2025 Hospital Workforce Trends Report
Project ID: HB21-1232

Submitted by:
DIRA Partners, LLC

Submitted to: Colorado Division of Insurance
Provided on **June 30, 2025**

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Executive Summary

The 2025 Hospital Workforce Trends Report ("Report") is the third of three reports, required by House Bill 21-1232 (the Colorado Standardized Health Benefit Plan Act), to assess the impact, if any, of Colorado Option implementation on the wages, benefits, staffing, training, and working conditions of the hospital workforce. The conclusions in this Report are based on secondary data analyses of the American Community Survey (ACS), Current Population Survey (CPS), National Academy for State Health Policy (NASHP) Hospital Costs Tool, and the Colorado Department of Health Care Policy & Financing (HCPF) Hospital Financial Transparency Report. Data may differ from prior reports due to the availability of data sources.

Key Conclusions

- **Colorado Option has had no discernible impact on hospital workforce.**
  Across three consecutive annual reports from 2023 through 2025, there is no evidence that implementation of the Colorado Option has negatively affected hospital wages, benefits, staffing, training, or working conditions. Core workforce and financial metrics have remained stable throughout the study period.

- **Hospital employment remains a stable contributor to Colorado's workforce.**
  Heath care makes up 10% of the total workforce in Colorado, while hospitals remain a major employer in Colorado, representing 4% of the overall state workforce.[1] Hospital jobs also continue to offer relatively high levels of educational attainment and stability compared to the broader workforce.

- **Colorado's hospital workforce reflects national trends, with few differences.**
  Colorado's hospital workforce is similar in composition to the national hospital workforce but shows slightly higher concentrations of physicians and advanced practice providers.[2]

- **Labor costs remain a dominant but stable portion of hospital operating expenses.**
  Labor costs accounted for 45% of operating expenses in 2023, slightly down from 46% in 2022 and comparable to pre-pandemic levels.[3] Labor's share of net patient revenue has changed little over the past decade, highlighting a consistent but significant role in hospital financial operations.

- **Contract labor costs declined in 2023, reversing pandemic-era trends.**
  After a significant increase during the COVID-19 pandemic, both the use of and spending on contract labor declined in 2023. Contract labor costs dropped by 26% from 2022, and

[1] Current Population Survey. *US Census Bureau*.
[2] 2023 American Community Survey. *US Census Bureau.*
[3] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*

hospitals shifted investment back toward directly employed staff, with wages for employed staff increasing by 10.7% in 2023.[4]

Background and Context

Hospitals are an integral part of a community's ecosystem, providing essential services to support residents' health and well-being as well as providing jobs for residents of all educational backgrounds. This is no different in Colorado where nearly 100,000 hospital workers provide inpatient and outpatient services for the state's 5.22 million residents and are one of the fastest-growing workforces in the state.[5] Labor costs, including salary, wages, and benefits for directly employed and contract workers, are the largest share of hospital costs, accounting for just under half of Colorado hospital operating expenses.[6]

"Colorado Option" HB21-1232

House Bill 21-1232 (HB21-1232), or the Colorado Standardized Health Benefit Plan Act ("Colorado Option"), established an affordable standardized health benefit plan for Colorado consumers in the individual and small group markets. As required by HB21-1232, the Colorado Division of Insurance (DOI) contracted with DIRA Partners as its third-party vendor to prepare three annual Hospital Workforce Trends Reports ("Report"), the first of which was submitted in June 2023 and the second in June 2024. The purpose of these reports is to monitor the impact of the Colorado Option implementation, if any, on hospital workforce wages, benefits, staffing, training, and working conditions, to the extent information is available. This is the third and final report required by HB21-1232.

Data Sources Across the Three Reports

Over the course of the three Reports, a variety of secondary data sources were used due to data availability. The table below provides an overview of the sources used for each Report, including the data years. Appendix A restates this table and provides methodology for each source used in this 2025 Report.

Table 1. Workforce Trends Reporting Data Sources

Data Source	2023 Report	2024 Report	2025 Report
American Community Survey (ACS)	2021 5-year sample (2017-2021)	Not used	2023 5-year sample (2019-2023)

[4] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*
[5] Colorado Hospital Workforce. *Colorado Hospital Association* | Colorado State Profile. *U.S. Census Bureau.*
[6] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*

Colorado Department of Health Care Policy and Financing (HCPF) Hospital Reports	2021 data via 2023 Hospital Expenditure Report	2022 data via 2024 Hospital Financial Transparency Report	2023 data via 2025 Hospital Financial Transparency Report
Current Population Survey (CPS)	Not used	Not used	2024 data
National Academy of State Health Policy (NASHP) Hospital Cost Tool	Not used	2022 data	2023 data
Occupational Employment and Wage Statistics (OEWS)	2022 data	2023 data	Colorado OEWS data not available[7]
RAND Hospital Data	2021 data	Per DOI recommendation, DIRA switched to the NASHP Hospital Cost Tool. Both datasets pull from public cost report data from the CMS Healthcare Cost Report Information System	

2023 Hospital Workforce Trends Report

The 2023 Report established a baseline of Colorado's hospital workforce employment experiences as well as hospital financial trends using datasets from the U.S. Department of Labor, RAND, and the American Community Survey.[8] The first Report began to explore the relationship between labor and hospital costs and specifically, the impact of increasing utilization of contract workers on this relationship.

The 2023 Report reached the following conclusions:

1. Colorado's hospital workforce looked similar to the national hospital workforce.
2. More than 80,000 Coloradans were directly employed by a hospital.
3. Labor was one of the largest expenses in hospitals' budgets, consisting of both workers employed directly by hospitals and contract workers employed through staffing agencies.[9]
4. Contracted labor had seen the largest rate of growth among hospital expenses in recent years and puts further pressure on total hospital costs.[10]

[7] Notice Regarding Suspension of Publication of Colorado Occupational Employment and Wage Statistics. *Occupational Employment and Wage Statistics.*
[8] 2023 Hospital Workforce Trends Report. *DIRA Partners, LLC for the State of Colorado Division of Insurance.*
[9] Hospital cost structure and the implications on cost management during COVID-19. *Journal of General Internal Medicine.*
[10] Fact sheet: Strengthening the health care workforce. *American Hospital Association.*

2024 Hospital Workforce Trends Report

The 2024 Report established a baseline of Colorado's hospital workforce employment experiences as well as hospital financial trends using datasets from the U.S. Bureau of Labor Statistics, National Academy for State Health Policy (NASHP) Hospital Costs Tool, and Colorado Department of Health Care Policy & Financing (HCPF) Hospital Financial Transparency Report.[11] The 2024 Report examined the relationship between labor and hospital costs and specifically, the impact of increasing utilization of contract workers on this relationship. The 2024 Report also included an analysis of survey data from over 2,000 current and recently former Colorado hospital workers as well as focus group data. The survey included questions about their experiences related to working conditions, wages, benefits, and training. As a note, while survey respondents included a mix of clinical and non-clinical as well as current and former employees, non-clinical staff were underrepresented in the responses while white workers and nurses were overrepresented.

The 2024 Report reached the following conclusions:

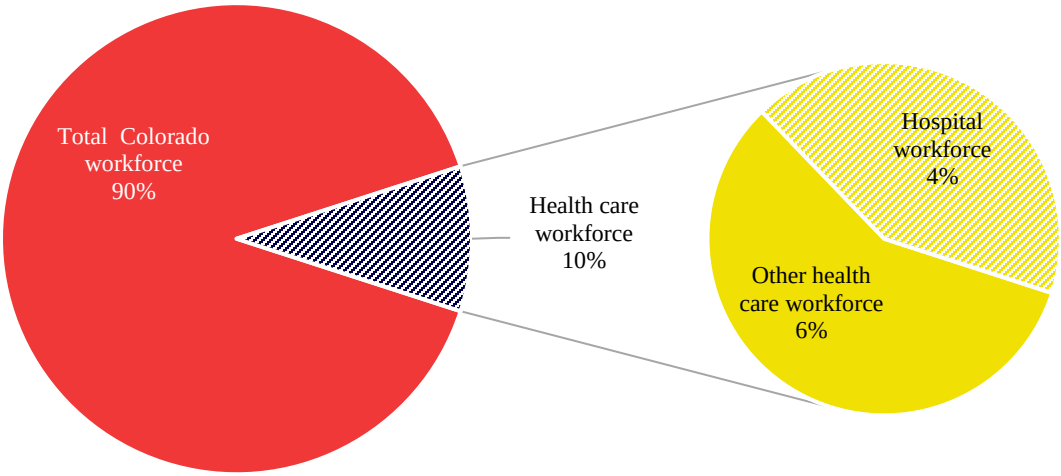
1. Based on the survey and focus group findings of the 2024 report, the Colorado Option implementation had not had an impact on the Colorado hospital workforce.
2. Hospital jobs represented 3.6% of the overall Colorado job market and represented some of the largest job growth rates (4%) in the state in 2023.[12]
3. Labor costs comprised 46% of Colorado hospital operating costs in 2022. This percentage had only varied slightly since 2014.[13]
4. Hospital operating costs, including labor, rose 10.4% between 2021 and 2022 in Colorado compared to an average of 7.8% per year since 2014.[14] Contract labor costs were growing at a faster rate than direct employee costs. Further, the cost of contract labor had grown disproportionately compared to the use of contract labor in recent years.
5. In Quarter 3 of 2023, 2,000 current and recently former Colorado hospital workers responded to a survey seeking their experience related to working conditions, wages, benefits, and training. Survey and focus group respondents generally reflected the Colorado and national hospital workforce in terms of composition and experiences. However, due to data limitations, certain groups were not proportionately represented – non-clinical workers (e.g., EVS and dietary staff) and non-white workers were underrepresented among respondents, while white workers and nurses were overrepresented.

[11] 2024 Hospital Workforce Trends Report. *DIRA Partners, LLC for the State of Colorado Division of Insurance.*
[12] Occupational Employment and Wage Statistics. *Bureau of Labor Statistics.*
[13] 2024 Hospital Financial Transparency Report, Table 26. *Colorado Department of Health Policy and Financing.*
[14] 2024 Hospital Financial Transparency Report. *Colorado Department of Health Care Policy and Financing.*

Overview of Colorado Hospital Workforce

The findings discussed in this 2025 Report describe the Colorado hospital workforce and provide an update to information provided in the 2023 and 2024 Reports.

Figure 1. Hospital jobs represent 4% of the overall Colorado job market.



Source: 2024 Current Population Survey
Notes: The 2023 and 2024 Workforce Trends Reports used the Occupational Wage and Employment Statistics (OEWS) data for this analysis, while this report uses data from the 2024 Current Population Survey. The OEWS data is not available for Colorado in 2024. Percentages were calculated using total number of people in Colorado's hospital or health care workforce dived by total number of people in Colorado's total workforce

In 2024, Colorado's health care workforce was 10% of the state's total workforce. Those employed by hospitals represent approximately 4% of Colorado's total workforce.[15]

Colorado Hospital Workforce Demographics

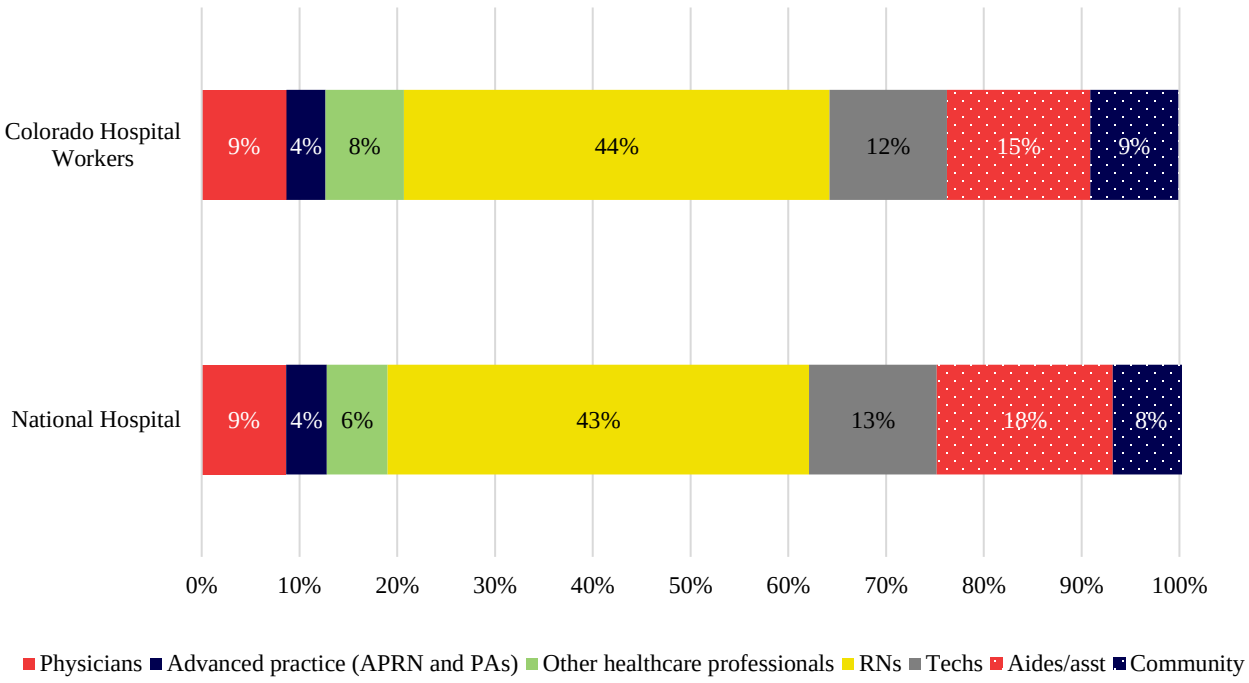
The following section updates the 2023 Report's comparison of Colorado's hospital workforce to the U.S. hospital workforce. The 2023 Report used the 2021 American Community Survey (ACS), which was a 5-year sample from 2017-2021. Here, we use the 2023 ACS, which is a 5-year sample from 2019-2023. The updated analysis found no material differences compared to our 2023 Report.

The ACS is an annual nationally representative survey conducted by the U.S. Census Bureau. The analytical sample includes individuals between the ages of 18 and 65 who are part of the

[15] Current Population Survey. *US Census Bureau*.

labor force and work in the hospital industry. Like much academic literature, the analysis collapses approximately 50 clinical and support occupations into nine categories based on job title and educational requirements. ACS data may include contract workers, as workers are categorized based on their place of employment rather than their actual employer (i.e., a hospital versus a staffing agency). Because the ACS does not survey individuals on their employer of record, there is no way to determine if a worker is a contract worker or directly employed. Thus, we are unable to isolate workers based on this classification. No workers are excluded based on part-time or full-time status in this section. A complete categorical list of the workforce included in this report is outlined in Appendix A Table 2 of this Report.

Figure 2. Colorado and U.S. Hospital Workforce by Occupation

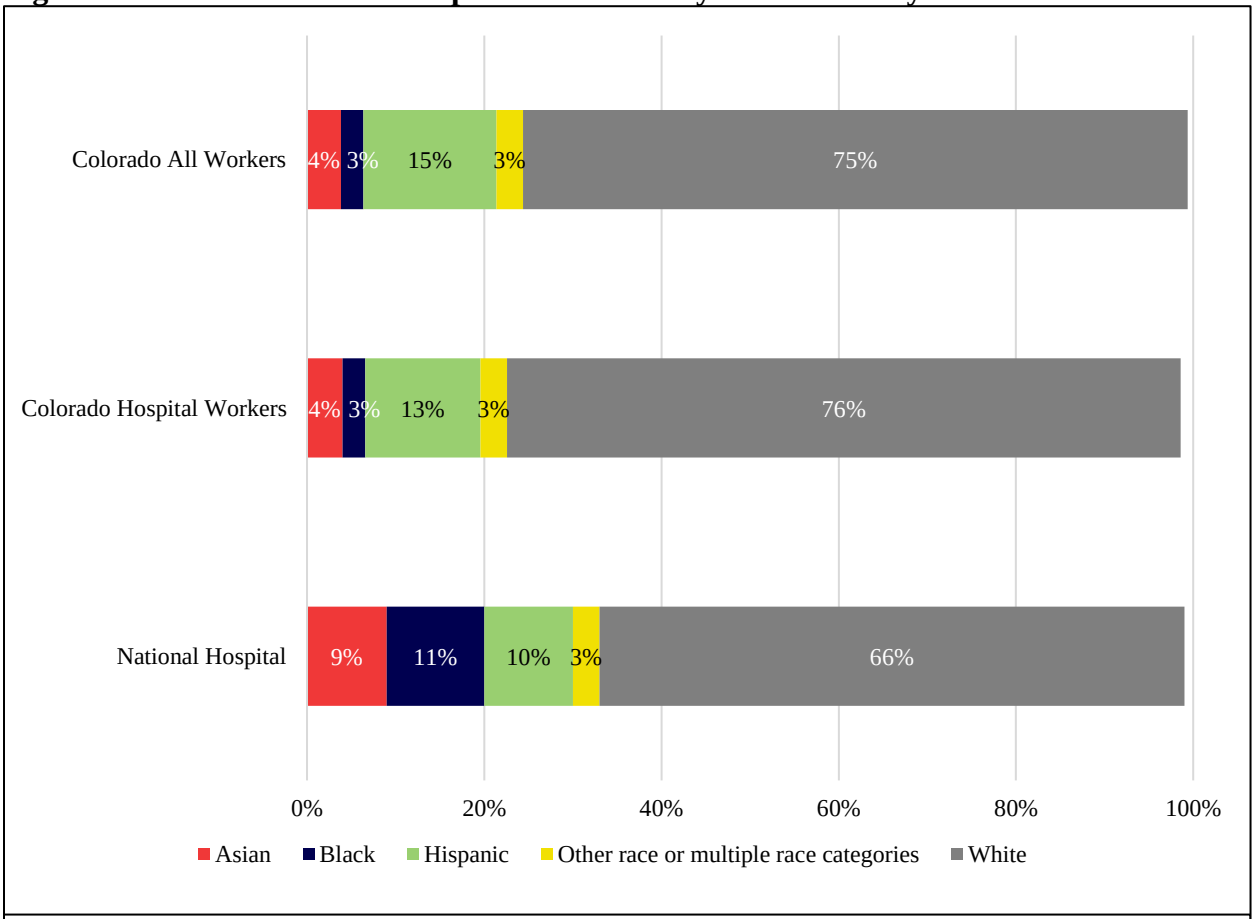


Source: 2023 American Community Survey
Note: Detailed occupation category definitions in Appendix A Table 2.

Figure 2 compares the distribution of health care occupational categories between Colorado hospital workers and hospital workers nationally, using data from the 2023 ACS. Each bar represents the full hospital workforce, broken into segments by occupation: Physicians, Advanced Practice Providers (APRNs and PAs), Other health care Professionals, Registered Nurses (RNs), Technicians (Techs), Aides/Assistants, and Community Workers. Colorado hospitals have a proportion of physicians, advanced practice providers, and other health care professionals that is on par with the national average. The proportion of RNs is similar between the two groups, while technicians and aides/assistants make up a larger share of the national

hospital workforce. Community-based workers account for a small and comparable portion in both cases.

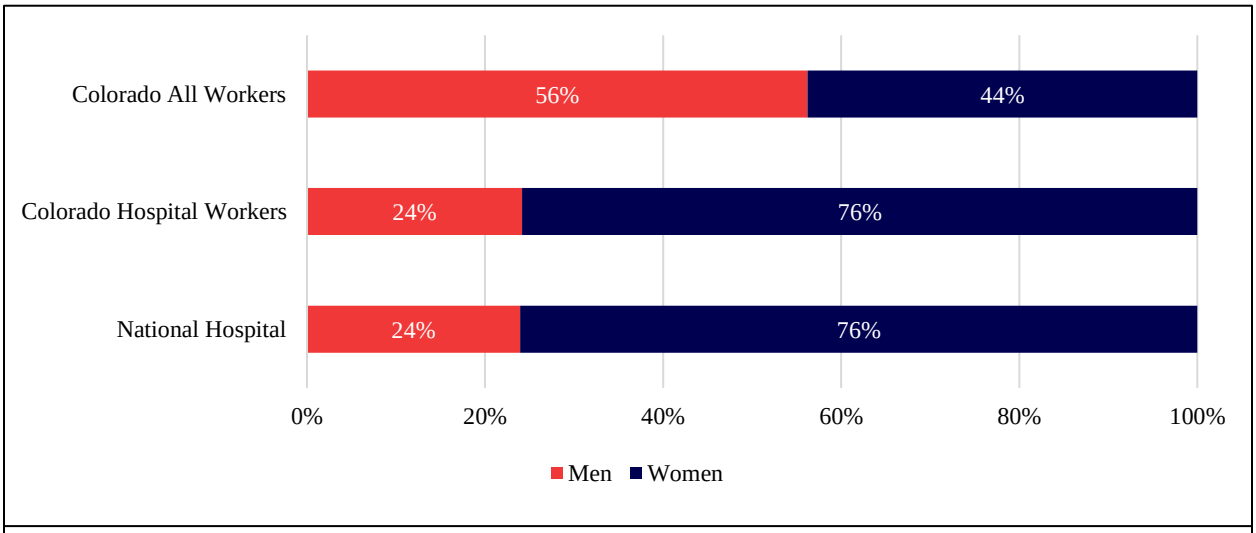
Figure 3: Colorado and U.S. Hospital Workforce by Race/Ethnicity



Source: 2023 American Community Survey

Figure 3 displays the racial and ethnic composition of three groups – all Colorado workers regardless of industry, Colorado hospital workers, and national hospital workers – using data from the 2023 ACS. Each bar represents 100% of the respective workforce, divided into categories: Asian (red), Black (dark blue), Hispanic (green), Other race or multiple race categories (yellow), and White (grey). Across all three groups, White individuals make up the majority of workers, though their share is slightly higher among Colorado workers compared to the national hospital workforce. Hispanic workers make up around 13% of the Colorado hospital workforce, while Black and Asian workers each make up around 3% and 4% respectively.

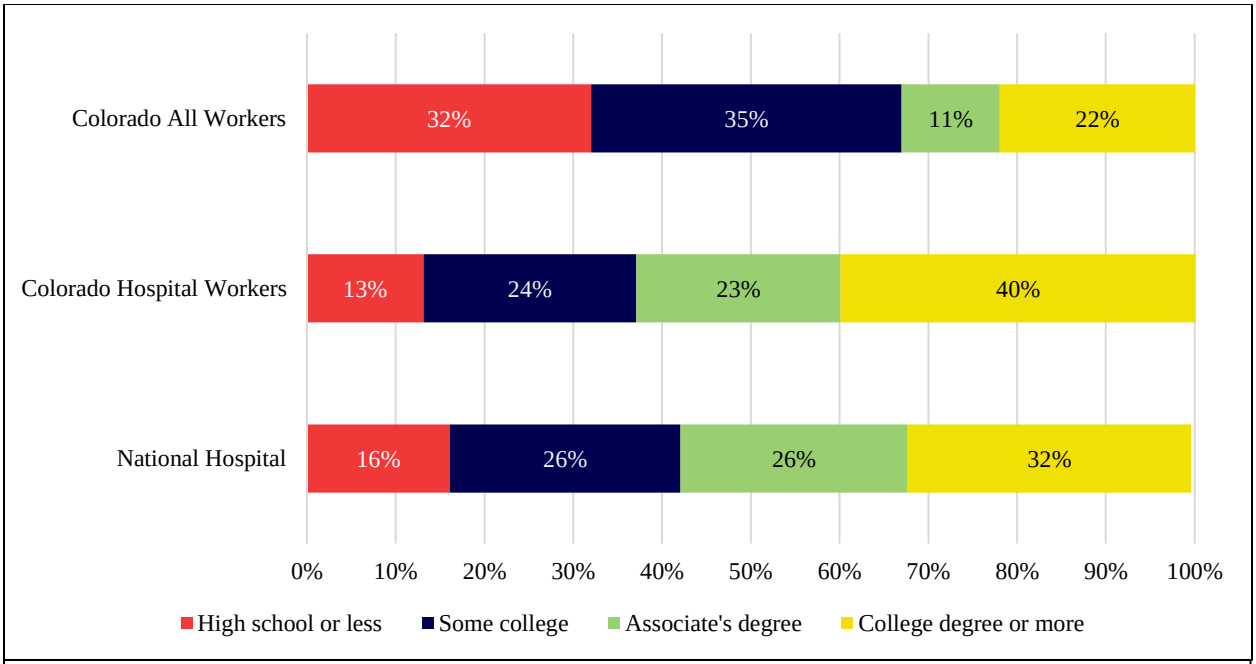
Figure 4: Colorado and U.S. Hospital Workforce by Gender



Source: 2023 American Community Survey

Figure 4 shows that both Colorado and national hospital workforces have a substantially higher proportion of women compared to men.

Figure 5: Colorado and U.S. Hospital Workforce by Education Level

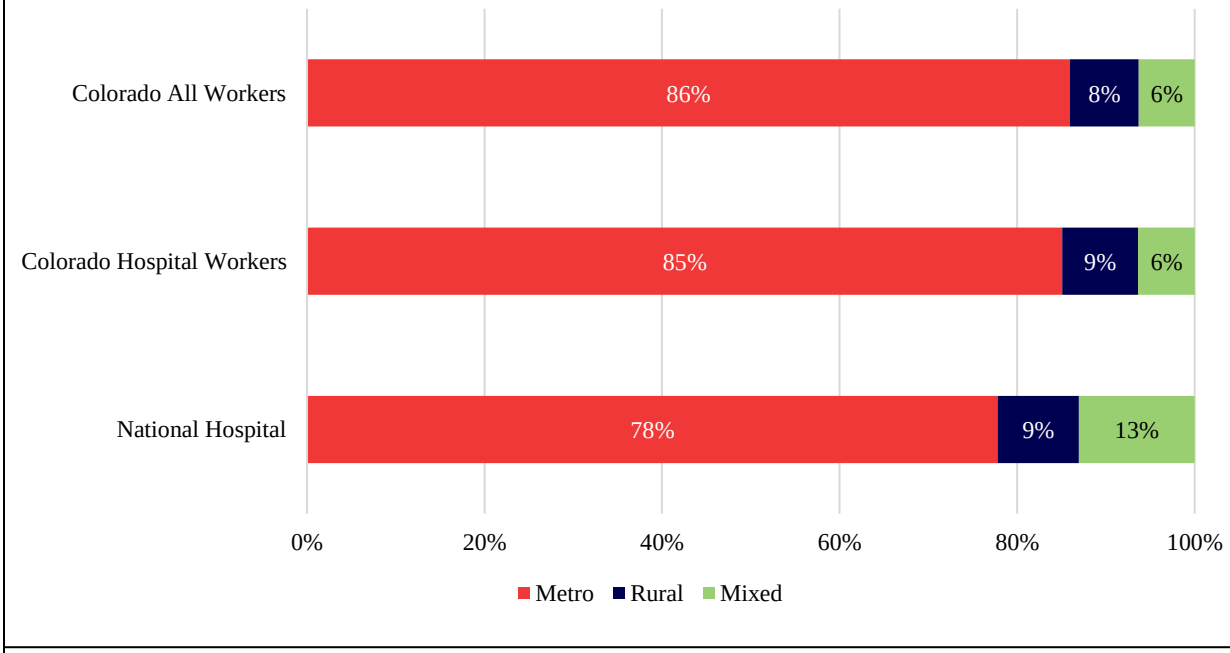


Source: 2023 American Community Survey

Figure 5 shows that both the Colorado and national hospital workforces have high levels of educational attainment, though a higher percentage of Colorado hospital workers (40%) than the national hospital workforce (32%) hold a college degree. Both Colorado and the national hospital

workforces have higher levels of educational attainment compared to the general Colorado workforce.

Figure 6: Colorado and U.S. Hospital Workforce by Geography



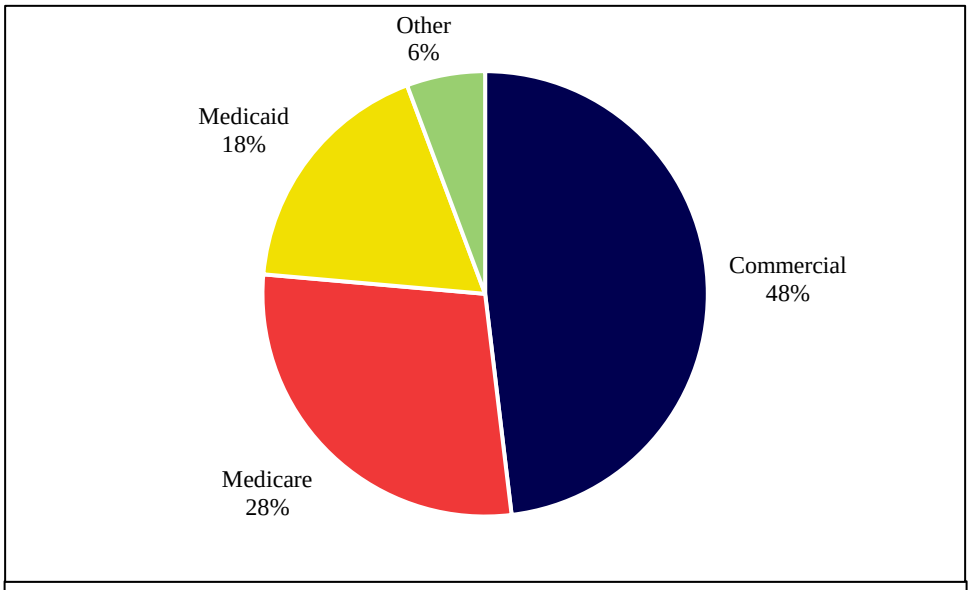
Source: 2023 American Community Survey
Note: ACS rural/urban data is captured at a county level. Thus, mixed indicates counties with rural and urban zip codes.

Figure 6 shows the percentage of the workforce that live in metro, rural, and mixed (both metro and rural) areas. Compared to the national hospital workforce, both the Colorado hospital workforce and the Colorado general workforce are more likely to be located in a metro area (85%). Around 9% of Colorado hospital workers live in rural areas, similar to the Colorado general workforce (8%).

Colorado Hospital Labor Costs

Labor costs are consistently hospitals' largest operating expenses.[16] As hospital costs represent approximately one-third of health care spending in Colorado, workforce issues have an impact on hospital financial health and overall health care affordability.[17]

Figure 7. Colorado hospitals are paid through a variety of public and private payers.

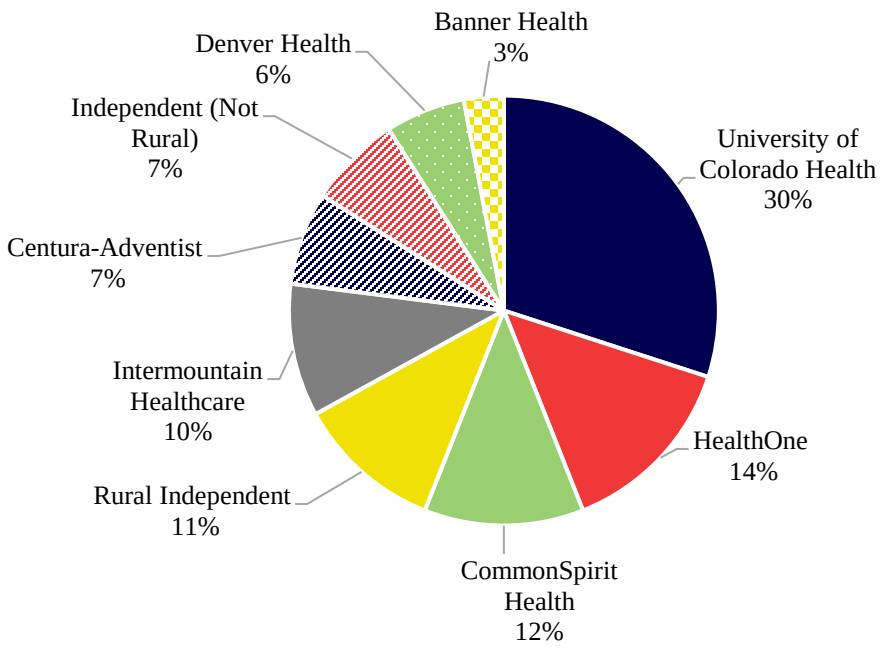


Source: 2025 HCPF Hospital Financial Transparency Report
Note: Other includes Tricare, Colorado Indigent Care Program, and self-pay. Data shown are for the year 2023 in Colorado.

Figure 7 shows Colorado hospitals' overall payer mix based on net patient revenue (NPR), defined as revenue from patient services. NPR is the total amount of money generated from patient services collected from payers, including private insurance, Medicaid and Medicare, minus patient discounts. It can be viewed as money paid to hospitals for its core purpose of serving patients. Compared to the 2023 Report (which used 2021 data from the 2023 HCPF), the overall payer mix largely stayed the same between 2021 and 2023. Commercial payers remain the largest payers for Colorado hospitals statewide, representing 48% of their net patient revenue as shown in Figure 7.

[16] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.* | Costs of Caring 2023 Report. *American Hospital Association.*
[17] Affordability in Colorado. *Colorado Hospital Association.*

Figure 8. Colorado Hospital Net Patient Revenue is largely driven by four systems



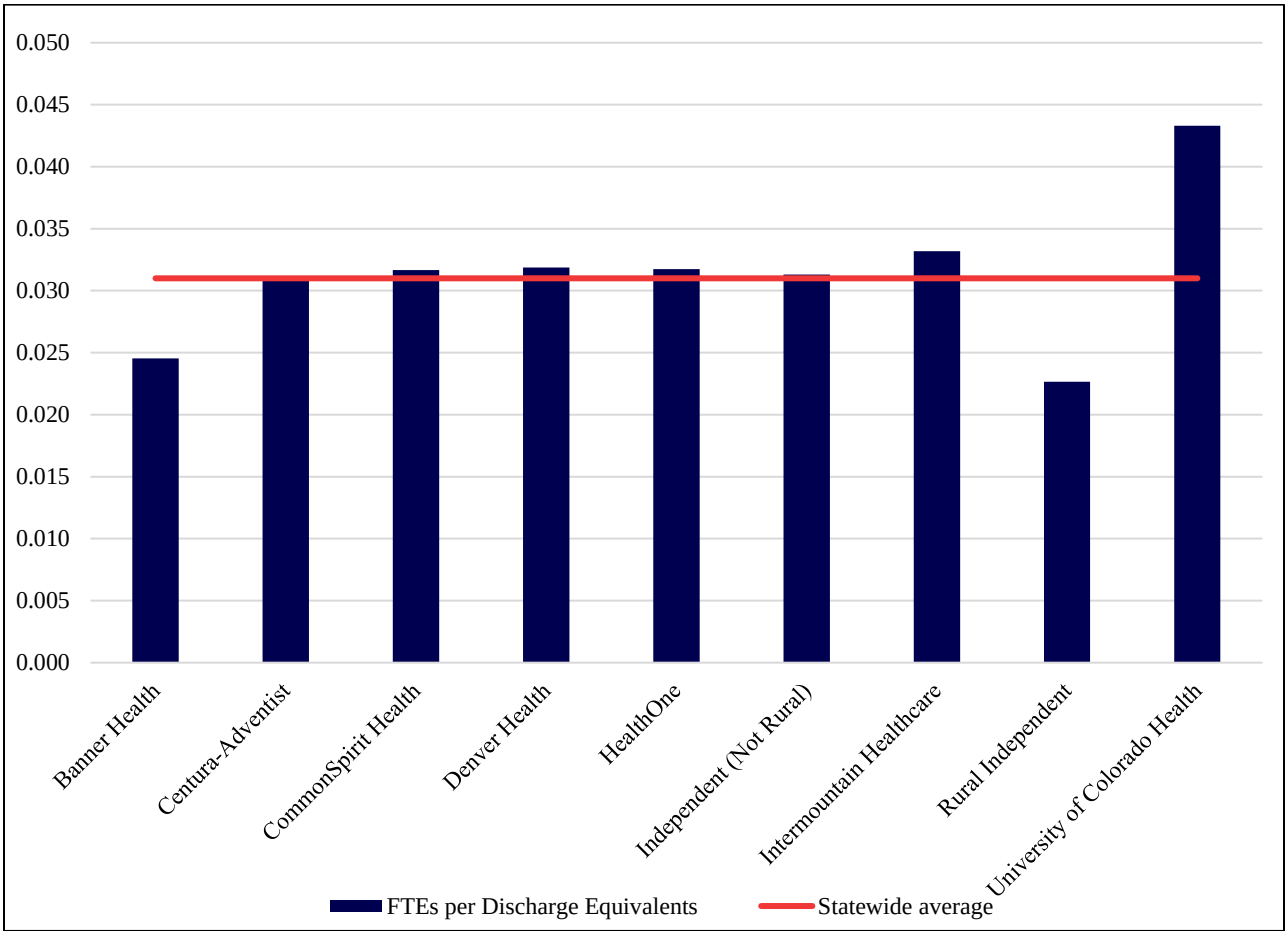
Source: 2025 National Academy for State Health Policy (NASHP) Hospital Costs Tool
Note: Since the 2023 Workforce Trends Report, SCL Health and Intermountain Health have merged into one system. Children's Hospital Colorado is excluded from the NASHP data and therefore is not included in this chart.

Figure 8 illustrates the market share of Colorado's hospital systems by net patient revenue (NPR). In 2023, 66% percent of statewide hospital NPR was derived from four systems (an increase from 62% in 2021 per the 2023 Report): University of Colorado (UCHealth), HealthOne, CommonSpirit Health, and Intermountain Healthcare. Hospitals unaffiliated with a system represent 18% of the Colorado hospital NPR (11% rural and 7% not rural). Centura-Adventist (7%), Denver Health (6%), and Banner Health (3%) comprised the remaining 16%.

Colorado Hospital Staffing

Directly employed full-time employees (FTEs) per discharge equivalents is one of many ways to measure staffing levels. The 2023 Workforce Trends Report provides greater discussion on the use of this metric to determine if the potential for staffing variation occurs among systems.[18]

Figure 9. Full-time equivalent employees per discharge (indicative of staffing levels) across Colorado hospitals remain consistent with prior Reports.

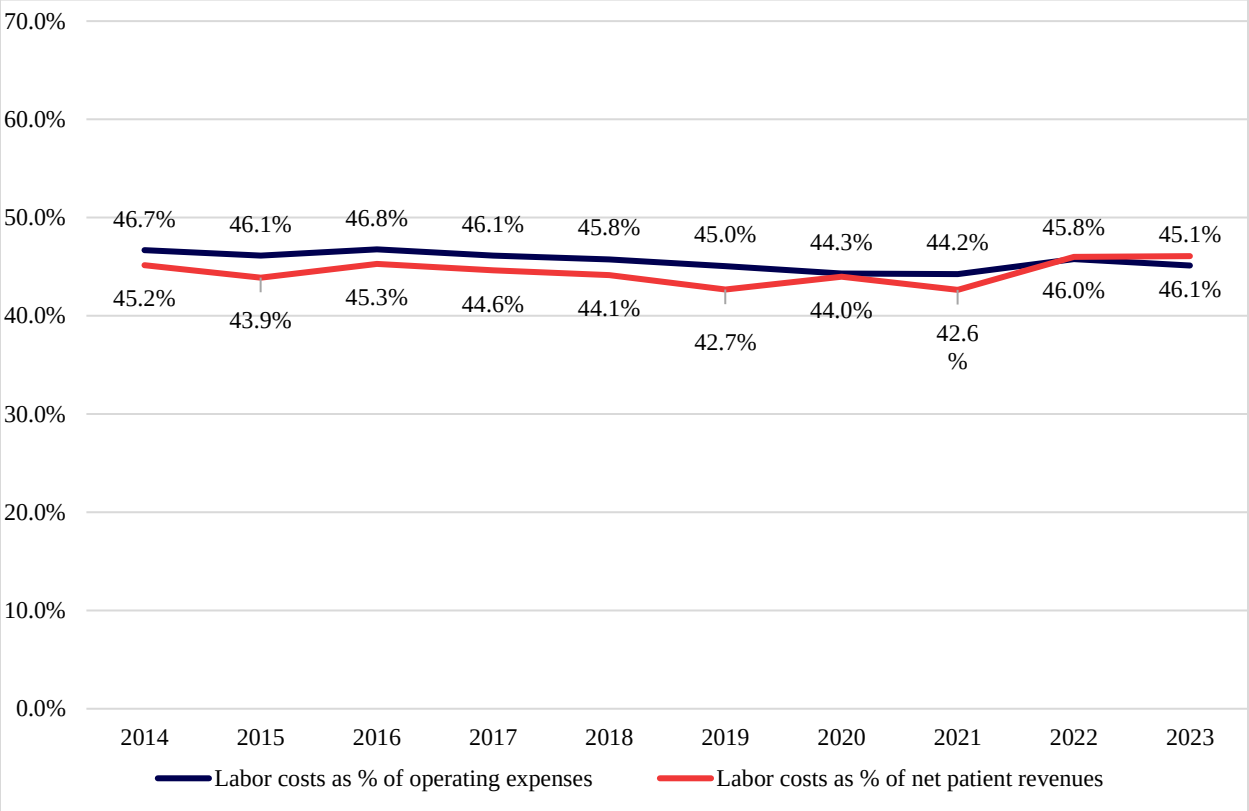


Source: 2025 NASHP Hospital Costs Tool

In the 2024 and 2025 Reports, UCHealth had the most FTEs per discharge equivalents; Rural Independent hospitals and Banner Health had the least. In the 2024 Report, Banner Health and CommonSpirit had the least FTEs per discharge equivalents.[19]

[18] 2023 Hospital Workforce Trends Report. *DIRA Partners, LLC for the State of Colorado Division of Insurance* | 2024 Hospital Workforce Trends Report. *DIRA Partners, LLC for the State of Colorado Division of Insurance*
[19] Hospital Costs Tool. *The National Academy for State Health Policy.*

Figure 10. Labor costs as a share of operating expenses and NPR have changed little over the past decade.

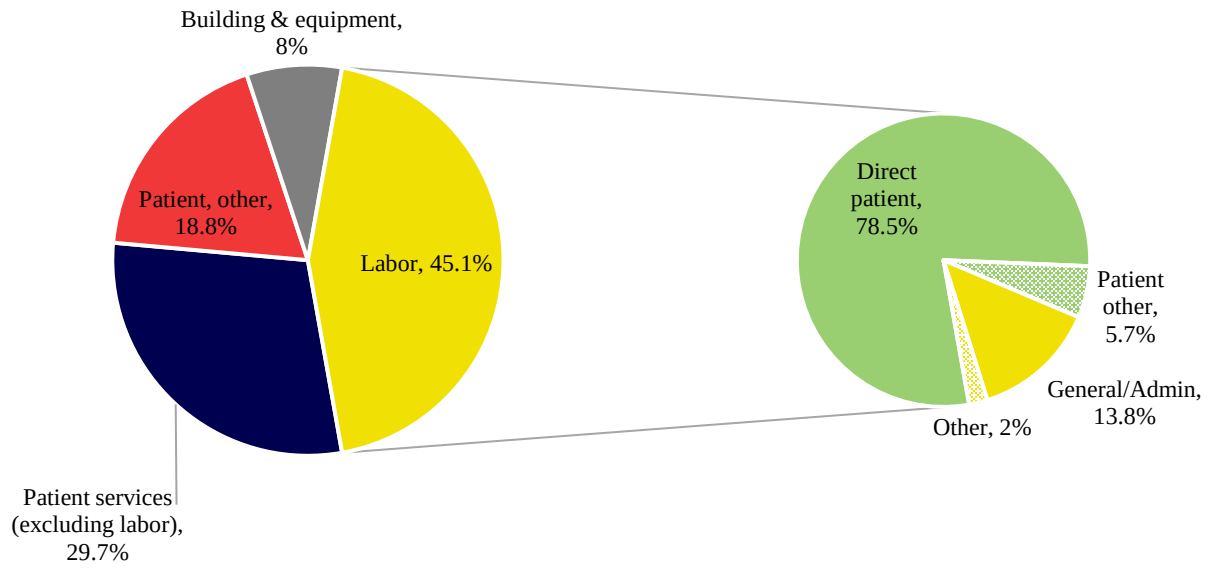


Source: 2025 Colorado Department of Health Care Policy and Financing (HCPF) Hospital Financial Transparency Report, Graphs 1-3
Note: Total labor costs inclusive of salaries, wages, and benefits for directly employed as contract labor wages and agency fees.

In addition to labor costs as a share of operating expenses, we show labor costs as a share of net patient revenue. This indicates how much of the revenue that hospitals earn from patient care is consumed by labor expenses. For example, if labor is 50% of net patient revenue, it means half of patient-related income goes to worker costs, highlighting the impact on hospitals' financial margins. Labor costs (defined as salary, wages, and benefits for directly employed workers as well as agency fees and wages for contract workers) as a share of overall operating costs have not changed in Colorado hospitals over the past decade. In fact, labor costs comprised a slightly smaller share of operating costs in 2023 (45.1%) than in 2014 (46.7%).[20] Between 2014 and 2023, total labor costs averaged 45.6% of all hospital operating expenses.

[20] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*

Figure 11. Labor costs continue to be the largest share of hospital expenses in 2023.

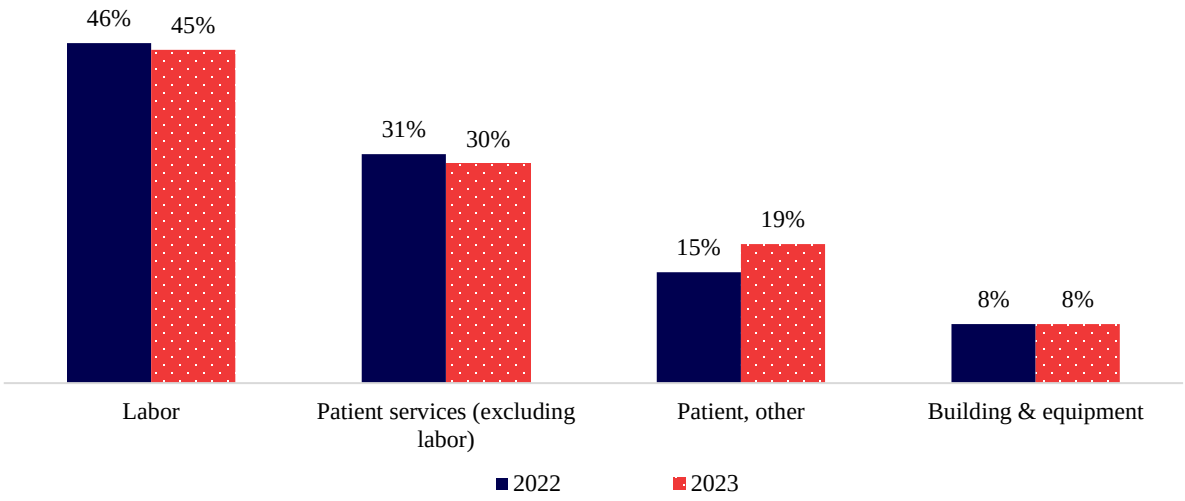


Source: 2025 HCPF Hospital Financial Transparency Report, Table 31
Note: Examples of expenses that hospitals reported as being for patients that fall in the "patient other" category include: contracted services, general other, insurance expense, management fees, provider fees and purchased services.

As Figure 11 shows, the vast majority of Colorado labor costs (79%) were spent on providing patient care, with the remaining 20% spent on administrative and supportive work to maintain and operate the hospital. Labor costs were calculated using Table 31 of the Colorado Department of Health Care Policy and Financing's (HCPF) 2025 Hospital Financial Transparency Report.[21]

[21] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*

Figure 12. Labor costs as a share of operating costs declined slightly from 2022 to 2023.

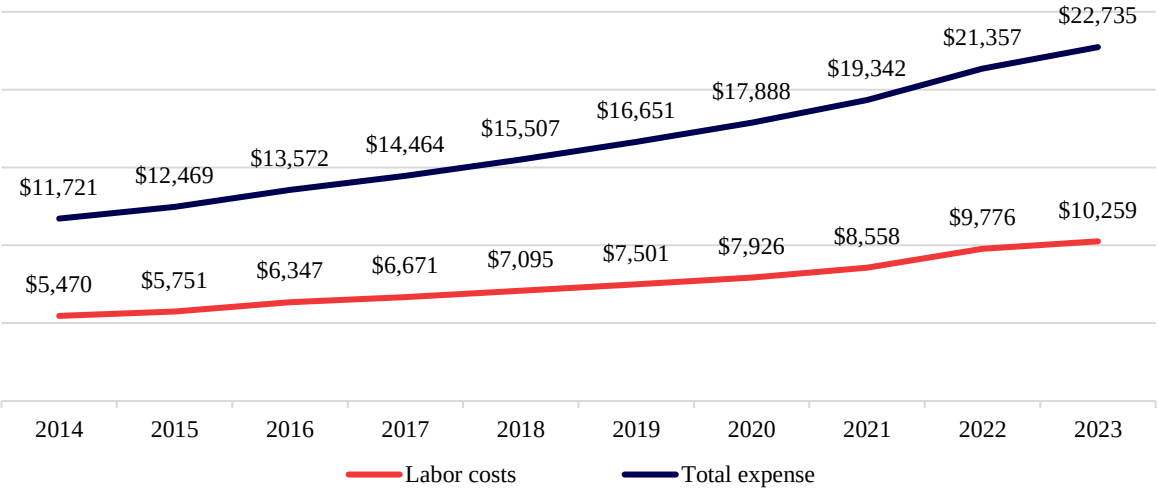


Source: 2025 HCPF Hospital Financial Transparency Report, Table 31. 2022 values are from the 2024 HCPF Hospital Financial Transparency Report.
Note: Labor costs inclusive of salaries, wages, and benefits for directly employed as contract labor wages and agency fees. "Patient, other" includes interest, provider fees, and all other costs.

Figure 12 shows that labor costs decreased very slightly as a percent of total operating costs in 2023 (45%) relative to 2022 (46%). Patient services also decreased slightly in 2023 (30% as compared to 31% in 2022), while "Patient, other" increased from 15% to 19% in 2023.[22] Building and equipment costs remained the same.

[22] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*

Figure 13. Labor costs are rising at a slightly slower rate than operating expenses.



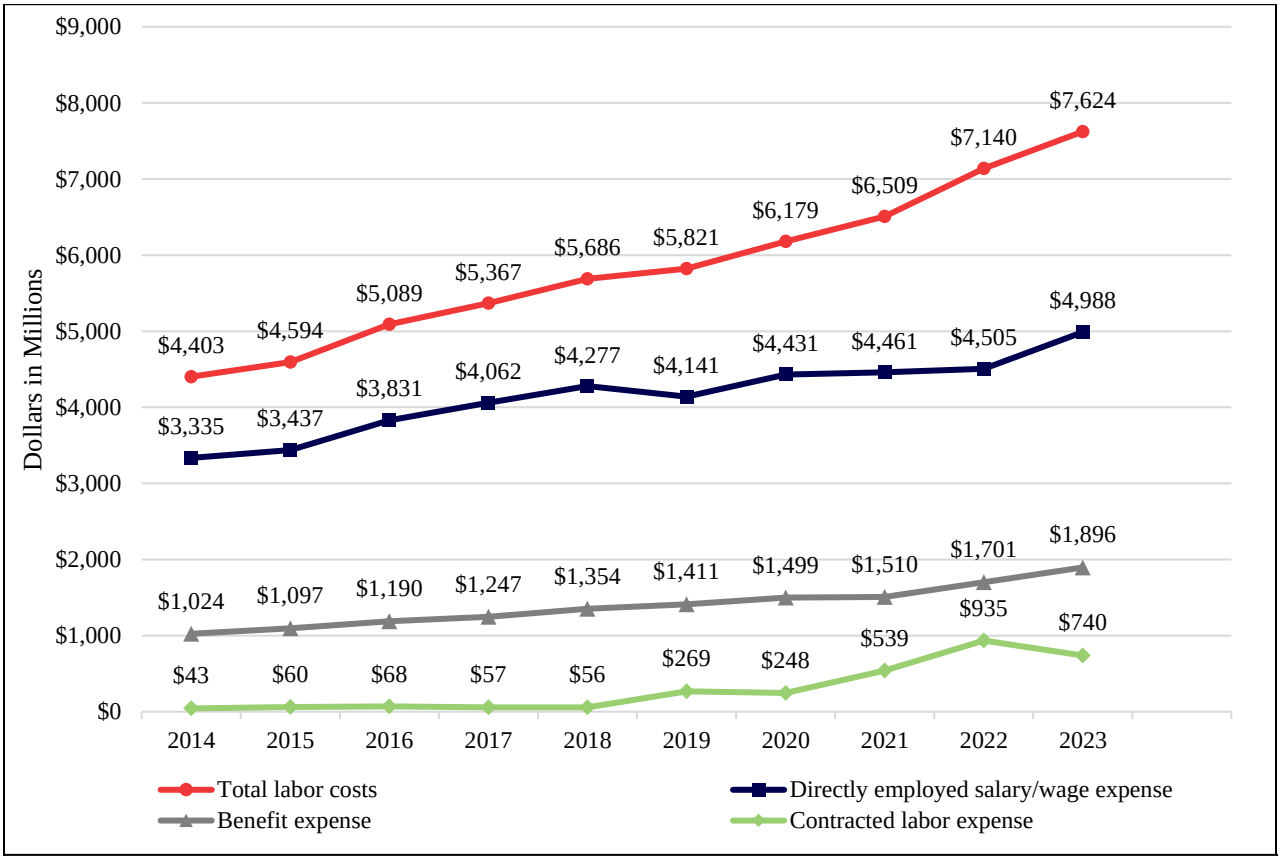
Source: 2025 HCPF Hospital Financial Transparency Report, Graph 3
Note: Labor costs inclusive of salaries, wages, and benefits for directly employed as contract labor wages and agency fees. Operating expenses are the bulk of all expenses, but do not include interest, one-time charges, or investment losses.

Colorado hospital labor expenses increased by 5% between 2022 and 2023, which was a decrease in the rate of growth from 2021 to 2022 of 10.4%. Labor costs are calculated as salary, wages, benefits, and fees of directly employed and contract workers. However, hospital operating costs (the total expenses of hospitals not including items like debt, capital depreciation, and investment losses) continue to grow at a faster rate than labor costs.

The Use and Cost of Contract Labor

The use and cost of contract labor decreased in 2023.[23] The pandemic accelerated the use of contract labor to provide support during the surges.[24] The increased utilization of contract labor drives up labor costs directly through agency fees and higher wages for contract workers.[25]

Figure 14. In 2023, contract labor costs declined for the first time since 2020 while total labor costs continue to grow.

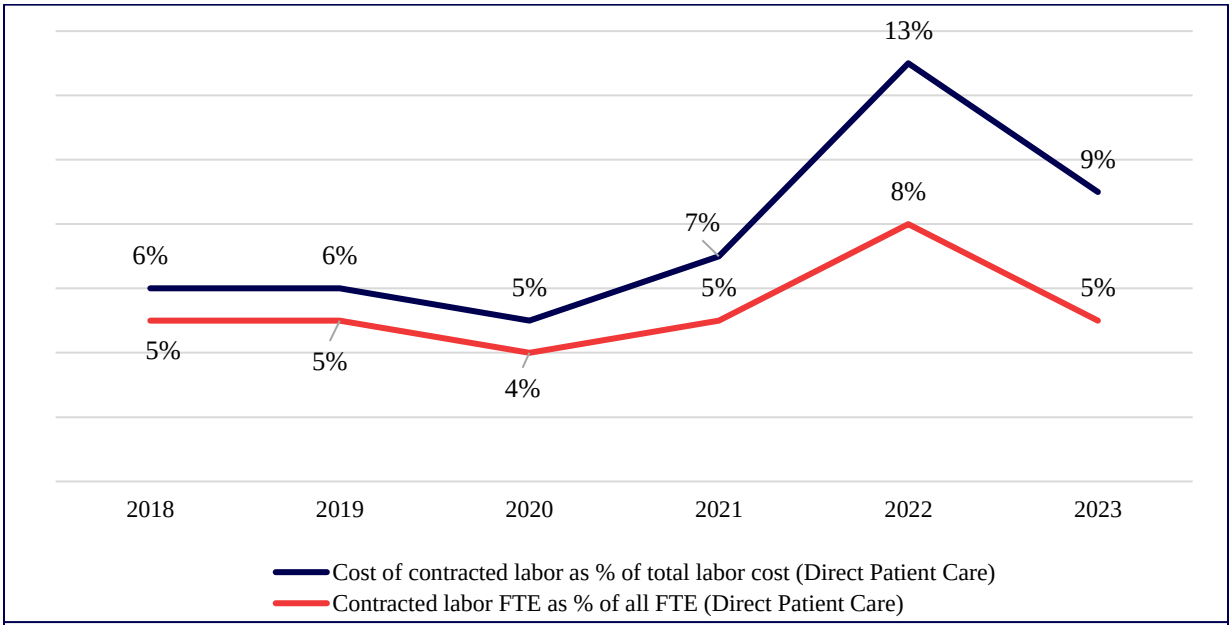


Source: 2025 HCPF Hospital Financial Transparency Report, Graph 3
Note: Total labor costs inclusive of salaries, wages, and benefits for directly employed as contract labor wages and agency fees.

While total labor costs have consistently risen over time, contract labor costs declined in 2023 by 26% ($191 million) from 2022. In contrast, total labor costs rose by 4.9%, benefits rose by 6.7%, and directly employed wages rose by 10.7% between 2022 and 2023, as demonstrated in Graph 3 of the 2025 HCPF Hospital Financial Transparency Report.[26]

[23] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*
[24] Costs of Caring 2023 Report. *American Hospital Association*.
[25] Association Between Hospital Labor Costs and the Quality of Care. *Risk Management and Healthcare Policy*. | 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*
[26] 2025 Hospital Financial Transparency Report. *Colorado Department of Health Policy and Financing.*

Figure 15. Colorado hospitals used and spent less on contract labor in 2023.

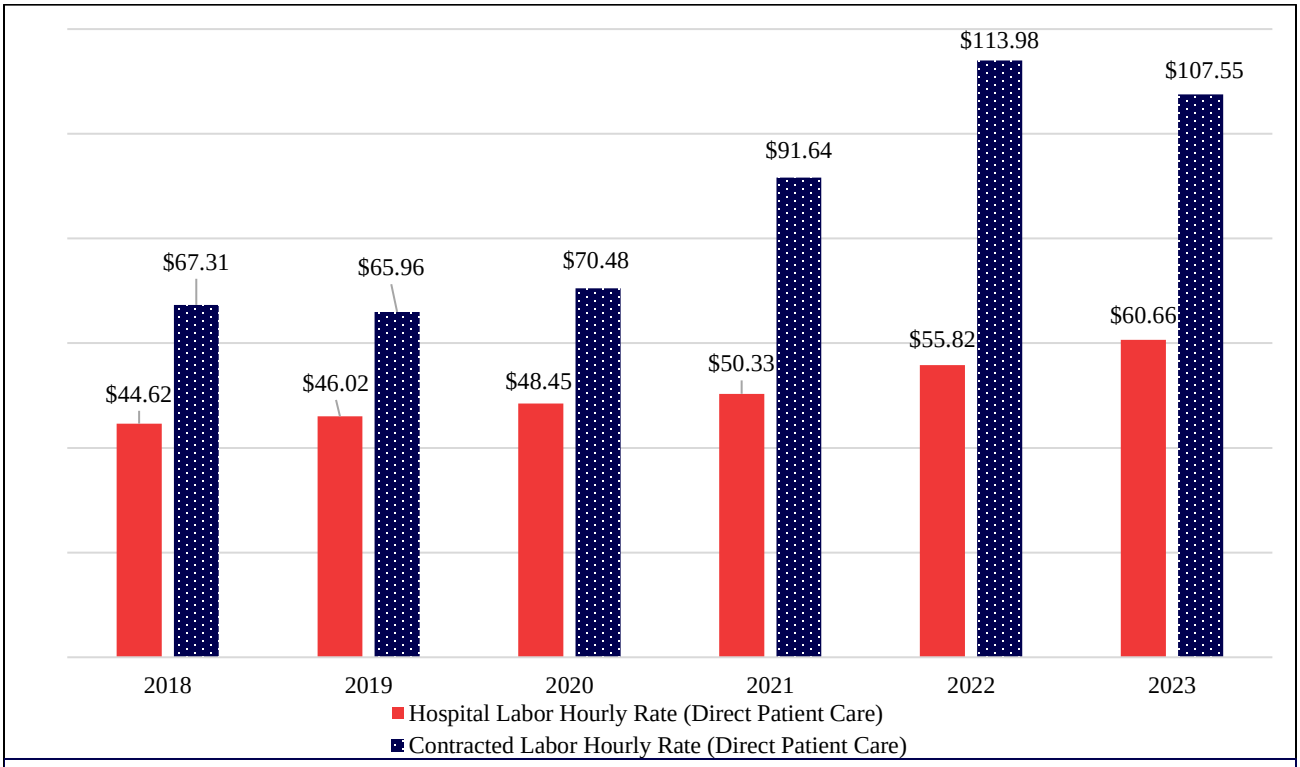


Source: 2025 NASHP Hospital Costs Tool
Note: Percentages provided as named by the Hospital Cost Tool Dataset. Appendix includes methodology for calculations using the NASHP Hospital Costs Tool. Labor costs inclusive of salaries, wages, and benefits for directly employed as contract labor wages and agency fees.

Colorado hospitals' use of and their expenses for contract labor have decreased since 2022 after increases in both cost and utilization during the COVID-19 pandemic. As shown in Figure 15, contract labor workers represented 5% of Colorado's full-time hospital employees in 2023, compared to 8% in 2022. The cost of contract labor (agency fees and wages) represented 9% of direct patient care costs in 2023, compared to 13% in 2022.[27] Contract labor has long been noted as the most expensive labor option for hospitals – typically adding 50% or more to a typical employee's hourly rate.[28]

[27] Hospital Costs Tool. *The National Academy for State Health Policy.*
[28] Association Between Hospital Labor Costs and the Quality of Care. *Risk Management and Health Care Policy*.

Figure 16: In 2023, the average hourly wage difference between contract and directly employed hospital workers decreased for the first time since 2019.



Source: 2025 National Academy for State Health Policy (NASHP) Hospital Costs Tool.
Note: Hospital workers included this data are characterized by direct patient care employees. The hourly cost for directly employed hospital workers is inclusive of all costs, including benefits. The hourly cost for contract workers is inclusive of all costs, including agency fees.

In 2023, Colorado hospitals spent 1.77 times more on hourly rates for contract workers ($107.55) than on directly employed workers ($60.60). This is lower than in 2022, when hospitals spent 2.04 times more on hourly rates for contract workers ($113.98) than on directly employed workers ($55.82).[29]

[29] Hospital Costs Tool. *The National Academy for State Health Policy.*

Conclusion

Over the three years of this study, the hospital workforce in Colorado has remained stable in most respects. The introduction of the Colorado Option has not impacted hospital wages, benefits, staffing levels, or working conditions – a finding consistent across our 2023, 2024, and 2025 Reports. Key metrics like the proportion of labor costs to expenses (~46%) and hospital share of state employment (around 4%) changed little over this period. One notable trend was the rise and fall of contract labor: it surged in 2021–2022 (as captured in the 2024 report) and then declined in 2023 (as seen in this report). Overall, the data from all three reports suggest continuity rather than any significant shifts in the hospital workforce.

Despite these overall trends, our findings suggest that while Colorado labor costs continue to grow, they are not growing at the same rate as overall operating costs. One reason for this may be due to lower hospital spending on and utilization of contract labor in 2023 compared to prior years, especially during the COVID-19 pandemic.

Finally, we did not find evidence that the Colorado Option has had an impact on the hospital workforce.

Acknowledgements

The authors gratefully acknowledge guidance and feedback throughout this project from the Colorado Division of Insurance.

The 2025 Workforce Trends Report was updated to reflect the Colorado Department of Regulatory Agencies (DORA) accessibility guidelines, which follow the standards of the Web Content Accessibility Guidelines (WCAG) 2.2.

Appendices

Appendix A: Secondary Data Methodology

Over the course of the three Reports, a variety of secondary data sources were used due to data availability. The table below provides an overview of the sources used for each Report, including the data years. Further below provides methodology for each source used in this 2025 Report.

Table 1. Workforce Trends Reporting Data Sources

Data Source	2023 Report	2024 Report	2025 Report
American Community Survey (ACS)	2021 5-year sample (2017-2021)	Not used	2023 5-year sample (2019-2023)
Colorado Department of Health Care Policy and Financing (HCPF) Hospital Reports	2021 data via 2023 Hospital Expenditure Report	2022 data via 2024 Hospital Financial Transparency Report	2023 data via 2025 Hospital Financial Transparency Report
Current Population Survey (CPS)	Not used	Not used	2024 data
National Academy of State Health Policy (NASHP) Hospital Cost Tool	Not used	2022 data	2023 data
Occupational Employment and Wage Statistics (OEWS)	2022 data	2023 data	Colorado OEWS data not available[30]
RAND Hospital Data	2021 data	Per DOI recommendation, DIRA switched to the NASHP Hospital Cost Tool. Both datasets pull from public cost report data from the CMS Healthcare Cost Report Information System	

American Community Study (ACS) Data Methodology

This report used the Integrated Public Use Microdata Series (IPUMS) American Community Survey (ACS) to analyze the Colorado hospital workforce. The ACS is an annual nationally representative survey conducted by the Census Bureau. IPUMS harmonizes the ACS data, allows users to customize their dataset, and manages the data cleaning. The analytical sample includes individuals between the ages of 18 and 65 who are part of the labor force and work in the hospital industry.

[30] Notice Regarding Suspension of Publication of Colorado Occupational Employment and Wage Statistics. *Occupational Employment and Wage Statistics.*

The American Community Survey (ACS) five-year sample is a comprehensive dataset compiled by the U.S. Census Bureau that aggregates survey responses collected over five years to produce detailed and reliable estimates across a broad range of demographic, social, and economic characteristics. This sample pools data collected over a five-year period to increase reliability and provide comprehensive estimates for all geographic areas in the U.S., including small towns, rural areas, census tracts, and block groups. Updated annually with a new rolling sample, the five-year estimates enable detailed analysis and planning, especially where one-year estimates are not available due to small population sizes. Unlike the ACS one-year estimates, which are only available for areas with 65,000 or more residents, the five-year estimates offer consistent, statistically robust data used for policymaking, grant allocation, and research across a wide range of applications.

Measurement

Health care occupation: Collapsed approximately fifty health care occupations defined by U.S. Census occupational codes into eight categories (Table 2) based on similarities in title and education requirements.

Table 2. Occupational codes and health care worker categories.

Census Code	Census Title
Advanced practice providers	
3110	Physician Assistants
3256	Nurse Anesthetists
3257	Nurse Midwives
3258	Nurse Practitioners
Aides/Assistant	
3500	Licensed Practical and Licensed Vocational Nurses
3515	Medical Records Specialists
3520	Opticians, Dispensing
3601	Home Health Aides
3603	Nursing Assistants
3605	Orderlies and Psychiatric Aides
3610	Occupational Therapy Assistants and Aides
3620	Physical Therapist Assistants and Aides
3640	Dental Assistants
3645	Medical Assistants
3646	Medical Transcriptionists
3647	Pharmacy Aides
3649	Phlebotomists
3655	Other Health care Support Workers
Community-based workers	
350	Medical and Health Services Managers
420	Social and Community Service Managers
	Substance Abuse and Behavioral Disorder Counselors

2002	Educational, Guidance, and Career Counselors and Advisors
2003	Marriage and Family Therapists
2004	Mental Health Counselors
2005	Rehabilitation Counselors
2006	Counselors, All Other
2011	Child, Family, and School Social Workers
2012	Health care Social Workers
2013	Mental Health and Substance Abuse Social Workers
2014	Social Workers, All Other
Other health care professionals	
1650	Medical Scientists
3000	Chiropractors
3010	Dentists
3030	Dietitians and Nutritionists
3040	Optometrists
3050	Pharmacists
3120	Podiatrists
3150	Occupational Therapists
3160	Physical Therapists
3230	Speech-Language Pathologists
3235	Exercise Physiologists
3245	Therapists, All Other
3140	Audiologists
3270	Health care Diagnosing or Treating Practitioners, All Other
Physicians	
3065	Emergency Medicine Physicians
3070	Radiologists
3090	Other Physicians
3100	Surgeons
RNs	
3255	Registered Nurses
Technicians	
3200	Radiation Therapists
3220	Respiratory Therapists
3300	Clinical Laboratory Technologists and Technicians
3310	Dental Hygienists
3321	Cardiovascular Technologists and Technicians
3322	Diagnostic Medical Sonographers
3323	Radiologic Technologists and Technicians
3324	Magnetic Resonance Imaging Technologists
3330	Nuclear Medicine Technologists and Medical Dosimetrists
3401	Emergency Medical Technicians
3402	Paramedics
3421	Pharmacy Technicians
3422	Psychiatric Technicians
3423	Surgical Technologists
3430	Dietetic Technicians and Ophthalmic Medical Technicians
3545	Miscellaneous Health Technologists and Technicians
3550	Other Health care Practitioners and Technical Occupations

1980	Occupational Health and Safety Specialists and Technicians

Race-ethnicity: Created the following mutually exclusive race-ethnicity categories within the existing race-ethnicity variable: Hispanic, White, Black, Asian, and multiple race categories or other race-ethnicity.

Income: This variable reports each respondent's total pre-tax wage and salary income, i.e., money received as an employee, for the previous year.

Current Population Survey (CPS) Data Methodology

The Current Population Survey (CPS) is a monthly survey administered by the U.S. Census Bureau to over 65,000 households. It collects data on education, labor force status, demographics, and other characteristics of the U.S. population. The CPS is widely used by demographers, economists, sociologists, and other researchers, and it serves as the primary source for the federal government's monthly unemployment statistics. In this report, we rely on the CPS because it provides 2024 data and allows for state-level employment estimates. However, since wage data are not collected from all households each month, the sample size is insufficient for analyzing wages among hospital workers in Colorado. As a result, we use the CPS solely to estimate the size of the hospital workforce and do not report wage data for this group.

Colorado Department of Health Care Policy & Financing (HCPF) Hospital Financial Transparency Report

Data

This report used the Colorado Department of Health Care Policy and Financing (HCPF) 2025 Hospital Financial Transparency Report to analyze the statewide net patient hospital revenue and total hospital operating costs. The data within this report represents the cumulation of both historic and current financial and utilization data reported to HCPF. HCPF developed rules for the data collection process to collect data from general hospitals and critical access hospitals. Data are collected and reported on a hospital fiscal year basis.

Measurement

The 2025 HCPF Financial Transparency Report provided data to describe and analyze labor costs, including contract labor, as a share of operating expenses. This report provides salaries, wages, and benefits spending for total payroll and benefits as well as contract labor (from staffing agencies). This information is also reported by type of expense, including direct patient, patient other, and general and admin. The measure of salaries, wages, and benefits were compared across total hospital expenses to compare Colorado hospitals' labor costs with other financial growth and spending.

National Academy for State Health Policy (NASHP) Hospital Costs Tool

Data

The National Academy for State Health Policy (NASHP) hospital cost tool dashboard includes measurements from all 50 states related to hospital revenue and expenditures related to patient care, including labor, derived from the national RAND data set. This Report utilized net patient revenue and full-time employee (FTE) cost data from 83 Colorado hospitals. Data was for years 2014 to 2023.

Measurement

Key measurements pulled from the NASHP hospital cost tool included hospital operating costs, net patient revenue, and total net income to analyze and describe Colorado hospital labor costs. The data used include direct patient care costs related to total FTE and contract labor FTE such as hourly rate and total costs to calculate contract labor utilization and cost trends, labor costs as a share of operating costs, and labor as a share of net patient revenue.

Appendix B: References

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