



August 2020

Profile of jobs and workers most impacted by COVID-19 lockdowns in Southeast Michigan

The COVID-19 pandemic put most of the nation in lockdown for several months. Many businesses had to shut down their operations in response to the pandemic, resulting in record increases in unemployment. While many whose jobs did not require face-to-face interaction with others could from home, and those in essential industries could continue to earn a living, many others whose jobs were considered nonessential or could not perform their job duties from home experienced job and income losses due to layoffs, furloughs, and business closings. Several months into this crises, the uncertainties associated with second wave of illnesses – and likely continued economic downturn – still exist.

Identifying the businesses and populations that are most impacted by the COVID crises is critical, not only in formulating current recovery efforts in a targeted manner, but also to be better prepared for any future COVID-like economic shocks. These firms and people are more vulnerable to COVID-19 containment efforts because their workplace is: a) not considered critical infrastructure, and b) a higher-risk environment because the nature of work involves close face-to-face interaction with customers or coworkers.

The Brookings Institution introduced a list of industries most vulnerable to COVID-19 containment efforts (Appendix: Table A-1). SEMCOG made a few adjustments to the list and analyzed the employment, wages, and establishments for these industries, with the goal to obtain a sense of the economic impact on the seven-county Southeast Michigan region. SEMCOG also looked at the economic and demographic characteristics of the workers immediately impacted by the lockdowns that took effect in response to the pandemic.

This report will first highlight the findings for 2018 employment data (i.e., jobs) from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW), and then move to the analysis of the worker data from the Census Bureau's 2018 American Community Survey (ACS) Public Use Microdata Sample (PUMS) for the seven counties in Southeast Michigan.

What were the immediate effects on economic activity due to COVID lockdowns?

For a better understanding of the impact to the business community, SEMCOG analyzed economic trends from the Bureau of Labor Statistics' Quarterly Census of Employment and Wages (QCEW), which measures employment in firms covered by the State of Michigan's unemployment insurance program. The data are published by county and represent jobs by place-of-work. The data also include average annual earned wages from these jobs, as well as the number of establishments (i.e., worksites) where these jobs are found. Note that the total number of jobs counted by QCEW is smaller than the number of workers counted by ACS mainly because QCEW excludes self-employed. (It is also important to note that some of these totals are undercounted due to data suppression. However, we do not feel suppression drastically changes these estimates. Please view the tables in the Appendix for industry-specific numbers.)

Our examination of QCEW employment data found the following:

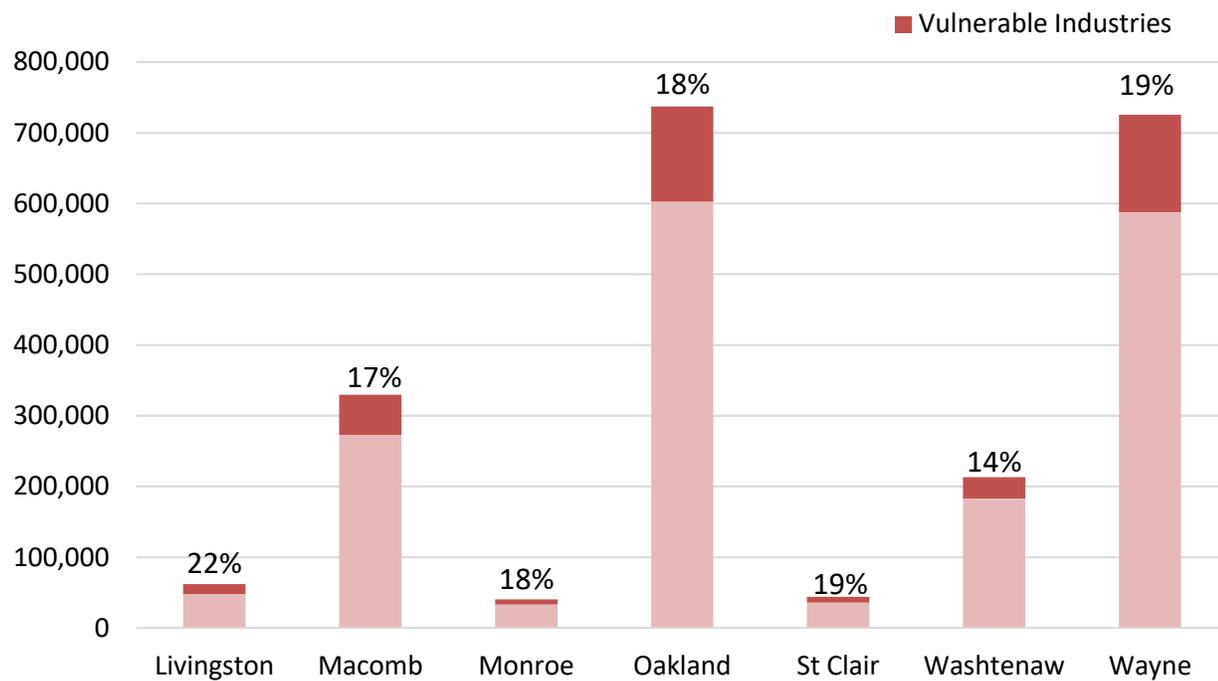
- Vulnerable industries contain a total of 388,000 jobs, or 18 percent of the region's total wage and salary employment. (Table 1)
- The industry with the largest number of jobs is food services and drinking places, employing more than 166,000 in Southeast Michigan; this represents almost eight percent of all jobs in the region.
- Washtenaw County has the lowest share of jobs impacted (14 percent) and Livingston County has the highest share of jobs impacted (22 percent) (Figure 1).

Table 1

COVID-19 vulnerable industries with more than 10,000 jobs, 2018 Southeast Michigan

Industry	Employees
Food services and drinking places	166,429
Personal and laundry services	22,748
Accommodation	20,383
Amusements, gambling, and recreation	19,666
Department stores	17,772
Clothing and clothing accessories stores	17,079
Offices of dentists	16,482
Air transportation	13,521
Miscellaneous store retailers	13,191
Other Industries	81,053
Total Employment, vulnerable industries	388,324

Figure 1
Share of employment in vulnerable industries, 2018
Southeast Michigan



Most jobs paid roughly half the wage than the average job in the region

- The average annual wage in vulnerable industries is \$29,387, which is about half the regional annual average wage of \$59,840. (Figure 2)
- Wayne County had the highest average annual wage for employment in vulnerable industries at \$35,497. This is likely due to a greater number of employees in Air Transportation and Accommodations, both of which have higher annual wages than the vulnerable industries in the rest of the county.

Figure 2
Average annual wage in vulnerable industries, 2018
Southeast Michigan



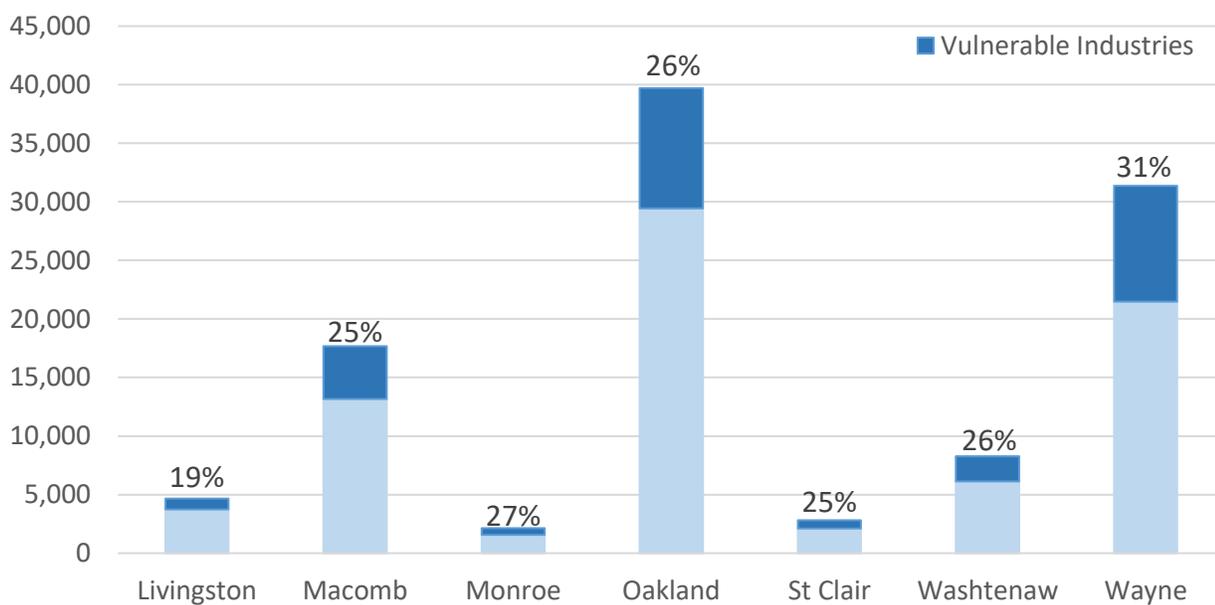
Our analysis of the establishment data found:

- More than 25,000 establishments are classified as being in vulnerable industries. This represents almost 24 percent of wage and salary establishments in Southeast Michigan. (Table 2)
- The industry with the largest number of establishments is food services and drinking places, with almost 8,000 in Southeast Michigan, which is 7.5 percent of all establishments in the region.
- Livingston County has the lowest share of establishments impacted (19.4 percent) and Wayne County has the highest share of establishments impacted (31.5 percent). (Figure 3)

Table 2
COVID-19 vulnerable industries with more than 1,000 establishments, 2018
Southeast Michigan

Industry	Establishments
Food services and drinking places	7,993
Personal and laundry services	3,045
Miscellaneous store retailers	2,015
Offices of dentists	1,978
Gasoline stations	1,606
Clothing and clothing accessories stores	1,507
Other industries	7,045
Total, vulnerable industries	25,189

Figure 3
Share of establishments in vulnerable industries, 2018
Southeast Michigan



Who were the workers impacted by the economic shutdowns?

Census Bureau’s American Community Survey (ACS) provides estimates of workers by their place of residence. Public Use Microdata Samples (PUMS), one of the products of ACS, provides data at individual person and household level, which enables us to conduct analyses with unique combinations of variables and relationships between them. This section of the report analyzes the socioeconomic characteristics of workers who are employed in the vulnerable industries. ACS worker data includes self-employed individual; as a result, the earnings data presented in this section will vary from the QCEW’s wage data that was presented in the previous section.

In 2018, nearly 508,500, or 22 percent of Southeast Michigan region’s workers were employed in non-essential, direct contact industries that were vulnerable to full or partial lockdowns due to COVID-19. Of the 508,500 vulnerable workers, more than 32 percent, or nearly one-in-three, were employed in “Food Services and Drinking Places” industry, or what is commonly known as restaurants and bars (Table 3).

Table 3

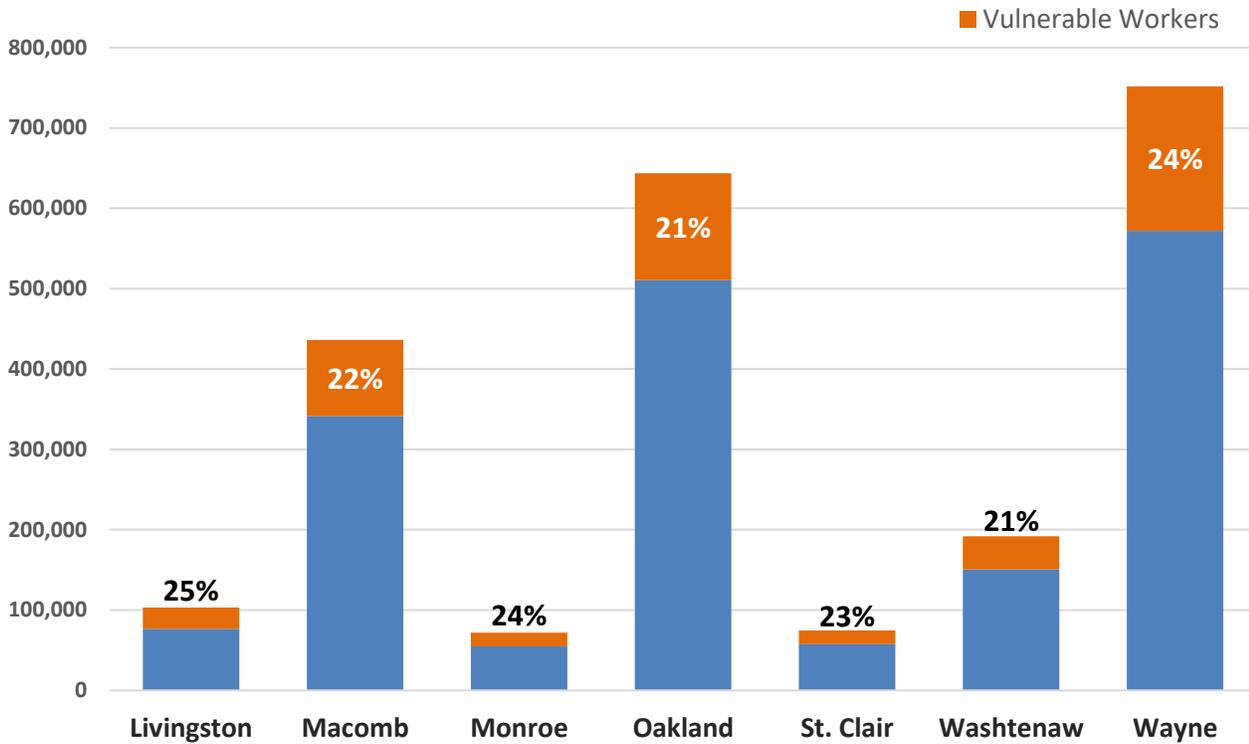
Industries impacted by COVID-19 responses and with more than 10,000 workers in 2018 Southeast Michigan

Industry	Number of workers
Food services and drinking places	163,907
Personal and laundry services	74,190
Furniture and home furnishings stores	39,532
Amusements, gambling, and recreation	31,528
Miscellaneous store retailers	25,710
Clothing and clothing accessories stores	20,613
Child day care services	17,380
Offices of dentists	15,967
Department stores	14,541
Performing arts and spectator sports	12,699
Accommodation	11,145
Transit and ground passenger transportation	10,888
Support activities for transportation	10,868
Other industries	59,500
Total workers, vulnerable industries	508,468

At least one in five workers in each of the seven counties in the region were employed in the vulnerable industries

Looking at the impact across counties, Livingston County had the highest share, where one in four workers were employed in these industries. Wayne County had the largest number, 179,700 workers, given its large workforce along with having high concentrations of some of the impacted sectors such as gambling, performing arts, spectator sports, and transportation activities (Figure 4).

Figure 4
Share and number of vulnerable workers by county, 2018



Eighty-seven percent of vulnerable workers earned less than the regional annual average earnings of \$55,200 per year

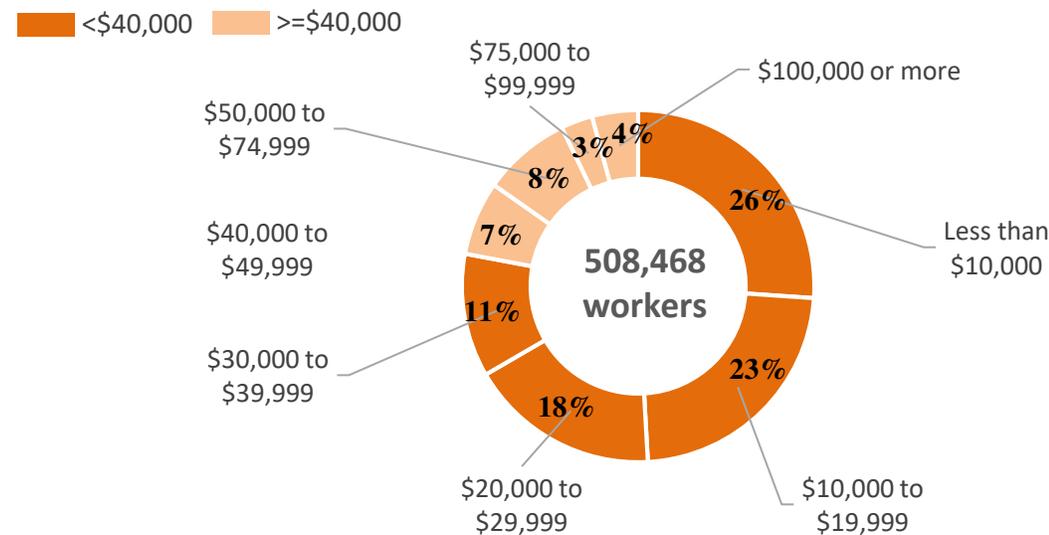
Most people working in the vulnerable industries had below-average earnings (Figure 5). The average annual earnings of the vulnerable workers, including wage and salary and self-employment income, was \$30,800, \$24,400 less than the regional average earnings for all workers.

Figure 5
Annual earnings, 2018
Southeast Michigan



More than three-fourths (78 percent) of the workers in the vulnerable industries earned less than \$40,000 per year, median earnings of all workers in the region (Figure 6). Median earning of vulnerable workers was \$20,500, almost half of the \$40,000 per year median earnings of all workers in the region.

Figure 6
Share of vulnerable workers by annual earnings, 2018



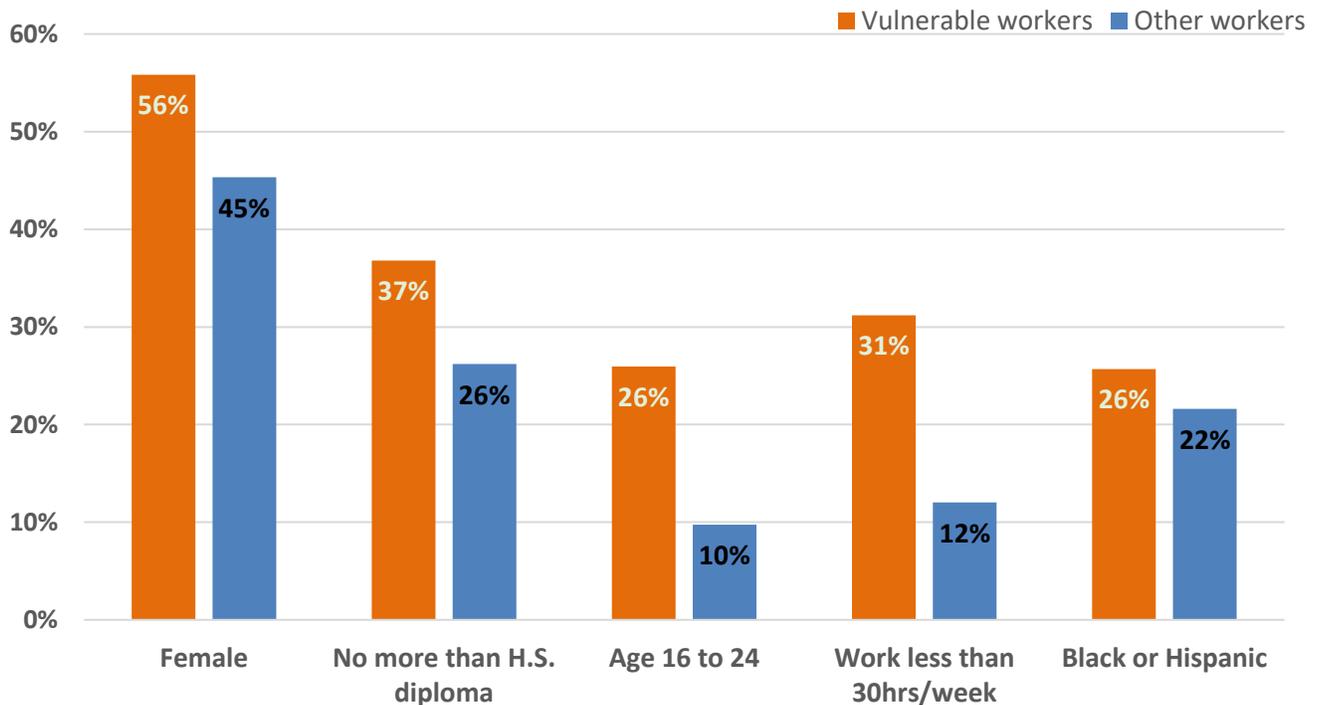
Disproportionate share of vulnerable workers were young, female, with less education

Industrial sectors such as retail, food service, and arts/entertainment typically employ younger people who are at the beginning of their career, people who work part-time, and people with lower levels of educational attainment. Women are also more likely to work in these sectors in higher proportions compared to men.

The demographic profile of vulnerable workers in Southeast Michigan confirms these trends (Figure 7).

- Region wide, 56 percent of all vulnerable workers, or 225,000 people, were females, compared to 45 percent of those working in other industries.
- Vulnerable sectors in the region had a higher proportion of workers with a high school education or less (37 percent), compared to 26 percent of workers in other sectors.
- Nearly 132,000, or 26 percent, were between the ages of 16 to 24, compared to just 10 percent of the workers in the other industries.
- Vulnerable sectors had higher percent of Black and Hispanic workers.
- The affected industries also had higher share of part-time workers, adding an additional layer of vulnerability in terms of having limited health care and unemployment insurance benefits.

Figure 7
Selected demographic characteristics of vulnerable workers, 2018
Southeast Michigan

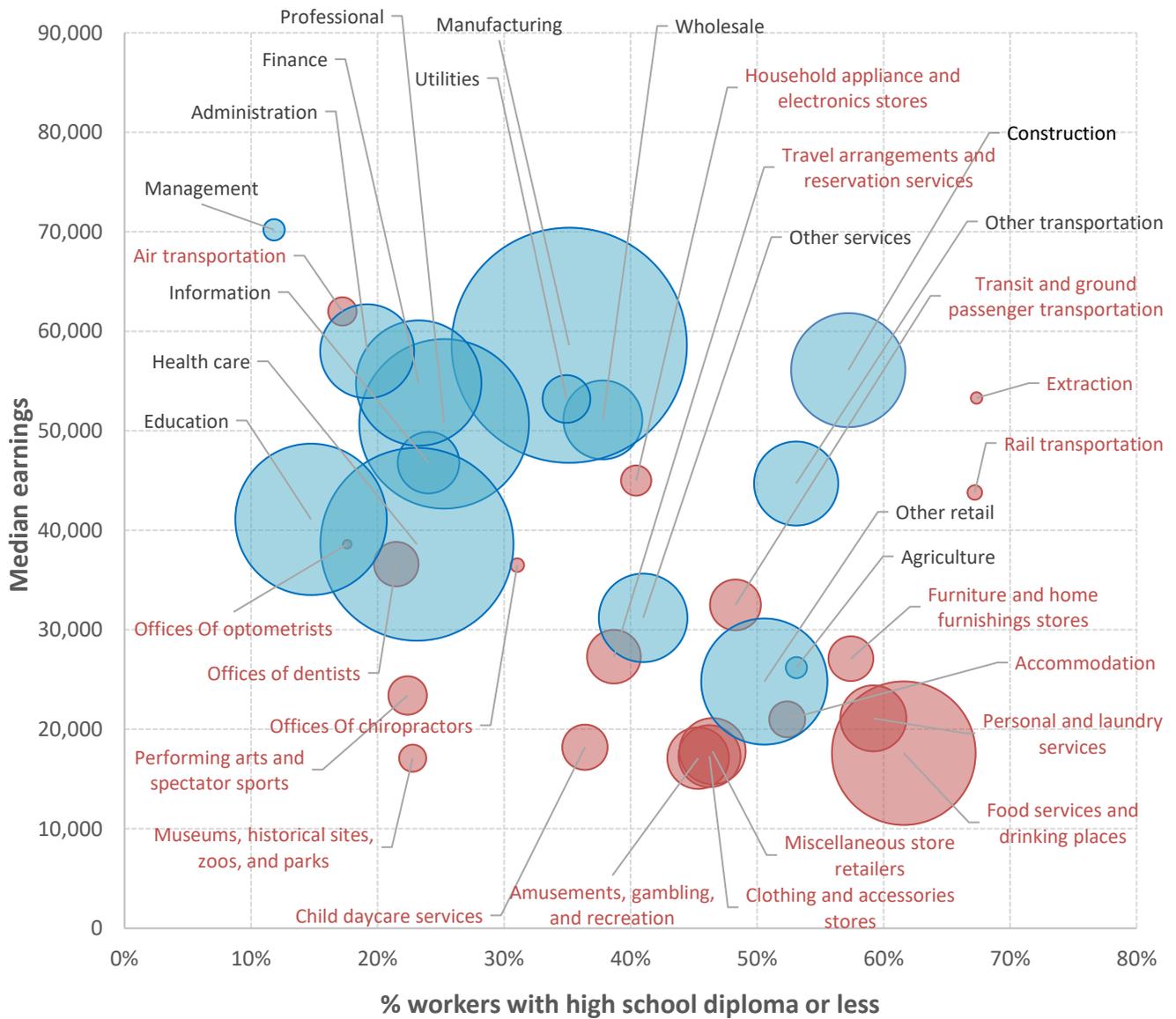


Looking across the vulnerable industries, the Food Services and Drinking Places sector had the highest percent of workers who did not have education higher than high school diploma, and one of the lowest median earnings (Figure 8).

Figure 8
Workers by industry, median earnings and education, 2018
Southeast Michigan

● Vulnerable workers ● Other workers

Size of the bubble represents the relative size of workforce by industry



In addition to earning lower wages, vulnerable workers tend to live in households that have additional financial insecurities

- Region wide, the median income of the households in which these workers resided was \$29,100, less than half of the \$61,400 median income of all households in the region.
- Workers in these immediate impact industries also tend to be renters. Region wide, 42 percent of the vulnerable workers were in renter households, compared to 28 percent for other workers. This corresponds to their younger profiles and also to their lower earnings, putting them in a disadvantageous position to acquire wealth and savings for financial and housing stability.

Conclusion

The impacts of the COVID pandemic are being felt across the economy, but as anything else with this crisis, the most adverse effects are being felt by those that are already vulnerable economically and socially. Knowing and understanding these populations will help governments, businesses, labor organizations, and other agencies formulate targeted and effective plans and policies that can help provide financial security to these vulnerable people as the region moves towards recovery.

Appendix

Table A-1
Employment in COVID-19 Vulnerable Industries, 2018
Southeast Michigan

Industry Code	Industry Name	Livingston	Macomb	Monroe	Oakland	St Clair	Washtenaw	Wayne	Southeast Michigan
21	Mining, quarrying, and oil and gas extraction	43	61	NA	169	NA	NA	588	861
442	Furniture and home furnishings stores	239	1,853	158	2,617	127	576	1,337	6,907
443	Electronics and appliance stores	223	1,225	34	4,642	144	710	1,153	8,131
446Z	Health and personal care stores (except pharmacies)	201	948	59	3,855	119	382	1,658	7,222
447	Gasoline stations	1,022	1,620	404	2,272	371	534	3,530	9,753
448	Clothing and clothing accessories stores	711	2,540	123	7,399	259	1,288	4,759	17,079
451	Sports, hobby, music instrument, book stores	234	1,230	865	2,810	210	633	2,155	8,137
452Z	Department stores	687	3,731	NA	7,415	397	1,436	4,106	17,772
453	Miscellaneous store retailers	414	2,484	284	4,861	249	932	3,967	13,191
454Z	Vending machine operators	NA	274	NA	82	NA	NA	195	551
4543	Direct selling establishments	NA	197	NA	563	NA	NA	241	1,001
481	Air transportation	NA	NA	0	495	0	1,181	11,845	13,521
485	Transit and ground passenger transportation	NA	249	NA	2,749	32	268	2,264	5,562
487	Scenic and sightseeing transportation	NA	NA	0	NA	NA	NA	NA	NA
488	Support activities for transportation	113	594	477	1,184	330	259	6,094	9,051
5615	Travel arrangement and reservation services	NA	102	NA	633	NA	174	637	1,546
6212	Offices of dentists	631	3,141	254	6,496	422	1,298	4,240	16,482
6213Z	Offices of optometrists	79	1,252	50	526	43	135	289	2,374
6244	Child day care services	NA	986	116	4,050	149	1,171	2,505	8,977
711	Performing arts and spectator sports	NA	NA	NA	1,545	NA	388	3,961	5,894
712	Museums, historical sites, zoos, and parks	NA	NA	NA	180	NA	94	1,985	2,259
713	Amusements, gambling, and recreation	1,017	2,251	490	8,973	530	1,963	4,442	19,666
721	Accommodation	279	792	189	5,337	254	1,323	12,209	20,383
722	Food services and drinking places	6,790	28,236	3,636	54,840	4,502	14,065	54,360	166,429
812	Personal and laundry services	942	2,800	252	9,838	306	1,334	7,276	22,748
8131	Religious organizations	200	NA	NA	816	NA	310	1,501	2,827
	Total - Vulnerable Industries	13,825	56,566	7,391	134,347	8,444	30,454	137,297	388,324

NA – Data either not available or not disclosable.

Source: SEMCOG analysis of Quarterly Census of Employment and Wages, Bureau of Labor Statistics.

Table A-2
Annual Wages in COVID-19 Vulnerable Industries, 2018
Southeast Michigan

Industry Code	Industry Name	Livingston	Macomb	Monroe	Oakland	St Clair	Washtenaw	Wayne	Southeast Michigan
21	Mining, quarrying, and oil and gas extraction	\$51,673	\$37,427	NA	\$62,055	NA	NA	\$80,814	\$72,453
442	Furniture and home furnishings stores	\$39,772	\$48,680	\$41,820	\$38,705	\$39,057	\$39,007	\$34,247	\$40,658
443	Electronics and appliance stores	\$69,166	\$42,736	\$46,533	\$52,986	\$31,385	\$44,747	\$38,198	\$48,660
446Z	Health and personal care stores (except pharmacies)	\$20,011	\$29,022	\$32,997	\$32,141	\$22,762	\$27,296	\$26,706	\$29,742
447	Gasoline stations	\$21,119	\$24,273	\$23,361	\$22,291	\$21,091	\$21,379	\$20,392	\$21,759
448	Clothing and clothing accessories stores	\$16,793	\$19,459	\$19,664	\$21,428	\$19,324	\$20,777	\$19,848	\$20,407
451	Sports, hobby, music instrument, book stores	\$18,742	\$19,517	\$21,138	\$26,461	\$20,773	\$19,592	\$20,660	\$22,406
4522	Department stores	\$15,925	\$19,422	NA	\$23,695	\$16,406	\$21,496	\$17,730	\$20,746
453	Miscellaneous store retailers	\$29,374	\$23,823	\$26,105	\$28,991	\$19,393	\$23,806	\$31,876	\$28,290
4542	Vending machine operators	NA	\$28,143	NA	\$37,001	NA	NA	\$44,252	\$35,163
4543	Direct selling establishments	NA	\$51,695	NA	\$53,583	NA	NA	\$39,977	\$49,936
481	Air transportation	NA	NA	\$0	\$105,222	\$0	\$90,732	\$96,044	\$95,964
485	Transit and ground passenger transportation	NA	\$20,943	NA	\$25,748	\$26,119	\$31,466	\$28,497	\$26,930
487	Scenic and sightseeing transportation	NA	NA	\$0	NA	NA	NA	NA	NA
488	Support activities for transportation	\$78,524	\$52,111	\$38,911	\$56,230	\$55,200	\$49,467	\$50,009	\$50,905
5615	Travel arrangement and reservation services	NA	\$36,313	NA	\$51,338	NA	\$57,814	\$64,634	\$56,473
6212	Offices of dentists	\$55,997	\$49,990	\$48,028	\$53,118	\$48,878	\$55,063	\$47,553	\$51,164
62132	Offices of optometrists	\$43,759	\$53,214	\$39,134	\$69,198	\$29,879	\$58,045	\$50,382	\$55,652
6244	Child day care services	NA	\$25,862	\$14,504	\$24,414	\$19,741	\$22,317	\$25,339	\$24,259
711	Performing arts and spectator sports	NA	NA	NA	\$162,023	NA	\$40,175	\$136,036	\$136,538
712	Museums, historical sites, zoos, and parks	NA	NA	NA	\$29,100	NA	\$24,878	\$28,743	\$28,610
713	Amusements, gambling, and recreation	\$15,566	\$16,806	\$15,304	\$20,689	\$18,041	\$19,278	\$23,337	\$20,230
721	Accommodation	\$18,480	\$20,322	\$15,735	\$25,100	\$16,053	\$25,544	\$37,384	\$32,009
722	Food services and drinking places	\$17,666	\$17,536	\$14,650	\$19,328	\$14,322	\$19,634	\$18,976	\$18,629
812	Personal and laundry services	\$24,318	\$25,064	\$20,746	\$26,900	\$20,993	\$27,539	\$28,429	\$26,946
8131	Religious organizations	\$26,656	NA	NA	\$30,495	NA	\$29,102	\$27,641	\$28,555
	Average - Vulnerable Industries	\$22,488	\$23,754	\$20,375	\$27,852	\$20,037	\$27,075	\$35,497	\$29,387

Table A-3
Average Annual Wage for Covered Employment, 2018
Southeast Michigan

	Livingston	Macomb	Monroe	Oakland	St Clair	Washtenaw	Wayne	Southeast Michigan
All Employees	\$44,632	\$56,017	\$49,146	\$62,933	\$44,978	\$59,424	\$61,357	\$59,840

NA – Data either not available or not disclosable.

Source: SEMCOG analysis of Quarterly Census of Employment and Wages, Bureau of Labor Statistics.

Table A-4
Establishments in COVID-19 Industries, 2018
Southeast Michigan

Industry Code	Industry Name	Livingston	Macomb	Monroe	Oakland	St Clair	Washtenaw	Wayne	Southeast Michigan
21	Mining, quarrying, and oil and gas extraction	7	9	NA	16	NA	NA	17	49
442	Furniture and home furnishings stores	19	74	10	185	9	38	113	448
443	Electronics and appliance stores	17	95	5	238	13	46	181	595
446Z	Health and personal care stores (except pharmacies)	26	145	13	437	21	61	285	988
447	Gasoline stations	34	200	31	428	27	71	815	1,606
448	Clothing and clothing accessories stores	72	221	19	596	35	104	460	1,507
451	Sports, hobby, music instrument, book stores	24	107	19	216	21	63	179	629
4522	Department stores	8	34	NA	59	6	13	41	161
453	Miscellaneous store retailers	76	303	41	816	45	123	611	2,015
4542	Vending machine operators	NA	12	NA	9	NA	NA	12	33
4543	Direct selling establishments	NA	28	NA	86	NA	NA	38	152
481	Air transportation	NA	NA	0	24	0	8	34	66
485	Transit and ground passenger transportation	NA	40	NA	81	5	11	112	249
487	Scenic and sightseeing transportation	NA	NA	0	NA	NA	NA	NA	NA
488	Support activities for transportation	17	70	9	108	21	28	227	480
5615	Travel arrangement and reservation services	NA	24	NA	71	NA	13	41	149
6212	Offices of dentists	68	374	27	754	51	166	538	1,978
6213Z	Offices of optometrists	12	33	4	67	8	15	49	188
6244	Child day care services	NA	79	16	219	21	91	227	653
711	Performing arts and spectator sports	NA	NA	NA	179	NA	54	104	337
712	Museums, historical sites, zoos, and parks	NA	NA	NA	13	NA	8	21	42
713	Amusements, gambling, and recreation	59	145	45	350	44	85	239	967
721	Accommodation	16	60	20	210	20	55	171	552
722	Food services and drinking places	240	1,347	214	2,640	225	634	2,693	7,993
812	Personal and laundry services	101	487	46	1,208	56	213	934	3,045
8131	Religious organizations	13	NA	NA	79	NA	33	182	307
	Total - Vulnerable Industries	905	4,500	572	10,261	704	2,132	9,869	25,189

NA – Data either not available or not disclosable.

Source: SEMCOG analysis of Quarterly Census of Employment and Wages, Bureau of Labor Statistics.