

Chairman Zeltwanger, Vice Chair Powell, Ranking Member Sobecki, and members of the committee, thank you for giving us the opportunity to testify.

- Manufacturing is the largest industry by GDP and payroll in Ohio, and the state ranks as the 3rd largest manufacturing state in the nation. See charts (MEP, HR Magazine 2019)
- Since 2005, Ohio's manufacturing employment has *decreased* by over 125,000 jobs, or 15% of jobs, while manufacturing output has increased by over a third, or nearly \$25B. This evolution is driven by the adoption of new technologies, higher skilled workers, and process improvements.
- Ohio Bold report – Ohio falls behind needs speed and innovation
  - Innovation in workforce development means CTE needs access to students\*(see chart)
- High schools are measured on students enrolled in college (Ohio High School Report card)
- Approx. 33% of college drop out after freshman year (NSC), only 32% complete bachelors in 6 years (Washington Post 6/8/18)
  - Average student debt in Ohio is \$30,000 (Cincinnati.com), 2/3rds of students have debt
  - Students' loans make up more than 50 percent of their annual income
- High school career tech classes are not at capacity
  - Every Precision Machining co-op/graduate gets multiple employment offers
  - In SW Ohio, 18 employers have urgent need for 1000+ jobs (AMIP)
- Career Tech funding cap is key driver in lack of enrollment in career tech (ACTE)
  - Avg Graduation rate of CTE is 93%
  - CTE students have higher rates of on-time graduation, credit accumulation and finishing mathematics sequence
  - 50% all STEM jobs open to workers **without** Bachelors.
- Companies provide tuition reimbursement; college degrees will happen
- Avg Mfg salary is \$84,832 (pay and benefits, NAM) \$58,190 Ohio Mfg (MEP Survey 2018)

#### Call to Action

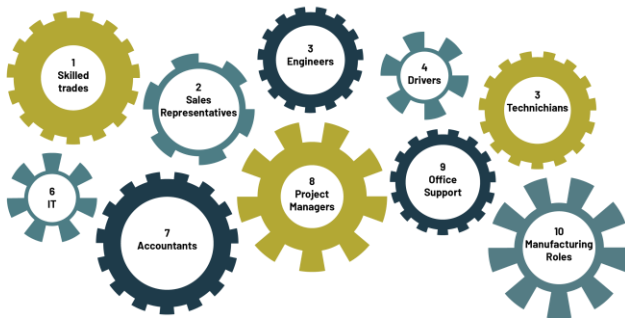
- 1) Require all students in 7-8<sup>th</sup> and again in 9-12 take ONE CTE class
  - For machining, 9<sup>th</sup>-10<sup>th</sup> grader would take an Intro to Machining/manufacturing operations class (which exists today)
  - For STEM and manufacturing overview, 7-8<sup>th</sup> graders would take a CNC Mastercam software programming class
  - To make this happen, we need to require counselors to complete one in-service day at a manufacturing company
- 2) Add CTE metric to High School Report card - % of CTE enrollment from each Associate School
  - Include % of CTE enrollment from each Associate School
  - Starting with 2020-2019, require Associate schools to track Career Readiness with metrics on each of the following: CTE, College, Apprenticeship enrollment, and Certifications attained
  - Require high schools to measure long-term success of students, not only college admission
- 3) Eliminate Funding Cap to open access to student for CTE programs
  - Fully fund CTE by eliminating the funding cap on Career Tech Centers
  - Require that funding follow the student to CTE with no limit on the number of students

Percentage students successfully receiving credential or degree	Type of Higher Education	Percentage share of adult students (aged 25-64)
70%	OTC's Career/Adult at CTE	64%
18%	Community Colleges	24%
38%	Universities	10%

Brett Visger, ODHE Assoc Vice Chancellor

### THE TOP 10 IN-DEMAND OCCUPATIONS WORLDWIDE

Technology is redefining rather than replacing in-demand roles. Jobs in the skilled trades, as well as sales representatives, engineer, drivers, and technicians have ranked among the hardest roles to fill for the past 10 years.



**Sources:**

- <sup>1</sup>NAM – National Association Manufacturers
- <sup>2</sup>ACTE – Association Career and Technical Educators report
- <sup>3</sup>MEP – Ohio Manufacturing Extension Partnership Survey 2018
- <sup>4</sup>NSC – National Student Clearing House Research Center
- <sup>5</sup>AMIP – Advanced Manufacturers Industry Sector Partnership (Ref: OH Manufactures Assoc)

Rhinestahl Corporation is a privately held high-tech advanced manufacturing and aviation turbine engine tooling global company with headquarters located in Mason, Ohio. Since 1967, Rhinestahl has delivered on our customer’s toughest challenges. Our 200+ employees live by a pledge that companies can count on to help build their future. We set the new standard for quality, make things run smoothly, and take on challenges that make remarkable things possible. Our Advanced Manufacturing group serves six industries including space, aerospace, transportation, defense, consumer goods and energy. Rhinestahl has been a Deloitte Cincinnati USA 100 and Fast 55 award winner.

---

<sup>1</sup> National Association Manufactures  
<sup>2</sup> Association Career and Technical Educators report  
<sup>3</sup> Ohio Manufacturing Extension Partnerships Survey 2018  
<sup>4</sup> National Student Clearing House Research Center  
<sup>5</sup> Advanced Manufacturing Industry Partners – SWOHIO Sector group of 250+ employers