NC RHRP

Findings Brief
NC Rural Health Research Program

April 2026

Average Salary Expense in Rural and Urban Hospitals Before and During the Low Wage Index Policy, 2018–2022

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KEY FINDINGS

This study describes hospital wage patterns for Critical Access Hospitals, Rural Prospective Payment System (PPS) hospitals, and Urban PPS hospitals from 2018–2022. The Low Wage Index Policy (LWIP) in effect between 2020-22 aimed to increase the wage index for hospitals in the lowest quartile, effectively raising their Medicare payments. This was intended to help these hospitals increase their employee wages. Key findings include:

- *Hospital wages increased steadily across all hospital types between 2018 and 2022*. Median average salary expense per full-time equivalent (FTE) employee rose each year for CAHs, Rural PPS, and Urban PPS hospitals, with the largest annual increases occurring in the later years of the study period.
- *Urban hospitals consistently paid higher wages, and rural-urban wage differences remained stable.* Despite rising wages overall, Urban PPS hospitals maintained substantially and persistently higher wages than Rural PPS hospitals and CAHs, with wage gaps remaining relatively unchanged across the five-year period examined.
- *Multiple economic and policy pressures likely contributed to rising wages*. Workforce shortages, increased reliance on contract labor, COVID-19-related disruptions, and policies such as the Low Wage Index Policy have created a complex operating environment; however, the study data do not allow for attribution of wage changes to specific causes.

BACKGROUND

Hospital wages are a central component of hospital operating costs and a key factor influencing workforce recruitment, retention, and financial stability. Wage levels vary significantly across hospital types and geographic areas, particularly among Critical Access Hospitals (CAHs), rural Prospective Payment System (PPS) hospitals, and Urban PPS hospitals. These differences reflect underlying labor market conditions, the competitive environment for health care professionals, and hospitals' overall financial capacity to support wage growth.

The Medicare wage index adjusts Inpatient Prospective Payment Systems (IPPS) payments to reflect geographic differences in labor costs. Because the wage index impacts the level of Medicare reimbursement a hospital receives, it influences the financial resources available to support competitive compensation.[1] Although CAHs are not reimbursed under IPPS, they are operating in the same labor markets as PPS hospitals and are affected by the wage patterns covered through these payment adjustments.

Two notable developments during the study period influenced the environment in which hospitals set wages:

- *The Low Wage Index Policy (LWIP):* Implemented in FY 2020, LWIP raised wage index values for hospitals in the lowest quartile to help address long-standing geographic payment differences. By increasing Medicare reimbursement for these hospitals, LWIP aimed to strengthen their ability to offer competitive wages in historically low-wage areas. The policy remained in place through FY 2024 before being discontinued in FY 2025.[2]

- *Broad labor market pressures:* Hospitals faced rising labor costs throughout the 2018-2022 study period due to workforce shortages, competition for clinical staff, and increased reliance on higher-cost contract labor. These pressures were further intensified during the COVID-19 pandemic, which contributed to increased salary expenses.[3] Because the wage index is calculated using wage data from four years prior, the current wage pressures will influence wage index values and Medicare reimbursement in future years rather than immediately affecting the wage index during the years analyzed.[4]

The purpose of this study is to describe the **trajectories of hospital wages**, measured as average salary expense per full-time equivalent (FTE) employee , for CAHs, Rural PPS hospitals, and Urban PPS hospitals from 2018 to 2022. This analysis provides a clearer understanding of how wages evolved across diverse hospital settings during this period.

METHODS

We obtained financial and hospital characteristic data from the Centers for Medicare & Medicaid Services (CMS) Healthcare Cost Report Information System (HCRIS) – *often referred to as* the hospital cost report. We retrieved hospital salary expenses from Worksheet A, column 1, line 200, and total employee full-time equivalents (FTE) from Worksheet S-3, column 10, line 27.

We calculated hospital wage cost as the average salary expense per FTE. To align average salary expense per FTE with the wage index calendar year, we applied a weighted average when hospital cost reports spanned multiple fiscal years. For instance, if a hospital has a cost report period of July 1, 2021, to June 30, 2022, then we added 9/12 of the 2021-22 cost report (October 2021 to June 2022) with 3/12 of the 2022-23 cost report (July to September 2022). This adjustment ensures that the salary data correspond to the wage index calendar year (October 1, 2021 to September 30, 2022). To prevent the influence of outliers, we excluded average salary expenses per FTE that were below $20,000 or above $100,000.

We categorized hospitals as PPS hospitals and CAHs and further distinguished PPS hospitals as rural or urban using the 2022 Federal Office of Rural Health Policy definition.[5] We then generated descriptive statistics to compare the median average salary expense per FTE by hospital category (Rural PPS, Urban PPS, and CAH) for each year. Table 1 provides the number of CAHs, Rural PPS, and Urban PPS hospitals for each federal fiscal year from 2018 to 2022.

Table 1. Number of Hospitals by Year and Category

Year label	Start date	End date	CAHs	Rural PPS	Urban PPS	Total
2018	10/1/2017	9/30/2018	1,262	858	1,954	4,074
2019	10/1/2018	9/30/2019	1,254	831	1,927	4,012
2020	10/1/2019	9/30/2020	1,265	832	1,884	3,981
2021	10/1/2020	9/30/2021	1,256	808	1,827	3,891
2022	10/1/2021	9/30/2022	1,237	773	1,699	3,709
Total Hospital-year Observations [a]			6,274	4,102	9,291	19,667
Total Hospitals [b]			1,351	920	2,091	4,362

[a] Total number of hospital cost reports over all study years.
[b] Number of unique hospitals that provided cost reports.

RESULTS

Average Salary Expense per FTE between 2018 and 2022

Table 2 presents the median average salary expense per FTE for CAHs, Rural PPS, and Urban PPS hospitals from 2018 to 2022. The median increased steadily across all hospital types over the five years. Urban PPS hospitals had the highest median in each year. We found minimal differences between CAH and Rural PPS hospital medians across the five years.

Table 2. Median Average Salary Expense per FTE [a] for CAHs, Rural PPS, and Urban PPS Hospitals from 2018 to 2022

Hospital Type (Hospital-year Observations)	2018	2019	2020	2021	2022
All hospitals (n=19,667)	$64,793	$66,692	$69,172	$72,959	$77,074
CAH (n=6,274)	$59,669	$61,423	$64,739	$68,060	$71,818
Rural PPS (n=4,102)	$60,596	$62,558	$64,970	$68,363	$73,234
Urban PPS (n=9,291)	$68,745	$70,832	$73,241	$76,924	$80,948

Table 3 presents the median percentage change in average salary expense per FTE for CAHs, Rural PPS, and Urban PPS hospitals from 2018 to 2022. The median percentage change increased steadily across all hospital types and years. CAHs and Rural PPS hospitals exhibited slightly higher median percentage changes compared to Urban PPS hospitals across all years. Across all hospital types, we found greater median percentage changes during the LWIP.

Table 3. Median Percentage Change in Average Salary Expense per FTE [a] for CAHs, Rural PPS, and Urban PPS Hospitals from 2018 to 2022

Hospital Type (Hospital-year Observations)	Percent Change [b] from 2018 to 2019	Percent Change [b] from 2019 to 2020	Percent Change [b] from 2020 to 2021	Percent Change [b] from 2021 to 2022
All hospitals (n=19,667)	2.81	3.81	5.42	6.16
CAH (n=6,274)	3.49	4.27	5.38	6.14
Rural PPS (n=4,102)	2.76	3.80	5.62	6.37
Urban PPS (n=9,291)	2.53	3.59	5.36	6.10

DISCUSSION

From 2018 to 2022 period, the median average salary expense per FTE increased steadily for all hospital types. Urban PPS hospitals consistently had the highest wage levels, while Rural PPS hospitals and CAHs exhibited similar and lower wages. Annual percentage increases in wages became more pronounced in the later years of the period, reflecting the broader labor market pressures hospitals faced, including workforce shortages, heightened competition for clinical staff, and increased reliance on contract labor. These pressures were further intensified during the COVID-19 pandemic. However, this analysis did not investigate the specific drivers of the observed wage growth or separate the effects of individual events or policies.

[a] Average salary expense per FTE <$20,000 and >$100,000 were excluded from the analysis.

[b] $\text{Percent Change} = \frac{(x_{year} - x_{year-1})}{x_{year-1}} \times 100$

Despite overall wage increases, the gap between rural and urban hospitals remained relatively stable over the five years examined. In 2018, the median average salary expense per FTE for Urban PPS hospitals exceeded that of Rural PPS hospitals by $8,149 and that of CAHs by $9,076; by 2022, these gaps were $7,714 and $9,130, respectively. This persistence in wage differentials suggests that longstanding structural differences, such as variation in financial resources, labor market competition, and organizational capacity, continue to impact the ability of hospitals in different settings to offer competitive wages.

Policies such as the LWIP may have increased financial support for some low-wage hospitals during this period, but this study did not assess whether the LWIP influenced wage levels or wage growth. Hospitals also benefited from other forms of federal support during the pandemic, including Provider Relief Funds and temporary payment adjustments, making it impossible to attribute wage changes to any one reason.

Looking ahead, changes in the wage index beginning in FY 2025 may have implications for wage-setting capacity, particularly for hospitals in historically low-wage areas. The discontinuation of LWIP removes a potential source of financial support that may have helped some hospitals remain competitive in attracting and retaining staff. Hospitals serving impoverished communities may face greater difficulty sustaining wage growth, exacerbating staffing challenges and potentially widening rural-urban differences. Although transitional payments planned for FY 2025 and FY 2026 may provide short-term relief, their limited scope suggests that wage pressures are likely to persist.

These findings indicate that while hospital wages increased steadily across the study period, the fundamental differences in wage levels between rural and urban hospitals remained largely unchanged. The persistence of these differences, combined with ongoing financial and workforce challenges, emphasizes the need for continued policy attention to wage competitiveness and workforce stability in low wage and rural hospital settings.

REFERENCES AND NOTES

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Suggested Brief Citation

Karim S, Pink G, Thompson K, Holmes M. *Average Salary Expense in Rural and Urban Hospitals Before and During the Low Wage Index Policy, 2018–2022.* NC Rural Health Research Program, UNC Sheps Center. April 2026.

This study was supported by the Federal Office of Rural Health Policy (FORHP), Health Resources and Services Administration (HRSA), U.S. Department of Health and Human Services (HHS) under cooperative agreement # U1CRH03714. The information, conclusions and opinions expressed in this brief are those of the authors and no endorsement by FORHP, HRSA, HHS, or The University of North Carolina is intended or should be inferred.