
MSU Canadian Studies Supply Chain Public Policy Forum

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Introduction

The Manufacturing Perspective

- 1) Michigan Manufacturing
- 2) Critical Trade
- 3) Supply Chain Challenges
- 4) Solutions

Manufacturing Impact

Michigan Manufacturing Facts

- Largest sector of state economy – **19.38% GSP**
- Manufacturing output = **\$102.35 billion** (2018)
 - \$40.4 billion is automotive
- **612,000** mfg. employment (Dec. 2022)
 - **596,700** in Jan. 2022 – 2.5% increase
 - Pre-COVID peak – **633,700** (February 2019)

Manufacturing Impact

- **85%** of our members have **100 or fewer employees**
- Mfg employs **14.28 %** of the workforce
 - Automotive Parts = 21.4% of mfg employment
 - Automotive vehicle manufacturers make 9.1% of mfg employment
- Average annual compensation – **\$79,320**
- Value of employee compensation into economy = **\$48.5 billion**

Critical Trade

Michigan Trade Facts

- Manufactured goods = **95%** of all exports (\$55.35 billion)
- Canada is the top customer of Michigan goods
 - Michigan exports **\$21.7** billion in goods to Canada
- Michigan imports **\$37.9** billion in goods from Canada

Supply Chain

Supply Chain Challenges:

- The supply chain is global
- Increased efficiency created vulnerability
 - Taiwan Semiconductor Manufacturing Company – 56% of global market
 - Geopolitical instability
- The pandemic revealed the true vulnerability

Supply Chain

- The Ambassador Bridge blockade
 - 8,000 trucks per day
 - \$400 million per day
 - Production interruptions in the billions
 - On average, auto parts move back and forth **seven times**

Supply Chain

Two Primary Challenges

- Chip Shortage
 - 2,000 chips in a vehicle
 - 750 are critical
 - Chips Act – \$52 billion
 - National security issue

Supply Chain

Two Primary Challenges

- Talent Shortage
 - Return to Work – 140,000 women less
 - Baby Boomer retirements doubled from 2019 to 2020
 - Lack of skilled workers
 - Pervasive throughout the supply chain

Solutions

Control What We Can Control: Competitive Policies

1) Talent Development

- Win the talent challenge
 - Transition to EV
- K-12 and higher ed
- Workforce retraining

2) Economic Development

- Compete to Win
- SOAR – Transformational – \$13.6 billion and 13,000 jobs

Discussion

Q & A