Was Virginia's Labor Market in 2022 as Unusual as It Seemed?

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To many Virginia employers and other observers, labor market conditions in 2022 seemed unusually tight. For example, the Commonwealth's unemployment rate in the closing months of 2022 hovered around 2.8%. This was especially welcome news considering the rate had receded all the way down from the historic 11.6% rate set in April 2020. Given this positive trend, why did labor markets seem so out of kilter?

While the falling unemployment rate had returned to pre-pandemic levels, the number of job openings climbed to record levels in 2022. Taken together, were these a signal that we were in an economic expansion or an economic downturn? Or a shift to some new condition in the labor market in which it became less efficient in matching labor demand with available labor supply? Economists often use data visualizations of the 'Beveridge curve' for insights into which of these may have occurred.

The Beveridge curve, named after a 20th Century British economist, graphically illustrates the inverse relationship between the unemployment rate (a measure of available labor supply) and the job openings rate (a measure of unmet labor demand). The 'curve' is composed of charted data points from specific time periods. Data points located in the lower right often represent recessionary periods, with greater unemployment and reduced job openings. Data points located in the upper left often represent expansionary periods, with lower unemployment and increased job openings. Outward shifts of the curve itself to the upper right can indicate lesser efficiency in matching the hiring needs of employers with the skills of available, unemployed workers.

One data component of the Beveridge curve is more well-known than the other. The unemployment rate represents the number of unemployed people as a percentage of the labor force and measures the share of workers who do not currently have a job but are actively looking for work. According to VEC household survey data, Virginia's seasonally adjusted unemployment rate increased in December to 3.0 percent, but continued to be below the national rate, which decreased to 3.5 percent. The Commonwealth's unemployment rate remained in a narrow range of 2.6% and 3.0% for much of 2022. Such low levels are often an indication of a strong labor market at, or close to, full employment. The job openings rate is the percentage of job openings to total payroll employment and comes from the BLS JOLTS program. In November, the Virginia job openings rate fell by 1.3 percentage point from 8.0 in October to 6.7%. This was the lowest rate in a year but still very elevated. Historically, Virginia's job opening rate has usually been higher, for various reasons, than nationwide.

Estimating the number of unemployed per job opening is a way of analyzing how tight a labor market is, with a low ratio evidence of many employers chasing few available workers. In November of last year, there was less than one unemployed worker per two job openings in the Commonwealth, as had been the case during most of last year. This period marked the measure's low point, going back to January 2001 when BLS began collecting the data. In Virginia, the unemployed per job opening ratio peaked at 4.4 unemployed per job opening in February 2010 during the Great Recession, while the number of unemployed workers per job opening stood at 3.3 in April 2020 during the height of pandemic employment impacts.

Considering that 2022's inverse relationship between unemployment (low) and job openings (high) indicated economic strength, was that the case? A leading measure of the Commonwealth's economic activity, GDP-by-State figures from the Bureau of Economic Analysis (BEA), may affirm that. But it depends upon the quarter. Third quarter GDP figures from 2022 were positive in Virginia, as real gross domestic product (GDP) increased by an annual rate of +2.2%, compared to at an annual rate of +3.2% nationwide. Industry gains were led by white collar service industries, health care, and retail trade while construction was the biggest drag on growth.



Since this could indicate an economy in expansion, does comparing the Beveridge curve for January through November 2022 with recent expansionary periods (2001 – 2007 and 2009 – 2020) provide additional evidence? It does, in that the unemployment rate was lower than was typically the case during previous expansions while the job openings rate was much higher than in either expansionary period.

January 2001 - November 2022 10.0 9.0 8.0 Jan.-Nov Virginia Job Openings Rate 2022 7.0 6.0 '09-'20 Expansion 5.0 '01-'07 4.0 Expansion 3.0 2.0 1.0 0.0 00 .9 20 30 0 60 00 10 0,0 00 .00 Virginia Unemployment Rate Sources: Author's analysis of BLS Job Openings and Labor Turnover Survey (JOLTS) and Local Area Unemployment Statistics (LAUS) data. NBER business cycle data

Chart 1. Beveridge Curves for Jan.-Nov. 2022 and Recent Economic Expansions

During the first eleven months of 2022, the Virginia unemployment rate was lower than was typically the case during previous expansions while the Virginia job openings rate was much higher than in either expansionary period.

While these things may be true, the 2022 economy didn't feel very strong to many Virginians and the Virginia GDP-by-State figures declined during the first and second quarters of last year. It performed a little slower than nationwide in the second quarter 2022, as real gross domestic product (GDP) decreased at an annual rate of -0.9% compared to an annual rate of -0.6% nationwide. The second quarter was impacted by the cooling residential real estate market and was also held back by industries affected by inflation and supply chain disruptions like manufacturing, wholesale trade, and retail trade.

determined expansion and contraction periods. Chart Beveridge curves are represented by OLS linear regression trend lines of grouped data points for given time periods

Given the two quarters of negative GDP growth in the first half of 2022, how does the Beveridge curve for January through November 2022 stack up against those of recent recessions (the 2001 recession and the '07-'09 Great Recession)? Comparing them indicates that the Virginia economy in 2022 differed from them in that unemployment was lower while the ratio of job openings to total payroll jobs was much higher than was the case during either contractionary economic period. Because it was so anomalous, the Beveridge curve for the 2020 Pandemic recession was not included in the chart.



Chart 2. Beveridge Curves for Jan.-Nov. 2022 and Recent Economic Recessions

Sources: Author's analysis of BLS Job Openings and Labor Turnover Survey (JOLTS) and Local Area Unemployment Statistics (LAUS) data. NBER business cycle data determined expansion and contraction periods. Chart Beveridge curves are represented by OLS linear regression trend lines of grouped data points for given time periods

For the first eleven months of 2022, the Virginia economy differed from those of recent recessions in that unemployment was lower while the ratio of job openings to total payroll jobs was much higher than was the case during the 2001 Recession and the '07- '09 'Great Recession.'

Chart 3. Beveridge Curves Showing Pre and Post Pandemic Recession Conditions

The post-Covid recession Beveridge curve, when compared with the pre-Covid curve, appears to have shifted significantly upward to the right, an indication of increased turbulence and upheaval in job markets coming out the 2020 Covid recession.



Though 2022's labor market tightness more closely resembled recent expansionary periods than recessionary periods, its Beveridge curve indicates that it was distinct from both. The post-Covid recession Beveridge curve, when compared with the pre-Covid curve, appears to have shifted significantly upward to the right, an indication of increased inefficiency in job markets coming out of the 2020 Covid recession.

The above chart indicates that after the Pandemic recession, more job openings were required to see a reduction in the unemployment rate. Was this shift an outcome of Covid era labor market disruptions? Partially, but the job openings rate has trended upward since the Great Recession of 2007-2009. At the same time, declining labor force participation has been a factor in lowering unemployment rates over that period. Perhaps the dislocation of 2020 and 2021's subsequent reordering of labor markets heightened these trends. However, they appear to have resumed a decade-long trajectory, driven by secular demographic and technological changes and the ongoing challenge of matching the skills of available workers with those that employers are searching for.

