

What Should the Trump Administration's Manufacturing Strategy Look Like?

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 - Innovation and competitiveness
 - IT and data
 - Telecommunications
 - Trade and globalization
 - Life sciences, agricultural biotech, and energy
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Today's Presentation

- 1 Understanding Key Debates on Manufacturing Policy
- 2 10 Principles for a Smart U.S. Manufacturing Strategy

Why Have We Lost Manufacturing Jobs?

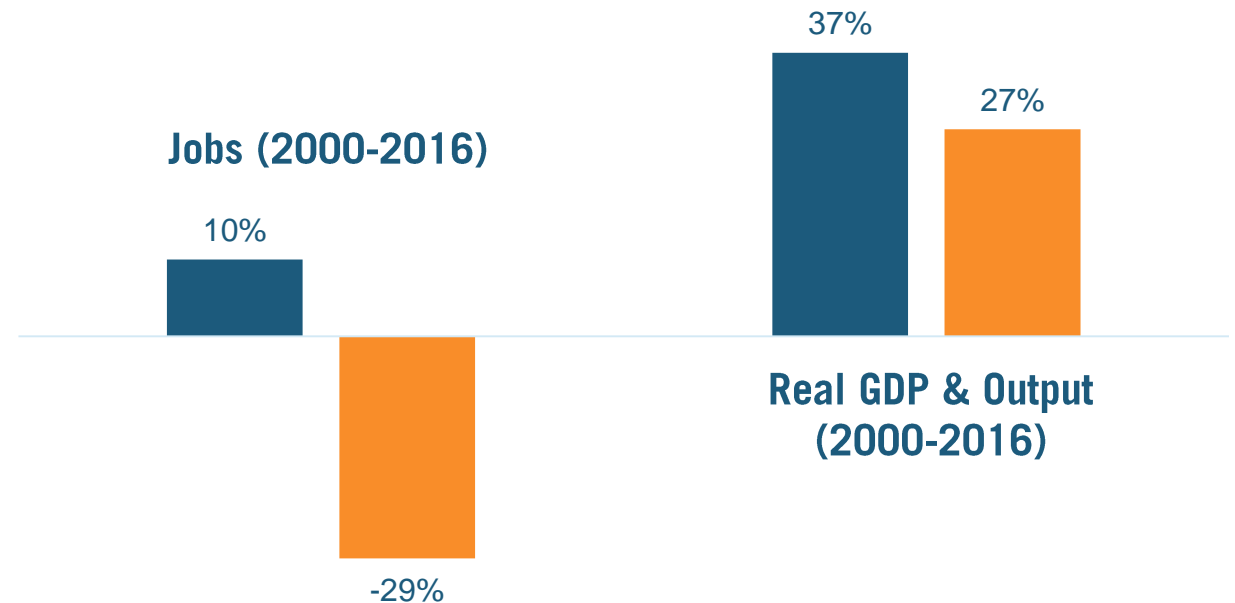
- Establishment blames technology and automation, taking onus off trade. *Washington Post* stories in the last week:
 - “The simple story is that we don't need as many people to make as much stuff.” (Matt O'Brien, January 30)
 - “Trade is not a major cause of job loss...the main cause is automation.” (Robert Samuelson, January 29)
 - “Automation, not trade, is the real culprit in manufacturing job loss.” (Editorial Board, January 24)
 - “Automation has been a bigger factor than trade in the loss of U.S. factory jobs” (Christopher S. Rugaber, January 23)

Why Have We Lost Manufacturing Jobs?

- Lagging competitiveness plays a big role
- Strong growth in computers and electronics (222%) masked weak performance overall:
 - 10 of 19 manufacturing sectors produced less in 2015 than in 1999
 - 2015 output 7% below 2007 levels

Fewer Jobs, Weaker Output

■ U.S. ■ Manufacturing Sectors



Why Did Manufacturing Jobs Go Overseas?

- Establishment says free market / voluntary “division of labor,” which lowers prices and lets us focus on other things
- Realities:
 - Aggressive “innovation mercantilism”
 - High U.S. corporate tax rate
 - Limited industrially relevant R&D
 - Poor workforce training
 - Limits on export financing



How Much Manufacturing Should the United States Have?

- Panglossians say $N = N$
- In reality, $N = \text{Productivity vs. Output}$:
 - If manufacturing productivity grows faster than non-manufacturing productivity, then employment should decline
- The real question is how much manufacturing output do we need relative to GDP?
 - Answer: enough to pay for imports without running a trade deficit

Can Manufacturing Return to U.S. Shores?

- Establishment says it's a fool's errand / would lead to higher prices, anyway
- But we can and should bring back some kinds of manufacturing jobs:
 - Complex, high-value-added
 - Not repetitive, low-skill

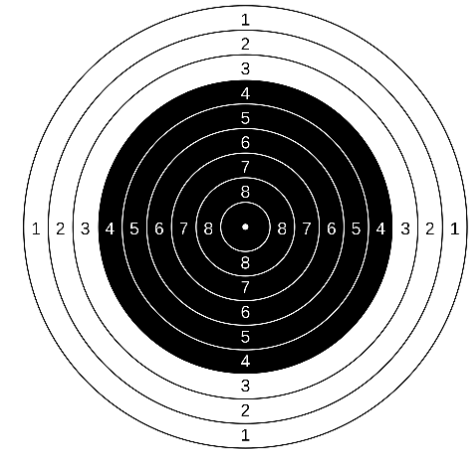


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What Kind of Strategy?

- **Option A: Scattershot.** (a.k.a., “Shoot anything that flies; claim anything that falls.”)
 - Seek any and all manufacturing by raising import costs (e.g., tariffs) or reducing domestic production costs (eliminate regulations).
- **Option B: Targeted.**
 - Focus on industries in which the U.S. has a sustainable competitive advantage and which raise U.S. living standards.



(Correct answer: Option B.)

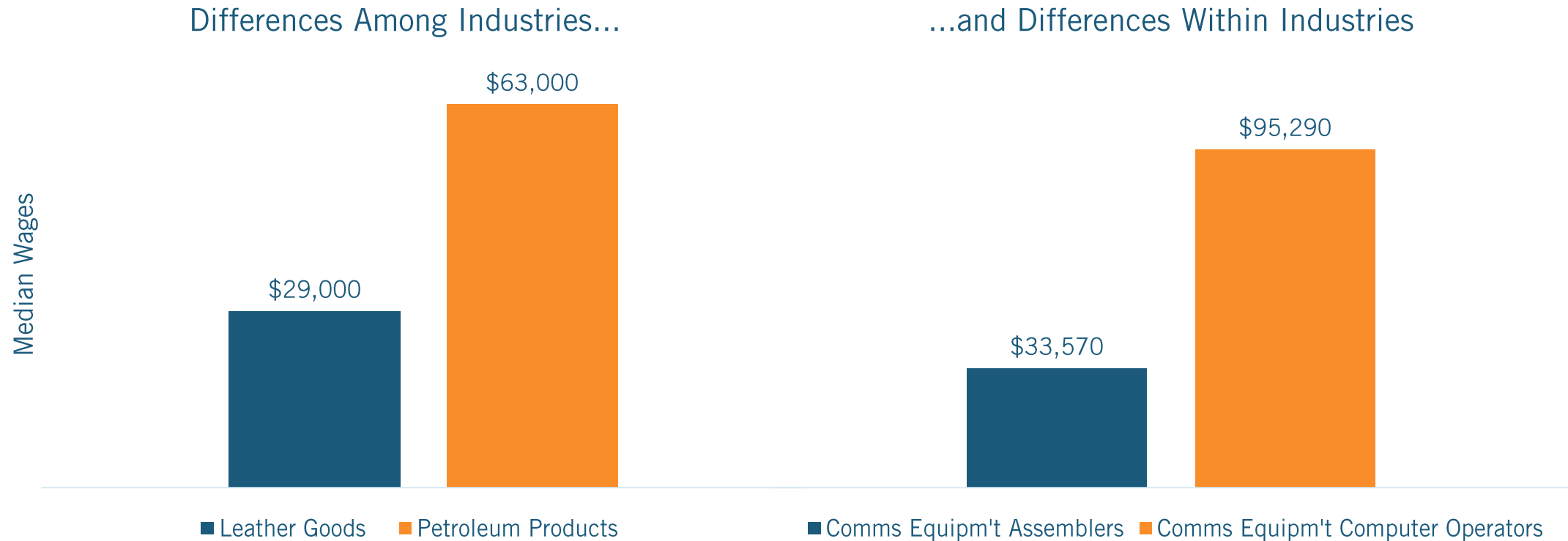
1. Focus on Traded Sectors, Not Just Manufacturing

- Traded sectors include manufacturing, plus:
 - Services such as software, Internet, and engineering
 - Content (e.g., movies, music)
 - Natural resources
- They pay well / drive exports
- Capture global market share



2. Focus on High-Value-Added, Defensible Sectors & Functions

- Not all sectors and functions provide the same value:



3. Focus on the Trade Deficit, Not Jobs per Se



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4. Recognize What Should Stay and What Shouldn't

- Prioritize high-value-added, “sticky” activities
- Links to other high-value-added activities in the U.S. make them less likely to go offshore
- Keep what HBS Profs. Pisano and Shih call process-embedded and process-driven innovation:
 - Innovation where design can't be separated from manufacturing
 - Innovation where risks of separating design and manufacturing are high



5. Understand That Succeeding Overseas Can Help U.S. Employment

- Foreign affiliates complement U.S. activities:
 - Increased global market share
 - Increased employment in U.S. HQ and operations
- Same with U.S. affiliates of foreign multinationals:
 - Increased input purchases
 - Increased exports



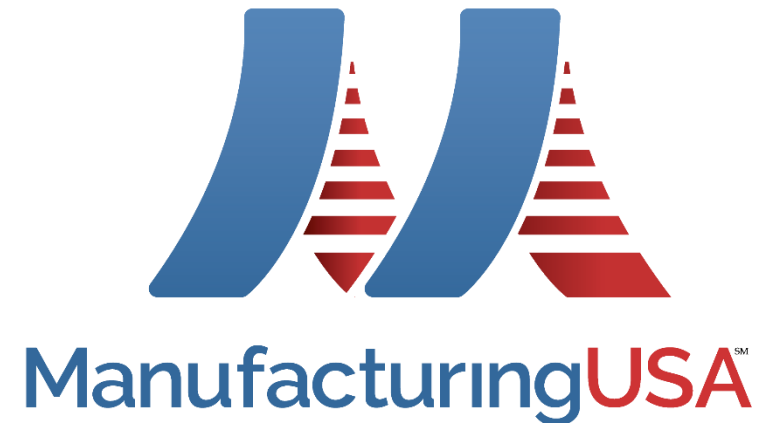
6. Focus on Attraction, Not Compulsion

- Make America the world's most attractive market for manufacturing
- Step up the fight against “innovation mercantilism,” and eschew such practices in the United States

Attraction	Compulsion
✓ Conducive tax and regulatory policy	✗ Forced tech transfer
✓ High-skill talent	✗ Forced IP handovers
✓ Technology	✗ Local content requirements
✓ Trade	✗ Etc.
✓ Digital and physical infrastructure	

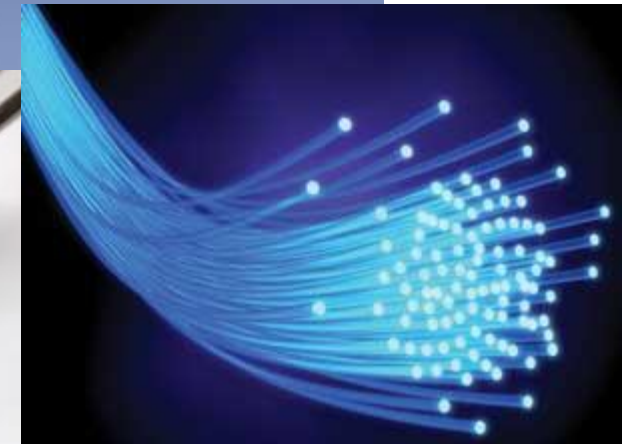
7. Move Beyond One-Off Deals and Low-Cost Business Climate

- Government must do more than just “get out of the way”
- Need better manufacturing business climate—plus better manufacturing-support infrastructure:
 - Manufacturing Extension Partnership
 - Manufacturing USA
 - Manufacturing Universities
 - Manufacturing Communities
 - Export-Import Bank



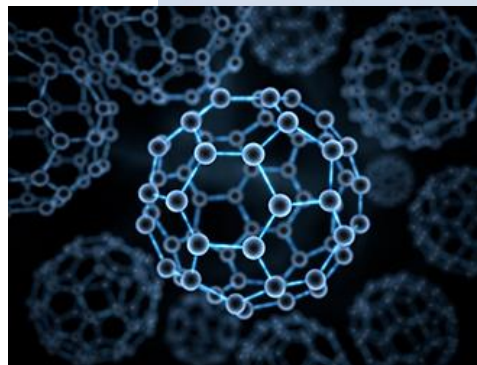
8. Change the Playing Field Through Technology

- Expand funding for federal R&D
- Expand R&D tax credit



9. Support the Defense Industrial Base

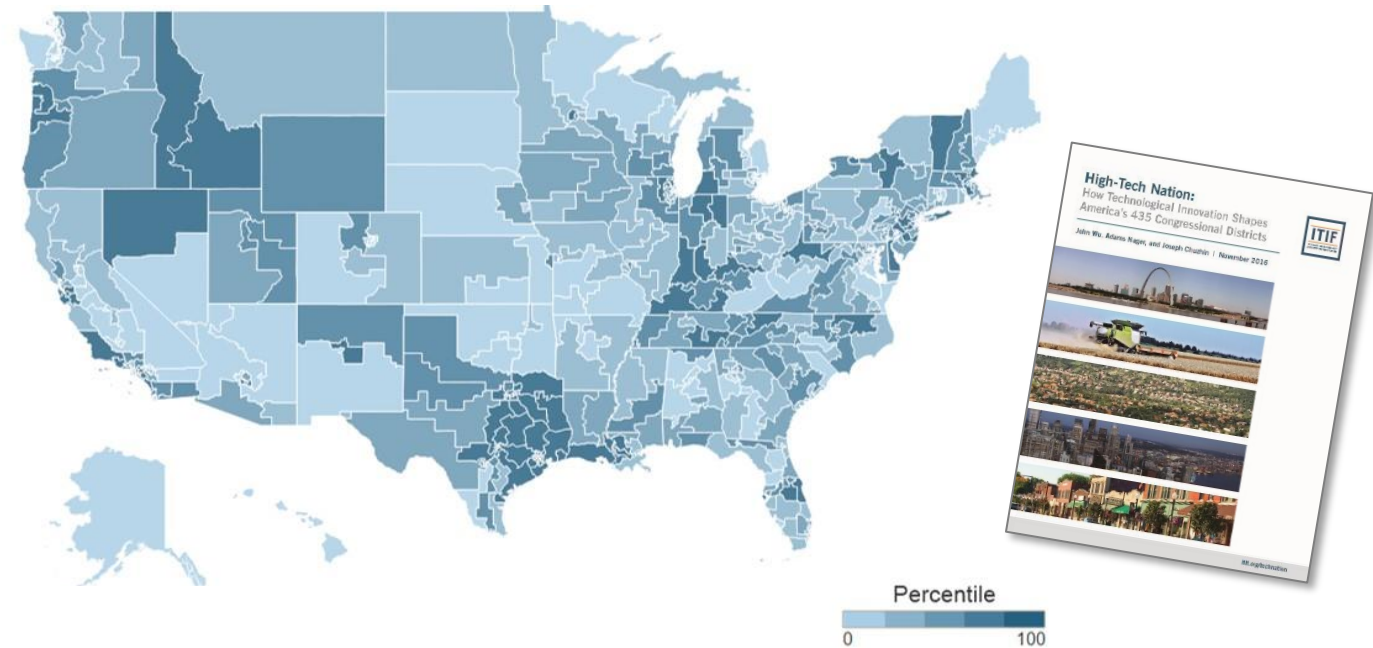
- Wars are won with advanced manufacturing, not services
- America must be at the forefront:
 - Nanotechnology
 - Advanced batteries
 - Sensors
 - Autonomy



10. Pay Attention to Where Advanced Production Is Located

- Any national traded-sector strategy needs a regional component:
 - Increased funding for Economic Development Administration
 - Establish a Rural Development Corporation
 - Institute a reshoring tax credit

High-Tech Manufacturing Exports by District



For more, see: itif.org/technation

Thank You!

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