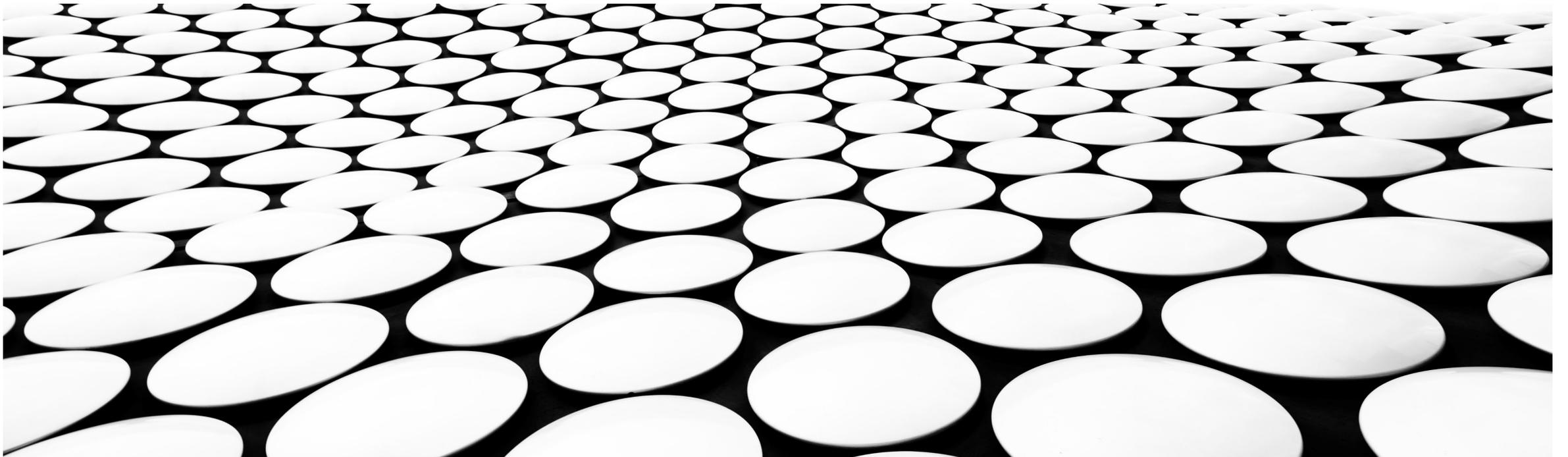

BUSINESS RETENTION AND EXPANSION

IS IT TIME TO FIT A SQUARE PEG INTO A ROUND HOLE?



BUSINESS RETENTION AND EXPANSION

“This change had a huge, huge impact,” said Stephen Burnett, a professor with Northwestern University's Kellogg School of Management. Standardization led to lower costs, higher quality and more reliable products. Most critically, the assembly line project cut the amount of time it took to complete the product from 12.5 hours to just 93 minutes.”

- "Any time you increase the productivity of labor, tremendously valuable things can happen to the economy".
- This statement was made over a hundred years ago, on October 7, 1913, when engineers of the day, built a simple assembly line system using a rope and winch to pull a new Ford Model T past 140 workers at a brand-new factory dubbed the Crystal Palace.

From WWII until the late 80's, the US was the world leader in manufacturing jobs with a highly skilled and well-trained workforce

In the late 70's, CNC machines became common on shop floors requiring a new level of expertise and skill

90's Automation and simple robotics came online in America's factories to compete with cheap overseas labor

2000-2010 China's entry in the WTO saw US companies surrendered IP to gain market share which drove manufacturing jobs offshore. Tech growth slowed and interest in manufacturing jobs waned.

2018-2021 Tariffs and COVID cause major supply chain issues. Manufacturers worked to build supply chain resilience. Look to robotics and automation to fill the labor gap

2022 - Industries are moving from trying to fill jobs with people that don't exist to robotics and automation to remain relevant and stay in business

Workforce Abundance

Workforce training Vo-Tech, High school Tech High School Ag

80-90 Computers became mainstream in industry controlling production from customer order to customer delivery

Growing demand for skilled workers

Shrinking workforce labor shortages looming

Workforce shortages are becoming common across all industries

Workforce shortages are critical and here to stay

RAAIN Robotics Automation Artificial Intelligence

FOREIGN DEPENDENCY

CAPACITY CONSTRAINTS

INFRASTRUCTURE EROSION

SOLE SOURCE

DECLINE OF SKILLED LABOR

FRAGILE SUPPLIER

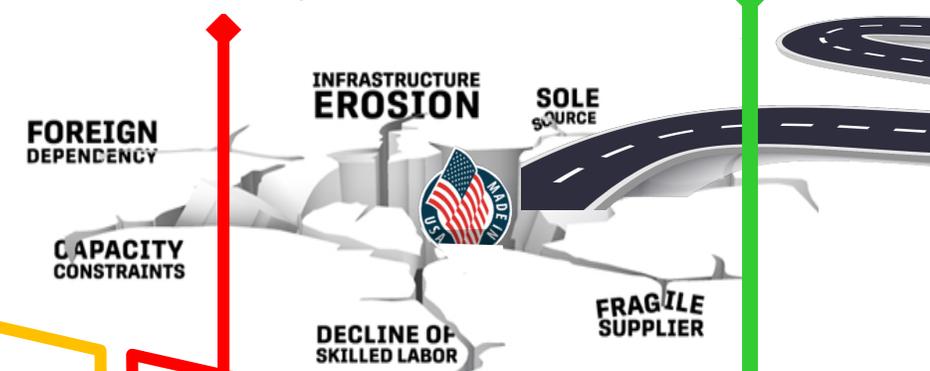
AGING WORKFORCE

Off-the-Grid Industries

Skills Gap Growing

SHRINKING WORKFORCE

labor Participation Rate



From OnlineColleges.com

Companies who can't find enough workers to keep factories operating smoothly are all over the news these days. In one notable case, a Siemens manager reported not being able to find enough skilled workers in the U.S. to operate a factory, a sentiment that has been echoed by numerous other industrial manufacturing businesses.

- Dennis Winslow, owner of a defense and aerospace manufacturing company said, "Where are the unemployed people in the country? I can't find the skill sets that I need. I would hire tomorrow if I could."
- While factory jobs were once common in America, they seem to have lost their appeal, despite paying well and offering job opportunities when many other fields are laying off workers. The often high-tech and highly-skilled positions are remaining open all over the nation, sometimes for months at a time, as employers seek out qualified individuals.

BUSINESS RETENTION AND EXPANSION (PCDA INITIATIVES)

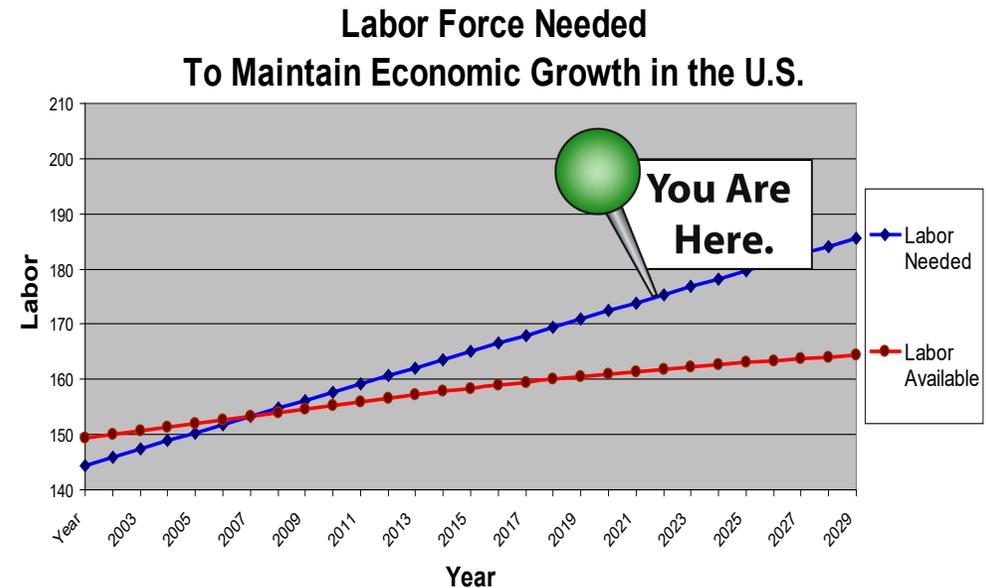
- Inventors and Entrepreneurs Network which brings budding industries out of the homes into the mainstream for business growth.
- Ponca Works programs like Girl Power, Cookies and Careers and the Ambassadors Club which focuses on tapping into a siloed workforce and to educate our youth about job opportunities.
- City Central which help facilitate the continued growth of inventors and entrepreneurs with The Link business spaces and access to PCDA production machines.
- Glowforge Laser Cutter, Formlabs 3D Printer and the Keyence Coordinate Measuring Machine, are machines that add manufacturing capabilities to our industries and to our budding entrepreneurs.

BUSINESS RETENTION AND EXPANSION (PCDA INITIATIVES)

- The Lighten the Load program was a 3 year effort to reduce the energy consumption for our local industries, lowering their operating cost. We created a 74% reduction in lighting cost with annual savings of \$543,409 and an ROI of 1.47 years.
- Industry Certification Assistance Program ICAP has been in place for more than five years. ICAP is an incentive program developed to encourage local industry to seek recognized state, national and worldwide industry certifications. Several ICAP agreements have been made with local industries.
- Trade Show Brigade: TSB is in it's fifth year. The program gathers local contract manufacturers for trade shows, specifically, the Design2Part Show. D2P is for contract manufacturers and gives our attendees access to hundreds of potential customers.
- **B2B** - Business to Business interfacing is more important than ever. We have such a diverse manufacturing base in Ponca City and our region. We continue to increase our supply chain our contracting and our services by using the resources in our own region.

BUSINESS RETENTION AND EXPANSION (PCDA INITIATIVES)

- Pioneer Tech and PCDA have a strong relationship and continue to quietly build a small “manufacturing consortium” using PCDA and Pioneer Tech equipment.
- PTC and PCDA are actively involved with “hands on development” of manufacturing capabilities to assist our local industries.
- Together, Pioneer Tech and the PCDA are planning a local Robotics, Automation, and Artificial Intelligence (RAAIN) Showcase for our local industries.
- The purpose: The workforce just isn’t there as predicted by Harvard Business School in 2006. For our industries to grow and prosper, we believe industry will have no choice but to partially and quickly fill the gap in the next evolution of modern manufacturing with Robotics, Automation and Artificial Intelligence.



BUSINESS RETENTION AND EXPANSION (TO REMAIN RELEVANT)

- How is the critical workforce shortage affecting our industries?
- How do we incentivize growth with our current industries when growth doesn't add a one-to-one ratio of people to growth opportunity?
- Are our incentive packages current and competitive with other economic development organizations?
- Industry is changing, how do we change to remain relevant to industry?

BUSINESS RETENTION AND EXPANSION

PoncaCity
DEVELOPMENT AUTHORITY



BUSINESS RETENTION AND EXPANSION (DEFINITIONS)

- Robotics/Cobots - machines that resembles a living creature in being capable of moving independently through human input or AI systems, and performing complex actions such as grasping, and moving objects, performing operations such as machine tending, picking and placing, performing other operations such as welding, grinding, painting, assembling and other similar operations while freeing up human capacity.
- Automation - the technique, method, or system of operating or controlling a process by highly automatic means, as by electronic devices, reducing human intervention to a minimum. Automation includes some form of anonymous operation (AI reasoning and decision making)
- Artificial Intelligence- the capacity of a computer, robot, or other programmed electrical or mechanical device to perform operations and tasks similar to human learning and decision making.