

# Commercial Reimbursement Benchmarking

Commercial payment rates for medical services as percentage of Medicare Fee-for-Service rates

Andy McBeth, FSA, MAAA  
Charlie Mills, FSA, MAAA  
Danjie Zhou, ASA, MAAA



## Introduction

Milliman maintains a national commercial health insurance claims experience database representing approximately 100 million members and \$300 billion in medical allowed charges. We reprice this experience data to Medicare fee-for-service (FFS) payment rates using the Milliman Medicare Repricer™.<sup>1</sup> The Milliman Medicare Repricer contains a full Medicare FFS adjudication engine, including MS-DRG and APC groupers, allowing for a full comparison of the commercial reimbursement to the Medicare-allowed amounts. The commercial allowed divided by the repriced Medicare FFS allowed provides a payment rate benchmark.

Nationally, we estimate 2021 commercial reimbursement for medical services to be approximately 190% of fully-loaded Medicare,<sup>2</sup> with a significant difference between facility reimbursement and professional reimbursement as shown in Figure 1.

**FIGURE 1: NATIONAL COMMERCIAL REIMBURSEMENT AS A PERCENTAGE OF MEDICARE FFS RATES**

INPATIENT	OUTPATIENT	PROFESSIONAL	TOTAL
198%	261%	141%	190%

## “Percentage of Medicare” and how it is calculated

Milliman’s commercial reimbursement benchmarks are based on nationwide commercial medical claims data that are aggregated from several sources, including Milliman’s Consolidated Health Cost Guidelines (HCG) Sources Database (CHSD), which reflects commercial claims incurred in 2019, and the IBM MarketScan data, which reflects commercial claims incurred in 2018. The commercial-allowed charges are trended to 2021.

The claims are repriced to the 2020 Medicare FFS fee schedule, and the Medicare-allowed amounts trended to 2021 using area-specific unit price trends. The percentage of Medicare reimbursement is a simple ratio of the total commercial-allowed charges over the total Medicare-allowed charges. The data is summarized by Metropolitan Statistical Areas (MSAs) and major service types: Inpatient Hospital (IP), Outpatient Hospital (OP), and Professional (Prof) services. Statewide and nationwide totals are determined by weighting the MSA-level results to reflect the distribution of the under 65 population.

The Medicare FFS-allowed charges are assigned with the Milliman Medicare Repricer. The Milliman Medicare Repricer supports the major Medicare fee schedules including the inpatient and outpatient prospective payment systems (IPPS and OPPS) and can be set to include or exclude provider-specific adjustments like disproportionate share hospital payments and indirect medical education payments (among others). For this study, PPS rates are assigned to non-PPS facilities including Critical Access Hospitals, Cancer and Children’s hospitals, and Maryland waiver hospitals.

Under Medicare, most acute hospitals receive additional disproportionate share (DSH) and Uncompensated Care, and many receive indirect medical education (IME) payments for inpatient stays. These additional payments make up approximately 13% of the total Medicare payments under IPPS nationally. We have included these additional payments in our analysis, with the exception of inpatient pass-through payments.

The professional Medicare reimbursement does not reflect any adjustments for Merit-based Incentive Payment System (MIPS), healthcare professional shortage area, or professional bills through critical access hospitals.

The Milliman Medicare Repricer is validated against Medicare FFS claims to ensure consistency with the allowed payments under Medicare FFS.

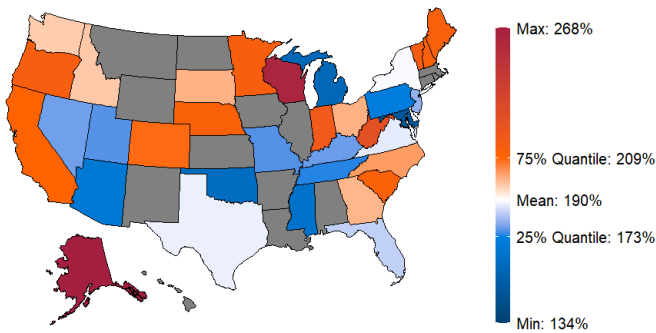
<sup>1</sup> <https://www.milliman.com/en/products/Medicare-Repricer>

<sup>2</sup> We define fully loaded Medicare as the Medicare prospective payment rates including add-on payments for outlier, disproportionate share, indirect medical education, uncompensated care, sole community hospitals, and Medicare-dependent hospitals. Pass through payments are excluded. For non-PPS providers (e.g., critical access hospitals, Maryland waiver hospitals), we develop PPS rates using the market PPS pricing factors published by the Centers for Medicare and Medicaid Services (CMS).

## Variations in reimbursement rates across geographic areas

Provider reimbursement rates vary significantly across geographic areas. Figure 2 provides a state-level view of total reimbursement as a percentage of Medicare, excluding retail pharmacy claims. As shown, most states are within a narrow range; however, there are a number of states with very high or low reimbursements relative to Medicare. For example, we estimate that Alaska has the highest total commercial reimbursement at 268% of Medicare FFS. Michigan and Oklahoma are low, at 159% and 162% of Medicare FFS, respectively. We also observe significant variations by market (defined by MSA) within states as well. For example the MSA level results in California range from 164% of Medicare in El Centro to 255% in Yuba City. There are several reasons why reimbursement can vary widely across markets, including the relative negotiating power of providers or payers, and the variation in regional Medicare FFS rates.

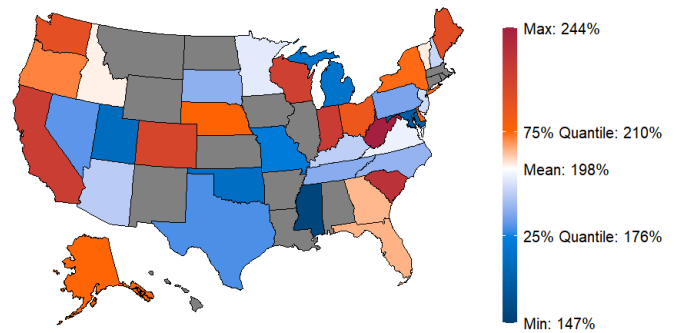
**FIGURE 2: AVERAGE COMMERCIAL REIMBURSEMENT AS A PERCENTAGE OF MEDICARE FFS RATES**



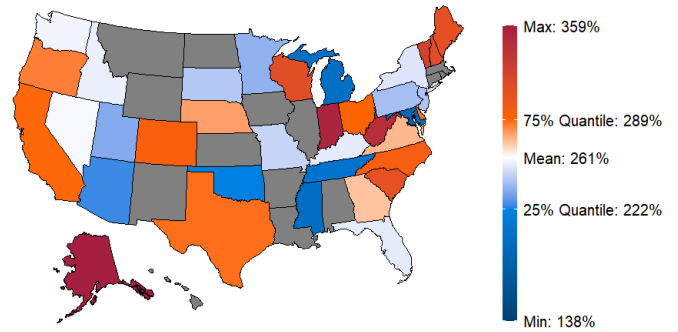
## Milliman provider reimbursement benchmarks

Commercial reimbursement also varies by type of service. Figures 3, 4, and 5 show the average statewide reimbursements as a percentage of Medicare FFS for inpatient, outpatient, and professional services, respectively. The nationwide reimbursement by this measure is lowest for professional services at 141% of Medicare, and highest for outpatient services at 261% of Medicare. Commercial inpatient reimbursement averages 198% nationwide.

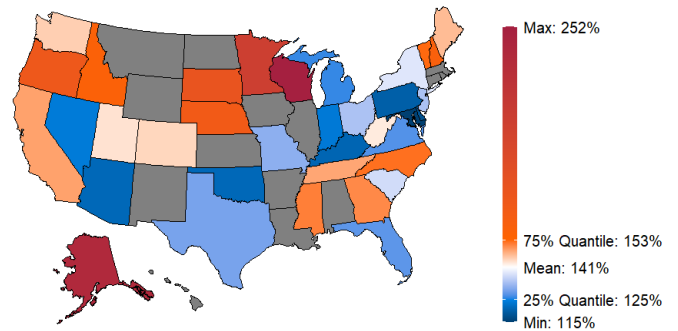
**FIGURE 3: AVERAGE COMMERCIAL INPATIENT REIMBURSEMENT AS A PERCENTAGE OF MEDICARE FFS RATES**



**FIGURE 4: AVERAGE COMMERCIAL OUTPATIENT REIMBURSEMENT AS A PERCENTAGE OF MEDICARE FFS RATES**



**FIGURE 5: AVERAGE COMMERCIAL PROFESSIONAL REIMBURSEMENT AS A PERCENTAGE OF MEDICARE FFS RATES**



Milliman reimbursement benchmarks are also available by MSA to drill down to market-specific reimbursement. Additionally, these benchmarks are also available at more granular service levels, e.g., inpatient maternity, outpatient emergency, anesthesia, and professional surgical procedures. The additional service category detail allows for more detailed review of specific elements of provider reimbursements, and a better understanding of where reimbursement contracts are relative to the market. As an example, if we look into Wisconsin's professional reimbursement relative to Medicare, the data shows that this is partly driven by Wisconsin's lower-than-average Medicare reimbursement (approximately 4% below national for professional) and the average commercial reimbursement for professional radiology services (approximately 413% of Medicare).

## Comparison to other benchmarks

We validated our benchmarks by comparing our results to other publicly available data, specifically the HCCI study<sup>3</sup> on 2017 professional reimbursement, and the 2020 RAND study<sup>4</sup> - "Nationwide Evaluation of Health Care Prices Paid by Private Health Plans."

The HCCI study is limited to professional claims and is based on 2017 commercial and Medicare fee schedule levels. The Milliman benchmarks are based on 2018 and 2019 incurred data, trended forward to 2021 charge levels.

Figure 6 compares the Milliman results to the HCCI results. The Milliman results are consistently higher than the HCCI results; however, both studies show similar variation among the states measured, and the relativity between states is consistent. For example, Wisconsin has the highest reimbursement, and Alabama and Maryland are among the states with the lowest reimbursement. The HCCI study also focuses on metropolitan areas, and the Milliman benchmarks are inclusive of urban and rural areas. Urban and rural areas can have very different reimbursements as a percentage of Medicare due to differences in Medicare reimbursement rates as well as commercial market dynamics that can impact provider contracts, e.g., there is typically less provider competition in rural areas. The Milliman benchmarks show the ratio of commercial allowed to the Medicare PPS allowed, including claims for non-PPS providers. The benchmarks are available at the MSA level, enabling comparisons to urban and rural areas separately.

**FIGURE 6: MILLIMAN AND HCCI PROFESSIONAL REIMBURSEMENT BENCHMARKS**

	PROFESSIONAL	
	MILLIMAN	HCCI
Valuation Year	2021	2017
Nationwide Mean	141%	122%
Highest	252% (WI)	188% (WI)
Lowest	115% (MD)	98% (AL)
Data Volume (\$M)	\$112,145	\$13,389
Repricing/ Methodology	Full-service, line-level claim repricing using the Medicare Physician Fee Schedule (PFS)	Medicare PFS amount with limited modifier adjustments (26, TC, and 53 only)

Figures 7 and 8 compare the Milliman benchmark results to the RAND study for inpatient and outpatient services, respectively. The RAND study estimates are higher than our results for inpatient reimbursement rates and consistent with our results for outpatient. The RAND study is an estimate of the 2018 commercial reimbursement rates, while our results are 2021 estimates.

We excluded professional results from our comparison as our professional reimbursement benchmarks include all professional settings, and the RAND study focuses on services provided in a hospital setting.

**FIGURE 7: MILLIMAN AND RAND INPATIENT REIMBURSEMENT BENCHMARK COMPARISON**

	INPATIENT	
	MILLIMAN	RAND
Valuation Year	2021	2018
Nationwide Mean	198%	212%
Highest	244% (WV)	427% (TN)
Lowest	150% (MS)	197% (PA)
Data Volume (\$M)	\$79,863	\$15,700

<sup>3</sup> <https://healthcostinstitute.org/hcci-research/comparing-commercial-and-medicare-professional-service-prices>

<sup>4</sup> "Nationwide Evaluation of Health Care Prices Paid by Private Health Plans" available at [www.rand.org/t/RR4394](http://www.rand.org/t/RR4394).

**FIGURE 8: MILLIMAN AND RAND OUTPATIENT REIMBURSEMENT BENCHMARK COMPARISON**

	OUTPATIENT	
	MILLIMAN	RAND
Valuation Year	2021	2018
Nationwide Mean	261%	262%
Highest	359% (AK)	456% (WV)
Lowest	199% (MS)	164% (RI)
Data Volume (\$M)	\$108,034	\$14,800
Repricing/ Methodology	Full Outpatient Prospective Payment System (OPPS) and ASC pricing	"Simulated Medicare Prices" that may "exclude some minor adjustments"

## Benchmarking commercial reimbursement

Commercial provider reimbursement arrangements can take many forms, ranging from simple discounts off of billed and fee schedules, to complex calculation methodologies and risk sharing arrangements. Many commercial fee schedules utilize Medicare-like reimbursement structures based on diagnosis related groups (DRGs), ambulatory payment classifications (APCs), and the resource-based relative value system (RBRVS). Commercial FFS payment contracts often use a combination of fee schedules and a percentage of billed charges.

Recently, payers and providers have recognized the predictability and administrative simplicity of utilizing Medicare fee schedules as the basis for commercial reimbursement arrangements. Additionally, shared risk models including bundled payments and shared savings arrangements have become more prevalent. The Health Care Payment Learning & Action Network<sup>5</sup> (HCP-LAN) estimates that alternative payment models increased from 22% of commercial payments in 2016 to 30% in 2018.

Comparing provider contracts that use differing pricing methodologies is difficult. Differences in billed charge levels limit the value of comparisons of relative percentage of charges, and differences in membership and service mix complicate the results when comparing different providers, such as a large urban hospital and a critical access hospital.

<sup>5</sup> <https://hcp-lan.org/apm-measurement-effort/>

One widely used method for evaluating provider reimbursement involves comparing the total commercial reimbursement to the Medicare FFS rate. This method has several benefits when compared to other comparison methods:

- Percentage of Medicare comparisons do not rely on billed charge levels, which can vary widely between providers and areas.
- Medicare payment rates are well understood by payers and providers making comparisons acceptable to all parties.
- The repriced Medicare allowed reflects the mix of services across providers and plans, making results less dependent on the specific mix of services in the data set.

The primary drawbacks of this method are:

- The requirement of the expertise and/or software to price claims to the Medicare fee schedule.
- Contract language is needed to precisely define the Medicare definition and specify how updates to the Medicare fee schedules are accounted for.

In addition to enabling an apples-to-apples comparison between specific provider or payer contracts, comparing contracts as a percentage of Medicare FFS reimbursement also eases comparison of aggregate reimbursement rates across geographic regions or to area reimbursement benchmarks.

## Conclusion

Comparing commercial-allowed amounts to Medicare FFS reimbursement requires either specialized expertise including an understanding of the complex Medicare FFS reimbursement rules, or software to assign the Medicare-allowed amounts.

Provider reimbursement as a percentage of Medicare provides a consistent and well-understood basis for comparing reimbursement rates. Using this common basis enables comparison to reimbursement benchmarks. Provider contracts can also be compared to Milliman's commercial reimbursement benchmarks to provide a better understanding of their position to the market average reimbursement.

## CONTACT

Andy McBeth  
[andy.mcbeth@milliman.com](mailto:andy.mcbeth@milliman.com)  
 Charlie Mills  
[charlie.mills@milliman.com](mailto:charlie.mills@milliman.com)  
 Danjie Zhou  
[danjie.zhou@milliman.com](mailto:danjie.zhou@milliman.com)