

An aerial photograph of a city skyline at sunset, with various buildings and a river visible. The image is partially obscured by a large orange and grey geometric shape that frames the title text.

2021 **DELAWARE** ANNUAL ECONOMIC REPORT

Office of Occupational & Labor Market Information
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DELAWARE

ANNUAL ECONOMIC REPORT 2021

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Quarterly Census of Employment and Wages (QCEW)

Average Monthly Employment and Average Annual Wage by Industry

The Quarterly Census of Employment and Wages (QCEW) program is a federal/state cooperative program that produces employment and wage data from employers subject to unemployment insurance coverage. Delaware's average employment for all industries increased by 13,291 workers from 2020 to 2021, according to data from the QCEW program. In percentage terms, that is an increase of 3.1 percent. The State's average monthly employment in 2021 grew as the impacts of the Coronavirus on the state's economy diminished. The *Transportation and Warehousing* industry, which represented 3.9% of all State employees in 2021, had the largest percentage over-the-year growth, increasing 11.4 percent. The number of employees in the *Transportation and Warehousing* industry grew by 1,780. Two industries were tied for second fastest-growing sector of the economy in 2021, *Accommodation & Food Services* and *State Government*. Businesses in the *Accommodation & Food Services* industry combined to rank fourth in total Delaware employees, increasing 11.3 percent or 3,820 average monthly workers in 2021. *State Government* employment also increased 11.3 percent in 2021, growing by 3,312 average monthly employees. *Other Services* and *Arts, Entertainment & Recreation* workforces were the fourth and fifth fastest growing industries with a percent change in employment of 6.4 and 5.0 percent, respectively.

Delaware Average Monthly Employment 2020-2021

Industry Description	NAICS	2020 Average Monthly Empl.	2021 Average Monthly Empl.	Change In Average Monthly Empl.	% Change in Average Monthly Empl.	Rank by % Change (Largest to Smallest)
Transportation & Warehousing	48-49	15,598	17,378	1,780	11.4%	1
Accommodation & Food Services	72	33,789	37,609	3,820	11.3%	2
State Government	State	29,392	32,704	3,312	11.3%	2
Other Services, Except Public Administration	81	10,736	11,422	686	6.4%	4
Arts, Entertainment, & Recreation	71	7,507	7,881	374	5.0%	5
Retail Trade	44-45	47,874	49,856	1,982	4.1%	6
Real Estate & Rental & Leasing	53	5,510	5,731	221	4.0%	7
Wholesale Trade	42	10,840	11,237	397	3.7%	8
Administration and Waste Services	56	28,057	29,056	999	3.6%	9
Construction	23	22,415	23,206	791	3.5%	10
Total Industries	Total	427,527	440,818	13,291	3.1%	11
Local Government	Local	27,064	27,580	516	1.9%	12
Professional & Technical Services	54	25,365	25,795	430	1.7%	13
Mining	21	70	70	0	0.0%	14
Utilities	22	2,060	2,060	0	0.0%	15
Finance & Insurance	52	41,869	41,740	-129	-0.3%	16
Educational Services	61	4,375	4,358	-17	-0.4%	17
Management of Companies & Enterprises	55	8,431	8,380	-51	-0.6%	18
Health Care & Social Assistance	62	70,137	69,248	-889	-1.3%	19
Information	51	3,637	3,575	-62	-1.7%	20
Manufacturing	31-33	25,536	24,938	-598	-2.3%	21
Federal Government	Federal	6,018	5,868	-150	-2.5%	22
Agriculture, Forestry, Fishing & Hunting	11	1,250	1,127	-123	-9.8%	23

At the other end of the spectrum, *Agriculture, Forestry, Fishing, & Hunting* had the largest decline in employment in percentage terms for 2021, declining by 9.8 percent from the prior year. *Federal Government* had the second-largest decline in average monthly employment for 2021, falling by 2.5 percent. The *Healthcare and Social Assistance* sector had the largest decrease in average monthly employment with a decline of 889 jobs over-the-year.

Delaware Average Annual Wages 2020-2021

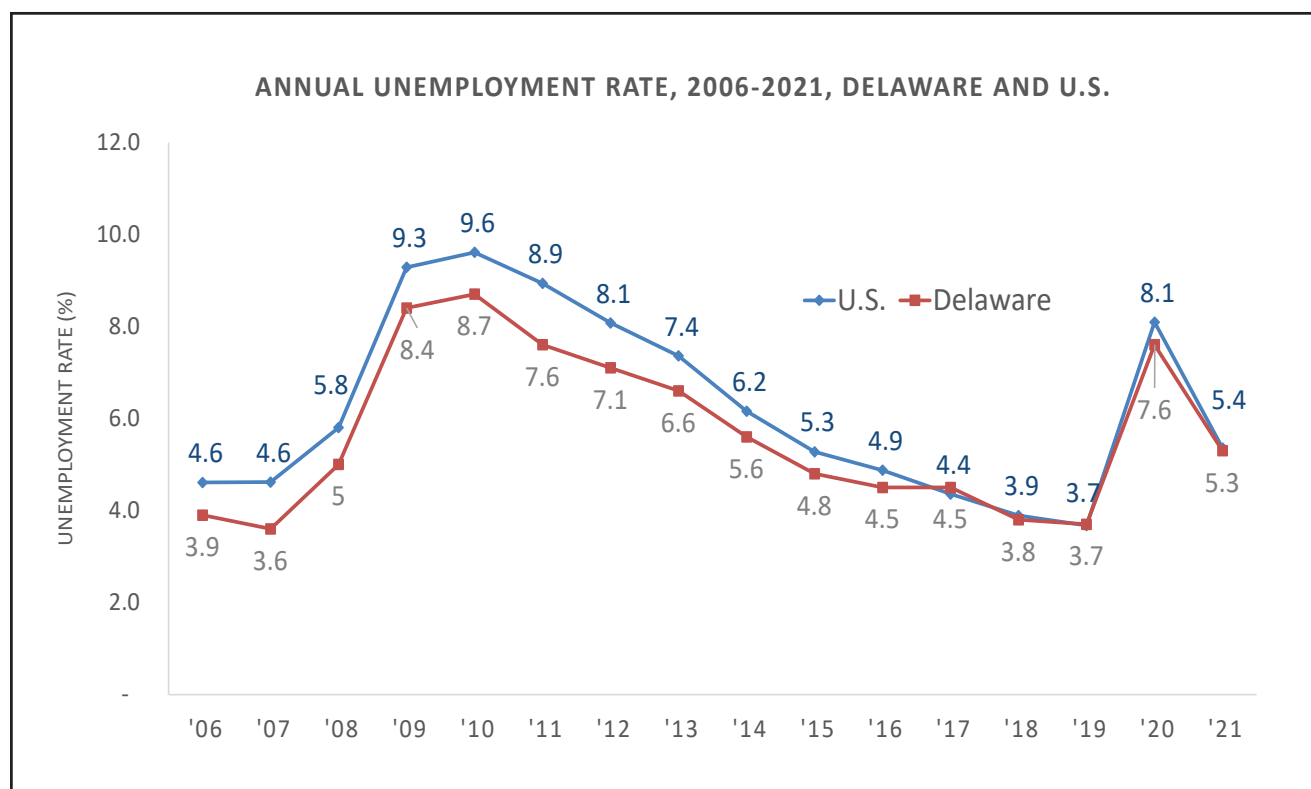
Industry Description	NAICS	2020 Average Annual Wage (\$)	2021 Average Annual Wage (\$)	Change In Average Annual Wage (\$)	% Change in Average Annual Wage	Rank by % Change (Largest to Smallest)
Accommodation & Food Services	72	21,250	24,014	2,764	13.0%	1
Information	51	78,618	85,102	6,484	8.2%	2
Retail Trade	44-45	33,723	36,437	2,714	8.0%	3
Federal Government	Federal	75,313	81,110	5,797	7.7%	4
Transportation & Warehousing	48-49	47,528	50,815	3,287	6.9%	5
Arts, Entertainment, & Recreation	71	26,633	28,452	1,819	6.8%	6
Administration and Waste Services	56	45,867	48,907	3,040	6.6%	7
Health Care & Social Assistance	62	57,746	61,425	3,679	6.4%	8
Other Services, Except Public Administration	81	38,094	40,398	2,304	6.0%	9
Mining	21	59,175	62,743	3,568	6.0%	9
Real Estate & Rental & Leasing	53	59,140	62,704	3,564	6.0%	9
Professional & Technical Services	54	112,077	117,823	5,746	5.1%	12
Wholesale Trade	42	80,609	84,515	3,906	4.8%	13
Educational Services	61	51,073	53,403	2,330	4.6%	14
Finance & Insurance	52	108,984	113,251	4,267	3.9%	15
Construction	23	64,996	67,344	2,348	3.6%	16
Manufacturing	31-33	68,154	70,482	2,328	3.4%	17
Management of Companies & Enterprises	55	140,512	145,290	4,778	3.4%	17
Total Industries	Total	62,463	64,395	1,932	3.1%	19
Agriculture, Forestry, Fishing & Hunting	11	42,372	43,604	1,232	2.9%	20
Local Government	Local	58,396	59,336	940	1.6%	21
Utilities	22	124,108	122,253	-1,855	-1.5%	22
State Government	State	62,663	56,737	-5,926	-9.5%	23

Delaware's total average annual wage for all industries increased in 2021 by \$1,932 or 3.1 percent from 2020. The largest percentage increase in the average annual wage was attributed to workers in the *Accommodation and Food Services* sector, increasing 13.0 percent. *Information* had the second largest percentage increase in its average annual wage with an over-the-year increase of 8.2 percent. *Information* also had the largest change in the average annual wage for 2021, increasing by \$6,484. These two industries were followed up by *Retail Trade*; *Federal Government*; and *Transportation & Warehousing*, with increases of 8.0 percent, 7.7 percent, and 6.9 percent, respectively.

State Government led the declining industries with the largest percent decrease in their average annual wage compared to 2020, falling by 9.5 percent. As noted above, *State Government* workers were among the leading sectors in average employment growth, indicating an increase in lower salaried staff. The second-largest decline belonged to the *Utilities* industry, with a decline of 1.5 percent from the prior year.

The Unemployment Rate

The unemployment rate is a key economic indicator of the health of the economy and one that is widely watched by the public. The Local Area Unemployment Statistics (LAUS) program is a state and federal cooperative program that generates the unemployment rate for the state, counties, and cities with populations over 25,000. The unemployment rate is measured by dividing the number of unemployed by the total labor force. To be considered unemployed, one has to be not employed but actively seeking employment and available to work during the month.



In 2021, Delaware's annual unemployment rate was 5.3 percent, 2.3 percentage points lower than the prior year, as employment rebounded from the impacts of the coronavirus pandemic. The 2.3 percentage point drop in the annual unemployment rate is the largest drop in Delaware's history with data going back to 1976. Delaware's annual unemployment rate was 0.1 of a percentage point lower than the national average of 5.4 percent in 2021. In 2010, Delaware's unemployment rate peaked at 8.7 percent and the U.S. unemployment rate peaked at an annual rate of 9.6 percent following one of the most severe post-World War II recessions, ending in June of 2009.

Historical Local Area Unemployment Statistics for states begin in 1976. Delaware's average annual unemployment rate has not been higher than the US unemployment rate since 1982. In 2019, Delaware's annual unemployment rate equaled the US rate.

Comparative Unemployment Rates

The Local Area Unemployment Statistics (LAUS) program is an important Federal and State government cooperative program that produces monthly and annual data on employment, unemployment, the unemployment rate and the labor force for States, counties, and cities. The state unemployment rate data below are produced from the LAUS program.

Delaware and Neighboring States Annual Average Unemployment Rates

Delaware's annual average unemployment rate of 5.3 percent in 2021 was ranked as the 32nd lowest rate in the nation. Delaware was ranked most favorable among its neighboring states of Maryland, New Jersey, and Pennsylvania in 2021. Maryland's annual average unemployment rate of 5.8 percent ranked 40th lowest in the nation. New Jersey and Pennsylvania's annual average unemployment rate of 6.3 percent tied with one other state for the 43rd lowest in the nation.

Delaware's annual average unemployment rate decreased by 2.3 percentage points from 2020 to 2021. Of Delaware's neighboring states, Maryland's unemployment rate decreased the least, declining by 0.9 percentage points. Pennsylvania's unemployment rate decreased by 2.8 percentage points, while New Jersey's unemployment rate declined by 3.2 percentage points from the previous year. The United States annual average unemployment rate decreased by 2.8 percentage points over-the-year to 5.3 percent in 2021.



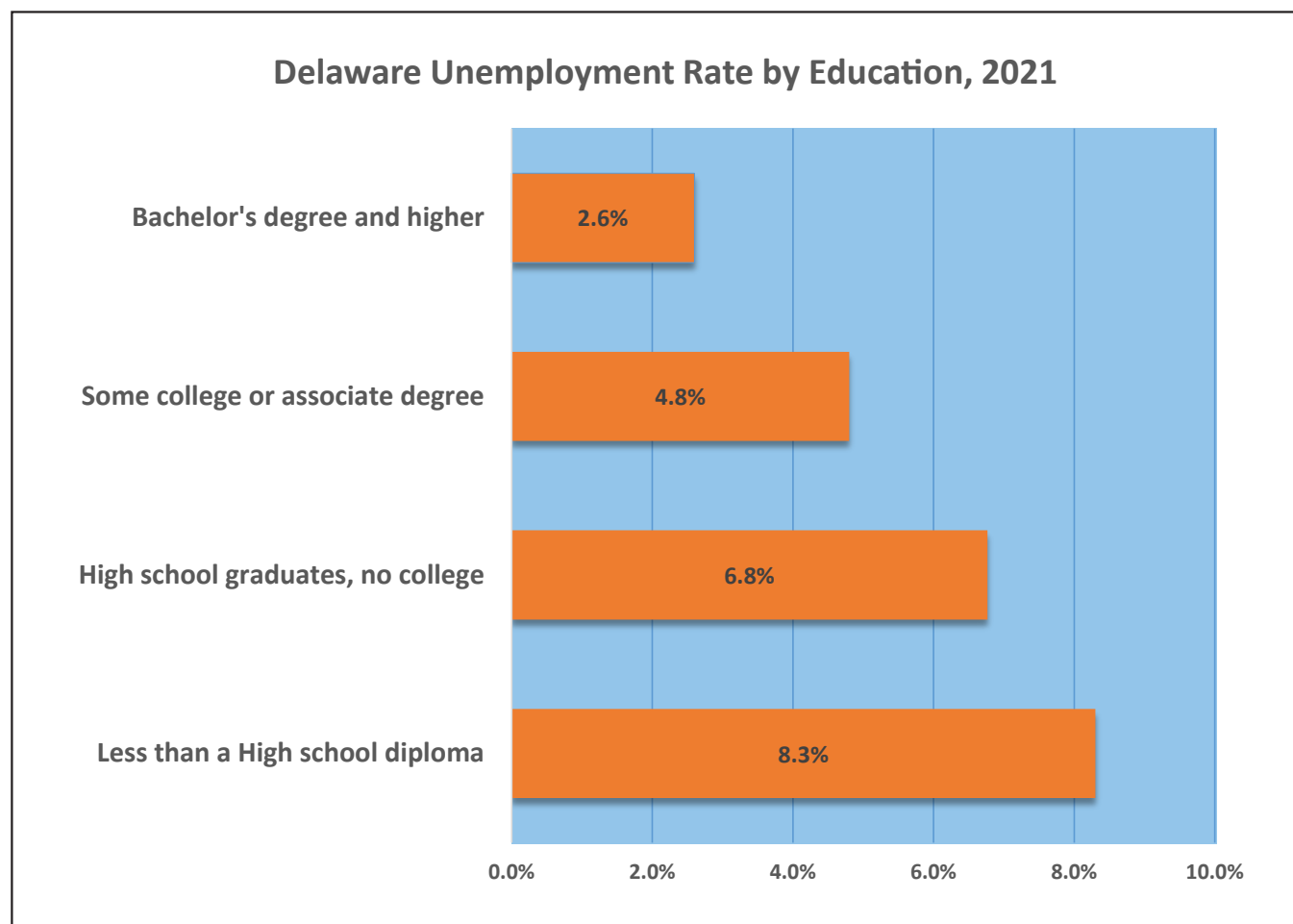
Comparative Annual Unemployment Rates

	Unemployment Rate		National Ranking*	
	2020	2021	2020	2021
Delaware	7.6	5.3	28 (t)	32
Maryland	6.7	5.8	22 (t)	40
New Jersey	9.5	6.3	46	43 (t)
Pennsylvania	9.1	6.3	42	43 (t)
United States	8.1	5.3	--	--
* Lower ranking indicates a lower rate. (t) indicates ranking was tied with other state(s).				

The Unemployment Rate by Educational Attainment

In 2021, Delaware's annual average unemployment rate for all residents was 5.3 percent. In most years, the unpublished data from the Current Population Survey on the unemployment rate by educational attainment shows that those with less education are more likely, on average, to be unemployed than those with more education. In 2021, the average unemployment rate for those who have *Less than a High school diploma* had the highest rate of unemployment than the other educational categories. The benefits of educational attainment are not only that those with more education are usually less likely to be unemployed, but also that those with more education earn on average higher wages than those with less education. The Delaware Unemployment Rate by Education graph below breaks out the unemployment rate by the highest level of education an individual has obtained for persons 25 years of age and older.

The average unemployment rate in 2021 for those Delaware residents with *Less than a High school diploma* was 8.3 percent and those with a *Bachelor's degree or higher* had an unemployment rate of 2.6 percent. The unemployment rate for those with *Some college or associate degree* was 4.8 percent and *High school graduates, no college* had an average unemployment rate of 6.8 percent.



Data are for persons 25 and over.

Source: U.S. Bureau of Labor Statistics, Current Population Survey.

Coronavirus Impacts on Early Retirements & Delaware's Labor Force Participation

Many of us may be familiar with using the unemployment rate as a primary measure of labor market conditions and as an indicator of the general health of the economy. To get an area's unemployment rate, we take the number of unemployed people and divide that number by the total number of people in the labor force ($\text{Unemployed} \div \text{Labor Force} \times 100 = \text{Unemployment Rate}$). As straightforward as the math may seem, the complexity lies in determining who's unemployed and who's in the labor force. The Bureau of Labor Statistics has defined these measures to help create consistency in the calculations.

The Labor Force is defined as the civilian, non-institutionalized population age 16 and over, either working or looking for work. The unemployed are classified as those who meet all of the following (at the time that they are surveyed on their employment status):⁽¹⁾ were not employed at the time surveyed,⁽²⁾ were available to work when surveyed,⁽³⁾ made at least one attempt to find a job in the past 4-week period prior to the survey reference week or were temporally laid off and expecting to be recalled to their job. Anyone not meeting ALL numbers 1 through 3 above is classified as not in the labor force. To account for those who may not be counted in the labor force and thereby, not included in the unemployment rate calculation, economists also analyze Labor Force Participation.



The Labor Force Participation Rate represents the number of people in the labor force as a percentage of the civilian non-institutional population. In other words, anyone age 16 and over, either working or looking for work (as defined by the three criteria for unemployed) divided by the total civilian non-institutionalized population. So, for example, teenagers may be included in the labor force until the time comes for them to attend college. As teenagers substitute school for work, they are not counted among the unemployed as they are not seeking employment, thereby no longer participating in the labor force.

Nationally, the Labor Force Participation (LFP) Rate saw its largest drop on record in 2020, falling from 63.2 percent in the fourth quarter of 2019 to 60.8 percent in the second quarter of 2020.⁽³⁾ Economists assume there were several reasons why workers left the labor force in 2020, including safety concerns related to the Coronavirus or the need to care for loved ones due to COVID-19 lockdowns. Retirements are also a normal contributing factor impacting the decline in the LFP rate but grew at a much faster pace during the COVID-19 pandemic. The US annual average LFP rate in 2021 rebounded to 61.7 percent.

⁽¹⁾ Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, Concepts and Definitions. <https://www.bls.gov/cps/definitions>

⁽²⁾ Bureau of Labor Statistics, Labor Force Statistics from the Current Population Survey, Concepts and Definitions. <https://www.bls.gov/cps/definitions>

⁽³⁾ <https://research.stlouisfed.org/publications/economic-synopses/2021/10/15/the-covid-retirement-boom>

Retirement Trends

The Federal Reserve's May 2021 Report on the Economic Well-Being of US households in 2020 identified that 27.0 percent of adults thought of themselves as retirees.⁽⁴⁾ The report was based on survey data extrapolated to the larger US population. The report's survey also asked why retirees were retiring and observed that "a sizable share of recent retirees said COVID-related factors affected the timing of their retirement decision." In fact, according to the report, 29 percent of retirees that year identified factors related to COVID-19 contributed to the timing of their retirements.

The table below shows reasons for the timing of retirement by those surveyed.⁽⁵⁾

Reasons for the timing of retirement, 2020

Reason	Percent
Voluntary	
Wanted to do other things	48%
Reached normal retirement age	45%
Didn't like the work	14%
Unanticipated or Involuntary	
Health problem	29%
Care for family members	15%
Forced to retire or lack of work	11%



Note: Respondents could select multiple answers.

In order to evaluate this dynamic in Delaware, absent conducting a similar survey of the State's retirees, we will review Local Area Unemployment Statistics (LAUS) data collected by the Delaware Department of Labor on employment trends for persons ages 55 and over. Changes in the percentage of those employed relative to the total 55 and older population (labor force participation) are used to indicate an increase or decrease in retirements. By comparing the State's annual total 55 and older population to the age group's percentage of the workforce, we attempt to control for any deaths or relocations annually. Recent spikes in retirements by this group may signal a similar response to the Coronavirus as found in the Federal Reserve report.

In 2021, Delawareans 55 and older made up 43.3 percent of Delaware's total 801,000-person Civilian non-institutionalized population and 26.4 percent of the State's 489,000 civilian workforce ages 16 years old and over. In other words, this group comprises nearly half of all Delawareans and more than 1 in every 4 of its workers. 66.5 percent of those ages 55 to 64 were categorized as in the labor force (either working or looking for work). By comparison, those in the labor force who were 65+ were only 17.1 percent of this group's total non-institutionalized population. A chart comparing Delaware's population and employment across ages groups, between 2015 to 2021, can be found on the next page.

⁽⁴⁾ <https://www.federalreserve.gov/publications/2021-economic-well-being-of-us-households-in-2020-retirement.htm>

⁽⁵⁾ <https://www.federalreserve.gov/publications/2021-economic-well-being-of-us-households-in-2020-retirement.htm>

Delaware Labor Force Participation Rate by age group, 2015-2021

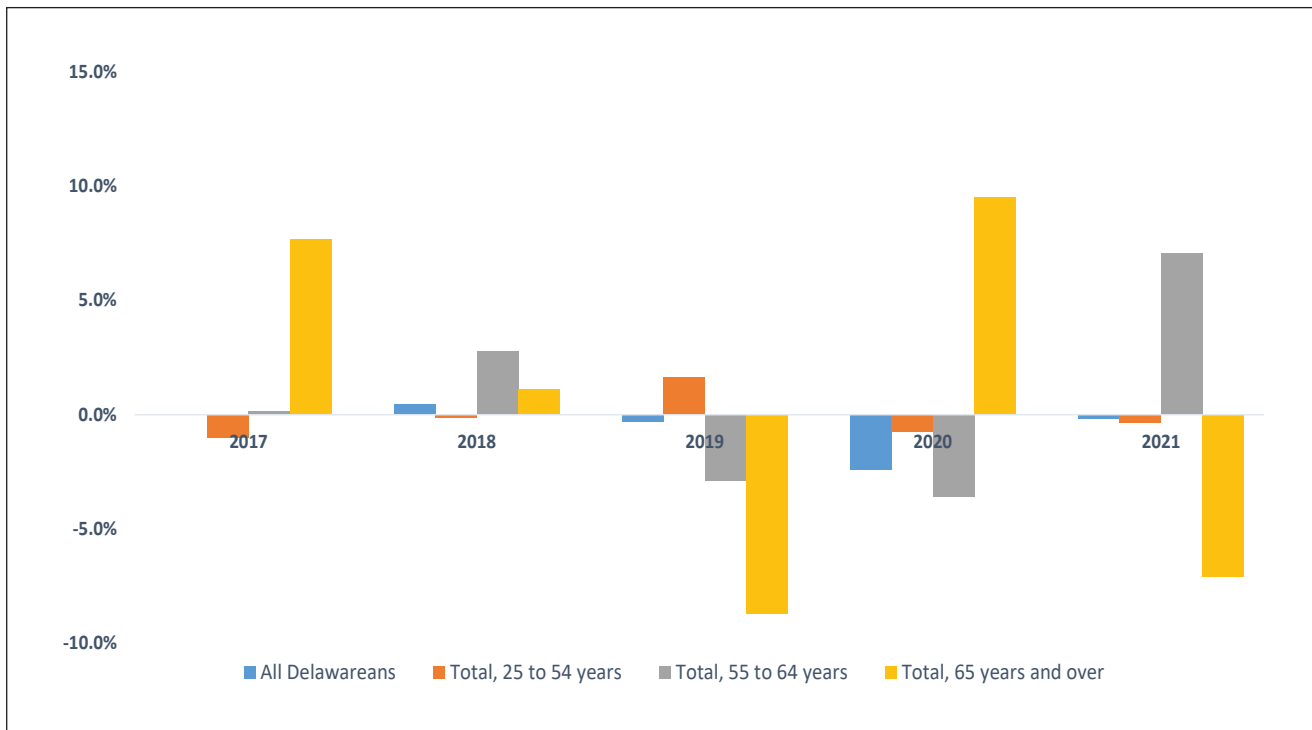
(In 000s)

	2015	2016	2017	2018	2019	2020	2021
All Delawareans							
Total Non-Institutionalized Population (Age 16+)	749	756	766	772	778	791	801
Total Labor Force	469	473	479	485	488	484	489
Labor Force as a Percentage (%) of Total Population (Labor Force Participation)	62.6	62.6	62.6	62.9	62.7	61.2	61.1
Ages 25 to 54 years							
Total Non-Institutionalized Population (Age 25-54)	366	358	345	349	355	340	353
Total Labor Force (Age 25-54)	307	305	291	294	304	289	299
Labor Force as a Percentage (%) of 25 to 54 Population (Labor Force Participation)	83.9	85.2	84.3	84.2	85.6	85.0	84.7
Ages 55 to 64 years							
Total Non-Institutionalized Population (Age 55-64)	124	126	138	142	141	147	142
Total Labor Force (Age 55-64)	78	81	89	94	91	91	94
Labor Force as a Percentage (%) of 55-64 Population (Labor Force Participation)	62.8	64.4	64.5	66.3	64.4	62.1	66.5
Ages 65 years and over							
Total Non-Institutionalized Population (Age 65+)	164	167	169	176	184	197	205
Total Labor force (65+)	31	28	31	32	31	36	35
Labor Force as a Percentage (%) of 65+ Population (Labor Force Participation)	19.0	16.9	18.2	18.4	16.8	18.4	17.1

As the table shows, the labor force participation (LFP) rate for those age 55 to 64 saw the greatest percentage decrease during the pandemic period, 2019 through 2020, declining 2.3 percentage points from 64.4 to 62.1. The LFP rate for those 65 and older actually saw an increase from 2019 to 2020 of 1.6 percentage points between 2019 to 2020. However, looking at the data in nominal terms, the 55 to 64 age group did not lose any of its total labor force from 2019 to 2020, remaining at 91,000 persons either working or looking for work. The LFP decline for this group was a result of its population growth, which grew by 6,000 over-the-year. For those 65+, there was growth in both the number of labor force participants, which grew from 31,000 to 36,000, and in the total population, which grew by 13,000.

In 2021, both the labor participation rate and the number of labor force workers rebounded for those age 55 to 64. The LFP rate grew 4.4 percentage points in response to the growth of 3,000 additional workers and a population decrease of 5,000. LFP for this cohort of workers surpassed pre-pandemic levels and was at its highest level over the seven-year examination period. For those 65+, the LFP rate saw a 1.3 percentage point decline, driven by a lower number of workers (-1,000) and an increase in their total population (8,000). Even with this drop, the LFP rate for this group remained higher than its 2019 level.

Percentage Change in Delaware's Annual Labor Participation Rate by Age Group, 2017-2021



In conclusion, COVID-19's impact on Delaware's 55 and older community did not appear to have the same effect on Labor Force Participation as experienced nationally. Though the Labor Force Participation rate fluctuated more dramatically for this population between 2019 and 2020, the total number of workers in the labor force remained relatively consistent. The annual change in each age group's total population prompted swings in its LFP rate. There could be several reasons for population shifts that are outside of labor market causes, such as more retirees from other states entering or leaving Delaware, thereby increasing or decreasing its population, but having little or no effect on its nominal labor force total.

Characteristics of Delaware's Unemployed as Measured by Continued Claims

The Delaware Department of Labor's Unemployment Insurance (UI) division oversees the administration of unemployment benefits claims. Delawareans who separate from a job due to an eligible circumstance may seek to receive unemployment benefits. It is important to note that not all employers are required to provide unemployment insurance and not all employees are covered by unemployment insurance. For example, in Delaware, real estate and insurance salespersons, individuals employed by the church or religious organizations, or students working for their school, college, or university are not covered by unemployment insurance.

A worker's first filed claim for unemployment benefits is known as an initial claim. A worker who has already filed an initial claim but continues to experience unemployment then files a continued claim to claim benefits for subsequent weeks of unemployment. On a weekly basis, continued claims (also referred to as insured unemployment) reflect a good approximation of the current number of insured unemployed workers filing for UI benefits. The count of continued weeks of unemployment benefits claimed by workers is a good indicator of labor market conditions.⁽¹⁾

This essay will analyze Delaware's continued claims over the past 5-years, from 2017 to 2021, to identify patterns or trends in the characteristics of those that remain unemployed. Unemployed workers may file weekly claims, however, continuous claim monthly data is based on claims filed during each month's "reference week," which is typically the week that includes the twelfth day of each month. Let's begin by reviewing the age, location, and gender of unemployed workers that had continued claims.

Age & Location

First, a quick word about the pool of Delaware's workers that file continued claims (its Labor Force Participation (LFP)). LFP represents the number of people, 16 years of age and older, in the labor force, often as a percentage of the civilian noninstitutional population. Also, keep in mind those employees we mentioned who are not covered by unemployment insurance. The LFP data used throughout this report is annual average data from the Bureau of Labor Statistics' Local Area Unemployment Statistics program (LAUS).⁽²⁾

Continued claims filed during the reference weeks between January and December of 2021 averaged roughly 7,900 claims per month. Workers ages 35 to 44 had the largest average monthly number of continued claims, 1,765 or 22.4% of total average monthly claims. This age group also represented the largest cohort of Delaware workers in 2021, roughly 21.7% of Delaware's LFP. New Castle County had the highest percentage of claims, roughly 60.0% of all average claims in 2021.

The tables below and on the following page show average continued claims data by age group in 2021.

Average Monthly Continuous Claims by County, 2021								
County	Age 16-19	Age 20-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Total
New Castle County	51	404	1,057	1,050	942	841	353	4,699
Kent County	15	135	407	413	313	294	124	1,701
Sussex County	16	92	276	301	264	314	230	1,494

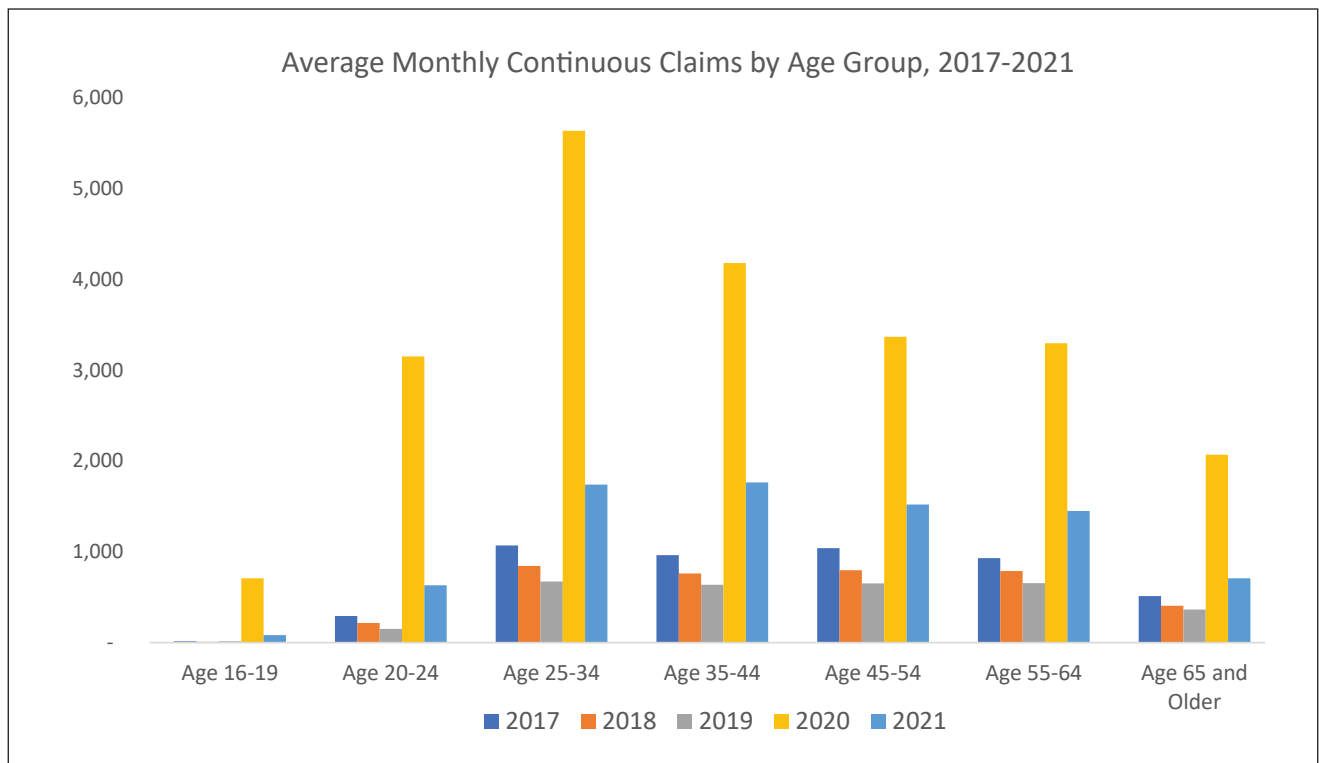
⁽¹⁾ <https://www.dol.gov/ui/data.pdf>, continued weeks claimed

⁽²⁾ US Bureau of Labor Statistics, Employment status of the civilian non-institutional population by sex, race, Hispanic or Latino ethnicity, marital status, and detailed age, annual averages, 2017-2021.

Average Number of Monthly Statewide Continued Claims, 2021*								
Month	Age 16-19	Age 20-24	Age 25-34	Age 35-44	Age 45-54	Age 55-64	Age 65+	Total
January	154	1,370	2,740	2,205	1,690	1,727	1,031	10,917
February	153	1,263	2,521	2,156	1,691	1,679	953	10,416
March	163	1,063	2,184	1,901	1,474	1,521	839	9,145
April	112	789	2,092	2,019	1,781	1,603	712	9,108
May	111	707	2,240	2,666	2,356	1,945	733	10,758
June	75	592	2,402	3,229	3,042	2,699	939	12,978
July	71	537	1,984	2,183	1,934	1,916	965	9,590
August	41	401	1,400	1,527	1,346	1,386	881	6,982
September	31	274	1,058	981	827	833	374	4,378
October	31	189	791	806	709	693	338	3,557
November	24	195	733	749	677	664	350	3,392
December	20	201	742	758	714	716	378	3,529
Average Monthly Claims	82	632	1,741	1,765	1,520	1,449	708	7,896

*Monthly claims are only those filed during each month's reference week.

Since 2017, workers age 25 to 34 have experienced the highest level of continued claims, roughly total 23.7% of claims, over the 5-year period. In 2020, during the COVID-19 pandemic, one-quarter of the continued claims filed during each month's reference week were for workers in this age group.



Now, let us put the continued claims data into the context of each age group's proportion of the state's labor force. For example, one might expect a greater number of continued claims from workers in the 25 to 34 age group if they represented a larger portion of Delaware's workforce. To evaluate if a particular age group had a disproportionate number of claims compared to their participation in the workforce, we compare each age group's LFP to their proportion of annual average claims.

Share of Total Claims to Total Labor Force by Age, 2017 to 2021

	Age 16-19		Age 20-24		Age 25-34		Age 35-44	
	% of Total Claims	% of Total Labor Force	% of Total Claims	% of Total Labor Force	% of Total Claims	% of Total Labor Force	% of Total Claims	% of Total Labor Force
2017	0.3%	4.4%	6.0%	10.0%	22.2%	21.9%	20.0%	18.6%
2018	0.2%	No Data	5.6%	9.7%	22.1%	22.5%	20.0%	18.6%
2019	0.4%	No Data	4.8%	9.4%	21.4%	22.7%	20.2%	19.9%
2020	3.2%	3.9%	14.1%	9.9%	25.2%	20.5%	18.7%	20.9%
2021	1.0%	No Data	8.0%	9.4%	22.0%	21.1%	22.4%	21.7%

Share of Total Claims to Total Labor Force by Age, 2017 to 2021 (cont'd)

	Age 45-54		Age 55-64		Age 65+	
	% of Total Claims	% of Total Labor Force	% of Total Claims	% of Total Labor Force	% of Total Claims	% of Total Labor Force
2017	21.6%	20.3%	19.3%	18.6%	10.6%	6.5%
2018	20.9%	19.6%	20.6%	19.4%	10.6%	6.6%
2019	20.7%	19.7%	20.8%	18.6%	11.6%	6.4%
2020	15.0%	18.4%	14.7%	18.8%	9.2%	7.4%
2021	19.3%	18.4%	18.3%	19.2%	9.0%	7.2%

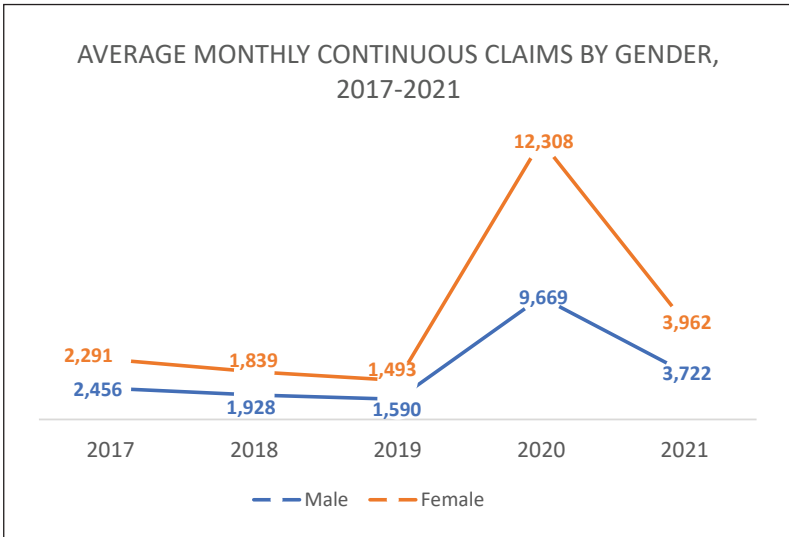
The above comparison shows that the age group 16-19 continues to see a disproportionately lower number of claims compared to their labor force participation. One reason may be that this group of workers is often doing work that is excluded from unemployment insurance, such as student-paid internships. However, workers age 65+ had a disproportionately higher percentage of claims relative to their LFP in each of the five years. In 2021, this group represented 7.2% of Delaware's workforce, but had 9.0% of the average continuous claims that year. Also of note were employees 20-24 years of age who saw significantly higher average claims relative to their LFP during the COVID-19 pandemic in 2020.

Gender

Delaware women had the largest average number of continued claims in 2021, particularly those in New Castle County. During the height of the COVID-19 pandemic in 2020, 56.0% of average continued claims were filed by women and average monthly claims for women grew 724.5% over the prior year from 1,493 to 12,308.

The tables on the following page show continued claims data by gender.

Average Monthly Continued Claims by County & Gender, 2021		
County	Male	Female
New Castle County	2,257	2,314
Kent County	776	878
Sussex County	689	770



Monthly Statewide Continued Claims, 2021*		
Month	Male	Female
January	5,286	4,872
February	4,647	4,294
March	4,303	4,568
April	4,920	5,490
May	5,877	6,547
June	4,209	5,171
July	3,134	3,692
August	1,931	2,352
September	1,592	1,878
October	1,657	1,676
November	1,806	1,650
December	5,307	5,350
Average Monthly Claims	3,722	3,962

*Monthly claims are only those filed during each month's reference week.

Like our comparison of age group claims data relative to LFP, below is a comparison of claims by gender relative to their participation in the labor force. The proportion of continued claims were similar to LFP until the COVID-19 pandemic in 2020 when the rate of continued claims shifted higher for women. One cause for this change may have been school and childcare closings, and other family commitments brought on by the pandemic were assumed more often by women.

Share of Total Claims to Total Labor Force by Gender, 2017 to 2021

	Male		Female	
	% of Total Claims	% of Total Labor Force	% of Total Claims	% of Total Labor Force
2017	51.7%	51.4%	48.3%	48.9%
2018	51.2%	51.3%	48.8%	48.7%
2019	51.6%	51.2%	48.4%	48.8%
2020	44.0%	52.3%	56.0%	47.7%
2021	48.4%	51.3%	51.6%	48.9%

Race & Ethnicity

In 2021, white workers were the largest racial group filing continuous unemployment claims at 53.3%. Claims for African Americans were 31.6% of total average continuous claims, with Hispanics or Latino claims ranking third at 12.9%. Asian (1.7%), American Indian/Alaska Native (0.3%), and Native Hawaiian/Other Pacific Islander (0.3%) made up the remaining claims. To identify if claims were relatively greater for one racial group over another, we again compare the proportion of each race's continuous claims to their proportion of participation in the State's labor force (LFP).

For example, in 2021, African Americans were 23.7% of the State's total labor force but represented 31.6% of continuous claims. This higher proportion of claims relative to LFP is also reflected in a higher unemployment rate for African Americans relative to other racial groups.

The tables below identify each racial group's average monthly claims, each group's share of total labor force participation, and their percentage of continuous claims from 2017 to 2021.

Share of Total Claims to Total Labor Force by Race/Ethnicity, 2017 to 2021

Year	White	Black	Hispanic or Latino	Asian	American Indian or Alaska Native	Native Hawaiian or Other Pacific Islander
2017	2,385	1,762	451	79	14	4
2018	1,527	1,157	308	48	7	4
2019	2,013	1,523	459	59	19	6
2020	12,607	7,718	2,636	675	94	62
2021	4,380	2,596	1,063	136	27	23

*Average continuous claims for the race/ethnic groups shown in the table may not sum to match prior tables as people whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

Share of Total Claims to Total Labor Force by Race/Ethnicity, 2017 to 2021

	White		Black		Hispanic or Latino		Asian	
Year	% of Total Labor Force Participation	% of Total Continuous Claims	% of Total Labor Force Participation	% of Total Continuous Claims	% of Total Labor Force Participation	% of Total Continuous Claims	% of Total Labor Force Participation	% of Total Continuous Claims
2017	70%	51%	23%	38%	10%	10%	5%	2%
2018	69%	50%	23%	38%	9%	10%	5%	2%
2019	71%	49%	22%	37%	8%	11%	No Data	1%
2020	71%	53%	22%	32%	10%	11%	4%	3%
2021	68%	53%	24%	32%	10%	13%	No Data	2%

*LFP percentages for the race/ethnic groups shown in the table may not sum to 100% as people whose ethnicity is identified as Hispanic or Latino may be of any race and, therefore, are classified by ethnicity as well as by race.

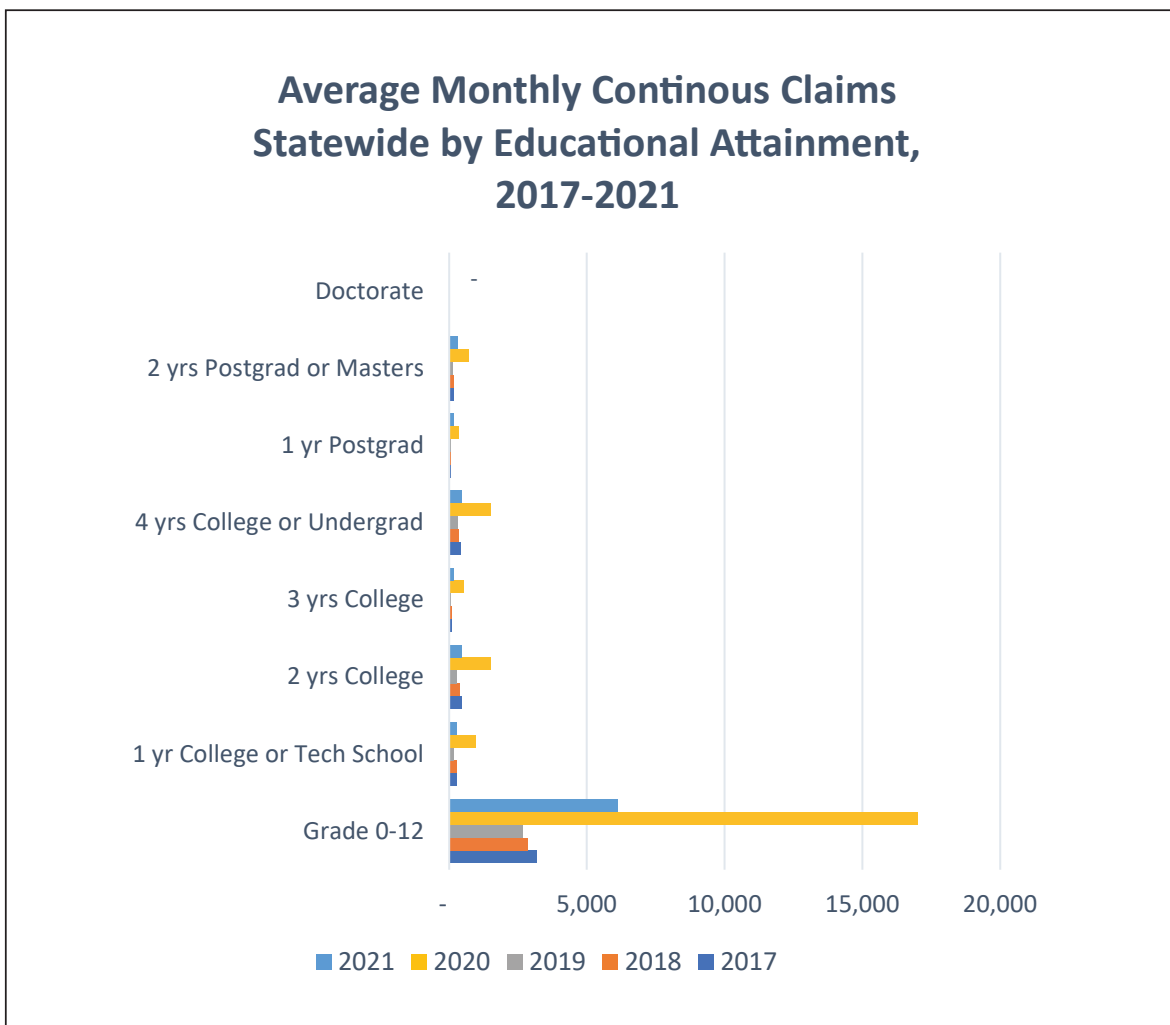
Educational Attainment

In 2021, the educational attainment of those with the greatest number of average continuous claims were for Delawareans with a high school diploma or less. Workers with a 2-year degree had the second highest number of average claims and those with 4 years of college or an undergraduate degree followed closely behind.

Below is a table and the corresponding chart showing the average annual statewide continuous claims by educational attainment level from 2017 to 2021.

Average Annual Statewide Continuous Claims by Educational Attainment Level, 2017 to 2021

Year	Grade 0-12	1 yr College or Tech School	2 yrs College	3 yrs College	4 yrs College or Undergrad	1 yr Postgrad	2 yrs Postgrad or Masters	Doctorate
2017	3,175	288	444	101	435	38	172	-
2018	2,861	265	386	84	363	32	169	-
2019	2,673	177	275	70	293	32	147	-
2020	17,017	961	1,500	522	1,525	182	708	-
2021	6,134	275	471	159	451	92	311	-



Industry

The *Accommodations & Food Services* industry saw the largest impact on employment during the COVID 19 pandemic, followed by the *Retail Trade* and *Health Care and Social Assistance* sectors. In the most recent year, 2021, the *Health Care and Social Assistance* industry experienced the greatest number of average continuous claims. Below is a table displaying the average number of continuous claims in 2021 by industry, from greatest to least.

Average Monthly Continuous Claims by Industry, 2017 to 2021					
Industry	2017	2018	2019	2020	2021
Health Care and Social Assistance	475	436	425	2,654	1,155
Administration & Waste Services	676	607	571	2,287	982
Retail Trade	503	459	414	3,589	965
Accommodation & Food Services	458	430	422	4,781	781
Construction	393	363	383	1,190	588
Transportation & Warehousing	333	279	278	1,057	483
Manufacturing	292	199	186	827	374
Finance & Insurance	293	273	226	446	370
Professional and Technical Services	286	234	225	780	356
Educational Services	97	73	78	889	325
Unclassified	61	59	49	158	286
Public Administration	112	109	96	259	228
Wholesale Trade	117	100	103	469	188
Other Services, Except Public Administration	88	77	78	1,006	185
Arts, Entertainment, & Recreation	111	104	102	777	143
Real Estate & Rental & Leasing	101	101	97	322	115
Agriculture, Forestry, Fishing and Hunting	13	26	35	130	73
Information	52	42	37	160	70
Management of Companies & Enterprises	19	14	14	178	44
Utilities	8	5	6	9	9
Mining	1	3	0	4	1

Delaware Personal Income

Personal income data is produced by the Bureau of Economic Analysis and is a broad measure of the economic activity of an area. The most recent state-level personal income data available is for 2020 and all of the nominal dollar values have been deflated by the Bureau of Labor Statistics' Philadelphia-Camden-Wilmington Consumer Price Index for All Urban Consumers and converted to constant 2020 dollars.

Personal income is the total amount of compensation that an individual receives. It is income from working a job or owning a business, investment income, and income from transfer payments, such as Unemployment Insurance, Social Security and Medicare. Per capita personal income is the total personal income of an area divided by the total resident population of that area.

Delaware Real Per Capita Income in Constant 2020 Dollars

	2015	2016	2017	2018	2019	2020
Per Capita Personal Income	\$50,825	\$51,443	\$52,651	\$54,385	\$54,019	\$55,810
Per Capita Earned Income	\$31,264	\$31,265	\$31,614	\$32,698	\$32,201	\$31,791
Per Capita Investment Income	\$9,385	\$9,732	\$10,183	\$10,544	\$10,363	\$10,045
Per Capita Transfer Payments	\$10,176	\$10,445	\$10,854	\$11,143	\$11,455	\$13,974

Source: Bureau of Economic Analysis. Nominal income deflated using the Philadelphia- Camden-Wilmington CPI-U from the Bureau of Labor Statistics.

In 2020, Delaware's per capita personal income was \$55,810, an increase of \$2,271 above 2019. With data going back to 1958, the peak year for real per capita income was in 2020. Prior to 2020, the peak years in per capita income were 2018, 2019, followed by 2002 at \$52,734. Real per capita income increased by 3.3 percent in 2020 following negative growth of -0.7 percent in 2019.

The largest share of personal income comes from earned income. Earned income is wages that come from a job or proprietors' income from owning a business. In 2020, 57.0 percent of all Delaware personal income was from earned income, which was well below the peak share of 77.4 percent in 1973. Per capita earned income in Delaware was \$31,791 in 2020. Adjusting for inflation, real per capita earned income was down by 1.3 percent in 2020.

Investment income is income received from dividends, interest, and rent. As a percentage of Delaware personal income, investment income's share in 2020 was 18.0 percent, which was slightly below the average share of 18.7 percent since 1958. Per capita investment income was \$10,045 in Delaware for 2020, down from \$10,363 in 2019. The proportion of investment income relative to total per capita income was highest in 1963, where the average share was 21.3 percent, followed by 21.2 percent in 1989. For 2020, investment income's proportion of per capita income ranked 42nd out of the 62 years since 1958. One factor in the decline in the share of investment income of total income, particularly in 2020, is the rise in transfer payments.

Transfer payments are income that persons receive for which no current service is performed. Social Security, Medicare and Medicaid, income support programs, and unemployment insurance are all examples of government programs that provide transfer payments. Real per capita transfer payments were \$13,974 in 2020, an increase of \$2,519 over 2019. As a percentage of Delaware personal income, transfer payments share in 2020 was 25.0 percent compared to 21.2 percent in 2019. Continuing the trend first seen in 2009, real per capita transfer payments exceed real per capita investment income. From 2015 to 2020, real per capita transfer payments increased 42.6 percent.

Delaware Real Per Capita Income, Percent Change from Previous Year

	2015	2016	2017	2018	2019	2020
Per Capita Personal Income	4.1%	1.2%	2.3%	3.3%	-0.7%	3.3%
Per Capita Earned Income	4.0%	0.0%	1.1%	3.4%	-1.5%	-1.3%
Per Capita Investment Income	3.0%	3.7%	4.6%	3.5%	-1.7%	-3.1%
Per Capita Transfer Payments	5.6%	2.6%	3.9%	2.7%	2.8%	22.0%

Source: Bureau of Economic Analysis. Bureau of Labor Statistics.



City of Wilmington Employment and Wages

The city of Wilmington is Delaware's most populous city. Located in New Castle County, it had an estimated population of 70,750 as of July 1st, 2021. While there are monthly estimates of employment and unemployment for city residents, no program exists to collect and report data for business establishments within the city. The Quarterly Census of Employment and Wages (QCEW) program reports county and state level data, but QCEW data are not routinely generated for more detailed geographic levels. The Local Area Unemployment Statistics provides Wilmington employment data, but this is a residency-based count of employment and counts the number of residents who are employed irrespective of where they work. Here, we use the QCEW data, combined with information on the physical addresses of employers, to extract data specifically for firms and government agencies located within the city of Wilmington. The table on the next page contains detailed industry employment data for the months of December for the years 2020 and 2021.



Wilmington Employment and Wages by Industry

		2020		2021		
Industry Name	NAICS [†] Code	Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	Empl. Change
	Total	47,069	1,127,459,940	46,026	1,134,366,291	-1,043
Agriculture, Forestry, Fishing and Hunting	11	0	0	*	*	*
Mining	21	0	0	0	0	0
Utilities	22	*	*	*	*	*
Construction	23	1,147	25,301,958	1,144	23,890,954	-3
Construction of buildings	236	347	7,294,981	*	*	*
Heavy and civil engineering construction	237	102	4,007,527	*	*	*
Specialty trade contractors	238	698	13,999,450	711	14,251,149	13
Manufacturing	31-33	828	15,488,216	814	15,039,290	-14
Food manufacturing	311	*	*	*	*	*
Beverage and tobacco product manufacturing	312	*	*	*	*	*
Textile mills	313	0	0	0	0	0
Textile product mills	314	*	*	*	*	*
Apparel manufacturing	315	0	0	0	0	0
Leather and allied product manufacturing	316	0	0	0	0	0
Wood product manufacturing	321	0	0	0	0	0
Paper manufacturing	322	0	0	0	0	0
Printing and related support activities	323	50	1,078,046	*	*	*
Petroleum and coal products manufacturing	324	0	0	0	0	0
Chemical manufacturing	325	*	*	*	*	*
Plastics and rubber products manufacturing	326	*	*	*	*	*
Nonmetallic mineral product manufacturing	327	*	*	*	*	*
Primary metal manufacturing	331	0	0	0	0	0
Fabricated metal product manufacturing	332	81	1,675,113	*	*	*
Machinery manufacturing	333	*	*	*	*	*
Computer and electronic product manufacturing	334	*	*	*	*	*
Electrical equipment and appliance manufacturing	335	0	0	0	0	0
Transportation equipment manufacturing	336	0	0	*	*	*
Furniture and related product manufacturing	337	*	*	*	*	*
Miscellaneous manufacturing	339	*	*	*	*	*
Wholesale Trade	42	447	9,637,646	427	9,336,340	-20
Merchant wholesalers, durable goods	423	273	7,067,695	267	6,787,427	-6
Merchant wholesalers, nondurable goods	424	*	*	*	*	*
Electronic markets and agents and brokers	425	*	*	*	*	*
Retail Trade	44-45	1,810	20,804,921	1,888	24,512,292	78
Motor vehicle and parts dealers	441	526	8,867,738	517	11,624,190	-9

Wilmington Employment and Wages by Industry

		2020		2021		
Industry Name	NAICS [†] Code	Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	Empl. Change
Furniture and home furnishings stores	442	*	*	*	*	*
Electronics and appliance stores	443	31	561,724	*	*	*
Building material and garden supply stores	444	22	221,356	*	*	*
Food and beverage stores	445	527	4,603,502	587	4,802,257	60
Health and personal care stores	446	199	2,183,451	215	2,160,177	16
Gasoline stations	447	41	217,544	48	329,165	7
Clothing and clothing accessories stores	448	148	854,311	158	1,081,308	10
Sports, hobby, music instrument, book stores	451	*	*	*	*	*
General merchandise stores	452	99	525,446	54	283,070	-45
Miscellaneous store retailers	453	93	700,157	102	921,719	9
Nonstore retailers	454	*	*	34	804,337	*
Transportation and Warehousing	48-49	1,163	16,718,829	1,229	19,513,503	66
Air transportation	481	*	*	*	*	*
Water transportation	483	*	*	*	*	*
Truck transportation	484	41	682,488	78	1,239,763	37
Transit and ground passenger transportation	485	*	*	*	*	*
Pipeline transportation	486	0	0	0	0	0
Scenic and sightseeing transportation	487	*	*	*	*	*
Support activities for transportation	488	932	13,518,116	945	15,106,728	13
Couriers and messengers	492	*	*	*	*	*
Warehousing and storage	493	83	1,323,813	91	1,620,084	8
Information	51	*	*	*	*	*
Publishing industries, except Internet	511	*	*	*	*	*
Motion picture and sound recording industries	512	*	*	*	*	*
Broadcasting, except Internet	515	*	*	*	*	*
Telecommunications	517	*	*	*	*	*
Data processing, hosting and related services	518	*	*	*	*	*
Other information services	519	*	*	*	*	*
Finance and Insurance	52	11,445	343,257,419	11,128	351,084,797	-317
Monetary authorities - central bank	521	0	0	0	0	0
Credit intermediation and related activities	522	6,921	204,153,014	6,609	210,742,550	-312
Securities, commodity contracts, investments	523	3,430	111,910,532	3,526	113,165,918	96
Insurance carriers and related activities	524	*	*	*	*	*
Funds, trusts, and other financial vehicles	525	*	*	*	*	*
Real Estate and Rental and Leasing	53	805	15,598,596	942	19,335,400	137
Real estate	531	*	*	*	*	*

Wilmington Employment and Wages by Industry

Industry Name	NAICS [†] Code	2020		2021		Empl. Change
		Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	
Rental and leasing services	532	*	*	*	*	*
Lessors of nonfinancial intangible assets	533	0	0	0	0	*
Professional and Technical Services	54	5,505	294,704,964	5,367	316,790,408	-138
Management of Companies and Enterprises	55	2,833	105,578,403	*	*	*
Administrative and Waste Services	56	2,003	30,368,017	2,091	36,295,696	88
Administrative and support services	561	*	*	*	*	*
Waste management and remediation services	562	*	*	*	*	*
Educational Services	61	739	7,877,281	664	8,132,977	-75
Health Care and Social Assistance	62	5,652	71,048,216	5,675	75,954,158	23
Ambulatory health care services	621	1,425	26,009,528	1,721	28,696,689	296
Hospitals	622	*	*	*	*	*
Nursing and residential care facilities	623	*	*	*	*	*
Social assistance	624	2,042	14,690,987	1,853	14,773,159	-189
Arts, Entertainment, and Recreation	71	372	2,835,385	598	4,407,844	226
Performing arts and spectator sports	711	88	953,509	283	2,208,969	195
Museums, historical sites, zoos, and parks	712	*	*	*	*	*
Amusements, gambling, and recreation	713	*	*	*	*	*
Accommodation and Food Services	72	1,528	10,620,493	1,870	13,635,895	342
Accommodation	721	74	1,079,259	*	*	*
Food services and drinking places	722	1,454	9,541,234	*	*	*
Other Services, Except Public Administration	81	1,060	11,576,145	1,184	13,719,367	124
Repair and maintenance	811	178	2,516,669	198	3,008,355	20
Personal and laundry services	812	395	3,154,263	408	3,496,647	13
Membership associations and organizations	813	467	5,725,303	553	6,998,802	86
Private households	814	20	179,910	25	215,563	5
Federal Government	Fed	945	18,857,168	998	20,564,903	53
State Government	State	4,978	62,115,783	4,926	66,291,079	-52
Local Government	Local	2,900	40,451,311	2,981	49,124,309	81
Total Government	Govt	8,823	121,424,262	8,905	135,980,291	82

An asterisk (*) represents data that cannot be released due to employer confidentiality restrictions.

† North American Industry Classification System

City of Dover Employment and Wages

The city of Dover is Delaware's second most populous city. Located in Kent County, it had an estimated population of 38,992 as of July 1st, 2021. While there are monthly estimates of employment and unemployment for city residents, no program exists to collect and report data for business establishments within the city. The Quarterly Census of Employment and Wages (QCEW) program reports county and state level data, but QCEW data are not routinely generated for more detailed geographic levels. The Local Area Unemployment Statistics provides Dover employment data, but this is a residency-based count of employment and counts the number of residents who are employed irrespective of where they work. Here, we use the QCEW data, combined with information on the physical addresses of employers, to extract data specifically for firms and government agencies located within the city of Dover. The table on the next page contains detailed industry employment data for the month of December for the years 2020 and 2021.



Dover Employment and Wages by Industry

		2020		2021		
Industry Name	NAICS [†] Code	Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	Empl. Change
	Total	31,379	454,638,684	33,211	500,057,855	1,832
Agriculture, Forestry, Fishing and Hunting	11	0	0	0	0	0
Mining	21	0	0	0	0	0
Utilities	22	269	6,357,185	*	*	*
Construction	23	556	8,497,410	488	8,454,142	-68
Construction of buildings	236	*	*	*	*	*
Heavy and civil engineering construction	237	*	*	*	*	*
Specialty trade contractors	238	179	2,793,995	175	3,185,530	-4
Manufacturing	31-33	1,603	32,514,043	1,622	32,779,174	19
Food manufacturing	311	*	*	*	*	*
Beverage and tobacco product manufacturing	312	*	*	*	*	*
Textile mills	313	0	0	0	0	0
Textile product mills	314	*	*	*	*	*
Apparel manufacturing	315	0	0	0	0	*
Leather and allied product manufacturing	316	0	0	0	0	0
Wood product manufacturing	321	0	0	0	0	0
Paper manufacturing	322	*	*	*	*	*
Printing and related support activities	323	*	*	*	*	*
Petroleum and coal products manufacturing	324	0	0	0	0	0
Chemical manufacturing	325	*	*	*	*	*
Plastics and rubber products manufacturing	326	0	0	0	0	0
Nonmetallic mineral product manufacturing	327	*	*	*	*	*
Primary metal manufacturing	331	*	*	*	*	*
Fabricated metal product manufacturing	332	*	*	*	*	*
Machinery manufacturing	333	0	0	0	0	0
Computer and electronic product manufacturing	334	0	0	*	*	*
Electrical equipment and appliance manufacturing	335	0	0	0	0	0
Transportation equipment manufacturing	336	*	*	*	*	*
Furniture and related product manufacturing	337	*	*	*	*	*
Miscellaneous manufacturing	339	*	*	*	*	*
Wholesale Trade	42	255	3,335,940	285	4,011,355	30
Merchant wholesalers, durable goods	423	195	2,578,985	217	3,150,843	22
Merchant wholesalers, nondurable goods	424	*	*	*	*	*
Electronic markets and agents and brokers	425	*	*	*	*	*
Retail Trade	44-45	3,343	25,050,962	3,680	29,436,766	337
Motor vehicle and parts dealers	441	396	6,043,588	420	7,515,387	24

Dover Employment and Wages by Industry

		2020		2021		
Industry Name	NAICS [†] Code	Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	Empl. Change
Furniture and home furnishings stores	442	119	915,301	125	878,381	6
Electronics and appliance stores	443	105	993,425	175	1,505,732	70
Building material and garden supply stores	444	*	*	*	*	*
Food and beverage stores	445	241	1,074,131	300	1,775,497	59
Health and personal care stores	446	277	2,468,304	267	2,665,894	-10
Gasoline stations	447	*	*	*	*	*
Clothing and clothing accessories stores	448	433	1,876,859	348	1,680,960	-85
Sports, hobby, music instrument, book stores	451	144	840,018	165	991,368	21
General merchandise stores	452	908	5,575,331	1,080	6,311,841	172
Miscellaneous store retailers	453	146	693,578	152	921,116	6
Nonstore retailers	454	*	*	*	*	*
Transportation and Warehousing	48-49	232	2,072,342	306	2,630,741	74
Air transportation	481	0	0	0	0	0
Water transportation	483	0	0	0	0	0
Truck transportation	484	101	875,354	104	1,270,615	3
Transit and ground passenger transportation	485	*	*	82	457,495	*
Pipeline transportation	486	0	0	0	0	0
Scenic and sightseeing transportation	487	0	0	0	0	0
Support activities for transportation	488	48	563,042	38	574,359	*
Couriers and messengers	492	*	*	*	*	*
Warehousing and storage	493	*	*	*	*	*
Information	51	*	*	208	3,451,409	*
Publishing industries, except Internet	511	*	*	*	*	*
Motion picture and sound recording industries	512	*	*	*	*	*
Broadcasting, except Internet	515	*	*	*	*	*
Telecommunications	517	*	*	*	*	*
Data processing, hosting and related services	518	*	*	*	*	*
Other information services	519	*	*	*	*	*
Finance and Insurance	52	677	16,912,801	753	15,935,797	76
Monetary authorities - central bank	521	0	0	0	0	0
Credit intermediation and related activities	522	495	10,889,476	545	8,872,503	50
Securities, commodity contracts, investments	523	*	*	*	*	*
Insurance carriers and related activities	524	124	3,932,593	153	4,625,395	29
Funds, trusts, and other financial vehicles	525	*	*	*	*	*
Real Estate and Rental and Leasing	53	179	2,291,804	162	2,413,433	-17
Real estate	531	125	1,625,223	109	1,712,078	-16

Dover Employment and Wages by Industry

		2020		2021		
Industry Name	NAICS [†] Code	Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	Empl. Change
Rental and leasing services	532	54	666,581	53	701,355	-1
Lessors of nonfinancial intangible assets	533	0	0	0	0	0
Professional and Technical Services	54	1,093	26,732,874	1,232	27,275,240	139
Management of Companies and Enterprises	55	*	*	*	*	*
Administrative and Waste Services	56	1,653	24,221,704	1,615	26,377,862	-38
Administrative and support services	561	*	*	*	*	*
Waste management and remediation services	562	*	*	*	*	*
Educational Services	61	436	4,947,889	172	2,701,477	-264
Health Care and Social Assistance	62	6,822	105,035,481	6,878	112,661,854	56
Ambulatory health care services	621	2,168	40,128,876	2,274	41,321,404	106
Hospitals	622	*	*	*	*	*
Nursing and residential care facilities	623	*	*	*	*	*
Social assistance	624	1,112	8,662,304	1,120	9,163,570	8
Arts, Entertainment, and Recreation	71	314	1,772,381	409	4,306,276	95
Performing arts and spectator sports	711	*	*	*	*	*
Museums, historical sites, zoos, and parks	712	*	*	*	*	*
Amusements, gambling, and recreation	713	291	1,581,623	320	2,149,224	29
Accommodation and Food Services	72	1,878	8,714,080	2,981	20,079,504	1,103
Accommodation	721	182	901,916	*	*	*
Food services and drinking places	722	1,696	7,812,164	*	*	*
Other Services, Except Public Administration	81	721	7,032,066	813	8,024,537	92
Repair and maintenance	811	*	*	*	*	*
Personal and laundry services	812	344	2,710,771	388	3,253,417	44
Membership associations and organizations	813	209	2,775,887	244	2,937,637	35
Private households	814	*	*	*	*	*
Federal Government	Fed	1,308	24,330,015	1,295	25,197,291	-13
State Government	State	7,511	115,418,841	7,625	128,666,539	114
Local Government	Local	2,047	28,923,631	2,180	33,099,011	133
Total Government	Govt	10,866	168,672,487	11,100	186,962,841	234

An asterisk (*) represents data that cannot be released due to employer confidentiality restrictions.

[†] North American Industry Classification System

City of Newark Employment and Wages

The city of Newark is Delaware's third most populous city. Located in New Castle County, it had an estimated population of 31,155 as of July 1st, 2021. While there are monthly estimates of employment and unemployment for city residents, no program exists to collect and report data for business establishments within the city. The Quarterly Census of Employment and Wages (QCEW) program reports county and state level data, but QCEW data are not routinely generated for more detailed geographic levels. The Local Area Unemployment Statistics provides Newark employment data, but this is a residency-based count of employment and counts the number of residents who are employed irrespective of where they work. Here, we use the QCEW data, combined with information on the physical addresses of employers, to extract data specifically for firms and government agencies located within the city of Newark. The table on the next page contains detailed industry employment data for the month of December for the years 2020 and 2021.



Newark Employment and Wages by Industry

		2020		2021		
Industry Name	NAICS [†] Code	Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	Empl. Change
Total	Total	17,480	298,735,114	17,974	309,129,527	494
Agriculture, Forestry, Fishing and Hunting	11	*	*	*	*	*
Mining	21	0	0	0	0	0
Utilities	22	0	0	0	0	0
Construction	23	490	9,253,108	497	9,320,555	7
Construction of buildings	236	*	*	*	*	*
Heavy and civil engineering construction	237	0	0	*	*	0
Specialty trade contractors	238	*	*	364	7,013,439	*
Manufacturing	31-33	1,219	27,647,255	708	15,634,837	-511
Food manufacturing	311	*	*	*	*	*
Beverage and tobacco product manufacturing	312	0	0	0	0	0
Textile mills	313	*	*	*	*	*
Textile product mills	314	*	*	*	*	*
Apparel manufacturing	315	*	*	0	0	*
Leather and allied product manufacturing	316	0	0	0	0	0
Wood product manufacturing	321	0	0	0	0	0
Paper manufacturing	322	0	0	0	0	0
Printing and related support activities	323	*	*	*	*	*
Petroleum and coal products manufacturing	324	0	0	0	0	0
Chemical manufacturing	325	*	*	0	0	*
Plastics and rubber products manufacturing	326	*	*	*	*	*
Nonmetallic mineral product manufacturing	327	0	0	0	0	0
Primary metal manufacturing	331	0	0	0	0	0
Fabricated metal product manufacturing	332	52	1,267,161	*	*	*
Machinery manufacturing	333	*	*	*	*	*
Computer and electronic product manufacturing	334	*	*	*	*	*
Electrical equipment and appliance manufacturing	335	*	*	*	*	*
Transportation equipment manufacturing	336	*	*	*	*	*
Furniture and related product manufacturing	337	*	*	*	*	*
Miscellaneous manufacturing	339	*	*	*	*	*
Wholesale Trade	42	280	5,428,967	255	5,803,624	-25
Merchant wholesalers, durable goods	423	154	3,196,949	176	3,253,380	22
Merchant wholesalers, nondurable goods	424	*	*	69	2,242,005	*
Electronic markets and agents and brokers	425	*	*	10	308,239	*
Retail Trade	44-45	2,454	24,678,143	2,430	28,437,896	-24
Motor vehicle and parts dealers	441	865	13,752,441	844	16,273,859	-21

Newark Employment and Wages by Industry

		2020		2021		
Industry Name	NAICS [†] Code	Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	Empl. Change
Furniture and home furnishings stores	442	*	*	*	*	*
Electronics and appliance stores	443	*	*	*	*	*
Building material and garden supply stores	444	*	*	*	*	*
Food and beverage stores	445	421	2,925,996	300	2,007,628	-121
Health and personal care stores	446	98	989,436	139	1,289,398	41
Gasoline stations	447	23	110,184	*	*	*
Clothing and clothing accessories stores	448	*	*	89	522,472	*
Sports, hobby, music instrument, book stores	451	242	1,525,629	*	*	*
General merchandise stores	452	*	*	*	*	*
Miscellaneous store retailers	453	61	522,329	91	726,561	30
Nonstore retailers	454	21	314,901	*	*	*
Transportation and Warehousing	48-49	150	1,799,670	158	2,283,930	8
Air transportation	481	0	0	0	0	0
Water transportation	483	0	0	0	0	0
Truck transportation	484	116	1,486,327	128	1,932,654	12
Transit and ground passenger transportation	485	0	0	0	0	0
Pipeline transportation	486	*	*	*	*	*
Scenic and sightseeing transportation	487	0	0	0	0	0
Support activities for transportation	488	*	*	*	*	*
Couriers and messengers	492	0	0	0	0	0
Warehousing and storage	493	*	*	*	*	*
Information	51	58	1,063,852	42	916,631	-16
Publishing industries, except Internet	511	*	*	*	*	*
Motion picture and sound recording industries	512	*	*	*	*	*
Broadcasting, except Internet	515	0	0	0	0	0
Telecommunications	517	*	*	*	*	*
Data processing, hosting and related services	518	*	*	*	*	*
Other information services	519	0	0	*	*	0
Finance and Insurance	52	320	4,938,702	310	5,240,321	-10
Monetary authorities - central bank	521	0	0	0	0	0
Credit intermediation and related activities	522	292	4,337,862	283	4,578,102	-9
Securities, commodity contracts, investments	523	*	*	*	*	*
Insurance carriers and related activities	524	*	*	*	*	*
Funds, trusts, and other financial vehicles	525	0	0	0	0	*
Real Estate and Rental and Leasing	53	139	1,677,445	152	1,943,946	13
Real estate	531	*	*	137	1,863,208	*

Newark Employment and Wages by Industry

		2020		2021		
Industry Name	NAICS [†] Code	Dec. Empl.	4th Quarter Wages	Dec. Empl.	4th Quarter Wages	Empl. Change
Rental and leasing services	532	*	*	*	*	*
Lessors of nonfinancial intangible assets	533	0	0	0	0	0
Professional and Technical Services	54	1,145	25,861,995	1,130	33,529,571	-15
Management of Companies and Enterprises	55	*	*	*	*	*
Administrative and Waste Services	56	320	5,097,693	298	4,105,411	-22
Administrative and support services	561	*	*	*	*	*
Waste management and remediation services	562	*	*	*	*	*
Educational Services	61	53	447,982	51	551,697	-2
Health Care and Social Assistance	62	713	8,568,323	560	7,394,929	-153
Ambulatory health care services	621	271	4,967,231	265	4,695,209	-6
Hospitals	622	0	0	0	0	0
Nursing and residential care facilities	623	*	*	*	*	*
Social assistance	624	*	*	*	*	*
Arts, Entertainment, and Recreation	71	65	421,215	84	548,726	19
Performing arts and spectator sports	711	*	*	*	*	*
Museums, historical sites, zoos, and parks	712	*	*	*	*	*
Amusements, gambling, and recreation	713	*	*	*	*	*
Accommodation and Food Services	72	2,257	12,331,550	2,756	17,840,336	499
Accommodation	721	308	2,730,611	*	*	*
Food services and drinking places	722	1,949	9,600,939	*	*	*
Other Services, Except Public Administration	81	354	4,408,016	363	5,582,302	9
Repair and maintenance	811	70	769,823	*	*	*
Personal and laundry services	812	143	907,150	132	1,179,925	-11
Membership associations and organizations	813	134	2,689,502	125	2,743,019	-9
Private households	814	7	41,541	*	*	*
Federal Government	Fed	127	2,448,028	127	2,501,246	0
State Government	State	6,400	148,556,940	7,054	150,214,351	654
Local Government	Local	866	12,585,628	924	15,221,891	58
Total Government	Govt	7,393	163,590,596	8,105	167,937,488	712

An asterisk (*) represents data that cannot be released due to employer confidentiality restrictions.

† North American Industry Classification System

State of Delaware

Business Employment Dynamics

Business Employment Dynamics (BED) measures the gross job gains and gross job losses at privately-owned businesses in the economy on a quarterly basis. Gross job gains are increases in employment from expanding and opening establishments and gross job losses are decreases in employment from contracting and closing establishments. The net change in employment is the difference between gross job gains and gross job losses. BED allows a look at the dynamic flows in the labor market which underlay the more commonly reported net job change. While there are typically still gross job gains even during recessions and gross job losses during expansions, the net job change is typically negative in recessions and positive in expansions.

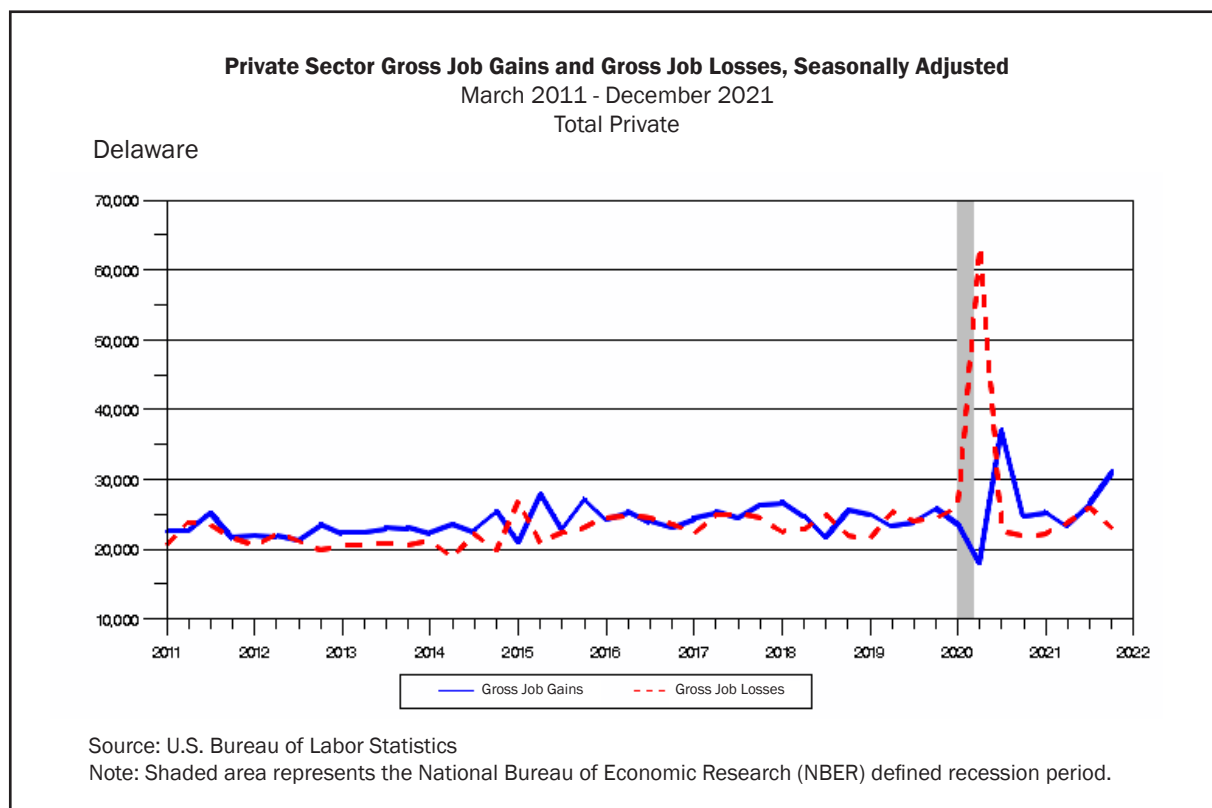
BED also measures the number of establishments with gross job gains at either expanding or opening establishments and the number of establishments with gross job losses at either contracting or closing establishments. An establishment is defined as an economic unit that produces goods or services, while a firm or company may consist of one establishment or multiple establishments at several locations.



BED data are derived from the Quarterly Census of Employment and Wages (QCEW) program, linking administrative Unemployment Insurance establishment data across time. The employment changes in the BED are measured from the third month of each quarter. All the data referenced in this article are seasonally adjusted.

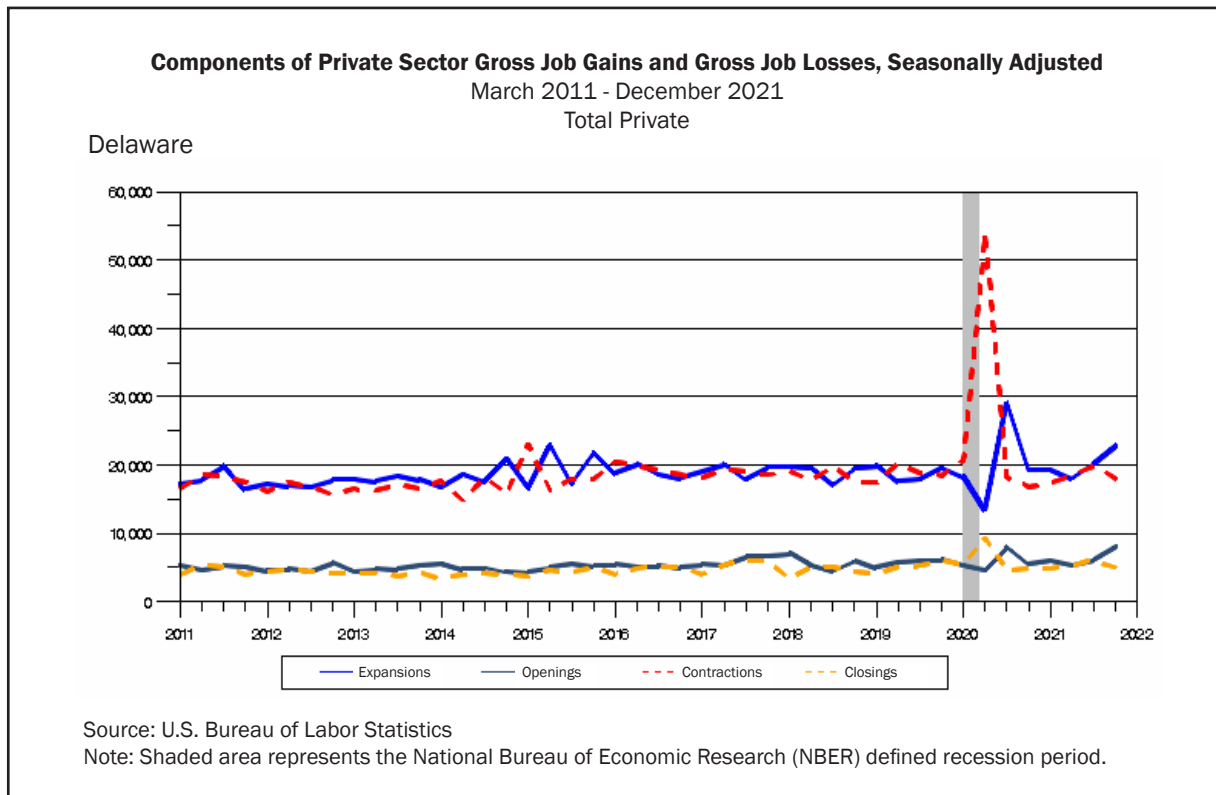
Delaware Business Employment Dynamics – 4th Quarter, 2021

In the fourth quarter of 2021 there were 31,132 gross job gains at opening and expanding establishments in Delaware. At the same time, there were 23,023 job losses from closing and contracting establishments. Expanding and contracting establishments accounted for most of the jobs gained and lost. The net job change, i.e., the difference between total gross job gains and total gross job losses, increased 5,176 from the fourth quarter of 2020.



Trends in Gross Job Gains and Job Losses

Opening and expanding private sector business establishments in Delaware gained 31,132 jobs in the fourth quarter of 2021, or 6,329 more than in the fourth quarter of 2020. In the fourth quarter of 2021, expanding establishments added 22,917 jobs, while opening establishments added 8,215. Gross job gains were larger than in the previous year at expanding establishments (3,635) and opening establishments (2,694).



Gross job losses totaled 23,023 in the fourth quarter of 2021, up by 1,153 from the fourth quarter, 2020. In the fourth quarter of 2021, contracting establishments lost 18,017 jobs, while closing establishments accounted for a loss of 5,006 jobs. Gross job losses were larger than in the previous year at contracting establishments (1,158) and nearly the same at closing establishments (-5).

Table A: Delaware 3-month private sector gross job gains and losses, seasonally adjusted

Category	3 months ended				
	Dec. 2020	Mar. 2021	Jun. 2021	Sept. 2021	Dec. 2021
	Levels				
Gross job gains	24,803	25,344	23,474	26,568	31,132
At expanding establishments	19,282	19,313	18,087	20,275	22,917
At opening establishments	5,521	6,031	5,387	6,293	8,215
Gross job losses	21,870	22,245	23,794	26,033	23,023
At contracting establishments	16,859	17,362	18,508	19,901	18,017
At closing establishments	5,011	4,883	5,286	6,132	5,006
Net employment change*	2,933	3,099	-320	535	8,109

* The net employment change is the difference between total gross job gains and total gross job losses.

Rates of Gross Job Gains and Gross Job Losses

In the fourth quarter of 2021, Delaware's gross job gains represented 8.3 percent of private sector employment. This was more than the national rate of gross job gains of 7.7 percent. Delaware's gross job gains at expanding establishments represented 6.1 percent of private sector employment, and gross job gains at opening establishments represented 2.2 percent. Nationally this quarter, gross job gains at expanding establishment represented 6.2 percent of private sector employment, and at opening establishments represented 1.5 percent.

In the fourth quarter of 2021, Delaware's gross job losses represented 6.1 percent of private sector employment. This was the larger than the national rate of gross job losses of 5.4 percent. Delaware's gross job losses at contracting establishments represented 4.8 percent of private sector employment, which was more than the national rate at contracting establishments of 4.3 percent. The rate of gross job losses at closing establishments was 1.3 percent for Delaware, while the nation had 1.1 percent gross job losses at closing establishments. The rates of gross job gains and losses provide a picture of the amount of "job churning" that occurs in the labor market.

Table B: Delaware and U.S. 3-month private sector gross job gains and losses as a percent of employment, seasonally adjusted

Category	3 months ended				
	Dec. 2020	Mar. 2021	Jun. 2021	Sept. 2021	Dec. 2021
Total Private for State of Delaware	Rates (percent)				
Gross job gains	6.8	6.8	6.4	7.2	8.3
At expanding establishments	5.3	5.2	4.9	5.5	6.1
At opening establishments	1.5	1.6	1.5	1.7	2.2
Gross job losses	6.0	6.0	6.4	7.0	6.1
At contracting establishments	4.6	4.7	5.0	5.4	4.8
At closing establishments	1.4	1.3	1.4	1.6	1.3
Net employment change*	0.8	0.8	0.0	0.2	2.2
Total Private for U.S. as a whole	Rates (percent)				
Gross job gains	7.4	6.8	6.7	7.2	7.7
At expanding establishments	6.0	5.5	5.4	5.8	6.2
At opening establishments	1.4	1.3	1.3	1.4	1.5
Gross job losses	5.7	5.4	5.9	6.2	5.4
At contracting establishments	4.6	4.5	4.9	4.9	4.3
At closing establishments	1.1	0.9	1.0	1.3	1.1
Net employment change*	1.7	1.4	0.8	1.0	2.3

* The net employment change is the difference between total gross job gains and total gross job losses.

Number of Establishments Gaining and Losing Employment

Another way to observe the dynamics of employment change is to count the number of establishments that opened, closed, expanded, or contracted during the quarter. Out of 37,733 active private sector establishments, a total of 7,409 establishments gained jobs in the fourth quarter of 2021 (see Table C). Of these, 5,361 were expanding establishments and 2,048 were opening establishments. During the fourth quarter of 2021, 6,140 establishments lost jobs. Of these, 4,661 were contracting establishments and 1,479 were closing establishments. The statistics from Tables A and C indicate that the average expanding establishment added 4.3 jobs during the quarter and the average contracting establishment lost 3.9 jobs during the quarter.



Table C: Delaware's number of private sector establishments by direction of employment change, seasonally adjusted

Category	3 months ended				
	Dec. 2020	Mar. 2021	Jun. 2021	Sept. 2021	Dec. 2021
Establishments gaining jobs.....	6,647	6,474	6,354	6,930	7,409
Expanding establishments.....	4,980	4,891	4,782	4,964	5,361
Opening establishments.....	1,667	1,583	1,572	1,966	2,048
Establishments losing jobs.....	5,793	5,945	6,234	6,411	6,140
Contracting establishments.....	4,480	4,421	4,680	4,910	4,661
Closing establishments.....	1,313	1,524	1,554	1,501	1,479
Net establishment change*.....	354	59	18	465	569

* The net establishment change is the difference between the number of opening establishments and the number of closing establishments.

Is Delaware in a “High-Pressure Economy?”

In a 1973 Brookings Institute article, economist Arthur M. Okun studied the impacts on US employment of a “high-pressure economy” in his article, *Upward Mobility in a High-pressure Economy*.⁽¹⁾

A high-pressure economy refers to economic conditions where unemployment is low and overall economic growth is high. Under these conditions, in order to meet the demands of a growing economy, businesses tend to increase wages and expand employment opportunities, leading to upward pressure on the cost of goods and services, i.e., inflation. As of December 2021, the national economy appears to signal characteristics of a high-pressure economy amidst historically low employment and relatively higher levels of job vacancies and consumer prices. The Bureau of Labor Statistics (BLS) reported a December seasonally adjusted unemployment rate of 4.8%. BLS’ job openings report for December 2021 showed job vacancies were 57.6% higher than the previous year and the consumer price index for urban consumers (CPI-U) in the Philadelphia-Camden-Wilmington region rose 4.0% from 2020 to 2021.

In his research, Arthur Okun identified distinct changes in the labor market during high-pressure economies. This article will review these three conditions within Delaware’s labor market from 2016 through 2020 in comparison to the State’s rate of inflation (CPI-U).

Employment Growth Among Secondary Workers

Okun notes that “the demographic groups experiencing the greatest proportional increases in employment in a higher-pressure economy are secondary workers – teenagers and women – who are typically low paid...”⁽²⁾ To analyze this measure for Delaware, we reviewed BLS’ Current Population Survey (CPS) annual average employment data for women, from 2010 to 2021. Employment data for teenagers (those ages 16 to 19) was not consistently available over this period. The table and chart below show the proportion of both men and women employed as a percentage of total employment since 2010.

Delaware Employment by Gender, 2010-2021

(In 000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Men	200	210	209	211	217	225	232	234	240	239	233	237
Women	192	202	206	198	210	221	221	222	227	230	214	225
Total Employment	392	412	415	409	427	446	453	456	467	469	447	462
Women as a % of Total Employment	49%	49%	50%	48%	49%	50%	49%	49%	49%	49%	48%	49%

The proportion of women employed in Delaware remained relatively unchanged from 2010 to 2020, even as total employment increased each year, with the exception of 2020 (likely due to the impacts of the Coronavirus).

To further test this measure, we reviewed employment trends of other secondary workers over this same time period. The table on the following page shows annual employment as a proportion of total employment for African-American, Hispanic, Asian, and White populations based on BLS’ CPS annual average employment data.

⁽¹⁾ https://www.brookings.edu/wp-content/uploads/1973/01/1973a_bpea_okun_fellner_greenSPAN.pdf

⁽²⁾ https://www.brookings.edu/wp-content/uploads/1973/01/1973a_bpea_okun_fellner_greenSPAN.pdf, pg. 208

Percentage of Total Employment by Race, 2010-2021

(In 000s)	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021
Asian	3%	3%	4%	4%	4%	5%	4%	5%	5%	N/A	4%	0%
Black or African American	20%	20%	20%	20%	21%	21%	22%	22%	22%	21%	22%	23%
Hispanic or Latino	8%	8%	9%	9%	7%	9%	11%	11%	9%	8%	9%	10%
White	76%	76%	74%	74%	73%	73%	72%	71%	70%	72%	72%	68%
Total	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

Similar to the employment trends for women, the proportion of employment for other secondary groups relative to total employment in Delaware remained consistent over the eleven-year period, shifting slightly in 2021. Employment growth among secondary workers in Okun's high-pressure economy should show an increase in women and/or minority employment and a decrease in male or white employment. Delaware's employment data does not show evidence of this growth.

Growth in High Wage Industry Employment

A second employment characteristic of Okun's high-pressure economy describes "...industries with the largest relative increases in employment are those that pay high wages and that normally employ a particularly high fraction of adult male workers. These results reflect a process of ladder-climbing: In part, men formerly in poor jobs move into better ones, making way for women and young people in the less well-paid pursuits."⁽³⁾ In order to observe this dynamic, we will examine the BLS Quarterly Census of Employment and Wages (QCEW) Employment and Wage data by industry for Delaware, from 2016 to 2021. The QCEW program data includes only employers covered by unemployment insurance laws and does not reflect all industry employment.

The table below shows the industries with the top ten highest average annual wage-earning employees over this period. OCEW data does not tie demographic information to its employment and wage data, so this analysis assumes Okun's assertion that a higher fraction of adult male workers are employed by the industries with higher wages.

Delaware's Top Ten Highest Average Annual Wage by Industry

Industry	2016	2017	2018	2019	2020	2021	Grand Total
Mgmt. of Companies & Enterprises	\$128,677	\$154,945	\$155,433	\$154,977	\$141,032	\$145,290	\$880,354
Utilities	\$107,964	\$112,859	\$114,467	\$120,107	\$124,049	\$122,253	\$701,699
Professional & Technical Services	\$93,286	\$101,942	\$101,033	\$106,660	\$111,783	\$117,823	\$632,527
Finance & Insurance	\$93,268	\$97,711	\$100,557	\$103,042	\$108,977	\$113,251	\$616,806
Wholesale Trade	\$80,058	\$72,599	\$74,391	\$76,014	\$80,567	\$84,515	\$468,144
Federal Government	\$69,521	\$71,651	\$74,175	\$74,212	\$75,313	\$81,110	\$445,982
Information	\$66,535	\$64,504	\$65,774	\$70,031	\$78,565	\$85,102	\$430,511
Manufacturing	\$60,001	\$62,382	\$64,153	\$66,103	\$68,106	\$70,482	\$391,227
Mining	\$58,975	\$57,649	\$56,263	\$71,238	\$59,175	\$62,743	\$366,043
Construction	\$56,718	\$59,110	\$59,797	\$62,516	\$64,923	\$67,344	\$370,408

⁽³⁾ https://www.brookings.edu/wp-content/uploads/1973/01/1973a_bpea_okun_fellner_greenSPAN.pdf, pg. 208-209

To evaluate if these industries experienced the largest relative increases in employment over this period, we again use the BLS Quarterly Census of Employment and Wages (QCEW) Employment and Wage data by industry for Delaware, from 2016 to 2021. The table below shows the annual change in average monthly employment for Delaware industries covered under unemployment insurance law. The top ten Industries from the table on the previous page are bolded, and those industries with the largest percentage increases in employment from the prior year are highlighted in yellow. The right-most column identifies the four-year average change in employment, smoothing any one-year impacts, such as Coronavirus impacts on employment in 2020.

Delaware Average Annual Monthly Employment

Industry	2017	2018	% Prior Yr Change	2019	% Prior Yr Change	2020	% Prior Yr Change	2021	% Prior Yr Change	2016-2021 Average
Mgmt. of Companies & Enterprises	8,299	7,646	-7.9%	7,942	3.9%	8,433	6.2%	8,380	-0.6%	0.4%
Utilities	2,194	2,122	-3.3%	2,074	-2.3%	2,061	-0.6%	2,060	0.0%	-1.6%
Professional & Technical Services	25,749	26,914	4.5%	26,309	-2.2%	25,354	-3.6%	25,795	1.7%	0.1%
Finance & Insurance	42,421	42,170	-0.6%	42,428	0.6%	41,868	-1.3%	41,740	-0.3%	-0.4%
Wholesale Trade	10,851	10,740	-1.0%	10,995	2.4%	10,833	-1.5%	11,237	3.7%	0.9%
Federal Government	5,736	5,670	-1.2%	5,727	1.0%	6,018	5.1%	5,868	-2.5%	0.6%
Information	4,570	4,066	-11.0%	3,905	-4.0%	3,635	-6.9%	3,575	-1.7%	-5.9%
Manufacturing	25,956	27,077	4.3%	27,302	0.8%	25,555	-6.4%	24,938	-2.4%	-0.9%
Mining	47	66	40.4%	61	-7.6%	70	14.8%	70	0.0%	11.9%
Construction	21,766	22,192	2.0%	22,898	3.2%	22,401	-2.2%	23,206	3.6%	1.6%
Total Government	62,641	62,743	0.2%	63,604	1.4%	62,471	-1.8%	66,151	5.9%	1.4%
State Government	29,937	29,903	-0.1%	30,194	1.0%	29,392	-2.7%	32,704	11.3%	2.4%
Health Care & Social Assistance	69,014	70,742	2.5%	71,997	1.8%	70,084	-2.7%	69,248	-1.2%	0.1%
Local Government	26,969	27,170	0.7%	27,683	1.9%	27,061	-2.2%	27,580	1.9%	0.6%
Real Estate & Rental & Leasing	5,460	5,411	-0.9%	5,593	3.4%	5,510	-1.5%	5,731	4.0%	1.2%
Educational Services	4,824	4,894	1.5%	4,846	-1.0%	4,372	-9.8%	4,358	-0.3%	-2.4%
Transportation & Warehousing	9,809	13,255	35.1%	14,612	10.2%	15,602	6.8%	17,378	11.4%	15.9%
Agriculture, Forestry, Fishing & Hunting	1,475	1,469	-0.4%	1,408	-4.2%	1,259	-10.6%	1,127	-10.5%	-6.4%
Administration and Waste Services	27,818	28,950	4.1%	29,542	2.0%	28,118	-4.8%	29,056	3.3%	1.2%
Other Services, Except Public Administration	11,858	11,950	0.8%	12,121	1.4%	10,749	-11.3%	11,422	6.3%	-0.7%
Retail Trade	56,779	53,168	-6.4%	51,871	-2.4%	47,842	-7.8%	49,856	4.2%	-3.1%
Arts, Entertainment, & Recreation	10,050	9,150	-9.0%	9,889	8.1%	7,511	-24.0%	7,881	4.9%	-5.0%
Accommodation & Food Services	40,012	42,608	6.5%	43,137	1.2%	33,782	-21.7%	37,609	11.3%	-0.7%
Total Industries	441,592	447,332	1.3%	452,533	1.2%	427,510	-5.5%	440,818	3.1%	0.0%

Identifies the top 5 largest annual percentage changes in employment.

As the table shows, among the ten highest wage-earning industries (in bold), *Management*, *Mining*, and *Information* were also among the industries with the greatest employment growth in 2018 and 2019. In 2020, the *Mining* industry maintained its year-over-year growth while most industries saw decreases in employment in response to the Coronavirus pandemic. However, this is a small industry and only increased by 9 workers. As jobs recovered in 2021, lower-wage earners in industries such as *Accommodation & Food Services* and *Transportation & Warehousing* had the largest percentage increases. Over the four-year period, only one of the ten highest wage-earning industries, *Mining*, also had the greatest employment growth rate, but in absolute terms only increased by 23 workers over the four-year period. The *Mining* sector has the least number of total employees among all industries.

In conclusion, Delaware's labor market data from the period between 2016 to 2021 did not meet Okun's second employment indicator of a high-pressure economy, where industries with the highest wage earners see the largest relative increases in employment.

Wage Gap Between High & Low Skilled Workers Decreases

The third employment characteristic of Okun's high-pressure economy proposes that "skill differentials and industrial wage differentials tend to narrow, not widen, in a high-pressure economy."⁽⁴⁾ In other words, the gap between lower and higher-skilled worker wages becomes smaller in a high-pressure economy. To gauge this narrowing of the wage gap between skilled workers in Delaware, we use BLS' Occupational Employment and Wage Statistics (OEWS) average hourly wage data for over 500 Delaware occupations, from 2016 through 2021. We have identified the ten lowest and ten highest wage-earning occupations. This comparison assumes worker skill levels coincide with wage levels and use only occupations where each year of data is available over this period.

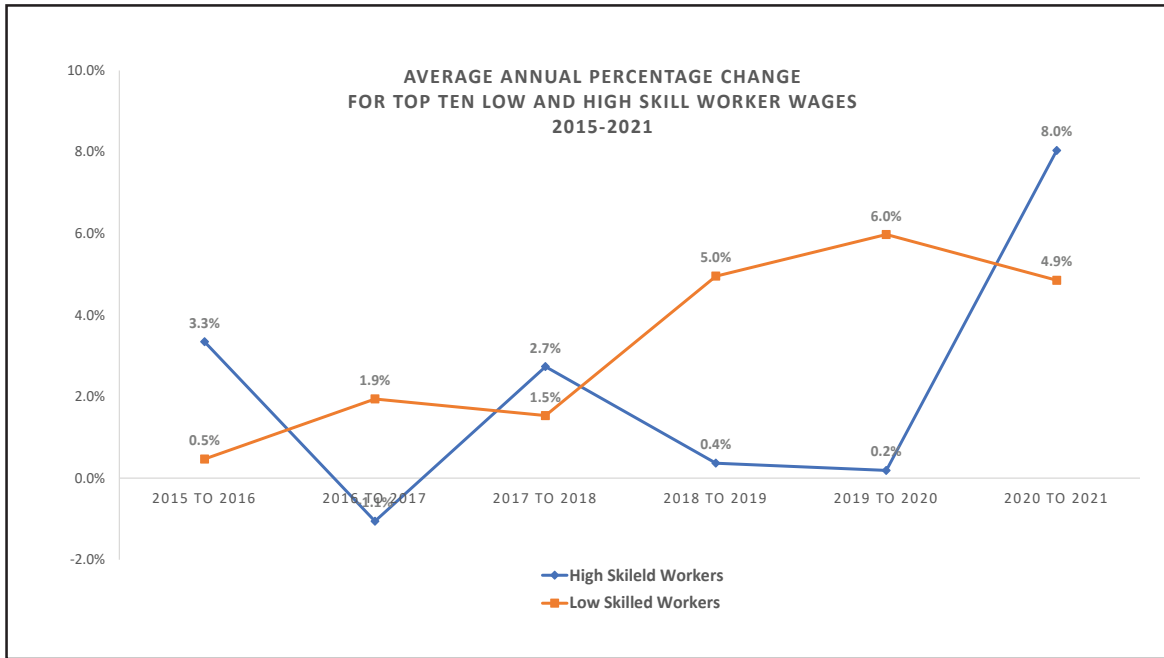
⁽⁴⁾ https://www.brookings.edu/wp-content/uploads/1973/01/1973a_bpea_okun_fellner_greenSPAN.pdf, pg. 209

Hourly Wage Comparison for the Top Ten Highest and Lowest Skilled Workers, 2016 to 2021

Occupations	Hourly Wages 2016	Hourly Wages 2017	Hourly Wages 2018	Hourly Wages 2019	% Change from Prior Year	Hourly Wages 2020	% Change from Prior Year	Hourly Wages 2021	% Change from Prior Year	Avg. % Change, 2015-2021
Low Skilled Workers										
Shampooers	\$9.45	\$9.66	\$9.40	\$9.85	4.8%	\$10.54	7.0%	\$11.60	10.1%	4.5%
Dining Room & Cafeteria Attendants & Bartender	9.04	9.29	9.32	9.87	5.9%	10.73	8.7%	12.40	15.6%	3.5%
Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	9.30	9.41	9.54	10.00	4.8%	10.62	6.2%	11.70	10.2%	2.5%
Ushers, Lobby Attendants, and Ticket Takers	9.39	9.73	10.17	11.28	10.9%	12.08	7.1%	11.99	-0.7%	3.6%
Dishwashers	9.70	9.76	10.27	10.87	5.8%	11.40	4.9%	11.91	4.5%	2.7%
Amusement and Recreation Attendants	10.57	10.11	10.16	10.67	5.0%	11.35	6.4%	11.85	4.4%	1.9%
Childcare Workers	10.54	11.01	10.72	11.27	5.1%	11.27	0.0%	11.86	5.2%	1.3%
Cooks, Fast Food	9.33	10.02	10.31	10.55	2.3%	11.42	8.2%	11.88	4.0%	4.1%
Maids and Housekeeping Cleaners	11.22	11.23	11.51	11.76	2.2%	12.14	3.2%	13.32	9.7%	2.3%
Automotive and Watercraft Service Attendants	11.26	11.42	11.80	12.11	2.6%	13.08	8.0%	14.49	10.8%	0.1%
High Skilled Workers										
Judges, Magistrate Judges, and Magistrates	\$65.56	\$67.18	\$67.64	\$69.07	2.1%	\$59.25	-14.2%	\$67.98	14.7%	0.9%
Computer and Information Systems Managers	77.58	77.24	81.60	79.79	-2.2%	82.27	3.1%	80.28	-2.4%	0.9%
Training and Development Managers	57.08	55.48	66.07	70.01	6.0%	67.84	-3.1%	69.11	1.9%	2.9%
Architectural and Engineering Managers	70.86	71.95	75.72	75.26	-0.6%	76.23	1.3%	77.58	1.8%	1.9%
General and Operations Managers	71.69	71.69	72.57	72.72	0.2%	74.93	3.0%	71.60	-4.4%	0.6%
Financial Managers	80.65	79.47	80.34	81.30	1.2%	84.92	4.5%	91.84	8.1%	3.1%
Public Relations and Fundraising Managers	71.05	65.64	65.83	62.92	-4.4%	66.45	5.6%	66.45	0.0%	-0.5%
Marketing Managers	83.58	81.55	78.41	78.06	-0.4%	79.30	1.6%	82.41	3.9%	1.5%
Sales Managers	85.79	88.62	84.10	85.36	1.5%	79.89	-6.4%	89.48	12.0%	1.4%
Obstetricians and Gynecologists	129.36	125.30	129.10	129.60	0.4%	138.06	6.5%	169.56	22.8%	6.4%

The above chart shows each of the top ten lowest skilled worker occupations had increases in average wage growth from 2015 to 2021. Nine of the top ten highest skilled worker occupations had wage growth over the same period.

The chart on the next page shows the average annual growth in wages for both groups. An average of the growth rates of low-skilled workers showed its highest percentage wage increase of 6.0% from 2019 to 2020. The greatest increase in average annual wages for high-skilled wage-earners was 8.0%, from 2020 to 2021.

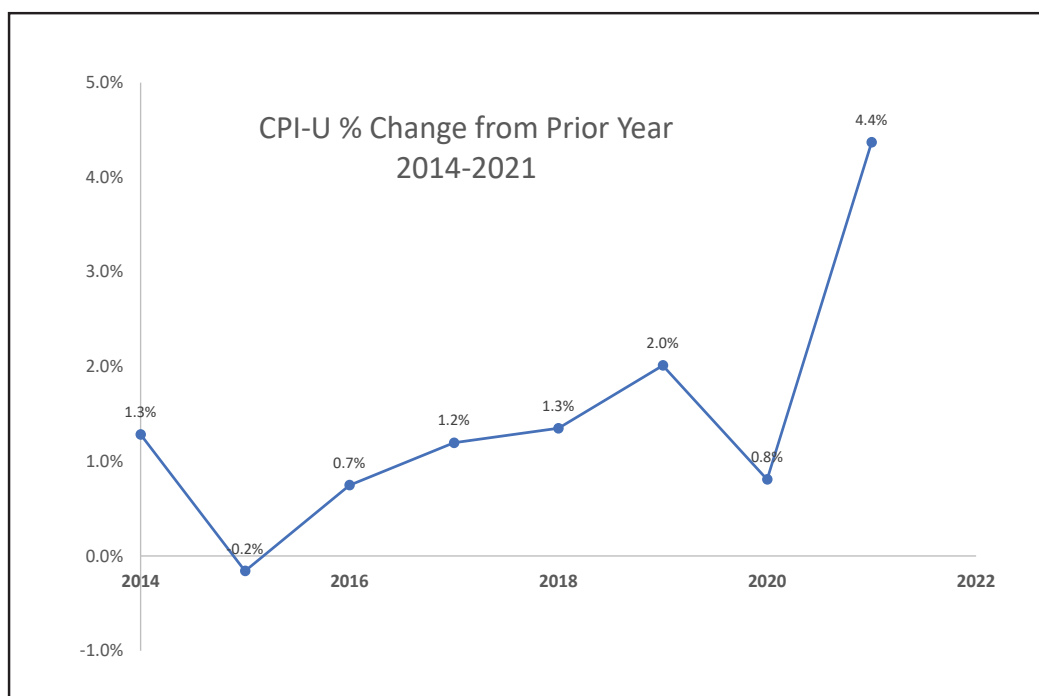


The annual change in wages for the twenty lowest and highest hourly wage occupations sampled between 2015 to 2020 supported Okun’s third employment indicator of a high-pressure economy, where wage gaps between lower-skilled and higher-skilled workers narrow, however, the trend reversed in from 2020 to 2021.

Consumer Price Index -Urban (CPI-U)

The final indicator in Arthur Okun’s identification of an economy under high pressure is the comparison of the state’s consumer price index to the three labor market conditions examined previously. Okun’s research was not definitive that changes in the labor market create a cause-and-effect relationship to the rise in consumer prices, but this analysis examines changes in the consumer price index against those in the labor market conditions in order to identify if a high-pressure economy may exist.

Delaware is included in the BLS’ Philadelphia-Camden-Wilmington area CPI-U data. The chart on the next page shows the annual percentage change for the regional CPI-U for the period from 2015 to 2021 in 1984 dollars. Regional CPI growth ranged from -0.2% growth in 2015 to 4.4% in 2021.

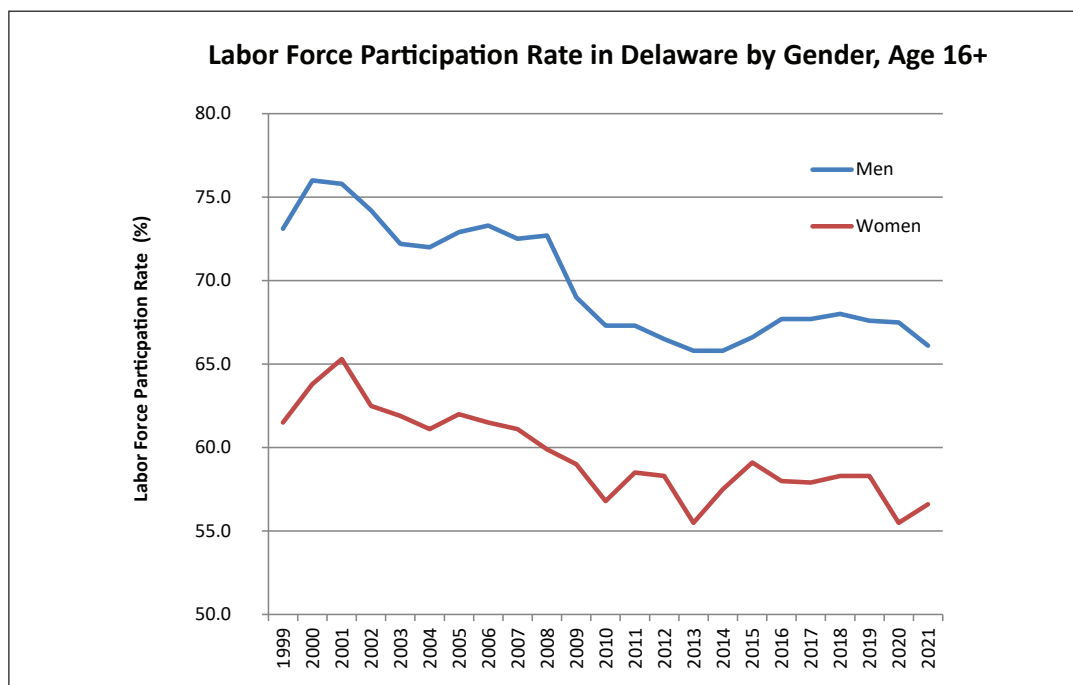
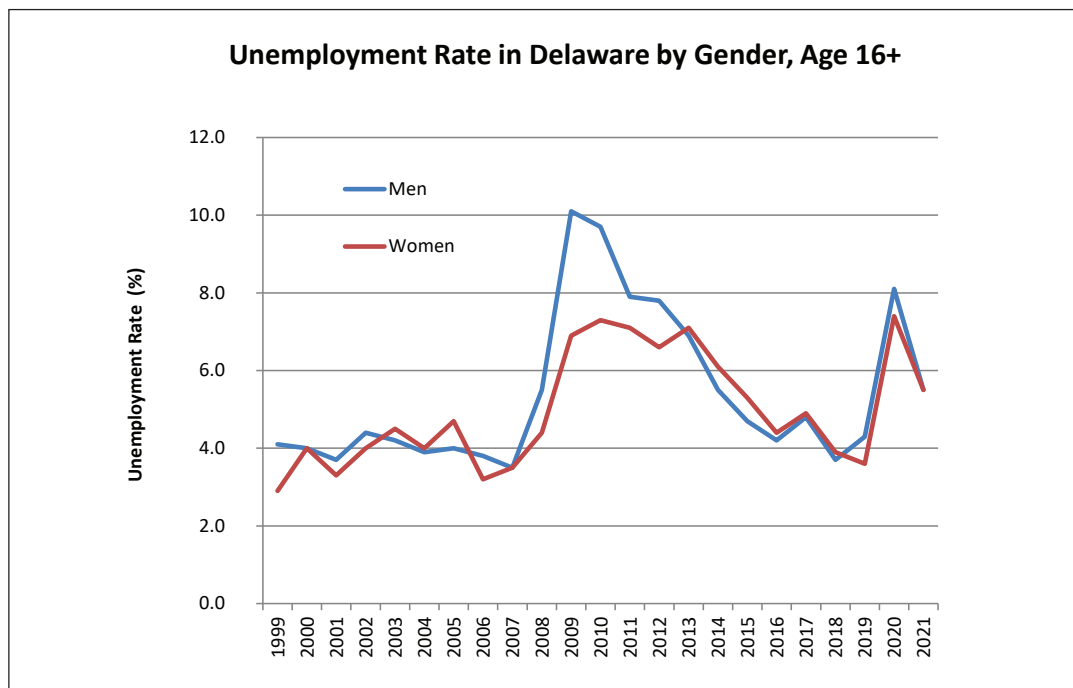


Conclusion

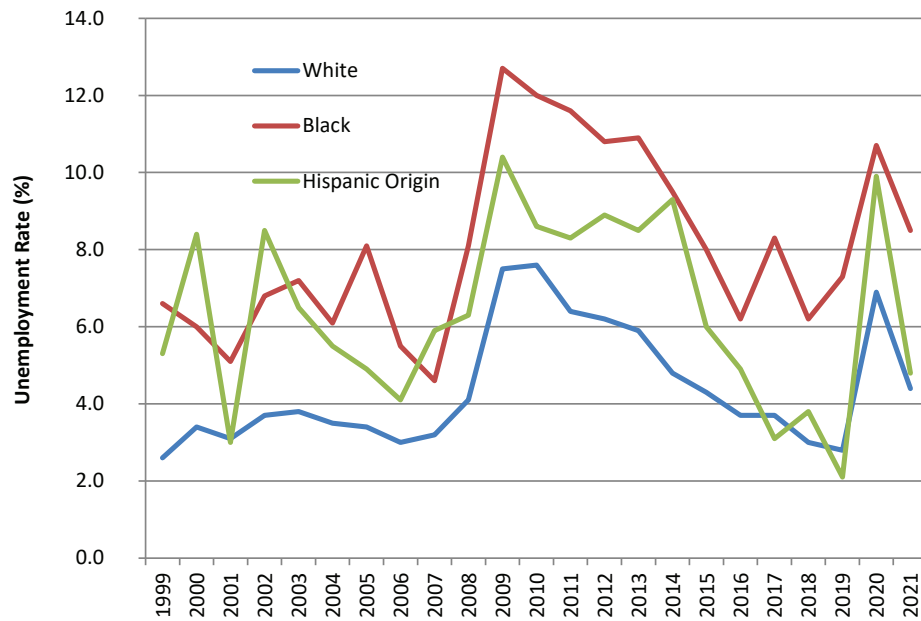
Based on examination of the above BLS sample data for Delaware, the State's economy does not appear to be in a high-pressure environment as described by Arthur Okun. The first labor trend, employment for women and other secondary groups relative to total employment, remained consistent over the examination period and did not show an increase. Okun's second labor market indicator, employment growth in high-wage industries, was also not substantiated in our look at the top highest wage paying industries over the four-year period, where only *Mining* showed leading employment growth. Okun's third market indicator, the shrinking in the wage gap between high and low was, however, evident in our review of the top ten highest and lowest skilled worker wages from 2015 to 2020, but reversed course in 2021 where high skilled worker incomes increased above lower-skilled workers. Finally, Delaware's regional CPI growth, in comparison to the labor market conditions, remained within 2% growth from 2014 to 2020 but turned sharply higher in 2021. Though data does not support a high-pressure economy in Delaware from 2010 to 2020, the shift towards higher minority employment, higher wage income growth for both lower and higher skilled workers, and much higher CPI-U in 2021 may be signs of an economic turn towards it.

Current Population Survey Demographic Data

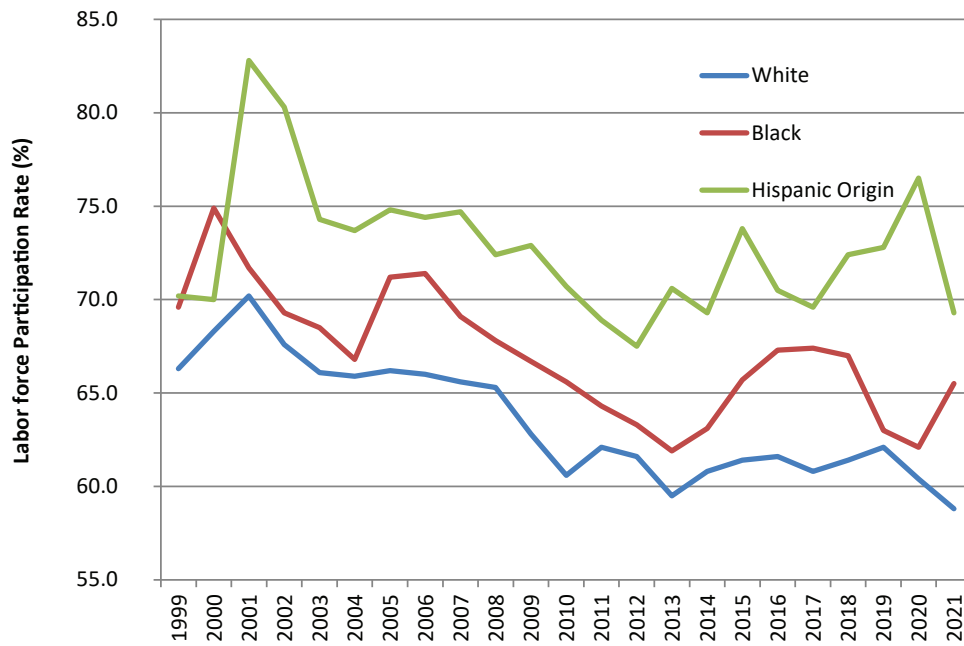
The Current Population Survey (CPS), a monthly survey of approximately 60,000 households across the U.S., is the source of the national unemployment rate and a great deal more economic data. In Delaware, about 750 households are in the survey each month. This is too few to generate the state's unemployment rate directly, so the CPS is used as the key component in an econometric model, as in all states. More detailed data, such as the demographic labor force graphs shown below, come directly from the survey. By using annual averages, some of the statistical variation in the data, which would be more evident monthly, is smoothed away.



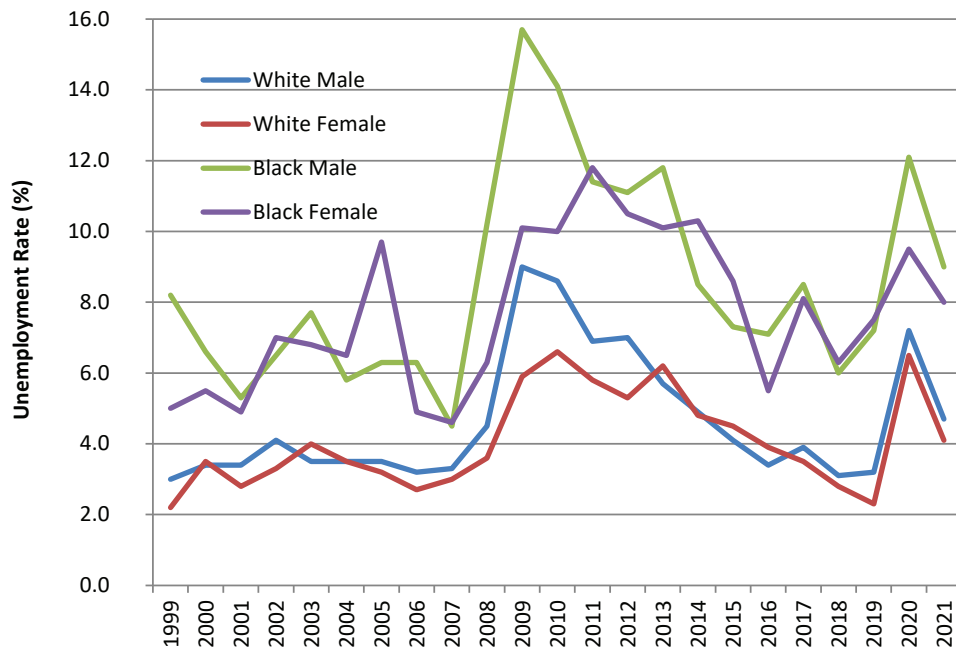
Unemployment Rate in Delaware by Race and Ethnicity, Age 16+



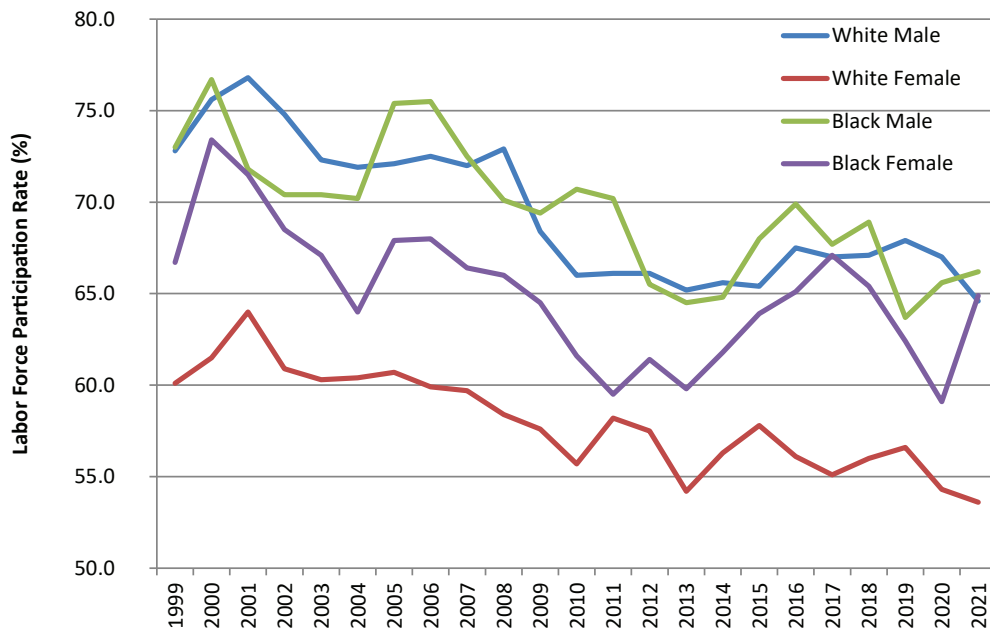
Labor Force Participation Rate in Delaware by Race and Ethnicity, Age 16+



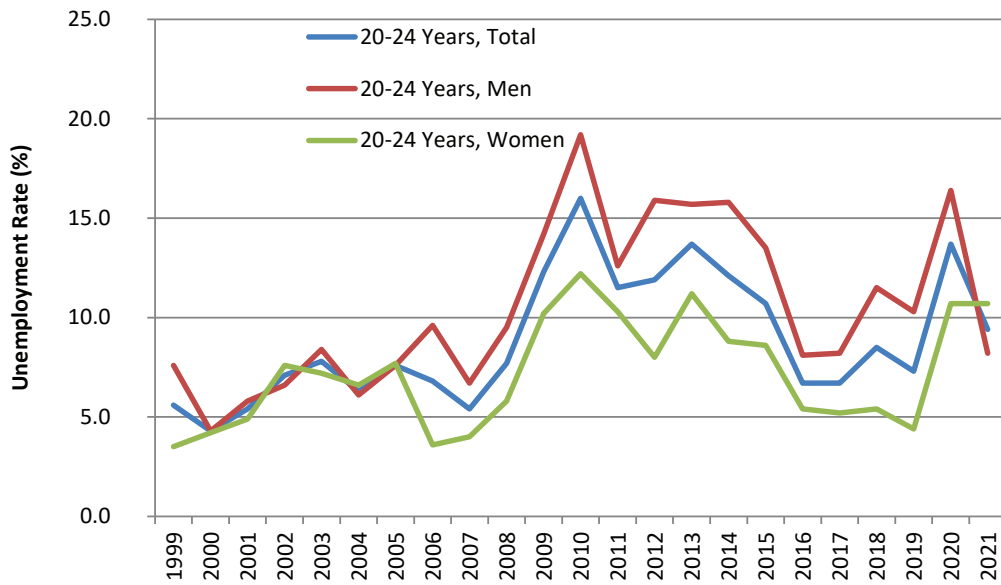
Unemployment Rate in Delaware by Race and Gender, Age 16+



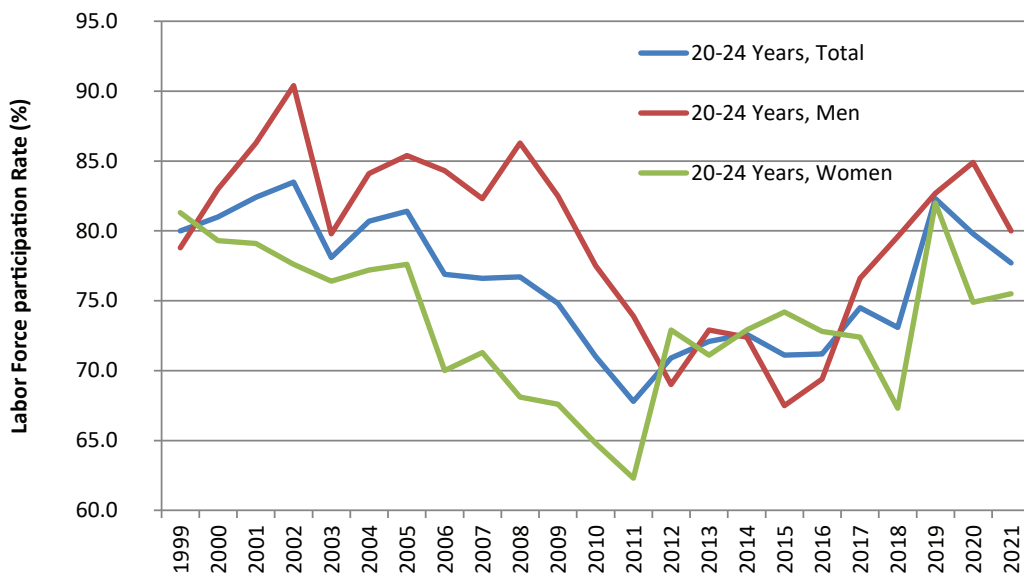
Labor Force Participation Rate in Delaware by Race and Gender, Age 16+



Unemployment Rate in Delaware, 20-24 Years Old



Labor Force Participation Rate in Delaware, 20-24 Years Old





U.S. DEPARTMENT OF LABOR
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2021

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