

CLEVELAND STATE UNIVERSITY

EDA UNIVERSITY CENTER



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CENTER FOR ECONOMIC DEVELOPMENT

EDA University Center Showcase

June 30, 2020 | Cleveland, Ohio

Iryna V. Lendel, PhD

SERVING THE REGION

- Northeast Ohio and the State
- Conducting research and technical assistance across 4 main themes:



Entrepreneurship



Innovation and Advanced Manufacturing



Economic Inclusion



Technical Assistance



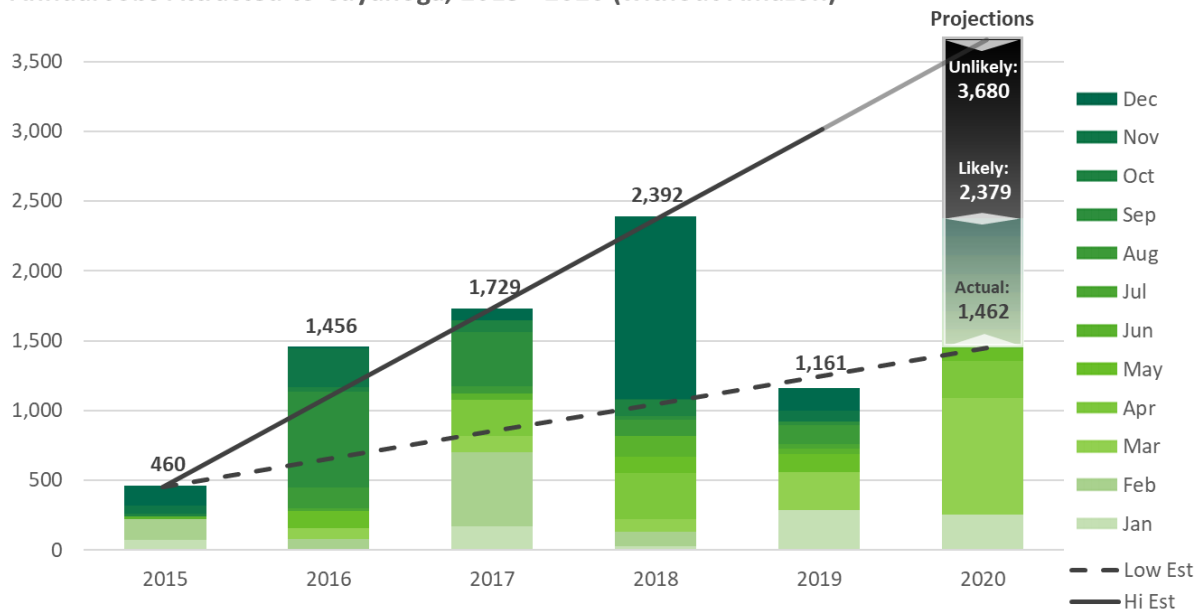


ENTREPRENEURSHIP

Assist Cuyahoga County Economic Development with Strategic Planning

JobsOhio Attraction/Expansion

Annual Jobs Attracted to Cuyahoga, 2015 - 2020 (without Amazon)



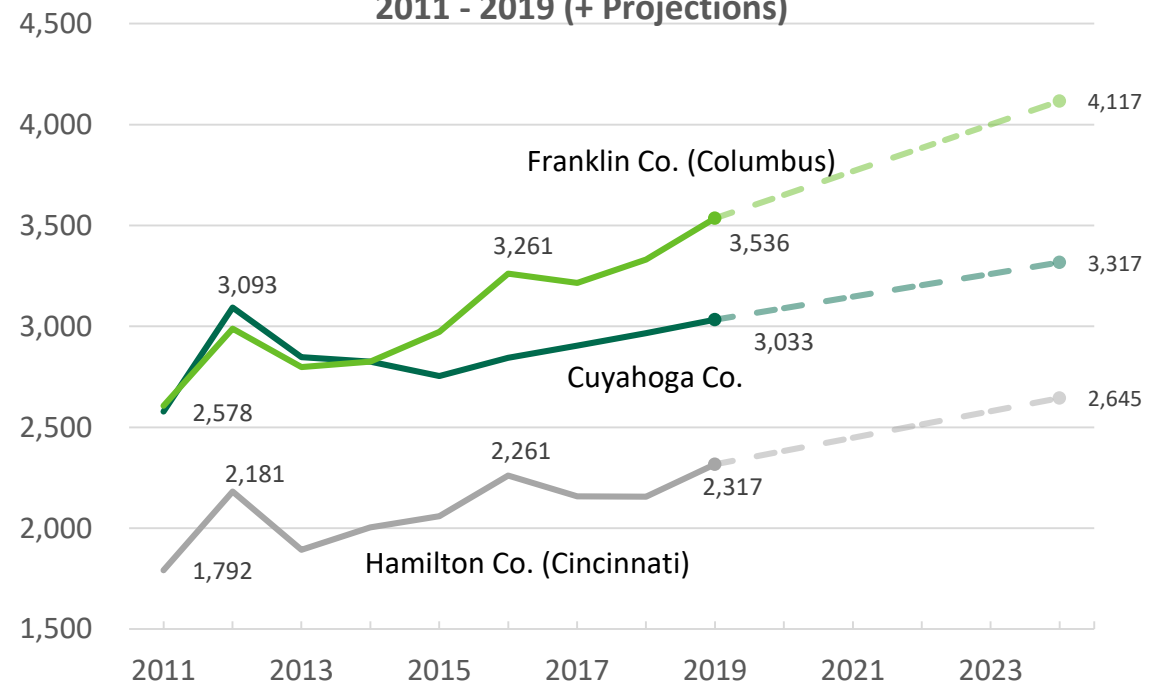
Sources: JobsOhio Monthly Executed Grants and Loans Reports, 2015-2020; CSU Center for Economic Development



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Business Starts: QCEW Data

Annual Business Starts, Cuyahoga vs Ohio Benchmarks, 2011 - 2019 (+ Projections)



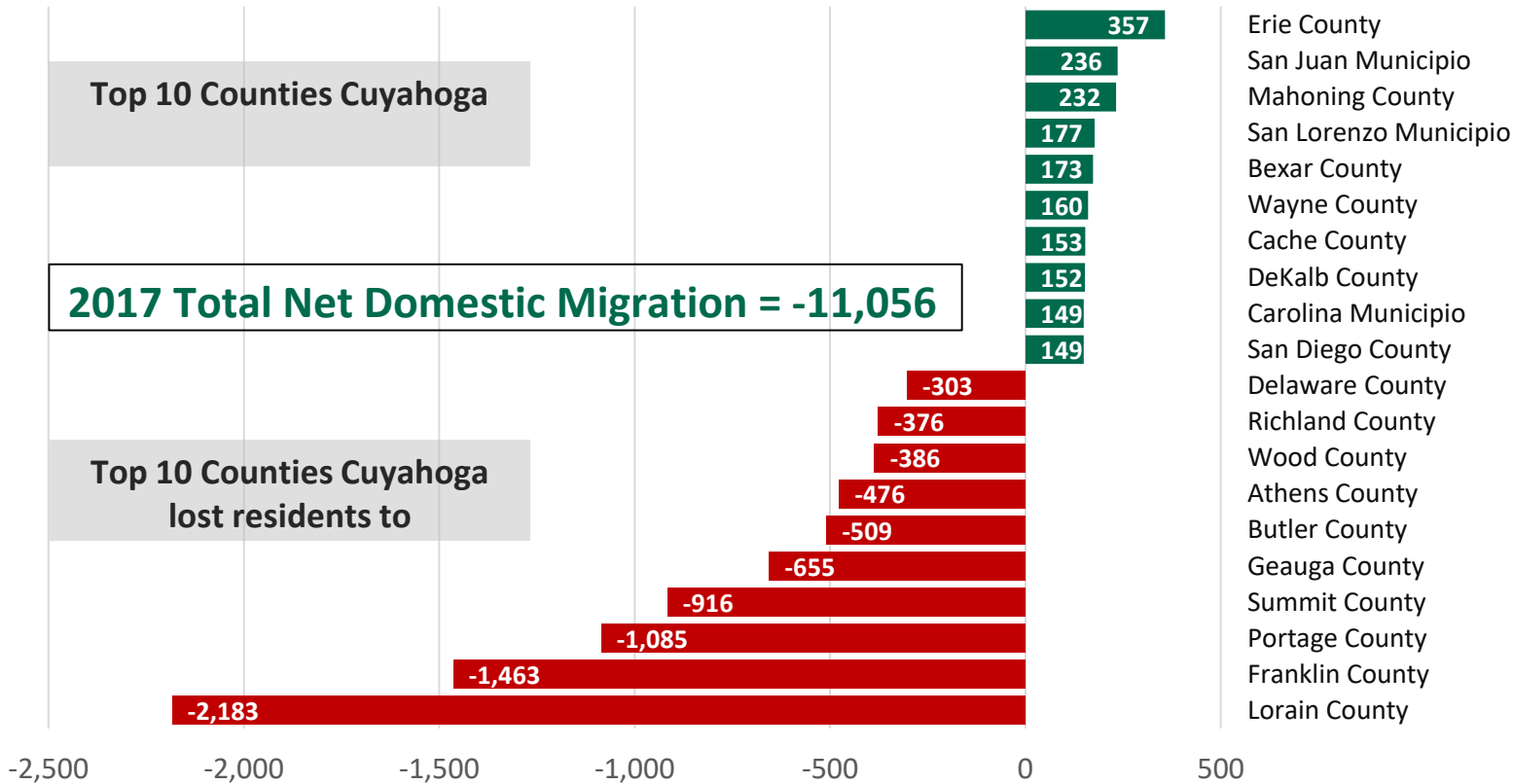
Sources: Ohio Department of Jobs and Family Services Quarterly Census of Employment and Wages; CSU Center for Economic Development



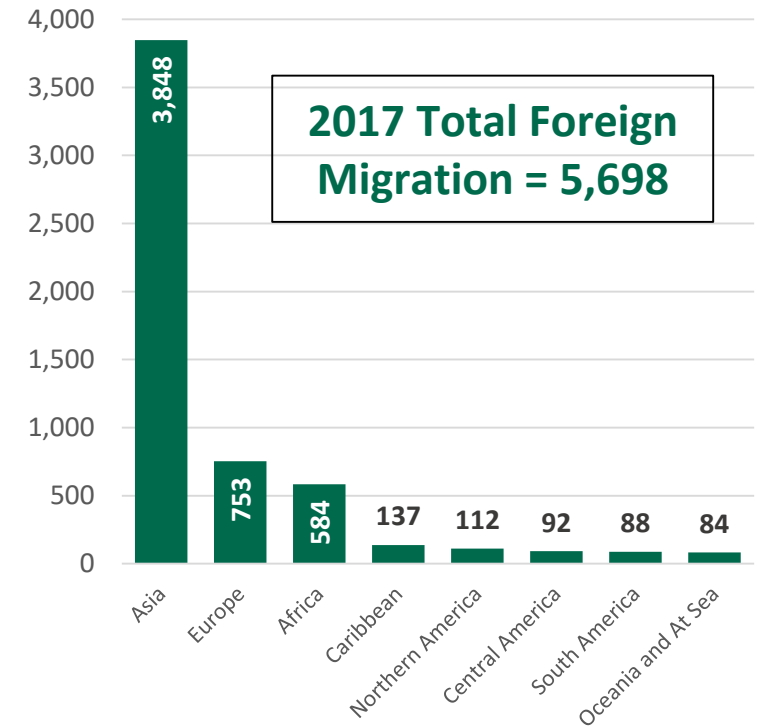
ENTREPRENEURSHIP

Assist Cuyahoga County Economic Development with Strategic Planning

Net Domestic Migration Flows Into or Out of Cuyahoga, 2017



Foreign Region Migration Into Cuyahoga, 2017



2017 Total Net Migration (Domestic + Foreign) = -5,358

Sources: 2013 – 2017 5-year American Community Survey



ENTREPRENEURSHIP

Partnership with the Centers for Outreach and Engagement

- Mentored students to compete in Vike Tank, Idea Labs, Northeast Ohio Student Managed Venture Fund, Wells Fargo First Year Initiative, and Startup Vikes
- Recruited 28 more students to the Entrepreneurship Club for a total of 73 students
- Continue to work closely with partners on entrepreneurship development in Republic of Georgia with US State Department



STARTUP VIKES
7 YEARS

26
new
STARTUPS
formed



814+
ATTENDEES



RESEARCH

INTERNATIONAL ENTREPRENEURSHIP
APPLIED RESEARCH SYMPOSIUM

120

PARTICIPANTS

40+

PAPERS
presented

3

SITE VISITS

6

ROUNDTABLES



INTERNATIONAL
PARTNERSHIPS
LEBANON
GEORGIA



200+ HOURS

MENTORING STUDENTS
for PITCH & HACKATHON
competitions



WESTON IDEATION LAB

Open to all CSU students providing
pathways to entrepreneurship.
Grand opening February 28, 2019.

February 2019 - February 2020

1,899

VISITORS

96

PROGRAMS



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INNOVATION AND ADVANCED MANUFACTURING

NEO Front Runners: Groups of Regional Industry Drivers (GRIDs)

- The three identified **GRIDs** - *Professional Services, Growing Legacy Manufacturing, and Oil and Gas* - **show their relative economic resiliency**
- The Professional Services GRID** has the lowest level of jobs and output loss due to COVID-19 among all other industries (including Non-GRIDs).
- Non-GRID industries will see an outsized negative impact** affecting them – with 7% higher cumulative job losses and 4% higher projected output decline than the GRIDs’ total in 2020.

2019 OUTPUT			
Change since 2018	2020 Projection: Pre-COVID	Post-COVID	
▲ 0.3%	Professional Services GRID \$60.2 billion	1.4% ▲	-3% ▼
▲ 0.5%	Growing Legacy Manufacturing GRID \$21.0 billion	1% ▲	-16% ▼
▲ 0.8%	Oil and Gas GRID \$5.9 billion	1.2% ▲	-24% ▼
▲ 0.4%	TOTAL GRIDs \$87.0 billion	1.3% ▲	-8% ▼
▲ 3.4%	Non-GRIDs Industries \$160.2 billion	3.7% ▲	-12% ▼
▲ 2.3%	TOTAL NEO \$247.3 billion	2.9% ▲	-10% ▼

2019 EMPLOYMENT			
Change since 2018	2020 Projection: Pre-COVID	Post-COVID	
▲ 1.1%	Professional Services GRID 250,291 jobs	0.1% ▲	-5% ▼
▼ -1.2%	Growing Legacy Manufacturing GRID 110,238 jobs	-2% ▼	-18% ▼
▲ 3%	Oil and Gas GRID 3,331 jobs	-1% ▼	-26% ▼
▲ 0.4%	TOTAL GRIDs 363,860 jobs	-1% ▼	-9% ▼
▲ 0.6%	Non-GRIDs Industries 1,710,469 jobs	0.4% ▲	-16% ▼
▲ 0.6%	TOTAL NEO 2,074,329 jobs	0.2% ▲	-15% ▼

Sources:

- McKinsey Vulnerable Jobs tool for Ohio for Post-COVID Jobs Lost
- Moody’s Analytics for pre-COVID Employment and Output
- IMPLAN Direct Effects of Value-Added from the NEO Model for Post-COVID Output





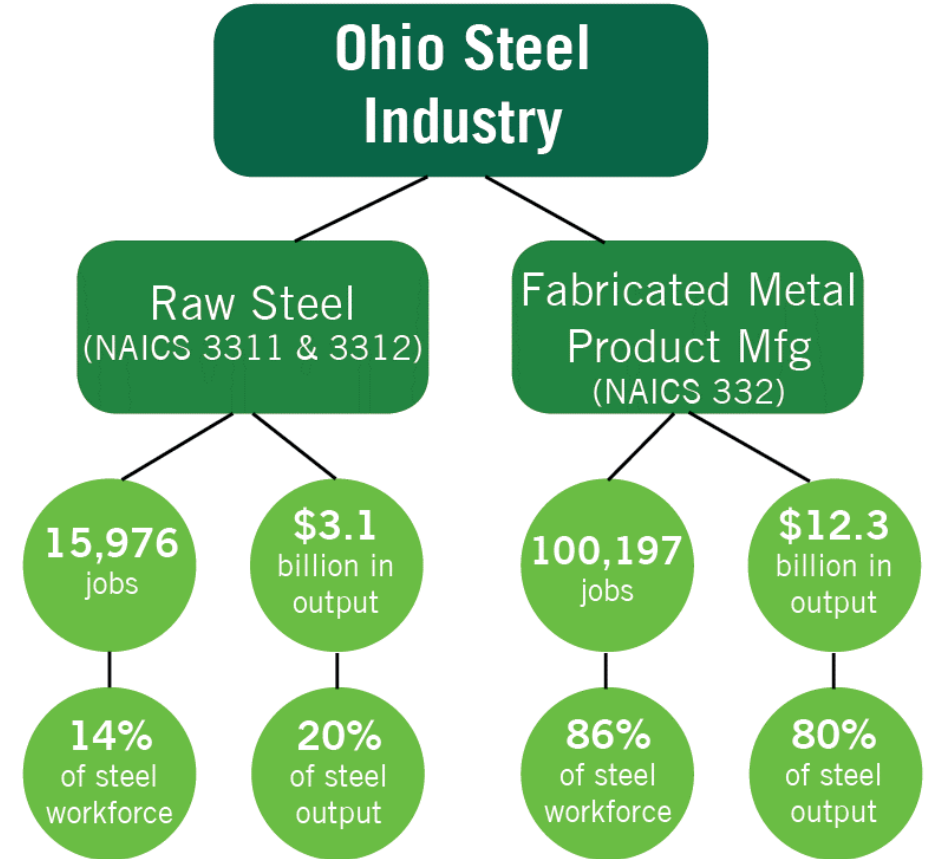
INNOVATION AND ADVANCED MANUFACTURING

- Ohio Steel Industry lost **2,159 jobs (-2%)** since January 2020 (WARN Notices)
- 75% of the layoffs - in NEO
- **Half of the layoffs are permanent**
- **ArcelorMittal**, the world's largest steel producer, put almost 30% of its employees in Ohio on furloughs
- **U.S. Steel** closed its tubular plant in Ohio, 250 unemployed
- **Timken** implemented unpaid rolling **furloughs for 80% of salaried employees** (1,760 people), beginning in early April.

“Our customers in the automotive and other industries unexpectedly closed their operations due to the COVID-19 pandemic, and the extent of their re-openings is uncertain”

ArcelorMittal, June 10th 2020

Potential Relief Strategy: a long-term infrastructure package to create more jobs specifically in building and re-building bridges and highways which use many steel products



Sources: 2019 Moody's Analytics; Worker Adjustment and Retraining Notification (WARN); TimkenSteel Announces First-Quarter 2020 Results (2020, May 7).



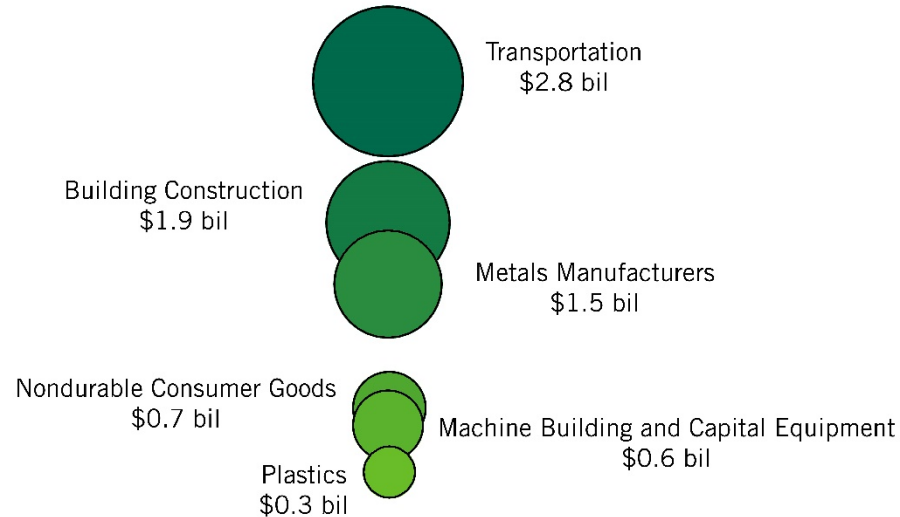
INNOVATION AND ADVANCED MANUFACTURING

Ohio is the 3rd largest-steel producing state in the U.S. after Texas and California

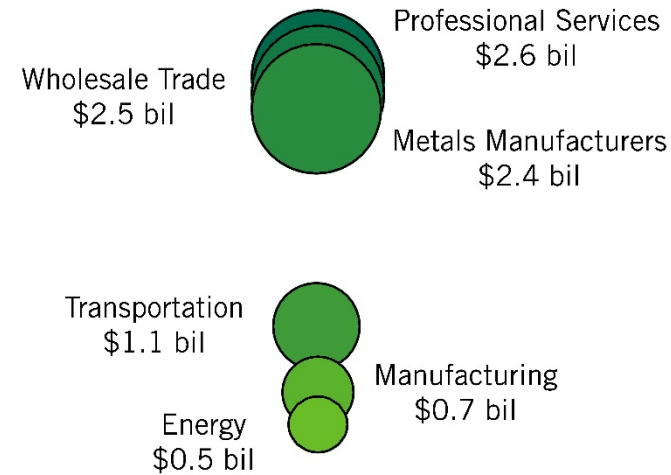
- Using industry's forward linkages, we identified top steel customers in Ohio: *Transportation, Building Construction, Metals Manufacturers*

- Using industry's backward linkages, we identified top suppliers in Ohio: *Professional Services, Wholesale Trade, and Metals Manufacturers*

Ohio's Steel In-State Customers



Ohio's Steel In-State Suppliers





INNOVATION AND ADVANCED MANUFACTURING

JobsOhio, 2019 Annual Report & Economic Impact of Cincinnati Innovation District

- Yearly we assist JobsOhio—the state ED agency—in assessing the economic performance of the state
- Examine employment, wages, and gross product
- Assist them in assessing attraction and expansion efforts

In the last decade, Ohio has seen a host of developments that have transformed our state's economy, including:

\$78B

A \$78 billion energy industry, which is powered by abundant natural gas and natural gas liquids derived from the Utica and Marcellus shale formations

\$1B+

A multibillion-dollar data center industry fueled by global companies including Amazon Web Services, Facebook, and Google

400

A surge in global investment through nearly 400 international projects since 2013

2.02

Ohio has the No. 2 highest advanced manufacturing location quotient in the region — 2.02x the national industry concentration

As the decade drew to a close, Ohio saw positive economic trends grow and persist even further:

1%

Investment

5.8M

A labor force that is 5.84 million strong — highest level since 2001

4.8M

A record high private employment of 4.83 million, the highest since 2001

\$960

Over \$960 in per capita income



SITE SELECTION ABOUT WHY OHIO INDUSTRIES NEWS & INSIGHTS MEDIA CONTACT

MEDIA RELATIONS

JobsOhio, University of Cincinnati and Cincinnati Children's Unveil the Cincinnati Innovation District™

Unique public-private partnership aims to accelerate more than 15,000 STEM graduates and \$2 billion in research to bring up to 20,000 new jobs and \$3 billion in annual economic impact

Posted on March 6, 2020



FOR IMMEDIATE RELEASE
March 6, 2020
Release

CINCINNATI, Ohio — Ohio Governor Mike DeWine, Lt. Governor Jon Husted, JobsOhio, the University of Cincinnati and Cincinnati Children's Hospital Medical Center announced a first-of-its-kind partnership designed to build, retain and attract talent to Ohio by formally introducing the Cincinnati Innovation District™.

Anchored by the University of Cincinnati and Cincinnati Children's, Cincinnati Innovation District™ will serve as a 'blueprint' for the state and ensure Cincinnati becomes a magnet for talent that attracts Fortune 500, mid-size and developing start-up companies.

Source: JobsOhio [2019 Annual Report](#); JobsOhio [press release](#), 2020, March 6



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ECONOMIC INCLUSION

Monitoring Regional Growth Portfolio Strategies

- Updates a research framework and data of previous analyses conducted by CSU to identify “Factors of Metropolitan Growth”
- Data intensive project – collected and constructed 81 different variables on components of regional growth – Factor & Regression Analysis of 135 mid-sided Metropolitan Areas

Regression – 5-year change 2013 to 2018

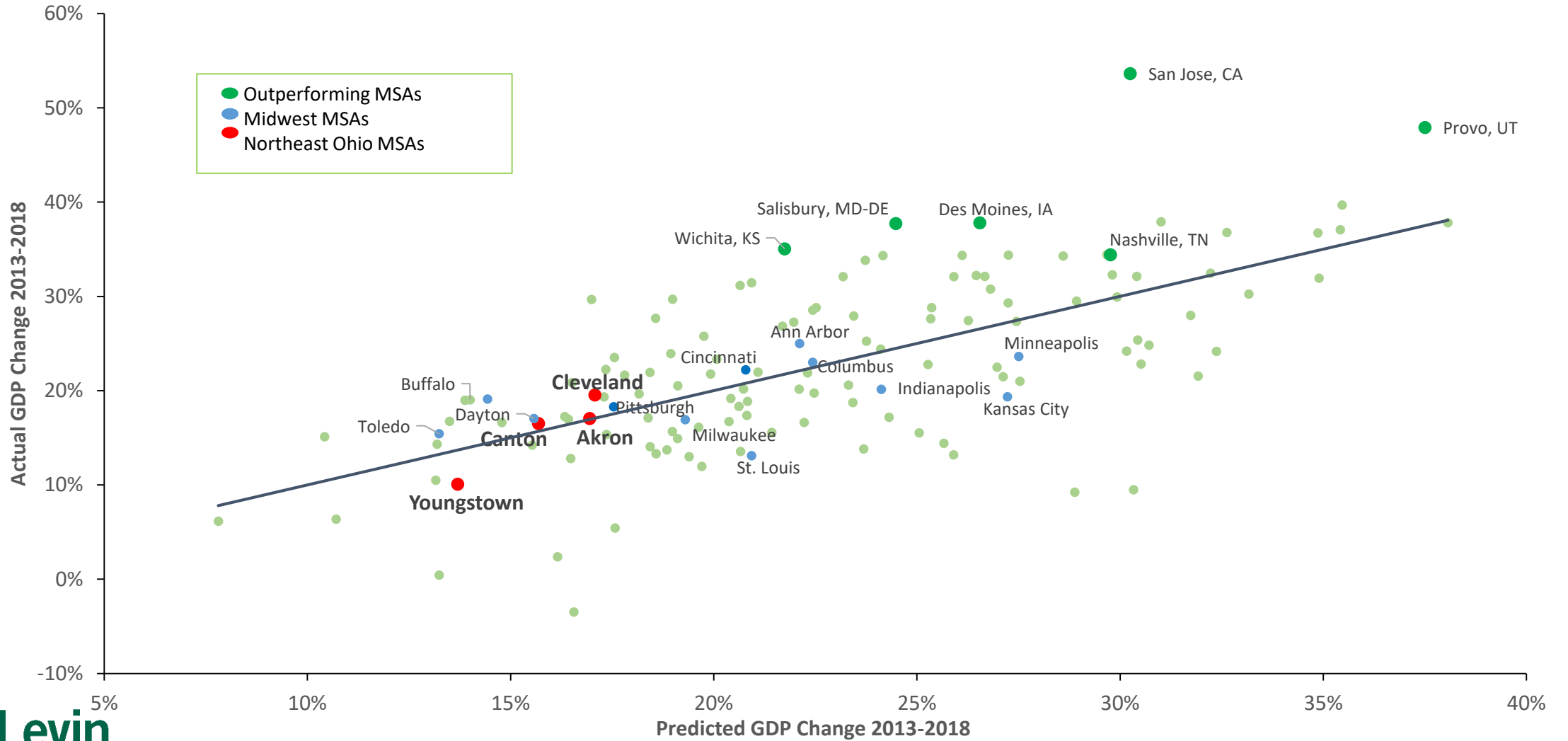
Factor 1 – Innovation & Talent (25.4%)
 Factor 2 – Entrepreneurship in High-cost Places (16.0%)
 Factor 3 – New Residential Centers (11.1%)
 Factor 4 – Retirement Destinations (8.4%)
 Factor 5 – Polarization (4.7%)

Employment	Gross Regional Product	Per Capita Income
Innovation & Talent	Innovation & Talent	Innovation & Talent
Entrepreneurship in High-cost Places	Entrepreneurship in High-cost Places	Entrepreneurship in High-cost Places
New Residential Centers	New Residential Centers	New Residential Centers (-)
		Aging America
Polarization (-)	Polarization (-)	Polarization (-)
52.5%	41.8%	39.4%



ECONOMIC INCLUSION

Comparison Between Predicted and Actual % Changes, Gross Regional Product





ECONOMIC INCLUSION

Takeaways

Innovation, Talent (Factor 1) and Entrepreneurship (Factor 2) drive economic disparities between mid-sized MSAs – explaining 40% of regional differences

Emerging New Residential Centers (Factor 3) are driven by employment and housing choices – mainly in Texas

Retirement Destinations (Factor 4) is determined by disposable income of seniors as shown by the positive relationship with per capita income.

Polarization (Factor 5) has a negative drag on output variables and is dispersed equally across small and large MSAs.

Policy Recommendations

Innovation, talent and entrepreneurship all grouped in the same factors. Yes, the coasts are strong in this factor, there are many other MSAs that are succeeding.

There are 2 Americas divided by climate; there are new places that are increasing population (Factor 3) and there are those that are losing population

Baby Boomers and Retirees matter

Until we solve social and economic inclusion problems (Factor 5) there will be a drag on the entire economy.



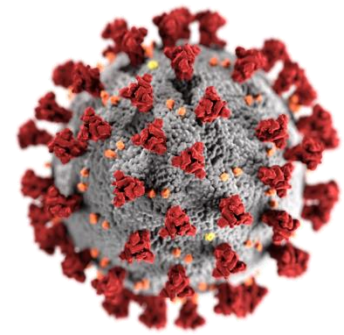
ECONOMIC INCLUSION

Ohio County Economic Vitality Indicators

- Center examined variety of economic indicator reports and products with over 20+ methods from a variety of sources including:
 - National think-tanks (Brooking Institution)
 - National policy organizations (Appalachian Regional Commission, EDA/Stats America, US Department of Agriculture)
 - States (Alabama, California, Georgia, Indiana, Maryland, Mississippi Delta, North Carolina, Ohio, Tennessee, Texas, & Washington)
- Common Indicators – Unemployment, Poverty, Income
- Common Themes:
 - No index explores investment decisions or being a lead to it at the county level
 - Most indexes are confusing and difficult to convey meaning to general public
 - Only Brookings has defensible methodology

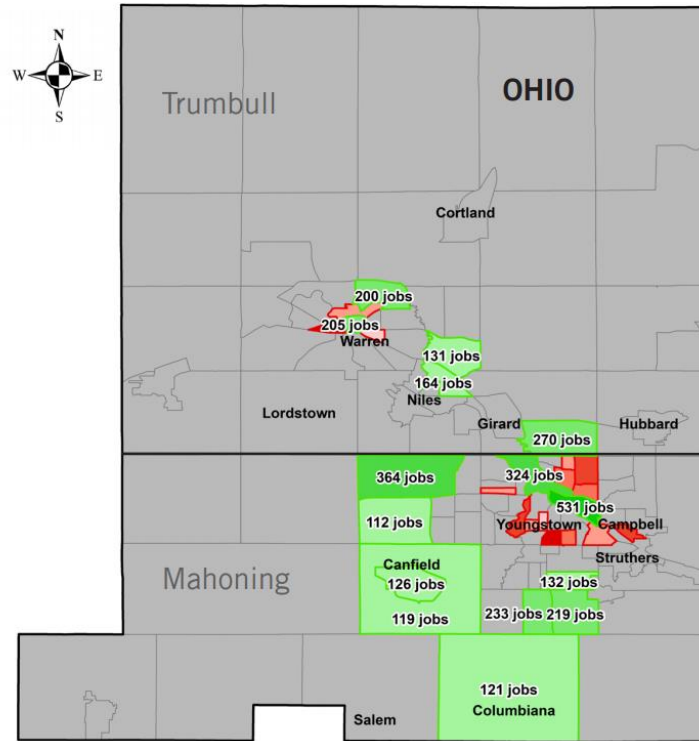


ECONOMIC INCLUSION



The Role of Public Transportation in Youngstown (Research Brief)

- **Every sixth resident** in Youngstown has an annual income **below the poverty threshold** (\$12,784)
- On average, **25 minutes** work commute by car vs **136 minutes** using public transit
- Applied **Poisson regression model** to analyze travel time of 17,000 residents in poverty to 3,300 entry-level jobs
- If we decrease public transit travel time by 10 minutes, **4,500 low-income residents** (7% increase) will have better employment opportunities



COVID-19 Impacts:

- April 6th - May 17th 2020 - **suspended bus services** by the Western Reserve Transit Authority
- Youngstown was hit the hardest by with **the most coronavirus death** per capita in NEO: 82 per 100,000
- Mahoning and Trumbull counties account for **every 10th unemployment claims** in NEO

Sources: U.S. Census; 2015 LEHD LODES IMPUS NHGIS; ODJFS monthly Claims; Center for Economic Development



ECONOMIC INCLUSION

Examining Minority-Owned Firms in the Cleveland MSA ([Research Brief](#))

- **Cleveland ranked 83 out of 100 for inclusion by race** index (Brookings Institution)
- In the Cleveland MSA, **\$3,894 is the median earnings gap** between whites and people of color and **the gap is widening**

- Minority-owned businesses in the Cleveland MSA represented **19% of all firms** compared to **29% in the U.S.**
- Note that the Cleveland MSA (24%) and the U.S. (22%) contain **similar shares of minority population**
- **African American entrepreneurs** owned 71% of all minority firms in Cleveland; 14% were **Asian-owned**
- From 2007 to 2012, **Ohio saw a 5% increase** in minority owned-firms, while **the U.S. experienced an 8%** overall increase.





TECHNICAL ASSISTANCE

Clients and Partners



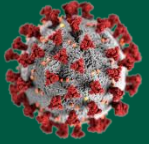
COVID -19 TECHNICAL ASSISTANCE



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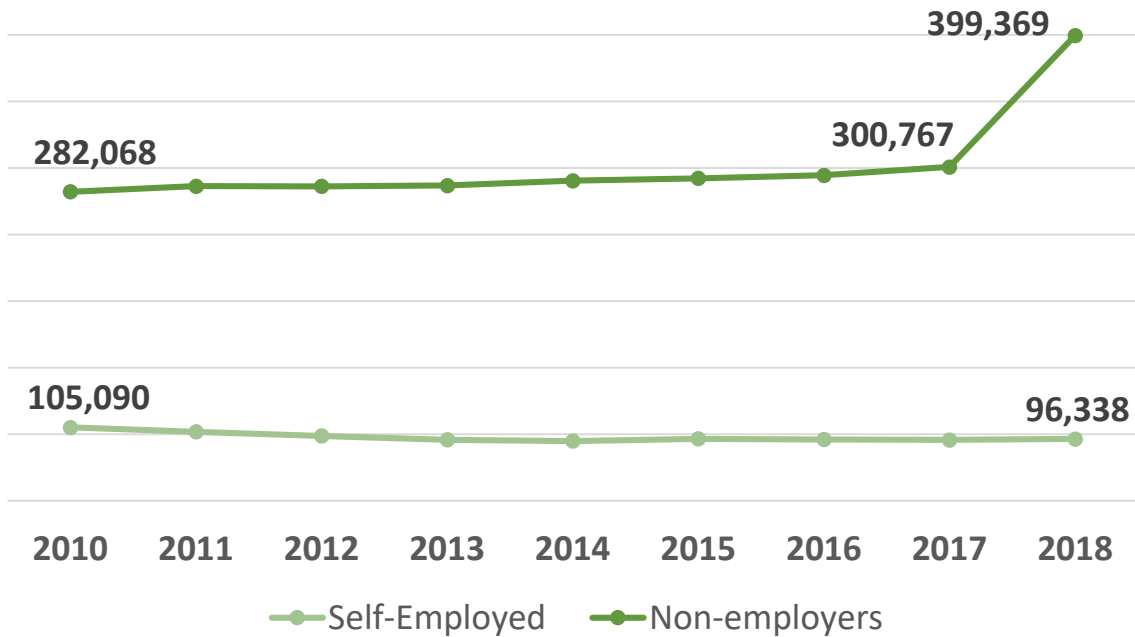
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CARLOS JAVIER
PHOTOGRAPHY



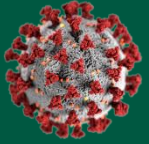
COVID-19 TECHNICAL ASSISTANCE

Self-employed vs Non-Employers Differences



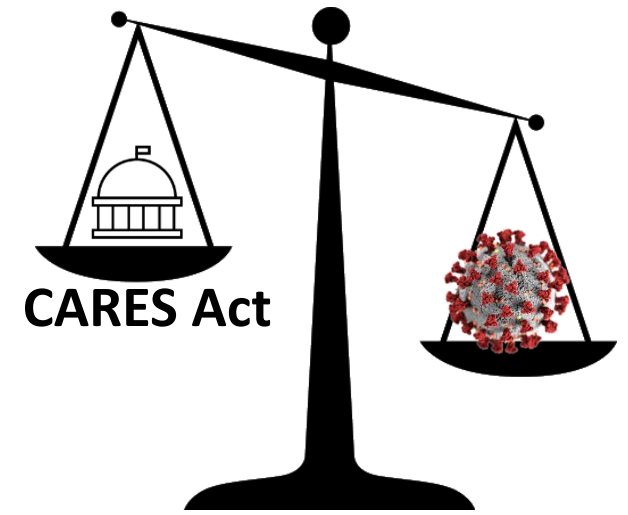
- In NEO, **42% increase in the number of non-employers** due to the growth in the number of businesses that are not the primary occupation for the owner
- **8% decline in the number of self-employed workers** in own not incorporated business

- **Self-employed** represent individuals whose primary occupation is business ownership
- **Non-employers** are business ventures without employees and payroll
- The figures for self-employment and non-employers differ because:
 - business owners can have more than one business
 - a business can have more than one owner
 - a business may not be someone's primary occupation
 - the self-employed can have payroll
- **The number of non-employers has risen** because of growth in the number of businesses that are not the primary occupation for the owner.



COVID-19 TECHNICAL ASSISTANCE

Tracking \$2.2T Covid-19 stimulus package in Ohio



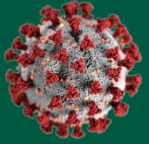
Program	Amount	Figures as of
SBA's Paycheck Protection Program Loans	\$18.2 bil	06/12/2020
IRS's Stimulus Checks	\$9.8 bil	05/20/2020
State Unemployment Benefits	\$4.1 bil	06/18/2020
Health Care Providers	\$2.6 bil	06/16/2020
SBA's Emergency Loans and Advances	\$2.2 bil	06/12/2020
Education (K-12; higher education)	\$948 mil	04/03/2020
Housing	\$914 mil	06/09/2020
Transportation (airports and ground passenger)	\$583 mil	05/05/2020
TOTAL	\$39.3 bil	06/18/2020

Note: These numbers do not reflect the Federal Reserve's Main Street Lending Program

Our Objectives:

- Assess social distancing effects on jobs in each industry
- Estimate the economic impact of the Coronavirus Aid, Relief, and Economic Security Act (the CARES Act) on Ohio
- Compare the annualized economic impact of losing vulnerable jobs in Ohio with the impact of the CARES Act

As of June 18th 2020, **Ohio received \$40 billion to prevent**, prepare for, and responds to coronavirus



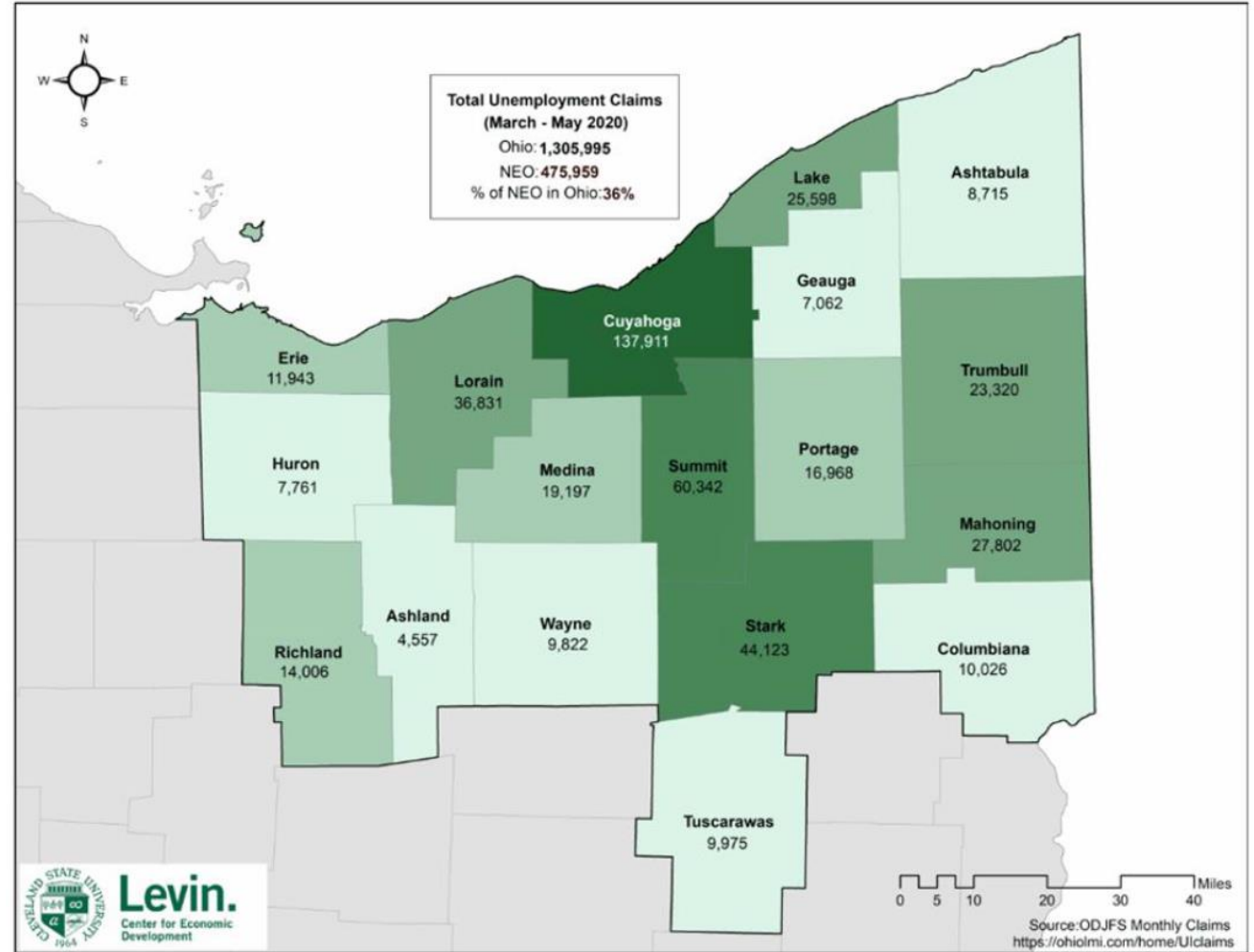
COVID-19 TECHNICAL ASSISTANCE

Covid-19 Recession Impacts On NEO

“How much economic damage COVID-19 ultimately does will depend on the trajectory of the virus—and how governments respond”

Mark Zandi, March 2020

- **Unemployment claims in NEO accounted for 36% of all Ohio claims**
- Federal funding for the region is harder to track than for the state, e.g., PPP loans received in NEO



SERVING THE REGION – IMPACT OVER TIME

EDA @US_EDA

Assistant Secretary Dr. John Fleming and Scott Turner, Executive Director of the #WHORC listen to @CLE_State Professor Iryna Lendel discuss how they are leveraging their EDA University Center partnership to examine social and economic benefits of Opportunity Zones.



How did American CEOs get so rich?

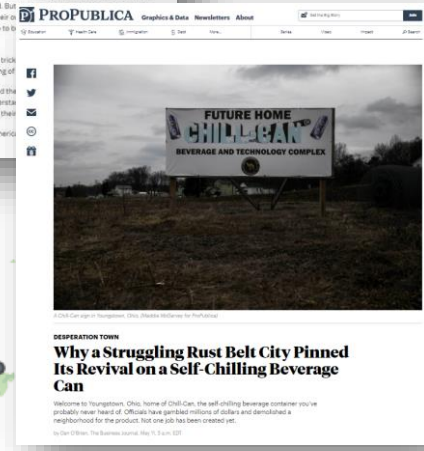
The rise of stock buybacks tells part of the story.

By L.A. Scheiner | essiebeth.scheiner@gmail.com | Oct 11, 2018, 12:05pm EDT

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On October 24, 1929, the American stock market crashed. Fortunes disappeared overnight, and the value of American companies tanked. But had an idea. They started buying shares of their own company. They were fewer stocks out there for other people to buy, so the price went up.

Corporations had figured out a kind of magic trick actually doing anything. This was the beginning of a practice that has fundamentally changed the way we understand how it works can help us understand why their employees so little compared to their CEO. So, how did stock buybacks take over the American economy?



All Reports Published (2012 to Present)	Count of All Reports	Downloads of All Reports Oct 2019 thru Jun 2020
EDA Theme		
Entrepreneurship	82	2,054
Innovation Ecology & Advanced Manufacturing	85	2,696
Economic Inclusion	11	579
Service and Technical Assistance for EDDs, Government, & RDOs	101	3,214
Total	279	8,543

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