COVID-19 Confirmed Cases by Industry Sector

Washington State Department of Health and Washington State Department of Labor and Industries

November 24, 2021



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The following report was a collaboration between the Department of Health and Labor and Industries, Safety & Health Assessment & Research for Prevention Program, and contains data on the industry sector that lab-confirmed cases of COVID-19 are employed among Washington residents reported through 11:59pm on 2021-07-20. As of this date, there were 463162 lab-confirmed cases, and 139274 had employment information coded to standard industry codes. This was done using a free web-based coding tool called NIOCCS (NIOSH Industry and Occupation Computerized Coding System (https://wwwn.cdc.gov/nioccs3/). If multiple jobs were listed for a case the first listed job was coded.

Occupation, industry and employer are captured during case interviews to determine possible exposure and transmission period. While some occupations place employees at a higher risk of being exposed to COVID-19, these data are not meant to imply that occupation was the exposure source for all of these cases.

Availability of Employment Data among COVID-19 Cases by Age Group

Employment data were available for 38% of the WA cases between the ages of 18-64 years old. In 2019, an estimated 73% of the population between the ages of 18-64 were employed. The difference between 73% employment and 38% employment data availability among cases 18-64 years old, suggests that either employment information is missing or cases occur among those who are not employed. We do not have a way to determine the relative contribution of these factors.

AgeGroup	No Employment Data Count			Employment Data Percent
0-4	12,259	100%	0	0%
5-17	51,072	97%	1,661	3%
18-44	144,639	61%	91,088	39%
45-64	71,048	63%	42,370	37%
65-79	30,243	88%	3,992	12%
80+	13,002	99%	116	1%

AgeGroup	No Employment Data Count	No Employment Data Percent	Employment Data Count	Employment Data Percent
Unknown	325	87%	47	13%
Total	322588		139274	

The remaining tables include the industry sector data among the 139239 cases with employment data. 35 cases of COVID-19 reported among military personnel were excluded to align with estimates of employment by industry sector, available for the non-institutionalized civilian population.

The missing data on industry sector for 38% of cases is a major limitation of this analysis. There may be biases around which cases have complete employment data.

Industry Sector among COVID-19 Cases with Employment Information

This table excludes 7644 cases that had employment data that wasn't detailed enough to assign an industry. Out of the 463,162 lab-confirmed cases represented in this report, 28% had industry sector data available. This includes 126,257 or 36% of those cases 18-64 years old. Nineteen percent of cases with employment data were employed in the health care and social assistance sector, which makes it the industry sector with the highest percentage of cases. This compares to 13% of the Washington employed population being employed in this sector. This sector, along with construction, public administration, and agriculture, forestry, fishing and hunting, were the sectors which were overrepresented among cases compared to the Washington employed population. Information on industry classification can be found at https://www.census.gov/eos/www/naics/.

Industry Sector	Count	Percent	Percent WA employed population
Health Care and Social Assistance	24,908	19%	13%
Retail Trade	15,387	12%	12%
Manufacturing	11,514	9%	9%
Construction	11,239	9%	6%
Accommodation and Food Services	10,029	8%	9%
Public Administration	8,992	7%	4%
Agriculture, Forestry, Fishing and Hunting	6,893	5%	3%
Educational Services	6,606	5%	9%

Industry Sector	Count	Percent	Percent WA employed population
Transportation and Warehousing	6,203	5%	4%
Administrative and Support and Waste Management and Remediation Services	5,676	4%	5%
Other Services (except Public Administration)	4,756	4%	3%
Professional, Scientific, and Technical Services	4,613	4%	6%
Wholesale Trade	4,207	3%	4%
Finance and Insurance	3,060	2%	3%
Real Estate and Rental and Leasing	2,336	2%	2%
Information	2,032	2%	4%
Arts, Entertainment, and Recreation	1,879	1%	2%
Utilities	736	1%	1%
NIOSH-Specific Retired, Unpaid	303	<1%	
Management of Companies and Enterprises	129	<1%	2%
Mining, Quarrying, and Oil and Gas Extraction	97	<1%	<1%
Total	131595		

Industry Sector by Race/Ethnicity

This table excludes 7644 cases that had employment data that wasn't detailed enough to assign an industry. Race and ethnicity information was missing for 9% of cases with employment data available; these cases are displayed in the 'unknown race' column. The table below shows the percent of cases by industry sector and race and ethnicity, compared to percent that were employed in these sectors in 2019.

Out of the nine most commonly listed industries, the highest percent of cases were in the health care and social assistance sector for all race groups, and was higher than the employed population working in this sector. For Hispanics, cases were highest among the agriculture, forestry, fishing and hunting sector. For Non-Hispanic Native Hawaiian and Pacific Islanders, in

addition to the health care and social assistance sector, cases were also higher in the manufacturing and retail trade sectors.

Race / Ethnicity	Hisp	anic		ispanic nite	Non-Hispanic Asian		Non-Hispanic Bla	
Industry Sector	Cases	Рор	Cases	Рор	Cases	Рор	Cases	Рор
Health Care and Social Assistance	14%	12%	19%	13%	22%	14%	35%	21%
Manufacturing	10%	9%	8%	9%	13%	11%	5%	7%
Retail Trade	10%	11%	12%	11%	15%	13%	11%	10%
Agriculture, Forestry, Fishing and Hunting	16%	12%	1%	2%	<1%	2%	<1%	3%
Accommodation and Food Services	10%	12%	6%	8%	8%	10%	5%	10%
Construction	12%	7%	8%	7%	2%	2%	2%	4%
Transportation and Warehousing	3%	3%	5%	4%	7%	3%	10%	7%
Public Administration	4%	3%	8%	5%	3%	2%	11%	4%
Administrative and Support and Waste Management and Remediation Services	6%	6%	3%	5%	2%	5%	6%	10%
All Other	16%	24%	29%	38%	26%	39%	15%	26%
Total	37081		59568		8071		6754	

Industry Sector by Race/Ethnicity Continued

Race / Ethnicity	Non-Hispanic Native Hawaiian and Pacific Islander		Non-Hispanic American Indian or Alaska Native		Non-Hispanic Other Race		Unknown Race	
Industry Sector	Cases	Pop	Cases	Pop	Cases	Pop	Cases	Pop
Health Care and Social Assistance	19%	13%	15%	11%	20%	13%	23%	NA

Race / Ethnicity	Non-H Native H and Pacifi	ławaiian	American	ispanic Indian or Native		anic Other ace	Unknown Race	
Industry Sector	Cases	Pop	Cases	Pop	Cases	Рор	Cases	Рор
Manufacturing	14%	11%	5%	6%	8%	7%	9%	NA
Retail Trade	14%	12%	12%	10%	14%	14%	11%	NA
Agriculture, Forestry, Fishing and Hunting	1%	2%	3%	3%	3%	1%	2%	NA
Accommodation and Food Services	6%	9%	8%	8%	8%	12%	8%	NA
Construction	5%	5%	5%	7%	6%	5%	10%	NA
Transportation and Warehousing	13%	10%	4%	3%	6%	4%	4%	NA
Public Administration	6%	3%	20%	19%	8%	5%	7%	NA
Administrative and Support and Waste Management and Remediation Services	4%	9%	3%	5%	4%	6%	5%	NA
All Other	18%	25%	23%	28%	23%	34%	22%	NA
Total	2127		1194		5324		11476	