

Health Care Facilities

Health Care Labor Tracker: Dec cools as wage inflation decelerates m/m

Industry Overview

Dec tracker points to softer HC labor market m/m

Our BofA Health Care Labor Tracker measures 10 metrics across the health care and social assistance industry, hospitals, and the macroeconomy to determine the extent of labor pressure facing the industry since 2000. In December, the preliminary score of our tracker was 7.9, lower m/m, pointing to a softening health care labor market. We note our November Tracker was revised downward (to 8.1 from 8.6). Today's December reading is below last month's preliminary reading of 8.6, and down 1.4 y/y, which highlights the slow improvement in labor. Today's December reading is still well above the 6.9 score we saw in December 2019 (which itself was elevated relative to historic levels) as well as the long-term average monthly score of ~5. We also note that our [analysis of temporary job postings](#), indicates that January could still see some pressure, which underscores that the improvement we expect is unlikely to be linear.

Hospital unemployment higher, wages decelerate m/m

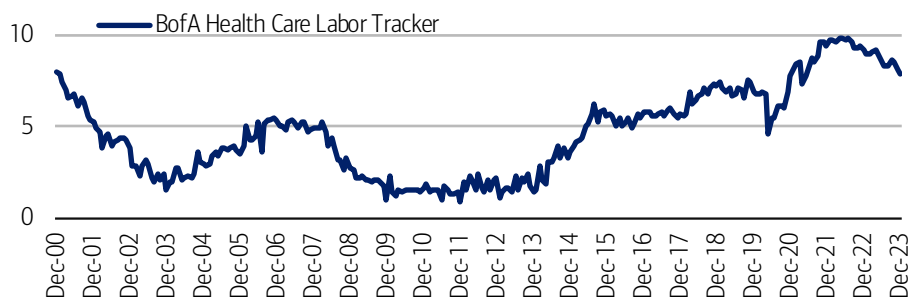
In December, the hospital unemployment rate increased 40bps (1.8% vs 1.4% prior). Meanwhile, in November, hospital wage inflation decelerated to +3.5% y/y vs +4.2% prior. The November HC & SA vacancy rate worsened slightly m/m (7.3% vs 7.2% prior).

Slowly improving labor market, emphasis on slowly

The current score is still well above the 6.9 score we saw in December 2019 (which itself was elevated relative to historical average of ~5). As a result, we think that purely looking at the improved score without context may overstate how quickly/easily the HC labor constraints will be solved. In general, the data points are indicating that the HC labor market is slowly improving, but given how elevated the scores are, we think the emphasis should be on the "slowly."

Exhibit 1: The preliminary Dec weighted average score was 7.9, lower m/m

BofA Health Care Labor Tracker weighted average score over time



Source: Bureau of Labor Statistics, BofA Global Research

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Equity
United States
HC FacilitiesBofA
Data
Analytics 

Kevin Fischbeck, CFA
Research Analyst
BofAS
+1 646 855 5948
kevin.fischbeck@bofa.com

Joanna Gajuk
Research Analyst
BofAS
+1 646 855 3961
joanna.gajuk@bofa.com

Nabil Gutierrez
Research Analyst
BofAS
+1 646 556 2974
nabil.gutierrez@bofa.com

HC = Health Care

BLS = Bureau of Labor Statistics

HC & SA = Health Care and Social Assistance

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Dec softer at 7.9, -0.2 m/m and -1.4 y/y

At an average of 47% of revenue, salaries, wages, and benefits (SWB) is the largest cost item for the hospital industry and one of the four main swing factors for profitability (along with pricing, volumes and payer mix). Labor also tends to be the largest cost item for other subsectors, such as home health and hospice.

Exhibit 2: Labor as a % of revenue by subsector

Labor represents the largest cost for inpatient settings

	2021	2022	y/y change
Physician Staffing	67.9%	70.1%	226bps
Home Health/Hospice	60.6%	61.7%	104bps
Acute Inpatient Rehab	54.5%	57.8%	328bps
Inpatient Psych	53.2%	53.8%	65bps
Senior Housing	53.0%	53.7%	72bps
Dialysis	46.4%	47.8%	142bps
Acute Hospitals	44.2%	45.5%	129bps
Ambulatory Surgery Centers	27.2%	27.4%	17bps
Home Infusion	14.8%	15.0%	13bps
HC Provider Average	46.9%	48.1%	122bps

Source: Company filings, BofA Global Research estimates

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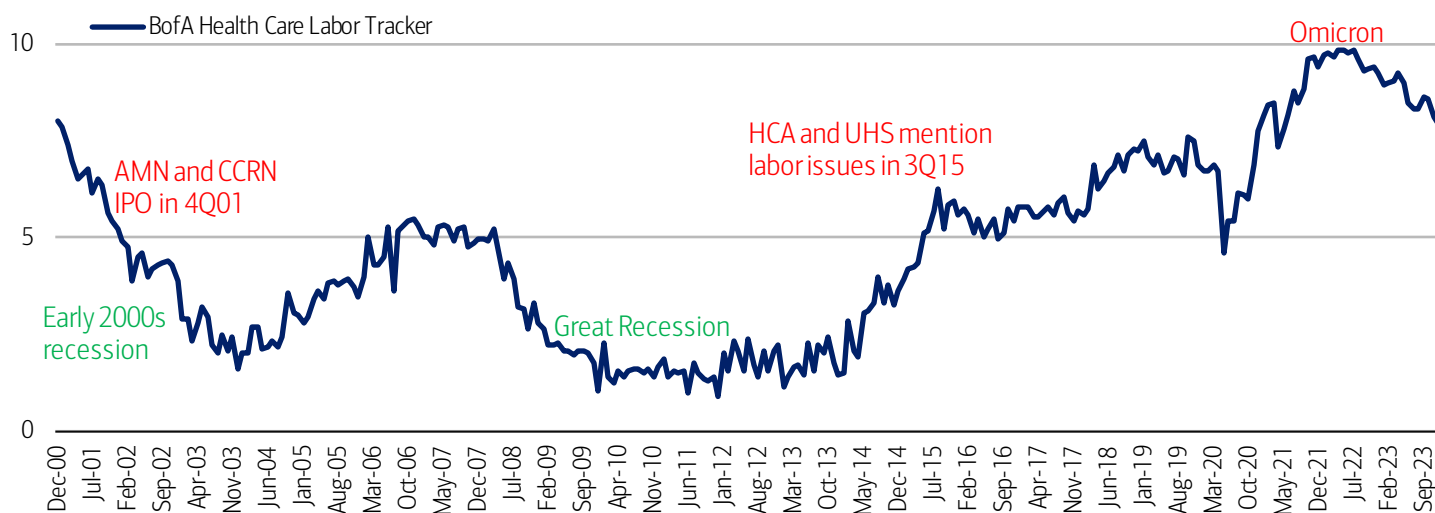
Our [deep dive on labor](#) shows that the health care labor market was already constrained heading into COVID. The pandemic created unprecedented health care labor stress as COVID patients filled hospitals, while also pushing nurses into quarantine, requiring hospitals to staff up with contract labor to meet demand. The supply/demand imbalance came to a head in 1Q22 during the Omicron spike as hospitals saw record contract labor utilization. Since then, contract labor utilization and rates have slowly fallen. Initially, as companies attempt to fill their workforce with permanent labor, wage growth and sign on/incentive bonuses have been elevated compared to historical levels, continuing to put pressure on labor costs. However, we are starting to see moderation in these bonuses as well (although still above normal).

Based on the timing of data releases from the BLS, our January report largely reflects December data for the macroeconomy and November data for the HC & SA and hospital metrics. In December, the preliminary score of our tracker was 7.9, lower m/m, pointing to a softening health care labor market. We note our November Tracker was revised downward (to 8.1 from 8.6). Today's December reading is below last month's preliminary reading of 8.6, and down 1.4 y/y, which highlights the slow improvement in labor. Today's December reading is still well above the 6.9 score we saw in December 2019 (which itself was elevated relative to historic levels) as well as the long-term average monthly score of ~5.

Given the timing of data releases, we would expect to continue to see uneven progress from month to month on labor, but directionally we would expect a slow improvement in the labor market over time as wages grow, bringing more nurses back to full time jobs. Please see our Methods and limitations section for more information on the metrics and how we derive our tracker score.

Exhibit 3: The preliminary December weighted average score was 7.9, below November

BoFA Health Care Labor Tracker weighted average score over time



Source: Bureau of Labor Statistics, BoFA Global Research

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In December, the hospital unemployment rate was up 40bps sequentially (lower score m/m). Overall temp employment as a % of total employment ticked down m/m in December, resulting in a lower score.

Meanwhile, in November (the latest period available), hospital wage inflation decelerated to +3.5% y/y, resulting in a lower score m/m. In a negative, the HC & SA vacancy rate was up 10bps m/m.

Exhibit 4: M/m, hospital unemployment was higher, hospital wages decelerated, and temp employment was lower, resulting in a lower overall score

Preliminary December Health Care Labor Tracker (based on December and November data), vs November Health Care Labor Tracker (based on November data)

									Prior score	Current score	
	Most recent period	Data				Growth					
		Current	Prior period	Prior year	Historical average/growth	Sequential	y/y	vs historical			
Health Care and Social Assistance industry											
HC & SA vacancy rate (%)	Nov-23	7.3%	7.2%	8.4%	4.7%	0.1%	(1.1%)	2.6%	9	9	20%
HC & SA openings/hires ratio (#)	Nov-23	2.18x	2.17x	2.55x	1.63x	0.6%	(14.3%)	34.3%	9	9	15%
HC & SA quit rate (%)	Nov-23	2.3%	2.3%	2.7%	1.8%	(0.0%)	(0.5%)	0.5%	9	9	15%
HC & SA fill rate (%)	Nov-23	45.8%	46.1%	39.2%	64.7%	(0.3%)	6.6%	(18.9%)	10	10	5%
Hospital industry											
Hospital unemployment rate (%)	Dec-23	1.8%	1.4%	1.2%	1.9%	0.4%	0.6%	(0.1%)	8	5	5%
Hospital hourly wage (\$)	Nov-23	\$41.76	\$41.81	\$40.33	3.4%	(0.1%)	3.5%	0.2%	8	5	15%
Hospital employment/65+ population (%)	Nov-23	8.4%	8.4%	8.4%	10.4%	0.0%	0.1%	(1.9%)	10	10	5%
Macro											
Unemployment rate, 3mo lag (%)	Sep-23	3.8%	3.8%	3.5%	5.8%	0.0%	0.3%	(2.0%)	10	10	5%
Hourly wage - production & nonsupervisory employees (\$)	Dec-23	\$29.42	\$29.32	\$28.21	3.2%	0.3%	4.3%	1.1%	8	8	10%
Temporary employment/total employment (%)	Dec-23	1.80%	1.82%	1.97%	1.85%	(0.02%)	(0.17%)	(0.05%)	3	2	5%
									Weighted average Tracker score	Weighted average Tracker score	
									8.1	7.9	

Source: Bureau of Labor Statistics, BoFA Global Research estimates

Note: historical average represents the average/average growth of the metric since December 2000 through the current month, except for hospital wage growth (historical average growth is based on data since March 2007), openings/hires ratio (historical average is based on data since January 2001), and fill rate (historical average is based on data since January 2001).

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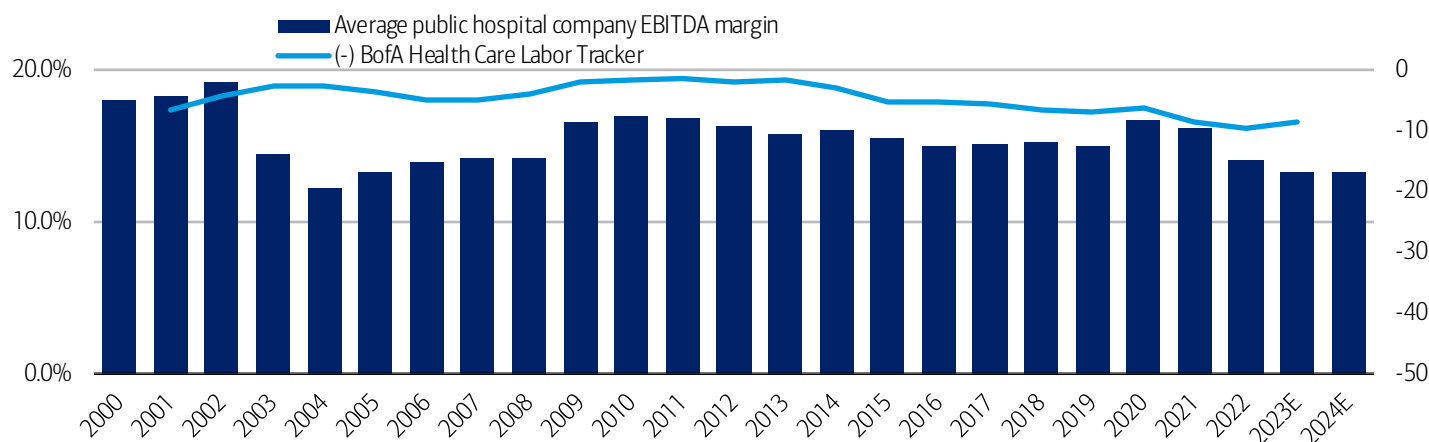


Implications for the hospital group

Below we show the average EBITDA margin between HCA, THC, and UHS compared with the inverse of our Health Care Labor Tracker (-1 * score). Historically, when the Health Care Labor Tracker signals a more competitive labor market, there is pressure on hospital margins. Below we show the historical correlation as well as the average Tracker score in 2023 against estimated 2023 EBITDA margins.

Exhibit 5: Some noise in the margins over time, but directionally in line with our tracker

Average public hospital company EBITDA margin vs inverse of BofA Health Care Labor Tracker



Source: Company filings, Bureau of Labor Statistics, BofA Global Research

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SWB expense (~47% of revenues)

Our bullish call on hospitals is based more on pricing catching up to costs, rather than costs decelerating. As a result, consistently high (but stable) labor costs are already factored into our estimates. If labor does improve, it could be upside to our estimates. At approximately 47% of revenues, SWB expense represents the largest cost item on a hospital P&L. We estimate that for every 10bps (better or worse), it could impact EBITDA by ~0.3% at the median. Any change in labor (positive or negative) affects UHS the most (given the higher labor exposure in psych, as well as somewhat depressed margins today), while it affects HCA the least, given its higher margins.

Exhibit 6: Sensitivity to SWB changes

We estimate that if SWB comes in 10bps higher, it could yield a median cut of -0.3% to EBITDA

	0.1%	0.5%	1.0%	1.5%	2.0%
HCA					
EBITDA impact	-\$30.8	-\$154.0	-\$308.1	-\$462.1	-\$616.1
% of 2024E EBITDA	-0.2%	-1.2%	-2.4%	-3.5%	-4.7%
THC					
EBITDA impact	-\$9.6	-\$48.0	-\$96.1	-\$144.1	-\$192.1
% of 2024E EBITDA	-0.3%	-1.4%	-2.7%	-4.1%	-5.4%
UHS					
EBITDA impact	-\$7.5	-\$37.5	-\$75.0	-\$112.6	-\$150.1
% of 2024E EBITDA	-0.4%	-1.9%	-3.8%	-5.7%	-7.6%
Average	-0.3%	-1.5%	-3.0%	-4.4%	-5.9%
Median	-0.3%	-1.4%	-2.7%	-4.1%	-5.4%

Source: BofA Global Research estimates. HCA = HCA Healthcare, THC = Tenet Healthcare, UHS = Universal Health Services

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Q3 company commentary on labor outlook

Overall, the companies that have given guidance on labor are continuing to assume modest improvement in the labor market, driven by declining contract labor utilization, somewhat offset by investments in recruiting and retaining full-time staff.

While some of the publicly traded hospitals have mentioned higher professional fees from physicians since the beginning of this year, it was one of the biggest themes in Q3. For more information on professional fees (what they are, why they're a problem now, how hospitals can manage the pressure, and more), see our [10-31-23 report](#).

Exhibit 8: Nurse labor continues to improve, partially offset by more pressure on physician labor

Company commentary on labor trends in 2023/24

Company	Quarter	Comment
Acadia Healthcare (ACHC)	3Q23	"In addition to our core financial metrics, we were pleased to see further sequential improvement in our labor trends with 2023 wage inflation decreasing from 7.5% in the first quarter to 6.3% in the second quarter, to 5.7% in the third quarter, an improvement of 180 basis points so far this year."
AMN Healthcare (AMN)	3Q23	"I would say that most of our clients, did see sequential increases in Q4 over Q3 and their utilization, but there were several large clients that we're continuing to reduce utilization with the progress they've made on hiring and retention. So as we just look at the pace where they're pacing relative to those that behave that as we thought they would, there could be room for them to improve further in the first quarter and reduce their utilization, which, you know, could lead to Nurse and Allied, you know, being flat to slightly down in Q1 over Q4. From a bill rate standpoint, you know, in Q2 and Q3, we saw sequential declines in the bill rate of about 7%. The expectation is that bill rates will be down 4% in Q4 over Q3 and that could continue to move, you know, low single digits moving into next year downward."
Cross Country Healthcare (CCRN)	3Q23	"As a result of the pullback in bill rates this year, amidst elevated compensation expectations for nurses, we are seeing some margin depression due to a tightening in the billpay spreads. Though this appears to be a broader issue across the industry that may persist for the next several quarters, we will strive to remain competitive in order to preserve our market share while protecting our profitability."
DaVita Inc (DVA)	3Q23	"Our experience on labor is consistent with recent macroeconomic trends. The tight labor market and low unemployment has continued to put pressure on retention and training, offset by slight easing in the wage environment."
Encompass Health (EHC)	3Q23	"Our Q3 contract labor plus sign-on and shift bonuses of \$33.3 million was comprised of approximately \$18.9 million in contract labor and \$14.4 million in sign-on and shift bonuses. This compares favorably to \$24.8 million in contract labor and \$24.2 million in sign-on and shift bonuses in Q3 last year. Contract labor utilization declined year-over-year and sequentially. Q3 '23 contract labor FTEs of 388 represented a 19% decline from Q3 '22 and an 18% decline from Q2 of '23. Contract labor FTEs as a percent of total FTEs was 1.5%, a 40 basis-point decline from Q3 '22 and a 30 basis-point decline sequentially. Agency rates declined year-over-year and were up modestly sequentially. Our Q3 '23 agency rate per FTE was approximately \$192,700, down from approximately \$204,600 in Q3 '22. I'll remind you that rates are impacted by the licensed level of the clinician utilized as well as by geographic specific market conditions. Sign-on and shift bonuses decreased \$9.8 million or 41% from Q3 '22 and were roughly flat sequentially. As we consider contract labor and shift bonuses for Q4, it is worth noting that holiday coverage typically requires premium pay rates. Partially offsetting the benefit of lower premium labor costs in Q3 was an increase in our internal SW per FTE rate. This rate which excludes contract labor and sign-on and shift bonuses increased 6% over Q3 '22, similar to the level of increase we saw in Q2. The increase was attributable to proactive market adjustments, primarily for nurses, higher compensation for new hires and planned merit increases. These actions are contributing to our success in new hiring and improvement in turnover. Our updated guidance assumes a continuation of this trend in Q4."
HCA Healthcare (HCA)	3Q23	"On a year-to-date basis, our contract labor expense was down 18% or over \$300 million from the prior year. We have confidence that a similar focus and diligent effort will help address the current physician cost pressures over time."
Select Medical Corp (SEM)	3Q23	"This past quarter, we had a sequential reduction from Q2 to Q3 in our RN agency costs and utilization but had a slight increase in RN agency rate. The reductions we realized were 17% in RN agency costs having \$22.1 million versus \$18.4 million this quarter and a drop in RN utilization from 18% to 15%. The agency rates increased by only 1% from \$77 to \$78 and we experienced very little change in the rate throughout Q3. RN agency utilization during the quarter inched down from 15.6% in July, 15.5% in August and 15.1% in September. And the related costs were \$6.2 million in July, \$6.3 million in August and \$5.8 million in September. Nursing sign on an incentive bonus dollars remain consistent with Q2 at \$7.8 million while we had a 19% increase in orientation hours 143,000 hours compared to 120,000 hours with the fluctuation during the quarter from 44,000 hours in July, 51 in August and 48 in September."
Surgery Partners (SGRY)	3Q23	"Starting with anesthesia, I would like to point out that anesthesia availability and cost pressures are not new, but rather something that we have been managing for a few years. It's widely known that the current supply of anesthesia providers from MDs to CRNAs is constrained and that recent reimbursement changes for their services has impacted their profitability. Other than the limited number of providers that we employ, the anesthesiologist or CRNA is responsible for billing and collecting for their services performed in our facilities. These providers have chosen to work with us and our facilities for the same reason our surgeons and other stakeholders do, for the convenience, efficiency, and clinical quality we are known for. In other words, they generally prefer working with our surgeons in our facilities. [...] To reiterate, this has not been a material issue for us, and I do not expect this will be a material issue for us in 2024."
Tenet Healthcare (THC)	3Q23	"We continue to make significant progress, improving nurse retention and accelerating hiring. This has resulted in a substantial reduction in contract labor usage to 3.1% of consolidated SW&B, which is the high-end of pre-pandemic levels." "We continue to manage cost pressures from medical fees. Medical fees, while higher than last year remained relatively flat from Q2 to Q3 '23."
Universal Health Services (UHS)	3Q23	"The amount of premium pay in the third quarter was \$69 million, reflecting a 15% decline from the amounts in the previous several quarters. The continued robust increase in acute volumes is the major reason the premium pay has not declined farther." "We had originally anticipated and what we included in our 2023 original guidance was that physician expense would be \$55 million to \$60 million higher in 2023 than it was in 2022. As it turned out, I think this has been a bigger issue than we anticipated and I think virtually all of our peers anticipated around the country. And what we said is that we anticipated that the second half of the year would also reflect another \$55 million or \$60 million increase over the second half of 2022, and we are tracking very closely to those numbers in the third quarter. So, in other words, I don't think we've had a material sequential increase in our pro-fees or in our position expenses."

Exhibit 8: Nurse labor continues to improve, partially offset by more pressure on physician labor

Company commentary on labor trends in 2023/24

Company**Quarter Comment**

Source: Bloomberg, company commentary

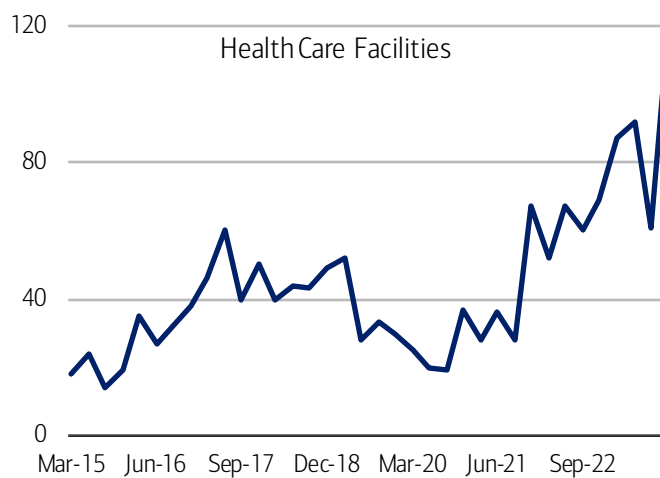
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Text analysis of Health Care Facilities earnings calls

Mentions of improved labor availability/productivity by health care management teams have been rising broadly since September 2022 (vs March 2021 for the overall stock market ex Health Care Facilities).

Exhibit 8: Mentions of “better/improving labor availability” have been increasing since September 2022...

Mentions of “better/improving labor availability” by management on Health Care Facilities earnings/conf./guidance calls through 11/7/23



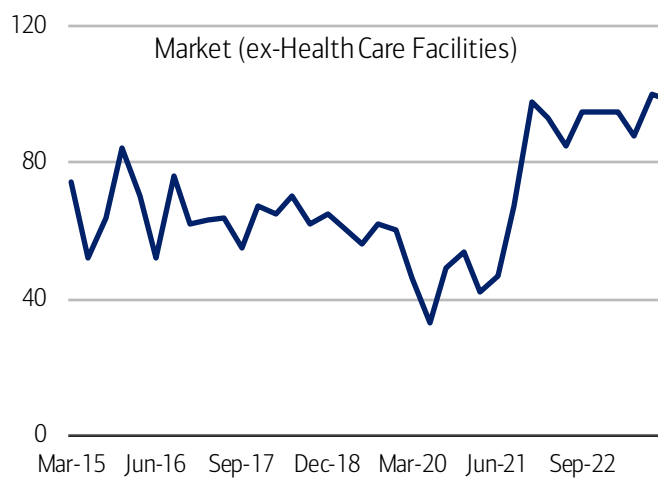
Source: Alphasense

Trend line (ranging 0-100) is normalized function of no. of documents with keyword/ total number of documents

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Exhibit 9: ...vs March 2021 for the overall market ex Health Care Facilities

Mentions of “better/improving labor availability” by management on US (ex Health Care Facilities) earnings/conf./guidance calls through 11/7/23



Source: Alphasense

Trend line (ranging 0-100) is normalized function of no. of documents with keyword/ total number of documents

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Dec softer, Nov Tracker restated down**HC & SA vacancy and fill rates slightly worse m/m**

Within the Health Care and Social Assistance data from the Bureau of Labor Statistics, we identified four key metrics to use in our tracker:

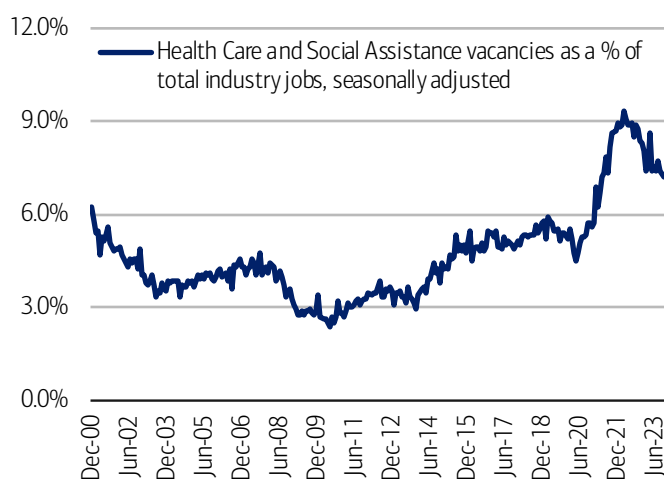
- **Vacancy rate** (number of job openings on the last business day of the month as a % of total employment plus job openings). Based on historical ranges, we defined a vacancy rate of 4.1-4.8% as normal, while anything above that would indicate a tight labor market and anything below would be an accommodative market.
- **Openings/hires ratio** (the average of this month's and last month's job openings on the last business day of each month divided by number of hires during the entire month). Based on historical ranges, we defined an openings/hire ratio of 1.46-1.62x as normal, while anything above that would indicate a tight labor market and anything below would be an accommodative market.
- **Quit rate** (number of quits during the entire month as a % of total employment). Based on historical ranges, we defined a quit rate of 1.7-1.8% as normal, while anything above that would indicate a tight labor market and anything below would be an accommodative market.
- **Fill rate** (number of hires during the entire month divided by the average number of this month's and last month's job openings on the last business day of each month).

Based on historical ranges, we defined a fill rate of 62-69% as normal, while anything below that would indicate a tight labor market and anything above would be an accommodative market.

In November, the vacancy rate worsened slightly m/m to 7.3% from 7.2%. This month's vacancy rate still resulted in a score of 9 (in line with 9 last month). Meanwhile, the openings/hires ratio also worsened slightly m/m to 2.18x from 2.17x. Although, the score for the openings/hires ratio was 9, the same as last month.

Exhibit 10: The vacancy rate of 7.3% in November worsened slightly m/m, but scored a 9 (same as last month)

Health Care and Social Assistance vacancy rate

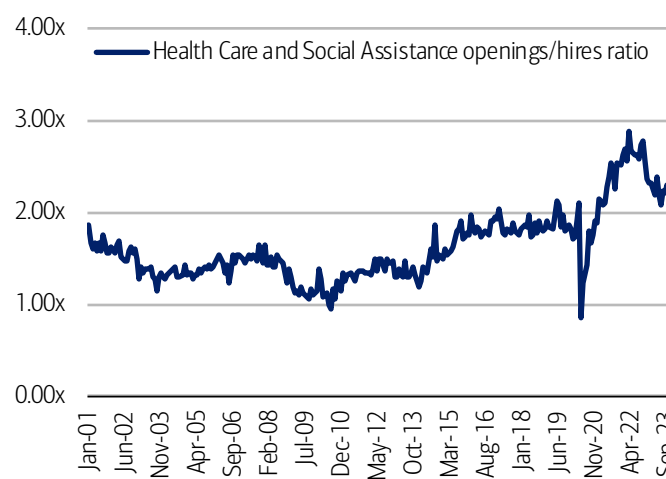


Source: Bureau of Labor Statistics

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Exhibit 11: The openings/hires ratio was 2.18x in November, +1% m/m but -14% y/y, resulting in a score of 9 (unchanged m/m)

Health Care and Social Assistance job openings/hires ratio



Source: Bureau of Labor Statistics, BofA Global Research

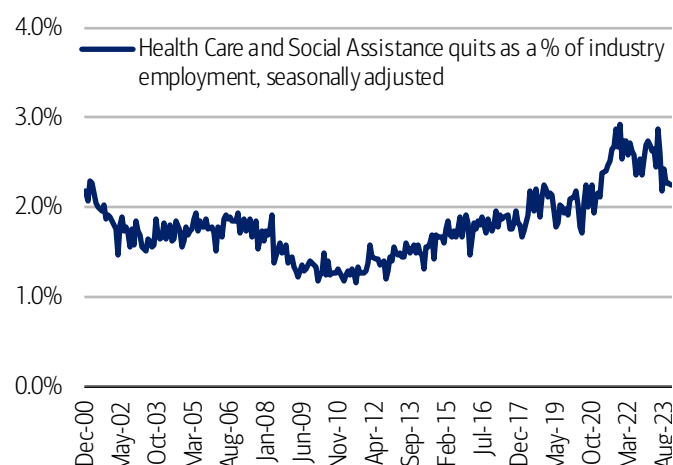
Note: We calculate the openings/hires ratio as the average of this month's and last month's job openings on the last business day of each month, divided by total hires during the entire month

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Meanwhile, the quit rate of 2.3% was stable m/m and improved 50bps y/y in November, resulting in a score of 9 (same as last month). The November fill rate was 46%, down 30bps m/m but up 660bps y/y. The score was unchanged m/m at 10, demonstrating how constrained the market still is.

Exhibit 12: The 2.3% quit rate in November was stable m/m, score of 9 was same as last month

Health Care and Social Assistance quit rate

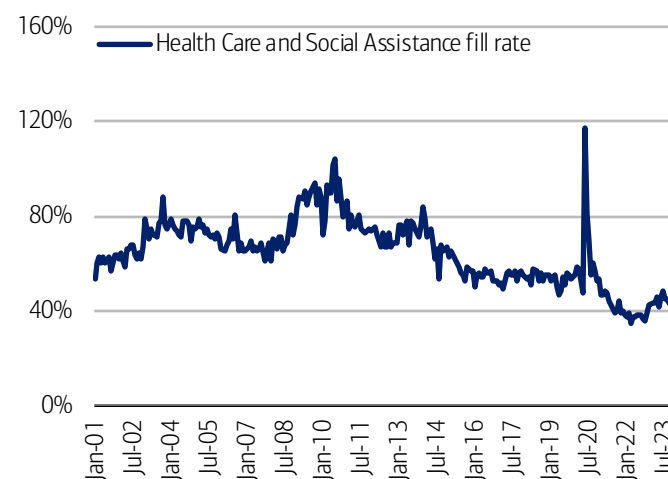


Source: Bureau of Labor Statistics

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Exhibit 13: The fill rate of 46% was down -30bps m/m in November, and scored a 10 (same as last month)

Health Care and Social Assistance fill rate



Source: Bureau of Labor Statistics, BofA Global Research

Note: we calculate the fill rate as hires during the entire month/average of this month's and last month's job openings on the last business day of each month

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Hospital wages decelerated in November

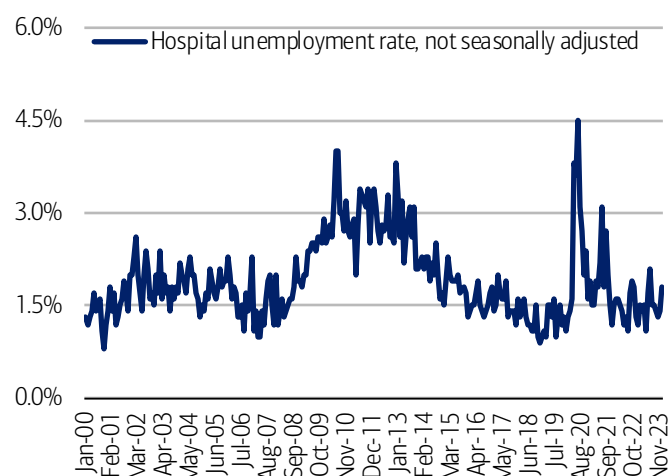
Within the hospital industry data from BLS, we identified 3 key metrics:

- **Hospital unemployment rate** (number of unemployed people 16+ in the hospital industry as a percentage of people 16+ in the hospital industry labor force). Based on historical ranges for this metric, we defined an unemployment rate of 1.6-1.9% as normal. Anything below that would indicate a tight labor market and anything above would be an accommodative market.
- **General medical and surgical hospital employee average wage** (average hourly earnings of all employees in general medical and surgical hospitals). Based on historical ranges for this metric, we defined wage growth of 2-3% y/y, i.e. in line with inflation, as normal. Anything above that would indicate a tight labor market and anything below would be an accommodative market.
- **General medical and surgical hospital employment as a percent of 65+ population** (all general medical and surgical hospital employees as a percent of population 65+ in the US). This is a proxy for healthcare employment vs volumes (with people over 65 using the system the most). Based on its historical range, we defined a rate of 9.9-11.3% as normal. Anything below that would indicate a tight labor market and anything above would be an accommodative market.

The hospital unemployment rate of 1.8% was up 40bps m/m in November and as a result, scored a 5 (below 8 last month). Meanwhile, general medical and surgical hospital wages grew +3.5% y/y in November, 70bps below +4.2% y/y in October 2023 and 250bps below +6.0% y/y in November 2022. With hospital wage inflation decelerating in November, it scored a 5, below 8 in October.

Exhibit 14: The hospital unemployment rate rose 40bps m/m to 1.8% in December, resulting in a score of 5 (vs 8 last month)

Hospital unemployment rate, 16+, not seasonally adjusted



Source: Bureau of Labor Statistics

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Exhibit 15: Hospital wage growth of +3.5% y/y decelerated m/m, and scored a 5, below last month

General medical and surgical hospital employee average wage inflation



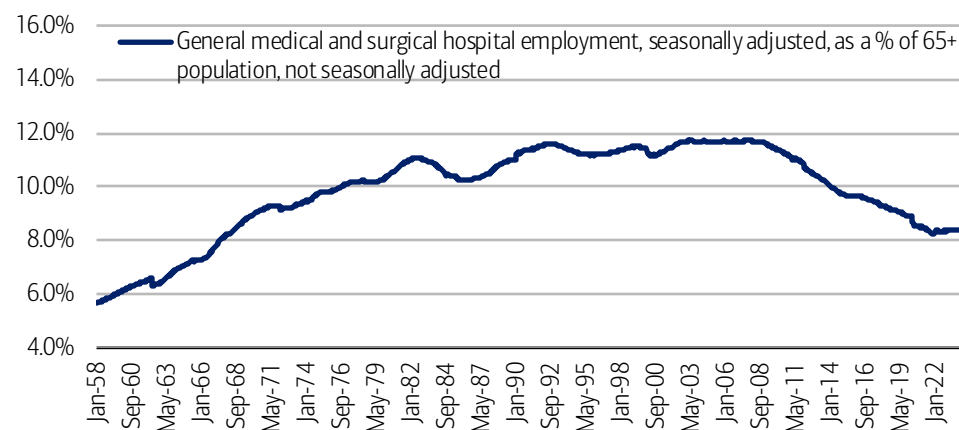
Source: Bureau of Labor Statistics, BofA Global Research

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General medical and surgical hospital employment represented 8.4% of the 65+ population, which was roughly stable m/m and y/y, resulting in a score of 10 (same as last month).

Exhibit 16: Hospital employment as a % of the 65+ population was stable m/m in November at 8.4%, score of 10 unchanged vs last month

General medical and surgical hospital employment as a % of 65+ population



Source: Bureau of Labor Statistics, BofA Global Research

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Macro roughly stable, wages decelerating

Within the broader macro data from BLS, we focus on 3 key metrics:

- **Unemployment rate** (number of unemployed people 16+ as a percentage of people in the labor force). Based on historical ranges for this metric, we defined an unemployment rate around 5-6% as normal. Anything below that would indicate a tight labor market and anything above would be an accommodative market.
- **Production and nonsupervisory employee average wage** (average hourly earnings of production and nonsupervisory employees). Based on historical ranges for this metric, we defined wage growth of 2-3% y/y, i.e. in line with inflation, as normal. Anything above that would indicate a tight labor market and anything below would be an accommodative market.



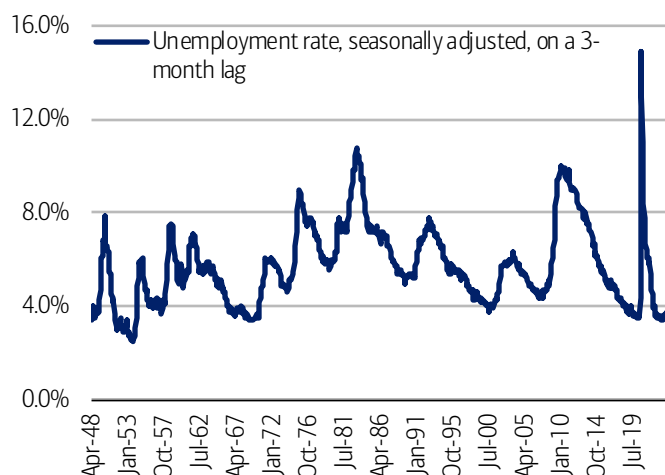
- **Temporary help services employment as a percent of total nonfarm payrolls**

(all temporary help services employees as a percent of total employees excluding farm workers and others). Based on historical ranges for this metric, we defined a rate of 1.87-1.93% as normal. Anything above that would indicate a tight labor market and anything below would be an accommodative market.

We track the national unemployment rate on a 3-month lag as we believe a weaker economy eases the health care supply/demand imbalance and vice versa, but it takes some time for the broader labor weakness to impact health care labor. In September 2023, the unemployment rate was 3.8%, stable m/m and up 30bps y/y, but resulted in a score of 10, unchanged vs last month. Wage inflation in December decelerated -10bps m/m to +4.3% y/y and yielded a score of 8 (same as last month).

Exhibit 17: The unemployment rate was stable at 3.8% in September, still below historical levels, resulting in a score of 10 (unchanged m/m)

National unemployment rate, on a 3 month lag

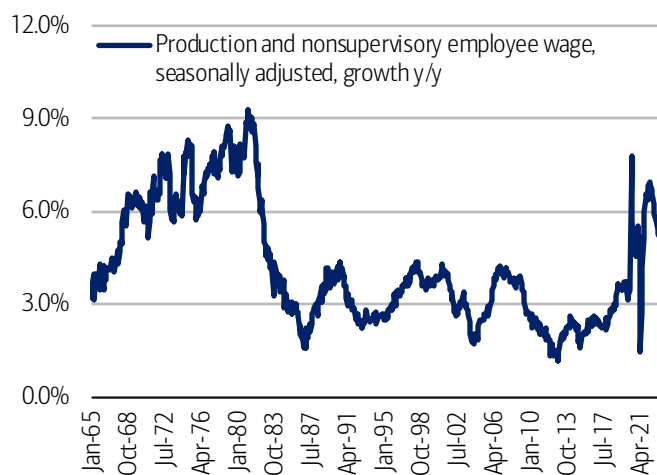


Source: Bureau of Labor Statistics

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Exhibit 18: Wages grew +4.3% y/y in December, decelerating m/m, but score of 8 stable m/m

Production and nonsupervisory employee wage inflation



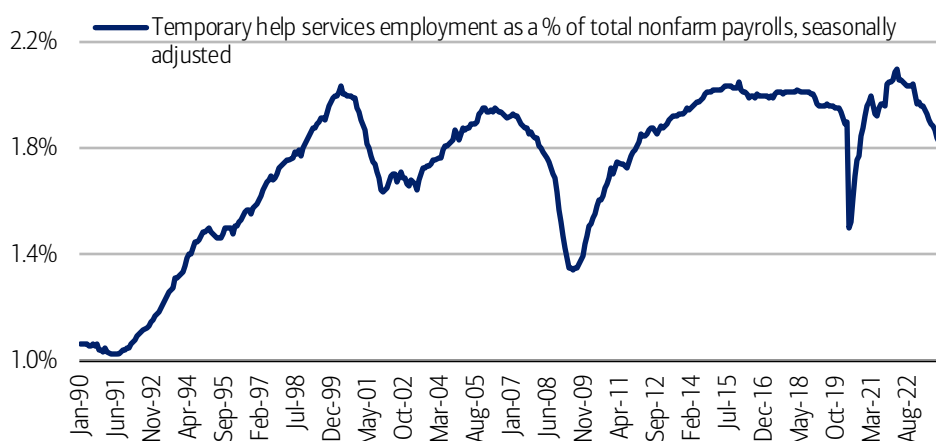
Source: Bureau of Labor Statistics, BofA Global Research

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Temporary help services employment as a % of total nonfarm payrolls in decreased slightly m/m to 1.80%. This resulted in a score of 2, below 3 last month.

Exhibit 19: Temp employees represented 1.8% of total nonfarm employment in December, lower m/m

Temporary help services employees as a % of total nonfarm payrolls



Source: Bureau of Labor Statistics, BofA Global Research

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Methods and limitations

First, metrics and scoring

As described throughout this report, we track 10 metrics using data from BLS, assign them scores based on percentile rankings, and weight them to come up with a single weighted average tracker score for each month. Below we walk through each of these metrics and how we score them.

Macro

These metrics are sourced from the Bureau of Labor Statistics and are meant to provide a snapshot of the entire US labor market. The data are released on a 1 month lag, i.e. in February we have data on January. Our deep dive on labor ([report link](#)) shows that a weaker economy tends to ease the health care supply/demand imbalance as nurses may return to the industry (either from retirement or a non-health care setting), pick up more shifts, or work longer hours.

- Unemployment rate for people 16+, seasonally adjusted, on a 3-month lag: we track the unemployment rate on a 3-month lag as we believe a weaker economy eases the health care supply/demand imbalance, but it takes some time to flow through to the labor market given unemployment benefits. We assign a score from 0-10 based on the percentile rankings of unemployment rates from December 2000-current, (although the data goes back to January 1948, for the purposes of our tracker, we wanted to keep the time period consistent with the metrics that don't go back as far).
- Production and nonsupervisory employee average wage, seasonally adjusted: we track the average wage for production and nonsupervisory employees instead of all employees because hospitals are struggling most to hire/retain nurses, who are considered nonsupervisory employees. We assign a score from 0-10 based on the percentile rankings of wage growth y/y from December 2000-current (although the data goes back to January 1964, for the purposes of our tracker, we wanted to keep the time period consistent with the metrics that don't go back as far).
- Temporary help services employment, seasonally adjusted, as a percent of total nonfarm payrolls, seasonally adjusted: The temporary help services industry supplies workers to businesses to supplement their workforce, and is an overall indicator of whether it is easy to find full time employees. Temporary nurses, who hospitals contract, are included in the industry. We then take the industry employment as a percent of total nonfarm payrolls. We assign a score from 0-10 based on the percentile rankings of the temporary help services rate from December 2000-current (although the data goes back to January 1990, for the purposes of our tracker, we wanted to keep the time period consistent with the metrics that don't go back as far).

Hospital industry

These metrics are sourced from the Bureau of Labor Statistics. Two of the metrics represent data for general medical and surgical hospitals specifically (released on a 2 month lag), while the third metric represents the hospital industry generally (released on a 1 month lag).

- Hospital unemployment rate for people 16+, not seasonally adjusted: There is no seasonally adjusted data. We assign a score from 0-10 based on the percentile rankings of unemployment rates from January 2000-current.
- General medical and surgical hospital employee average wage, seasonally adjusted: We assign a score from 0-10 based on the percentile rankings of wage growth y/y from March 2007 (the earliest the BLS data is available for this metric's growth y/y)-current.



- General medical and surgical hospital employment, seasonally adjusted, as a percent of US population 65+, not seasonally adjusted: There is no seasonally adjusted 65+ population data. We track employment as a percent of the 65+ population as a proxy for demand, particularly as that demographic has higher demand for health care services than overall. We assign a score from 0-10 based on the percentile rankings of the rates from December 2000-current (although the data goes back to January 1958, for the purposes of our tracker, we wanted to keep the time period consistent with the metrics that don't go back as far).

Health Care and Social Assistance industry

These metrics are sourced from the Bureau of Labor Statistics Job Openings and Labor Turnover Survey. The Health Care and Social Assistance industry includes the following subsectors: ambulatory health care services, hospitals, nursing and residential care facilities, and social assistance. The data are released on a 2-month lag (i.e. in February we have data on December).

- Vacancy rate (job openings on the last business day of the month, seasonally adjusted, as a percent of job openings + industry employment, seasonally adjusted): We assign a score from 0-10 based on the percentile rankings of the vacancy rate from December 2000-current.
- Openings/hires ratio (the average of this month's and last month's job openings on the last business day of each month, seasonally adjusted/total hires during the entire month, seasonally adjusted): We assign a score from 0-10 based on the percentile rankings of the openings/hires ratio from January 2001-current (as far back as the BLS data goes).
- Quit rate (quits during the entire month, seasonally adjusted, as a percent of industry employment, seasonally adjusted): We assign a score from 0-10 based on the percentile rankings of the quit rate from December 2000-current.
- Fill rate (hires during the entire month, seasonally adjusted divided by the average of this month's and last month's job openings on the last business day of each month, seasonally adjusted): We assign a score from 0-10 based on the percentile rankings of the fill rate from January 2001-current (as far back as the BLS data goes).

Assigning a score

We provide a score based on the current level of the metric relative to its range since December 2000, when the job openings and labor turnover survey data begins, although some metrics have more historical data. For example, the scores for a November 2023 data point and all data points prior are based on a range from December 2000-November 2023. Once December 2023 data is out, the scores for the December 2023 data point and all data points prior would now be based on a range from December 2000-December 2023. For metrics which don't go back to December 2000 (hospital wage growth, HC & SA openings/hires ratio, and HC & SA fill rate in particular), we provide a score based on the current level of the metric relative to its own historical range. To make the average score a 5, we gave a number in the 95%-100% percentile a score of 10, 86-95% a 9, etc, down to 0%-5% getting a score of 0.

Exhibit 21: A score of 10 represents a value in the 95th+ percentile

Percentile range for each score

Assigned score	Percentile
10	0.95
9	0.86
8	0.77
7	0.68
6	0.59
5	0.50
4	0.41
3	0.32
2	0.23
1	0.14
0	0.05

Source: BofA Global Research

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Exhibit 22: Preliminary December 2023 Tracker score of 7.9 in the 88th percentile

Historical percentile rankings of the BofA Health Care Labor Market Tracker score since December 2000

Percentile	BofA Health Care Labor Tracker Score
1.00	9.9
0.95	9.3
0.90	8.4
0.85	7.4
0.80	6.9
0.75	6.5
0.70	5.8
0.65	5.6
0.60	5.4
0.55	5.1
0.50	4.8
0.45	4.3
0.40	3.9
0.35	3.3
0.30	2.8
0.25	2.4
0.20	2.1
0.15	2.0
0.10	1.6
0.05	1.4

Source: BofA Global Research

BofA GLOBAL RESEARCH

Then, we weight each metric to derive our tracker score

To get our tracker score for each month, we take a weighted average of the 10 metrics we are tracking. We weight the macro metrics (20% total) the least compared to the hospital industry (25%) and the health care and social assistance industry (55%). We weight the health care and social assistance industry metrics the most given that job openings and turnover levels can impact health care providers' contract labor utilization and decisions on base wage increases.

Exhibit 23: Our metric weightings

Health Care Labor Tracker weightings

Health Care and Social Assistance industry		Weighting
Vacancy rate		20%
Openings/hires ratio		15%
Quit rate		15%
Fill rate		5%
Hospital industry		
Unemployment rate		5%
Wage		15%
Employment as a % of 65+ population		5%
Macro		
Unemployment rate, 3mo lag		5%
Wage - production and nonsupervisory employees		10%
Temporary employment as a % of total employment		5%

Source: BofA Global Research

BofA GLOBAL RESEARCH

Limitations

Hospitals are struggling most to hire and retain nurses. None of these data points are specific to nurses. Registered nurses represent 31% of the general medical and surgical hospital workforce as of May 2022.

The section that we weight the most – the health care and social assistance industry – has the least amount of historical context (22 years) compared to the other metrics we are tracking. Similarly, for general medical and surgical employee average wage, we track



data going back to 2006 compared to 1964 for the production and nonsupervisory employee average wage.

All of our data inputs are sourced from the Bureau of Labor Statistics which may have its own sampling errors.

Stocks mentioned

Prices and ratings for stocks mentioned in this report

BofA Ticker	Bloomberg ticker	Company name	Price	Rating
AMN	AMN US	AMN Healthcare	US\$ 75.17	B-2-9
CCRN	CCRN US	Cross Country	US\$ 22.5	C-3-9
HCA	HCA US	HCA Healthcare	US\$ 281.49	B-1-7
THC	THC US	Tenet Healthcare	US\$ 79.33	C-1-9
UHS	UHS US	Universal Health	US\$ 154.41	B-1-7

Source: BofA Global Research

Price objective basis & risk**AMN Healthcare (AMN)**

Our \$82 PO is based on 10.0x our 2024E EBITDA, above the midpoint of its historical 8-11x multiple range, which we think is justified given AMN's diversification into higher growth services, the company's ability to cross-sell with the Managed Serviced Provider (MSP) focus, and the opportunity for growth off a more normalized base.

Risks to the downside are that demand slows as providers focus on reducing contract labor further, bill rates decline faster than expected, and a recession could put more pressure on demand for temp staffing than expected (it took seven years for temp staffing revenues to reach pre-recession levels following 08/09).

Cross Country Healthcare (CCRN)

Our \$20.00 PO is based on a 6.6x 2024E EBITDA est, well below the midpoint of the 8-13x range where it has traded historically. We believe this multiple is warranted given the underlying growth factored into our 2023 estimate and the structural changes that the industry is currently seeing, driven by tailwinds in both pricing and volumes due to COVID and high labor demand. This is offset by the low visibility into operations post 2022, and the LT margin sustainability.

Upside risks to our PO are if the company is able to cut costs more aggressively than we forecast, if demand for staffing assignments rebounds sooner or to a higher magnitude than we forecast, if the company sees an uptick in COVID related orders similar to 1Q21, and if the company's WSG asset contributes more to growth than expected.

Risks to the downside are that CCRN's clients do not regain the same demand levels as pre-COVID, cost cutting does not come in as expected, or if there is disruption to the company's growth from shrinking its physical footprint.

HCA (HCA)

Our \$330 price objective is based on 10.1x our 2024E EBITDA, above the high end of its historical 6-9x multiple range, given what we see as a favorable backdrop for hospitals broadly and a strong balance sheet.

Risks to the downside are that labor costs continue to rise, volumes recover slower than expected, or margins are pressured if payor mix deteriorates as volumes normalize.

Tenet Healthcare (THC)

Our \$95 PO is based on 8.4x our 2024 EBITDA less non-controlling interests estimate, above the high end of the company's historical 5.5x-8.5x range. While growth in the Acute care business will likely continue to be impacted by labor headwinds, the company's strong cost control should drive earnings and position the company well heading into the expected ramp in volumes as COVID normalizes. Meanwhile, continued repositioning into Ambulatory Surgery Centers (ASCs) will help both the organic growth and FCF profile.



Downside risks to our PO are: 1) Volume trends rebound slower than expected following COVID-19, 2) Government reimbursement reductions, 3) Margin pressure/integration issues at recently acquired assets, 4) Above average leverage, 5) labor costs pressures.

Upside risks to our PO are: 1) Volumes are better than expected, 2) Continued acuity strength and pricing growth, 3) Better than expected cost controls.

Universal Health Services (UHS)

Our \$190 price objective (PO) is based on 9.2x our 2024E EBITDA estimate. This represents a multiple near the high end of the company's historical range of 6-10x EBITDA. We see this as justified given the favorable backdrop broadly for hospitals.

Upside risks to our PO are a quicker-than-expected recovery in labor, Acute vols returning faster, larger-than-expected demand tailwinds in the behavioral business. Downside risks to our PO are a slower-than-expected labor recovery, worse-than-expected Psych business performance, a slower volume recovery, slowing economies in UHS' other markets, and government reimbursement cuts.

Analyst Certification

I, Kevin Fischbeck, CFA, hereby certify that the views expressed in this research report accurately reflect my personal views about the subject securities and issuers. I also certify that no part of my compensation was, is, or will be, directly or indirectly, related to the specific recommendations or view expressed in this research report.

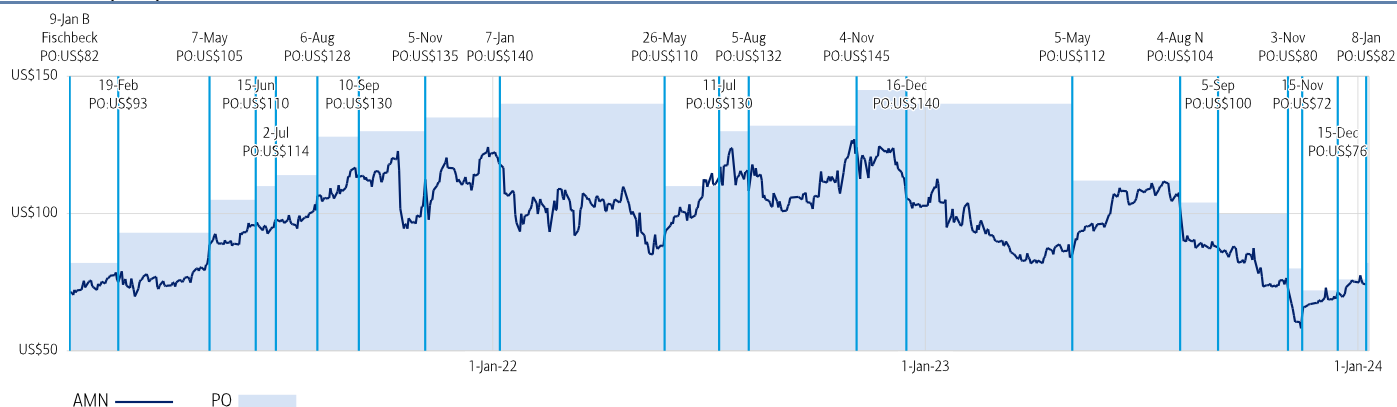
US - Facilities, Hospitals and Managed Healthcare Coverage Cluster

Investment rating	Company	BofA Ticker	Bloomberg symbol	Analyst
BUY				
	Acadia Healthcare	ACHC	ACHC US	Kevin Fischbeck, CFA
	Addus HomeCare	ADUS	ADUS US	Joanna Gajuk
	Agilon Health	AGL	AGL US	Adam Ron
	Chemed Corporation	CHE	CHE US	Joanna Gajuk
	Elevance Health Inc	ELV	ELV US	Kevin Fischbeck, CFA
	Encompass Health	EHC	EHC US	Kevin Fischbeck, CFA
	HCA	HCA	HCA US	Kevin Fischbeck, CFA
	Humana Inc	HUM	HUM US	Kevin Fischbeck, CFA
	Option Care Health	OPCH	OPCH US	Joanna Gajuk
	Oscar Health	OSCR	OSCR US	Adam Ron
	Privia Health	PRVA	PRVA US	Adam Ron
	Select Medical Corp.	SEM	SEM US	Kevin Fischbeck, CFA
	Service Corp.	SCI	SCI US	Joanna Gajuk
	Surgery Partners, Inc	SGRY	SGRY US	Kevin Fischbeck, CFA
	Tenet Healthcare	THC	THC US	Kevin Fischbeck, CFA
	The Cigna Group	CI	CI US	Kevin Fischbeck, CFA
	UnitedHealth Group	UNH	UNH US	Kevin Fischbeck, CFA
	Universal Health Services	UHS	UHS US	Kevin Fischbeck, CFA
	US Physical Therapy	USPH	USPH US	Joanna Gajuk
NEUTRAL				
	Alignment Healthcare	ALHC	ALHC US	Adam Ron
	AMN Healthcare	AMN	AMN US	Kevin Fischbeck, CFA
	Apollo Medical	AMEH	AMEH US	Adam Ron
	Brookdale	BKD	BKD US	Joanna Gajuk
	Centene Corporation	CNC	CNC US	Kevin Fischbeck, CFA
	Molina Healthcare, Inc.	MOH	MOH US	Kevin Fischbeck, CFA
UNDERPERFORM				
	AdaptHealth Corp.	AHCO	AHCO US	Joanna Gajuk
	Agility Health Inc	AGTI	AGTI US	Kevin Fischbeck, CFA
	Cross Country Healthcare	CCRN	CCRN US	Kevin Fischbeck, CFA
	DaVita Inc	DVA	DVA US	Kevin Fischbeck, CFA
	Enhabit Home Health & Hospice	EHAB	EHAB US	Joanna Gajuk
	Pediatric Medical Group, Inc.	MD	MD US	Kevin Fischbeck, CFA

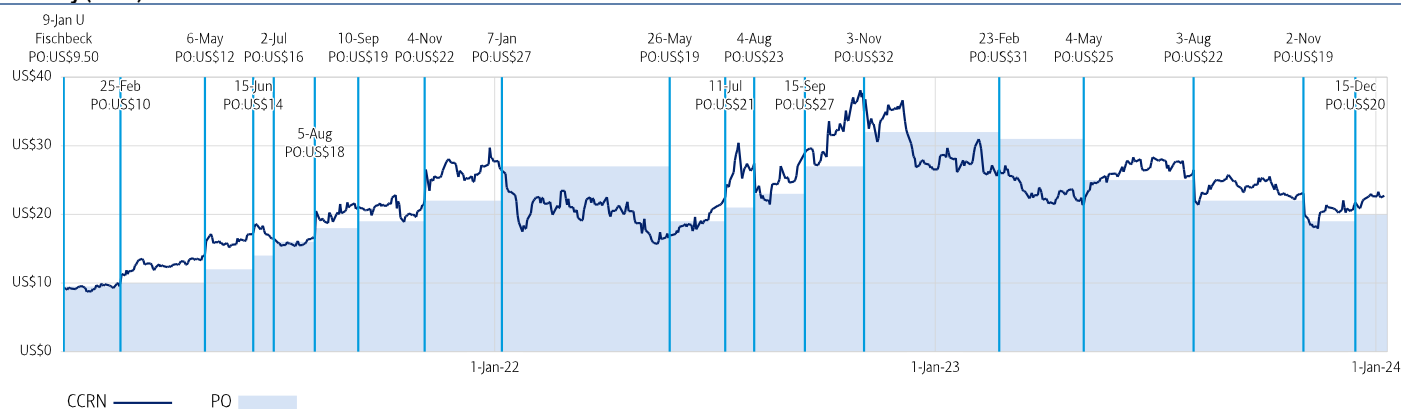
Disclosures

Important Disclosures

AMN Healthcare (AMN) Price Chart

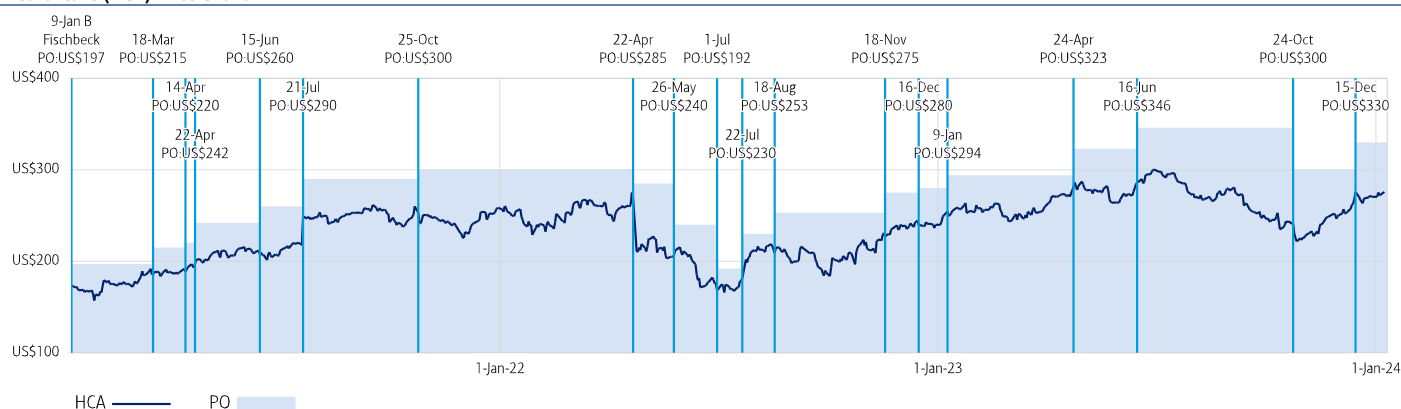


The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Cross Country (CCRN) Price Chart

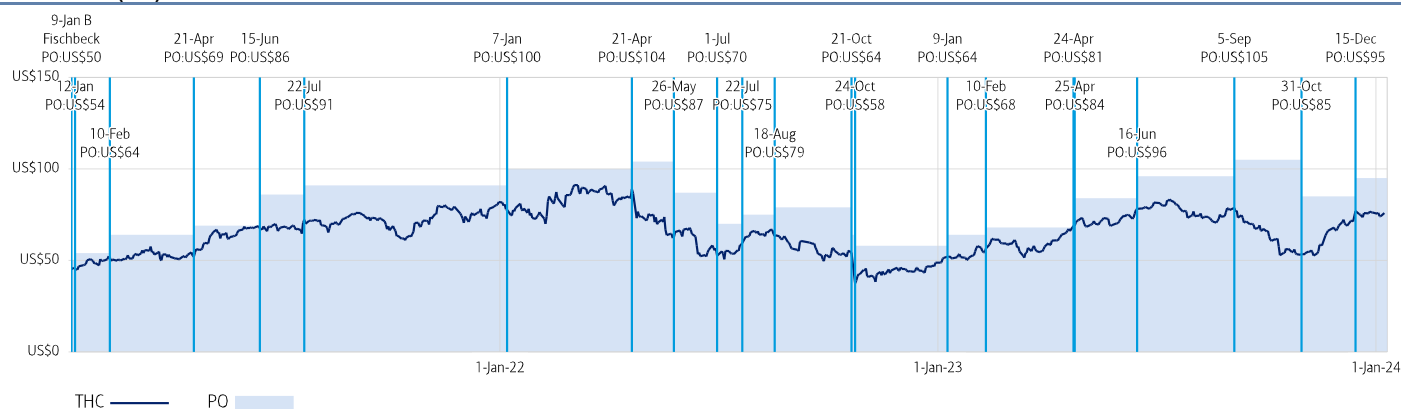
B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

HCA Healthcare (HCA) Price Chart

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

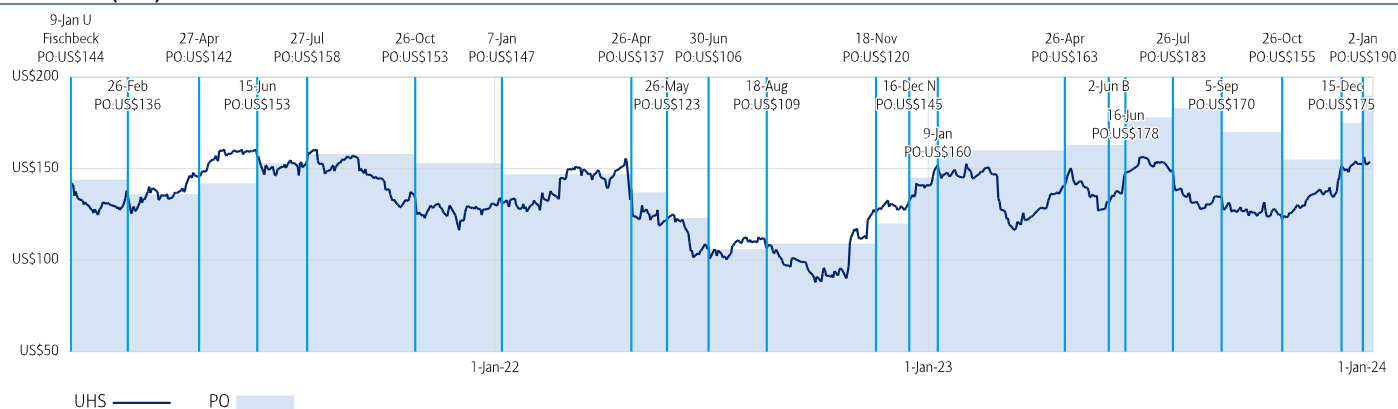
The Investment Opinion System is contained at the end of the report under the heading "Fundamental Equity Opinion Key". Dark grey shading indicates the security is restricted with the opinion suspended. Medium grey shading indicates the security is under review with the opinion withdrawn. Light grey shading indicates the security is not covered. Chart is current as of a date no more than one trading day prior to the date of the report.

Tenet Healthcare (THC) Price Chart

B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Universal Health (UHS) Price Chart



B: Buy, N: Neutral, U: Underperform, PO: Price Objective, NA: No longer valid, NR: No Rating

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Equity Investment Rating Distribution: Health Care Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	234	60.94%	Buy	115	49.15%
Hold	80	20.83%	Hold	36	45.00%
Sell	70	18.23%	Sell	29	41.43%

Equity Investment Rating Distribution: Services Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	5	41.67%	Buy	3	60.00%
Hold	2	16.67%	Hold	1	50.00%
Sell	5	41.67%	Sell	2	40.00%

Equity Investment Rating Distribution: Global Group (as of 31 Dec 2023)

Coverage Universe	Count	Percent	Inv. Banking Relationships ^{R1}	Count	Percent
Buy	1895	53.62%	Buy	1083	57.15%
Hold	832	23.54%	Hold	454	54.57%
Sell	807	22.84%	Sell	383	47.46%

^{R1} Issuers that were investment banking clients of BofA Securities or one of its affiliates within the past 12 months. For purposes of this Investment Rating Distribution, the coverage universe includes only stocks. A stock rated Neutral is included as a Hold, and a stock rated Underperform is included as a Sell.

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Investment rating	Total return expectation (within 12-month period of date of initial rating)	Ratings dispersion guidelines for coverage cluster ^{R2}
Buy	≥ 10%	≤ 70%
Neutral	≥ 0%	≤ 30%
Underperform	N/A	≥ 20%

^{R2} Ratings dispersions may vary from time to time where BofA Global Research believes it better reflects the investment prospects of stocks in a Coverage Cluster.

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