

Contracting Out to Employment Services: Analysis Using the OES, CES, and CPS

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Domestic Contracting Out

- U.S. companies often contract out work previously done by in-house employees to
 - Workers employed in other domestic companies
 - Self-employed: independent contractors, freelancers
 - Foreign companies or affiliates (off-shoring)
- Our work focuses on the first – Contracting out by U.S. companies to other domestic companies – but has implications for other types of outsourcing
- Much of today's presentation focuses on outsourcing to the Employment Services (ES) sector: temp help and other staffing agencies

Outline

- **Background**
 - The contracting out phenomenon
 - The special case of employment services
 - What do we know about domestic contracting out?
 - Why is measuring contracting out important?
- Using the OES to Help Document Contracting Out
 - Methodology
 - Evidence of contracting out to Professional & Business Services
- Employment Services
 - Trend growth and role in cyclical adjustment
 - Shift in the occupational composition of employment in ES
- Manufacturers' Use of Employment Services
 - Methodology for imputing ES employment to manufacturing
 - Trends in manufacturing employment, adjusted for ES employment
- Implications of Findings for Measurement Issues

The Contracting Out Phenomenon

- Companies decide what tasks to perform “in-house” – i.e. with company employees – and what to “contract out” or “outsource” – i.e. with workers who are not employees. Over time, companies may change tasks perform in-house v. contract out.
 - Commonly outsourced functions: legal, accounting, janitorial services, cafeteria services, shipping and handling, IT services
 - Companies may also “in-source” – e.g. as company grows in size, it may choose to bring in-house some legal or accounting functions.
- Why companies outsource:
 - Tap expertise of contract companies, thereby improve productivity and lower costs – allows companies to focus on “core competencies”
 - Tap into lower cost structure (wages and benefits) of contract companies.
- Typically (but not always) contract company workers supervised by managers in contract company.
- Much evidence points to substantial growth in contracting out since 1980s

The Special Case of Employment Services

- Employment Services comprised of 3 industries
 - Temporary help agencies (71% of ES employment in 2005)
 - Professional Employer Organizations (PEOs) (21%)
 - Employment Agencies (8%)
- Temporary help agency
 - Assignment to client company “temporary” but not necessarily short-term – a day, a month, a year
 - Companies use temp agencies for
 - temporary work (e.g. seasonal work or special projects)
 - screen workers for permanent positions
 - sometimes for long-term staffing needs (perma-temp)
- PEOs
 - “Lease” employees back to firm on indefinite or permanent basis
 - PEOs handle payroll, benefits, govt. compliance issues – i.e. HR functions
- Unique aspects of temp agency and PEO employees
 - Assigned to “clients” where they perform work, usually under supervision of client company’s management. (Administrative staff only \approx 3% of employment)
 - Often employed in client company’s “core” functions

What Do We Know About Domestic Contracting Out?

- The Difficulty of Documenting the Phenomenon:
 - In household or establishment data, workers identified as employees in a particular industry, but may perform work for employers in another industry.
 - No widely accepted definition of what contract company or contract worker is
- Evidence from CES data
 - Researchers use CES to examine growth of “contracting sectors” – primarily employment services and other business services industries.
 - Growth of ES and other business services seen as strong evidence of growth in contracting out
 - Strength:
 - good employment data at detailed industry level
 - Limitations:
 - no information on occupations being outsourced
 - no information on industries engaged in outsourcing.

What Do We Know About Domestic Contracting Out?

- Evidence from CPS Contingent Worker Supplements (CWS)
 - 5 waves: 1995, 1997, 1999, 2001, 2005
 - Strengths:
 - Detailed information on temporary help and contract company workers
 - Information on industries to which these workers assigned
 - Limitations:
 - Small sample of contract company and temp agency workers in each wave
 - No data collected on PEO workers
 - Definition of contract company workers used in CWS relatively narrow
 - Information only available for 10-year period
 - Concern that some workers fail to correctly identify themselves as contract company or temp agency workers.

What Do We Know About Domestic Contracting Out?

- Non-government surveys
 - Several surveys conducted on employers' use of temporary help and other types of contract workers
 - Early and influential survey conducted by Katharine Abraham in mid-1980s.
 - Surveys provide evidence of increase in contracting out since 1980s
 - Strengths:
 - Provide information on who is using contracting services and why using them
 - Limitations:
 - Small sample sizes, relative to government surveys
 - Some surveys limited to selected industries or states
 - Limited to selected aspects of contracting out
 - Limited information on trends – evidence from retrospective questions

Why is Documenting Contracting Out Important?

- Evidence from CES and non-government surveys points to large growth in contracting out in recent decades.
- Measurement issues:
 - Contracting out impacts distribution of employment across industries. Large changes in contracting out may affect our perceptions of industry employment trends.
 - Contracting out impacts labor productivity measures at sector level and affects how these simple productivity measures should be interpreted
- Policy issues:
 - Contracting out signals a change in the nature of employment relationship.
 - Contracting out trends have important policy implications in many areas such as workers' compensation, unemployment insurance, occupational safety and health, benefits regulation.

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Using the OES to Help Document Contracting Out

- Use Occupational Employment Statistics (OES) program data and CES data to construct employment estimates by 19 broad occupations and by 16 sectors, 1989-2004
 - OES yields data with complete state and industry coverage since 1988
 - Samples approx. 400,000 establishments per year
 - Use CES for industry employment levels, OES for fraction of industry employment in each broad occupation.
 - Sampling issues and changes in sample design, in occupation coding, and in industry coding posed challenges to construction of time-series.
- Examine changes in distribution of occupational employment across sectors over time
 - Identify “contracting industry” and examine what occupations have been outsourced to that industry.
 - Knowing occupations being outsourced often gives insights into industries doing outsourcing.
 - Examples: trends in production worker employment outsourced to temp help and related staffing agencies; school bus drivers to transportation; janitors, IT workers, telemarketers, security guards to other “business services” industries.
 - Angela Clinton used OES data in conceptually similar way in 1997 MLR article

Evidence of Contracting Out to Professional and Business Services in 1990s

- Rapid employment growth in U.S. economy in 1990s. From CES data:
 - Aggregate payroll employment grew by 21.3% from 1989-2000
 - Employment Services
 - Increased share of aggregate employment from 1.3% to 3.0%
 - Accounted for 10.6% of aggregate employment growth
 - Other Professional and Business Services
 - Increased share of aggregate employment from 8.4% to 9.8%
 - Accounted for 16.1% of aggregate employment growth
 - Altogether, professional and business services accounted for over one-fourth of net growth in payroll employment during this period of rapid employment growth.
- Use OES data (with CES data) to look at occupations growing most rapidly within Professional and Business Services sector.

Trends in Occupational Shares in Professional and Business Services, 1989-2000

Occupation	Aggregate Employment % change 1989-2000	Employment Services Share of Growth 1989-2000	Other Prof & Business Serv Share of Growth 1989-2000	All Prof & Bus Services Share of Growth
Computer and Mathematical Office and Administrative Support	128.9	5.3	54.1	59.4
Protective Service	8.3	31.5	24.4	55.9
Building and Grounds Cleaning and Maintenance	39.9	1.5	32.8	34.3
Production	12.4	14.6	45.5	60.1
Helpers, Laborers, Material Movers	6.9	79.4	4.1	83.5
	20.5	62.1	0.4	62.5
Total	21.3	10.6	16.1	26.7

Source: Author's estimates using OES and CES data.

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Growth in Employment Services

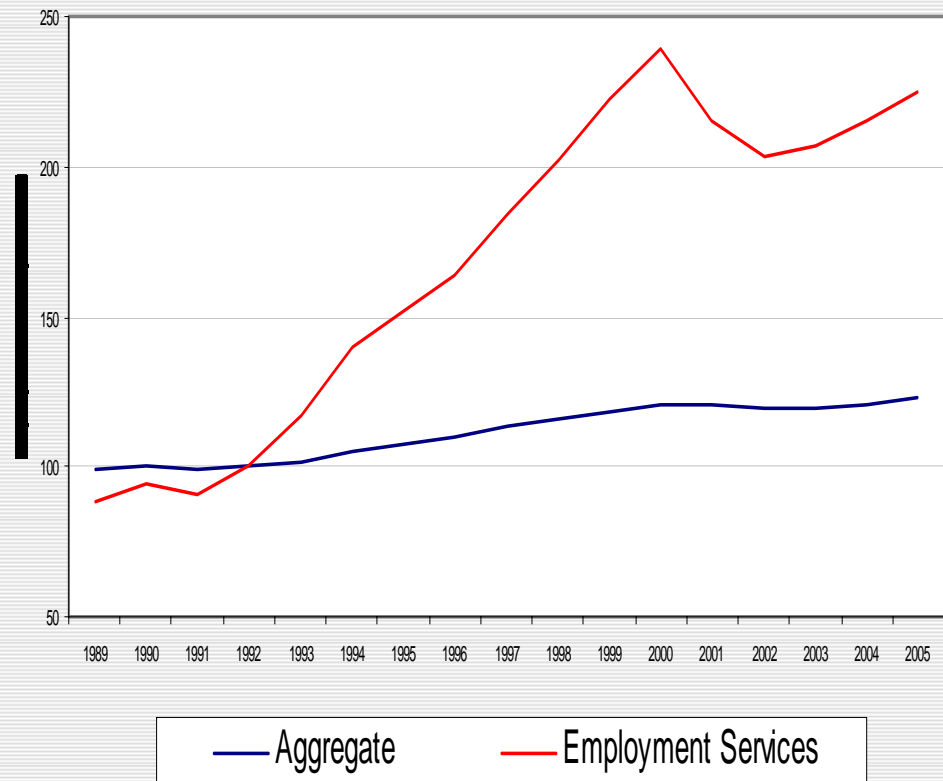
- Tremendous trend growth during 1990s: Accounted for 10.6% of net employment creation

- Accounted for large share of employment decline during 2000-01 recession

- Accounted for large share of employment recovery during subsequent expansion.

Employment Trends, Aggregate and Employment Services, 1989-2005

(Index 1992=100)



Source: CES, annual averages

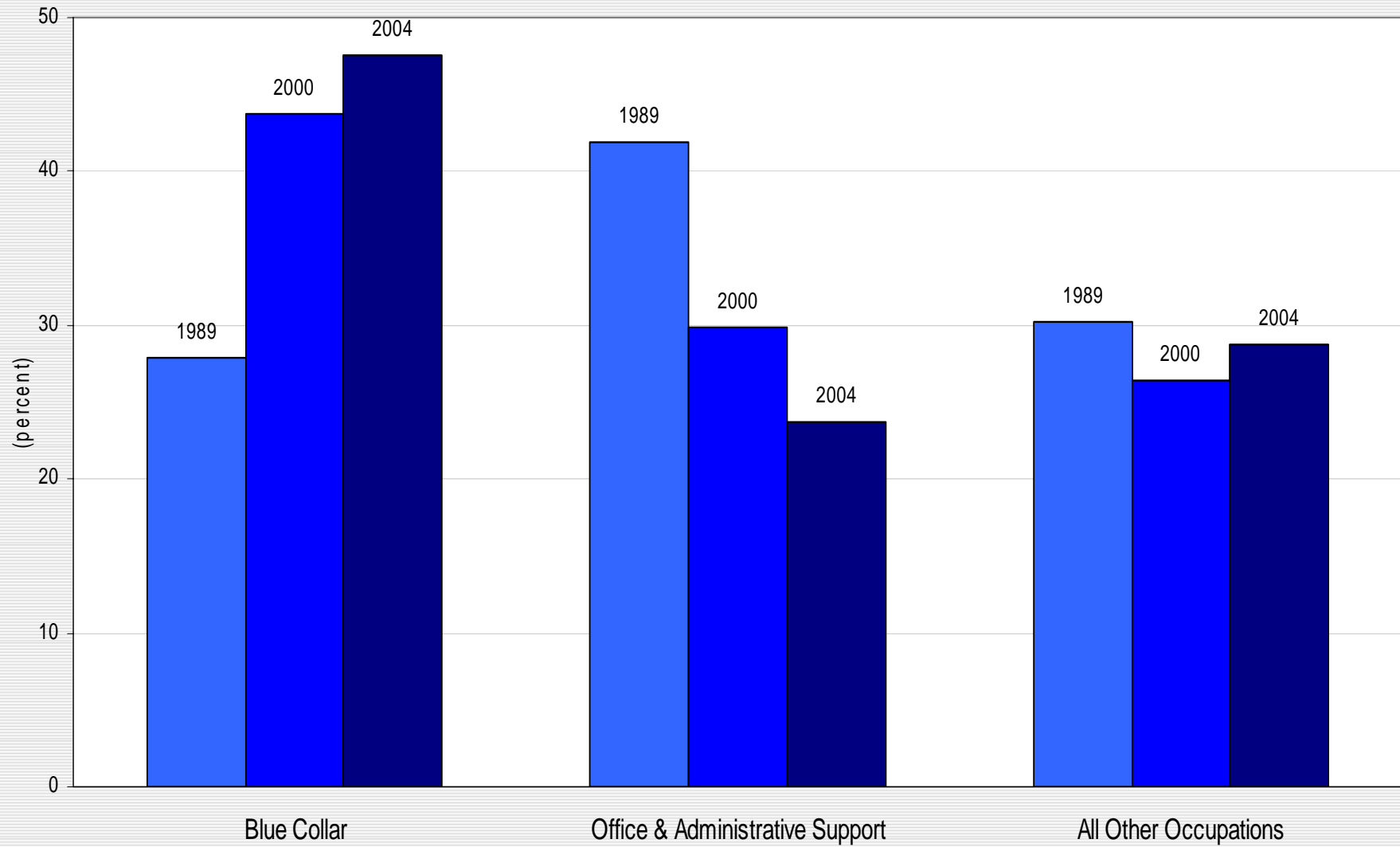
The Role of Employment Services in Adjusting to the Recent Recession

- Payroll employment declined by 1.1% from 11/00 to 11/01.
- Employment Services accounted for just 3% of payroll employment in 2000, but 44% of the employment decline. Within employment services:
 - Over half (52%) of employment decline was among clerical workers, primarily in data entry, possibly hired temporarily in relation to Y-2K issues.
 - 42% of decline from production occupations

The Role of Employment Services in Adjusting to the Recent Recovery

- Payroll employment increased by 1.1% from 11/01 to 11/04.
- Employment Services accounted for 2.5% of payroll employment in 2001, but 21% of net employment gains.
 - Employment in production occupations regained about half of losses, while aggregate employment in production occupations continued to experience sharp declines.
 - Strong gains in low-skilled laborer and helper occupations since 2000
- Over entire 1989-2004 period, shift away from clerical occupations and into production and other blue-collar occupations dramatic.

Trends in Occupation Shares, Employment Services



Source: authors' calculations from OES data

Shift to Higher-Skilled Blue Collar Occupations

- Two occupation categories – production workers and helpers, laborers, and material movers – account for about 80% of all blue-collar workers in staffing services
- During 1990s higher skilled production worker occupations expanded most rapidly
 - Production occupations accounted for 6% of all employment in ES in 1989 – 17% in 2000
 - Accounted for almost a quarter of growth in ES from 1989-2000
 - By 2000 almost as many production workers as helpers/laborers in ES

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Manufacturers' Use of Employment Services

- Widely believed that during 1990s
 - growing share of staffing services employment used by manufacturers,
 - manufacturers' use of staffing services significantly affected employment trends in manufacturing,
 - simple labor productivity measures in manufacturing (output/worker or output/hour worked) affected by this outsourcing.
- Efforts to study issue in late 1990s hampered by lack of data
 - Segal and Sullivan (1997)
 - Estavão and Lach (1999)

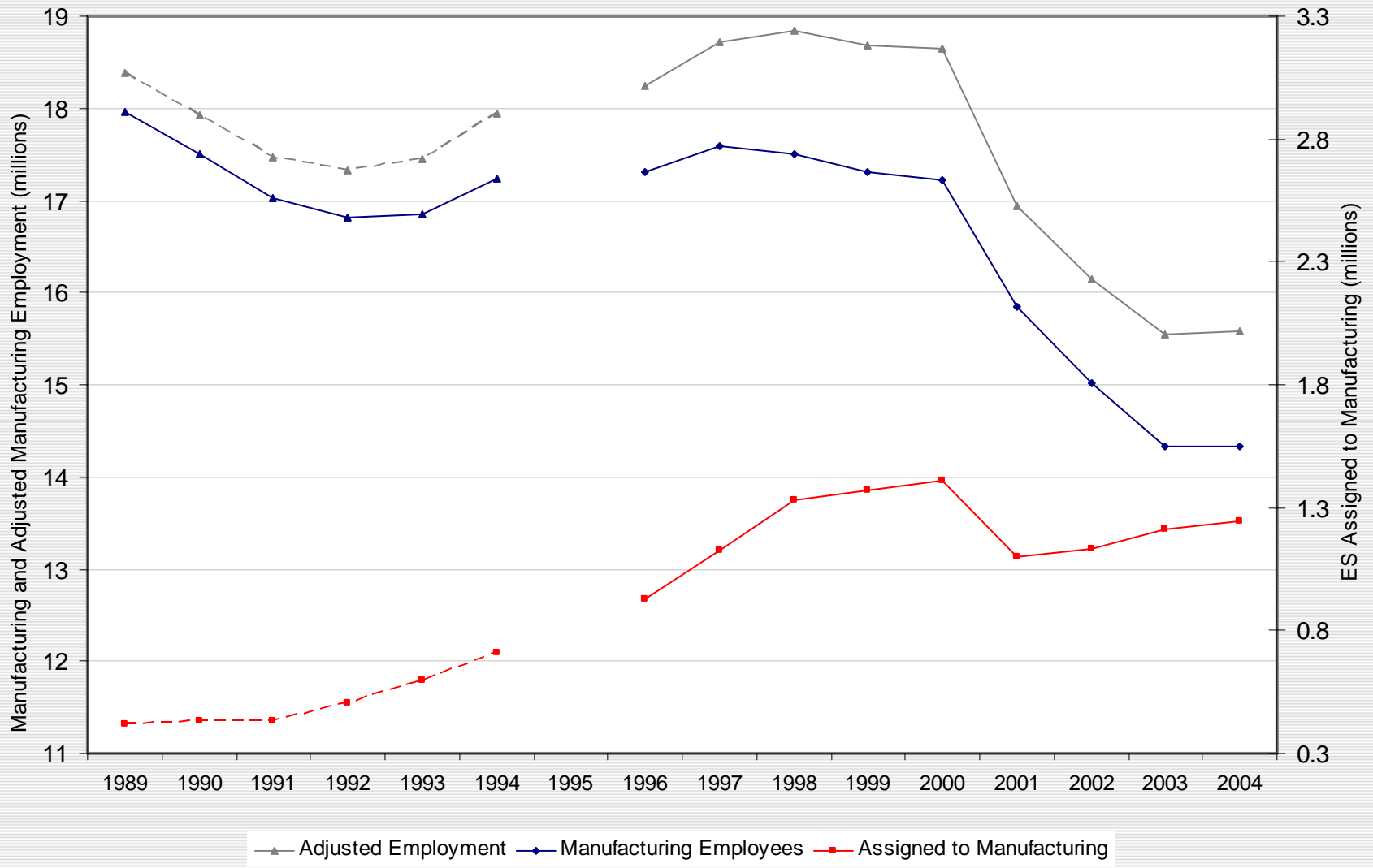
Our Methodology for Imputing Employment Services Workers to Manufacturing

- We have generated annual estimates of ES employment by occupation from OES and CES data.
- Use Contingent Worker Supplements to the CPS to estimate fraction of ES workers in each occupation assigned to manufacturing.
 - CSW only data source for information on industries to which temporary agency workers assigned.
 - Pool data across 5 waves of CWS (1995-2005) to estimate fraction in each of our broad occupation categories assigned to manufacturing.
- Most of ES classified in 3 occupations; % in each of these occupations assigned to manufacturing:
 - \approx 86% workers in production occupations
 - \approx 50% workers in production helpers, laborers, material handlers
 - \approx 19% workers in office and administrative assistance occupations

Our Methodology for Imputing Employment Services Workers to Manufacturing (cont.)

- Estimated numbers assigned to manufacturing change over time for two reasons:
 - 1) Changes in the total number of workers in ES
 - 2) Changes in the occupational composition of ES employment.
 - As composition of ES employment shifted to blue-collar occupations, a growing share of ES employment assigned to manufacturing.
- Caveats to Our Estimates
 - 1) Assume that within occupations, fraction assigned to manufacturing does not change over time:
 - Proportions stable over 1995-2005 period, but no data available 1989-94.
 - If manufacturing increasing its outsourcing to ES in early years of data, overestimate number of ES workers assigned to manufacturing in early years, underestimate its growth.
 - 2) Assume fraction within each occupation assigned to manufacturing same for other staffing agencies (mostly PEOs) as for temp agencies.

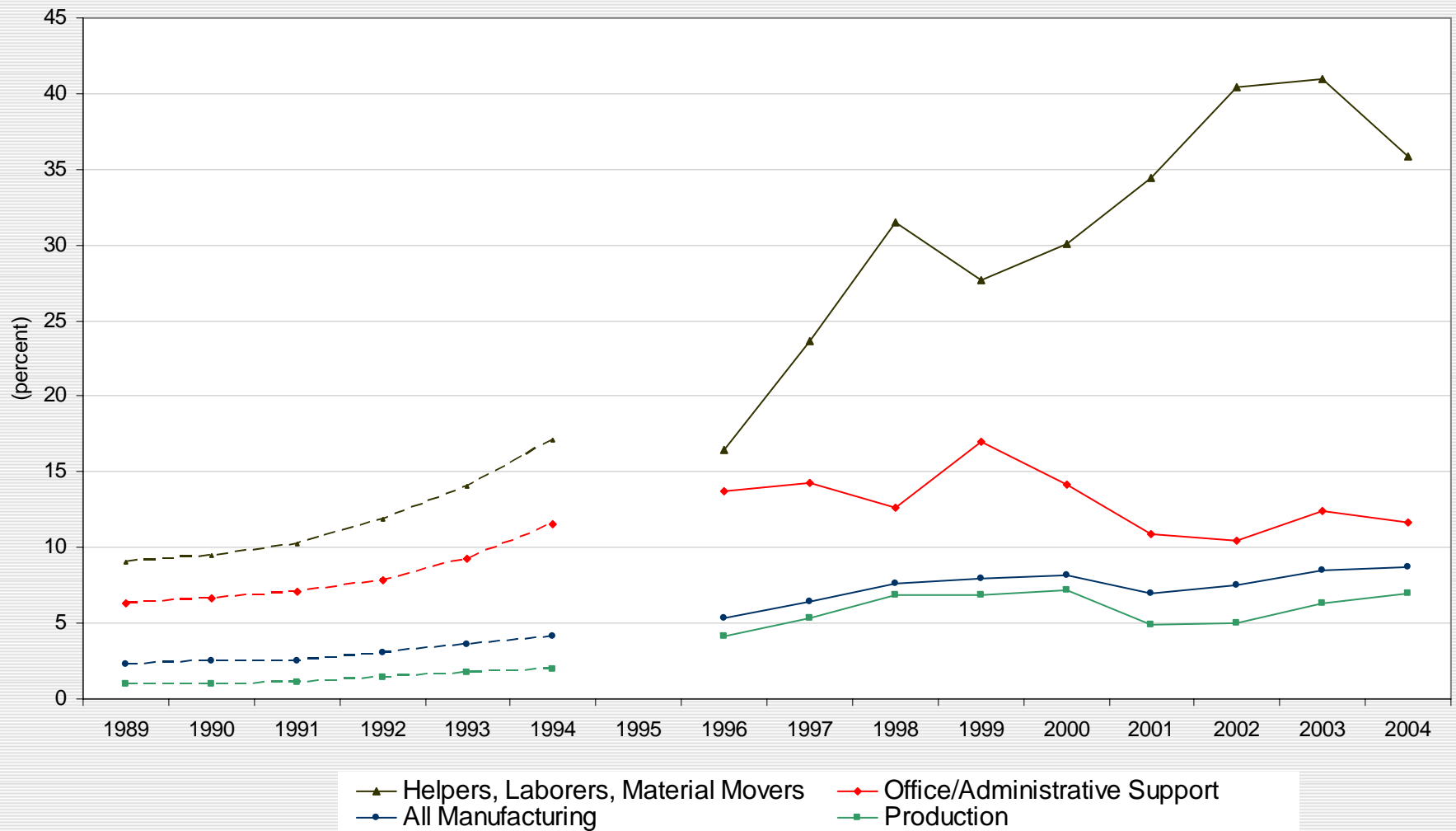
Trends in Manufacturing Employment and Employment Service Workers Assigned to Manufacturing



Key Findings

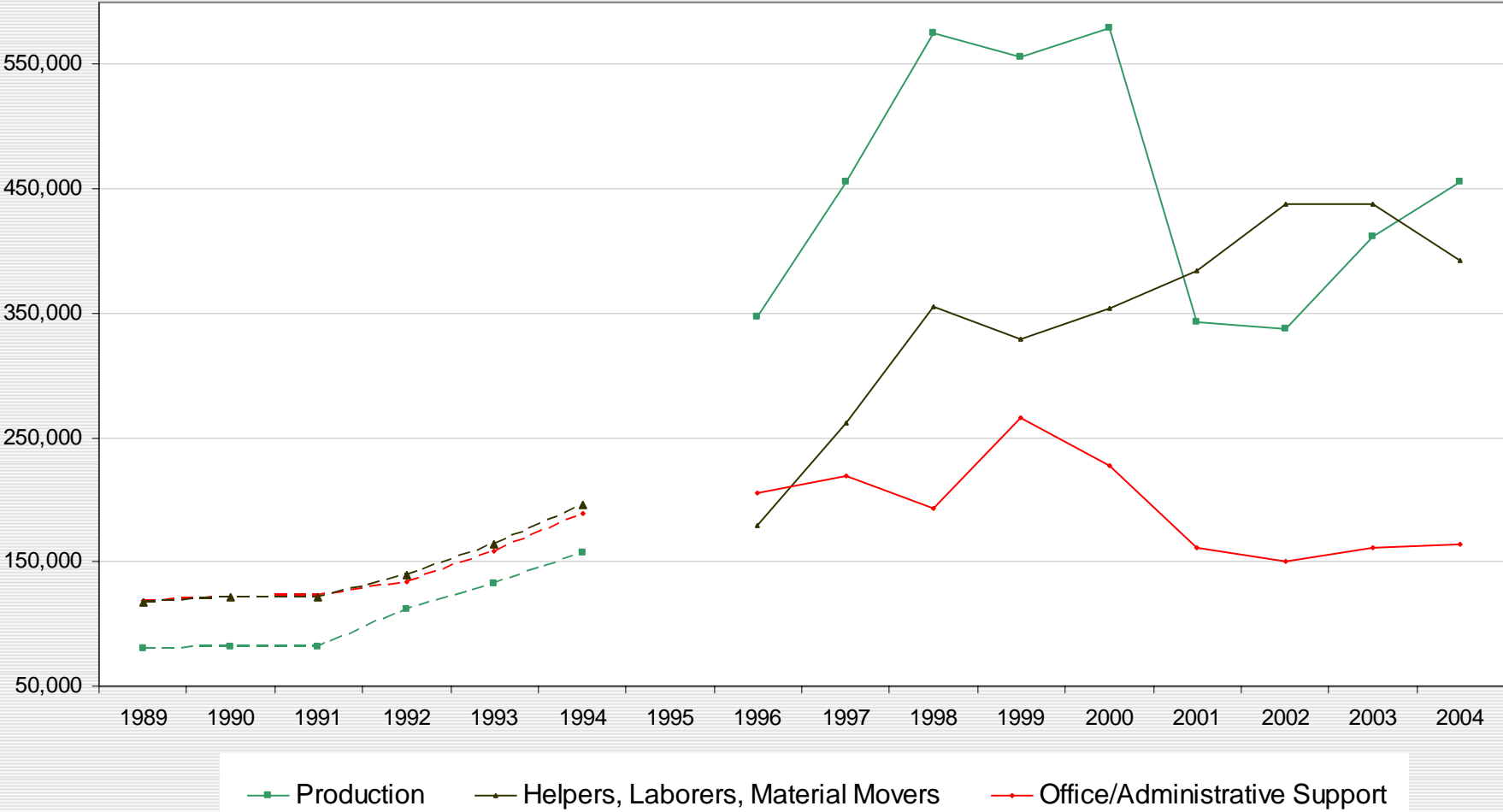
- Rapid increase in outsourcing to Employment Services by U.S. manufacturers during 1990s
 - ES added an estimated 2% to manufacturing employment in 1989 (419,000 workers)
 - Added 8% by 2000 (over 1.4 million workers), adding approx. 1 million ES workers from 1989-2000.
 - Manufacturing employment shrank 4% from 1989 to 2000
 - Adding in staffing agency workers implies employment of those working in manufacturing actually grew by over 1%.
- ES workers bore disproportionate share of employment reductions in manufacturing in recession
- ES workers in manufacturing grown rapidly during recovery
 - Manufacturing employment continued to decline rapidly
 - Staffing services added between 8 and 9% to total manufacturing employment in 2004.

Employment Services as Percent of Manufacturing Employment, Selected Occupations, 1989-2004



Source: authors' estimates

Trends in ES Workers Assigned to Manufacturing, Selected Occupations



ES Represents Growing Share of Core Jobs in Manufacturing

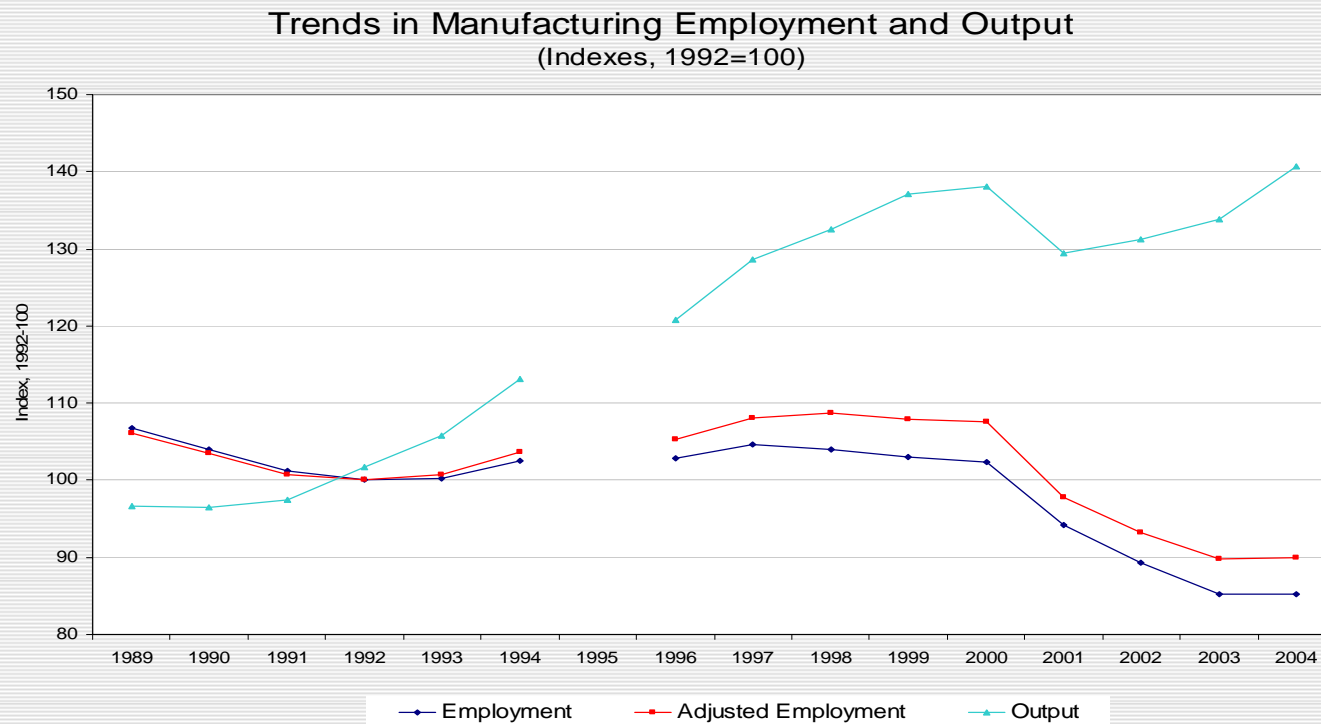
- For production occupations:
 - In 1989, less than 1 in 100 production workers doing manufacturing work employed in ES
 - In 2004, an estimated 1 in 15 production workers in manufacturing worked in ES.
- For production and production helper/laborer combined (which corresponds more closely to CES definition of production workers):
 - In 1989, an estimated 1 in 44 performing work for manufacturers employed in ES.
 - In 2004, about 1 in 10 employed in ES.
- Production employment declined rapidly in U.S. in recent years, growing share of what remains employed in Employment Services.

Our Data on Employment Services only Captures Part of Contracting Out Done by Manufacturers

- Contracting out to domestic contractors in other sectors may have been important. Examples:
 - IT
 - shipping & handling
 - cleaning services
 - food services
- Substantial evidence that outsourcing to foreign companies or affiliates (offshoring) accelerated in recent years.

Trends in Manufacturing Output and Employment

- ❑ Outsourcing to ES accounts for some of decline in manufacturing employment relative to output, especially in 1990s
- ❑ Growing gap between manufacturing output and employment reflects all types of labor outsourcing (domestic and offshoring), possible substitution of other inputs for labor, and productivity growth.



Sources: output from BLS productivity series, employment from CES, adjusted employment from authors' calculations.

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Implications of Findings: Measurement Issues

- Sector employment trends
 - Difficult to interpret when large increases in contracting out – people working in sector not counted as employed in sector
- Productivity
 - Simple measures – output/worker or output/labor hour – may be significantly affected by large increases (or decreases) in contracting out.
 - Manufacturing’s outsourcing to staffing services increased the growth rate in output per worker by an estimated half a percentage point per year from 1989 to 2000.
 - Multi-factor productivity measures for manufacturing (KLEMS) should correct for such shifts in the composition of inputs – in this case from “workers” to “purchased services” – but require extensive amounts of data to adequately adjust for shifts.
 - Mass Layoff Survey: collects information on job loss that associated with domestic and foreign outsourcing. Helpful but coverage incomplete.
 - New CES Supplement that will collect information on temp help, PEO employment used by companies and on other contract services used will help provide such data.