

# Industrial Policy

Mark R. Wilson, Professor of History, UNC Charlotte  
Senior Scholars at Queens online event, February 25, 2022

# Outline

- Introduction
- Overview of US industrial policy history
- A deeper dive into military-industrial policy history
- Industrial policy in the 2020s?
  
- Q & A and discussion with the audience

# Defining “industrial policy”

(see the Jonathan Chanis handbook chapter)

- An expansive definition: any set of government actions—or lack of actions?—affecting economic activities, companies, and workers, in any sector
- A narrower, colloquial definition (Chanis): “government efforts to promote... a sector or industry identified as critical for economic competitiveness or national security.”

# New US industrial policy in the 2020s?

- The America COMPETES Act, which may become law this year
  - \$52 billion for the US semiconductor industry (computer chips)
  - \$45 billion for other domestic manufacturing & supply chain resilience
  - Additional funds for NSF, STEM education, R&D, etc.
- More broadly, as Chanis suggests, perhaps growing interest in industrial policy, driven by:
  - The rise of China as an economic superpower with an industrial policy
  - Concerns about climate crisis
  - Supply-chain fragilities exposed by the COVID-19 crisis
  - Disenchantment with “neoliberalism” (?)



# An early champion of US industrial policy

(image source: National Portrait Gallery)

“[I]n a community situated like that of the United States, the public purse must supply the deficiency of private resource. In what can it be so useful as in prompting and improving the efforts of industry?”

Secretary of the Treasury Alexander Hamilton, *Report on Manufactures* (1791)



# A couple of rough timelines

## US trade policy:

1789-1933

High/medium tariffs

1934-2016

Low tariffs

## US position as global industrial power:

1789-1890

ascending

1890-1970

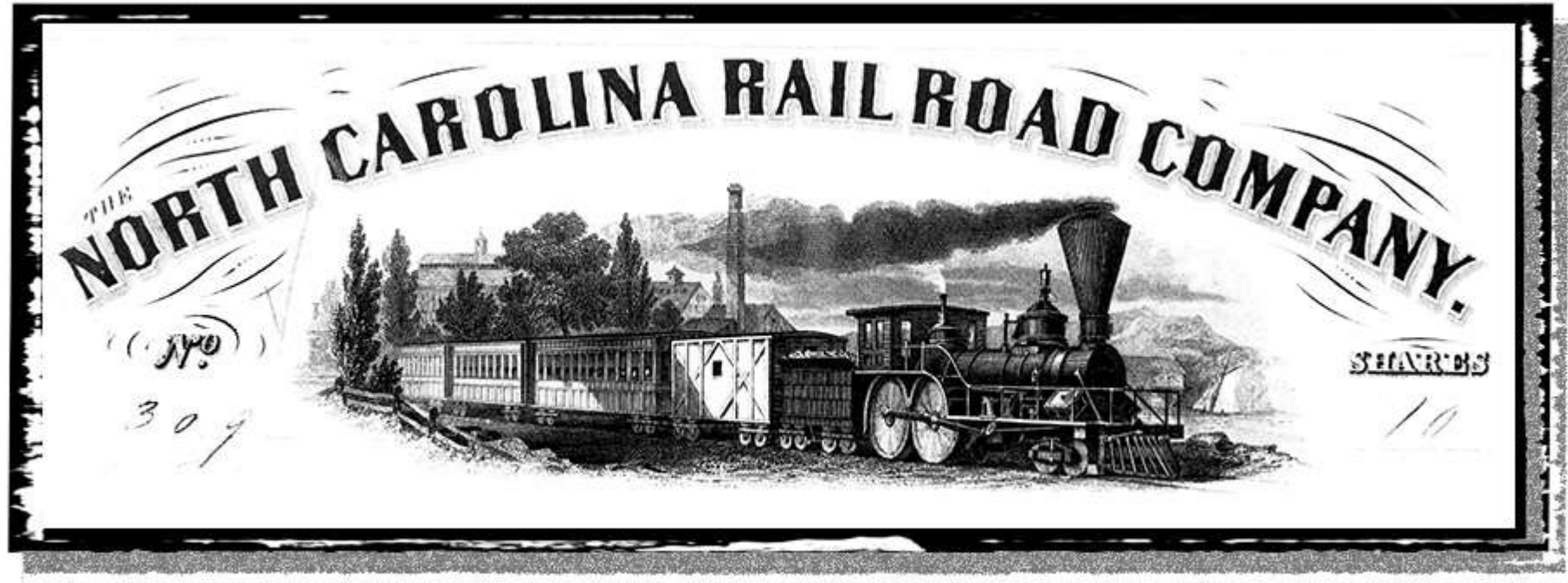
dominant

1970-2022

declining (relative)

# Early public support for transport infrastructure, by the states and the US govt

(image source: [movingnorthcarolina.net](http://movingnorthcarolina.net))





# “The Tariff Tots: Outside the Home for Infant Industries,” *Puck* magazine, 1905 (Library of Congress)

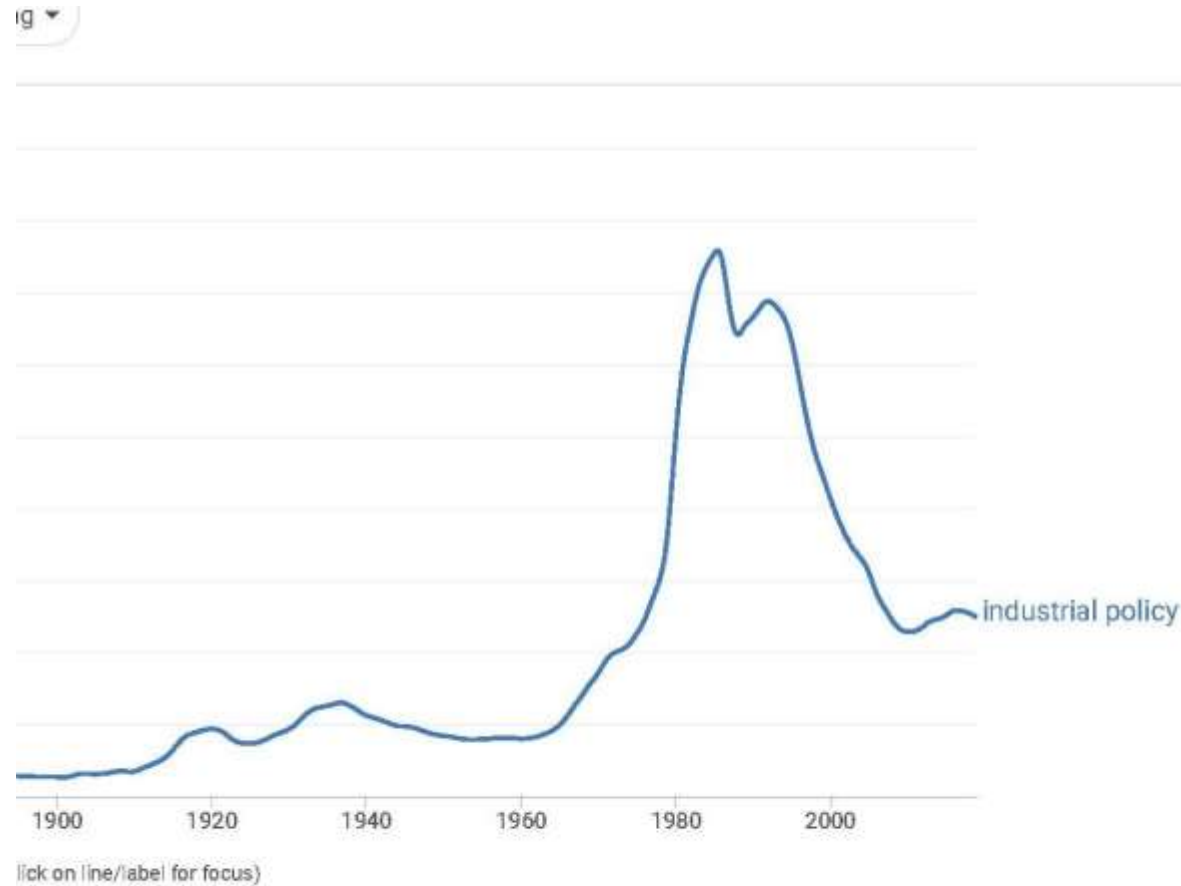


# De facto industrial policy in the 20<sup>th</sup> century? The cases of agriculture and oil & gas

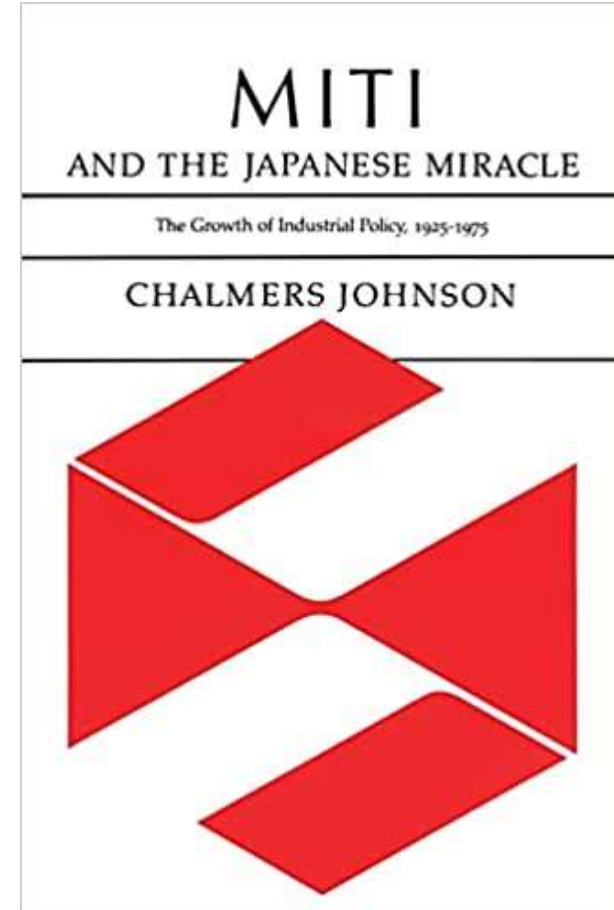
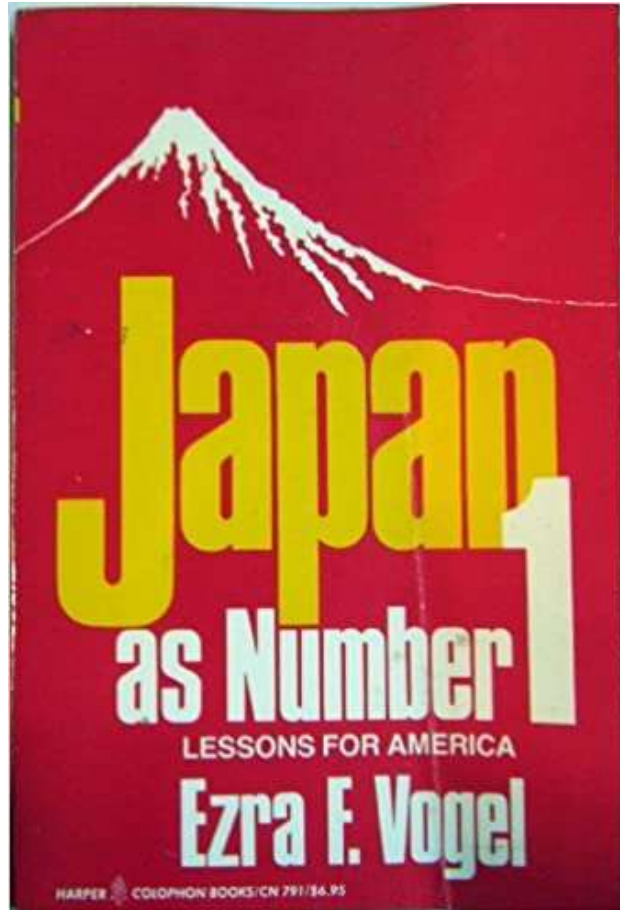
(images: Library of Congress)



Around 1980, a jump in use of the term “industrial policy” (source: Google Ngram Viewer)



By 1980, the rise of Japan spurs new debate



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But by the 1990s, less interest (?)





# Yes, the early US military used contractors

(image of Samuel Colt from connecticuthistory.org)

- Eli Whitney (small arms)
- Samuel Colt (small arms)
- Du Pont (gunpowder)
- Russell, Majors & Waddell (transport)
- Brooks Brothers (uniforms)
- Proctor & Gamble (soap & candles)
- J.P. Morgan (small arms)



# But also, in-house plants. For example, Brooklyn Navy Yard (1801-1966), and Springfield Armory (1794-1968)

(Photos source: Library of Congress)





# From the “American system” to mass production?

(images sources: smithsonianmag.com; thehenryford.org)

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# In World War II, a GOCO war economy: U.S. public investment in war plant, selected industries, 1940-45

(image source: Library of Congress)

		% Public-Owned
• U-235, Plutonium	\$1.5 billion (est.)	100%
• Synthetic Rubber	\$0.7 billion	97%
• Aircraft	\$3.4 billion	89%
• Ships	\$2.2 billion	87%
• Aluminum, Mg, Cu	\$1.7 billion	58%
• Aviation gasoline	\$0.3 billion	33%
• Tanks & trucks, etc.	\$0.6 billion	23%



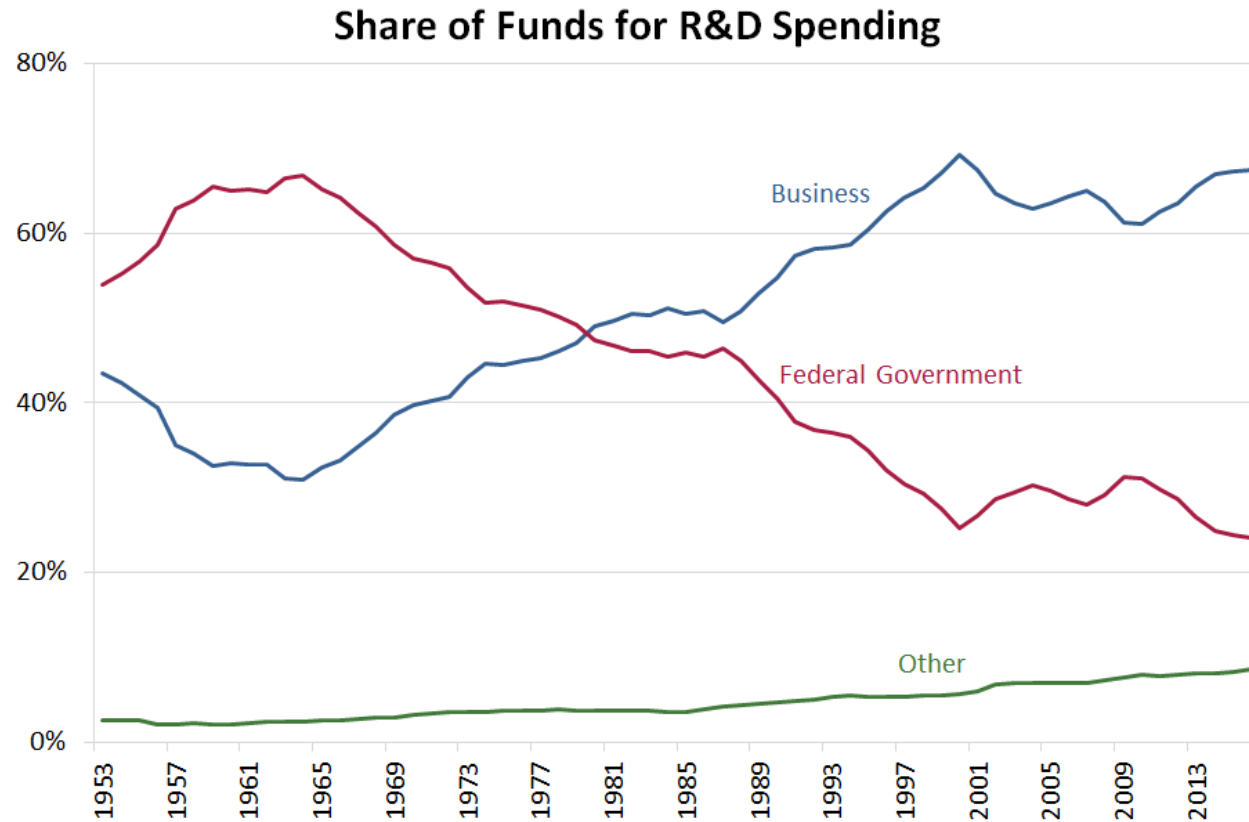
# By the time of Eisenhower's 1961 address, what kind of US military-industrial complex?

(image source: Library of Congress)



- Plenty of dollars to for-profit contractors, including Boeing, Lockheed, North American Aviation, General Dynamics, etc.
- But also a large set of in-house or non-profit entities, including national labs, military labs, [D]ARPA, universities, FFRDCs including RAND, MITRE.

# In the early Cold War, the Pentagon as the leading source of R&D spending (source: stlouisfed.org)



SOURCES: National Science Foundation, Haver Analytics and authors' calculations.

# The important case of Silicon Valley: a child of the Pentagon, or self-made orphan?

(images sources: Library of Congress; wired.com)



# By the 1980s, growing concerns about a weak US “defense industrial base,” despite successful exports and innovations

(images source: nationalmuseum.af.mil)



# In 1990, fired for pursuing industrial policy: DARPA director Craig Fields

(image source: eiseverywhere.com)



“You seek high-payoff projects, and you know inevitably high-payoff projects are high-risk. And, inevitably they're long term. Oftentimes, they're costly, but the goal is high payoff.”

Former DARPA director Craig Fields, 2007 interview, via [esd.whs.mil](http://esd.whs.mil)

# Today's US military-industrial complex: three contrasting views

- It's lumbering, bloated, bureaucratic, uncompetitive, wasteful, too slow to adopt cutting-edge commercial tech
- It's well-funded, strong, and innovative, using a decentralized, deep network of public-private hybrid institutions: an example of successful industrial policy
- It has become too privatized and financialized



# Decline of the military's in-house production capacities: the case of major naval vessels

	Total # of ships launched	% built in US Navy shipyards
1880s-1900s	135	4%
1910s (including WWI)	480	9%
1920s-1930s	186	49%
1940s (including WWII)	771	22%
1950s-1960s	215	25%
1970s-2010s	229	0%

# Financialization since the 1950s? Ratio of Cash Returned to Shareholders (dividends plus stock buybacks) to Net Earnings, by decade: General Dynamics, Raytheon, and Lockheed/Lockheed Martin, 1950-2019.

	<u>General Dynamics</u>	<u>Raytheon</u>	<u>Lockheed/LM</u>
1950s	44%	38%	43%
1960s	81%	38%	56%
1970s	20%	27%	10%
1980s	59%	67%	27%
1990s	71%	60%	67%
2000s	43%	114%	108%
2010s	98%	74%	100%



# New US industrial policy in the 2020s?

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# New US industrial policy in the 2020s?

## Some questions for discussion

- To what extent should US policymakers and business leaders try to imitate China's efforts at industrial policy, or avoid them?
- Does the record of the 2020-22 COVID-19 crisis have any important implications for thinking about industrial policy?
- Does the climate crisis call for major new steps in industrial policy, or even a rapid emergency industrial mobilization?
- Can calls for enhanced industrial policy be part of a winning political platform?

# Should US policymakers try to imitate China's efforts at industrial policy, or avoid them?

(image source: nbcnews.com)



# Does the record of the COVID crisis, 2020-22, have implications for industrial policy?

(images source: cnbc.com)



# Does the climate crisis call for major new steps in industrial policy, or even a rapid emergency industrial mobilization?

(image source: forbes.com)





# Can calls for more new industrial policy be part of a winning political platform?

(image source: rollingstone.com)





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