology claim lines increased 8.0 percent.

Trends in specialties of interest varied by region. In the South, for example, in 2023, there was a decrease in in-network care for three of the four specialties of interest: anesthesiology, pathology and radiology.

The ratio of allowed amount to billed amount for both in- and out-of-network services fell during the study period. The decrease was greater for in-network services than for out-of-network services. The ratios for in-network and out-of-network services moved closer together during the period.

A trend toward convergence of average in-network and average out-of-network allowed amounts was seen with emergency medicine and radiology procedure codes sampled in this report, and was also seen in FAIR Health analyses of the top 10 codes by volume in each of the following specialties: emergency medicine, pathology and radiology.

The findings in this report have implications for stakeholders across the healthcare spectrum, including payors, providers, policy makers and patients. FAIR Health hopes that these findings will also be starting points for further research on in-network and out-of-network utilization and pricing against the backdrop of federal and state surprise billing laws.

## About FAIR Health

FAIR Health is a national, independent nonprofit organization dedicated to bringing transparency to healthcare costs and health insurance information through data products, consumer resources and health systems research support. FAIR Health qualifies as a public charity under section 501(c)(3) of the federal tax code. FAIR Health possesses the nation's largest collection of private healthcare claims data, which includes over 45 billion claim records and is growing at a rate of over 3 billion claim records a year. FAIR Health licenses its privately billed data and data products—including benchmark modules, data visualizations, custom analytics and market indices—to commercial insurers and self-insurers, employers, providers, hospitals and healthcare systems, government agencies, researchers and others. Certified by the Centers for Medicare & Medicaid Services (CMS) as a national Qualified Entity, FAIR Health also receives data representing the experience of all individuals enrolled in traditional Medicare Parts A, B and D; FAIR Health includes among the private claims data in its database, data on Medicare Advantage enrollees. FAIR Health can produce insightful analytic reports and data products based on combined Medicare and commercial claims data for government, providers, payors and other authorized users. FAIR Health's free, award-winning, national consumer websites are [fairhealthconsumer.org](https://fairhealthconsumer.org) and [fairhealthconsumidor.org](https://fairhealthconsumidor.org). For more information on FAIR Health, visit [fairhealth.org](https://fairhealth.org).

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