

Services Offshoring and the Bay Area Economy: Risks and Opportunities

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History of Our Research

- Bardhan Kroll and Jaffee, “Growing Role of Foreign Trade in California’s Economy,” 1995
- Kroll, Jaffee, Bardhan, Kirschenbaum and Howe, Foreign Trade and California’s Economic Growth, 1998
- Bardhan and Kroll, “New Wave of Outsourcing,” 2003
- Bardhan, Jaffee and Kroll, Globalization and a High-Tech Economy, 2004

Major Points

- Why has offshoring become a “new” issue?
- New sectors at risk to offshoring
- Bay Area occupation profile
- Employment and wage trends
- Recovery or restructuring—what is the outlook?

Offshore and Outsourced Production Making the Distinction

	Domestic Production	Foreign Production
Within Firm	Domestic Branch	Offshore Branch/ Affiliate
Between Firms	Domestic Outsourcing	Offshore Outsourcing

Offshoring Then and Now

EARLIER PERIOD

- Primarily blue-collar jobs
- Primarily in manufacturing
- Wage driven
- Production centers emerged
- High capital investment required
- Complex Structure

NEW WAVE

- Primarily white-collar jobs
- Occurring across industries—services occupations
- Driven by wages, English language, technical training
- Internet enabled
- Low capital requirements
- Less complex

When Can a Services Job Be Outsourced or Offshored?

- No face-to-face customer service requirement
- Information the major component of the “product”
- Work via remote communications: telecommunications and Internet
- Clearly defined tasks or outputs
- Low set-up barriers
- High wage differentials
- Low social networking requirement

WHAT kinds of jobs? Quotes from the Internet

“Bush Lays Off Congress; will Outsource Lawmaking to India”

“One Fortune 500,000 company becomes the first in the United States to outsource its CEO position to Indonesia”

“[Federal] Agencies report 75,000 jobs could be outsourced”

“Leftists Outsource Propaganda Machine Operations to India”

“Republican Party Outsourcing to India”

“US Outsourcing Obesity to India: Supersizing Rampant in Bangalore”

“Bush Outsources Election to India”

Services Occupations At-Risk to Offshore Outsourcing

(Revised Definition, 9/2004)

- Office Support
 - 22 subcategories of 43-0000, Office and administrative support occupations
- Business & Financial Support
 - 10 subcategories of 13-0000, Business and financial operations occupations
- Computer and Math
 - All 14 subcategories of 15-0000
- Other
 - Medical (2 codes)
 - Legal (1 code)
 - Sales (1 code)
 - Graphics and Design (4 codes)
 - Writing, Translating (2 codes)

Source: Fisher Center for Real Estate and Urban Economics

US Employment in Services At-Risk Occupations

(Revised Definitions, 9/2004)

Occupation	Employment 2000	Employment 2003	Percent Change
Office Support	8729670	8585471	-1.7%
Bus/Fin Support	2138510	2290970	7.1%
Comp/math	2932810	2827010	-3.6%
Med/Legal/ Sales	910630	878690	-3.5%
Graphics/Design/ Writing	334990	358680	7.1%
At-Risk Total/ Share of US jobs	15046610 11.6%	14940821 11.7%	-0.7% All US Jobs: -1.7

Source: FCREUE from Bureau of Labor Statistics Occupations data.

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“Pull” Factors for Offshoring Jobs: India

- Cost differential
- English speaking workforce
- Common accounting and legal structure
- Institutional compatibility
- Time difference offering 24/7 capability, overnight turnaround
- Technically skilled graduates

“Pull” Factors for Offshoring Jobs: Russia

- Highly skilled engineering and science professionals
- Technical strength of education system
- Research centers available for partnerships
- Cost differential
- Time difference offering 24/7 capability, overnight turnaround
- US based management of Russian workers

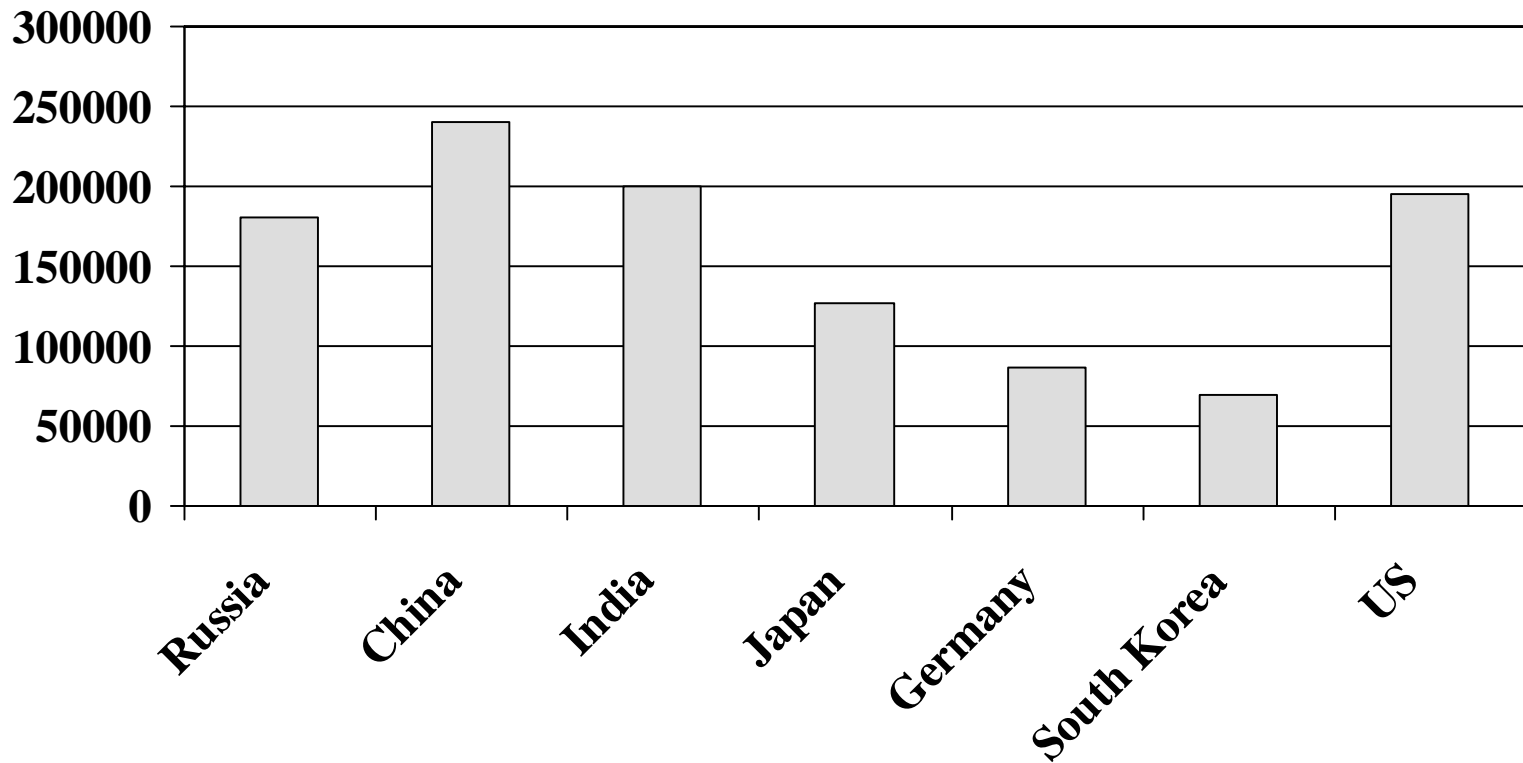
Wage Gaps in At-Risk Jobs

Hourly Wage, 2004

Occupation	US	CA	Sil. Val.	India
Telephone Operator	\$13.85	\$14.50	\$16.80	<\$1.00
Health Record Techs	\$11.50	\$13.20	\$15.00	\$1.50-\$2.00
Payroll Clerk	\$13.95	\$15.90	\$20.40	\$1.50-\$2.00
Legal Assistant	\$18.25	\$23.85	\$27.10	\$6.00-\$8.00
Accountant	\$22.60	\$25.30	\$28.30	\$6.00-\$15.00
Financial Analyst	\$27.50	\$30.85	\$34.60	\$6.00-\$15.00
Programmer	\$30.00	\$33.45	\$36.90	\$2.65-\$6.00

Source: FCREUE from US BLS, interviews and reviews of Want Ads.
© C. Kroll FCREUE

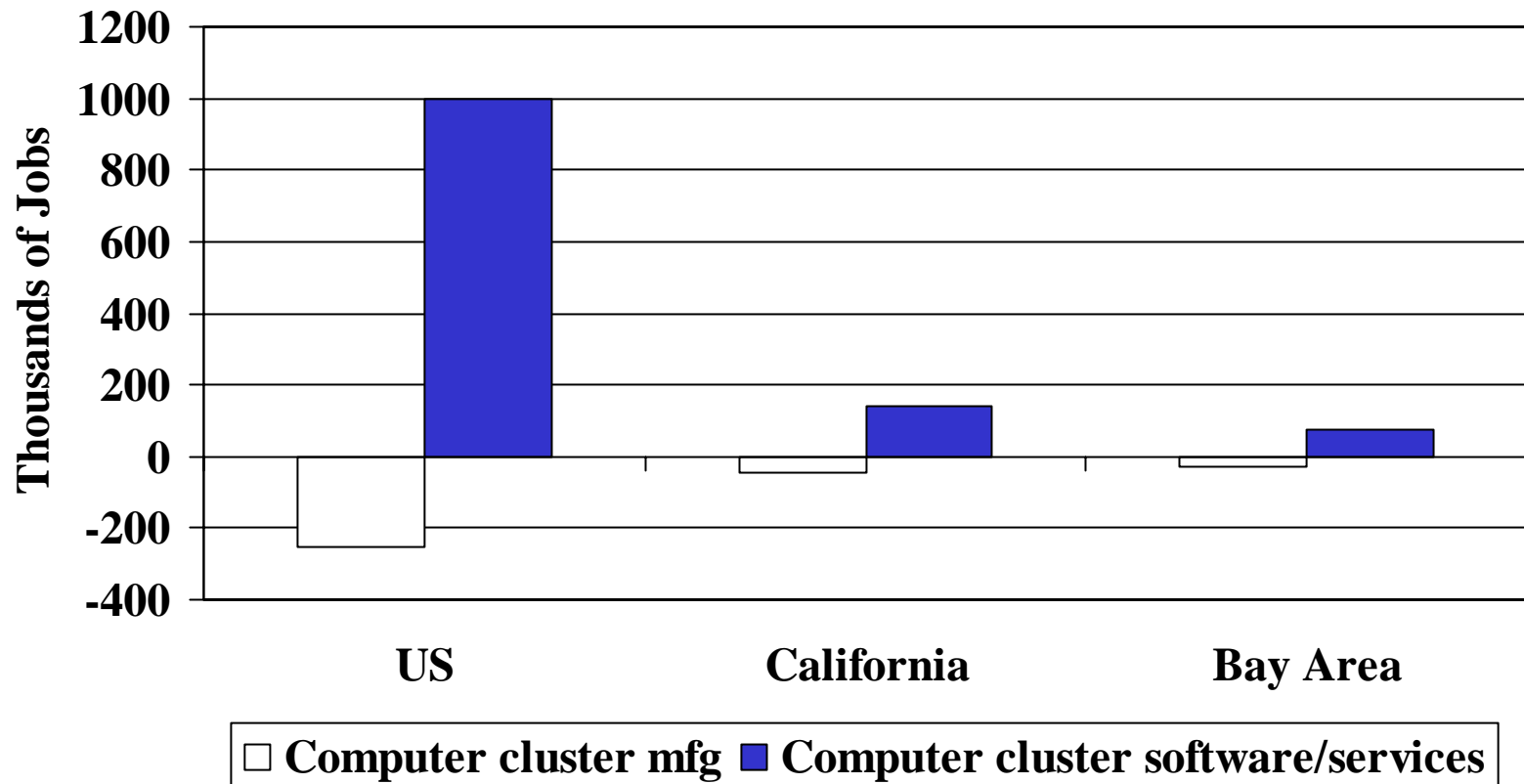
Undergraduate Science and Engineering Degrees: 2000



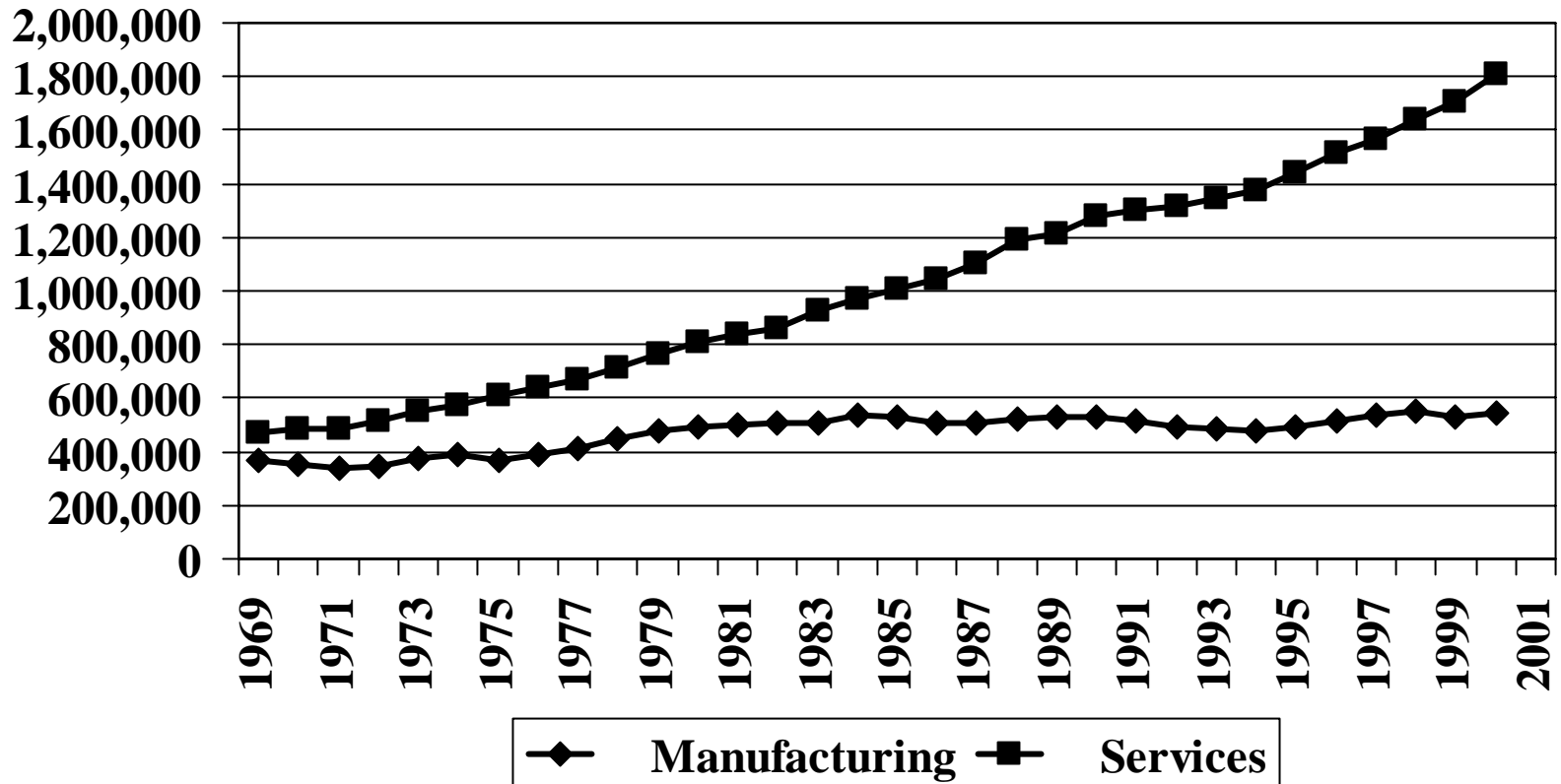
Source: FCREUE from National Science Foundation, NCES, OECD, UNDP.

Losses and Gains from Offshoring:

Job Change in the Computer Cluster,
US, California and Bay Area, 1990-2003

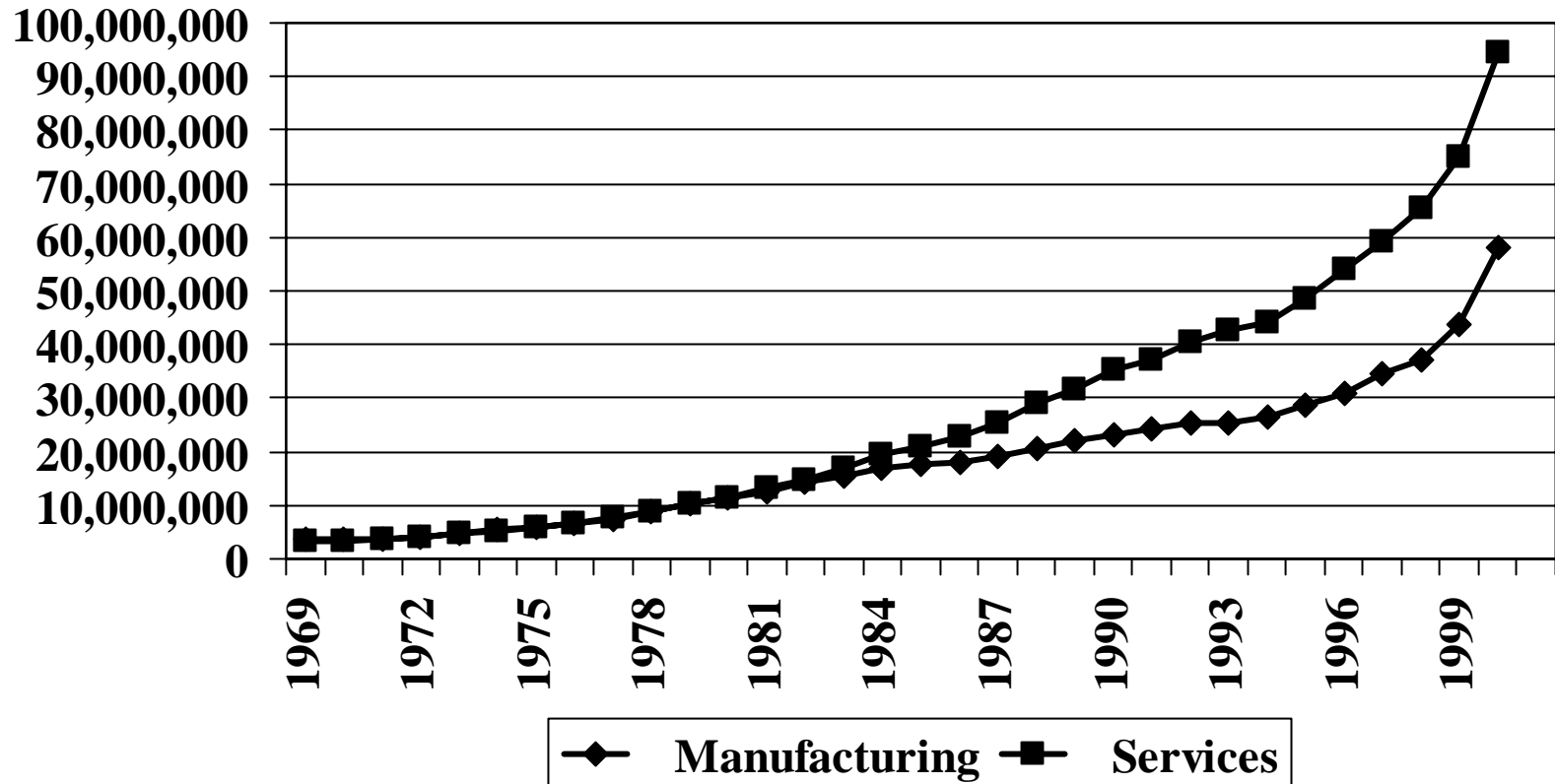


Employment in Manufacturing and Services San Francisco Bay Area, 1969-2001



Source: Author from Regional Economic Information Service, Bureau of Economic Analysis (web data base)
© 1999 Roll FCREUE

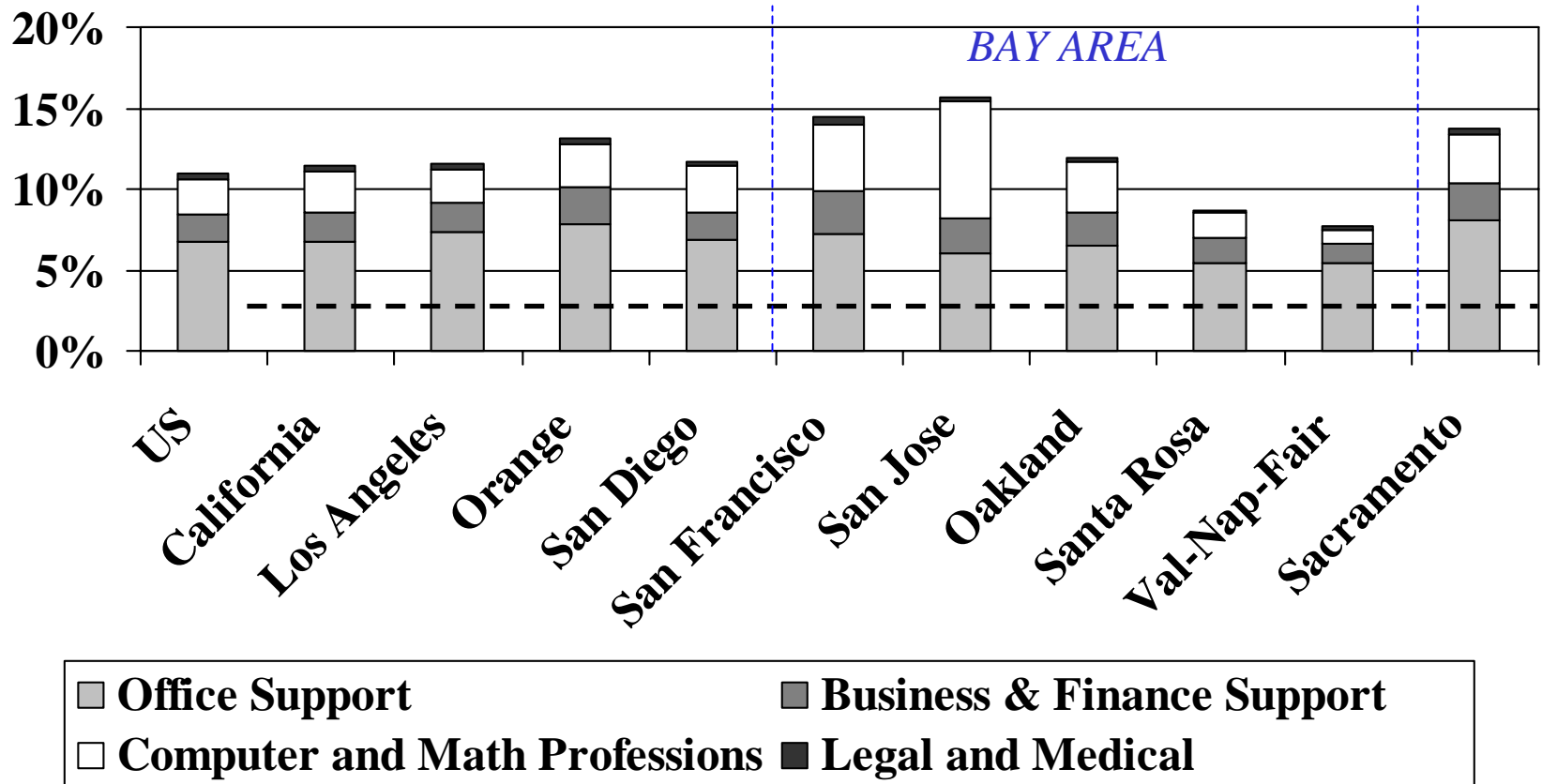
Income from Manufacturing and Services San Francisco Bay Area, 1969-2001(\$1000)



Source: Author from Regional Economic Information Service, Bureau of Economic Analysis (web data base)
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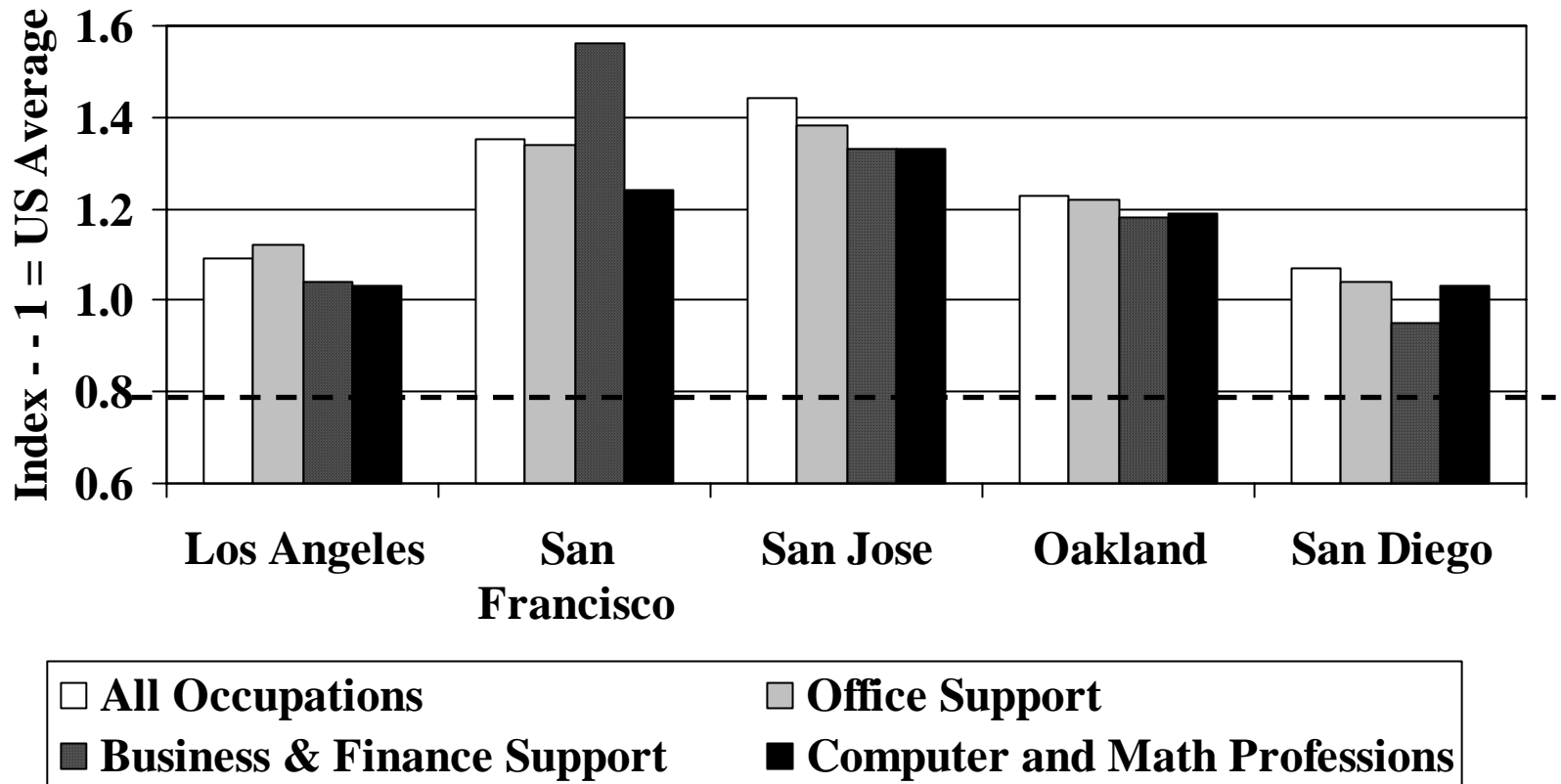
Jobs in Occupations At-Risk for Outsourcing

Percent of Total Jobs, Selected California MSAs, 2002



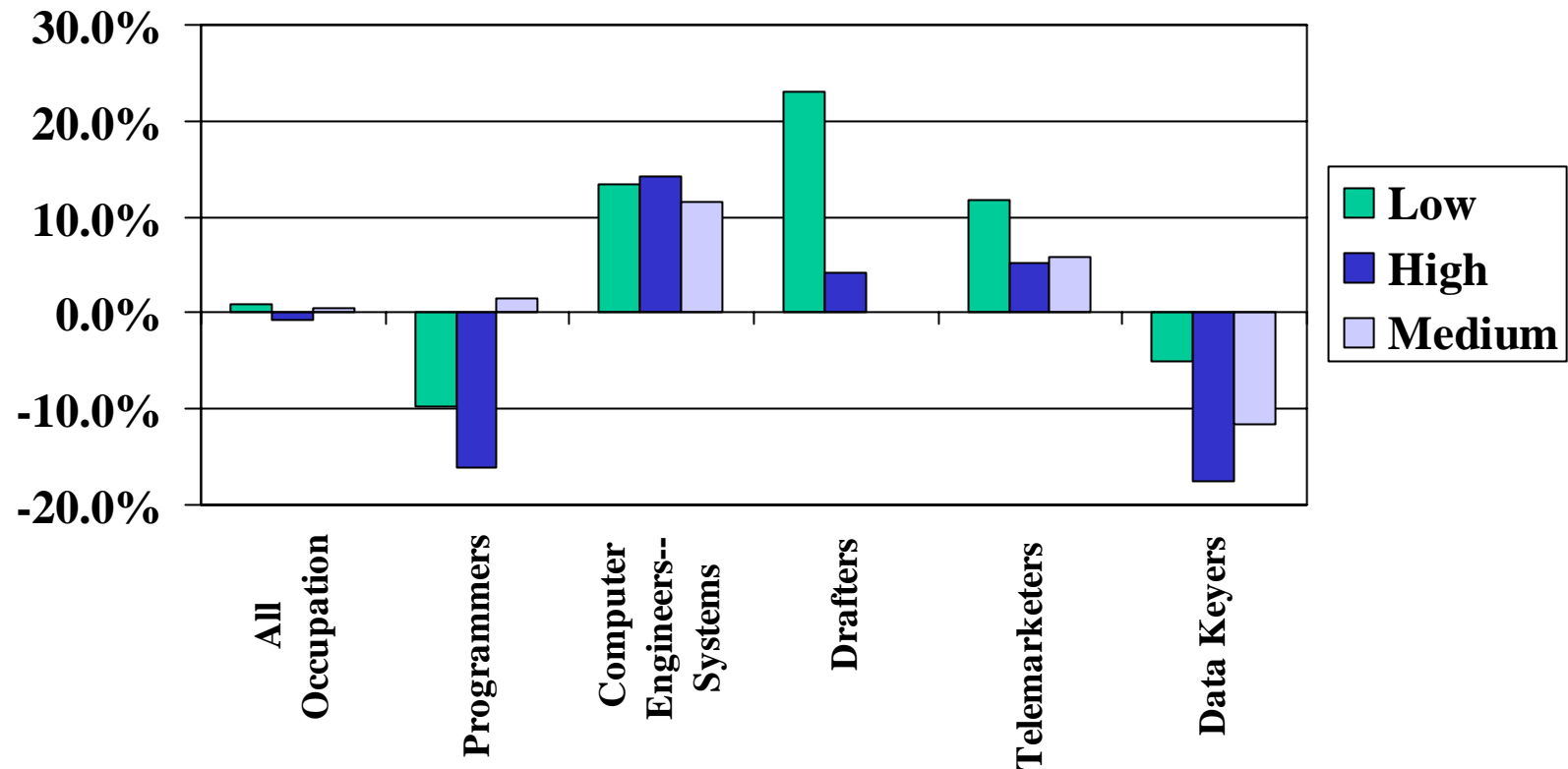
Source: Authors from Bureau of Labor Statistics data, 2002 data.

Salaries in At-Risk of Outsourcing Relative to US Average, Selected California MSAs, 2001



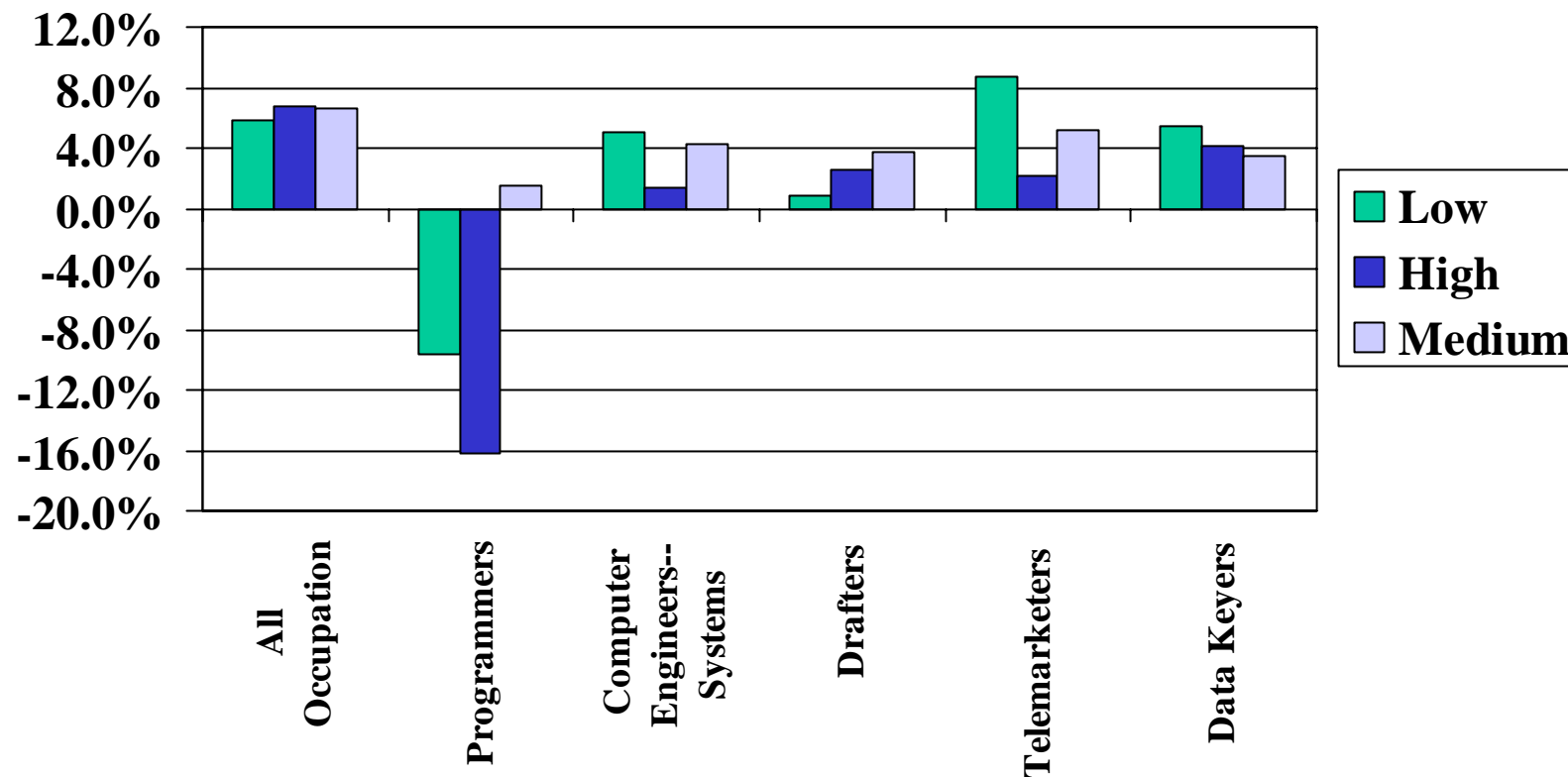
Source: Authors from Bureau of Labor Statistics data.

Differences in Employment Growth, MSAs with Low, Medium and High Shares of White-Collar At-Risk Jobs, 2001-2003



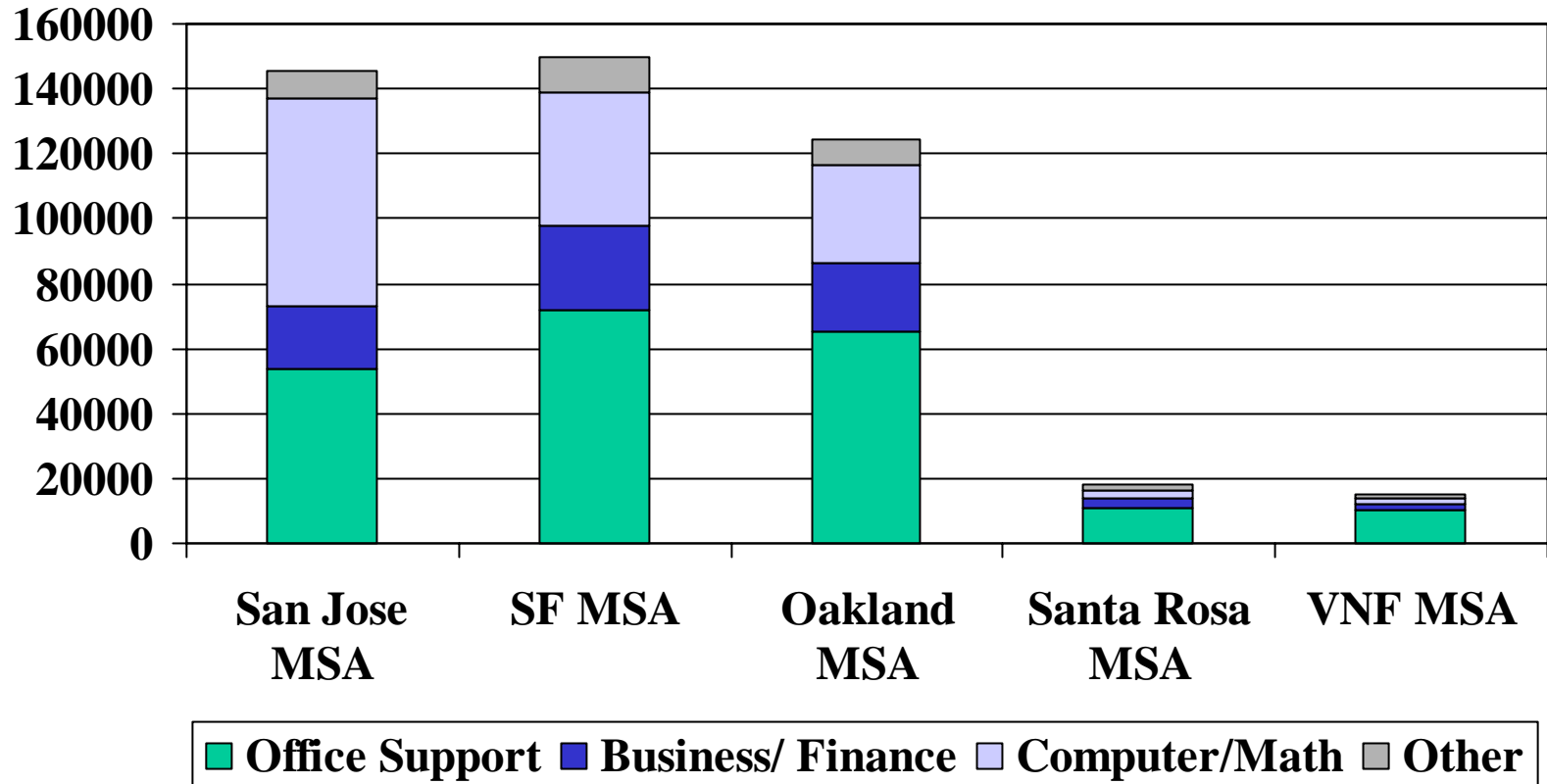
Source: Author calculations from BLS OES data.

Differences in Wage Growth, MSAs with Low, Medium and High Shares of White-Collar At-Risk Jobs, 2001-2003



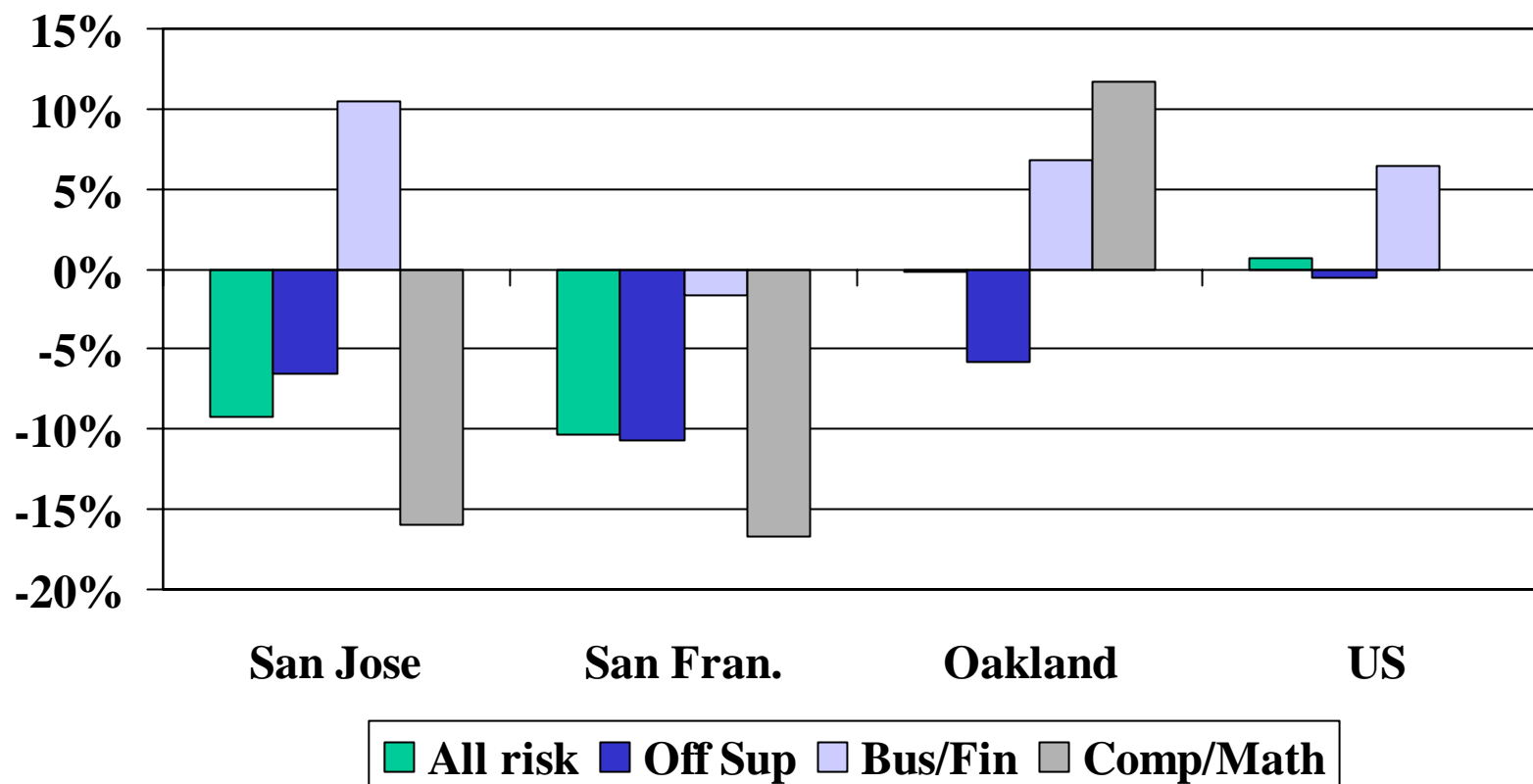
Source: Author calculations from BLS OES data.

Bay Area Jobs At Risk, 2002



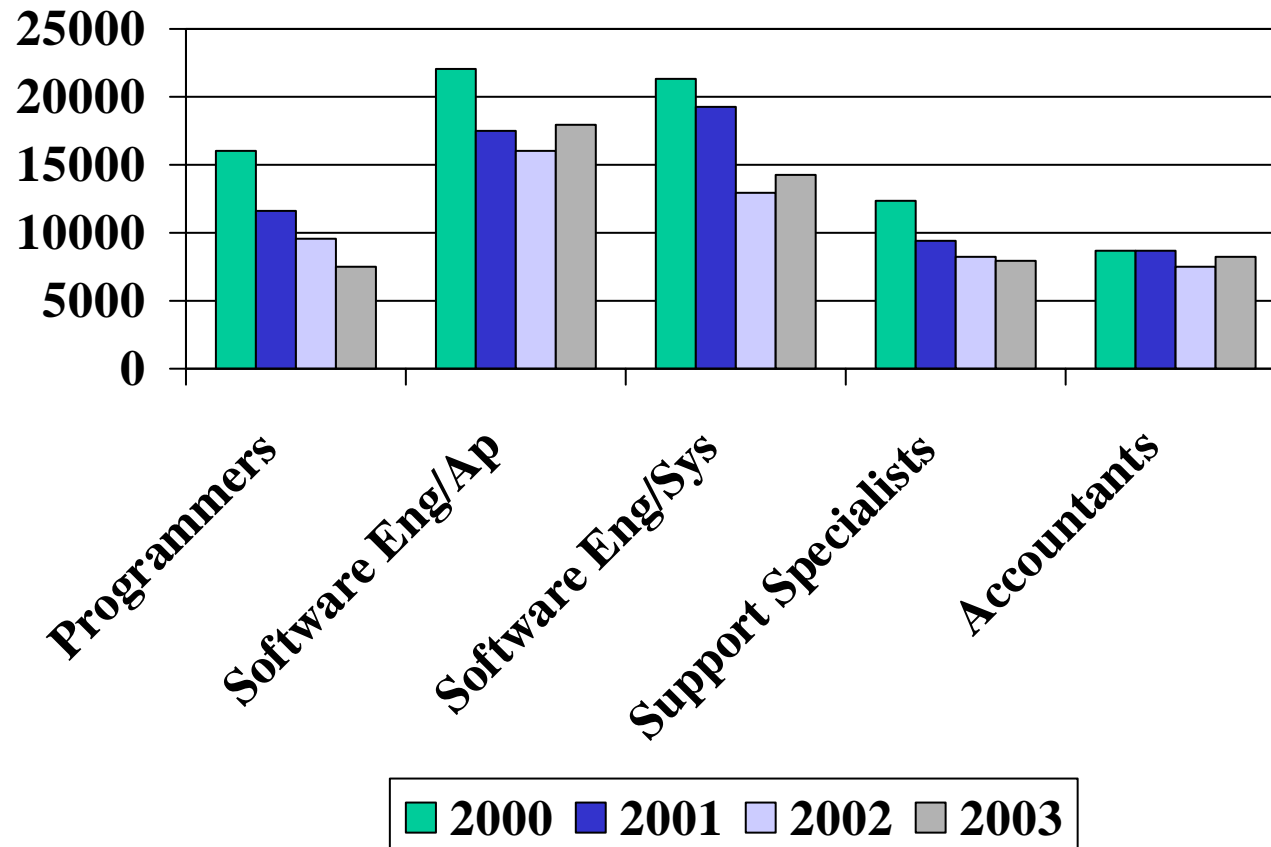
Source: FCREUE from BLS, OES data.

Employment Change in At-Risk Occupations 2001-2003



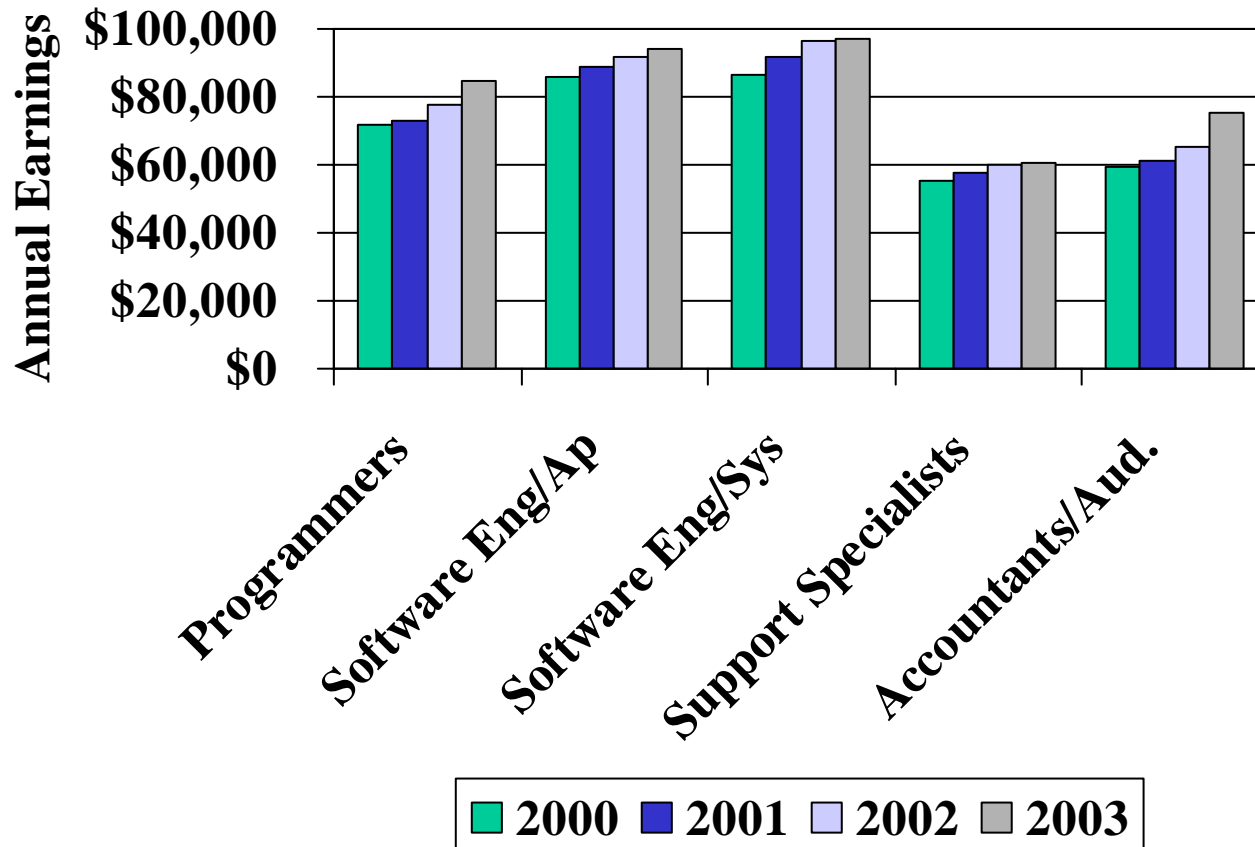
Source: FCREUE from Bureau of Labor Statistics OES data.

Employment Trends by Occupation, San Jose MSA, 2000-2003



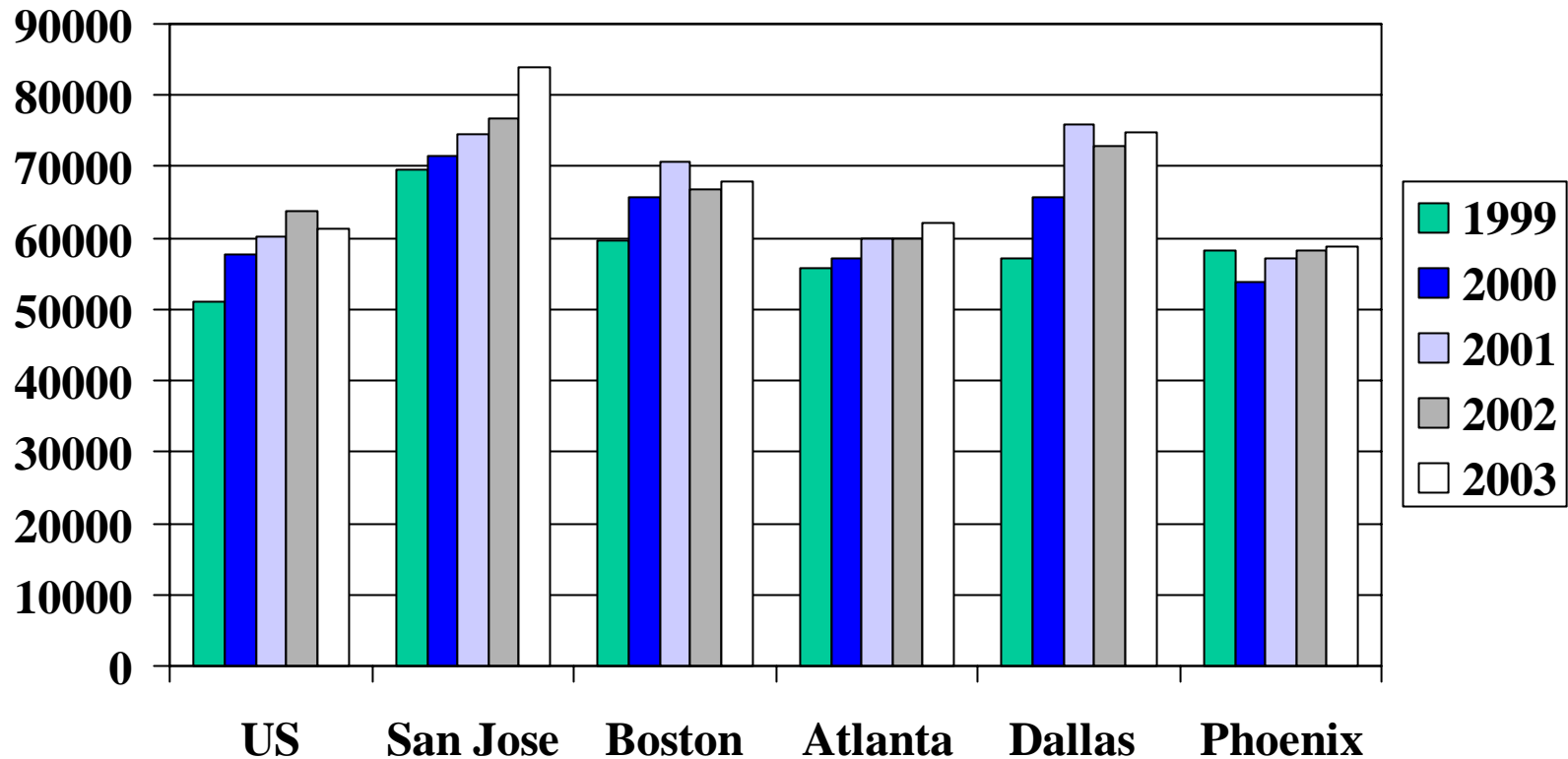
Source: FCREUE from Bureau of Labor Statistics OES data.

Wage Trends by Occupation, San Jose MSA 2000-2003



Source: FCREUE from Bureau of Labor Statistics OES data.

Median Programmer Salaries Selected MSAs 1999-2003



Source: FCREUE from BLS OES data.

Implications

- Strengths
 - Human Capital
 - Venture Capital
 - Concentrations of Key Resources
- Weaknesses
 - High Costs
 - Congestion
 - Challenged Education Systems
- Outcomes
 - Another Detroit? No, but displacement adjustment still needed.
 - Restructuring? Yes
 - Geographic Reshuffling—Cyclical or Permanent?
 - Shift in Comparative Advantage?