

Is Short-Termism Killing the American Innovation Engine?

NBER Innovation Summer Institute

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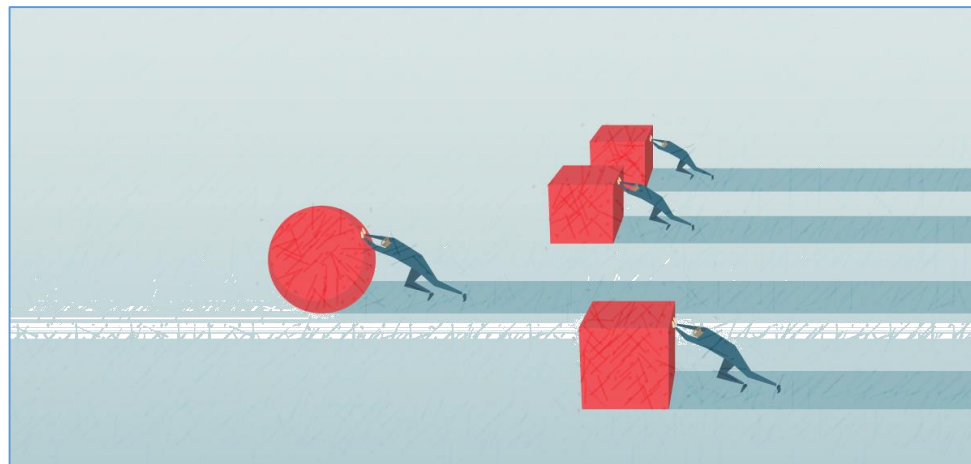


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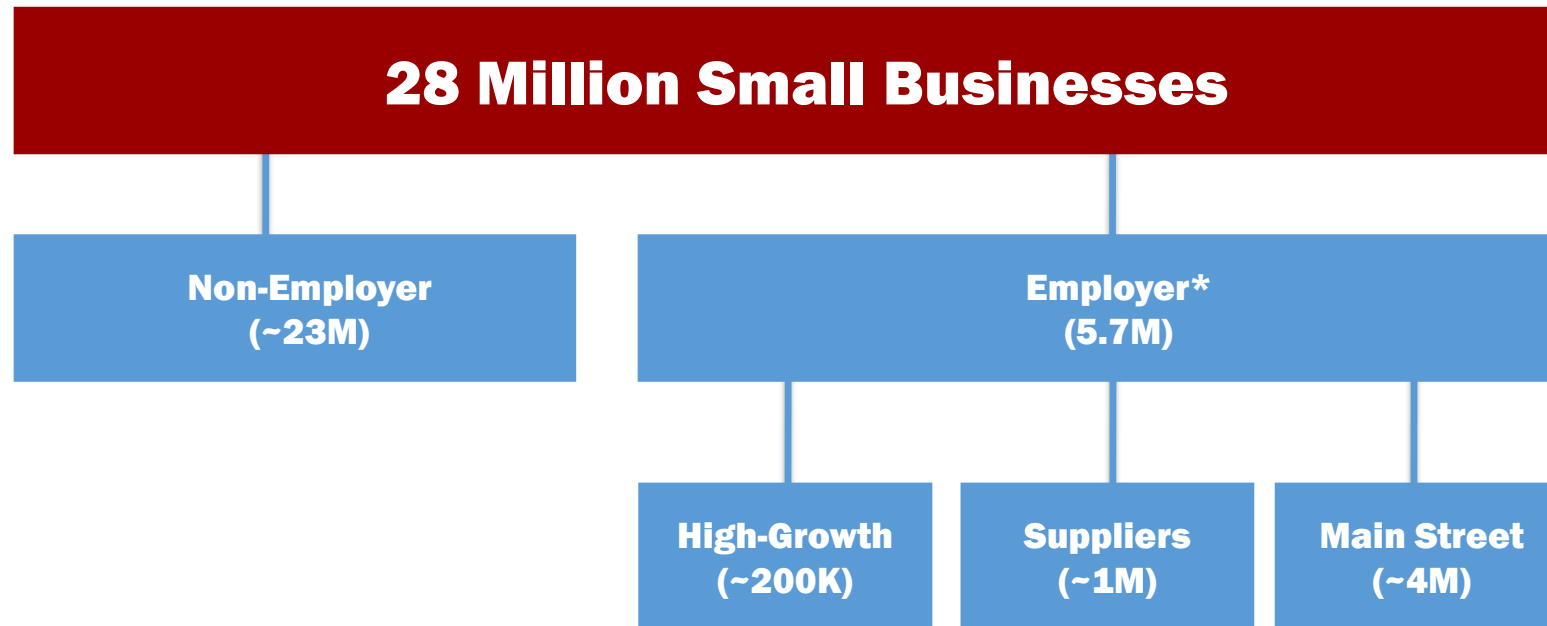
WHO IS INNOVATING?

- Large Corporations
- Government-sponsored researchers and universities
- Small businesses and entrepreneurs

What pressure is “short-termism” putting on each?



SMALL BUSINESSES ACCOUNT FOR HALF OF U.S. JOBS



Source: U.S. Census Bureau

Note: Remaining 500,000 business are Non-Supplier Businesses in the Traded Sector

INNOVATION FROM HIGH GROWTH ENTREPRENEURIAL FIRMS

- Financing sources putting increasing pressure on entrepreneurs for short-term results
 - VC funding “J curve” under pressure
- Entrepreneurs focus in areas where funding is more available
 - High interest in low capital intensive sectors like software
 - Absence of “scale up” capital for expensive new technologies (\$100 million for pilot plant)

INNOVATION FROM SUPPLY CHAIN FIRMS

Supply Chain versus Business-to-Consumer Framework The Supply Chain Economy Matters for Economic Performance

All Industries, 2013	
Employment	118M
Average Wage	\$47,700
STEM Intensity	5.6%

Supply Chain	
Employment	44M (37%)
Average Wage	\$61,700
STEM Intensity	11.4%

Business-to-Consumer	
Employment	74M (63%)
Average Wage	\$39,200
STEM Intensity	2.1%

Source: Delgado/Mills (2017)

INNOVATION FROM SUPPLY CHAIN FIRMS

Traded Supply Chain Services Are High-STEM
But they barely patent

	Supply Chain Traded		Business-to-Consumer Traded	
Traded Manufacturing	Employment	8.1M (7%)	Employment	2.4M (2%)
	Average Wage	\$57,400	Average Wage	\$47,200
	STEM Intensity	11.7%	STEM Intensity	4.5%
Traded Services	Employment	18.7M (16%)	Employment	13.4M (11%)
	Average Wage	\$80,800	Average Wage	\$57,800
	STEM Intensity	19.3%	STEM Intensity	6.1%

Source: Delgado/Mills (2017)

POLICY SUGGESTIONS

Policy actions differ by type of firm.

Type of Firm	Potential Policy Actions
Large Corporation	<ul style="list-style-type: none">• Incentives for more long-term corporate R&D (e.g. tax credits)
High Growth Entrepreneurial Firms	<ul style="list-style-type: none">• Incubators /accelerators• Greater access to venture capital
Supply Chain Services Firms	<ul style="list-style-type: none">• Industry clusters• Incentives for partnerships with end users for financing or shared research