

Global Trade in Services: Fear, Facts, and Offshoring

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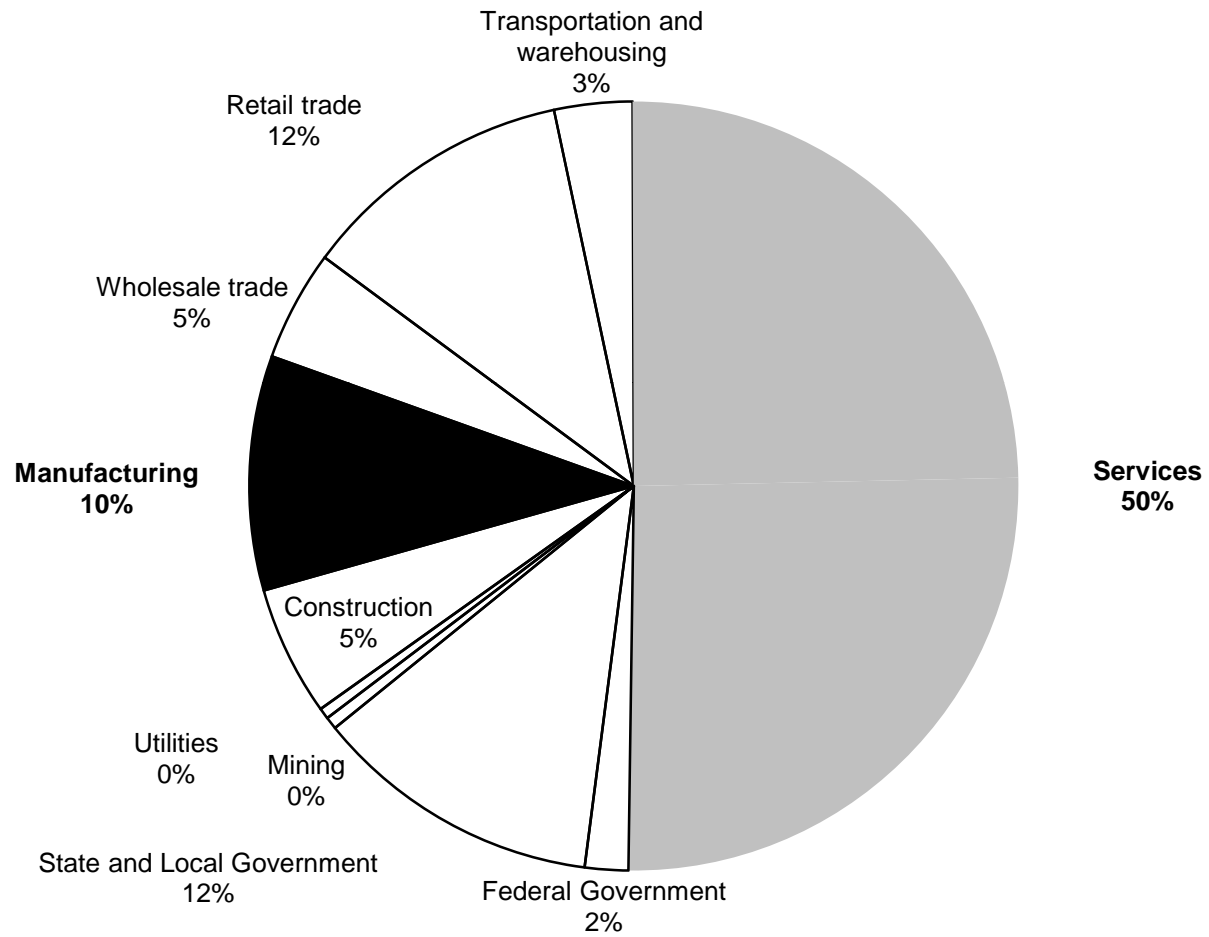
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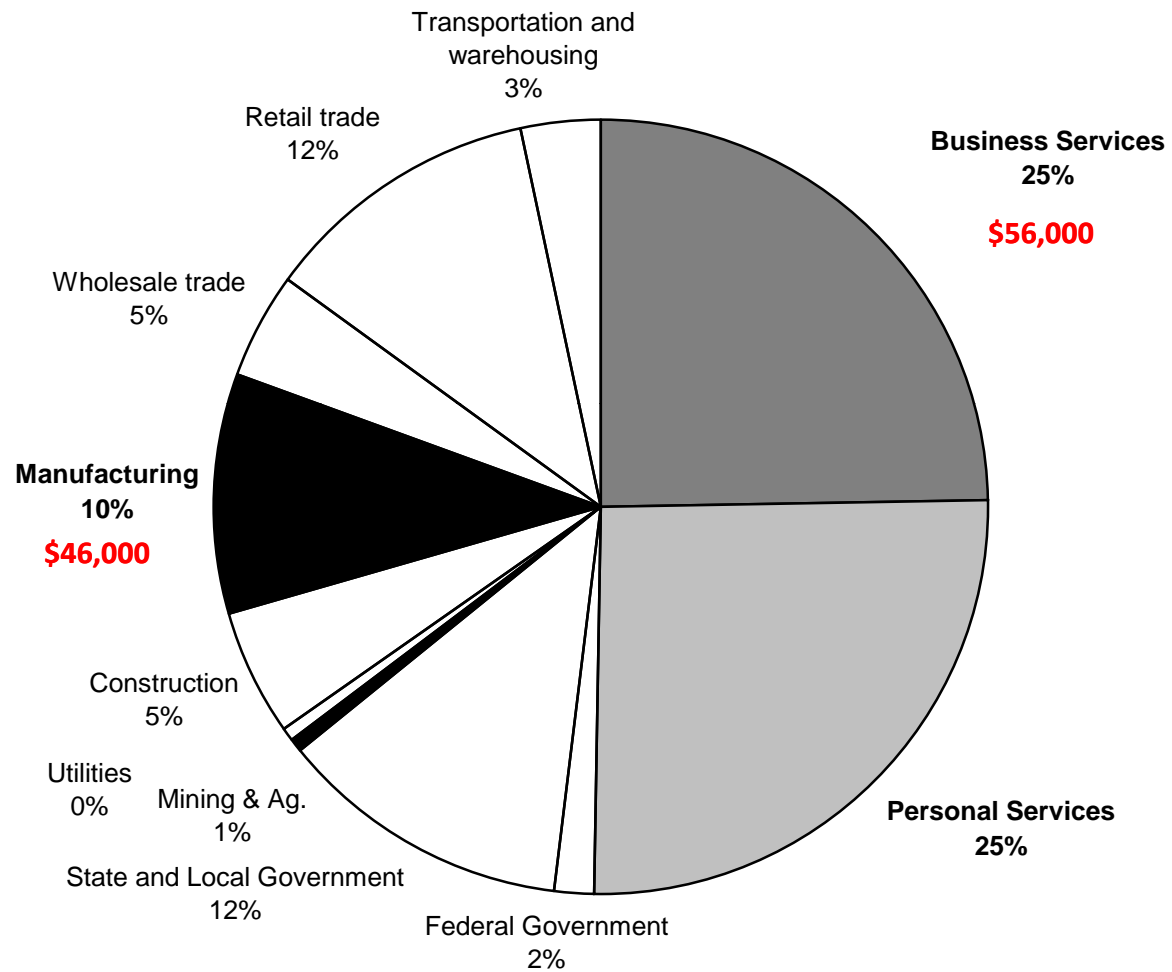
October 18, 2011

Why?



Source: 2007 Economic Census, Census of Governments and 2006 Occupational Employment Survey

Why?



Source: 2007 Economic Census, Census of Governments and 2006 Occupational Employment Survey

Why?

NAICS Code	Sector	Employment 2007	Share of Total Employment 2007	Employment Growth 1997-2007
21	Mining	703,129	0.5%	38%
22	Utilities	632,432	0.5%	-10%
23	Construction	7,399,047	5.5%	31%
31-33	Manufacturing	13,333,390	9.9%	-21%
42	Wholesale trade	6,295,109	4.7%	9%
44-45	Retail trade	15,610,710	11.5%	12%
48-49	Transportation and warehousing	4,435,760	3.3%	52%
51-56	Business Services	33,430,809	24.7%	29%
51	Information	3,428,262	2.5%	12%
52	Finance and insurance	6,562,546	4.9%	12%
53	Real estate and rental and leasing	2,249,353	1.7%	32%
54	Professional, scientific, and technical services	8,121,171	6.0%	51%
55	Management of companies and enterprises	2,915,644	2.2%	11%
56	Administrative and support and waste remediation services	10,153,833	7.5%	38%
61-81	Personal Services	34,595,857	25.6%	23%
61	Educational services	562,210	0.4%	75%
62	Health care and social assistance	16,859,513	12.5%	24%
71	Arts, entertainment, and recreation	2,070,524	1.5%	30%
72	Accommodation and food services	11,587,814	8.6%	23%
81	Other services (except public administration)	3,515,796	2.6%	8%
	Federal Government	2,462,000	1.8%	--
	State and Local Government	16,400,000	12.1%	--

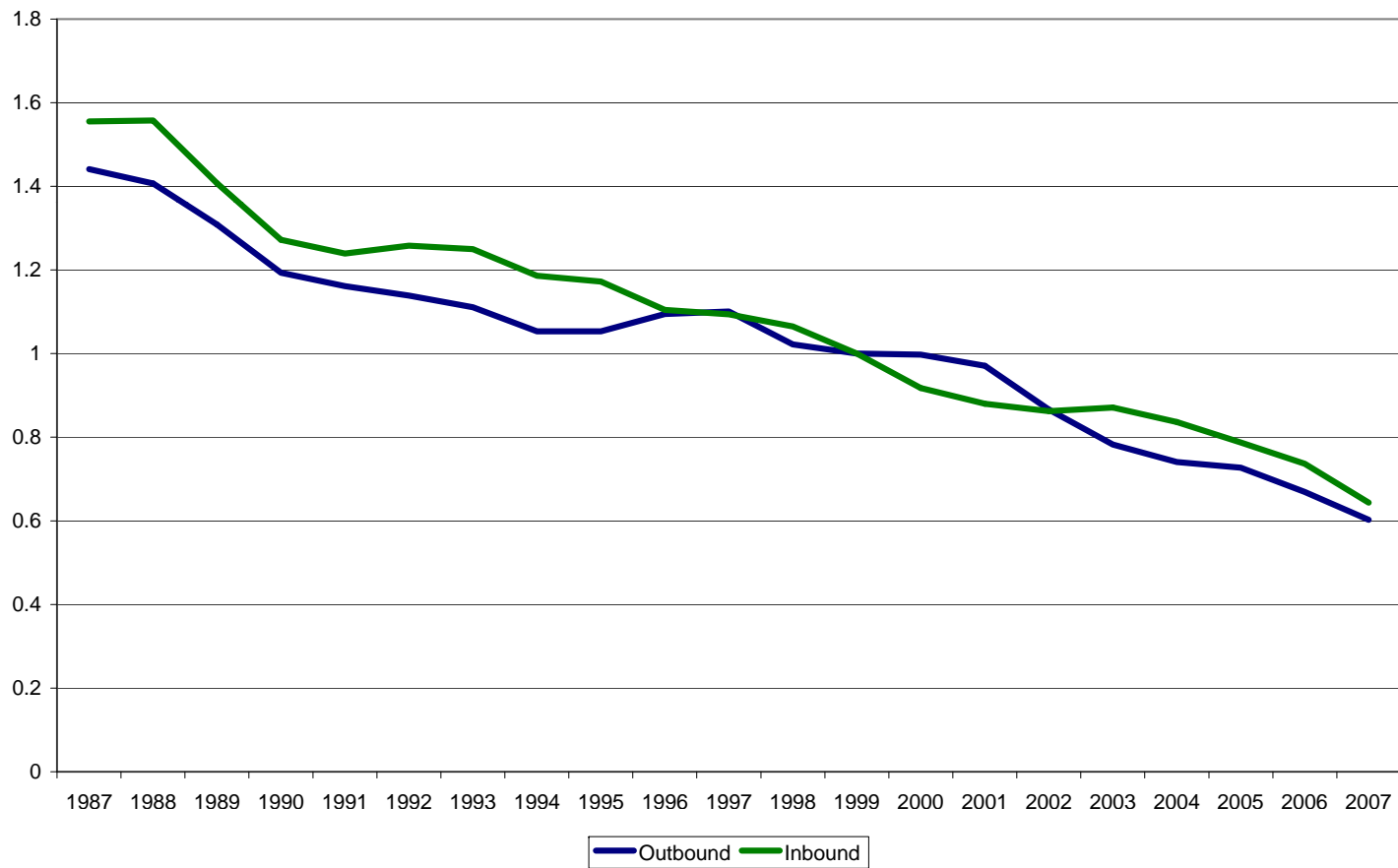
Source: U.S. Census Bureau

What is Trade in Services?

- Modes of service trade:
- Mode 1 – Cross-border provision, e.g. software produced in one region and shipped via internet to another region
- Mode 2 – Consumption abroad, e.g. consumer travels to resort to consume service
- Mode 3 – Commercial presence in foreign region, e.g. restaurant opens local branch to serve foreign demand
- Mode 4 – Temporary movement of natural persons, e.g. consultant travels to customer to deliver services

Travel Costs

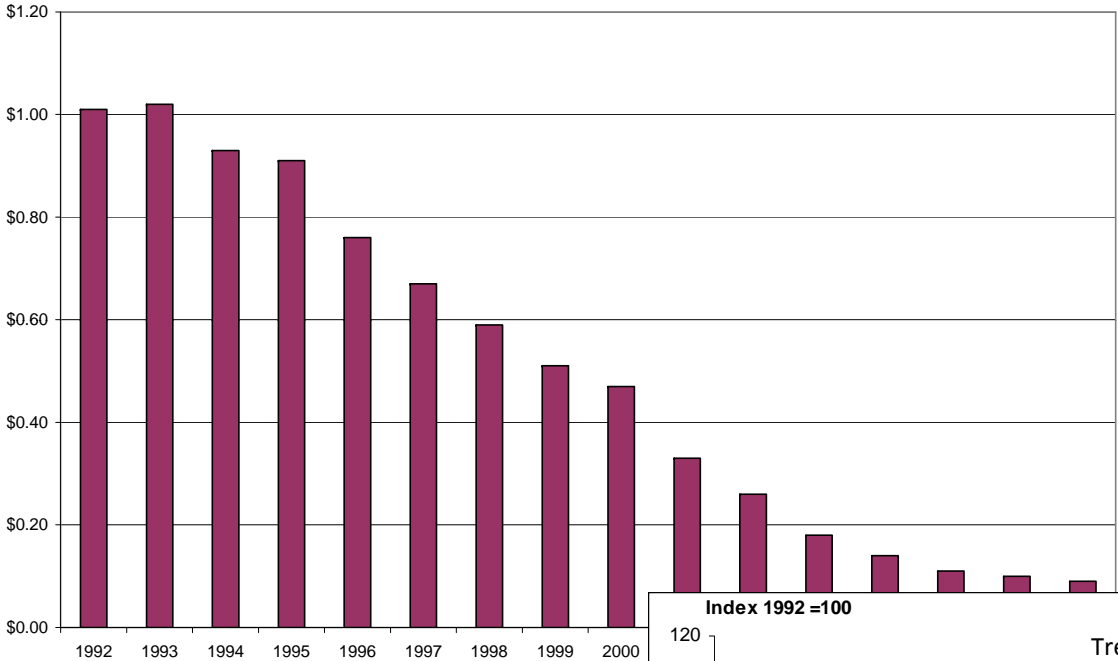
U.S. International Passenger Air Fare Price Trends



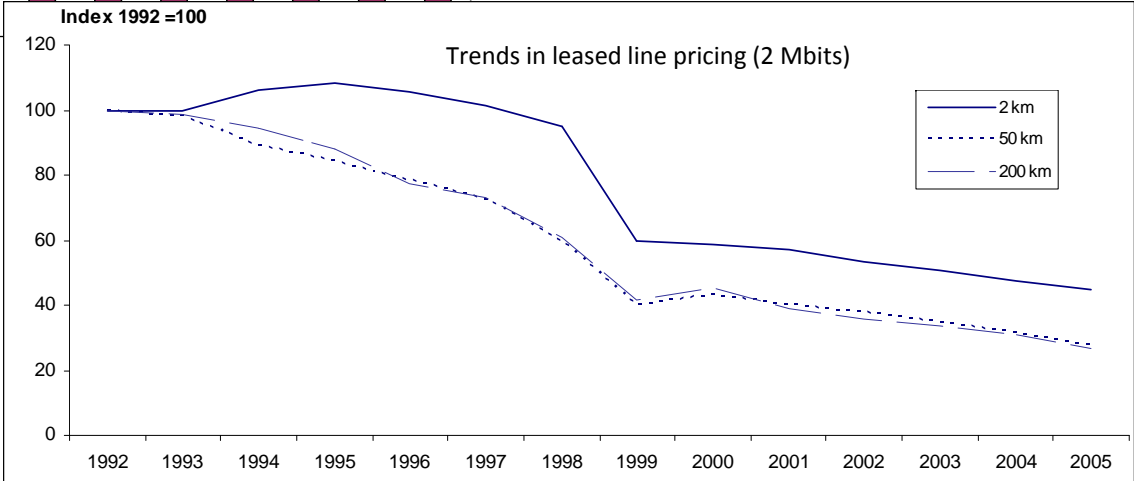
Source: Bureau of Labor Statistics

Telecommunication Costs

International Switched Services
Average Revenue per Minute



Source: International Telecommunications Data, FCC, June 2009



Source: OECD

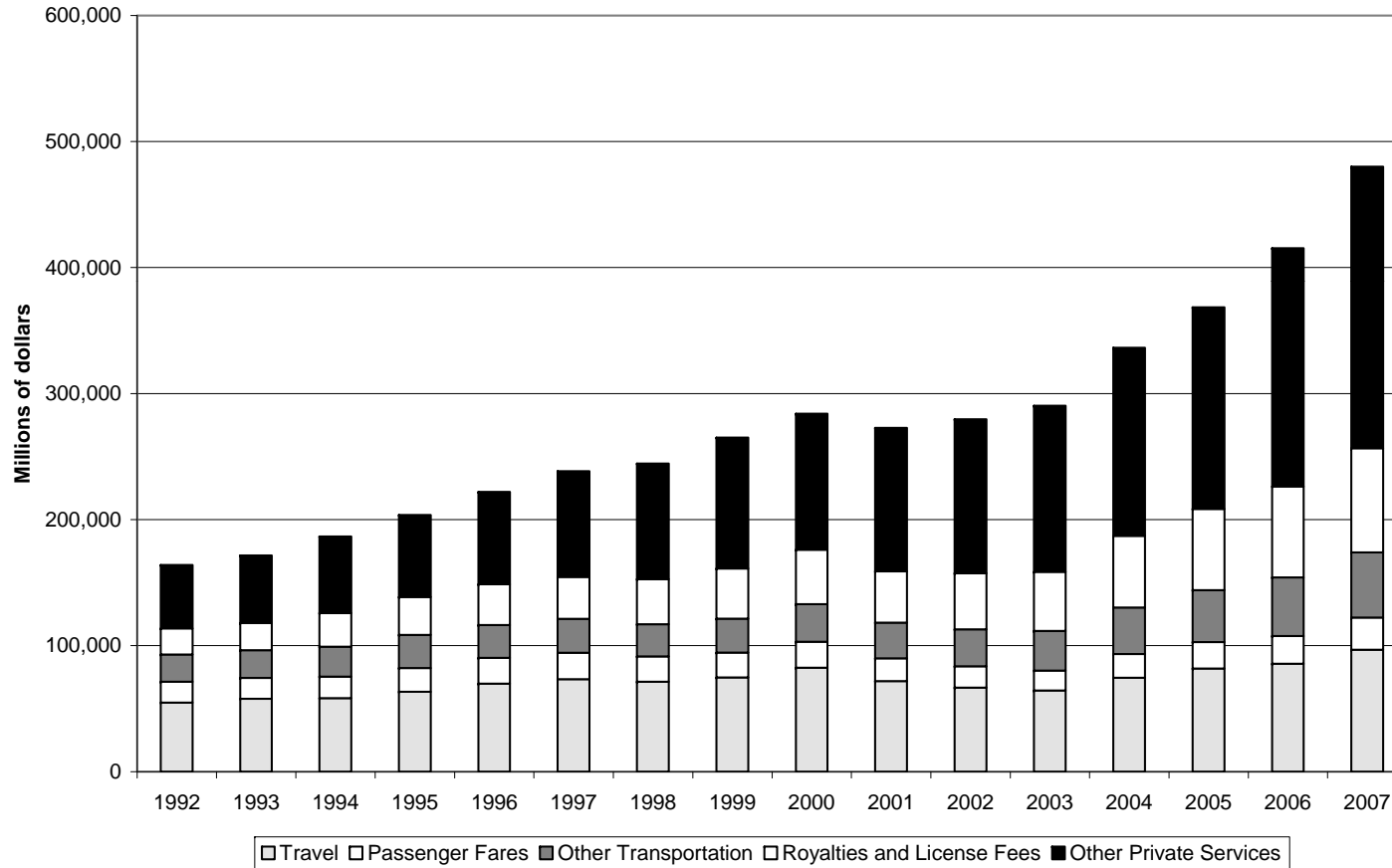
Internet Usage

World Internet Usage and Population Statistics				
Region	Population	Internet Users 2009	Penetration	User Growth (2000-2009)
Africa	975,330,899	54,171,500	6%	1100%
Asia	3,780,819,792	657,170,816	17%	475%
Europe	803,903,540	393,373,398	49%	274%
Middle East	196,767,614	45,861,346	23%	1296%
North America	337,572,949	251,290,489	74%	133%
Latin America/Caribbean	581,249,892	173,619,140	30%	861%
Oceania / Australia	34,384,384	20,783,419	60%	173%
WORLD TOTAL	6,710,029,070	1,596,270,108	24%	342%

Source: www.internetworldstats.com

Service Sector Export Growth

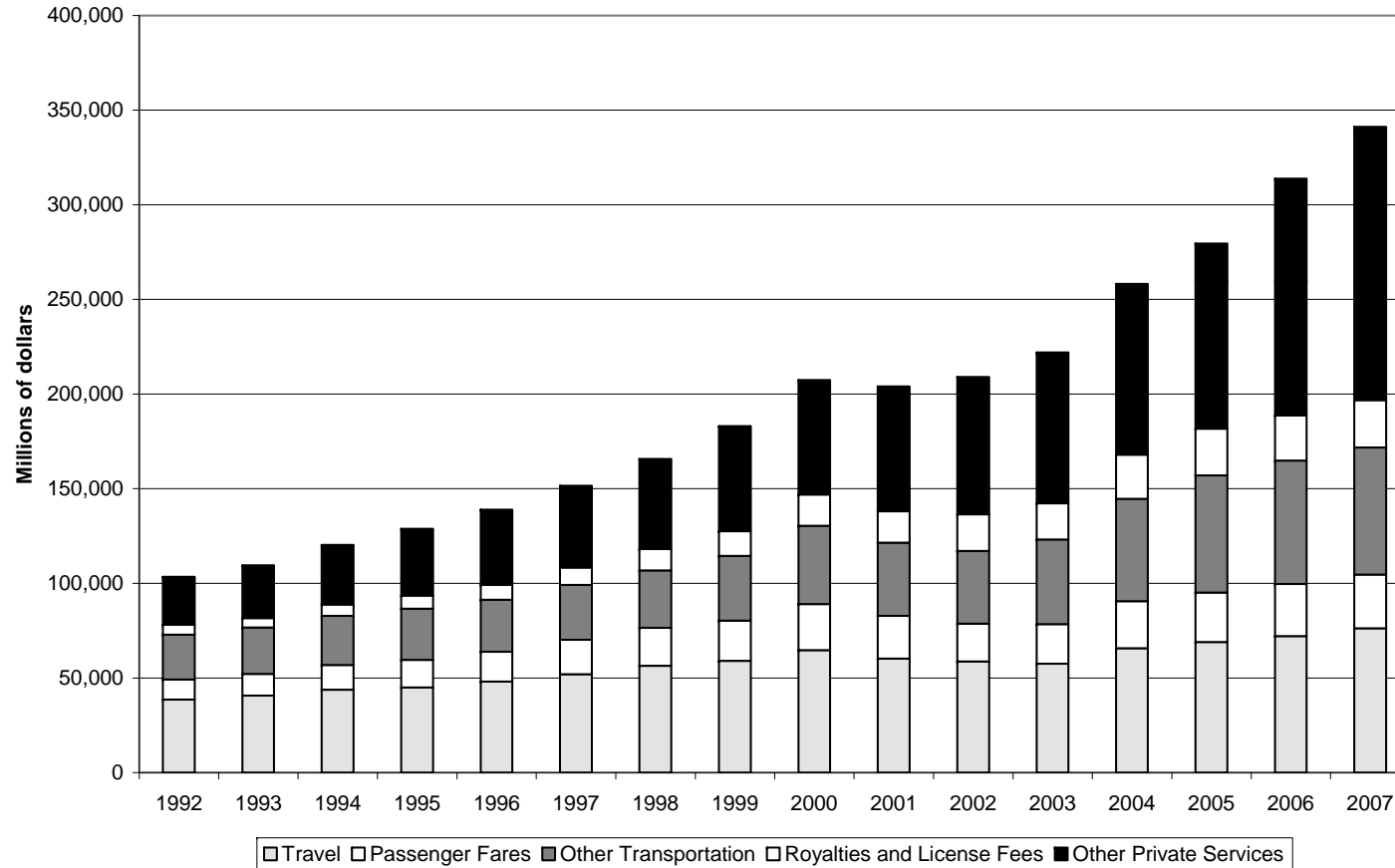
Composition of US Service Exports



Source: Bureau of Economic Analysis

Service Sector Import Growth

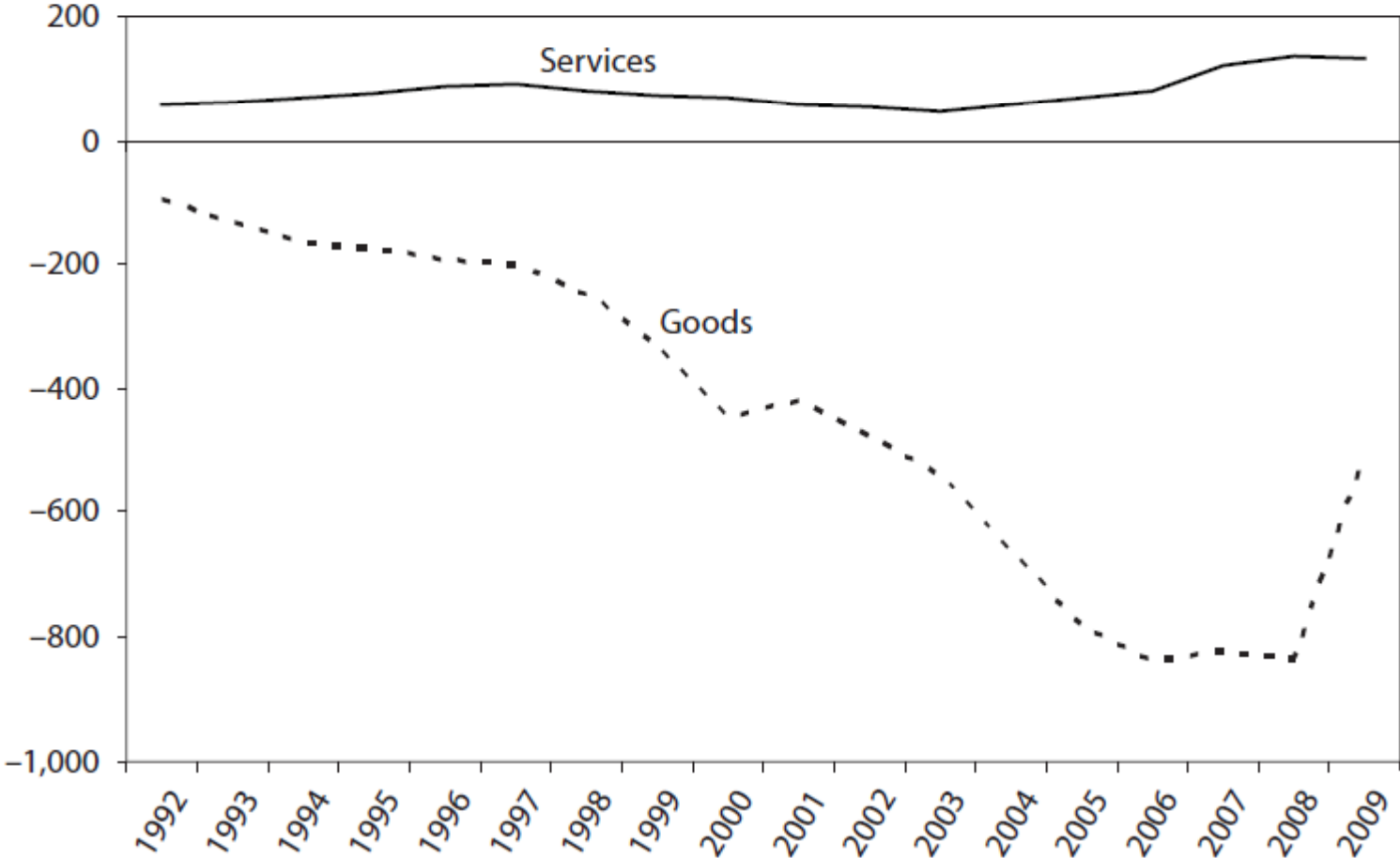
Composition of US Service Imports



Source: BEA

Figure 5.1 US balances of trade in goods and services, 1992–2009

billions of current dollars



Source: Bureau of Economic Analysis, US International Trade in Goods and Services, www.bea.gov.

A closer look

Data Available

2006

Travel ²
Passenger fares ³
Other transportation.....
Royalties and license fees.....
Other private services ^{4 15}
Education ⁵
Financial services ¹⁶
Insurance services ⁶
Telecommunications ⁷
Business, professional, and technical services ¹⁶
Computer and information services ^{8 16}
Management and consulting services ⁹
Research and development and testing services ⁹
Operational leasing ¹⁶
Other business, professional, and technical services ^{10 16}
Accounting, auditing, and bookkeeping services.....
Advertising.....
Architectural, engineering, and other technical services.....
Construction
Industrial engineering.....
Installation, maintenance, and repair of equipment.....
Legal services.....
Medical services ¹¹
Mining ¹²
Sports and performing arts.....
Trade-related services ¹³
Training services.....
Other ¹⁴
Other services.....
Film and television tape rentals.....
Other.....

Data Available

2001	
Travel ²	
Passenger fares ³	
Other transportation.....	
Royalties and license fees.....	
Other private services ^{4 15}	
Education ⁵	
Financial services ¹⁶	
Insurance services ⁶	
Telecommunications ⁷	
Business, professional, and technical services ¹⁶	
Computer and information services ^{8 16}	
Management and consulting services ⁹	
Research and development and testing services ⁹	
Operational leasing ¹⁶	
Other business, professional, and technical services ^{10 16}	
Medical services ¹¹	
Other services.....	
Film and television tape rentals.....	
Other.....	

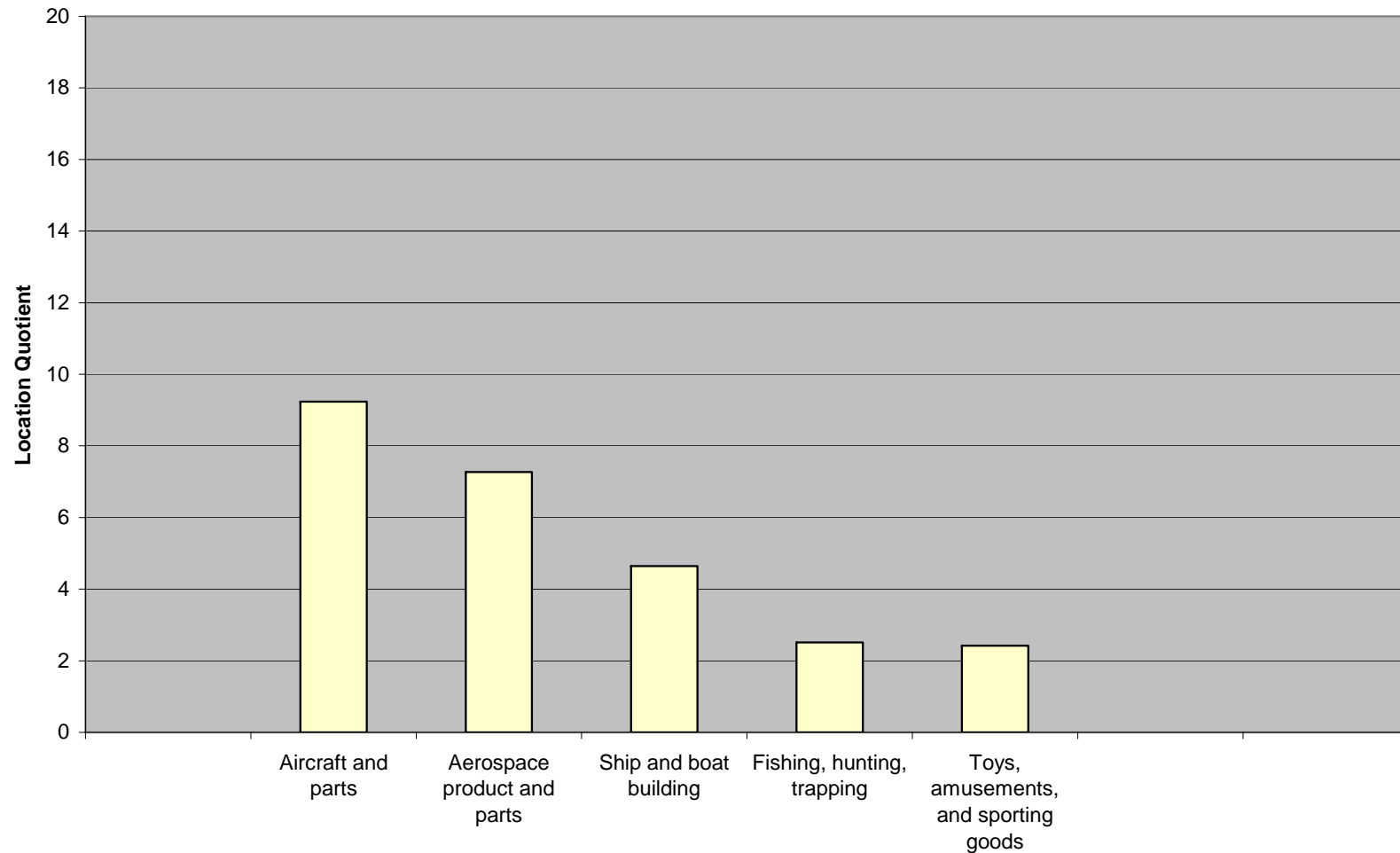
Data Available

1997	
Travel ²	
Passenger fares ³	
Other transportation.....	
Royalties and license fees.....	
Other private services ^{4 15}	
Education ⁵	
Financial services ¹⁶	
Insurance services ⁶	
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Medical services ¹¹	
Other services.....	
Film and television tape rentals.....	
Other.....	

A new approach

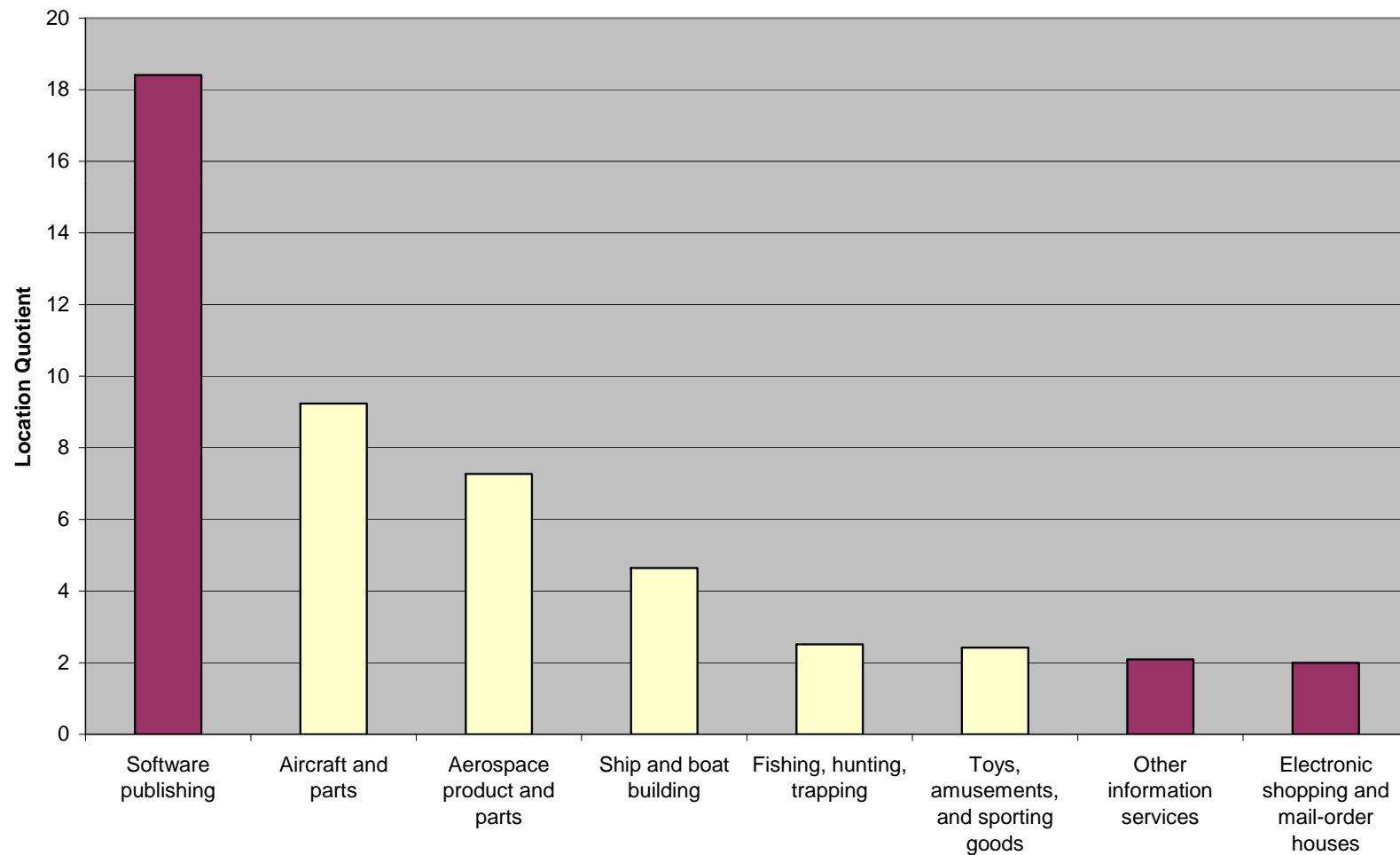
Empirical Approach: Geographic Concentration

Industrial Concentration: Seattle

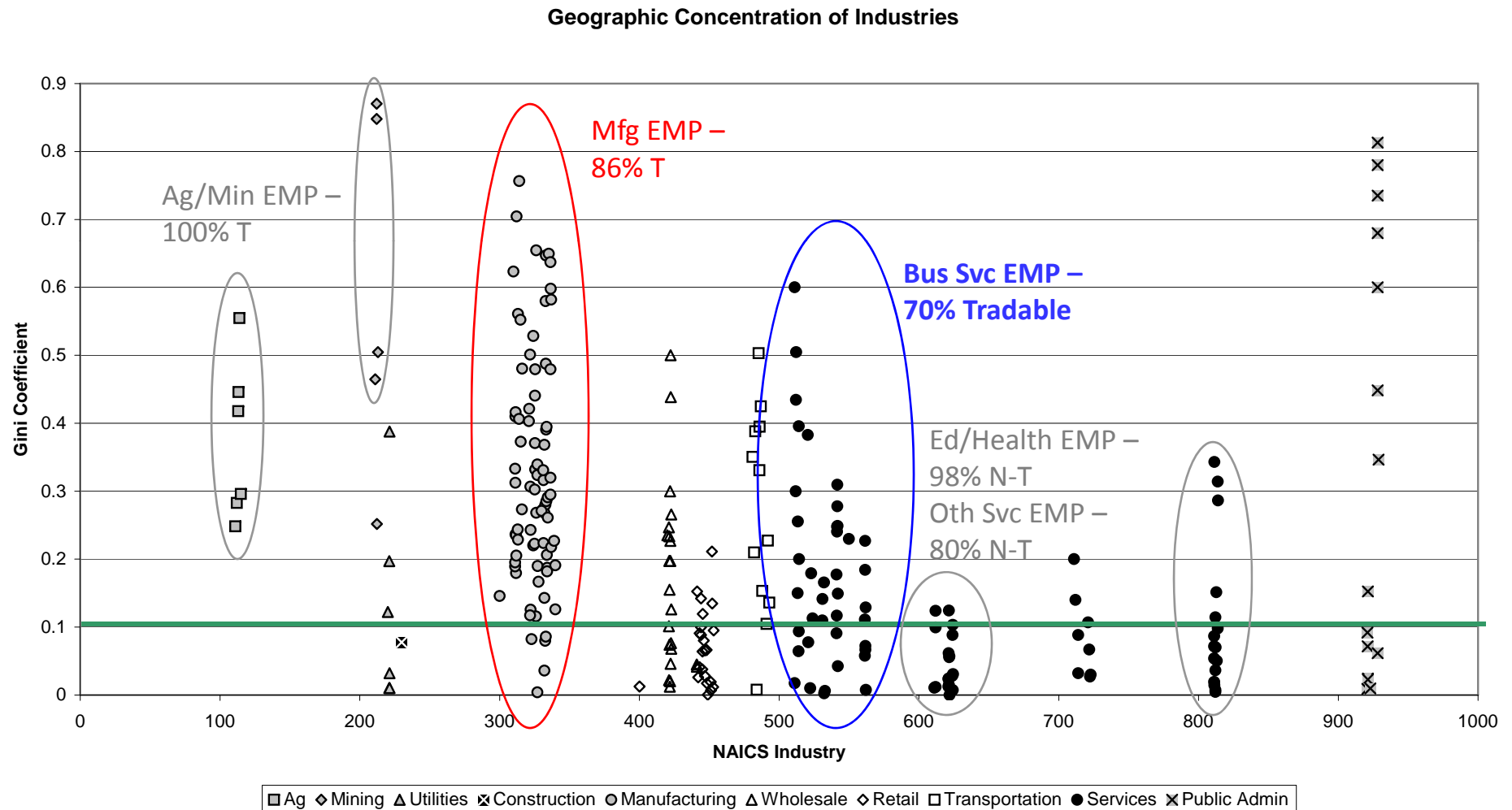


Empirical Approach: Geographic Concentration

Industrial Concentration: Seattle



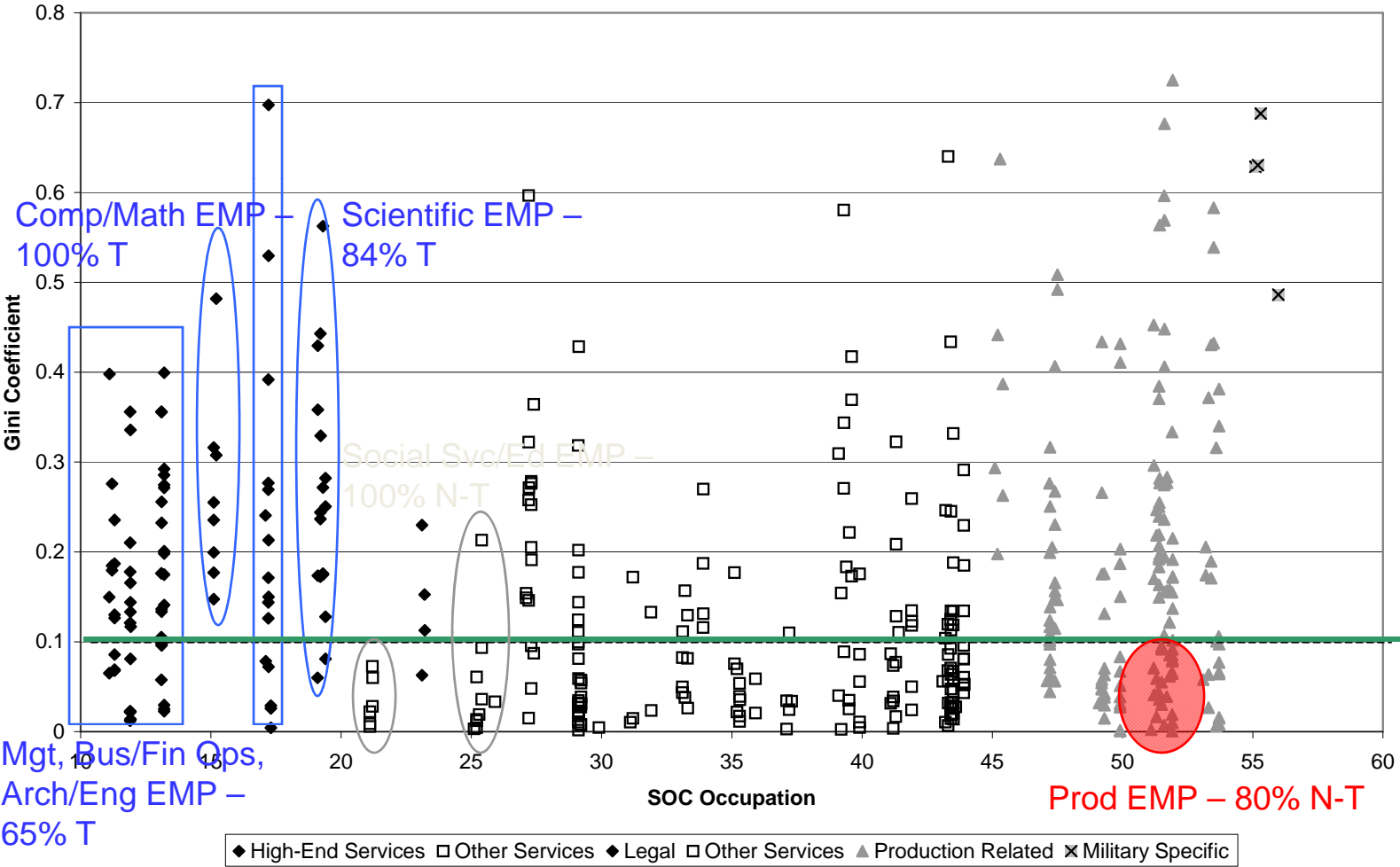
Geographic Concentration of Industries



Source: Jensen and Kletzer (2006)

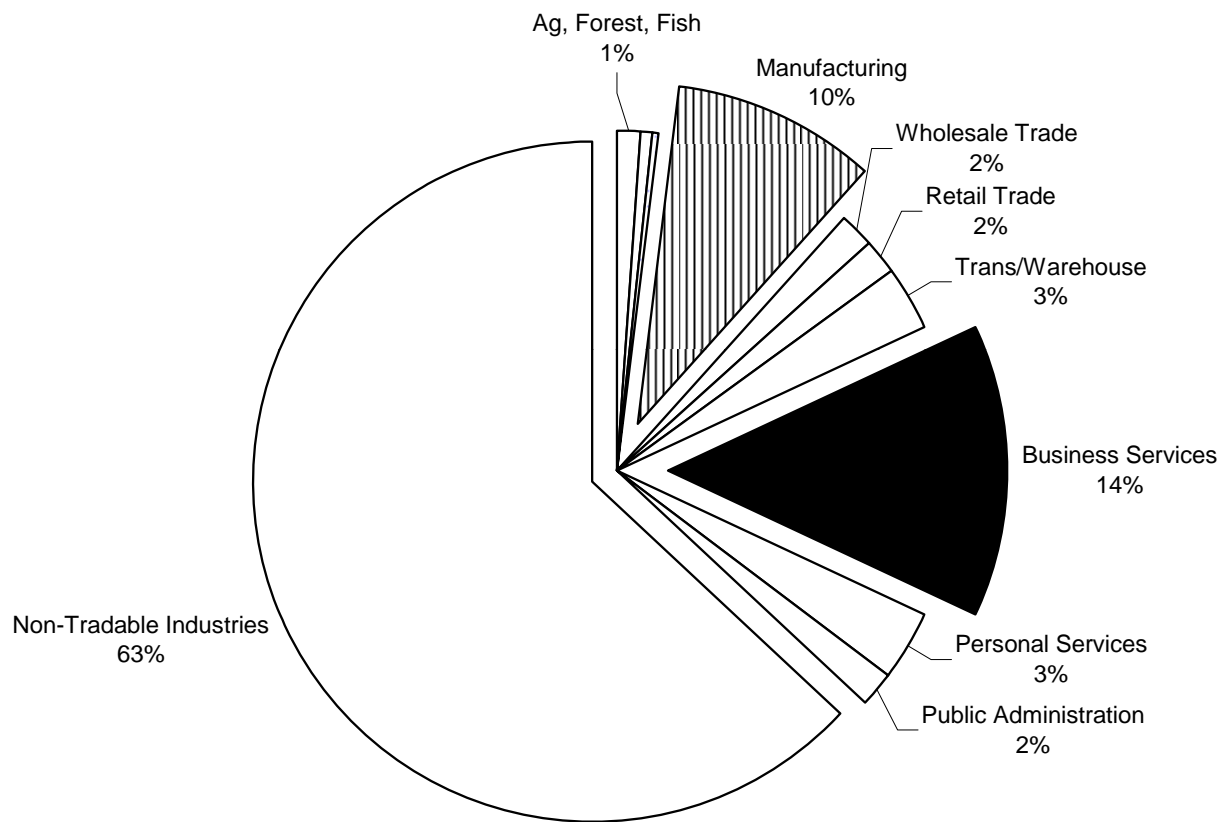
Geographic Concentration of Occupations

Geographic Concentration of Occupations



New insights

Employment Shares for Tradable Industries



Source: Author's calculations, 2007 American Community Survey

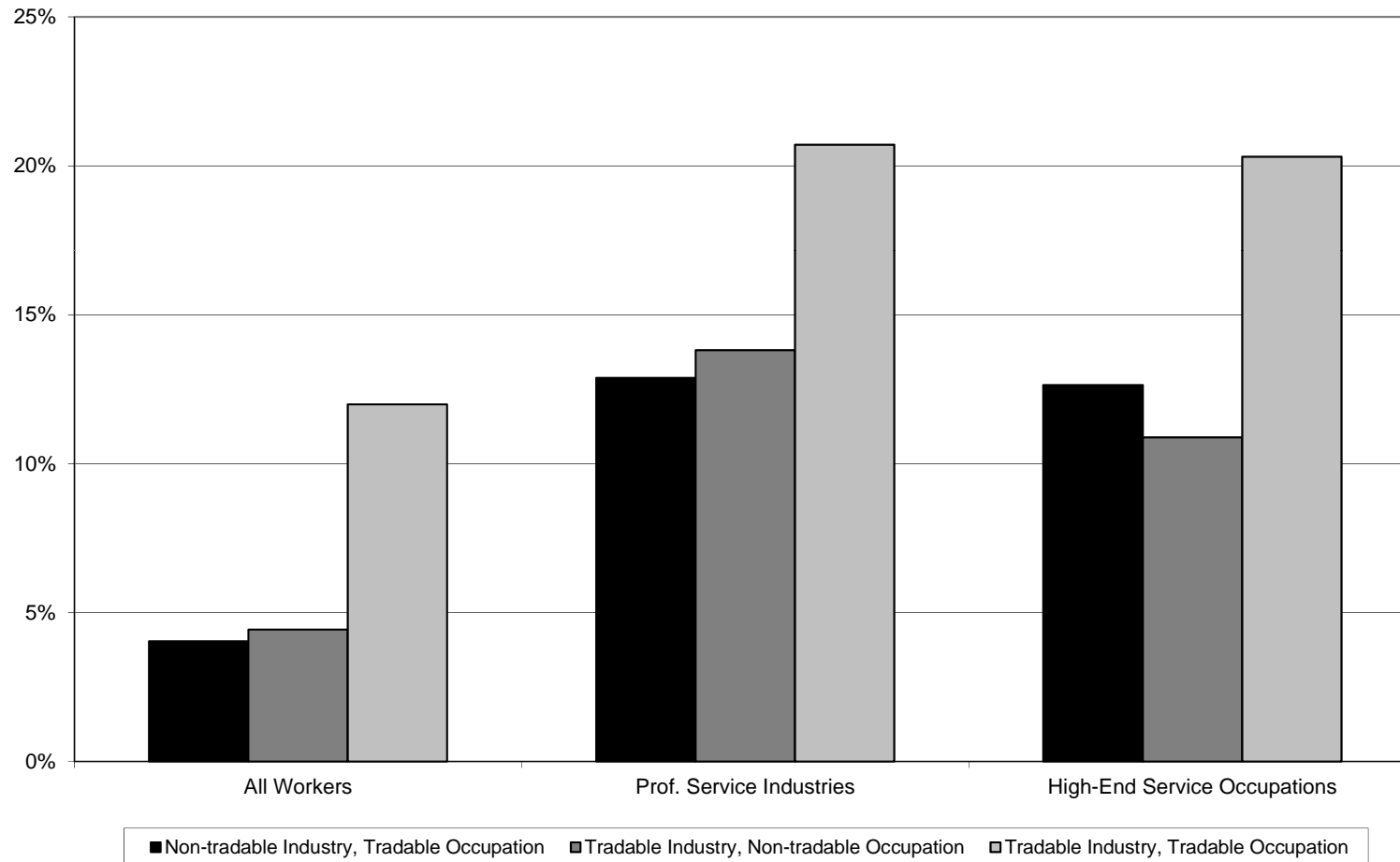
Tradable Services are Different

Worker Characteristics for Select Industries		
Manufacturing (NAICS 30s)		
	Non-tradable Industry	Tradable Industry
Number of Workers	2,235,432	12,994,490
Average Earnings	\$44,014	\$49,952
Share with B.A.	16%	24%
Share with Advanced Degree	3%	7%
Share in Tradable Occupations	26%	34%
Professional Services (NAICS 50s)		
	Non-tradable Industry	Tradable Industry
Number of Workers	8,038,246	18,430,199
Average Earnings	\$42,226	\$66,454
Share with B.A.	29%	50%
Share with Advanced Degree	7%	17%
Share in Tradable Occupations	31%	60%
Source: Author's calculations, 2007 American Community Survey		

Source: Author's calculations, 2007 American Community Survey

Tradable Services are Different

Average Earnings Differentials
with Demographic, Industry, and Occupation Group Controls



Cause for concern?

JOB PROSPECTS

Pain From Free Trade Spurs Second Thoughts

*Mr. Blinder's Shift
Spotlights Warnings
Of Deeper Downside*

By **DAVID WESSEL**
And **BOB DAVIS**

For decades, Alan S. Blinder—Princeton University economist, former Federal Reserve Board vice chairman and perennial adviser to Democratic presidential candidates—argued, along with most economists, that free trade enriches the U.S. and its trading partners, despite the harm it



Alan S. Blinder

Mr. Blinder has changed his message—

does to some workers. “Like 99% of economists since the days of Adam Smith, I am a free trader down to my toes,” he wrote back in 2001.

Politicians heeded this advice and, with occasional dissents, steadily dismantled barriers to trade. Yet today

Most Vulnerable

Selected occupations ranked by Princeton economist Alan Blinder as “highly offshorable”:

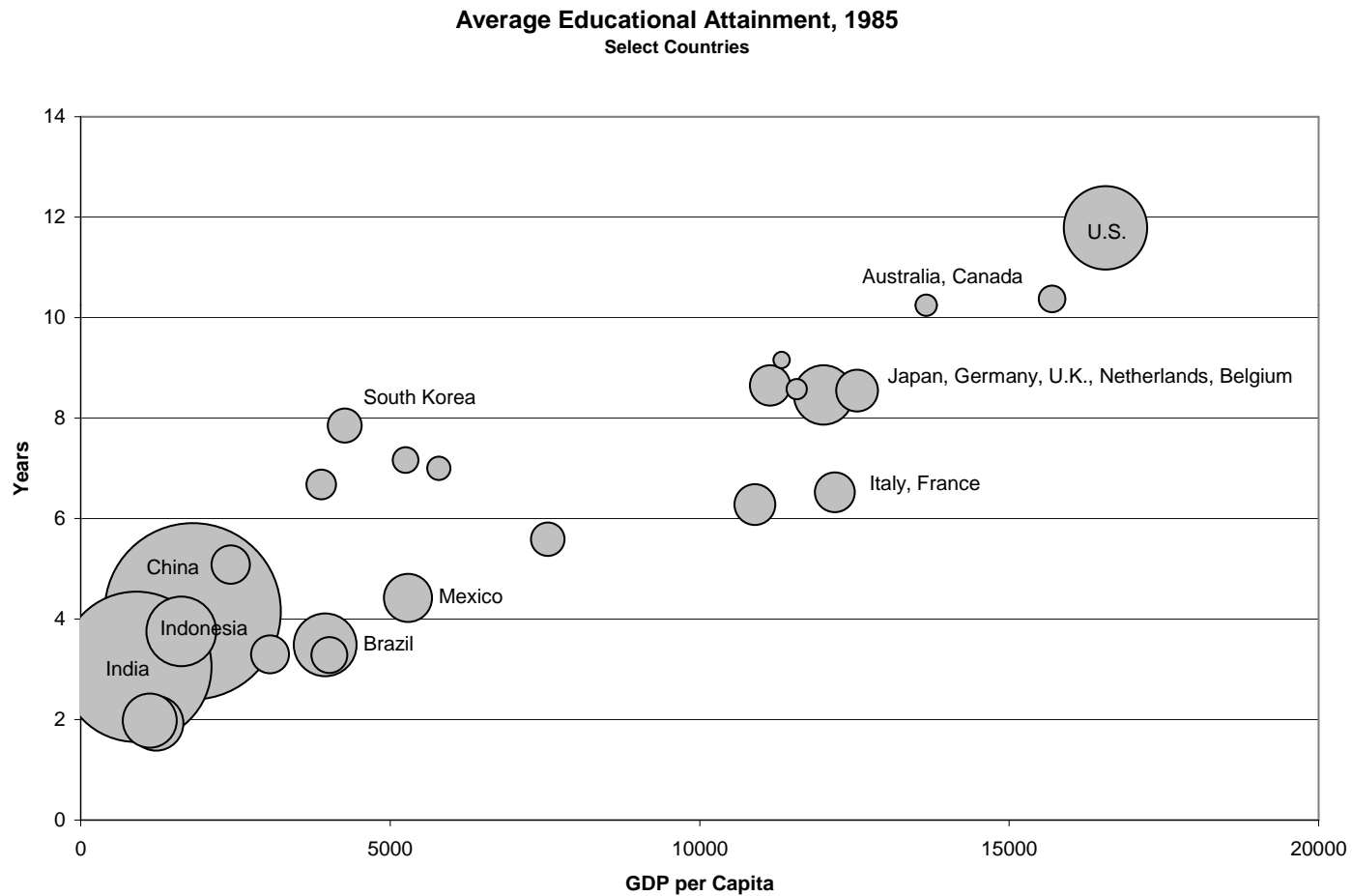
Occupation	Number of U.S. workers
Computer programmers	389,090
Data entry keyers	296,700
Actuaries	15,770
Film and video editors	15,200
Mathematicians	2,930
Medical transcriptionists	90,380
Interpreters and translators	21,930
Economists	12,470
Graphic designers	178,530
Bookkeeping, accounting and auditing clerks	1,815,340
Microbiologists	15,250
Financial analysts	180,910

big iceberg,” Mr. Blinder says.

The critique comes as public skepticism about allowing an unfettered flow of goods, services, people and money across borders is intensifying, including some Republicans as well as many Democrats. (See related article on page A6). The rethinking is helping

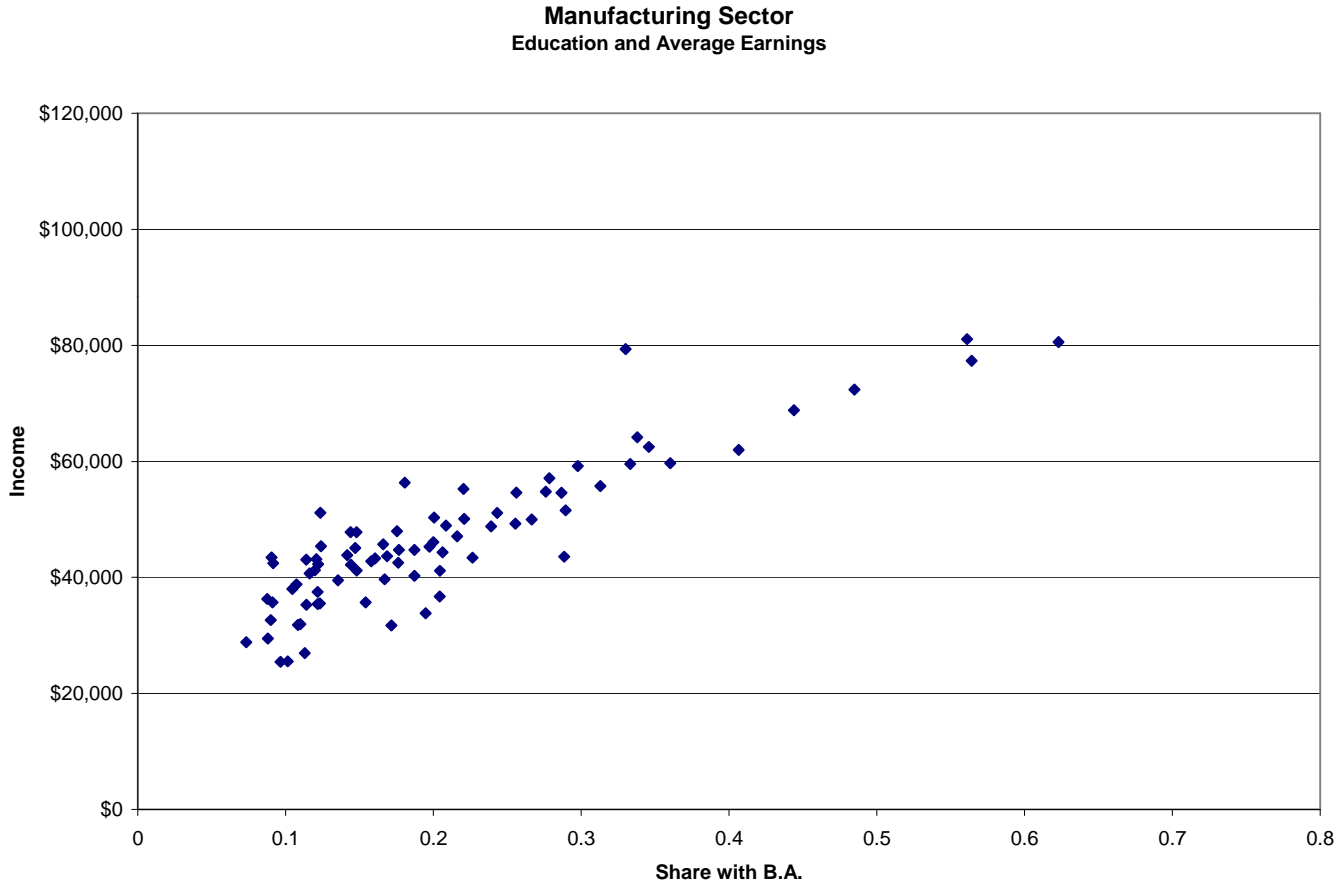
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Factor Abundance: Education



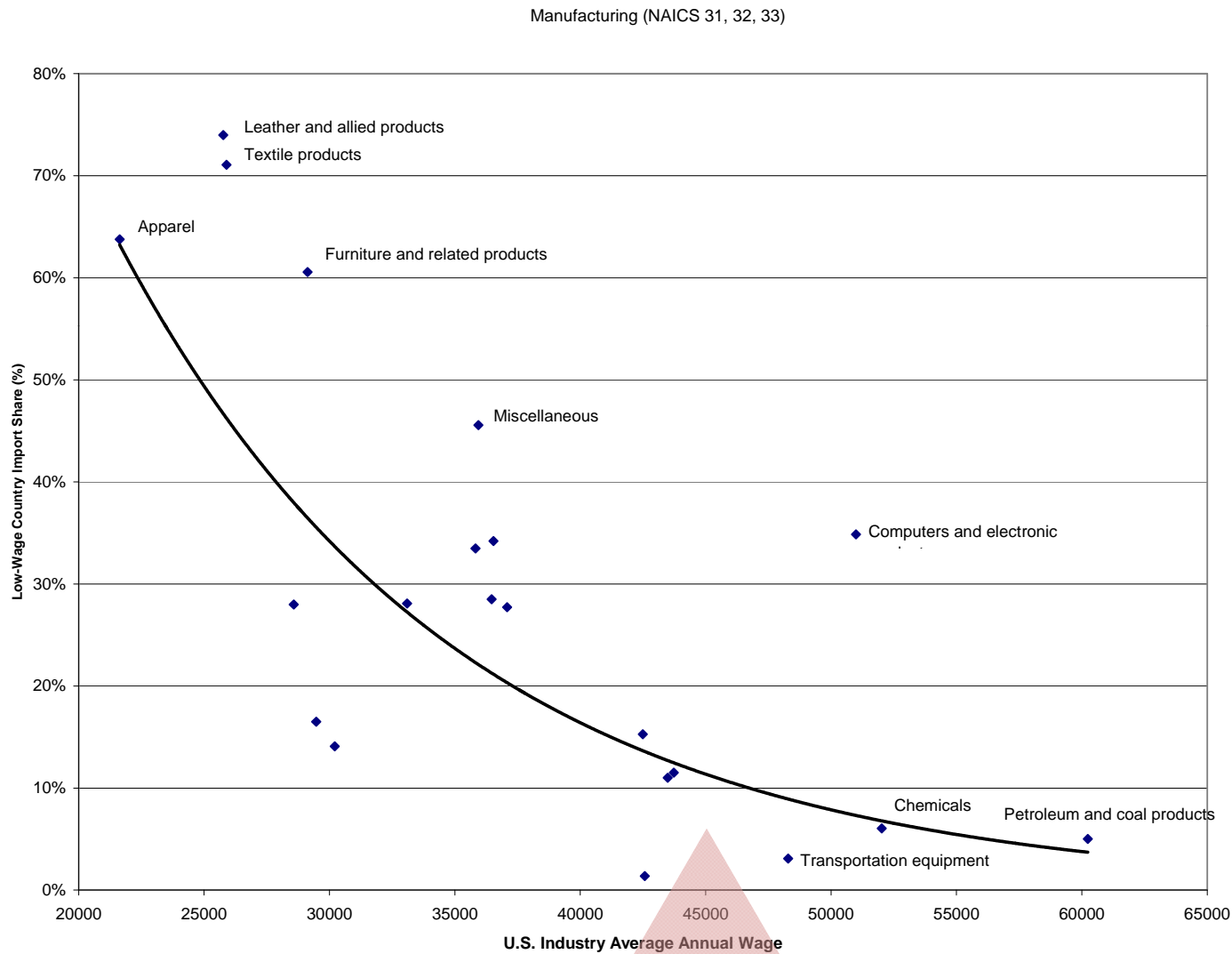
Source: Educational Attainment, Barro and Lee and GDP per Capita, Penn World Tables v. 5

Factor Intensities: Manufacturing



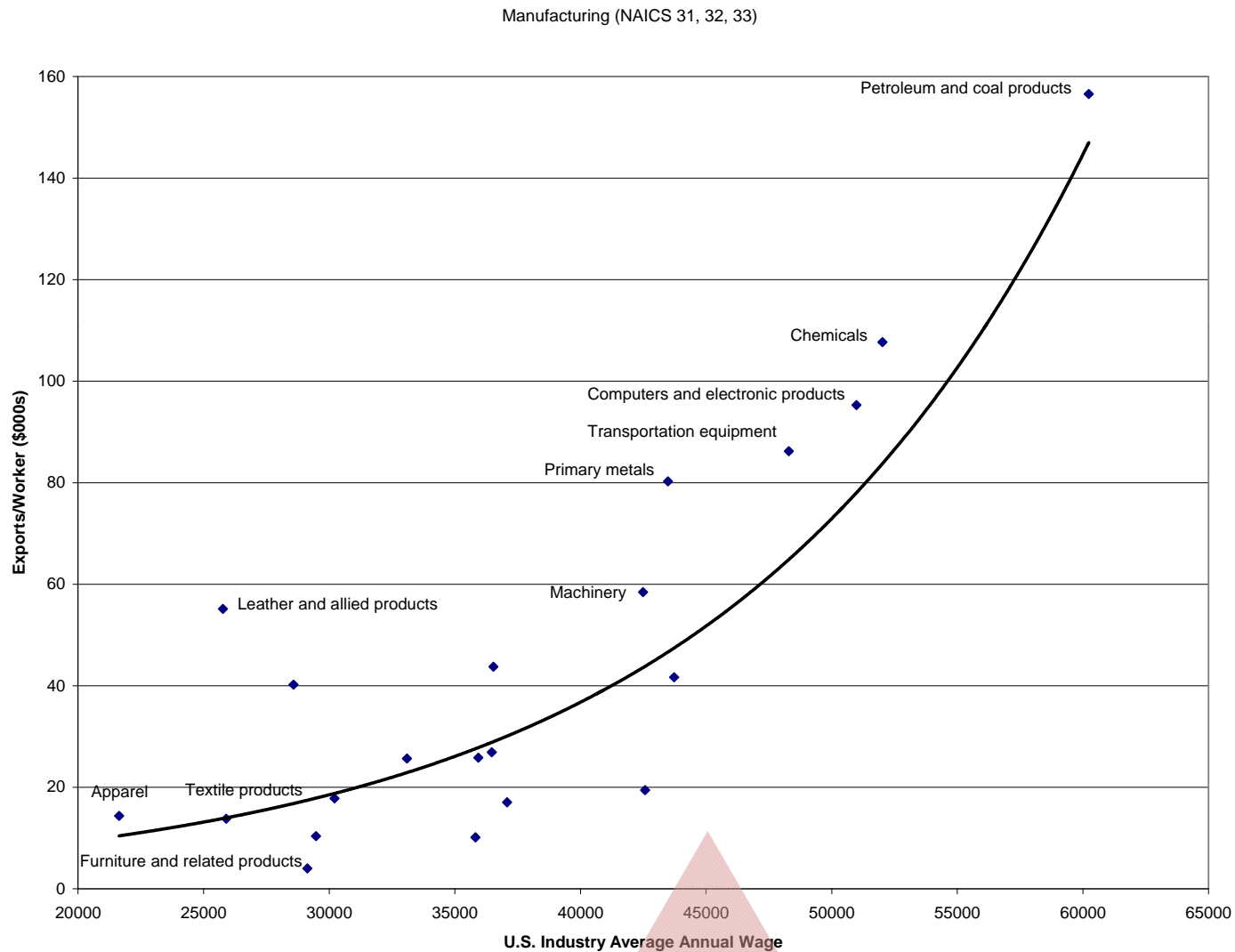
Source: Author's calculations, 2007 American Community Survey

Comparative Advantage in Manufacturing



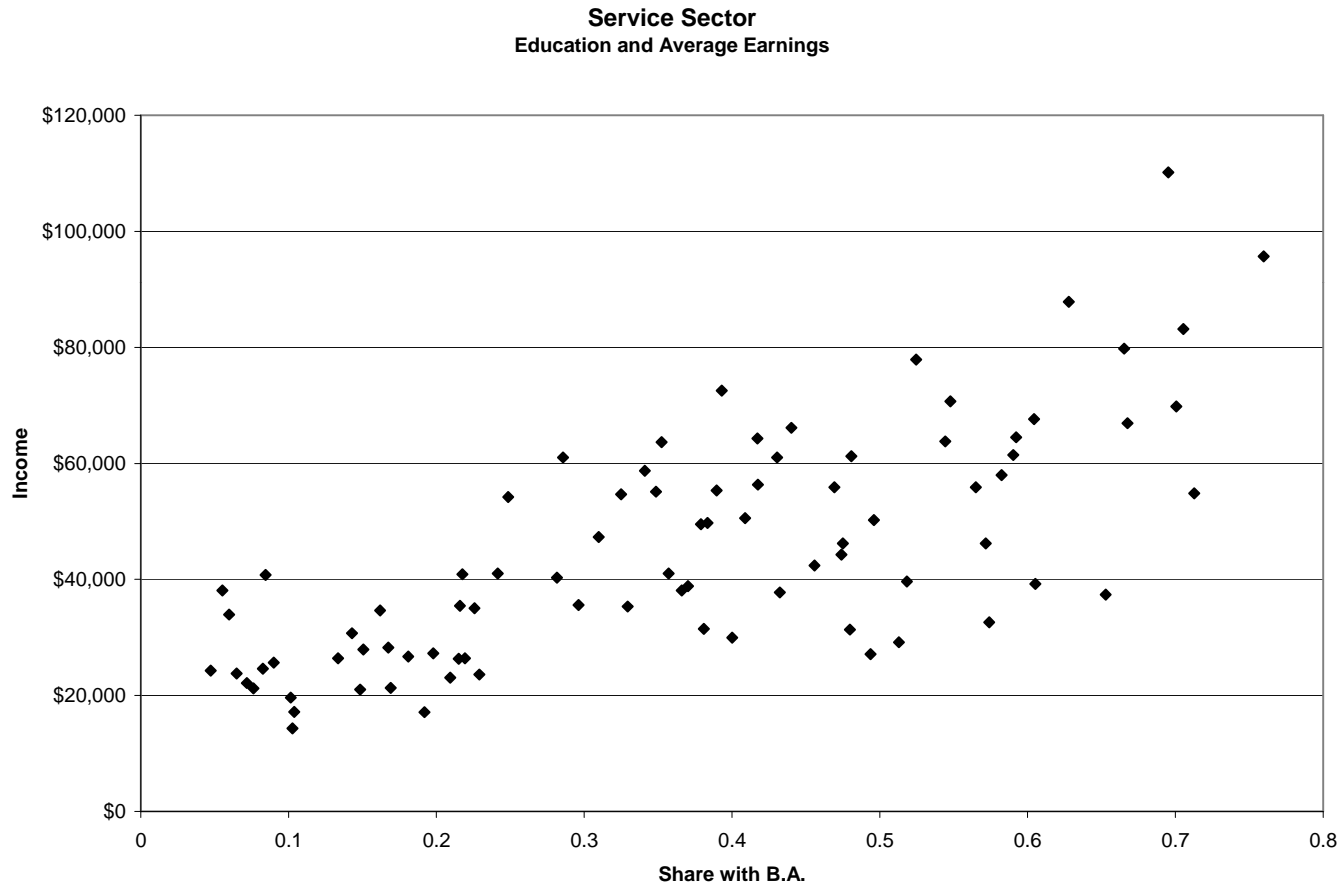
Source: Author's calculations, 2002 Economic Census, 2006 U.S. Imports of Merchandise data, and World Bank.

Comparative Advantage in Manufacturing



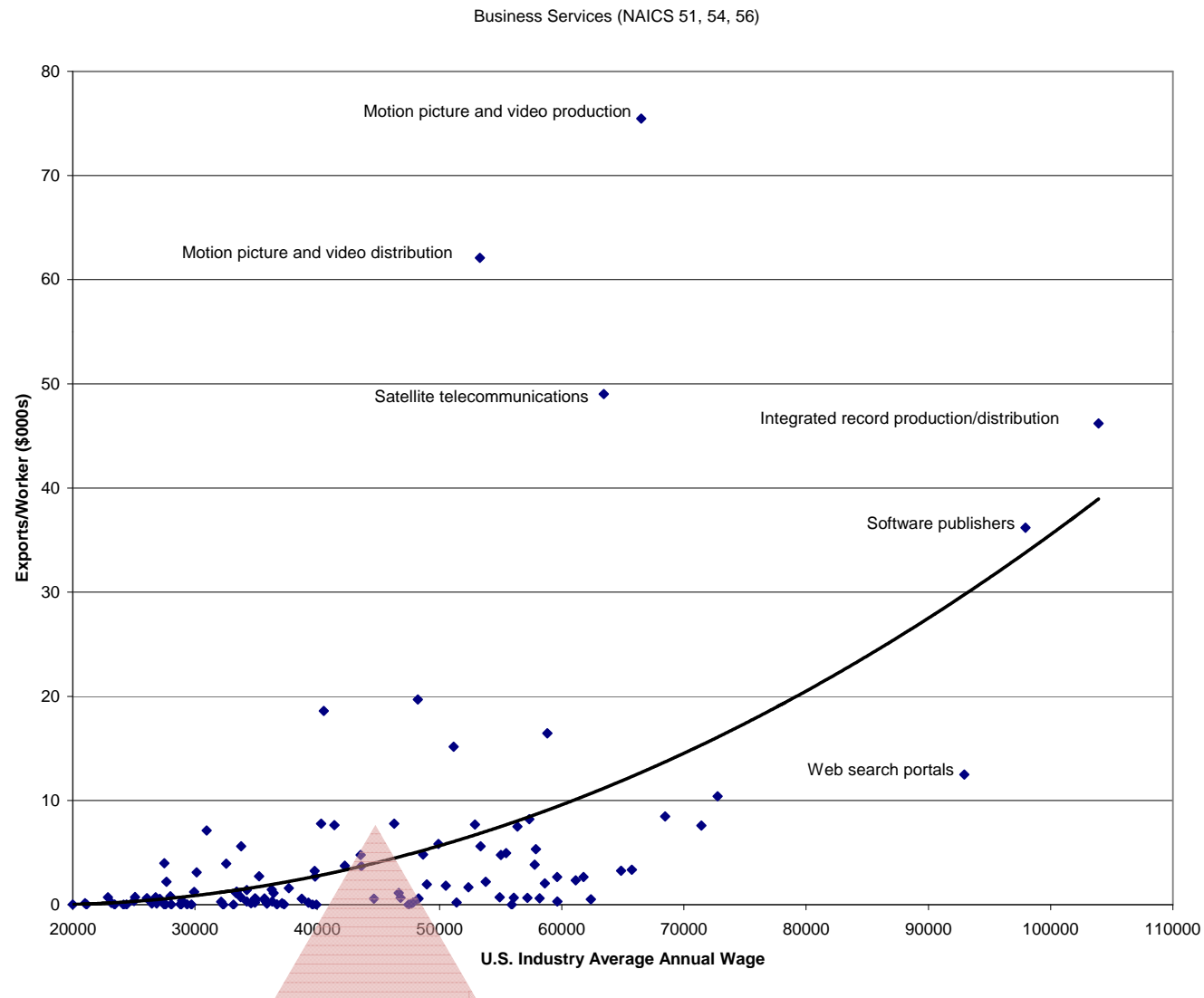
Source: Author's calculations, 2002 Economic Census

Factor Intensities: Services



Source: Author's calculations, 2007 American Community Survey

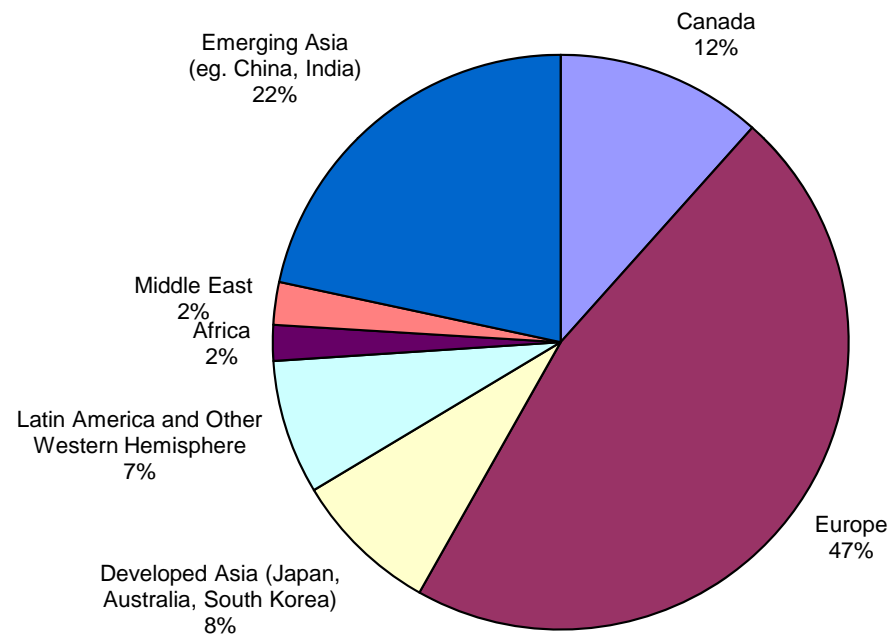
Comparative Advantage in Services



Source: Author's calculations, 2002 Economic Census

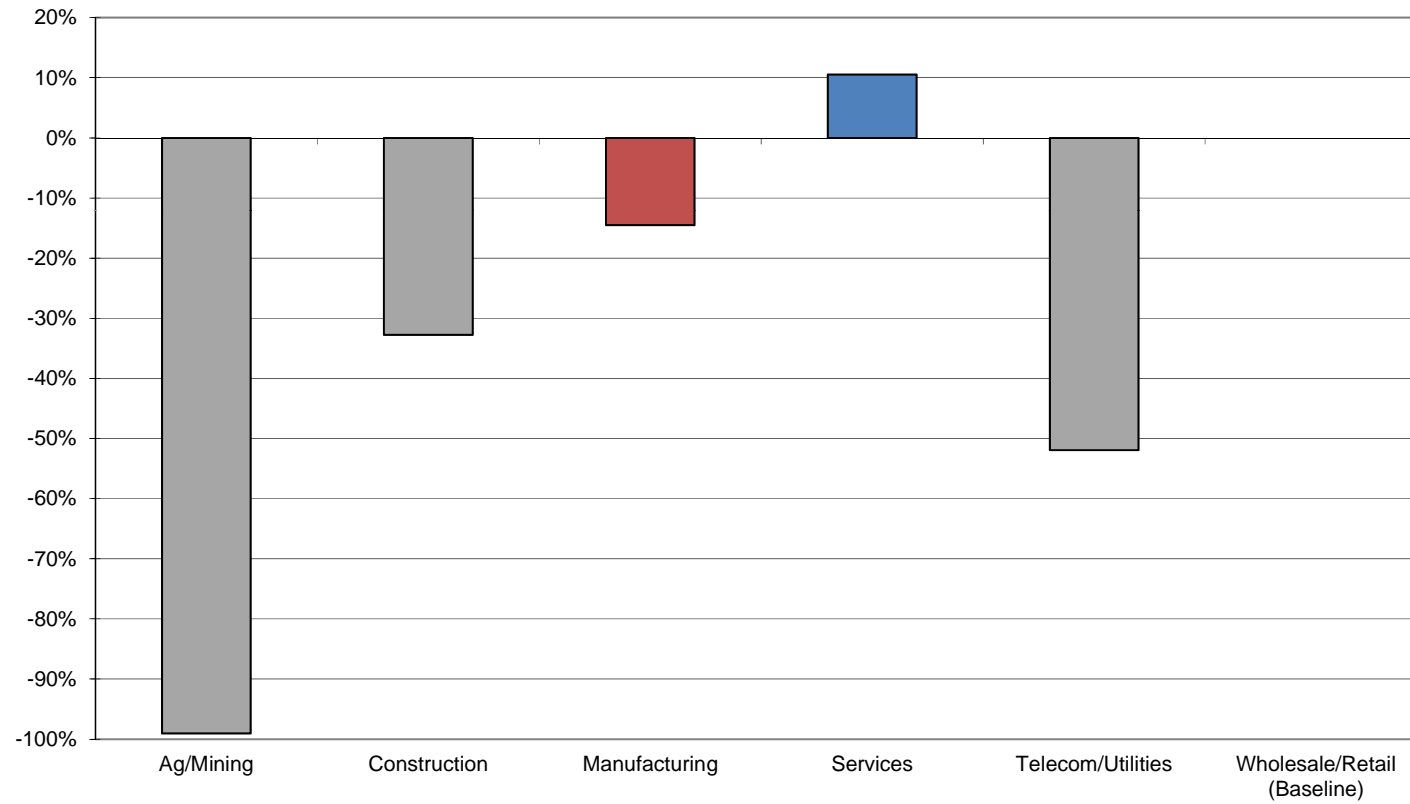
Comparative Advantage in Services

Business, Professional, & Technical Services Imports 2008

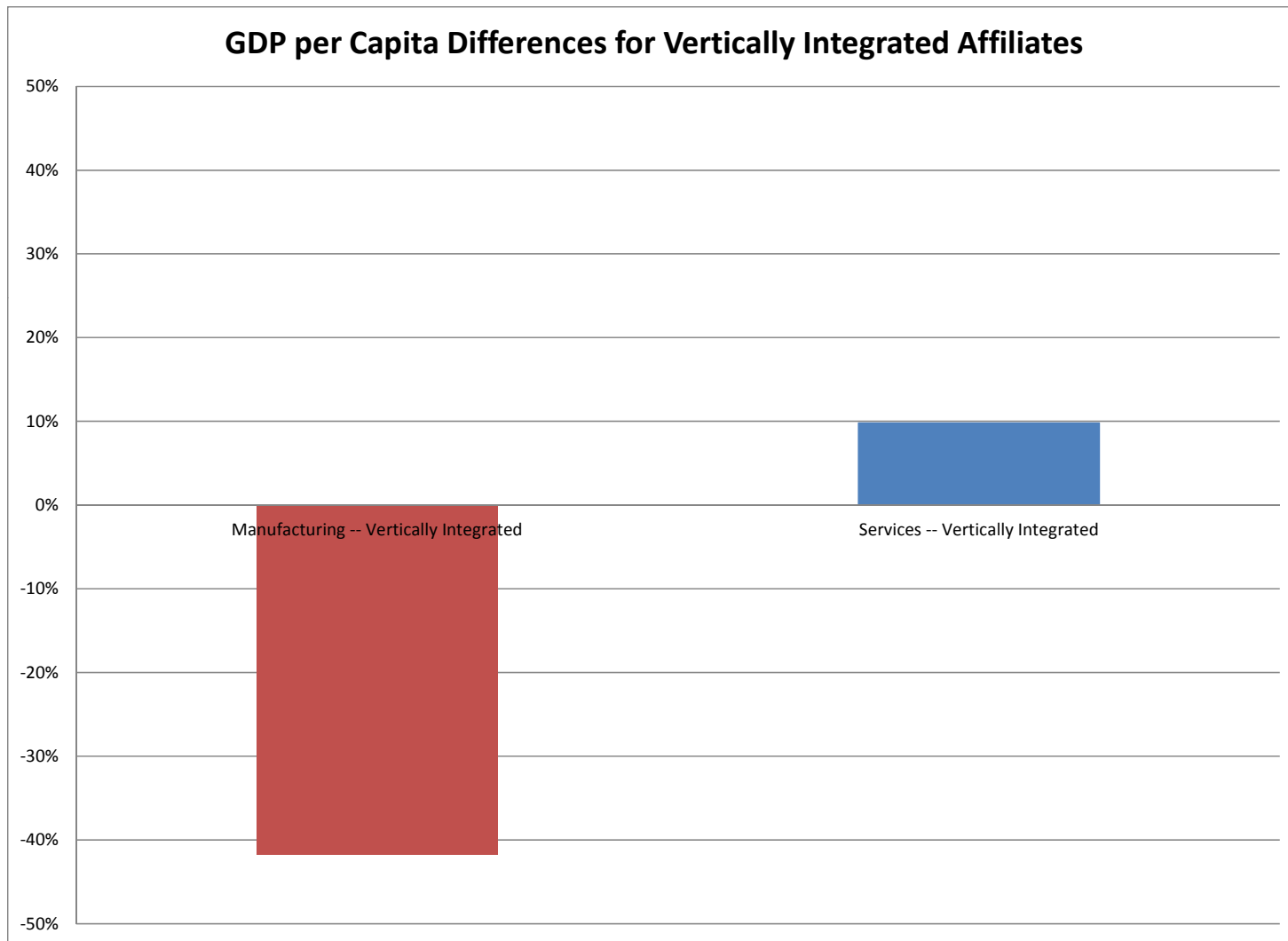


Comparative Advantage in Services

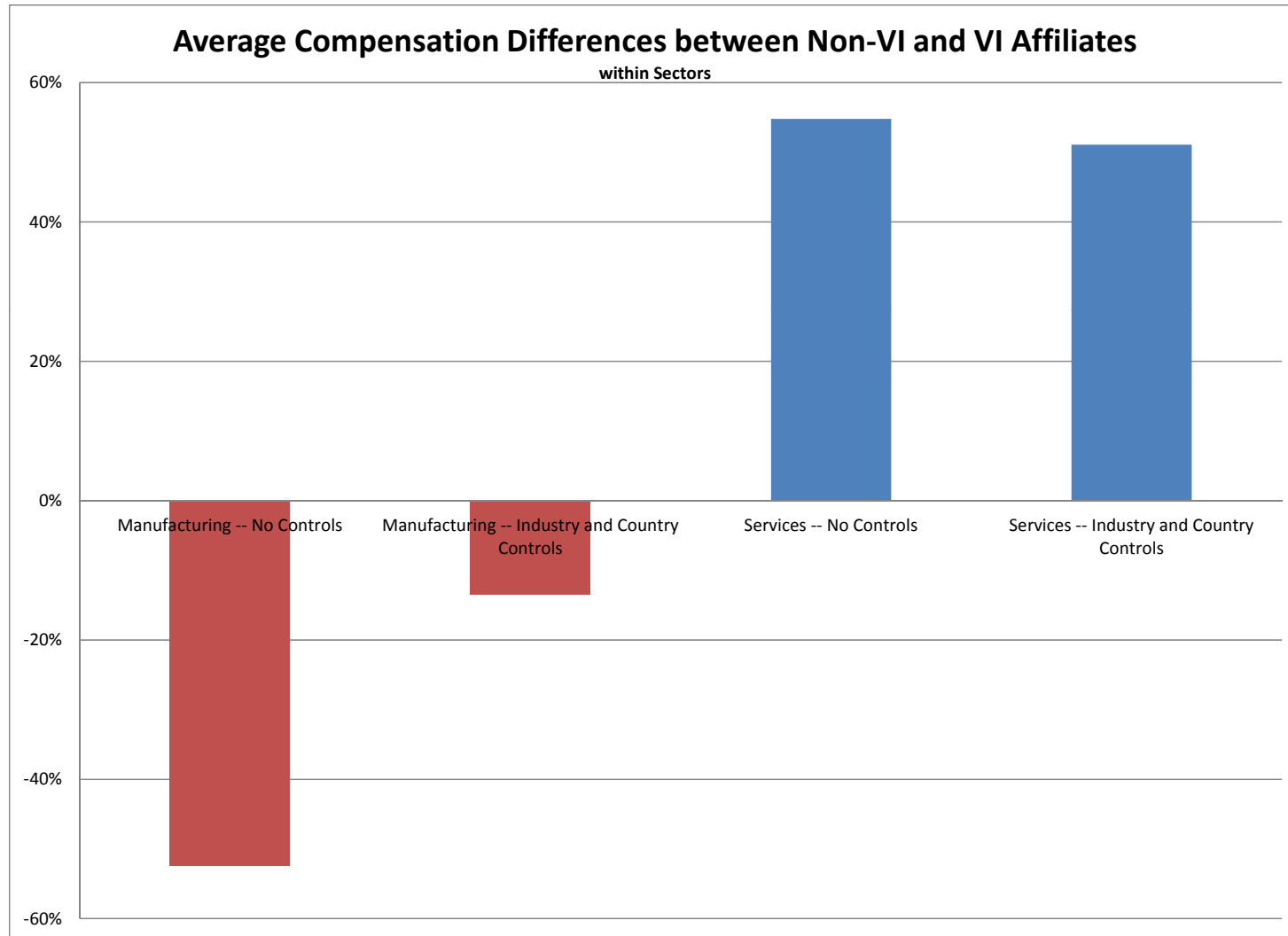
MNC Affiliate Host Country GDP per Capita Differentials



Comparative Advantage in Services

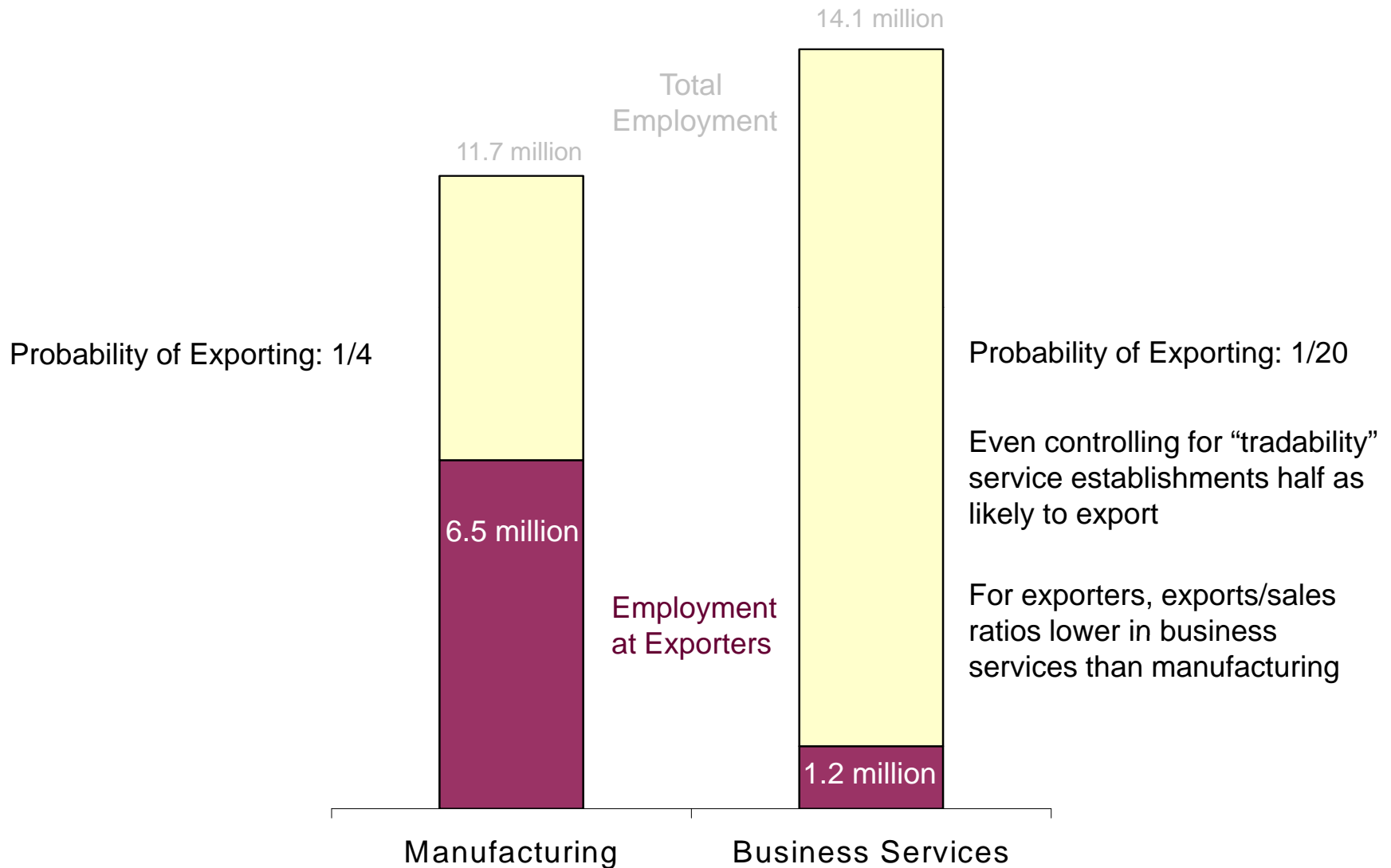


Comparative Advantage in Services



Opportunities?

Impediments to Trade in Services



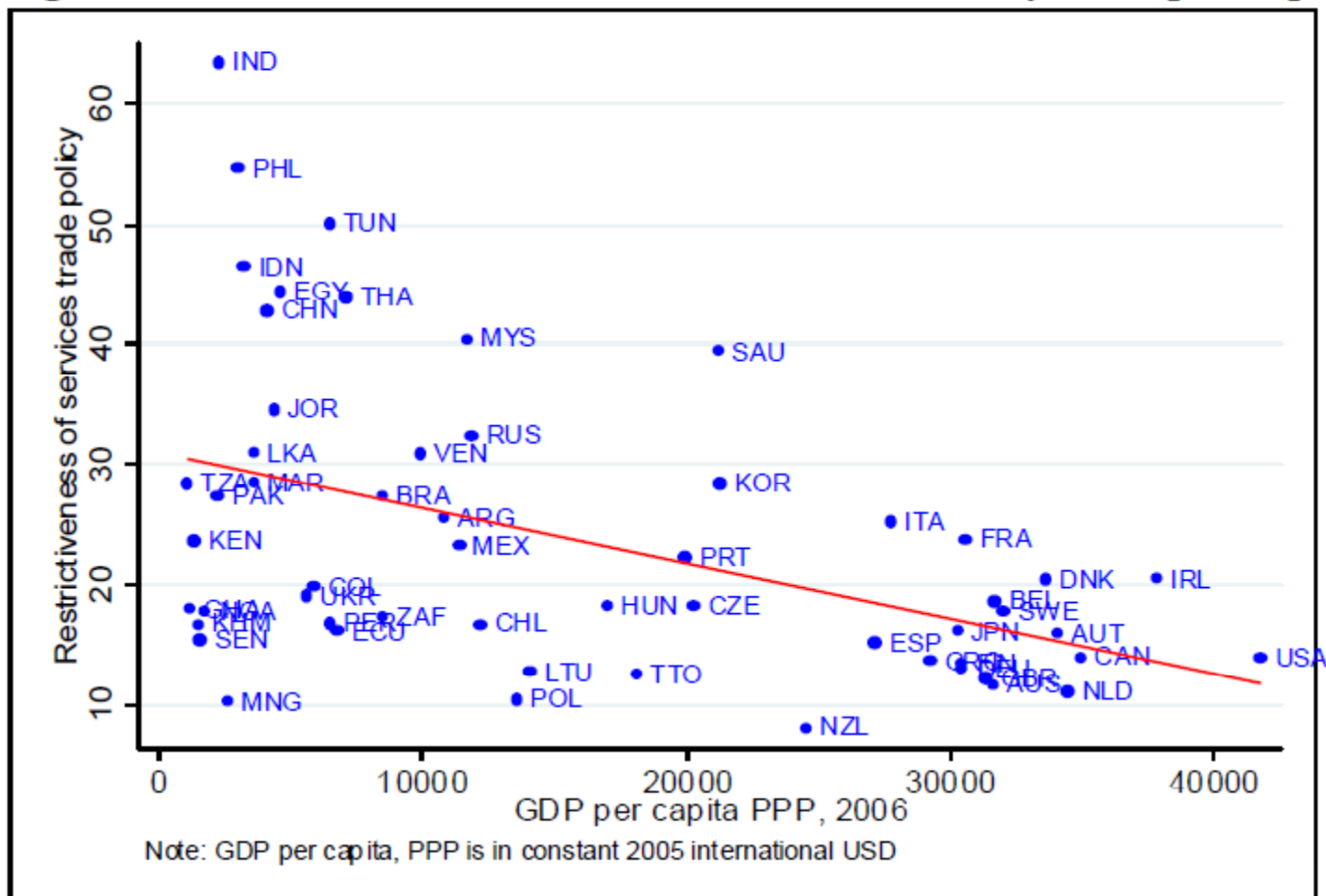
Source: Author's calculations from 2002 Economic Census; Manufacturing (NAICS Industries 31-33), Business Services (NAICS Industries 51, 54, 56)

Impediments to Trade in Services

- Requirements for and restrictions on commercial presence
- Economic needs tests
- Quotas on number of producers
- Requirements for local joint ventures
- Licensing/accreditation
- Regulation
- Differential tax treatment
- Government procurement practices

Impediments to Trade in Services

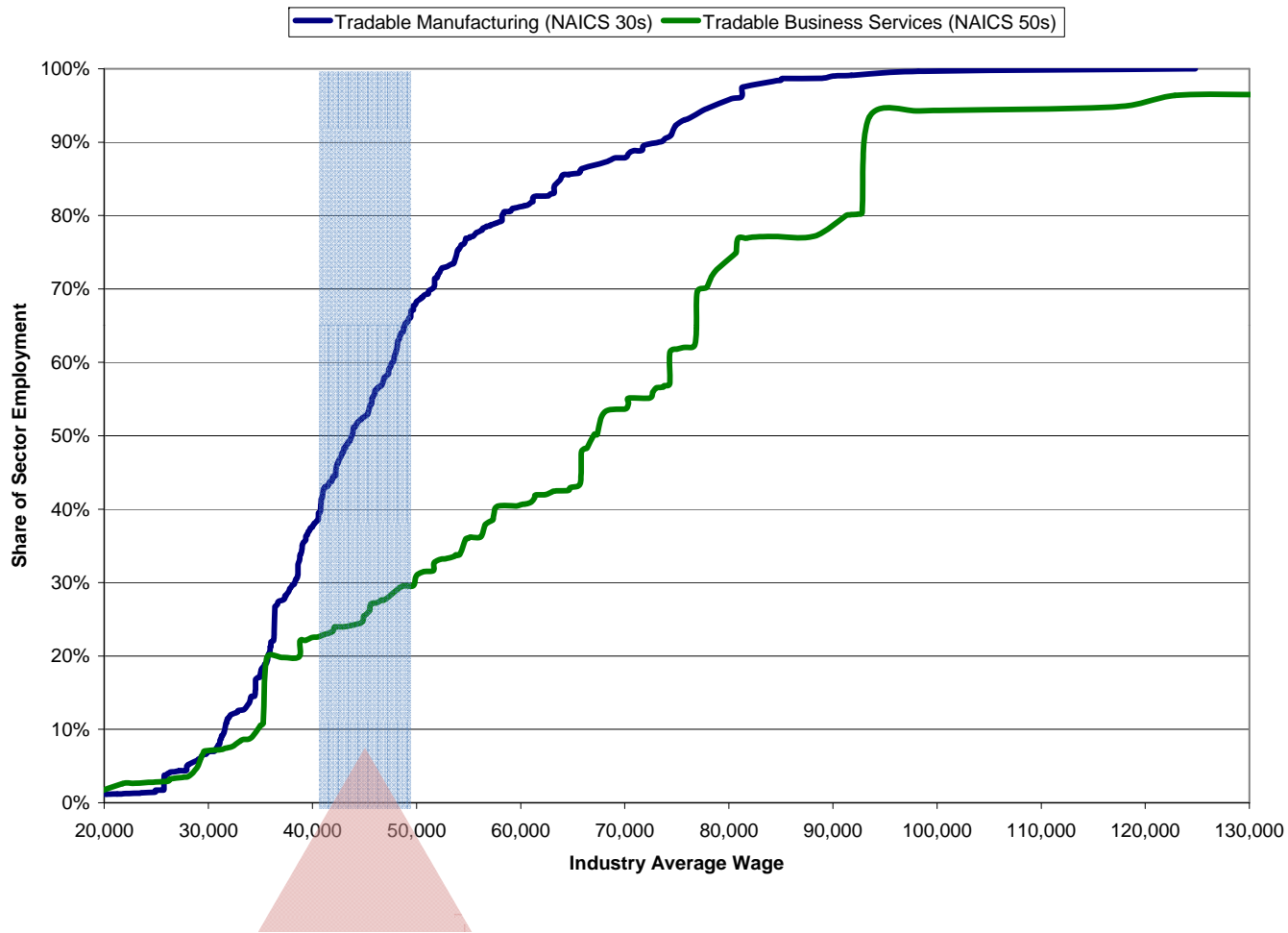
Figure 1: Restrictiveness of Services Trade Policies by GDP per capita, 2005



Source: Gootiiz and Mattoo (2009)

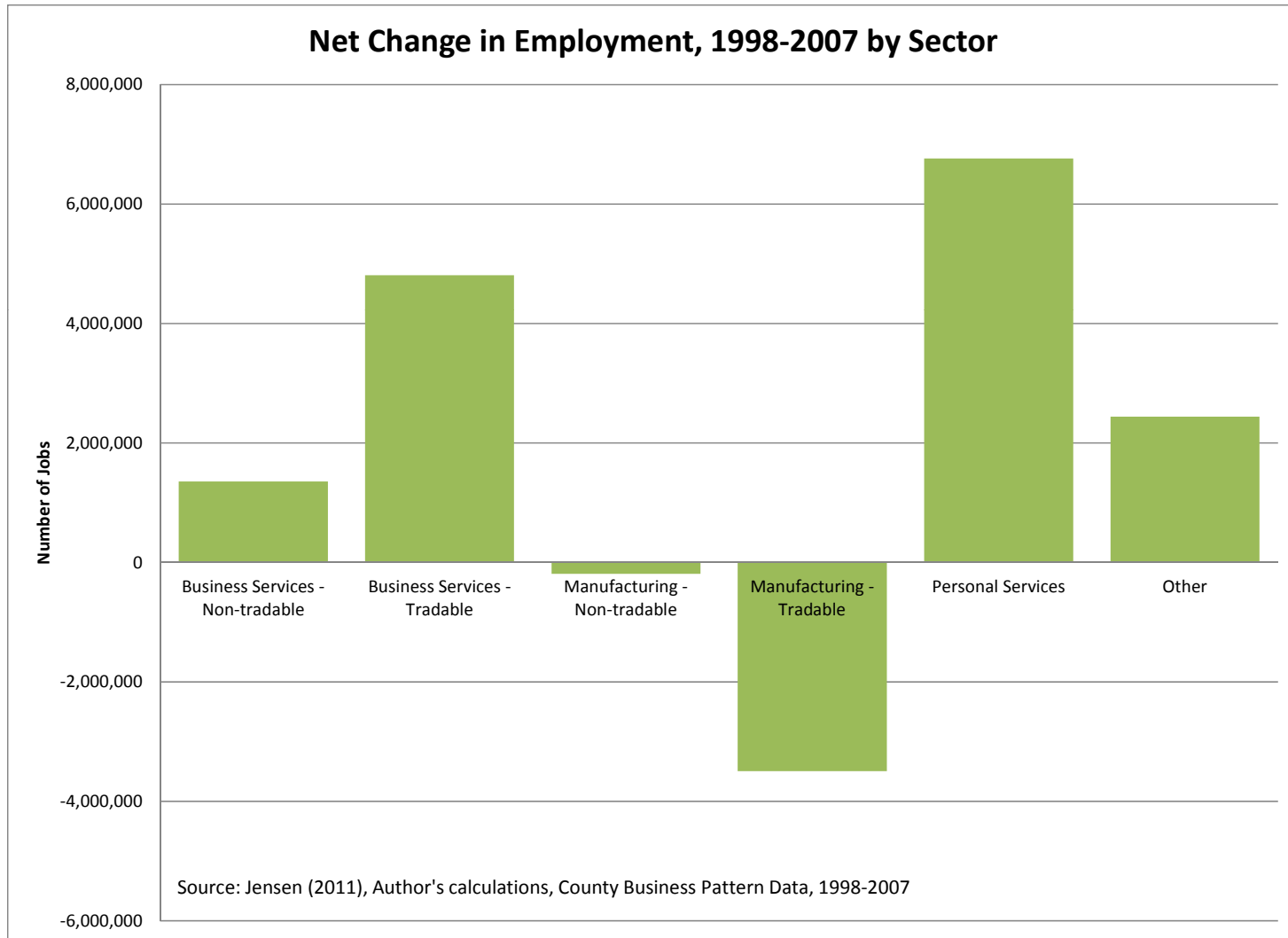
Labor Market Impact

Potential Labor Market Impact



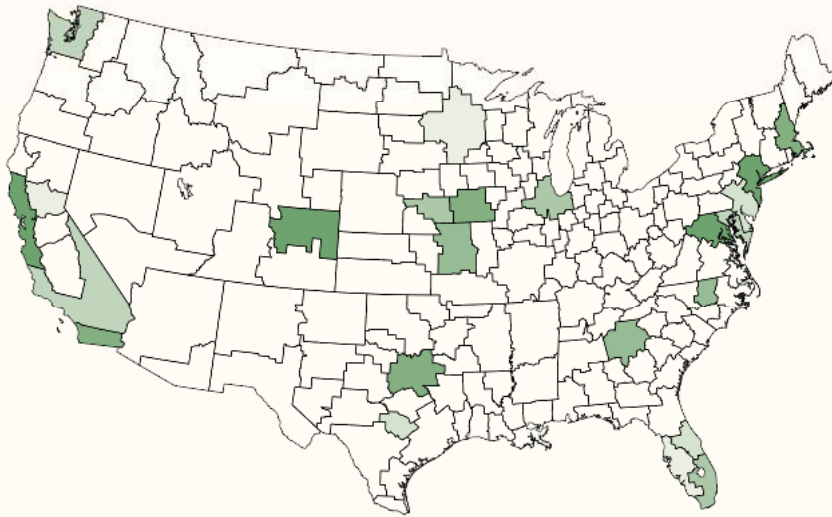
Source: Author's calculation using 2007 County Business Patterns data.

Labor Market Impact

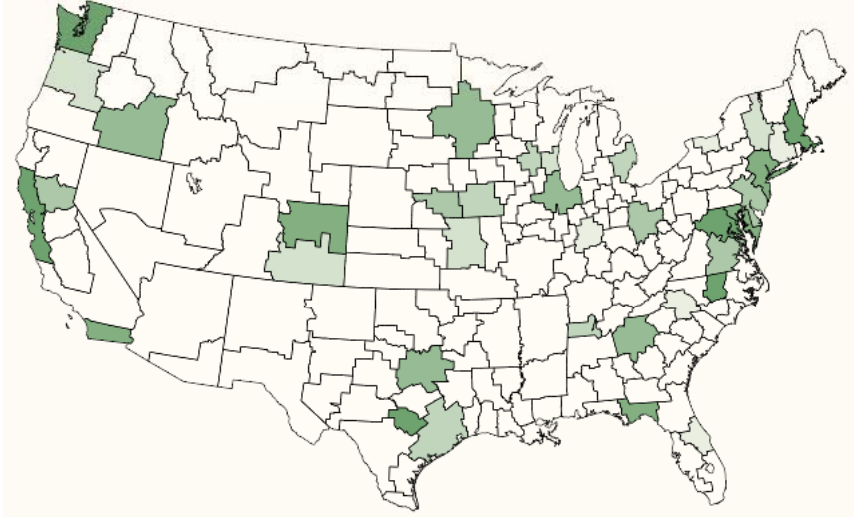


Distribution of Tradable Service Jobs

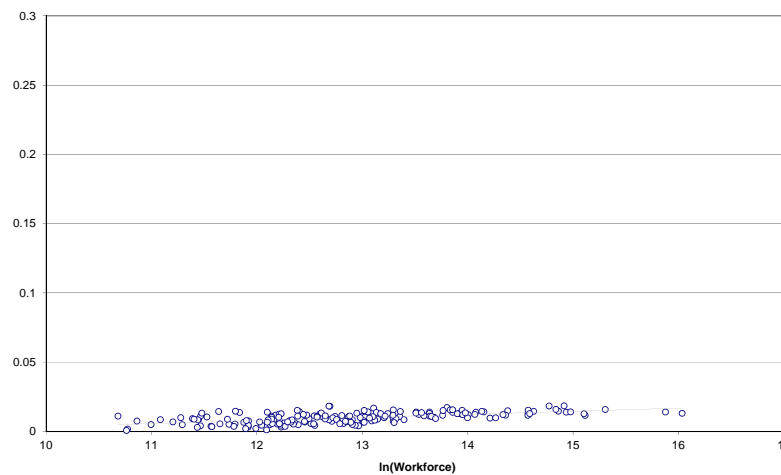
Tradable Business Service Industries



Tradable Business Service Occupations



Share of Workforce in Low-wage Tradable Professional Service Industries



Source: Author's calculations, 2007 American Community Survey

Concluding Observations

Concluding Observation 1

- US has much to gain and risks limited dislocation from liberalization in services trade
 - Tradable services skill intensive
 - US (still) relatively skill abundant

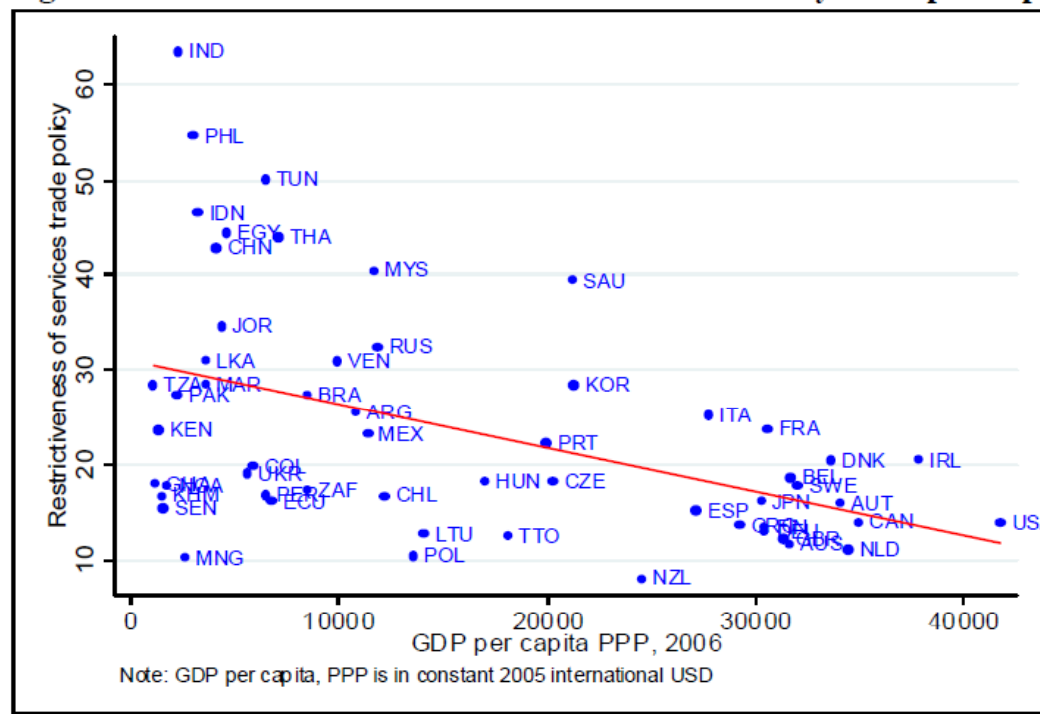
Concluding Observation 2

- Intellectual Property important for export intensive industries in US
 - Software
 - Audio/visual arts
 - Engineering services

Concluding Observation 3

- Large and fast growing economies impose high barriers to trade in services

Figure 1: Restrictiveness of Services Trade Policies by GDP per capita, 2005



Concluding Observation 4

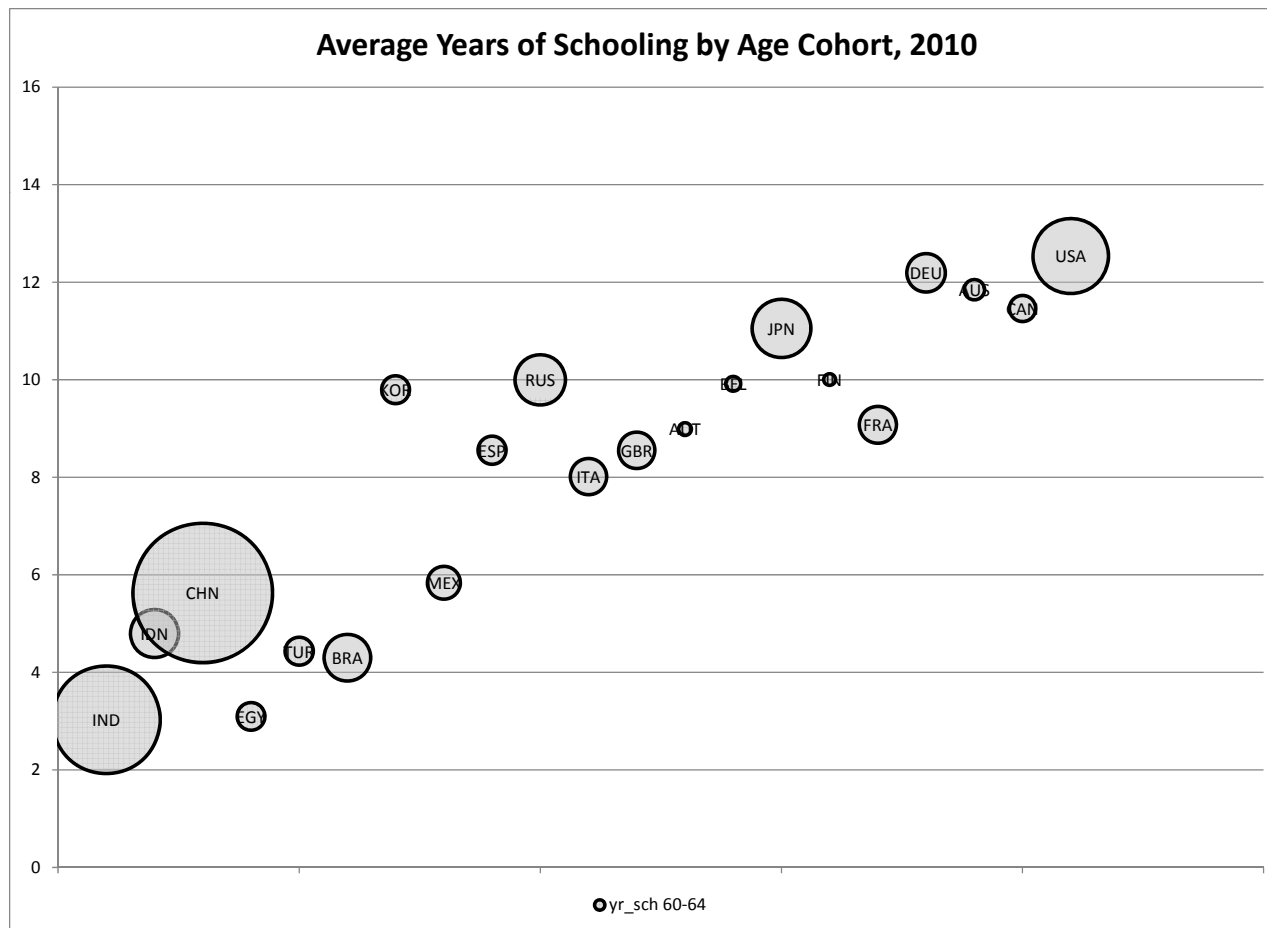
- Huge infrastructure boom coming – big opportunity for tradable service firms/workers
 - \$40 Trillion, most outside of US
 - Architecture, financing, engineering services, water treatment, project management services...

Concluding Observation 5

- These are likely to be (at least partially) government projects and large, fast-growing economies are not participants in GPA
 - Interactions between GATS and GPA make liberalization difficult
 - Should work with EU and other developed economies to liberalize

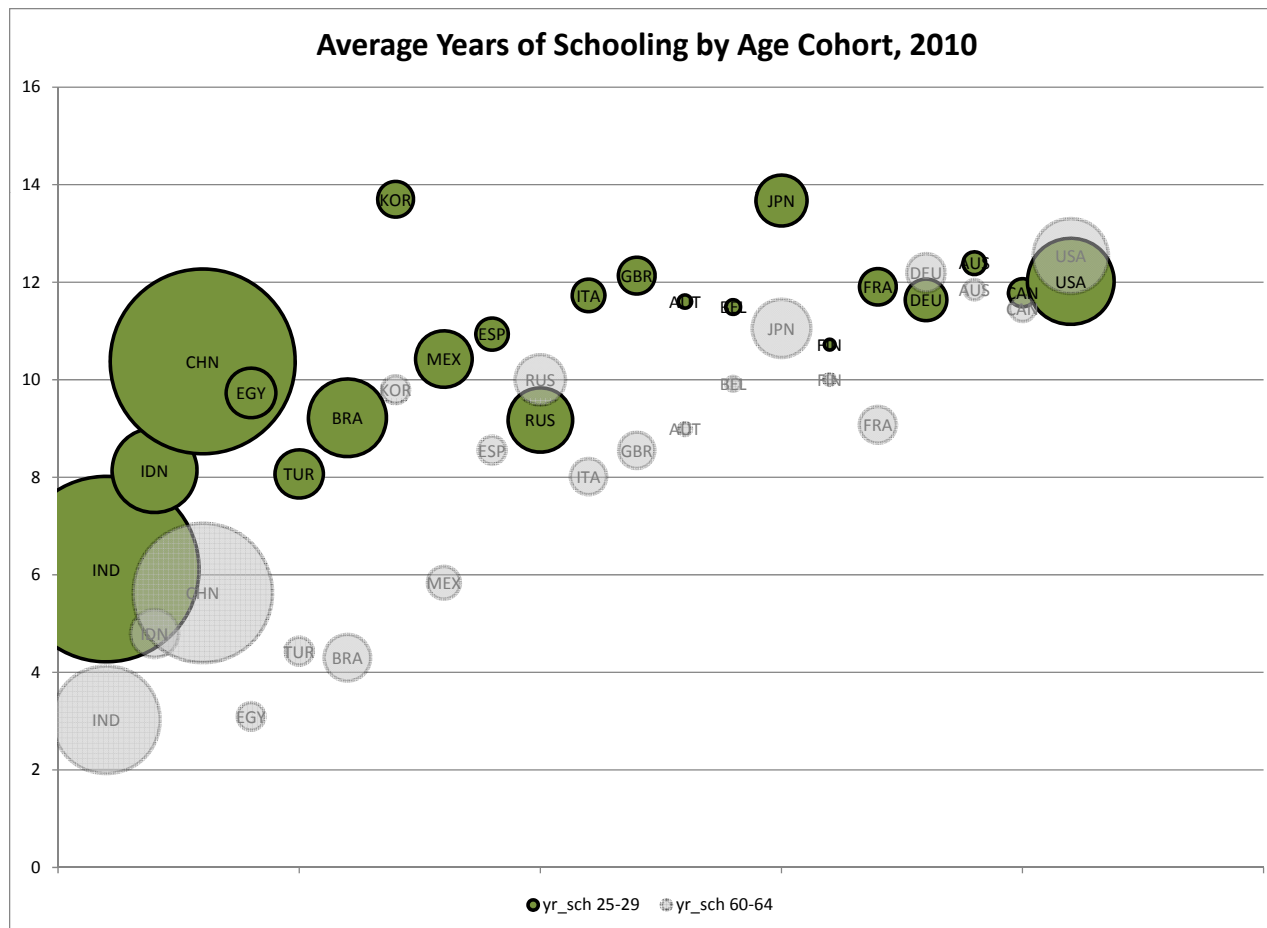
Concluding Observation 6

- Education Matters



Concluding Observation 6

- Education Matters



What is the potential?

- Thought experiment:
 - Increase exports/sales ratio in tradable business services to same level as manufacturing
 - Many reasons to question this number, but a place to start...
- “Back-of-the-envelope” numbers:

	Empl (million)	Sales (trillion)	Exports (billion)	Exports/ Sales	Additional Service Exports (.156 * \$5T) (trillion)
Tradable Manufacturing	12	5	1000	0.200	
Tradable Business Services	20	5	220	0.044	0.78

Policy Recommendations:

- The United States, in cooperation with other developed countries, should:
 - push aggressively to open the large and fast-growing markets to service trade.
 - continue to push for improved intellectual property protections internationally.
 - push for further liberalization of business services in the WTO.
 - strongly encourage large and fast-growing countries to sign on to the WTO government procurement agreement.
- The US should make access to a good primary, secondary, and postsecondary education a high national priority.
- The US should strengthen the social safety net for workers dislocated by trade and technological advancement.
- The US should collect better data on the service sector.

Thank You

GLOBAL TRADE IN SERVICES

Fear, Facts, and Offshoring

J. Bradford Jensen



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