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## **The 2010 National Organizations Survey: U.S. Organizations, Global Value Chains, and Domestic Jobs**

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## Today's presentation

- The 2010 NOS
  - Motivations – data and policy gaps
  - Goals of Survey
  - Measures used
  - Approach
    - Sample Frames
    - Data set and response rates
    - Time period
    - The business function framework
- Descriptive findings
- Analytic findings (preliminary)
- Notes on data quality

## Motivation: Linking Globalization to Domestic Jobs

- Data gaps
  - ◆ Domestic outsourcing
  - ◆ Sourcing from independent foreign suppliers
  - ◆ Trade in services
- Policy gaps
  - ◆ Effects of outsourcing and offshoring on jobs and R&D
- Global value chains, four strategic choices
  - ◆ In-house domestic
  - ◆ Domestic outsourcing
  - ◆ Sourcing from foreign affiliate
  - ◆ Sourcing from independent foreign supplier

## Measures used

- Business Functions
  1. primary business function (NAICS)
  2. R&D (including product design and engineering)
  3. sales and marketing
  4. transport and logistics
  5. customer & after sales service
  6. Management, administration, and back-office functions
  7. information technology
  8. facilities maintenance
- Jobs
  - ◆ Employment and wages, by business function (inc. R&D)
- Sourcing practices
  - ◆ Costs of goods and services sold (COGS and COSS), by business function and by type of offshore location (3 categories), for each business function (inc. R&D)

## Dual Sample Frame

1. Organizations employing General Social Survey (GSS) respondents
  - ★ Repeat of approach used in 1996, 1999, and 2002
  - ★ Workplaces based on U.S. employment, 2008
2. Fortune 1000 (F1K)
  - ★ Sample of large firm business segments
  - ★ Over sample F1K firms with high R&D employment

## What's innovative?

- Use of business function framework
- Use of business segment as unit of analysis in large firms (Fortune 1000)
- Quantify sourcing practices using costs of goods and services sold (COGS and COSS) measures

## Business Function Framework - Benefits

- Generic: questions equally applicable at goods and services producing enterprises.
- Suited to both international and domestic sourcing
- Categories are intuitive and fit those used by management
- Suited to globalization research because work is typically offshored in business function “bundles,” rather than moved as individual “tasks” or “jobs”
- Related Efforts in European Union: Questionnaire on Global Value Chains and International Sourcing (Eurostat, 2007 and forthcoming)

# Public Use Dataset!

This material is based upon work supported by the National Science Foundation under Grant No. 0926746



## **Descriptive Findings: Offshoring, outsourcing, and employment by business function**

## Firms in Dataset

- Full dataset: 328 (RR 22.5%)
  - ◆ Small organizations (>1000 employees): 158 (RR 38.3%)
  - ◆ Large organizations (<1000 employees): 170 (RR 11.4%)
-

## **Data from 2010**

Collected by Henne Group (SF):  
April - December 2011

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**Primary function is about 2/3rds of employment**  
Means %

|                                  | Full sample<br>(328) | Small >1000<br>(158) | Large <1000<br>(170) |
|----------------------------------|----------------------|----------------------|----------------------|
| <b>primary business function</b> | <b>64</b>            | <b>68</b>            | <b>61</b>            |
| R&D                              | 7                    | 6                    | 8                    |
| sales and marketing              | 8                    | 7                    | 9                    |
| transport and logistics          | 8                    | 8                    | 7                    |
| cust & after sales serv          | 8                    | 8                    | 7                    |
| management and admin             | 11                   | 13                   | 10                   |
| information technology           | 4                    | 4                    | 5                    |
| facilities maintenance           | 6                    | 6                    | 5                    |

## ...while more than half have R&D

(share of orgs with at least one employee in R&D)

- Full sample: 54%
  - ◆ Small organizations (>1000 employees): 41%
  - ◆ Large organizations (<1000 employees): 66%

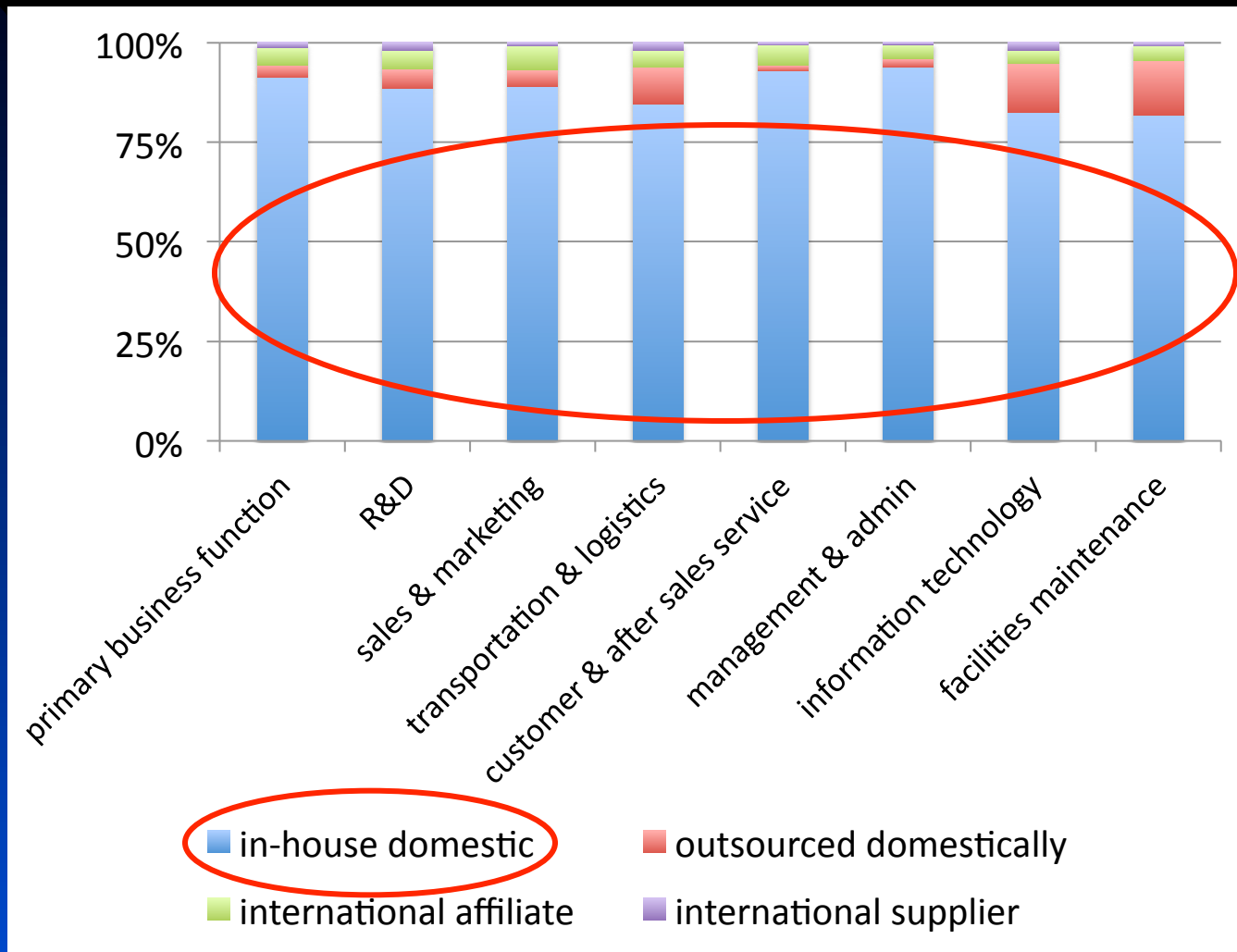
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**R&D (broadly defined) is about 7% of emp.**  
Means %

|                                  | Full sample<br>(328) | Small >1000<br>(158) | Large <1000<br>(170) |
|----------------------------------|----------------------|----------------------|----------------------|
| <b>primary business function</b> | <b>64</b>            | <b>68</b>            | <b>61</b>            |
| R&D                              | 7                    | 6                    | 8                    |
| sales and marketing              | 8                    | 7                    | 9                    |
| transport and logistics          | 8                    | 8                    | 7                    |
| cust & after sales serv          | 8                    | 8                    | 7                    |
| management and admin             | 11                   | 13                   | 10                   |
| information technology           | 4                    | 4                    | 5                    |
| facilities maintenance           | 6                    | 6                    | 5                    |

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**International sourcing is rare on average...**  
Means for full sample: (n=318)

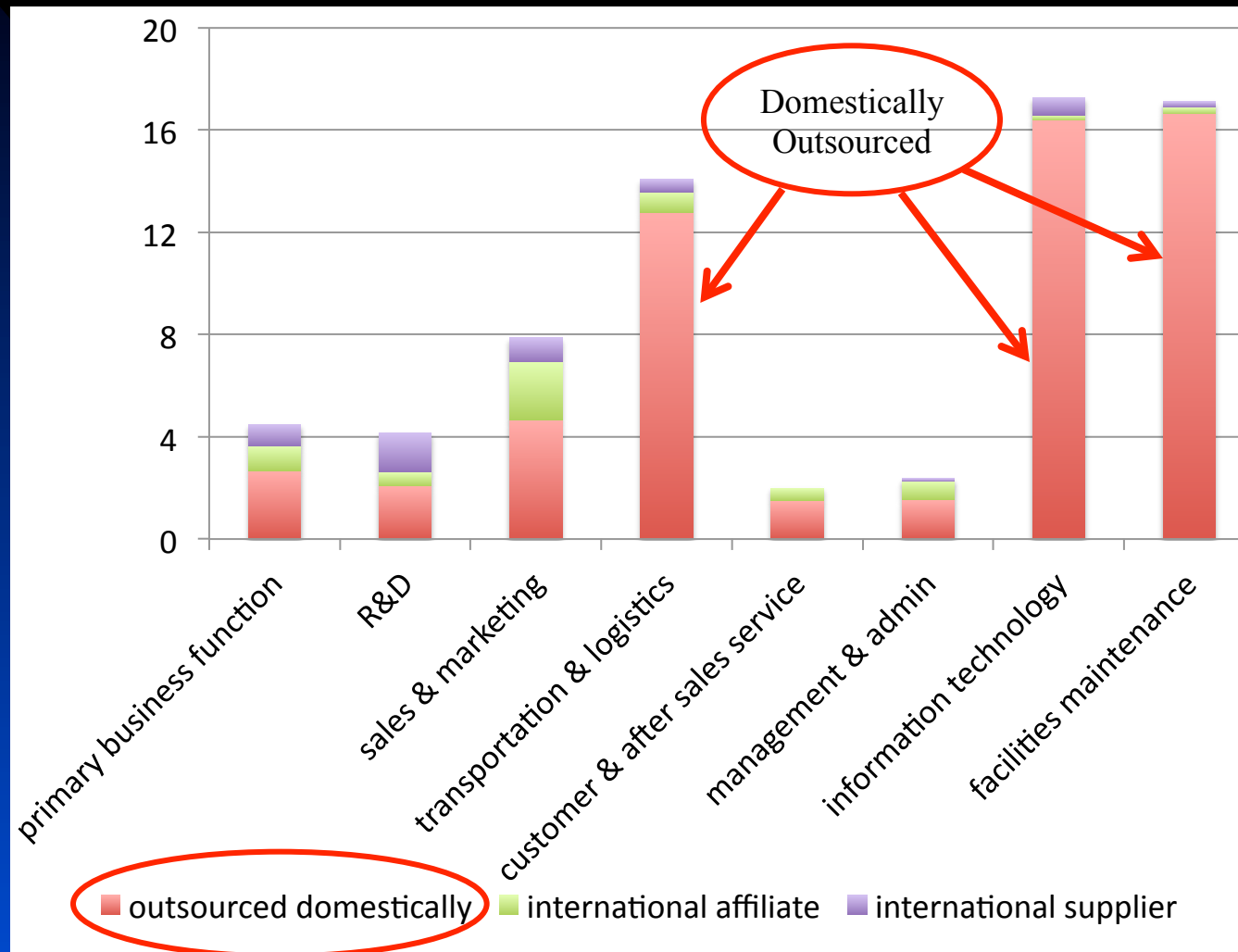


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...especially for small organizations...

Means for small organizations >1000 emp (n=154)



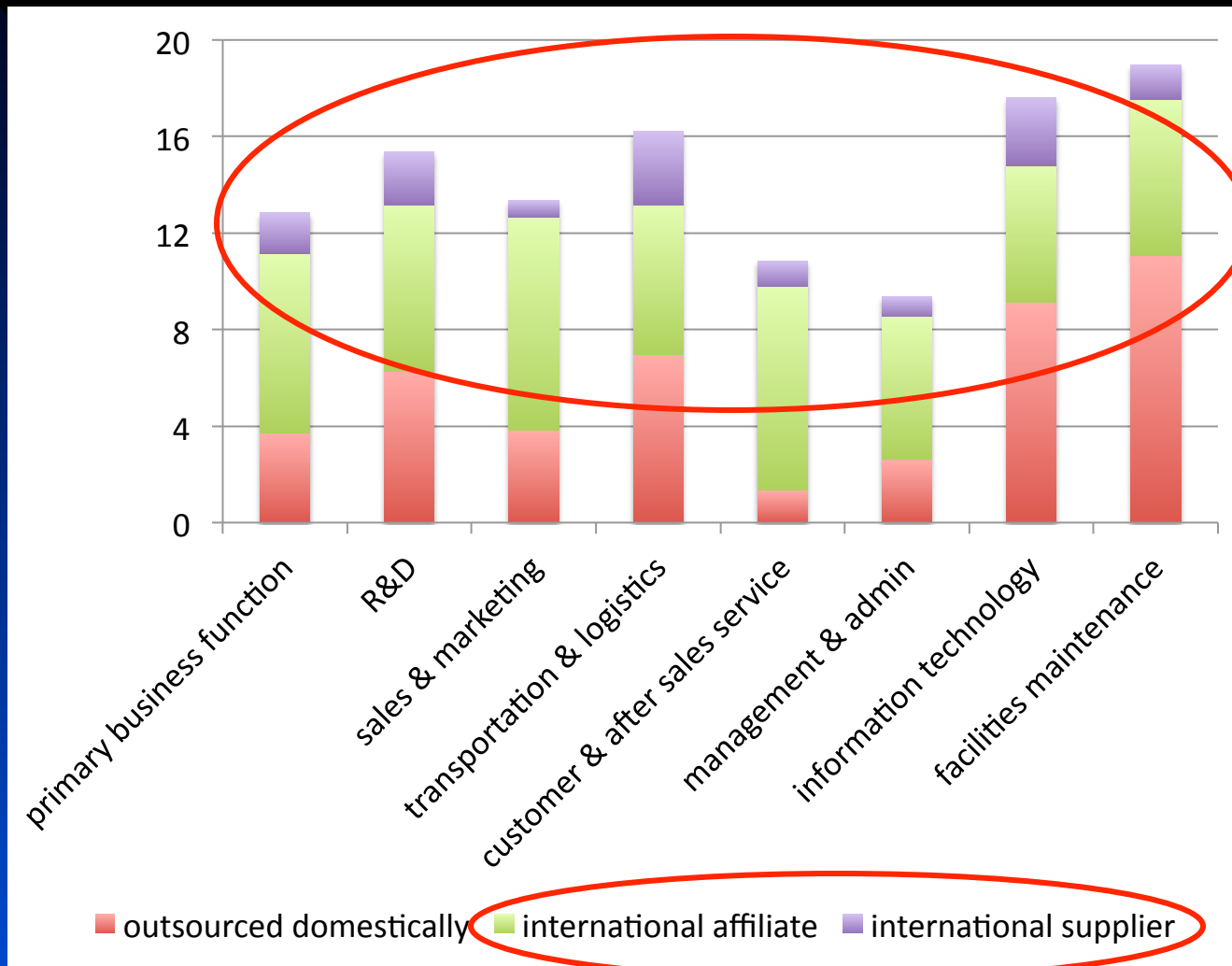
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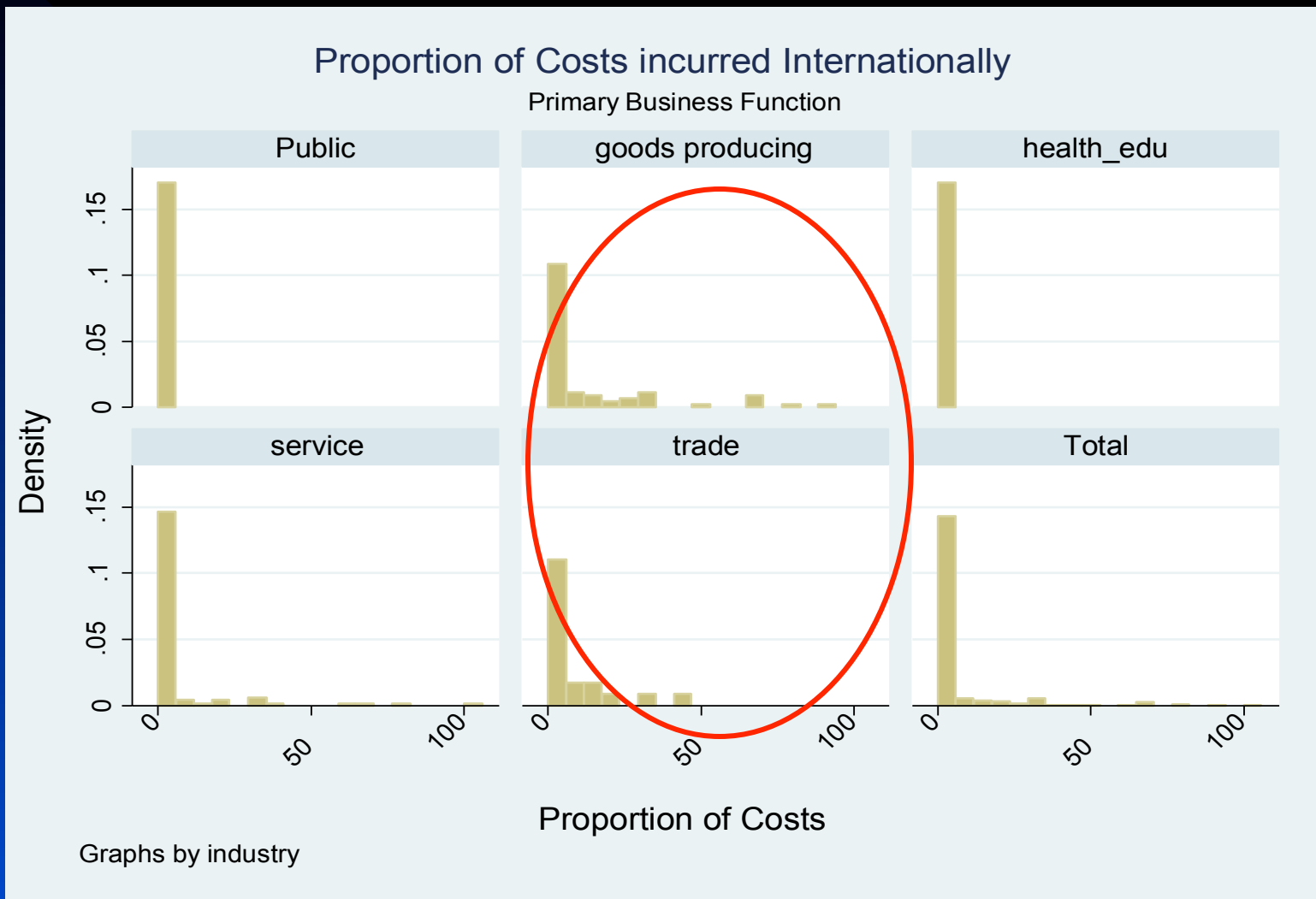
...while large organizations lead the way...

Means for large organizations <1000 emp (n=164)



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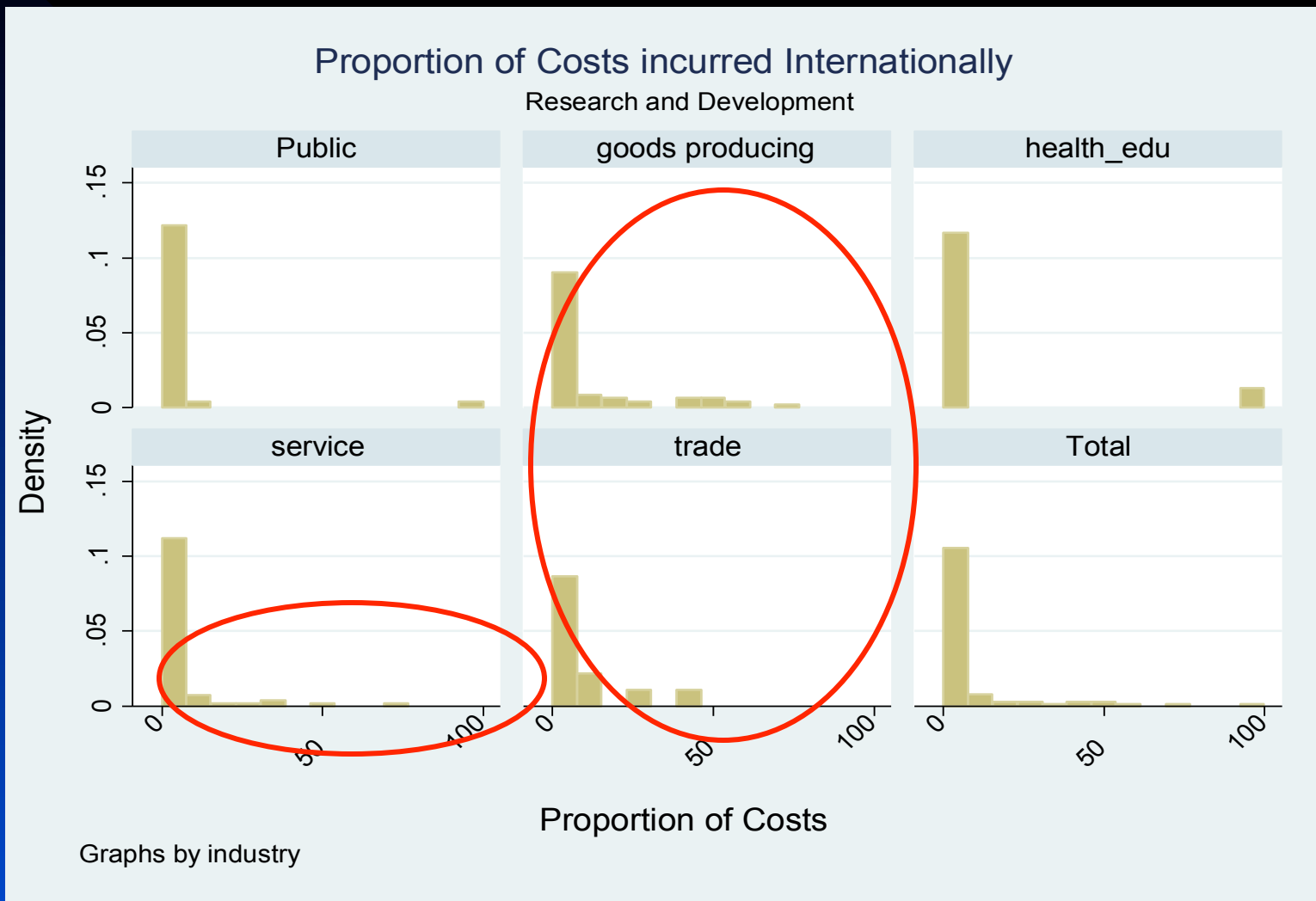
...mainly in goods producing industries and trade...



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...including R&D...

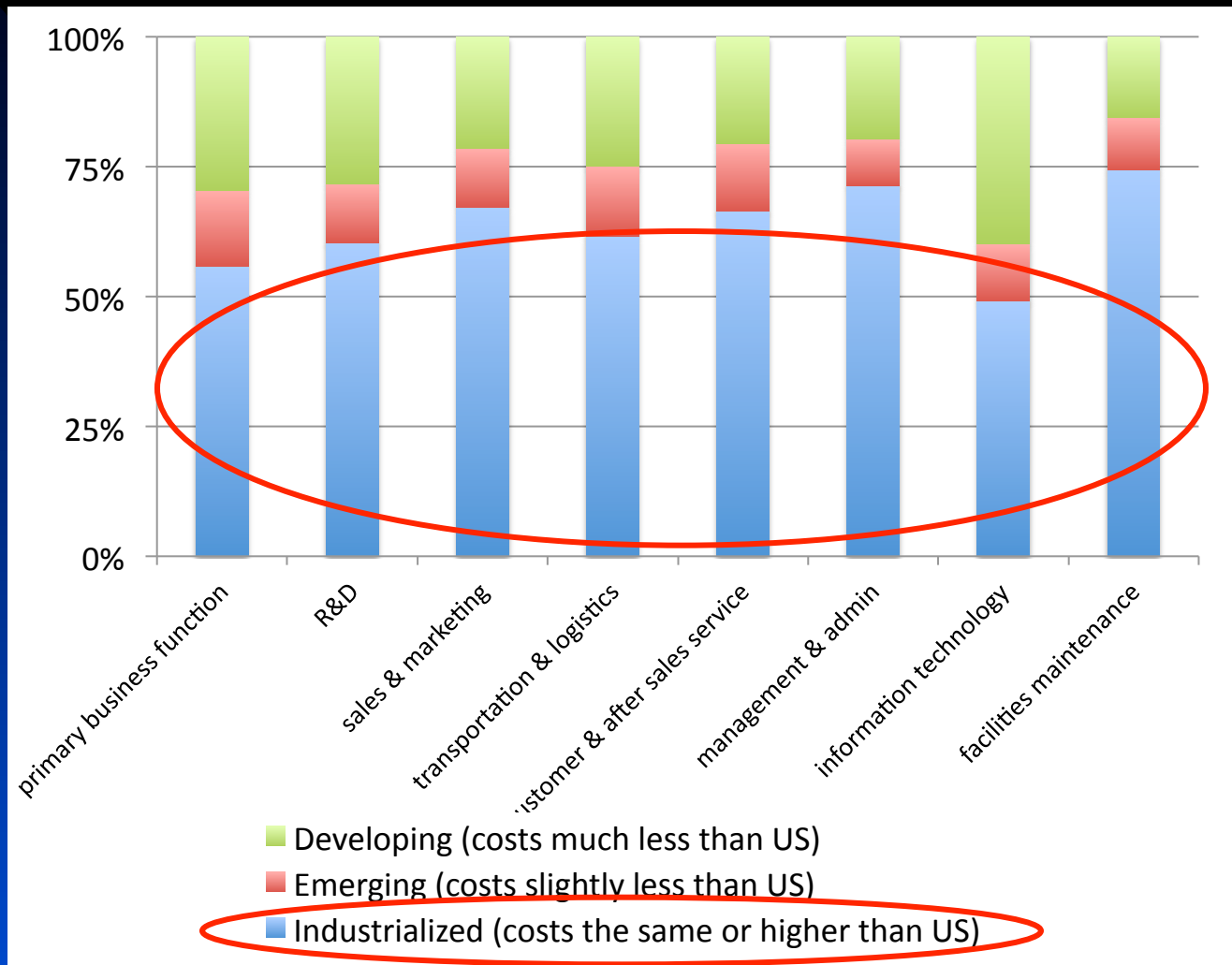


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## ...and mainly to high cost locations

Means for sub-sample with international sourcing (n=59)



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## **Analytic Findings: Globalization, Organization and Jobs (very preliminary)**

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## Analytic Findings: Organization (very preliminary)

Q: If an organization outsources its primary business function domestically, is it more likely to source it internationally?

No.

Q: If an organization outsources its primary business function internationally, is it more likely to source support functions internationally?

Yes, for all seven support functions.

Q: Do organizations offshore a higher share of their Primary Business Function when they locate it in places with lower costs?

Yes.

## Analytic Findings: Employment (very preliminary)

**Q: How do domestic jobs vary with the placement of the organization's activities abroad and at home?**

- Only three business functions show a significant relationship between proportion of domestic employment and proportion of the same activity located abroad.
  - Sourcing the Primary Business Function abroad seems to substitute for employment in this function at home.
  - Customer Service and IT functions sourced abroad seem to complement employment in these functions at home.
- Organizations outsourced a significant proportion of five business functions domestically
  - Domestically outsourced R&D, IT, and Facilities Maintenance functions seem to substitute for domestic employment in these activities.
- Domestically outsourced Management/Admin and Customer Service seem to compliment domestic employment in these activities.

## Analytic Findings: Wages (very preliminary)

**Q: Do domestic earnings vary with location of activities abroad?**

- The proportion of domestic high earners within business functions varied positively with proportion of activities sourced abroad for all business functions.
- The distribution of domestic low-wage employment in R&D and Management/Admin varied directly with the proportion of these activities sourced abroad.
- The distribution of domestic earnings did not vary significantly with the proportion of domestic outsourcing of business function activities except in Management (both low wage and high wage jobs varied directly with domestic outsourcing) and in Sales and Marketing (low wage jobs varied directly with domestic outsourcing).
- Overall domestic outsourcing may have a more negative relationship to domestic jobs than global outsourcing.



## Data Quality

### Acceptance of the Business Function Concept:

*What percentage of Org X's employees work in each business function?*

- 19 of 336 (5.6%) respondents answered don't know/refused to the question

### Understanding the Concept of "Primary Business Function":

*What percentage of Org X's costs are from its Primary Business Function?*

- 24 of 332 (7%) respondents placed a 0 value in % of costs for the Primary Business Function, suggesting that they did not fully understand the question

## Some (preliminary) take-aways

- For the typical workplace in the US outsourcing and offshoring are not very common
  - ◆ Concentrated in goods producing and trade sectors
  - ◆ Domestic outsourcing is concentrated in transport, IT services, and facilities maintenance
  - ◆ International sourcing is spread across all functions, including R&D, and is mainly carried out by large firms through foreign affiliates
  - ◆ Most international sourcing is to high cost locations, and secondarily to very low cost locations. Employment and wage effects are mixed
  - ◆ Substitution or complementarity depends on the function, type of location, and whether the jobs involved are within or across functions
- The Business Function Framework seems to be well suited for the collection economic data

**Thank you!**