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Economic Impact of the COVID-19 Pandemic on Ohio

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INTRODUCTION

On March 11, 2020, the World Health Organization declared the COVID-19 outbreak a global pandemic. As cases spread in Ohio, Governor Mike DeWine reacted quickly by enacting a sweeping “stay-at-home” order that went into effect on March 23, 2020.¹ Overnight, Ohioans in nearly every industry started working from home, working with new health regulations in place, or working at reduced capacity – if not altogether losing their employment. As the work environment was upended, citizens also began to take precautions to limit their exposure in public places by reducing how often they went out or to what businesses they chose to patron. These changes in daily spending and business operations had profound effects on the economy; for example,

spending on entertainment plummeted while spending on groceries and online shopping jumped dramatically. Due to the unprecedented nature of the pandemic, the federal government has passed multiple rounds of assistance aimed at helping individuals, businesses, nonprofits, and local and state governments slow the economic recession that has roiled the nation. This report aims to quantify the economic impact felt by the state of Ohio from both employment changes and federal assistance in the first year of the pandemic. The assessment covers the first three quarters of employment figures for 2020 currently available and annualized federal assistance for the entire year; therefore, these findings cannot be compared directly.

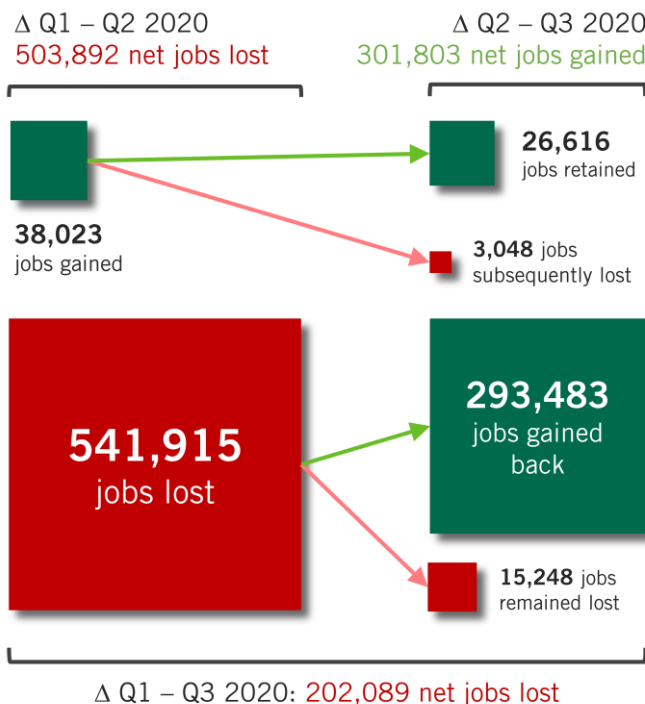
ECONOMIC LOSSES

Employment Changes

From the first quarter (ending in March) to the second quarter of 2020 (ending in June), 353 industries in Ohio lost 541,915 jobs due to direct or indirect effects of closures and business declines (Figure 1). Restaurants accounted for 24% of all jobs lost (130,437), driven by the state-imposed restrictions on dine-in services, as well as the public recognizing the risks of contracting COVID-19 when dining indoors. The employment service industry accounted for 6% of all jobs lost (30,338) in the state; because fewer new jobs became available and some companies enacted hiring freezes, employment services were no longer in high demand. Clothing retail stores and hotels each lost over 16,000 jobs in the second quarter due to an increase in online shopping and travel restrictions. Child daycares reported losing 14,551 jobs as demand declined due to safety concerns, parents working from home, or decreased incomes.

seasonal trends, while one-third shows higher demand on landscapers and lawn care providers from people working from home and interacting more outdoors, potentially prompting upgrades to outdoor spaces.

Figure 1: Quarterly Employment Changes in Ohio



Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages, Q1, Q2, and Q3 2020 Ohio Employment Data

¹ Ohio issues “stay at home” order; New restrictions placed on day cares for children. (2020, March 22). Office of the Governor, State of Ohio.

On a similar note, building material and garden supplies stores accounted for 14% of jobs gained during the period (5,201), also partially attributable to the spike in home improvement. According to a Porch.com survey, 75% of homeowners have completed a home improvement project since the start of the pandemic.² The construction industry gained 5,881 jobs (15%), mostly in occupations engaged in the construction and repair of highways, bridges, streets, sidewalks, and roads. In addition, Ohio's stay-at-home order included construction (e.g., hospital and long-term care facilities construction) as part of the essential infrastructure required to remain operating in response to the public health emergency. Food and beverage stores gained 4,052 jobs (11%) due to shifts in consumption patterns and an increase in dine-at-home purchases. The warehousing industry accounted for 10% of all jobs gained from the first to the second quarter, adding 3,727 jobs. The increase in online shopping and home deliveries transformed the way goods are distributed; according to a consumer survey, online shopping jumped from 39% of all shopping pre-pandemic to 59% in 2020 and is expected to stay at more than 50% after the pandemic ends.³

Figure 2: Jobs Lost from Q1 to Q2, 2020 in Ohio

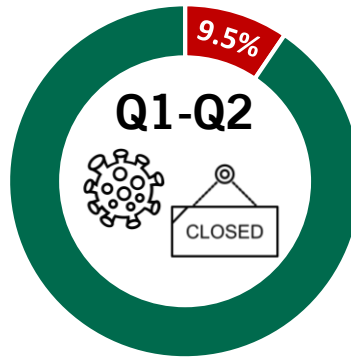


Figure 3: Jobs Lost from Q1 to Q3, 2020 in Ohio



Ohio's Projected Total Annual Employment, 2020: **5,301,880**

Source: Moody's Analytics

In the third quarter of 2020, most industries gained back some employment they had lost in the second quarter. Restaurants gained 78,577 jobs (60% of those lost). Employment services and clothing retail stores gained 16,848 (56% lost) and 10,591 jobs (64% lost), respectively. However, the net employment change from the first to the third quarter was still negative, with clothing retail stores and child daycare services losing almost 20% of their pre-pandemic employment. Overall, between the first and the third quarters, Ohio's economy lost 202,089 jobs, nearly 4% of total employment, pre-pandemic (Figures 1 & 3).

Labor Income, Output, and Tax Changes

Using 2019 IMPLAN⁴ data, 202,089 lost jobs correspond to more than an estimated \$10 billion loss in labor income and almost \$36 billion in output loss (Table 1). Tax-loss was \$3.6 billion; nearly 42% (\$1.5 billion) lost was in state and local tax revenue. For comparison, during the same 9-month period of 2019, the state economy gained 130,241 jobs; \$6.7 billion in labor income; \$19 billion in output; and \$2 billion in federal, state, and local taxes.

Table 1: Employment, Labor Income, Output, and Tax Changes in Ohio, First 3 Quarters of 2020⁵

Total Impacts	Q1 to Q2 2020 Stay-at-home Order	Q2 to Q3 2020 Beginning of a Rebound	Q1 to Q3 2020 Net Change	Q1 to Q3 2019 Net Change (Benchmark)
Employment	-503,892 jobs	301,803 jobs	-202,089 jobs	130,241 jobs
Labor Income	-\$23.3 billion	\$13.2 billion	-\$10.1 billion	\$6.7 billion
Output	-\$76.1 billion	\$40.4 billion	-\$35.7 billion	\$19.0 billion
Local Tax	-\$1.5 billion	\$0.8 billion	-\$0.7 billion	\$0.3 billion
State Tax	-\$1.8 billion	\$1.0 billion	-\$0.8 billion	\$0.4 billion
Federal Tax	-\$4.7 billion	\$2.6 billion	-\$2.1 billion	\$1.3 billion

Sources: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages, Q1, Q2, and Q3 2020 Ohio Employment Data; 2019 IMPLAN Data, direct multipliers based on all industry sector gains/losses

² Survey: *Home improvement trends in the time of Covid*. (2020, July 21). Porch Research.

³ Cambon, S. (2021, Feb 23). *Blue-collar jobs boom as Covid-19 boosts housing, e-commerce demand*. *The Wall Street Journal*.

⁴ IMPLAN is a suite of input-output economic impact analysis software and data sets based on federal sources. 2019 data is the most recent annual data available.

⁵ All dollar figures in 2021 U.S. dollars.

FEDERAL ASSISTANCE

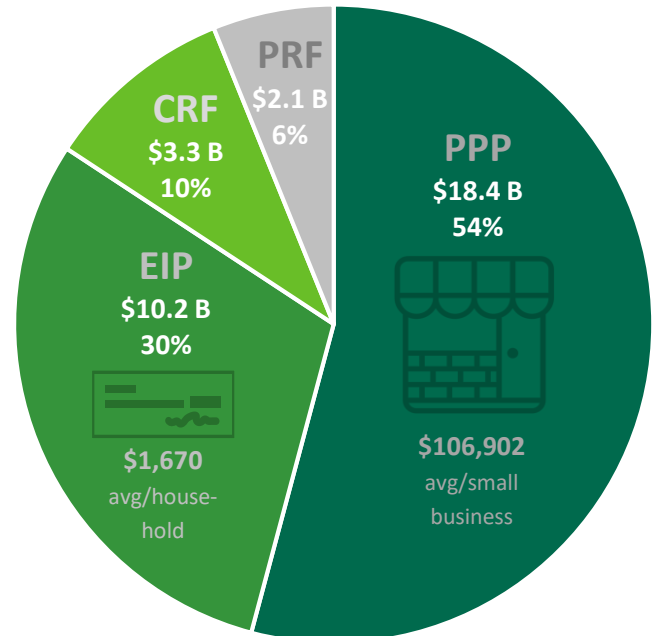
Beginning with the passage of the \$2 trillion *Coronavirus Aid, Relief, and Economic Security (CARES) Act* on March 27, 2020, billions of federal dollars were quickly distributed to various recipients throughout the United States.⁶ By the end of 2020, more than \$40.4 billion (2%) was obligated to Ohio, with an estimated \$34.1 billion *outlayed* (or spent) by recipients (Table 2 & Figure 4).

The largest sum of awards allocated to Ohio were in the form of Paycheck Protection Program (PPP) loans issued by the U.S. Small Business Administration (SBA); this program received further funding (\$483 billion) with the passage of the *Paycheck Protection Program and Health Care Enhancement Act* signed into law on April 24, 2020. In total, more than \$18.4 billion was issued to 172,516 small businesses⁷ in the state in 2020 (\$106,902 average). All payroll funds were required to be spent by December 31, or they would forgo loan forgiveness.⁸

An additional provision in the CARES Act administered over \$10.2 billion to more than 6.1 million Ohio individuals or families in the form of Economic Impact Payments (EIP), commonly known as stimulus checks (\$1,670 average). This first round of stimulus checks, beginning in April 2020, supported households in day-to-day needs and resulted in huge second- and third-tier spending throughout the regional economy. It is impossible to gauge how much of these payments were spent in 2020 – versus saved – however, evidence suggests most of these funds were utilized by the end of the third quarter of 2020.⁹

Through a third program, the Coronavirus Relief Fund (CRF), the U.S. Department of Treasury supported state and local governments in combatting the impacts of the pandemic.¹⁰ These funds were then reallocated by state and large local agencies in the form of grants and loans to sub-recipients throughout the state. In total, nearly \$3.3 billion was spent in Ohio in 2020 by organizations of all sizes. These funds went to support city and county governments, small businesses, universities and colleges, hospitals, community action agencies supporting rent and utility needs, bars and restaurants, nonprofits, and arts organizations.

Figure 4: Federal Assistance Spent in Ohio, 2020



Sources: U.S. Small Business Administration; USAspending; Pandemic Response Accountability Committee; U.S. Internal Revenue Service; The Ohio Grants Partnership (See Table 2 for more details)

Lastly, almost \$2.1 billion was spent by various organizations in Ohio in 2020, with support from 19 federal agencies, including the SBA (for programs separate from PPP loans).¹¹ This additional Pandemic Response Funding (PRF) went to state and local government agencies or authorities, businesses, schools, individuals, and nonprofits in the form of grants, direct payments, loans, and contracts. This figure also includes \$43.2 million in Unemployment Insurance (UI) benefits allocated to the Ohio Department of Jobs and Family Services by the U.S. Department of Labor.

Altogether, more than \$34 billion is estimated to have been spent in Ohio in 2020. Further funding and support continued into 2021 with more spending of 2020 obligations and additional stimulus plans; however, this report focuses only on spending that occurred in the first year of the pandemic.

⁶ *Coronavirus Aid, Relief, and Economic Security Act (CARES Act)*. S.3548, 116th Congress (2020).

⁷ "A business is eligible for a First Draw PPP Loan if the business has 500 or fewer employees or the business meets the SBA employee-based or revenue-based [size standard](#) for the industry in which it operates (if applicable)." – *Paycheck Protection Program Frequently Asked Questions* [PDF]. (2021, April 6). United States Department of the Treasury.

⁸ *Paycheck Protection Program Flexibility Act of 2020*, H.R.7010, 116th Congress (2020).

⁹ Zandi, M., DeAntonio, D., deRitis, C., & Sweet, R. (2020, October 28). *Pandemic economics: How COVID-19 is shaping American household behavior* [Video Webinar]. Moody's Analytics.

¹⁰ Driessen, G.A. (2021, February 8). *General state and local fiscal assistance and COVID-19: Background and available data* [PDF]. CRS Report R46298. Congressional Research Service.

¹¹ *Pandemic response funding* [Data set]. Updated 2021, May 4. *Pandemic Response Accountability Committee*.

Table 2: All Federal Assistance Spent in Ohio in 2020

Assistance Program	Awarding Agency(s)	# of Awards	Spent in 2020	Recipients
Paycheck Protection Program	Small Business Admin	172,516	\$18.4 billion	Small Businesses
Economic Impact Payment	Internal Revenue Service	6,136,466	\$10.2 billion	Individuals & Families
Coronavirus Relief Fund	Department of Treasury	7,334	\$3.3 billion	State & Local Gov'ts
Pandemic Response Funding	19 federal agencies ¹⁴	216,961	\$2.1 billion	Miscellaneous
TOTAL		6,533,277	\$34.1 billion	

Sources: Small Business Administration; USAspending; Pandemic Response Accountability Committee; Internal Revenue Service; Ohio Grants Partnership

Economic Impact of Assistance

Accounting for the estimated total of federal assistance spent in 2020, individual recipients were classified by their sectors using 2019 IMPLAN data.⁴ \$34.1 billion in outside funding corresponds to 401,559 supported jobs in Ohio, nearly \$21 billion in labor income, and almost \$59 billion in output (Table 3). Total estimated tax revenue was \$4.3 billion, 44% (\$1.9 billion) of which was in state and local taxes. Because the majority of federal assistance programs waived personal and corporate income tax requirements (potentially more than 90% of all funds, based on a review of the individual rules), it is assumed that no direct taxes were paid from these programs; only indirect (supplier) and induced (household) spending impacted tax revenues.

Table 3: Total Economic Impact of All Federal Assistance Spent in Ohio in 2020

Total Impacts	2020 Annual
Employment	401,559 jobs
Labor Income	\$20.7 billion
Output	\$58.8 billion
Local Tax	\$0.9 billion
State Tax	\$1.0 billion
Federal Tax	\$2.4 billion

Source: 2019 IMPLAN Data

Notes: Direct, indirect, and induced effects based on outside spending. All dollar figures in 2021 U.S. dollars.

SUMMARY

The COVID-19 pandemic has had economic effects not seen since the Great Depression – unemployment in the double-digits, businesses struggling to remain open, and a sharp decline in GDP. While it is still too early to compare the overall economic impact of job loss and the ensuing substantial federal assistance, there is now more clear evidence to explain why some employers are finding it difficult to fill certain jobs. Our economy is confronted with a set of complex and novel challenges that have many industries struggling to fill openings. Among the many shifts, sporadic shutdowns and reopenings have caused waves of needed or unneeded roles to be filled; parents are choosing to stay home to care for their children; low wages are being offered for many returning positions; and continued unemployment insurance benefits are giving some in the labor force breathing room on how best to move forward. However, the solution is not easy; some recent examples of ending extended benefits for the unemployed have not resulted in the rapid return of the workforce that many had hoped for.¹² Overall, if trends continue, fourth quarter employment for 2020 should see additional growth, especially when holiday seasonality is included.

Additionally, a second stimulus package, the \$1.9 billion American Rescue Plan, was signed into law in March 2021, adding more federal funding to the first stimulus this report specifically analyzed. The data shows that if wages were made higher, more Ohioans might be drawn to return to work, given that they feel it is safe to do so.

Lastly, third-order economic impacts of the pandemic are now being felt throughout the economy. In addition to labor deficits, supply-chain shortages are beginning to be seen across nearly all economic sectors.¹³ As the economy opens up and businesses start to swing back, they are finding their suppliers are lacking necessary commodities, from lumber to semiconductors to crude oil. Slower production in 2020, due to labor cutbacks and demand declines, is now resulting in a buying spree that some worry may result in rapid inflation.¹³

This report shows that federal assistance in the first year of the pandemic had a measurable and profound impact on the lives of Ohioans; to prevent further negative outcomes, remaining and future funds will need to be rationally allocated.

¹² [The curious case of the disappearing worker: What to do about a labour crunch](#) [paywall]. (2021, May 22). *The Economist*, May 22nd, 2021 edition.

¹³ Murray, B., Curran, E., & Chipman, K. (2021, May 17). [The world economy is suddenly running low on everything](#). *Bloomberg Businessweek*.

APPENDIX

Figure A1: Jobs Lost from Q1 to Q2 2020, Ohio

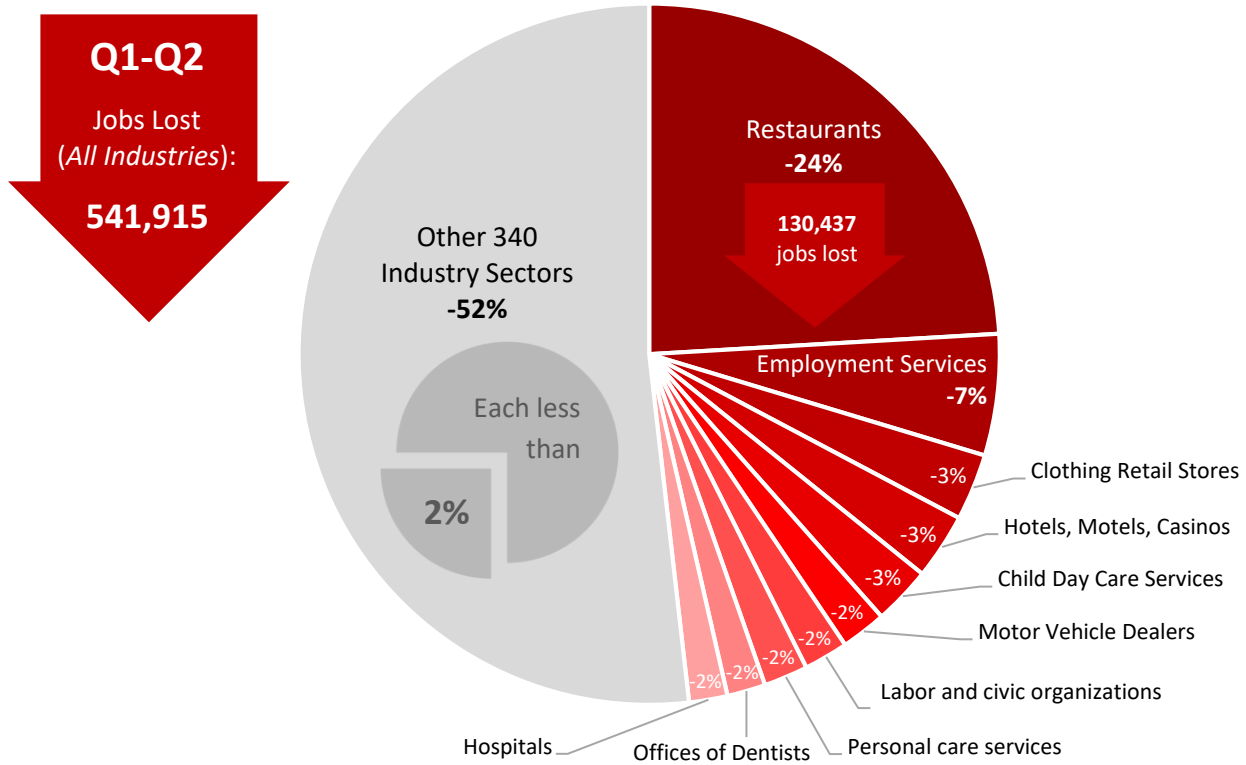


Figure A2: Jobs Gained Back in Q3 from 541,915 Jobs Lost in Q2, 2020, Ohio

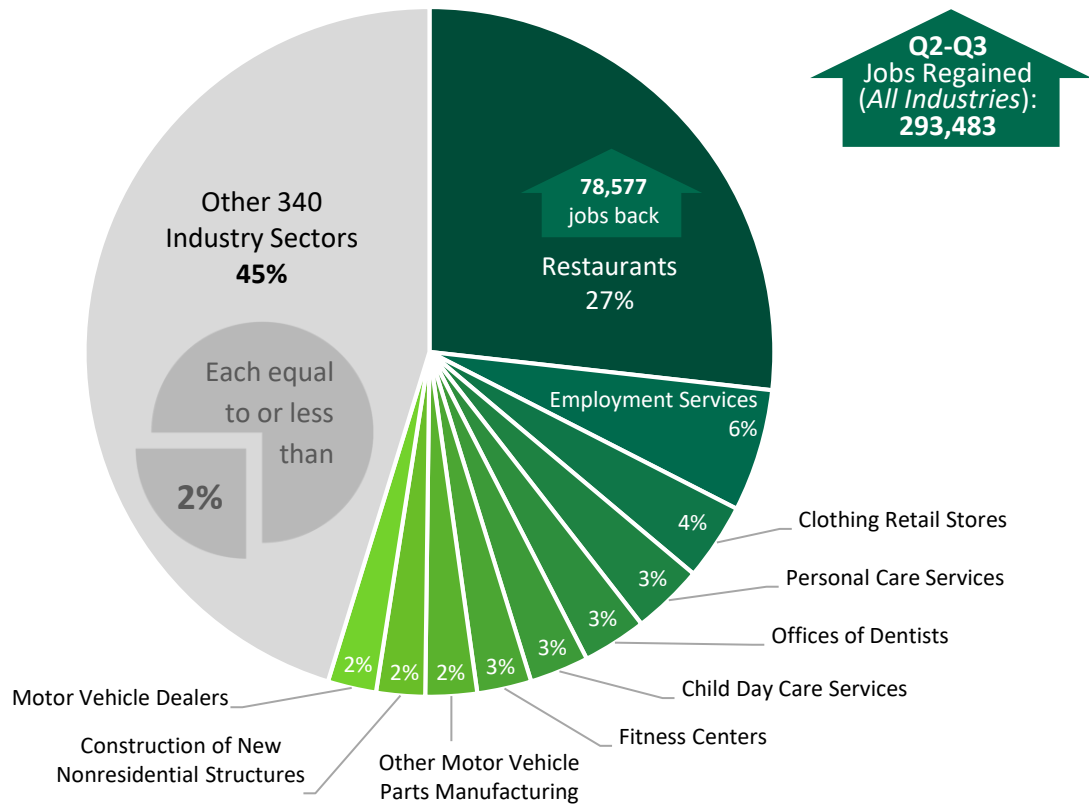


Table A1: Industries Losing the Most Employment in Ohio, Q1 to Q3, 2020

Industry Sector	Average Monthly Employment in Q1	Q1 to Q2 Jobs Lost	Q2 to Q3 Jobs Lost	Q1 to Q3 Net Change	% Change
Nursing Care Facilities	128,691	-5,583	-3,311	-8,893	-7%
Colleges and Universities	37,941	-4,962	-1,868	-6,830	-18%
Accounting and Payroll Services	34,240	-4,422	-1,178	-5,600	-16%
Elementary and Secondary schools	33,696	-4,023	-278	-4,301	-13%
Promoters of Performing Arts & Sports Figures	5,759	-2,864	-462	-3,326	-58%
Aircraft Engine and Parts Manufacturing	15,543	-1,335	-1,314	-2,648	-17%
Mental health and Substance Abuse Facilities	36,656	-1,829	-395	-2,224	-6%
Wholesale Machinery Supplies	35,664	-1,656	-171	-1,827	-5%
Machine Shops	17,643	-1,309	-164	-1,473	-8%
Electronics and Appliance Stores	15,323	-1,205	-174	-1,379	-9%

Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages, Q1, Q2, and Q3 2020 Ohio Employment Data. Sorted by Q1 to Q3 Jobs Lost

Table A2: Industries Gaining the Most Employment in Ohio, in Q1 to Q3, 2020

Industry Sector	Average Monthly Employment in Q1	Q1 to Q2 Jobs Gained	Q2 to Q3 Jobs Gained	Q1 to Q3 Net Change	% Change
Landscape Services	21,179	744	12,152	12,896	61%
Construction	58,935	6,861	5,881	12,742	22%
Other Recreation (Golf Courses)	16,329	8,248	1,153	9,401	58%
Warehousing	70,513	4,557	3,727	8,284	12%
Building Material & Garden Supplies Stores	50,496	796	5,201	5,997	12%
Couriers and Messengers	30,348	2,093	1,188	3,282	11%
Other Accommodations (Campgrounds)	1,229	711	540	1,251	102%
Ready-mix Concrete Manufacturing	2,693	157	362	519	19%
Sporting Goods Manufacturing	1,489	356	126	483	32%
Fruit Farming	372	338	104	442	119%

Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages, Q1, Q2, and Q3 2020 Ohio Employment Data. Sorted by Q1 to Q3 Jobs Gained

¹⁴ The 19 federal agencies that awarded PRF to Ohio recipients in Ohio in 2020 include (in order of outlayed amount) the Department of Education; Department of Transportation; Small Business Administration; Department of Health and Human Services; Department of Agriculture; Department of Housing and Urban Development; Department of Labor; Department of Justice; Election Assistance Commission; Federal Communication Commission; Department of Veterans Affairs; Department of Defense; National Science Foundation; Institute of Museum and Library Services; Railroad Retirement Board; National Endowment for the Arts; Department of Commerce; Department of Homeland Security; and National Endowment for the Humanities. Source: [USAspending](#).

Table A3: Industries Losing Employment in Q2 and Gaining the Most Jobs in Ohio, Q3 of 2020

Industry Sector	Average Monthly Employment in Q1	Q1 to Q2 Jobs Lost	Q2 to Q3 Jobs Gained	Q1 to Q3 Net Change	% Change
Restaurants	436,676	-130,437	78,577	-51,860	-12%
Employment Services	125,108	-30,338	16,848	-13,490	-11%
Clothing Retail Stores	34,144	-16,668	10,591	-6,077	-18%
Personal Care Services	26,531	-11,041	9,807	-1,234	-5%
Offices of Dentists	32,010	-9,607	8,796	-811	-3%
Child Day Care Services	35,477	-14,551	8,143	-6,408	-18%
Fitness Centers	18,331	-8,166	7,467	-699	-4%
Other Motor Vehicle Parts Manufacturing	20,735	-9,285	7,091	-2,194	-11%
Construction of New Nonresidential Structures	93,614	-3,429	6,709	3,280	4%
Motor Vehicle Dealers	78,934	-11,344	6,675	-4,669	-6%

Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages, Q1, Q2, and Q3 2020 Ohio Employment Data. Sorted by Q2 to Q3 Jobs Gained

Table A4: Industries Gaining Employment in Q2 and Losing the Most Jobs in Ohio, Q3 of 2020

Industry Sector	Average Monthly Employment in Q1	Q1 to Q2 Jobs Gained	Q2 to Q3 Jobs Lost	Q1 to Q3 Net Change	% Change
Food and Beverage Stores	98,595	4,052	-1,293	2,759	3%
Vegetable and Melon Farming	407	341	-748	-407	-100%
Greenhouse and Nurseries	3,325	1,351	-597	754	23%
Poultry and Egg Production	2,357	127	-145	-18	-1%
Animal, Except Poultry, Slaughtering	1,181	31	-43	-12	-1%
Sand and Gravel Mining	1,190	80	-30	50	4%
Relay and Industrial Control Manufacturing	3,447	31	-26	5	0%
Pipeline Transportation	551	25	-25	0	0%
Cut and Sew Apparel Contractors	136	21	-24	-3	-2%

Source: U.S. Bureau of Labor Statistics Quarterly Census of Employment and Wages, Q1, Q2, and Q3 2020 Ohio Employment Data. Sorted by Q2 to Q3 Jobs Lost

| March 2021

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Your comments and questions are valued and encouraged; please share them with Matthew Ellerbrock at m.ellerbrock@csuohio.edu

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