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Printing Industry Center

An Alfred P. Sloan Foundation Center

# Printing Offshoring

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## Views of US Printers

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# Printing Industry

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- Global Print Production ~\$600bn
  - US ~\$166bn
  - North America, W. Europe, Asia ~30% each
- US Printing Trade Small (2005)
  - Imports \$4.7bn
  - Exports \$5.2bn
  - Trade Surplus \$500mn
    - Down from \$1bn in 2000

Source: Printing Industry Association

# Printing Industry

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- **US-China Print Trade**
  - US Exports to China ~\$82mn
  - US Imports from China ~\$1.2bn
    - Growing 26% per year

Source: Printing Industry Association

## Larger Context of Printing Industry

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- **Tough Times**
  - Many going out of business
    - Surplus equipment on secondary market
- **Low Barriers to Entry**
  - Margins thin
- **Enterprise to Establishment Ratio Almost 1**
- **Technological Transformation**
  - Digitization of production process
  - Internet - disruptive of markets

# Project Methods

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1. Survey design
  - Interviews with experts
  - 10 page survey with 50 questions
2. Web-based surveys sent to 3,228 PIA/GATF Members
  - 242 valid responses (8.8%)
3. Follow-up Interviews with 15 Printers
  - Validate and “thicker” description

## Two Interests: Opportunities & Challenges

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- Are Printers Taking Advantage of Opportunities?
  - Global reach
    - Customers – increase market
    - Suppliers – lower costs
      - Outsourcing or Offshoring
- Which Printers Face the Biggest Challenges?
  - Characteristics that make a printer more or less *vulnerable* to foreign competition

## Hypotheses & Findings: “Vulnerability” to Offshore Sourcing

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- **Product Types**
  - ↑ Vulnerability
    - Books\*\* ↑
    - Packaging\* ↑
  - ↓ Vulnerability
    - Quick Printing\* ↓
    - Advertising Materials – ↑ but not significant

## Hypotheses & Findings: “Vulnerability” to Offshore Sourcing

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- **Complementary Services**
  - ↑ Vulnerability
    - Digital Services ↓ not significant
      - CD ROM; web dev't & hosting
    - Digital Proofing\*\* ↑
  - ↓ Vulnerability
    - Data Services\* ↑
      - Mailing & fulfillment; variable data printing
    - Laminating & Mounting\*\* ↑



## Hypotheses: “Vulnerability” to Offshoring

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- Firm Characteristics
  - ↓ Vulnerability
    - “Innovative”
    - Large Share of Repeat Customers
- Localization
  - ↓ Vulnerability
    - Value in Geographic Proximity
    - Value in US Cultural Knowledge

## Descriptive Stats – Foreign Competition

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- How Will Foreign Competition Change?
  - Increase: 77%
  - Stay Same: 22%
- 49% Lost A Job to Foreign Competition
  - Seems higher than trade data from PIA
  - Location of Competitor
    - China: 57%
    - Canada: 16%
    - Mexico: 16%
    - Europe: 10%
    - India: 5%

# Foreign Competition

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- 49% Lost A Job to Foreign Competition
  - Competitive Causes Cited by Printers
    - Lower costs: 34%
    - Customer's work moved overseas: 7.7%
  - Print Job Characteristics Cited by Printers
    - Long print runs: 14%
    - Labor intensive finishing: 11%

## Global Reach - Sales

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- Only 17% Performed a Job for Customer Outside US
  - Avg share of sales: 6%
- 44% Sell Through Print Brokers
  - Avg share of sales: 21%      std dev: 23%
  - Will brokers reach global customers?

## Global Reach - Sourcing

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- Offshore Outsourcing of Printing Processes Very Small
  - Savings for those who did
    - 43% no savings
    - 40% saved <40%
    - 16% saved >40%
  - 18% of printers had definite plans to offshore outsource some of their printing processes in near future

## Observations from Interviews

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- Quality Differentials Not Big
  - Most agreed with this
- Equipment Offshore  $\geq$  US
  - Sometimes at lower costs because of secondary market
- Value per Weight is Important But...
  - Transport/logistics costs changing
- Most Printers Are Concerned About Foreign Competition
  - Not universal (e.g., niche vendor)
- Some See Actual Threat is From Domestic Printers That Have Lost to Foreign Competition
  - Start to crowd into non-tradable markets like quick turn

## Observations from Interviews

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- Pricing Pressure High, Costs Going Up
  - Costs Rising: Paper & Medical
- Many Customers within 60-100 Miles
- Niche Markets
  - Religious, maps, educational
- Catalogues
  - Lengthen lead time to accommodate offshore printing
  - Customer adapts its business processes

## Observations from Interviews

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- **Equivalent or Better Technology**
  - Sometimes at lower costs – secondary market
- **Paper**
  - Indonesia - eucalyptus trees – fast growing – cheaper
  - India – sugar cane base – cheaper
- **Die Costs \$50 in China vs. \$600-\$900 in US**
- **US Poor Cost Accounting**



## Observations from Interviews

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- How Do You Feel About Offshore Outsourcing
  - Printer A won't allow his workers to drive foreign cars
  - Printer B went to China as part of MBA program, made contacts and was able to successfully source complex product from China
    - Advocates that PIA or another organization help to make these connections
  - US is too provincial and parochial
- One Claimed Equipment is Dumped in Southeast Asia
- Investing in Tech to Compete

## Geographic Dispersion of Industry

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- **Printing Industry Structure**
  - Large number of small firms with geographic dispersion
  - Large fan-out
  - Logistics costs
  - Not a single industry – lots of sub-markets
- **Kletzer/Jensen Analysis of Services Occupations Vulnerability**
  - Does geographic structure of printing make it less vulnerable?

# Conclusions

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- **Printers View Foreign Competition as a Threat**
  - Is it real?
  - Other factors are greater threat
    - Should responses to foreign competition be different?
- **Most Have Little Global Reach**
  - Non-US Customers
  - Non-US Suppliers
- **Surprises**
  - Little is being done in Mexico