

NORTH DAKOTA LABOR DEMAND SURVEY REPORT

REFERENCE PERIOD: **QUARTER 2 2019** (April-June)

PUBLISHED: **OCTOBER 2019**

The number of job openings in the state is an indication of current demand for labor in the economy. Until now, the only job openings measure produced by the Labor Market Information Center was the Online Job Openings Report (OJOR). The OJOR is strictly a measure of online job openings. The Labor Demand Survey (LDS) was developed to provide a more comprehensive measure of total job openings across North Dakota, including those not posted online.

Using the unemployment insurance database, which covers roughly 90 percent of all employers in North Dakota, the Labor Market Information Center mailed more than 30,000 surveys to employers across the state in April 2019. The survey asked employers to report the number and type of job openings in addition to other job opening characteristics. Employers were also asked how they typically advertise job openings. The reference period for the survey was second quarter (April-June) 2019. This is point-in-time data, not cumulative. Employers were asked to report their current job openings data at the time they received the survey, not cumulative over the three months of the quarter. LDS results include private sector, state government, and local government establishments. Federal government establishments were excluded from LDS results due to difficulties in collecting accurate data. After excluding out-of-business employers and federal government, there were 29,202 in-scope establishments. Of those, data was collected from 16,592 (56.8 percent). Select data was imputed for the remaining establishments.

This report highlights key findings and observations from the inaugural LDS. Quarterly results include an estimate of job openings for various geographic areas at industrial and occupational levels. Job opening characteristics, such as required education and experience, are also detailed.

LABOR DEMAND SURVEY RESULTS VERSUS ONLINE JOB OPENINGS

The Labor Demand Survey (LDS) was developed to provide a more comprehensive measure of total job openings across North Dakota, including those not posted online. Employers were selected from the unemployment insurance database, which covers roughly 90 percent of all employers in North Dakota. Notable exclusions include the self-employed, religious institutions, railroads, and most farm operations. The survey asked employers to report their current job openings data. Federal government establishments were excluded from the LDS. As surveys were returned, a labor market analyst reviewed and coded the data. Select data was imputed for nonrespondents.

The Labor Market Information Center has been publishing the Online Job Openings Report (OJOR) since 2011. The OJOR is a monthly summary of online job openings and active résumés. Online job openings can be either internal or external. An internal job opening is submitted either by local office staff or authorized local employers. An external job opening is 'spidered' from outside online job websites, including corporate, educational institution, newspaper, government, private job board, and recruiter websites. External openings are limited to companies with 25 employees or more; smaller employers are excluded. OJOR coverage is limited to jobs posted online. Job vacancies advertised strictly through word of mouth, radio, television, local print-only newspapers, outdoor signage, or any other non-online means are not included. Online job openings are coded by employers or 'spiders' and accuracy is dependent on the detail available in the online job ad. A labor market analyst reviews and eliminates duplicates. Additionally, unclassified job openings are reviewed and assigned an occupation group category.

The LDS and OJOR provide different, valuable perspectives of labor market demand. The LDS was conducted at a single point-in-time (April-June 2019) and is meant to provide a more comprehensive assessment of labor market demand. The OJOR is updated monthly and meant to track broad overall trends in online job openings and active résumés. LDS data was coded by labor market analysts, while OJOR data are coded by employers, candidates, or 'spiders,' with minimal recoding by labor market analysts.

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KEY FINDINGS

- According to LDS results, North Dakota had an estimated 29,249 job openings during second quarter 2019. When OJOR results for the same time period were adjusted to match the LDS methodology, North Dakota had an estimated 21,230 online job openings. This indicates that the online-only job openings count of the OJOR is likely capturing 73 percent of total job openings when compared to LDS results.
- North Dakota's job openings rate for Q2 2019 was 6.5 percent. In other words, of the more than 440,000 jobs (both filled and unfilled) in North Dakota's economy, 1 in 15 jobs was open and available.
- North Dakota's rate of unemployed per job opening was 0.34 in Q2 2019. There were roughly 3 job openings for every 1 unemployed person.
- The 5 counties reporting the largest number of job openings accounted for 66 percent of the statewide total: Cass (8,783), Burleigh (3,554), Williams (2,481), Grand Forks (2,317), and Ward (2,175). These also happen to be the 5 most populous counties in the state.
- Nearly 1 in 3 job openings were in Cass County, where Fargo, the state's largest city, is located.
- Job openings rates tend to be higher in the western half of the state, particularly in oil and gas counties.
- Only 9 of 53 counties, all rural, had an excess of available labor supply (i.e. unemployed) when compared to open jobs. The remaining counties report more job openings than available labor supply.
- The top 3 industry categories reporting the most job openings accounted for 40.7 percent of the statewide total: Accommodation and Food Services (4,294), Health Care and Social Assistance (4,159), and Retail Trade (3,446).
- The top 3 occupation groups reporting the most job openings accounted for 37.2 percent of the statewide total: Food Preparation and Serving Related (3,841), Construction and Extraction (3,522), and Transportation and Material Moving (3,519).
- Employers reported job openings for 615 distinct occupations. The top 3 occupations in need of workers were Heavy and Tractor-Trailer Truck Drivers (1,865), Retail Salespersons (1,001), and Registered Nurses (913). These 3 occupations accounted for 12.9 percent of the statewide total.
- The top 10 occupations with the most job openings account for 29.9 percent of the statewide total. Seven of the top 10 occupations generally pay below-average wages.
- Of the 16,592 establishments for which we collected data, 72.6 percent reported zero job openings. The average number of job openings per establishment was 5 for those reporting at least 1 job opening.
- The private sector accounted for 91.2 percent of statewide job openings. State government accounted for 1.4 percent, and local government accounted for 7.4 percent.
- Of the reported job openings, roughly 7 in 10 job openings were full-time and 8 in 10 were permanent.

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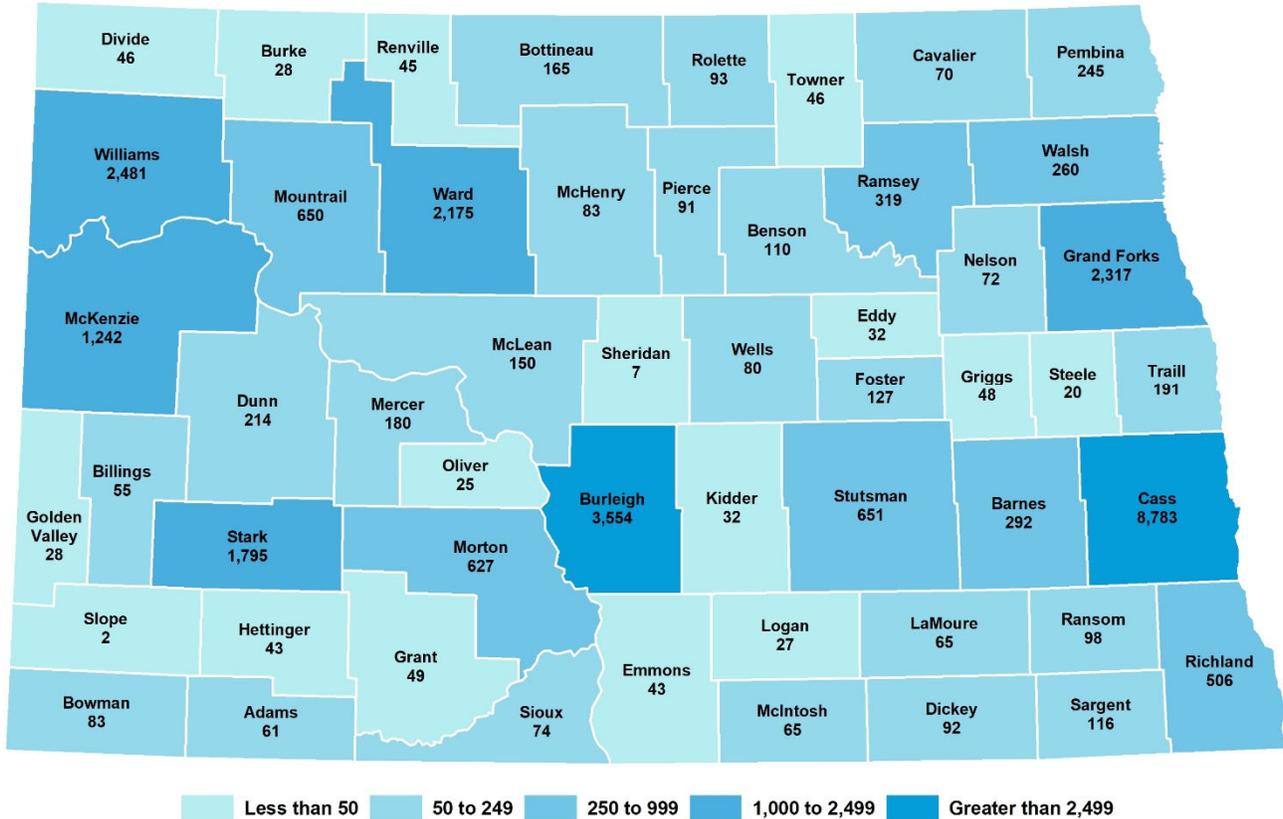
KEY FINDINGS [continued]

- Employers reported that 76.1 percent of job openings didn't require postsecondary education, while 54.1 percent didn't require any previous work experience.
- Employers reported that 56.2 percent of job openings were open for longer than 30 days.
- Replacement needs accounted for 58.5 percent of reported job openings. Replacement needs included replacing employees who quit, were terminated, or retired. Employers reported that 34.2 percent of vacancies were open due to needs generated by more business.

RESULTS BY GEOGRAPHY

Generally, the most populous counties reported the largest number of job openings. The five most populous counties (Cass, Burleigh, Grand Forks, Ward, Williams) accounted for 59.2 percent of the state's population (based on 2018 estimates) and 66 percent of job openings. Nearly 1 in 3 job openings were in Cass County, where Fargo, the state's largest city, is located. Seven of 53 counties reported more than 1,000 job openings.

JOB OPENINGS BY COUNTY



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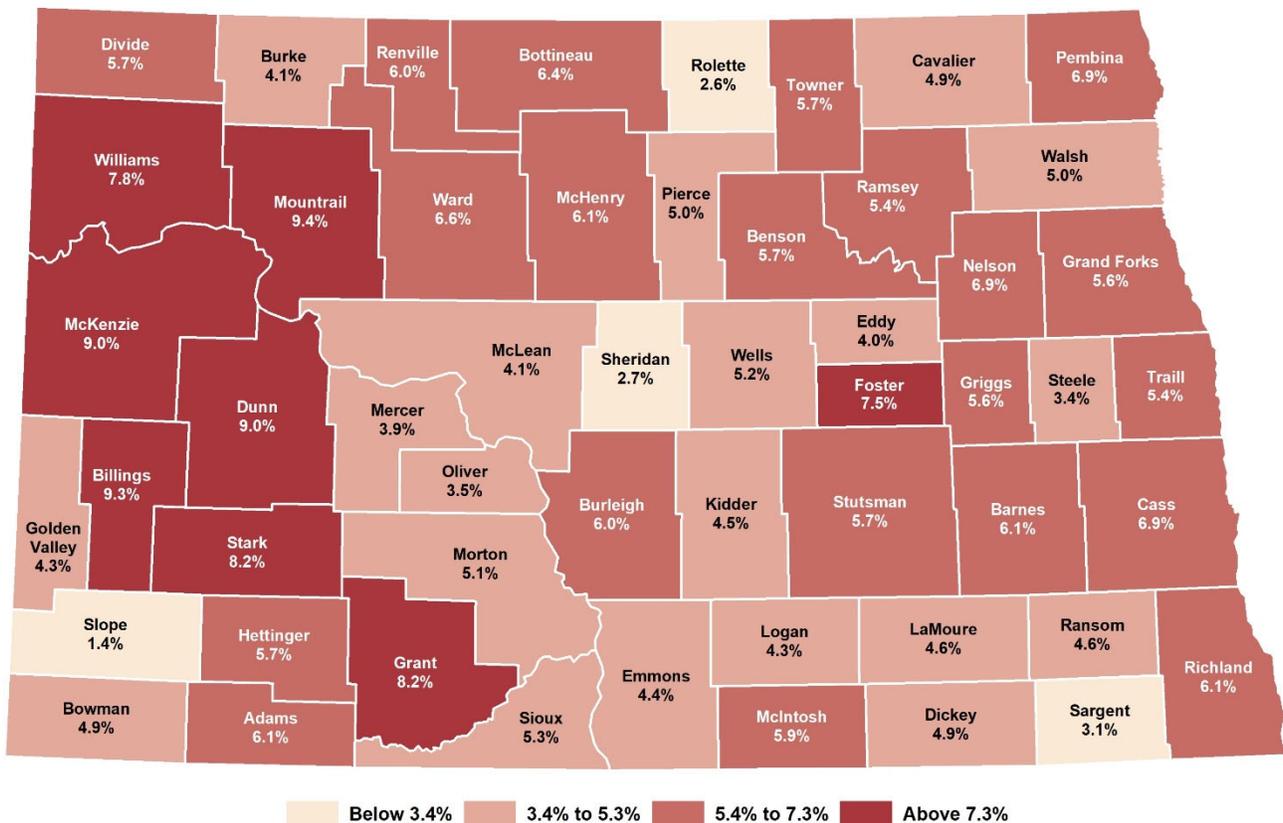
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RESULTS BY GEOGRAPHY [continued]

North Dakota's job openings rate for Q2 2019 was 6.5 percent. In other words, of the more than 440,000 jobs (both filled and unfilled) in North Dakota's economy, 1 in 15 jobs was open and available. Job openings rates were typically higher in the western half of the state, particularly in oil and gas counties. Counties like Mountrail, Billings, McKenzie, and Dunn reported the highest job openings rates in the state, all of which were 9 percent or higher. Even Stark (8.2 percent) and Williams (7.8 percent) reported results considerably higher than the statewide rate. In total, 12 of 53 counties reported a job openings rate higher than the statewide rate of 6.5 percent. The job openings rate is the percentage of all jobs (both filled and unfilled) in the economy open and available. A higher rate is an indication of increased labor demand.

JOB OPENINGS RATE BY COUNTY



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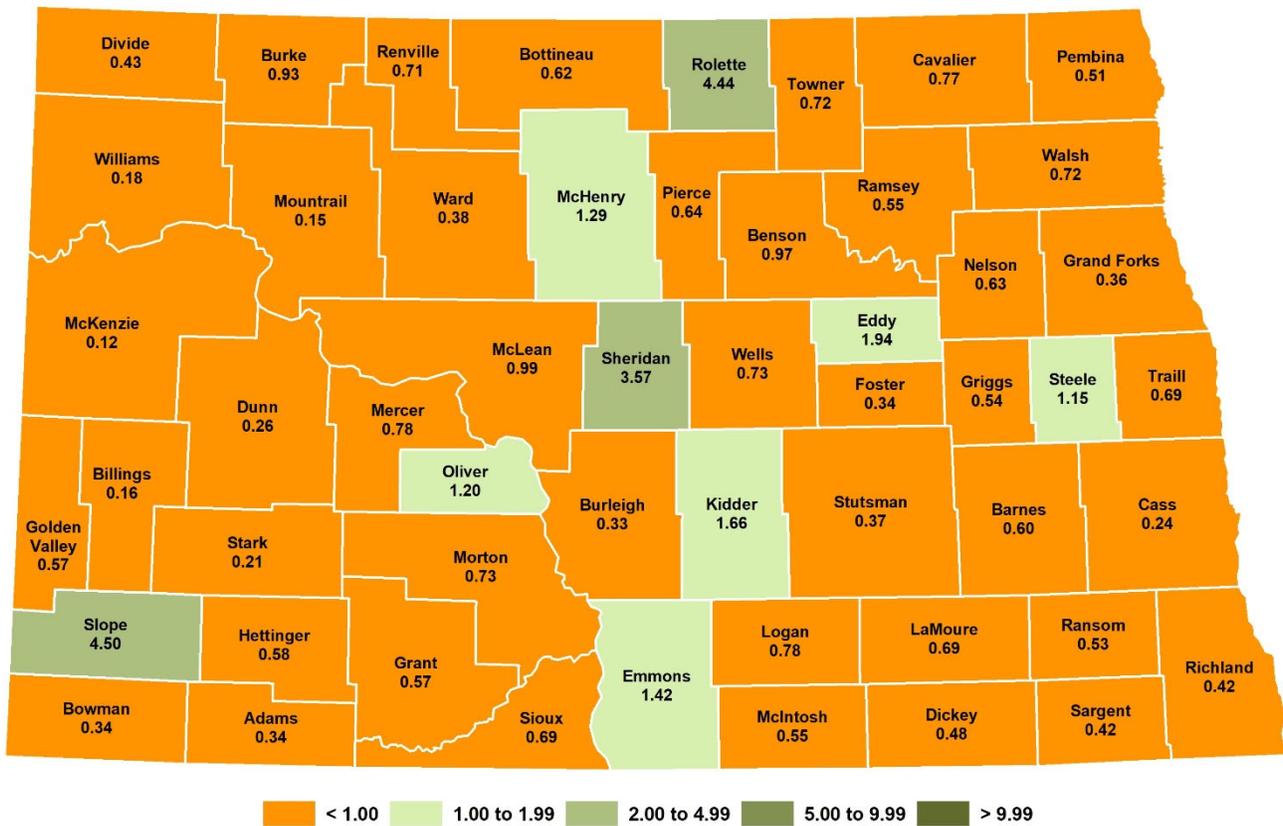
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RESULTS BY GEOGRAPHY [continued]

North Dakota's rate of unemployed per job opening was 0.34 in Q2 2019. This means there were roughly 3 job openings for every 1 unemployed person. A rate less than one indicates more job openings than local labor supply; a rate greater than one indicates more local labor supply than job openings. The lack of available labor continues to be a major impediment in filling open vacancies.

Only 9 of 53 counties, all rural, had an excess of available labor supply (i.e. unemployed) when compared to open jobs. Three of those 9 counties (Rolette, Sheridan, Slope) had considerably higher rates; greater than 2 unemployed persons per 1 job opening. Eight of 53 counties had an unemployed-per-opening rate below the statewide rate of 0.34. Two of the 8 counties are the most populous in the state, Cass and Burleigh. The remaining are oil and gas counties: Billings, Dunn, McKenzie, Mountrail, Stark, and Williams. The county with the lowest rate was McKenzie at 0.12, which means there were roughly 8 job openings available for every 1 unemployed person.

UNEMPLOYED PER JOB OPENING BY COUNTY



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RESULTS BY INDUSTRY

The industries with the most job openings were Accommodation and Food Services (4,294), followed by Health Care and Social Assistance (4,159), and Retail Trade (3,446). Together, they account for 40.7 percent of the statewide total. This means that 1 in 4 job openings could be attributed to restaurants, hospitals, specialized trucking, mining support activities, and accommodations.

North Dakota's industrial job openings rate for Q2 2019 was 6.5 percent. Eight of the 20 industries had a job openings rate higher than the statewide average. The Administrative and Waste Services industry had the highest job openings rate at 11.7 percent, fueled by demand from temporary help agencies. Accommodation and Food Services (10.9 percent) and Transportation and Warehousing (9.7 percent) rank second and third, respectively. Other industries with higher than average job openings rates include: Construction (9.5 percent), Arts, Entertainment, and Recreation (9.0 percent), Other Services (except Public Administration) (7.5 percent), Agriculture, Forestry, Fishing, and Hunting (7.1 percent), and Retail Trade (7.0 percent). The effect of seasonal demand may explain why some industries had higher-than-average rates, especially those related to construction, recreation, transportation and agriculture.

INDUSTRIES	JOB OPENINGS (Q2 2019)		EMPLOYMENT (Q2 2019)		JOB OPENINGS
	NUM	PCT SHARE	NUM	PCT SHARE	RATE (%)
Accommodation and Food Services	4,294	14.7	34,984	8.4	10.9
Health Care and Social Assistance	4,159	14.2	66,634	16.0	5.9
Retail Trade	3,446	11.8	45,626	10.9	7.0
Construction	3,097	10.6	29,448	7.1	9.5
Transportation and Warehousing	1,940	6.6	18,063	4.3	9.7
Administrative and Waste Services	1,853	6.3	13,918	3.3	11.7
Wholesale Trade	1,561	5.3	24,599	5.9	6.0
Manufacturing	1,212	4.1	26,659	6.4	4.3
Mining, Quarrying, and Oil and Gas Extraction	1,203	4.1	21,578	5.2	5.3
Educational Services	1,195	4.1	36,092	8.6	3.2
Professional and Technical Services	1,150	3.9	16,841	4.0	6.4
Arts, Entertainment, and Recreation	1,119	3.8	11,267	2.7	9.0
Other Services (except Public Administration)	929	3.2	11,486	2.8	7.5
Public Administration	649	2.2	18,284	4.4	3.4
Finance and Insurance	398	1.4	18,013	4.3	2.2
Agriculture, Forestry, Fishing, and Hunting	339	1.2	4,439	1.1	7.1
Real Estate and Rental and Leasing	313	1.1	5,881	1.4	5.1
Information	229	0.8	6,326	1.5	3.5
Management of Companies and Enterprises	124	0.4	3,551	0.9	3.4
Utilities	39	0.1	3,709	0.9	1.0
TOTAL	29,249		417,398		6.5

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RESULTS BY OWNERSHIP

The private sector accounted for 91.2 percent of statewide job openings. State government accounted for 1.4 percent, and local government accounted for 7.4 percent. Federal government establishments were excluded from LDS results due to difficulties in collecting accurate data.

Two-thirds of state government job openings belonged to 2 industries: (1) Educational Services (47.2 percent) and (2) Public Administration (20.3 percent). These industries tend to require higher levels of education, as 56.5 percent of state government job openings required a bachelor's degree or higher. The job openings rate for state government was 2.2 percent.

There were 2,165 local government job openings. The industries with the largest percentage of job openings within local government were Educational Services (36.8 percent), Arts, Entertainment, and Recreation (34.7 percent), and Public Administration (26.1 percent). Two-thirds of local government job openings required a high school education or less. The job openings rate for local government was 4.5 percent.

Private sector job openings totaled 26,671. Accommodation and Food Services (16.1 percent), Health Care and Social Assistance (15.4 percent), Retail Trade (12.9 percent), and Construction (11.5 percent) were the leading industries for private sector openings. Most private sector job openings (78.1 percent) required a high school education or less. The job openings rate for the private sector was 7.0 percent.

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RESULTS BY OCCUPATION GROUP

The occupation groups with the most job openings were Food Preparation and Serving Related (3,841), followed by Construction and Extraction (3,522), and Transportation and Material Moving (3,519). Together, these occupation groups accounted for 37.2 percent of the statewide total.

North Dakota's occupational job openings rate for Q2 2019 was 6.7 percent. Twelve of the 22 occupation groups had a job openings rate higher than the statewide average. Due to substantial seasonal demand, the Farming, Fishing, and Forestry occupation group had the highest job openings rate at 24.6 percent. Food Preparation and Serving Related (10.0 percent) and Building & Grounds Cleaning & Maintenance (9.8 percent) rank second and third, respectively. Other occupation groups with higher-than-average job openings rates include Construction and Extraction (9.6 percent), Transportation and Material Moving (9.5 percent), Arts, Entertainment, and Media (9.0 percent), Protective Service (8.2 percent), Installation, Maintenance, and Repair (7.8 percent), Architecture and Engineering (7.8 percent), Healthcare Support (7.6 percent), Healthcare Practitioners and Technical (7.5 percent), and Personal Care and Service (6.8 percent). The effect of seasonal demand may explain why some occupation groups had higher-than average-rates, especially those related to construction, recreation, extraction, transportation, grounds maintenance, and farming.

OCCUPATION GROUPS	JOB OPENINGS (Q2 2019)		EMPLOYMENT (Q2 2019)		JOB OPENINGS
	NUM	PCT SHARE	NUM	PCT SHARE	RATE (%)
Food Preparation and Serving Related	3,841	13.1	34,750	8.5	10.0
Construction and Extraction	3,522	12.0	33,180	8.1	9.6
Transportation and Material Moving	3,519	12.0	33,710	8.3	9.5
Sales and Related	2,595	8.9	38,530	9.4	6.3
Office and Administrative Support	2,017	6.9	54,350	13.3	3.6
Healthcare Practitioners and Technical	2,009	6.9	24,920	6.1	7.5
Installation, Maintenance, and Repair	1,884	6.4	22,240	5.4	7.8
Building & Grounds Cleaning & Maintenance	1,507	5.2	13,890	3.4	9.8
Production	1,371	4.7	24,090	5.9	5.4
Personal Care and Service	1,344	4.6	18,400	4.5	6.8
Healthcare Support	912	3.1	11,060	2.7	7.6
Education, Training, and Library	811	2.8	22,640	5.5	3.5
Architecture and Engineering	575	2.0	6,820	1.7	7.8
Management	563	1.9	22,060	5.4	2.5
Protective Service	562	1.9	6,260	1.5	8.2
Arts, Entertainment, and Media	512	1.8	5,160	1.3	9.0
Business and Financial Operations	511	1.7	16,490	4.0	3.0
Computer and Mathematical	344	1.2	7,910	1.9	4.2
Farming, Fishing, and Forestry	336	1.1	1,030	0.3	24.6
Community and Social Service	271	0.9	5,590	1.4	6.1
Life, Physical, and Social Science	171	0.6	2,610	0.6	6.1
Legal Occupations	72	0.2	2,550	0.6	2.7
TOTAL	29,249		408,240		6.7

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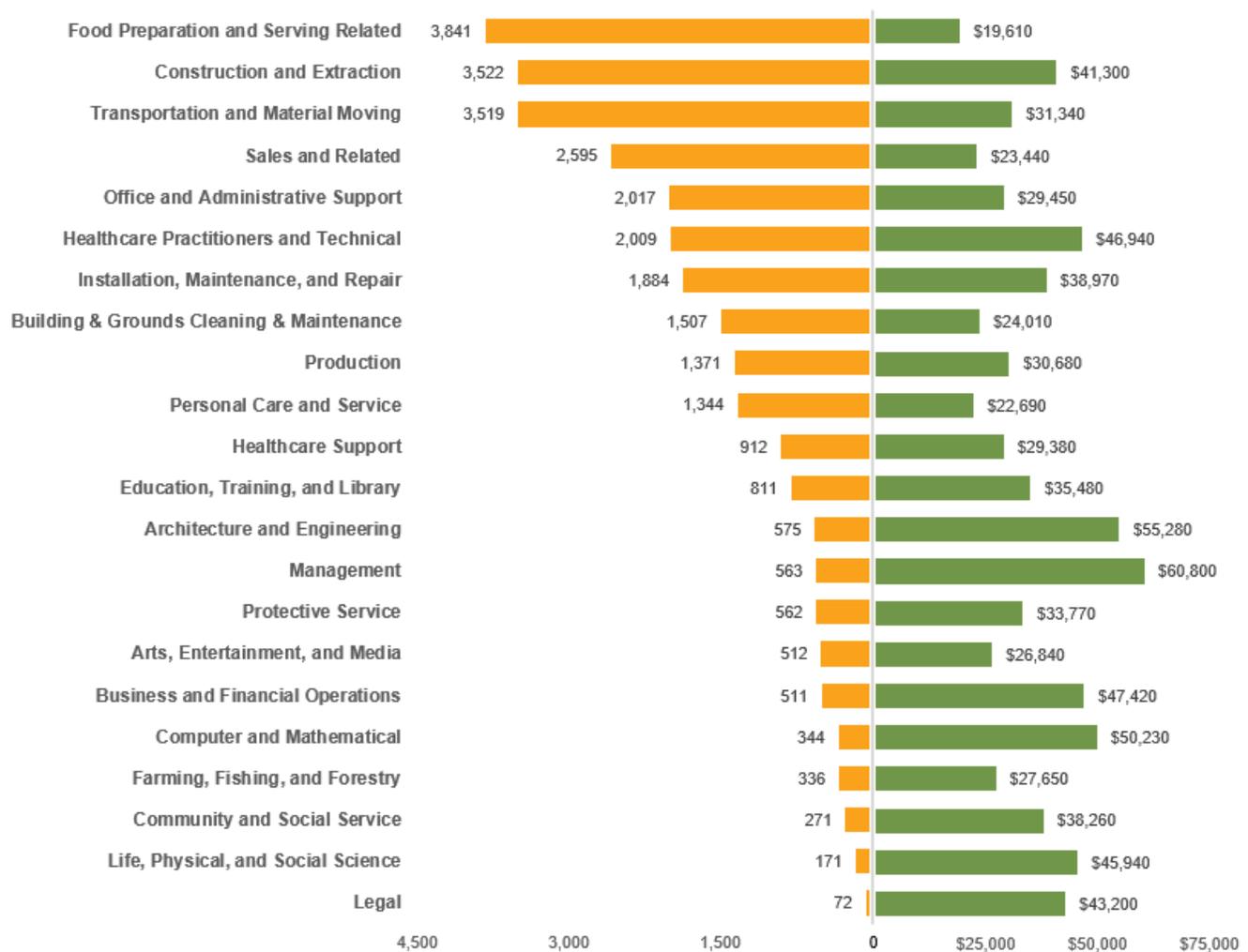
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RESULTS BY OCCUPATION GROUP *[continued]*

Since the LDS did not include questions about wages, we used the 25th percentile wage from the latest Occupational Employment Statistics data as a proxy for a starting wage. We chose this wage because lower-paid workers within a distribution are more likely to be newer hires. The overall statewide 25th percentile wage estimate for 2018 was \$29,440 annually. Of the top 5 occupation groups, two pay wages below the statewide 25th percentile. The occupation group with the highest number of job openings, Food Preparation and Serving Related, also had the lowest wages (33.3 percent below average).

OCCUPATION GROUP JOB OPENINGS AND WAGES



[Wages represent the 25th percentile for 2018, the latest available at the time of publication]

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RESULTS BY OCCUPATION

Employers reported job openings for 615 distinct occupations. The top 3 occupations by labor demand were Heavy and Tractor-Trailer Truck Drivers (1,865), Retail Salespersons (1,001), and Registered Nurses (913). These 3 occupations accounted for 12.9 percent of the statewide total. The top 50 occupations by labor demand accounted for 63.1 percent of the statewide total.

Most of the top 50 occupation job openings were permanent, full-time, and require little-to-no postsecondary education or prior work experience. Higher-ranked occupations—those with more job openings—were more likely to pay lower wages, be part-time, and require little-to-no postsecondary education or prior work experience. Seven of the top 10 occupations paid below the statewide annual wage (\$29,440 annually, or \$14.15 per hour based on a full-time, year-round work schedule).

The list of the top 50 occupations by job openings is shown on the next page.

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TOP 50 OCCUPATIONS BY JOB OPENINGS

OCCUPATIONS	JOB OPENINGS TOTAL	JOB OPENINGS SHARE	ESTIMATED ANNUAL WAGE	FULL-TIME OPENINGS	PERMANENT OPENINGS	POSTSEC. EDUCATION REQUIRED	PRIOR EXPERIENCE REQUIRED
	(Q2 2019)	(%)	(\$)	(%)	(%)	(%)	(%)
1 Heavy and Tractor-Trailer Truck Drivers	1,865	6.4	42,710	94.6	78.8	11.2	87.3
2 Retail Salespersons	1,001	3.4	22,070	41.2	91.2	2.0	36.3
3 Registered Nurses	913	3.1	56,570	79.3	74.7	99.8	41.0
4 Cashiers	887	3.0	21,190	26.4	91.2	0.2	6.4
5 Construction Laborers	825	2.8	35,050	91.0	36.3	0.0	30.8
6 Waiters and Waitresses	736	2.5	17,270	21.4	94.5	0.0	21.1
7 Nursing Assistants	706	2.4	29,160	55.4	96.7	43.6	14.3
8 Combined Food Preparation and Serving Workers	679	2.3	21,330	32.0	78.4	0.0	19.7
9 Maids and Housekeeping Cleaners	589	2.0	21,500	35.5	91.3	0.0	23.5
10 Cooks, Restaurant	531	1.8	23,690	52.5	96.1	0.0	41.8
11 Personal Care Aides	426	1.5	28,190	39.8	99.5	0.3	2.5
12 Customer Service Representatives	413	1.4	29,960	73.4	94.7	7.6	43.1
13 Laborers & Freight, Stock & Material Movers, Hand	377	1.3	27,510	74.7	78.7	0.0	20.4
14 Stock Clerks and Order Fillers	367	1.3	23,150	50.2	93.8	0.5	31.3
15 Janitors/Cleaners, Exc. Maids & Housekeeping Wkrs	353	1.2	24,700	53.8	87.6	0.0	16.2
16 Landscaping and Groundskeeping Workers	343	1.2	26,960	60.0	22.5	0.0	20.0
17 Roustabouts, Oil and Gas	333	1.1	46,900	99.0	93.8	0.5	67.1
18 Counter Attendants, Cafeteria, & Food Concession	316	1.1	19,700	14.0	43.4	0.0	4.1
19 Carpenters	309	1.1	34,380	97.4	85.2	4.3	80.7
20 Operating Engineers & Other Const. Equip. Oprs.	301	1.0	47,410	95.6	51.9	2.3	87.6
21 Bartenders	296	1.0	17,770	22.6	80.4	0.0	32.7
22 Bus & Truck Mechanics & Diesel Engine Specialists	289	1.0	42,510	97.0	95.2	32.0	83.1
23 Lifeguards, Ski Patrol, & Other Recreational Wkrs	272	0.9	21,220	13.0	10.7	7.1	9.4
24 Driver/Sales Workers	246	0.8	18,400	50.4	99.2	0.8	11.6
25 Automotive Service Technicians and Mechanics	227	0.8	32,780	97.1	95.8	18.4	76.3
25 Maintenance and Repair Workers, General	227	0.8	32,070	73.7	79.3	6.3	61.4
26 Service Unit Operators, Oil, Gas, and Mining	225	0.8	42,570	100.0	89.8	12.1	75.0
27 Cement Masons and Concrete Finishers	223	0.8	39,510	96.6	36.0	0.0	80.6
28 Electricians	216	0.7	49,100	98.6	89.2	32.6	73.5
29 Cooks, Fast Food	214	0.7	20,510	38.3	91.8	0.0	7.3
30 Hotel, Motel, and Resort Desk Clerks	213	0.7	22,360	32.8	96.5	0.0	25.9
31 Licensed Practical and Licensed Vocational Nurses	204	0.7	41,620	71.1	91.0	98.2	19.9
32 Team Assemblers	202	0.7	31,330	99.4	94.9	1.1	18.4
32 Childcare Workers	202	0.7	20,670	69.8	98.3	0.0	21.0
33 Coaches and Scouts	198	0.7	19,830	8.7	24.4	11.2	31.0
34 First-Line Supervisors of Retail Sales Workers	195	0.7	32,870	77.5	87.4	15.5	60.7
35 Recreation Workers	194	0.7	25,210	4.9	7.6	9.4	1.3
36 Dishwashers	191	0.7	19,740	32.8	84.7	0.0	5.4
37 Host & Hostess, Restaurant, Lounge & Coffee Shop	190	0.6	18,430	6.0	100.0	0.0	6.5
38 Welders, Cutters, Solderers, and Brazers	173	0.6	39,700	99.3	89.0	4.2	88.7
39 Light Truck or Delivery Services Drivers	172	0.6	31,190	67.3	83.3	1.1	29.9
40 Hairdressers, Hairstylists, and Cosmetologists	171	0.6	18,900	70.5	100.0	95.7	55.3
41 First-Line Supervisor, Construction Trades Workers	162	0.6	55,730	100.0	77.1	7.9	95.3
42 Industrial Machinery Mechanics	157	0.5	49,680	100.0	95.6	20.8	73.3
43 Supervisors, Food Preparation & Serving Workers	155	0.5	27,940	91.5	93.8	6.3	73.0
44 Food Preparation Workers	153	0.5	21,940	35.4	92.0	0.0	10.2
45 Security Guards	152	0.5	26,030	29.8	81.0	2.6	22.1
46 Merchandise Displayers and Window Trimmers	147	0.5	27,130	21.6	70.5	0.0	16.1
47 Secondary School Teachers, Exc. Spcl & Career Edu.	138	0.5	44,770	56.3	68.1	99.1	18.8
48 Bus Drivers, School or Special Client	132	0.5	28,320	7.9	42.5	1.6	10.2
49 Elementary School Teachers, Exc. Special Edu.	130	0.4	44,740	82.6	85.8	100.0	13.5
50 Cleaners of Vehicles and Equipment	126	0.4	23,630	72.5	85.0	0.0	8.0

[Wages represent the 25th percentile for 2018, the latest available at the time of publication]

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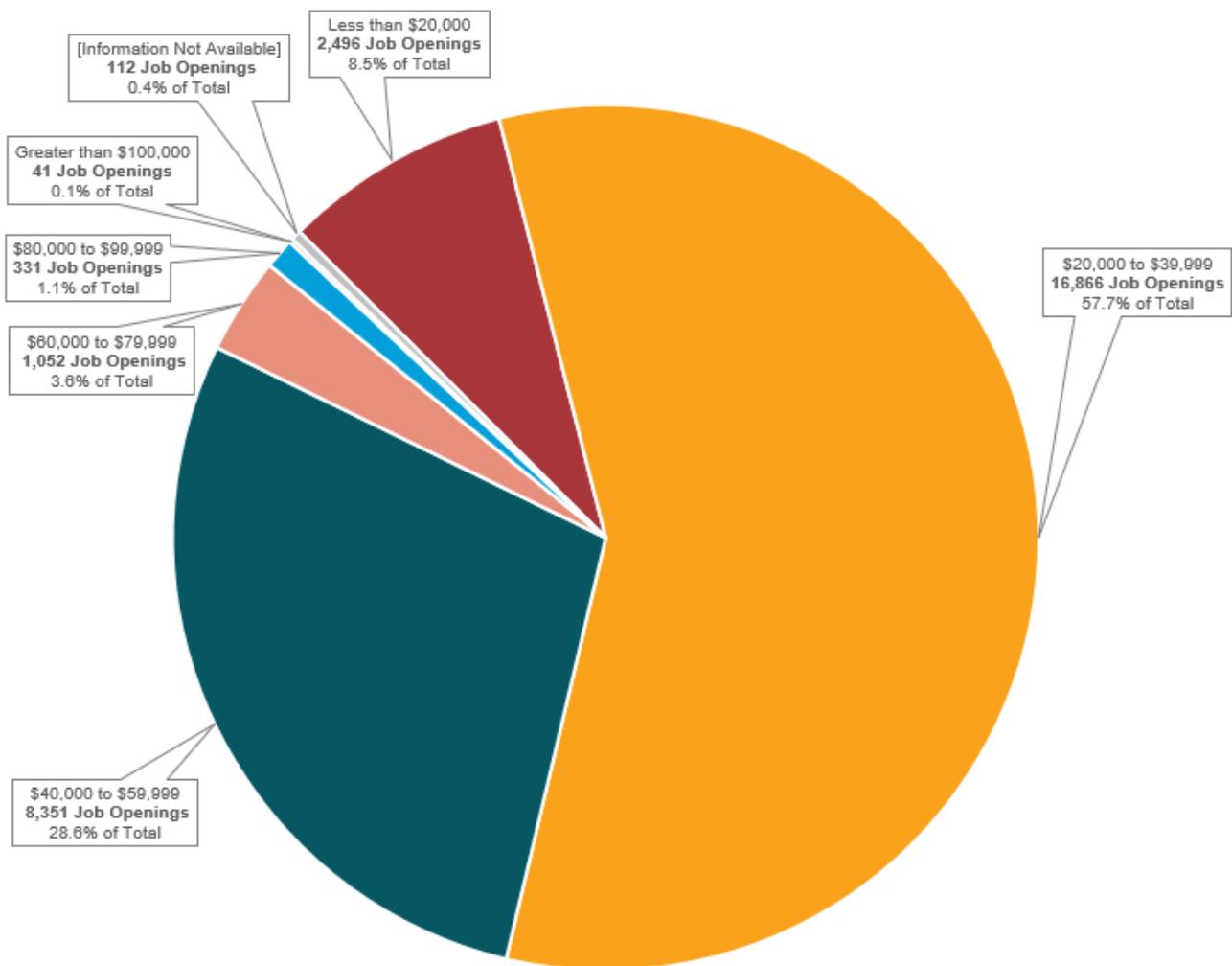
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RESULTS BY OCCUPATION [continued]

For all job openings (not just the top 50), a majority had starting annual wages in the \$20,000 to \$39,999 range (the biggest slice in the pie chart below). The second biggest slice was comprised of occupations with starting annual wages between \$40,000 to \$59,999. Together, these two slices accounted for 86.3 percent of the statewide total.

JOB OPENINGS DISTRIBUTION BY WAGE RANGES



[Occupations are grouped based on their 25th percentile wages for 2018, the latest available at the time of publication]

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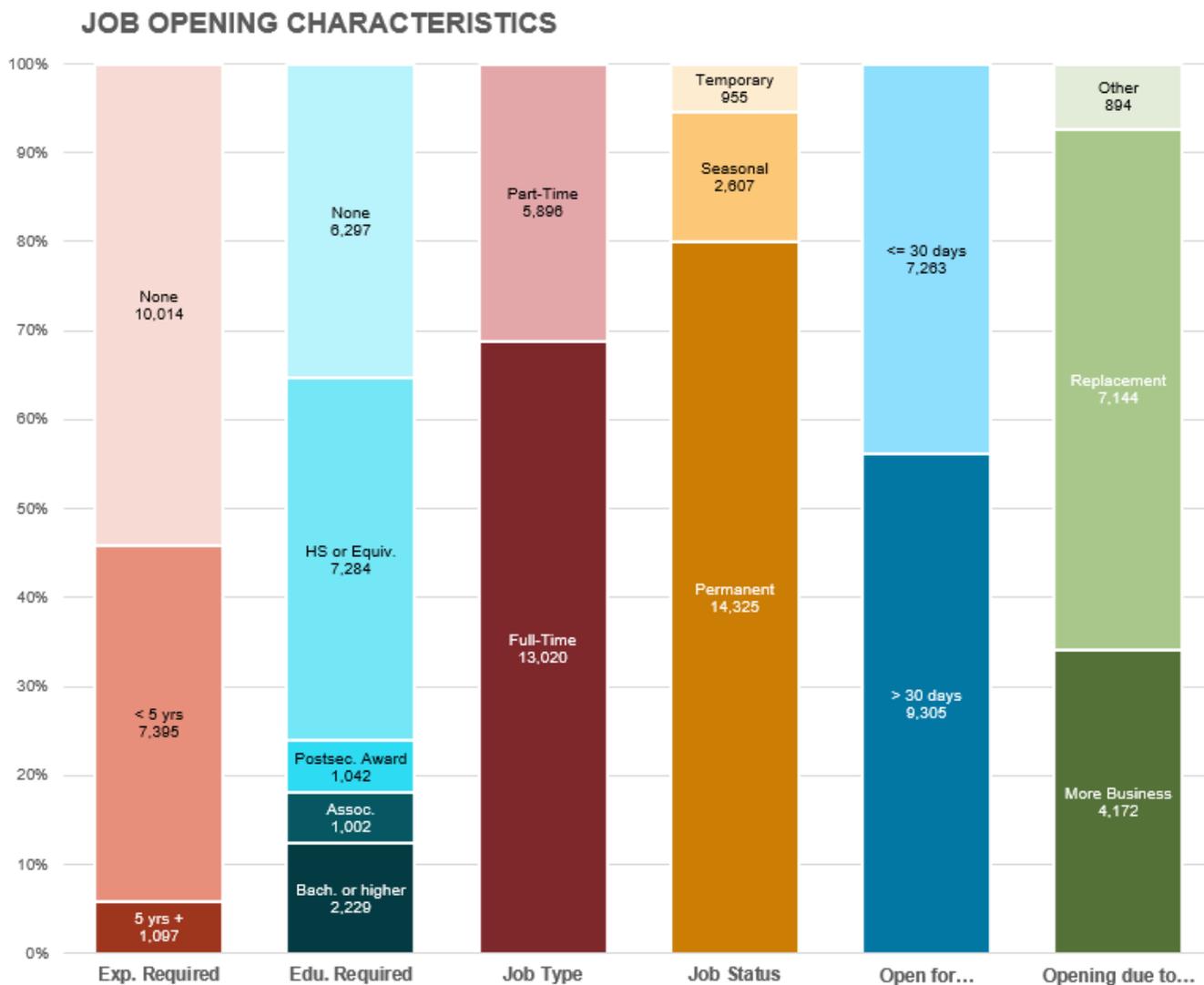
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RESULTS BY JOB OPENING CHARACTERISTICS

Employers were asked about characteristics for each job opening, including the job status, job type, experience required, education required, how long the opening has been open, and the general reason for the opening. Not all employers with job openings filled in the job characteristic information, therefore total responses to job characteristic information will not match total job openings.

Of those job characteristic responses, roughly 7 in 10 job openings were full-time and 8 in 10 were permanent. Employers reported that 56.2 percent of job openings were open for longer than 30 days. Replacement needs accounted for 58.5 percent of reported job openings. Replacement needs included replacing employees who quit, were terminated, or retired. Employers reported that 34.2 percent of vacancies were open due to needs generated by more business. Employers reported that 76.1 percent of job openings didn't require postsecondary education, while 54.1 percent didn't require any previous work experience.



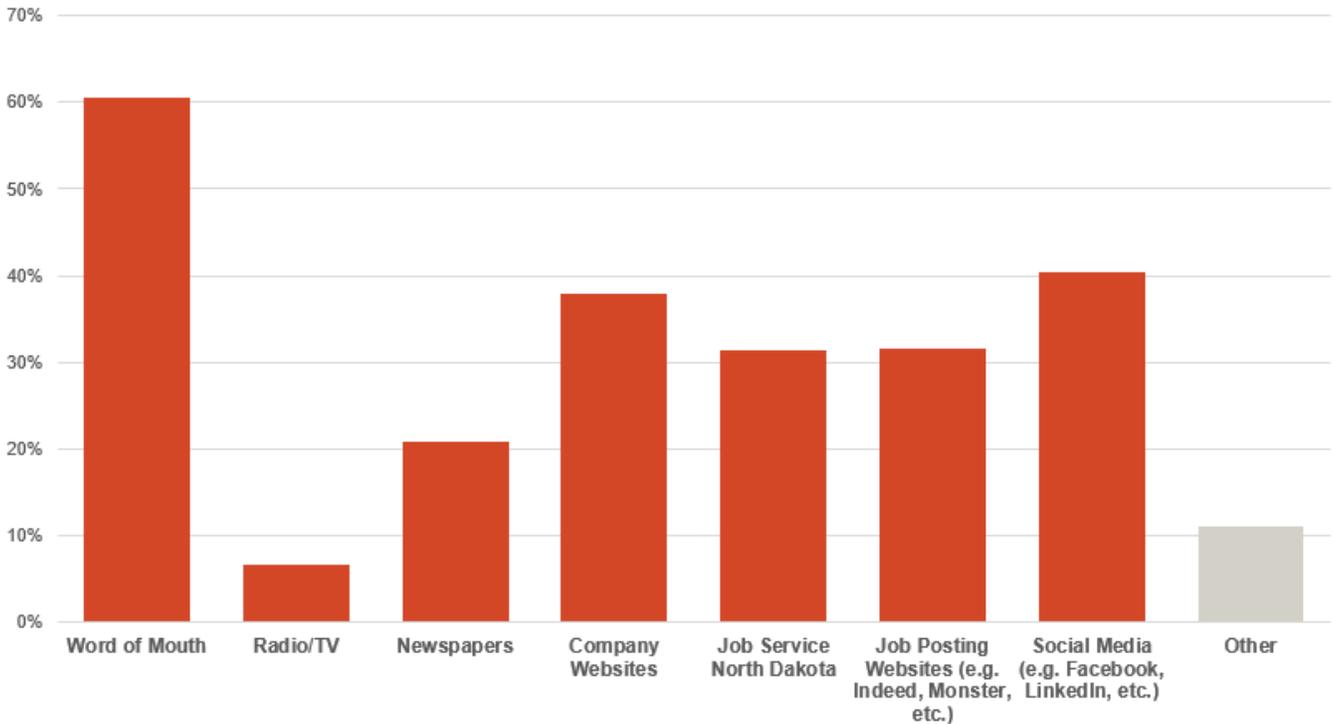
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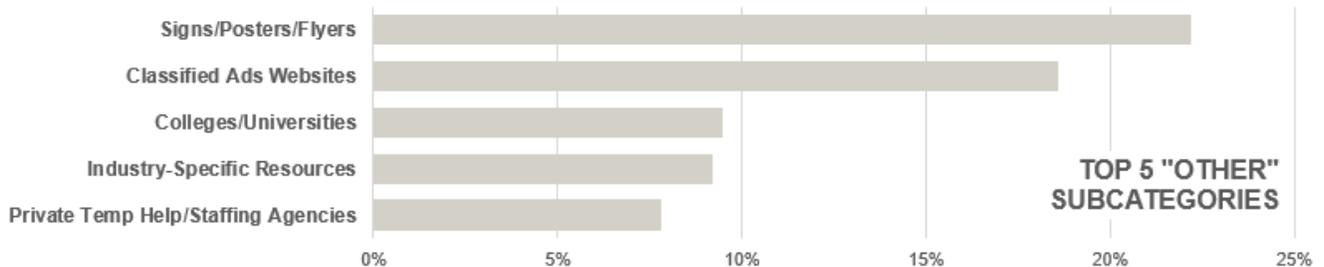
ADVERTISING

Employers were asked about how they advertise job openings. Respondents could make multiple selections from 8 options. Of those employers who responded, 60.5 percent indicated they use word of mouth to advertise job openings. Advertising via social media (40.5 percent) and company websites (38.0 percent) came in second and third, respectively. Media including radio, television, and newspapers had the lowest responses. For the 'Other' category, write-in responses from employers were organized into 24 generalized subcategories. The two largest subcategories were a mix of old school and new wave advertising. Signs/posters/flyers accounted for 22.2 percent of 'Other' responses, while classified ads websites like Craigslist and Bismanonline accounted for 18.6 percent of responses.

HOW EMPLOYERS ADVERTISE JOB OPENINGS



[Results will not add to 100% because employers could select more than one advertising option]



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METHODOLOGY

Data Source:

Job Service North Dakota's primary source for industry employment and wage data is the Quarterly Census of Employment and Wages (QCEW) program, which derives its data from quarterly tax reports of employers subject to state and federal unemployment insurance laws. QCEW covers roughly 90 percent of all employers in North Dakota. Data are published approximately six months after a quarter ends. North Dakota employers report employment levels for each month of the quarter as well as total quarterly payroll. Reported employment represents the number of insured workers who worked during, or received pay for, the pay period including the 12th of the month. Exclusions include members of the armed forces, self-employed individuals, most farm operations, religious organizations, railroad workers, and most domestic and private household workers. Reported payroll includes base pay wages and any bonuses, overtime, and commissions paid to an employee. Job Service North Dakota uses the North American Industry Classification System (NAICS) to code an employer's business activity for each worksite in the state. Each employer determined to be liable to provide unemployment insurance coverage for their employees is assigned one of 1,065 six-digit NAICS codes for each of its worksites. An employer may have more than one worksite or business establishment.

Survey:

Due to the near-census coverage of employers in North Dakota, the QCEW database was used to generate an establishment listing for the Labor Demand Survey (LDS). The Labor Market Information Center surveyed private sector, state government, and local government establishments. Federal government establishments were excluded. Establishment data through the first quarter of 2019 was used to create the final listing, the latest available at the time of the survey. The LDS asked employers to report the number and type of job openings in addition to other job opening characteristics during the second quarter (Apr-Jun) of 2019. This is point-in-time data, not cumulative. Employers were asked to report their current job openings data at the time they received the survey, not cumulative over the three months of the quarter. There were three mailings. For the first mailing, surveys were sent to 30,954 establishments. For nonrespondents, two additional mailings were administered, or data was collected using online methods. After removing out-of-scope establishments (e.g. out-of-business establishments, federal government establishments, etc.), the final survey pool was reduced to 29,202. A total of 16,592 responses were received, a response rate of 56.8 percent. Responses were received via mail (89.5 percent), email (2.9 percent), fax (2.0 percent), or phone (0.2 percent) in addition to online collection methods (5.4 percent) by labor market analysts from company websites or the Job Service North Dakota labor exchange system (internal openings only). Response rate tables by area, size class, ownership, and industry are available at the end of this report. Select data for the remaining 12,610 nonresponding establishments were imputed.

Results:

Before imputations, there were a total of 22,487 job openings reported by 16,592 responding establishments. An additional 6,762 job openings from 12,610 nonresponding establishments were imputed. Imputations were calculated from establishment survey responses by county location, ownership, and four-digit NAICS industry. Job openings rates were calculated for each unique combination and applied to that cell's average annual QCEW employment through Q1 2019 to come up with total job openings. A labor market analyst reviewed results for

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reasonability. Occupational opening patterns were then applied to the imputed job opening totals to come up with occupational detail. Only job openings were imputed from nonrespondents. Results for job opening characteristics and advertising options are strictly based on responses received.

OTHER DATA

Job Openings Rate:

The job openings rate is the percentage of all jobs in the economy open and available. It is calculated by taking the number of job openings (unfilled jobs) divided by employment (filled jobs) plus job openings. The rate of unfilled jobs is an important measure of the unmet demand for labor, which paints a more complete picture of the state's labor market than solely looking at the unemployment rate, a measure of the excess supply of labor. A higher rate is an indicator of increased demand from employers resulting in more opportunities for job seekers.

Keep in mind that the overall job openings rates by industry and occupation may differ. The industry job openings rate is based on average Q2 (Apr-Jun) 2019 QCEW employment data while the occupation job openings rate is based on 2018 Occupational Employment Statistics (OES) employment data. QCEW and OES report slightly different top-line employment totals which accounts for the difference.

What is the difference between an industry and an occupation? The main business activity of the employer determines the industry of both the employer and its employees. Employees may perform different types of work for the same employer but still belong in the same industry. The type of work an employee does determines the occupation of the employee. Employees may work for the same employer but belong to different occupations due to the nature of their respective work.

Unemployed per Job Opening:

Rates of unemployed per job opening are calculated by taking the average number of Q2 2019 unemployed persons from the Local Area Unemployment Statistics (LAUS) program and dividing by job openings. A rate less than one indicates more job openings than local labor supply and greater competition for employers to attract and retain employees; a rate greater than one indicates more local labor supply than job openings and greater competition for job seekers in securing employment.

25th Percentile Wages:

Occupational wages are derived from 2018 OES data. Since the LDS doesn't ask about wages offered, the 25th percentile wage from the latest OES data is used as a proxy for a starting wage. The rationale is that lower-paid workers within a distribution are more likely to be newer hires. The 25th percentile is an indication that 25 percent of workers are making less than this wage while 75 percent are making more.

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RESPONSE RATES BY AREA

	ESTABLISHMENTS				ESTABLISHMENTS		
	SURVEYED	ESTABLISHMENT	RESPONSE		SURVEYED	ESTABLISHMENT	RESPONSE
	(#)	RESPONSES	RATE		(#)	RESPONSES	RATE
	(#)	(#)	(%)		(#)	(#)	(%)
North Dakota	29,202	16,592	56.8	Kidder County	95	70	73.7
				LaMoure County	195	138	70.8
Region 1	2,781	1,448	52.1	Logan County	87	59	67.8
Region 2	3,480	2,027	58.2	McHenry County	167	111	66.5
Region 3	1,133	754	66.5	McIntosh County	131	102	77.9
Region 4	3,007	1,742	57.9	McKenzie County	731	391	53.5
Region 5	8,288	4,383	52.9	McLean County	330	207	62.7
Region 6	2,187	1,484	67.9	Mercer County	276	172	62.3
Region 7	5,527	3,202	57.9	Morton County	965	563	58.3
Region 8	2,014	1,229	61.0	Mountrail County	497	271	54.5
Region Unassigned	785	323	41.1	Nelson County	149	109	73.2
				Oliver County	44	26	59.1
Adams County	108	68	63.0	Pembina County	347	240	69.2
Barnes County	370	239	64.6	Pierce County	171	118	69.0
Benson County	114	76	66.7	Ramsey County	451	291	64.5
Billings County	47	28	59.6	Ransom County	225	136	60.4
Bottineau County	279	180	64.5	Renville County	115	83	72.2
Bowman County	168	110	65.5	Richland County	543	375	69.1
Burke County	100	60	60.0	Rolette County	227	150	66.1
Burleigh County	3,494	1,943	55.6	Sargent County	146	94	64.4
Cass County	6,955	3,516	50.6	Sheridan County	44	32	72.7
Cavalier County	154	105	68.2	Sioux County	52	31	59.6
Dickey County	232	166	71.6	Slope County	21	13	61.9
Divide County	120	70	58.3	Stark County	1,307	767	58.7
Dunn County	169	103	60.9	Steele County	70	50	71.4
Eddy County	88	68	77.3	Stutsman County	746	473	63.4
Emmons County	149	99	66.4	Towner County	99	64	64.6
Foster County	148	107	72.3	Trail County	349	212	60.7
Golden Valley County	73	53	72.6	Walsh County	461	297	64.4
Grand Forks County	2,050	1,096	53.5	Ward County	2,151	1,204	56.0
Grant County	78	59	75.6	Wells County	185	130	70.3
Griggs County	93	70	75.3	Williams County	1,930	987	51.1
Hettinger County	121	87	71.9	County Unassigned	785	323	41.1

RESPONSE RATES BY SIZE CLASS

< 5 Employees	17,038	8,965	52.6	100-249 Employees	422	380	90.0
5-9 Employees	5,018	3,131	62.4	250-499 Employees	130	124	95.4
10-19 Employees	3,556	2,100	59.1	500-999 Employees	47	46	97.9
20-49 Employees	2,304	1,349	58.6	1,000+ Employees	25	25	100.0
50-99 Employees	662	472	71.3				

RESPONSE RATES BY OWNERSHIP

State Government	105	84	80.0	Private	28,106	15,684	55.8
Local Government	991	824	83.1				

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RESPONSE RATES BY INDUSTRY

	ESTABLISHMENTS				ESTABLISHMENTS		
	ESTABLISHMENT	ESTABLISHMENT	RESPONSE		ESTABLISHMENT	ESTABLISHMENT	RESPONSE
	SURVEYED	RESPONSES	RATE		SURVEYED	RESPONSES	RATE
	(#)	(#)	(%)	(#)	(#)	(%)	
Administrative and Waste Services	1,654	790	47.8	Mining, Quarrying, and Oil and Gas Extraction	738	380	51.5
Agriculture, Forestry, Fishing, and Hunting Arts, Entertainment, and Recreation	996	546	54.8	Other Services (except Public Administration)	2,053	1,304	63.5
Construction	3,639	2,111	58.0	Professional and Technical Services	3,005	1,552	51.6
Educational Services	462	317	68.6	Public Administration	558	478	85.7
Finance and Insurance	1,561	954	61.1	Real Estate and Rental and Leasing	1,072	619	57.7
Health Care and Social Assistance	2,114	1,283	60.7	Retail Trade	3,006	1,616	53.8
Information	383	228	59.5	Transportation and Warehousing	1,692	952	56.3
Management of Companies and Enterprises	148	81	54.7	Utilities	113	90	79.6
Manufacturing	781	547	70.0	Wholesale Trade	2,511	1,291	51.4