



# National Trends of Hospital Revenue, Profit, and Labor Costs: 2011-2022



Seeing a continued need for data-driven insights surrounding hospital financing, the National Academy for State Health Policy (NASHP) updated its Hospital Cost Tool (HCT) to version 3.0, which includes 2022 data. Drawing on the Centers for Medicare & Medicaid Services' Healthcare Cost Report Information System database, the HCT provides state policymakers and researchers with analytical insights into how much hospitals and health systems spend on patient care, how such costs relate to hospital charges (list prices), and revenue received for patient care.

This data brief examines national trends of hospital revenue, profit, and labor cost from 2011–2022, focusing on changes during and after the COVID-19 pandemic.<sup>1</sup> NASHP and Mathematica summarize median and total hospital cost metrics based on the year-end of the

hospitals' Medicare cost reports, which is typically the end of the hospital federal fiscal year. For example, if a cost report covered July 1, 2021, to June 30, 2022, we assigned the cost report to fiscal year 2022. For the most part, the analyses use medians to describe the national and state trends. The NASHP HCT has more extensive information on median benchmarks among hospitals of various sizes, ownership types, and system affiliations.

This analysis included over 5,000 short-term acute hospitals and critical access hospitals. It excludes Kaiser Permanente hospitals and non-hospital facilities such as rehabilitation facilities, hospice facilities, emergency hospitals, and facilities that do not report inpatient beds.

<sup>1</sup> A previous data brief based on data through 2021 can be found [here](#).

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## Key National Trends

1. The national median Operating Profit Margin declined by 2 percentage points from 13 percent in 2021 to 11 percent in 2022. The national median Net Profit Margin, on the other hand, dropped significantly from 12 percent in 2021 to 2 percent in 2022. The drop is likely attributable to the reduction in COVID-19 funding, the stock market decline, and an increase in operating expenses in 2022.
2. As the national total Hospital Expenses (Inclusive of All Services) rose over time, the proportion of Direct Patient Care Labor Cost remained relatively consistent at 29 percent in 2022, compared with 27 to 29 percent in prior years.
3. The national median Direct Patient Care Labor Cost per Adjusted Discharge rose by 31 percent from 2019 to 2022, driven by a faster pace of growth in median Direct Patient Care Labor Cost than in median Adjusted Patient Discharges.

4. The national median Direct Patient Care Labor Cost for both Hospital Employed Labor and Contracted Labor continued to rise in 2022, but the rate of growth was faster for Contracted Labor than for Hospital Employed Labor.

## Limitations

- / The national trends reported in this study reflect equal weighting of individual hospitals, so states with many hospitals have a larger influence on national findings.
- / Because critical-access hospitals (CAHs) report labor-related costs under Other Hospital Operating Costs instead of reporting them separately, we could not observe labor costs and associated labor categories for CAHs. For this reason, we exclude CAHs in all analyses where we examined trends in labor-related costs (Exhibits 2 through 9).



### How did trends in hospital Operating and Net Profit Margins change in 2022?

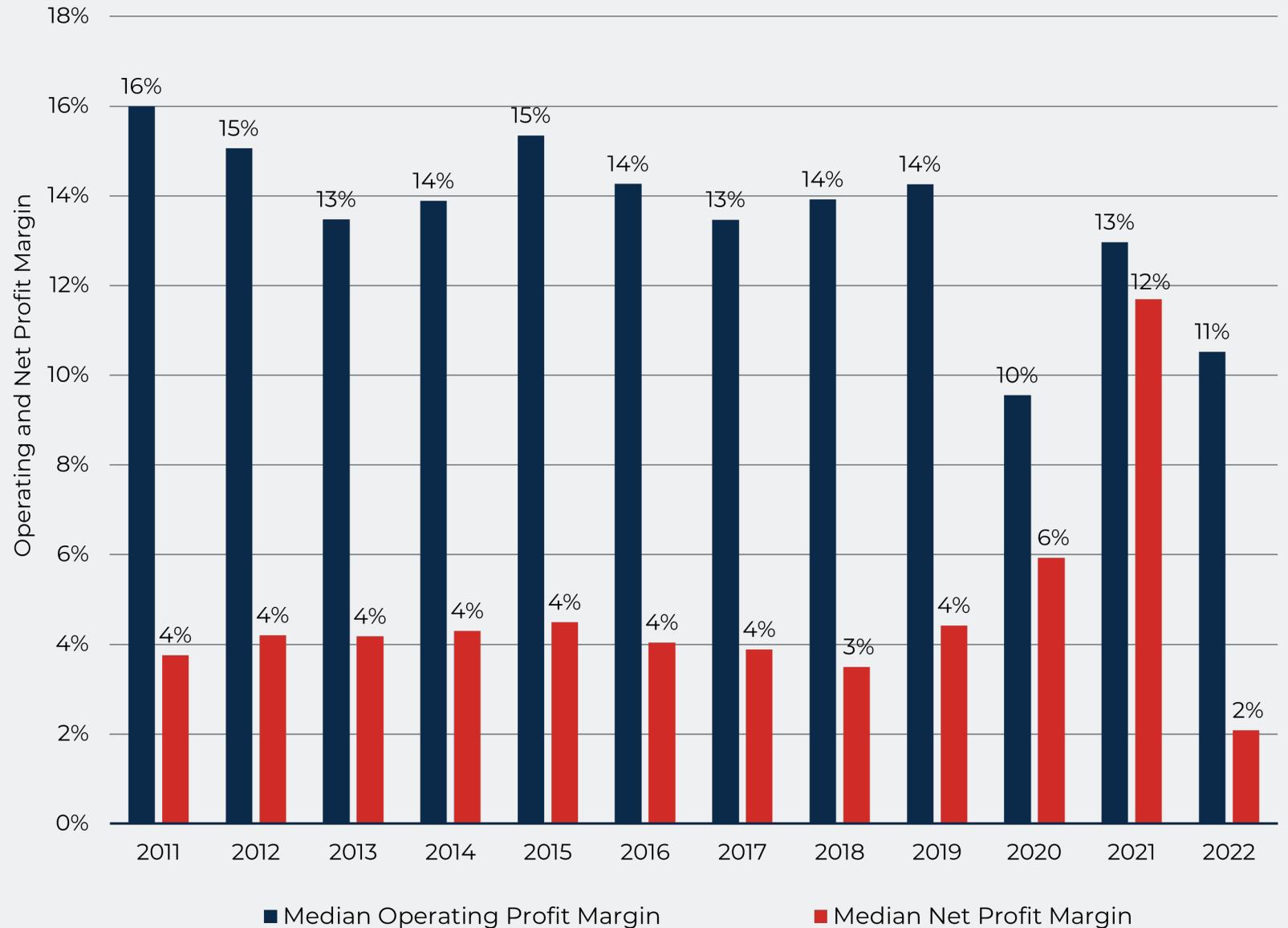
#### Exhibit 1 key takeaways

- / This chart depicts a national trend, but trends can vary widely from state to state. Appendix A, Exhibit A. 1. reports data for individual states
- / The national median Operating Profit Margin declined by 2 percentage points from 13 percent in 2021 to 11 percent in 2022. The Operating Profit Margin reflects the hospital's Operating Profit (Loss) and does not include income and costs unrelated to patient care, such as federal funding for COVID-19 and investments.
- / The national median Net Profit Margin dropped significantly from 12 percent in 2021 to 2 percent in 2022. This fall is likely attributable to the reduction in COVID-19 funding, the 2022 stock market decline that caused investment loss across all industries, and an increase in operating expenses. In contrast to the Operating Profit Margin, the Net Profit Margin reflects Net Income that accounts for additional income and cost (for example, government grants, COVID-19 funding, investment earnings or losses) and includes Hospital Expenses (Inclusive of All Services).

Operating Profit Margin is Operating Profit (Loss) divided by Net Patient Revenue. The margin represents earnings on hospital patient services, excluding non-patient related income and costs.

Net Profit Margin is Net Income divided by Net Patient Revenue. The margin represents the percentage of Net Patient Revenue retained by the hospital, inclusive of all services.

Exhibit 1. National trends comparing median Operating Profit Margins and median Net Profit Margin, 2011–2022



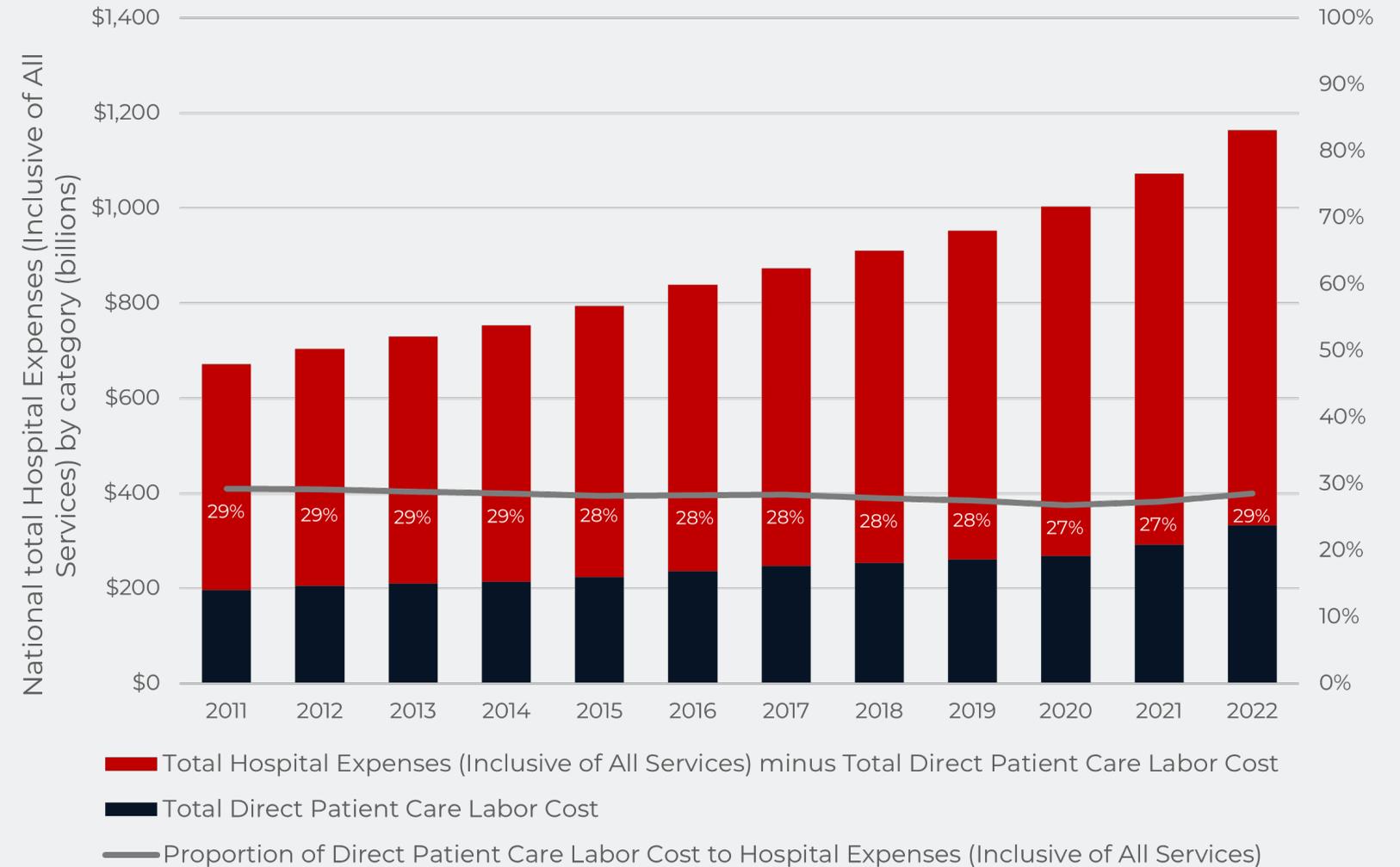
**How did hospital Direct Patient Labor Cost change in comparison to Hospital Expenses (Inclusive of All Services)?**

**Exhibit 2 key takeaways**

- / This chart depicts a national trend, but trends can vary widely from state to state.
- / Prior to 2019, the average annual growth rate of total Hospital Expenses (Inclusive of All Services) was 4.5 percent. The growth in total Hospital Expenses (Inclusive of All Services) accelerated in 2020, 2021, and 2022, with an annual growth rate of 5.3 percent, 6.9 percent, and 8.6 percent, respectively.
- / As the total Hospital Expenses (Inclusive of All Services) rose over time, the proportion of Direct Patient Care Labor Cost of the total remained relatively consistent at 29 percent in 2022, compared with 27-29 percent in prior years. This suggests that the growth of Direct Patient Care Labor Cost has generally been on par with the rate growth of the total Hospital Expenses (Inclusive of All Services). The [NASHP HCT](#) reports this trend at the individual hospital level.

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 Hospital Expenses (Inclusive of All Services) include Direct Patient Care Labor Costs, Other Hospital Operating Labor Costs, Other Hospital Operating Costs, Capital Related Costs and Additional Operating Expenses. Refer to [NASHP HCT](#) for definitions of each cost category.  
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**Exhibit 2. National trends of total Direct Patient Care Labor Cost to Hospital Expenses (Inclusive of All Services), 2011-2022**



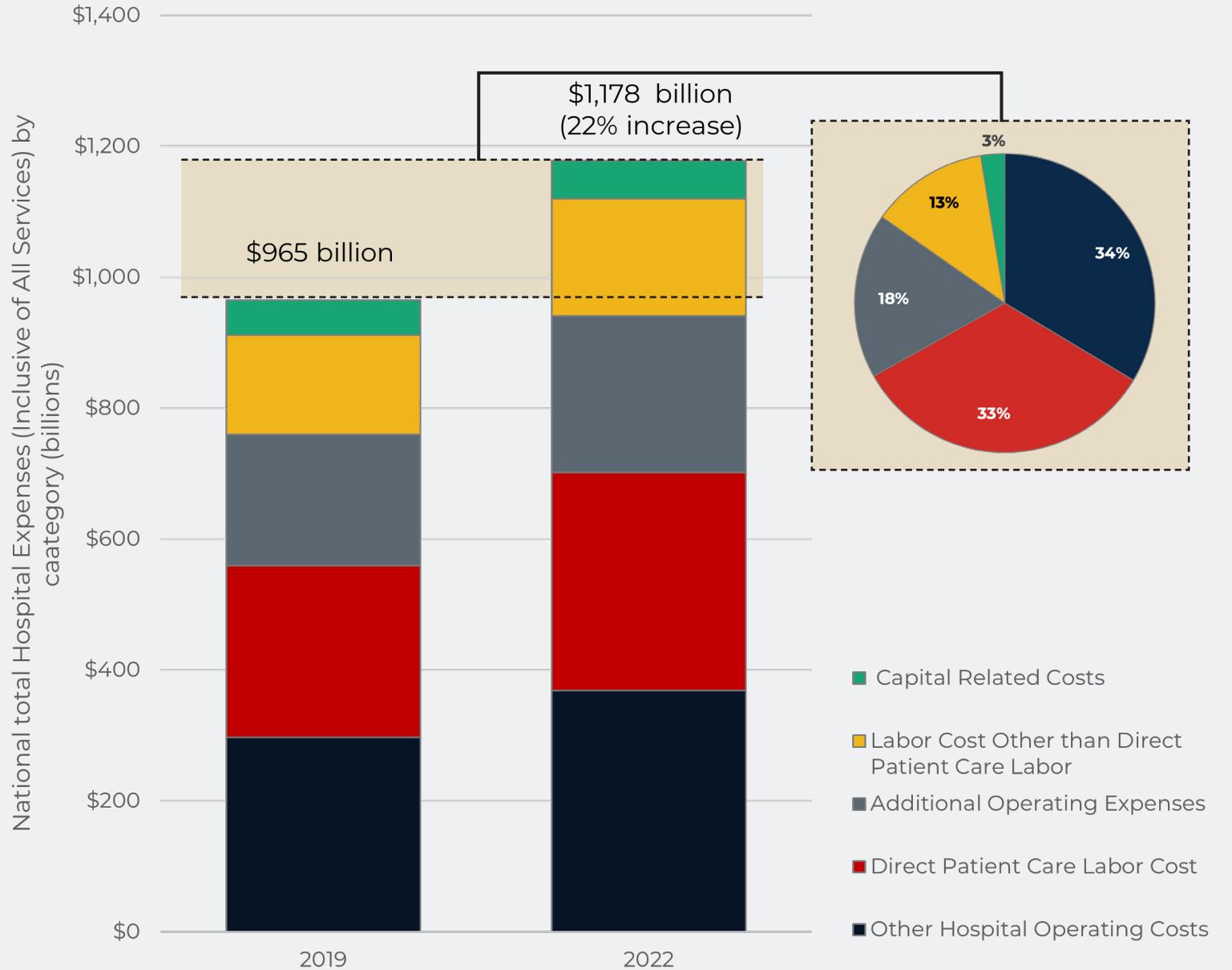
**How did the growth in Direct Patient Care Labor Costs and other expense categories contribute to the national growth in total Hospital Expenses (Inclusive of All Services)?**

**Exhibit 3 key takeaways**

- ✓ The bar chart illustrates how the national total Hospital Expenses (Inclusive of All Services) was distributed across different expense categories in 2019 and 2022. The national total Hospital Expenses (Inclusive of All Services) grew by 22 percent from 2019 to 2022.
- ✓ Percentages in the pie chart represent the percentage of total Hospital Expenses (Inclusive of All Services) growth attributed to each expense category (rather than a change in individual expenses) from 2019 to 2022.
- ✓ Other Hospital Operating Costs (34 percent), which includes expenses on supplies, medications, equipment, and technology, contributed the highest percentage of growth to the total Hospital Expenses (Inclusive of All Services) growth from 2019 to 2022. Direct Patient Care Labor Cost was a close second, contributing 33 percent.

Hospital Expenses (Inclusive of All Services) include Direct Patient Care Labor Cost, Other Hospital Operating Labor Costs, Other Hospital Operating Costs, Capital Related Costs, and Additional Operating Expenses. Refer to [NASHP HCT](#) for details of each cost category for details of each cost category.

**Exhibit 3. Growth in each expense category as a percentage of the growth in national total Hospital Expenses (Inclusive of All Services), 2019–2022**



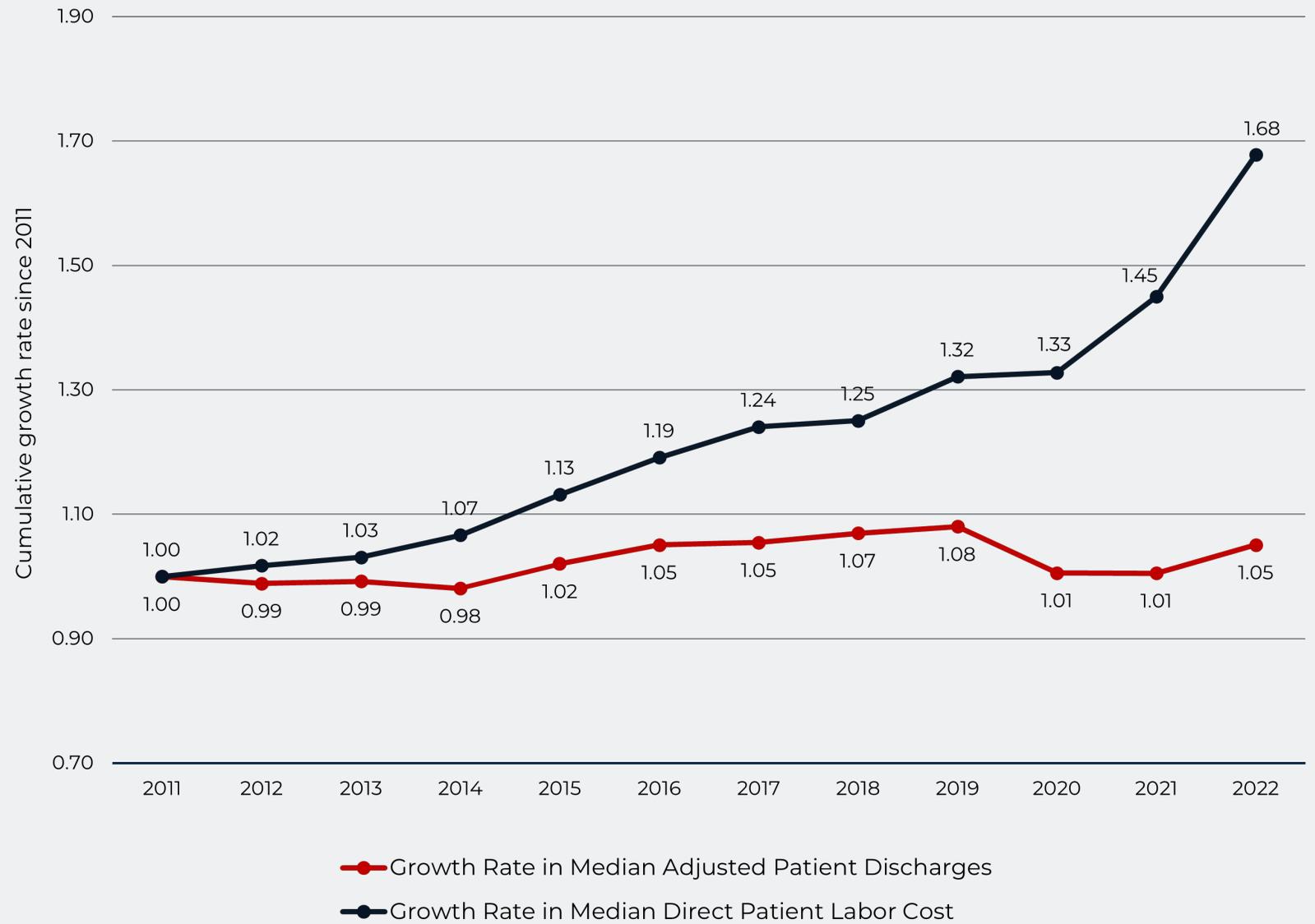
### How did trends in hospital utilization change compare with trends in labor costs?

#### Exhibit 4 key takeaways

- / Hospital utilization, as measured by median Adjusted Patient Discharges, bounced back by 4 percent in 2022, reflecting a recovery of patient volumes post-pandemic. However, utilization was still below 2019 levels. Despite the robust increase in utilization, the median hospital Operating Profit Margin declined slightly during 2022 (see Exhibit 1).
- / The change in Adjusted Patient Discharges affects the measure in Exhibit 5, which uses this metric as a denominator.
- / The growth trend in median Direct Patient Care Labor Cost that started in 2021 continued into 2022. The cumulative growth of median Direct Patient Labor Cost reached 168 percent of the 2011 level. However, as noted in Exhibit 2, such costs nationally remain approximately the same share of overall expenses as in 2011.

Adjusted Patient Discharges refers to the calculated inpatient and outpatient discharges indicating the hospital's total patient volume for the reported period. The result is computed by multiplying inpatient volume by an outpatient factor. Outpatient Factor includes Hospital Charges divided by Inpatient Hospital Charges.

**Exhibit 4. National trends in the growth of median Direct Patient Care Labor Costs and median Adjusted Patient Discharges, 2011–2022**

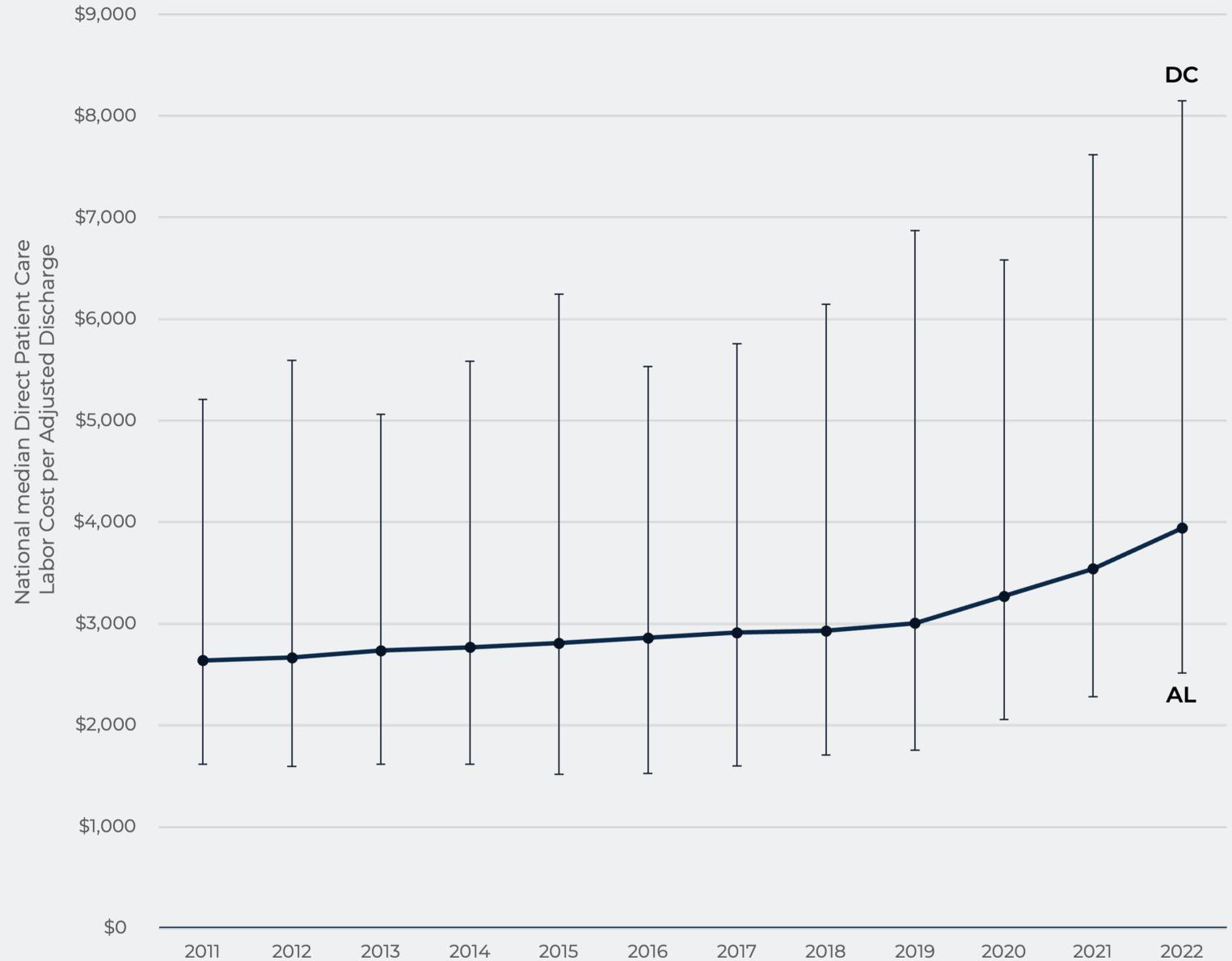


### How did Direct Patient Care Labor Costs per Adjusted Discharge Change?

#### Exhibit 5 key takeaways

- / Direct Patient Care Labor Cost per Adjusted Discharge is Direct Patient Care Labor Cost divided by Adjusted Discharges (the two trend lines in Exhibit 4) and represents the Direct Patient Care Labor Cost for Hospital Employed Labor and Contracted Labor.
- / The upper and lower bounds along the trend line represent states with the highest and lowest medians for Direct Patient Care Labor Costs per Adjusted Discharge for each year.
- / The trend line shows that national median Direct Patient Care Labor Costs per Adjusted Discharge increased by 31 percent from \$3,007 in 2019 to \$3,944 in 2022, representing a consistent growth trend since 2019. In 2022, the increase is driven by a faster pace of growth in median Direct Patient Care Labor Cost than in total median Adjusted Patient Discharges (Exhibit 4).
- / Importantly, in 2022, the state-level median Direct Patient Care Labor Costs per Adjusted Discharge varied widely from \$2,516 in Alabama to \$8,152 in Washington, DC. These state-level data, which are captured in the [NASHP HCT](#) along with hospital specific and health system data, emphasize that the national trends do not accurately capture vastly different experiences for hospitals and hospital systems in different states.
- / As illustrated by the gaps between the upper and lower bounds, the spread between the highest and lowest state medians for Direct Patient Care Labor Costs per Adjusted Discharge has increased over time. The spread was \$3,592 in 2011 and \$5,636 in 2022, a 57 percent increase.

Exhibit 5. National trends of median Direct Patient Care Labor Costs per Adjusted Discharge, 2011-2022

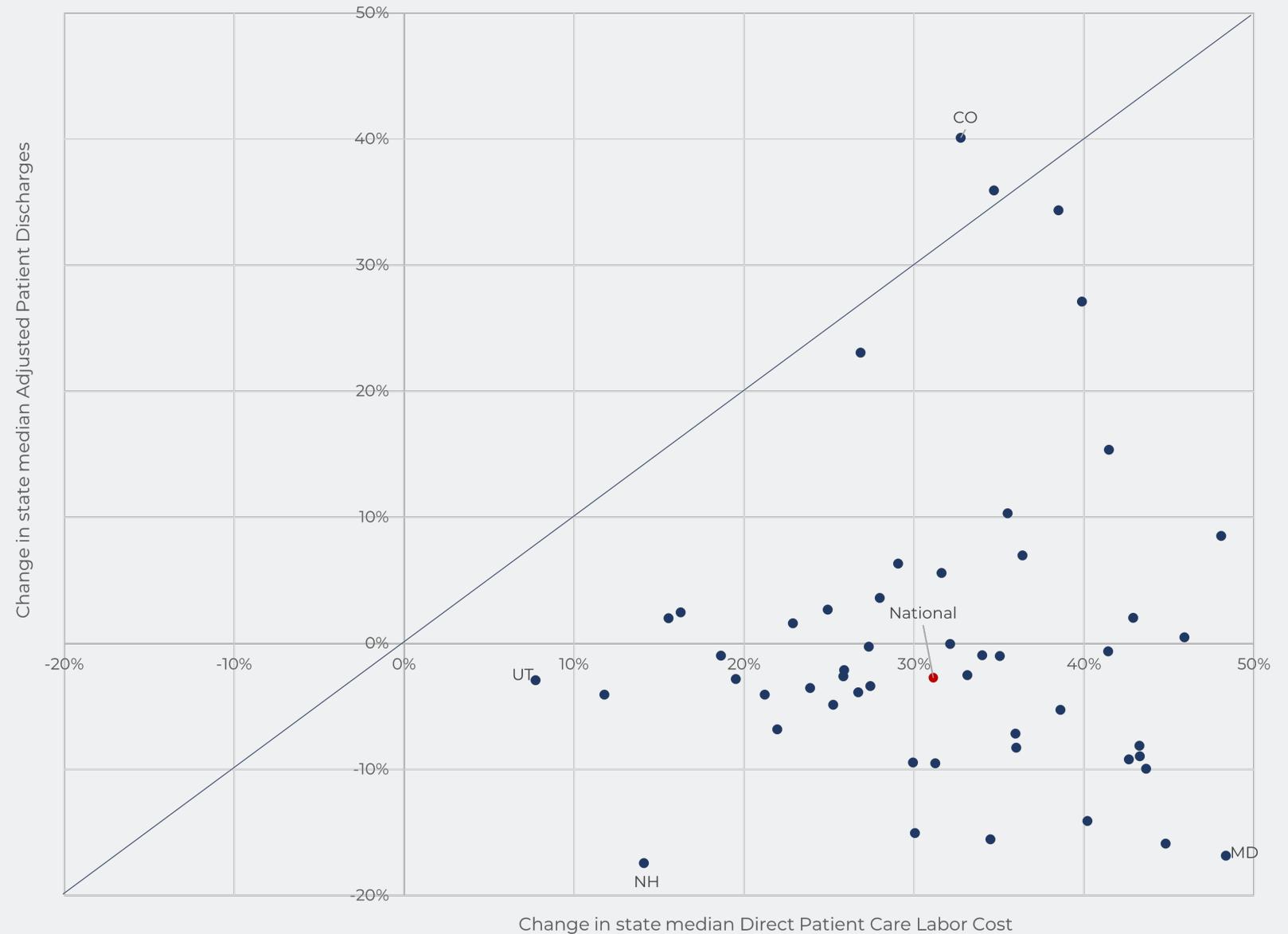


### How did the change in Direct Patient Care Labor Cost and Adjusted Patient Discharges compare on the state level?

#### Exhibit 6 key takeaways

- ✓ To further understand the drivers of hospitals' Direct Patient Care Labor Cost per Adjusted Discharge in different states, Exhibit 6 isolates the change in state median Direct Patient Care Labor Cost and state median Adjusted Patient Discharges from 2019 to 2022.
- ✓ Dots that fall below the diagonal line represent states that experienced higher rates of increase in median Direct Patient Care Labor Cost than in median Adjusted Patient Discharges. That difference results in a growing median Direct Patient Care Labor Costs per Adjusted Discharge. In contrast, states that lie above the line (for example, Colorado) experienced higher rates of change in median Adjusted Patient Discharges than median Direct Patient Care Labor Cost. That difference results in a declining median Direct Patient Care Labor Costs per Adjusted Discharge.
- ✓ For example, the national median (represented by the red dot) represents a 31 percent increase in median Direct Patient Care Labor Cost and a 3 percent decrease in median Adjusted Patient Discharges. This means that the national median Direct Patient Care Labor Costs per Adjusted Discharge actually increased despite a smaller number of national median Adjusted Patient Discharges than in previous years.
- ✓ Results from Exhibit 6 illustrate how national data can mask the wide variation experienced at the state level and by individual hospitals or health systems. The variation highlights the need for state policymakers and researchers to avoid broad-based conclusions using national data. For more information, please refer to the [NASHP HCT](#).

**Exhibit 6. Change in state median Direct Patient Care Labor Cost and change in state median Adjusted Patient Discharges, 2019-2022**



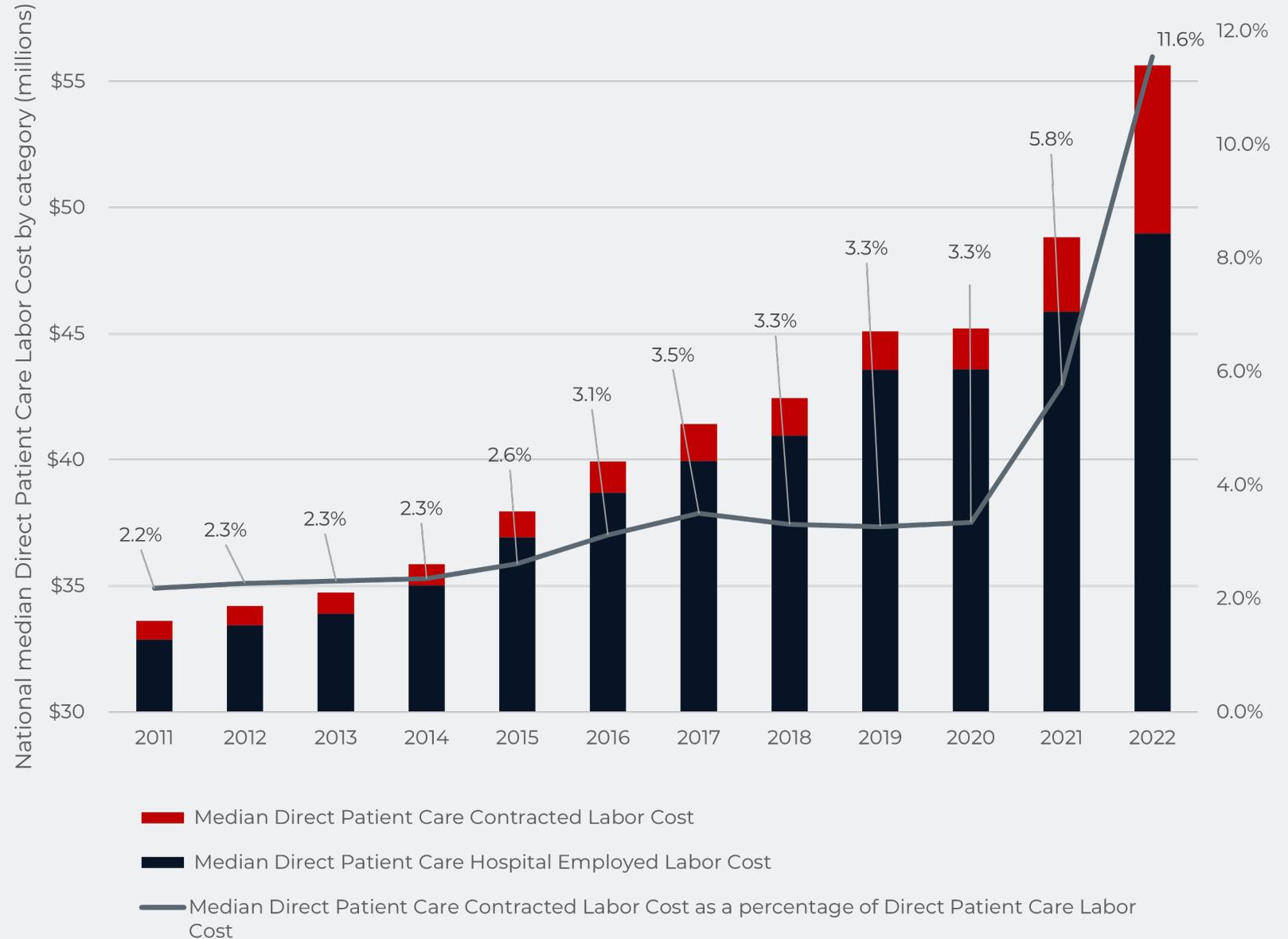
### How did the growth rate of Direct Patient Care Labor Cost for Hospital Employed Labor compare to that of Contracted Labor?

#### Exhibit 7 key takeaways

- ✓ In Exhibit 7 and subsequent charts, the Direct Patient Care Labor Cost is divided into two subcategories: Hospital Employed Labor and Contracted Labor. We examine the differential cost trends in the two subgroups and decompose the trends into labor FTEs (see Exhibit 8) and hourly rates (Exhibit 9).
- ✓ The national median Direct Patient Care Labor Cost for both Hospital Employed Labor and Contracted Labor continue to rise in 2022, but the cost for Contracted Labor grew faster than that of Hospital Employed Labor. The national median Direct Patient Care Contracted Labor Cost (the red bar) was \$6.7 million in 2022, more than fourfold the \$1.5 million costs in 2019.
- ✓ The national median Direct Patient Care Contracted Labor Cost as a percentage of Direct Patient Care Labor Cost doubled to 11.6 percent in 2022 from 5.8 percent in 2021 and nearly tripled from 3.3 percent in 2019.

Year	Median Direct Patient Care Hospital Labor Cost	Median Direct Patient Care Contracted Labor Cost
2011	\$32,868,320	\$751,821
2012	\$33,444,720	\$756,564
2013	\$33,905,964	\$839,247
2014	\$35,024,604	\$842,263
2015	\$36,930,156	\$1,035,855
2016	\$38,693,848	\$1,241,563
2017	\$39,964,400	\$1,467,687
2018	\$40,974,276	\$1,482,638
2019	\$43,568,440	\$1,526,202
2020	\$43,590,660	\$1,620,488
2021	\$45,880,412	\$2,952,388
2022	\$48,985,448	\$6,657,782

Exhibit 7. National trends in median Direct Patient Care Labor Costs by Hospital Employed Labor and Contracted Labor, 2011-2022

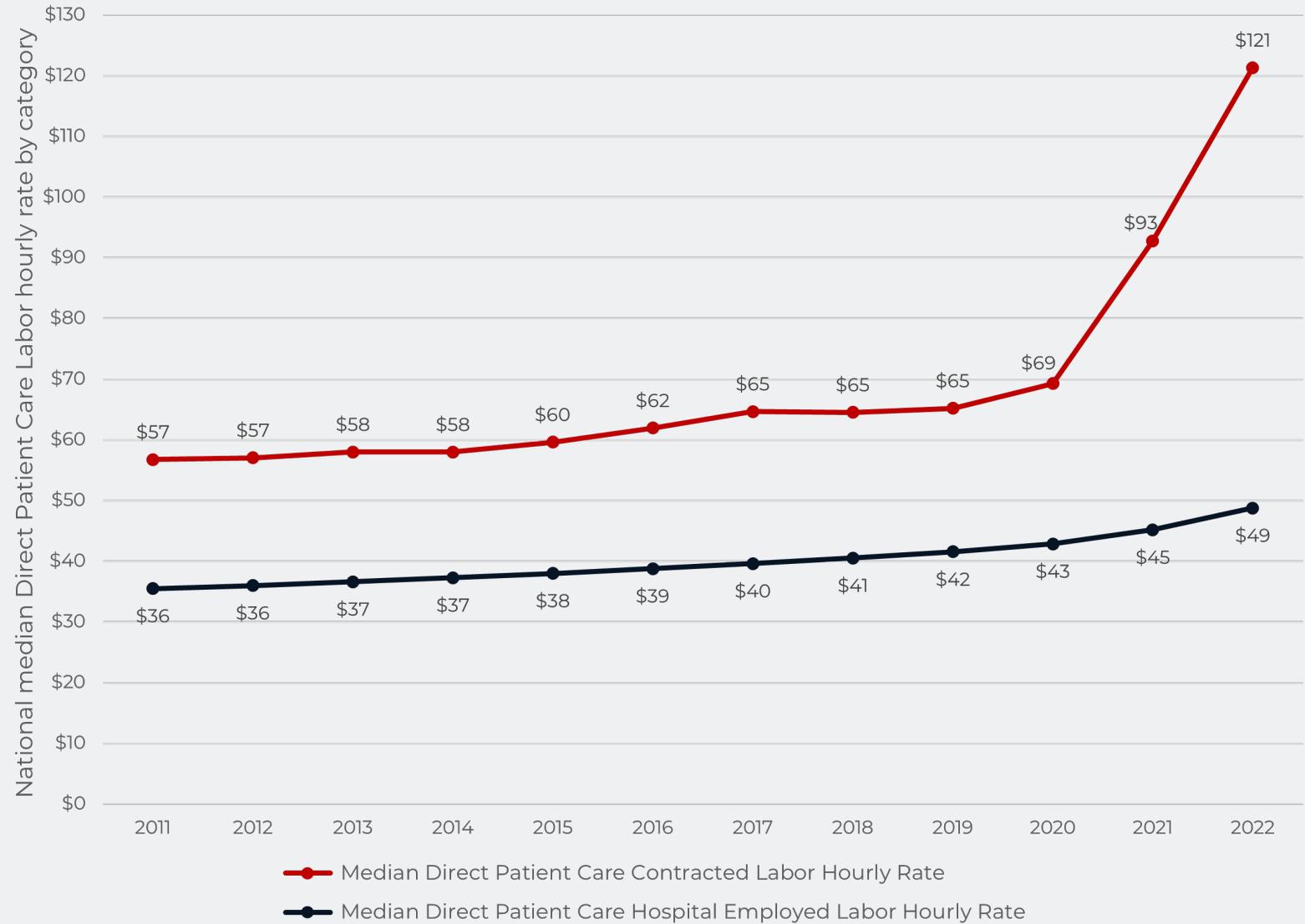


**How did the changes in hourly rates for Direct Patient Care Hospital Employed Labor compare to those of Contracted Labor?**

**Exhibit 8 key takeaways**

- / The increases in median hourly rates contributed to the national growth of median Direct Patient Care Labor Cost for both Hospital Employed Labor and Contracted Labor (see Exhibit 7).
- / The national median hourly rates for Direct Patient Care Contracted Labor are higher than those for Hospital Employed Labor. But the two types of labor are not directly comparable; the differences in median hourly rates reflect different staffing concentrations represented by Contracted Labor and Hospital Employed Labor. Certain highly specialized specialties may be contracted more than others. Thus, the staffing mix of contracted labor may also affect trends.
- / The median hourly rates for Direct Patient Care Hospital Employed Labor grew at a steady pace, with a \$4/hour change from 2021 to a median hourly rate of \$49/hour in 2022.
- / The median hourly rates for Direct Patient Care Contracted Labor rose significantly for a second year in a row. From 2021 to 2022, the median hourly rate increased \$28/hour for a new high of \$121/hour (a 30 percent increase). This is \$72/hour more than the median hourly rate for Hospital Employed Labor.
- / As noted in other exhibits, states had varied experiences with the Direct Patient Care Hospital Labor market. Appendix A, Exhibit A.2 reports changes in median Direct Patient Care Labor Hourly Rates and FTEs for individual states.

**Exhibit 8. National trends in median Direct Patient Care Hourly Rate by Hospital Employed Labor and Contracted Labor, 2011-2022.**



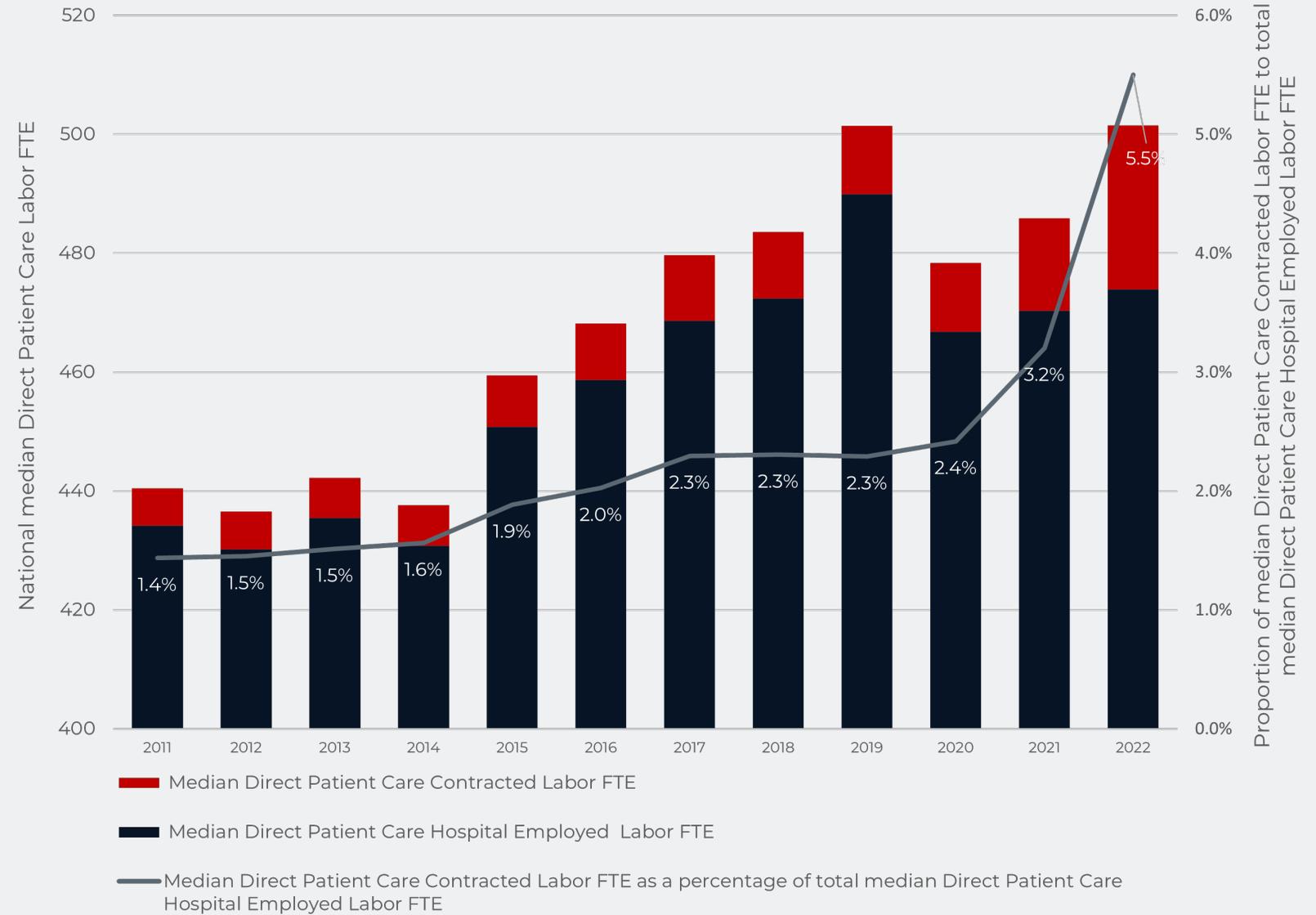
### How did the change in Direct Patient Care Hospital Employed Labor full-time equivalent staff (FTE) compare to that of Contracted Labor?

#### Exhibit 9 key takeaways

- ✓ The national median Direct Patient Care Hospital Employed Labor FTE rose by 3.7 FTEs in 2022, and the median for Direct Patient Care Contracted Labor rose by 12 FTEs—pushing the median Contracted Labor FTEs as a percentage of Direct Patient Care Labor FTEs to 6 percent. In contrast, this median proportion had been 1 or 2 percent in the decade before the pandemic.
- ✓ These results suggest that nationally not only is Contracted Labor increasingly more expensive relative to Hospital Employed Labor counterparts (Exhibit 8.), but these staff constitute a higher proportion of all Direct Patient Care Labor than in previous years.
- ✓ From 2019 to 2022, median Direct Patient Care Contracted Labor FTE grew 140 percent from 11.5 FTE to 27.6 FTE. During the same time, the median Direct Patient Care Contracted Labor hourly rate increased 86 percent from \$65/hour to \$121/hour. These results suggest that the increase in the number of contracted labor FTEs in recent years was a larger factor than their associated higher hourly rates in driving the growth of national median Direct Patient Care Contracted Labor Cost (see Exhibit 7).

Year	Median Direct Patient Care Hospital Employed Labor FTE	Median Direct Patient Care Contracted Labor FTE
2011	434.2	6.3
2012	430.2	6.3
2013	435.5	6.7
2014	430.8	6.8
2015	450.8	8.7
2016	458.7	9.5
2017	468.7	11.0
2018	472.4	11.1
2019	489.9	11.5
2020	466.8	11.6
2021	470.3	15.6
2022	474.0	27.6

Exhibit 9. National trends in median Direct Patient Care Labor FTE for Hospital Employed Labor and Contracted Labor, 2011–2022



## Appendix

Exhibit A. 1. Individual state median Operating Profit Margin and median Net Profit Margin, 2022

State	Number of Hospitals	Operating Profit Margin	Net Profit Margin
AK	21	10.2%	6.7%
AL	86	3.7%	0.4%
AR	73	5.2%	1.6%
AZ	80	10.5%	2.1%
CA	317	10.4%	0.4%
CO	81	16.3%	0.6%
CT	28	7.9%	0.4%
DC	6	11.0%	0.5%
DE	6	11.8%	-4.9%
FL	179	14.9%	7.3%
GA	128	8.7%	3.5%
HI	21	-5.3%	4.4%
IA	114	4.6%	5.7%
ID	43	10.6%	1.0%
IL	165	12.9%	3.1%
IN	117	17.6%	4.1%
KS	129	-4.4%	-1.2%
KY	90	12.5%	3.8%
LA	112	3.5%	6.3%
MA	59	1.6%	2.0%
MD	44	15.7%	-3.8%
ME	33	11.2%	0.3%
MI	127	11.4%	0.6%
MN	125	13.1%	0.1%
MO	101	11.1%	1.7%
MS	93	-2.3%	-0.8%

State	Number of Hospitals	Operating Profit Margin	Net Profit Margin
MT	60	3.5%	-0.3%
NC	102	16.7%	1.6%
ND	44	3.0%	3.8%
NE	87	7.0%	3.7%
NH	26	12.2%	-2.6%
NJ	63	10.5%	2.2%
NM	43	10.3%	4.4%
NV	33	10.5%	9.3%
NY	156	3.5%	-4.0%
OH	156	13.4%	2.3%
OK	117	4.6%	-0.1%
OR	59	12.6%	0.2%
PA	154	12.6%	1.1%
RI	10	2.5%	-5.8%
SC	57	13.3%	3.7%
SD	57	16.4%	4.8%
TN	94	13.0%	2.9%
TX	362	10.2%	8.8%
UT	46	28.7%	13.7%
VA	79	16.8%	7.0%
VT	14	6.8%	-2.4%
WA	87	9.9%	-2.5%
WI	126	19.5%	4.7%
WV	42	9.4%	4.1%
WY	26	12.3%	1.6%
National	4478	10.5%	2.1%

Exhibit A. 2. Change in individual state Direct Patient Care FTE per 1,000 Adjusted Discharges and Direct Patient Care Labor hourly rates, 2019–2022

State	Change in Direct Patient Care FTE per 1,000 Adjusted Discharges	Change in Direct Patient Care Labor Hourly Rate
AK	-8.1%	11.9%
AL	16.0%	25.1%
AR	18.7%	31.9%
AZ	4.9%	26.4%
CA	7.7%	20.1%
CO	0.7%	24.9%
CT	10.3%	17.2%
DC	-4.1%	22.6%
DE	2.0%	29.0%
FL	0.6%	23.2%
GA	14.6%	22.8%
HI	13.1%	4.3%
IA	0.5%	23.8%
ID	12.6%	20.5%
IL	2.1%	21.3%
IN	2.1%	31.0%
KS	1.1%	18.0%
KY	12.0%	31.0%
LA	12.3%	17.4%
MA	9.0%	17.1%
MD	20.7%	29.5%
ME	11.8%	28.4%
MI	5.4%	20.5%
MN	0.8%	18.3%
MO	3.6%	23.9%
MS	8.4%	18.5%

State	Change in Direct Patient Care FTE per 1,000 Adjusted Discharges	Change in Direct Patient Care Labor Hourly Rate
MT	10.0%	18.2%
NC	12.6%	28.1%
ND	-8.5%	43.1%
NE	9.4%	20.6%
NH	-2.2%	18.2%
NJ	-7.0%	22.0%
NM	12.9%	33.7%
NV	2.1%	22.8%
NY	13.3%	19.2%
OH	9.9%	25.5%
OK	11.7%	26.5%
OR	14.1%	25.2%
PA	6.0%	23.4%
RI	10.3%	16.4%
SC	3.3%	29.9%
SD	-10.7%	24.4%
TN	12.2%	25.0%
TX	0.6%	19.5%
UT	-15.5%	20.1%
VA	0.1%	26.5%
VT	14.9%	26.5%
WA	16.5%	27.1%
WI	3.3%	24.7%
WV	10.9%	22.6%
WY	-7.8%	30.4%
National	5.8%	25.0%

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