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# Economic Impacts of Border Closures with Mexico

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# Outline

- The Problem
- Our Approach to the Problem
  - Two Types of Disruption
  - Two Time Periods
  - Accounting for *Maquiladoras*
- Insights and Abstractions

# What Does US-MX Trade Look Like?

| NAICS | Description                            | Imports from Mexico    |             |                        | Exports to Mexico      |             |                        |
|-------|--|------------------------|-------------|------------------------|------------------------|-------------|------------------------|
|       |  | Total Imports          | Pct Maq.    | Maq.-related Imports   | Total Exports          | Pct Maq.    | Maq.-related Exports   |
| 111   | Crop Production                        | \$5,388,669,046        |             | \$0                    | \$5,585,001,830        |             | \$0                    |
| 112   | Animal Production                      | \$390,520,002          |             | \$0                    | \$124,081,066          |             | \$0                    |
| 113   | Forestry and Logging                   | \$52,875,306           |             | \$0                    | \$48,059,678           |             | \$0                    |
| 114   | Fishing, Hunting and Trapping          | \$443,651,848          |             | \$0                    | \$32,811,618           |             | \$0                    |
| 211   | Oil and Gas Extraction                 | \$22,333,388,445       |             | \$0                    | \$891,656,592          |             | \$0                    |
| 212   | Mining (except Oil and Gas)            | \$208,609,626          |             | \$0                    | \$529,517,977          |             | \$0                    |
| 311   | <b>Food</b>                            | <b>\$3,872,821,765</b> | <b>100%</b> | <b>\$3,800,000,000</b> | <b>\$6,855,311,741</b> | <b>100%</b> | <b>\$6,800,000,000</b> |
| 312   | <b>Beverage &amp; Tobacco Products</b> | <b>\$2,281,739,482</b> | <b>100%</b> | <b>\$2,200,000,000</b> | <b>\$467,415,329</b>   | <b>100%</b> | <b>\$400,000,000</b>   |
| 313   | Textile Mills                          | \$763,591,764          |             | \$0                    | \$2,117,421,511        |             | \$0                    |
| 314   | <b>Textile Product Mills</b>           | <b>\$505,046,017</b>   | <b>100%</b> | <b>\$500,000,000</b>   | <b>\$311,250,629</b>   | <b>100%</b> | <b>\$300,000,000</b>   |
| 315   | <b>Apparel</b>                         | <b>\$3,514,334,435</b> | <b>100%</b> | <b>\$3,500,000,000</b> | <b>\$691,198,502</b>   | <b>100%</b> | <b>\$600,000,000</b>   |
| 316   | Leather & Allied Products              | \$2,314,102,491        |             | \$0                    | \$617,666,350          |             | \$0                    |
| 321   | <b>Wood Products</b>                   | <b>\$181,040,739</b>   | <b>50%</b>  | <b>\$100,000,000</b>   | <b>\$477,634,170</b>   | <b>80%</b>  | <b>\$400,000,000</b>   |
| 322   | Paper Manufacturing                    | \$768,145,543          |             | \$0                    | \$3,769,069,298        |             | \$0                    |
| 323   | Printing & Related Activities          | \$355,440,353          |             | \$0                    | \$479,300,573          |             | \$0                    |
| 324   | Petroleum & Coal Products              | \$2,937,612,553        |             | \$0                    | \$6,574,111,172        |             | \$0                    |
| 325   | Chemicals                              | \$3,093,634,133        |             | \$0                    | \$15,188,225,290       |             | \$0                    |

<sup>5</sup> U.S. Department of Transportation, Research and Innovative Technology Administration, Bureau of Transportation Statistics, "North American Transborder Freight Data," accessed at [http://www.bts.gov/programs/international/transborder/TBDR\\_QuickSearch.html](http://www.bts.gov/programs/international/transborder/TBDR_QuickSearch.html) on November 5, 2010.

## What Does US-MX Trade Look Like? (cont.)

| NAICS | Description   | Imports from Mexico      |             |                          | Exports to Mexico        |             |                         |
|-------|---|--------------------------|-------------|--------------------------|--------------------------|-------------|-------------------------|
|       |   | Total Imports            | Pct Maq.    | Maq.-related Imports     | Total Exports            | Pct Maq.    | Maq.-related Exports    |
| 326   | Plastics and Rubber Products                        | \$2,216,261,632          |             | \$0                      | \$5,390,516,383          |             | \$0                     |
| 327   | Nonmetallic Mineral Products                        | \$1,818,703,805          |             | \$0                      | \$1,201,161,857          |             | \$0                     |
| 331   | Primary Metals                                      | \$6,584,295,618          |             | \$0                      | \$5,483,128,799          |             | \$0                     |
| 332   | Fabricated Metal Products                           | \$4,536,179,342          |             | \$0                      | \$4,960,933,566          |             | \$0                     |
| 333   | <b>Machinery</b>                                    | <b>\$14,149,326,363</b>  | <b>100%</b> | <b>\$14,100,000,000</b>  | <b>\$16,380,848,212</b>  | <b>100%</b> | <b>\$16,300,000,000</b> |
| 334   | <b>Computer &amp; Electronic Products</b>           | <b>\$42,005,762,385</b>  | <b>100%</b> | <b>\$42,000,000,000</b>  | <b>\$24,718,378,021</b>  | <b>100%</b> | <b>\$24,700,000,000</b> |
| 335   | <b>Electrical Equipment, Appliances, Components</b> | <b>\$12,831,113,023</b>  | <b>100%</b> | <b>\$12,800,000,000</b>  | <b>\$5,849,108,698</b>   | <b>100%</b> | <b>\$5,800,000,000</b>  |
| 336   | <b>Transportation Equipment</b>                     | <b>\$28,856,342,739</b>  | <b>100%</b> | <b>\$28,800,000,000</b>  | <b>\$8,923,698,581</b>   | <b>100%</b> | <b>\$8,900,000,000</b>  |
| 337   | <b>Furniture and Related Product</b>                | <b>\$983,283,402</b>     | <b>100%</b> | <b>\$900,000,000</b>     | <b>\$338,640,291</b>     | <b>100%</b> | <b>\$300,000,000</b>    |
| 339   | <b>Miscellaneous</b>                                | <b>\$6,003,696,876</b>   | <b>100%</b> | <b>\$6,000,000,000</b>   | <b>\$4,732,168,026</b>   | <b>100%</b> | <b>\$4,700,000,000</b>  |
| 910   | Waste and Scrap                                     | \$511,503,590            |             | \$0                      | \$620,234,012            |             | \$0                     |
| 920   | Used Merchandise                                    | \$27,075,009             |             | \$0                      | \$96,621,241             |             | \$0                     |
| 980   | Goods for Return to Canada                          | \$4,199,378,588          |             | \$0                      | \$0                      |             | \$0                     |
| 990   | Special Classification Provisions                   | \$2,526,226,661          |             | \$0                      | \$77,851,279             |             | \$0                     |
|       | <b>Totals</b>                                       | <b>\$176,654,372,581</b> | <b>65%</b>  | <b>\$114,700,000,000</b> | <b>\$123,533,022,292</b> | <b>56%</b>  | <b>\$69,200,000,000</b> |

\* Pure exports are all non-maquiladora exports; pure imports are all non-maquiladora imports. "Maq.-related" imports and exports have been rounded for modeling purposes.

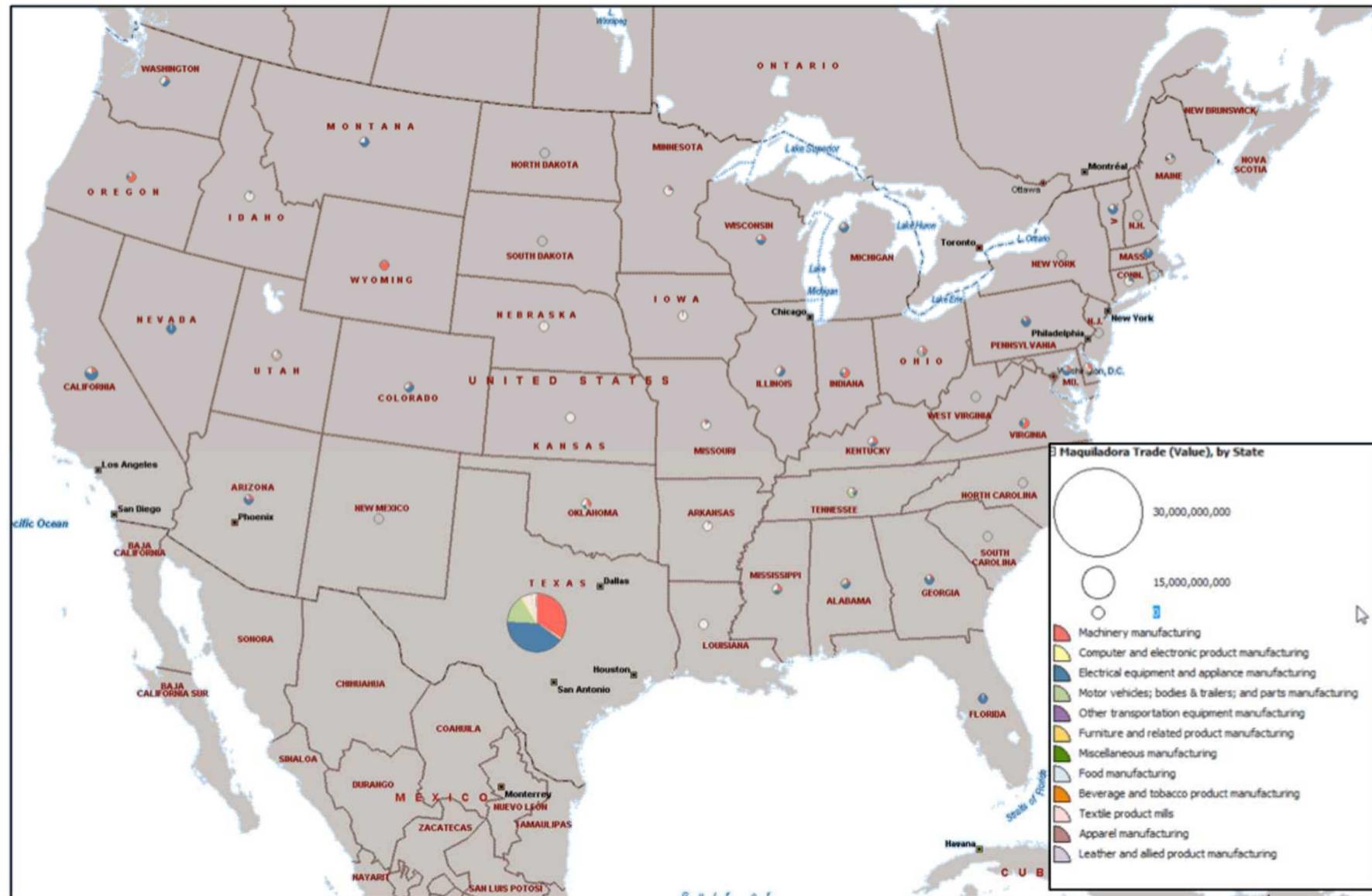
# Non-Maquiladora Land-base U.S. Exports to Mexico



# Non-Maquiladora Land-base U.S. Imports from Mexico



# Land-base U.S. Exports to Maquiladoras



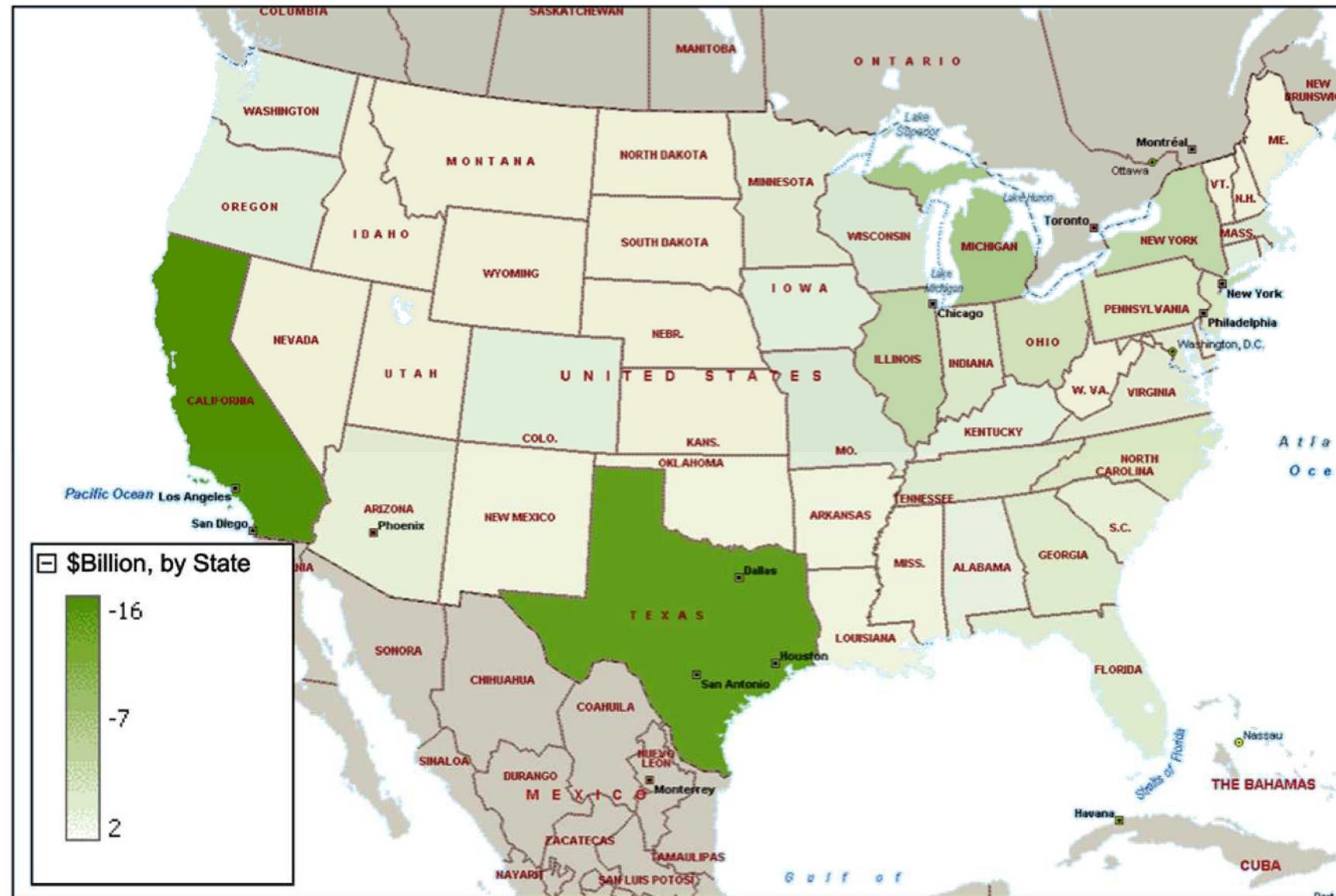
## PRE-MODELING

- Did we cover all of the salient effects of border closures of these types and durations?
- What effects can we ignore?
- How elastic is the economy to this type of disruption, and are we capturing this elasticity?

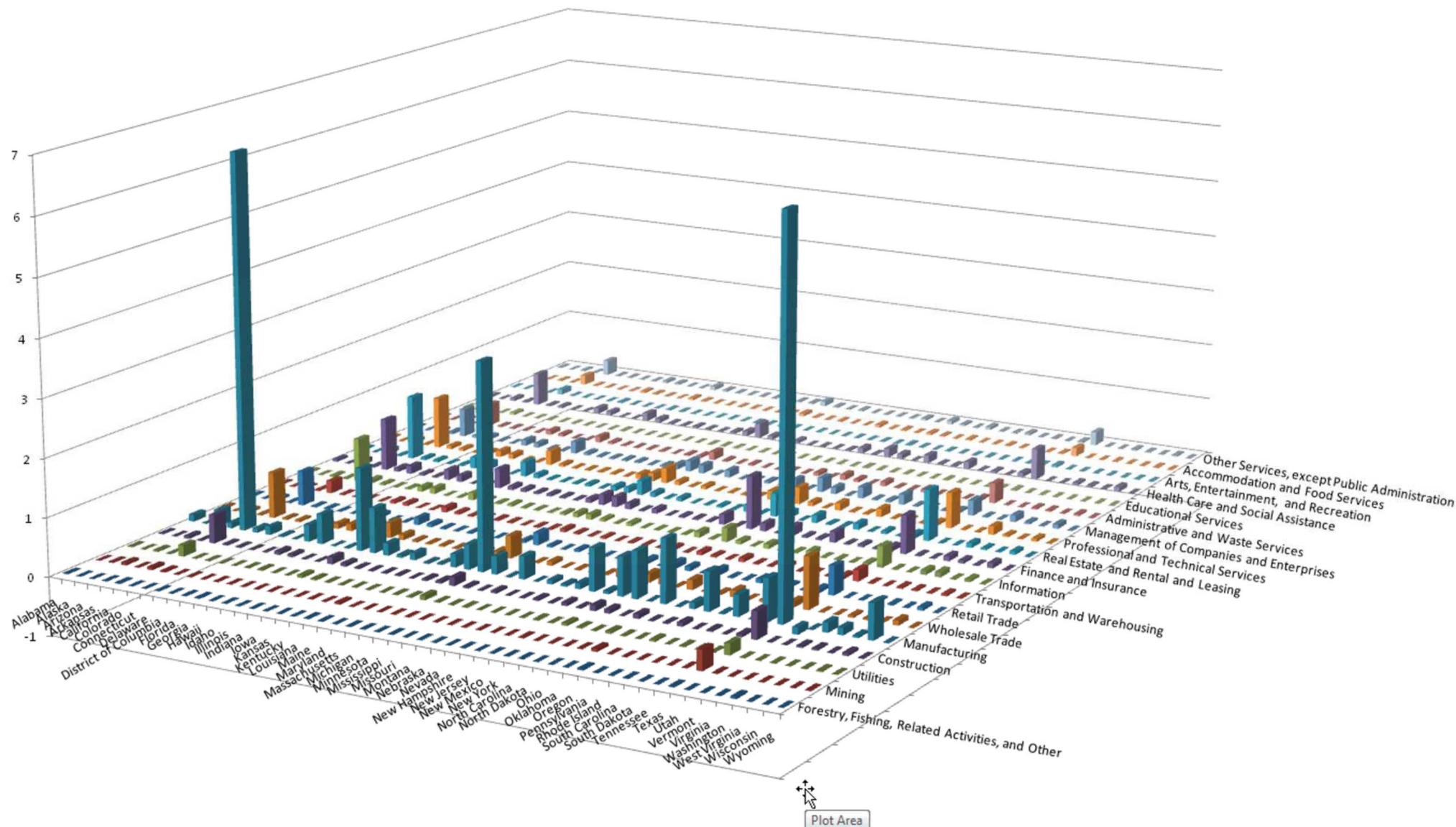
# GDP Impacts (\$B) of Two-Week Freight Disruption



# GDP Impacts (\$B) of Six-Month Freight Disruption



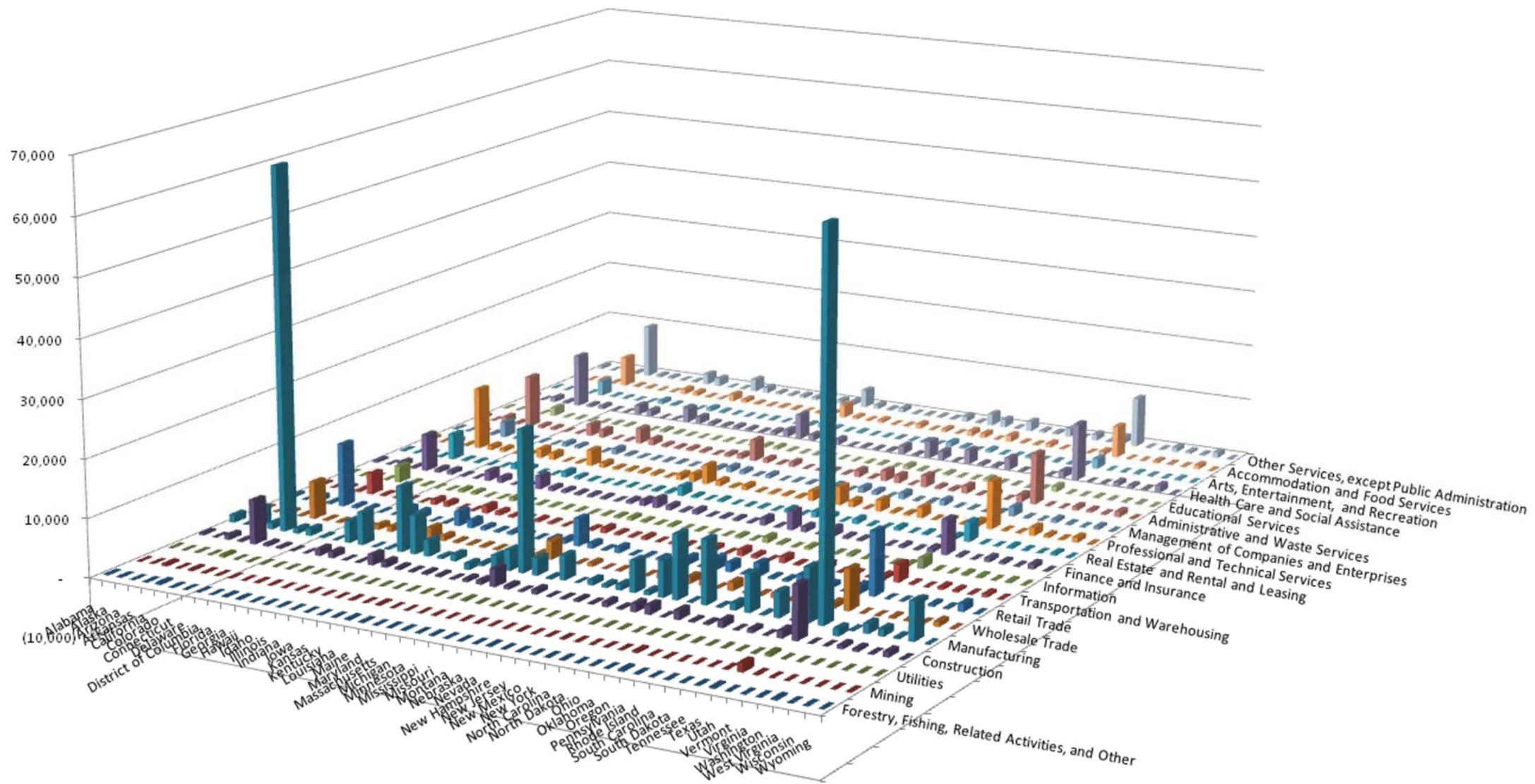
# GDP Impacts (\$B) of Six-Month Freight Disruption by U.S. State and Sector



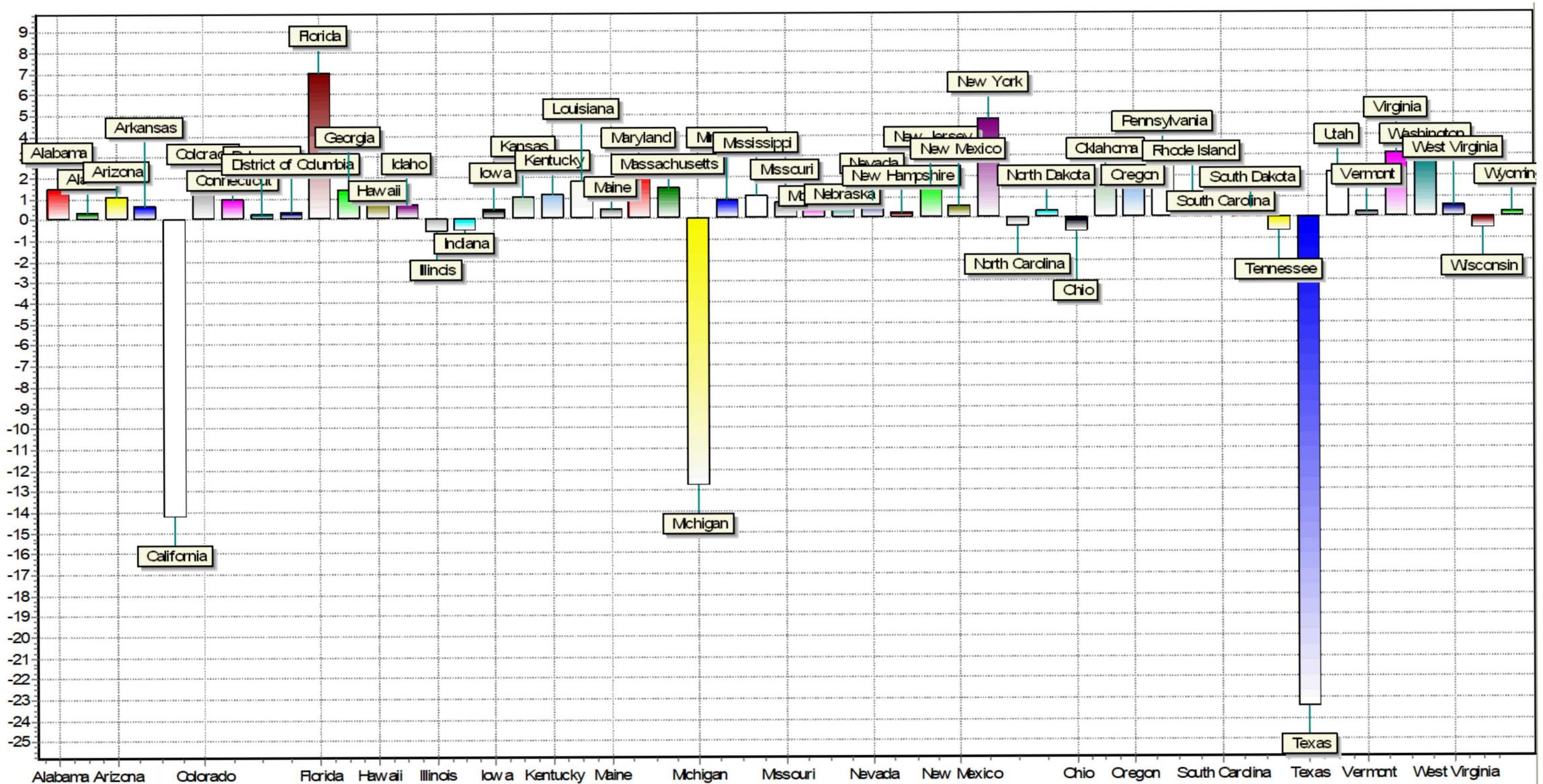
## Unemployment Impacts (%) of Six-Month Freight Disruption



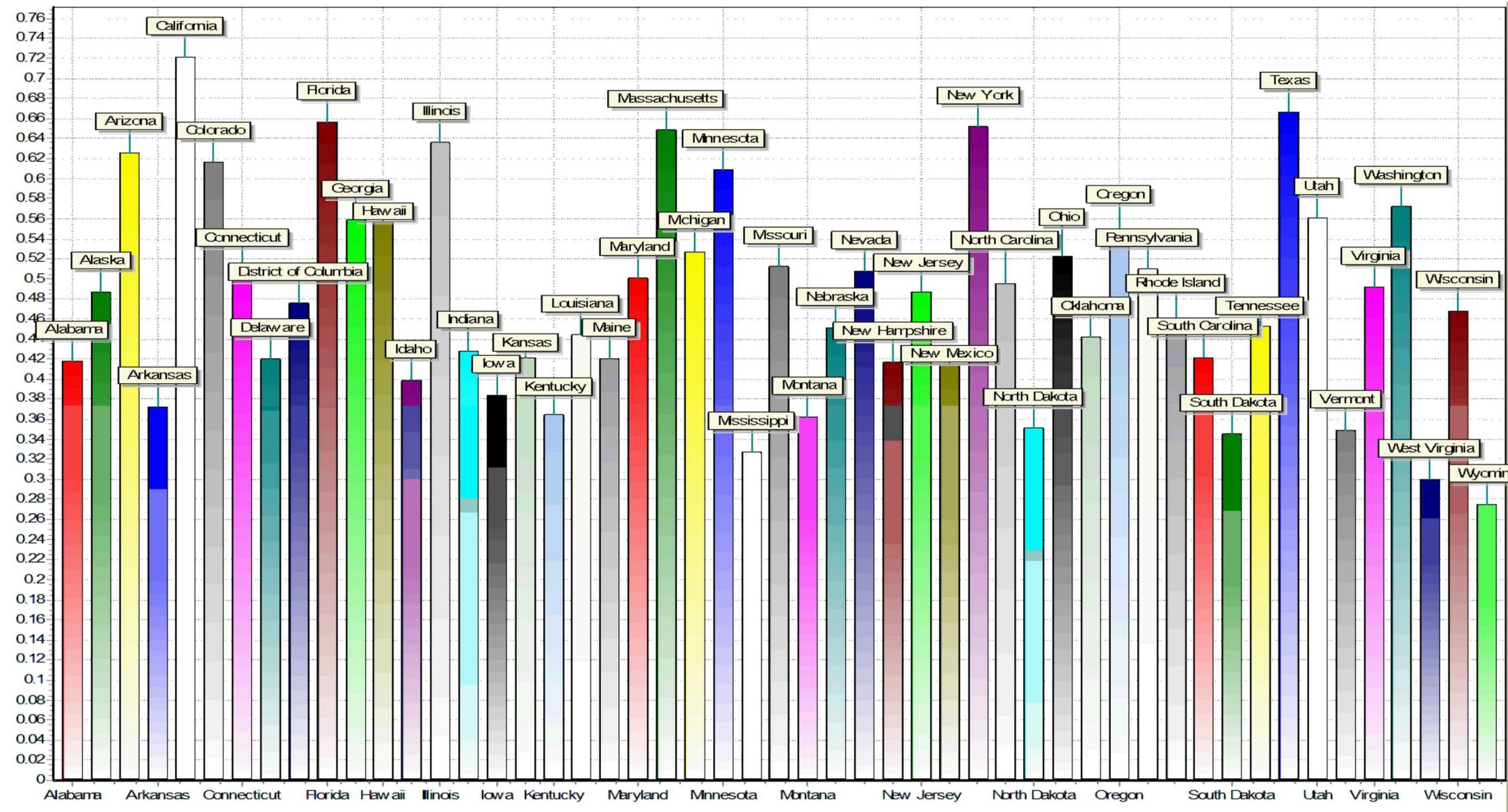
## Employment Impacts (Jobs) of Six-Month Freight Disruption, by State and



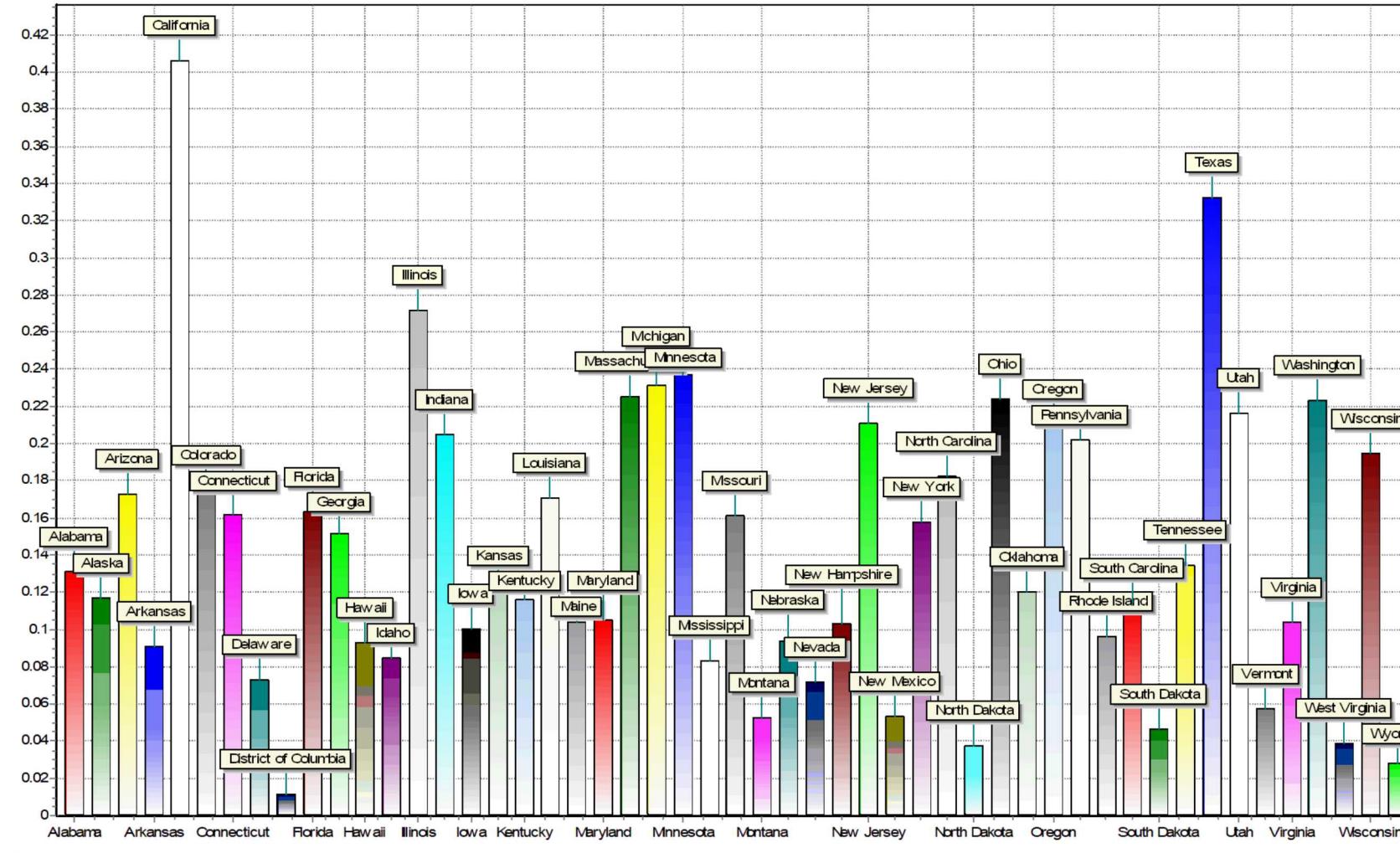
# Economic Migration Impacts (1000s) of Six-Month Freight Disruption



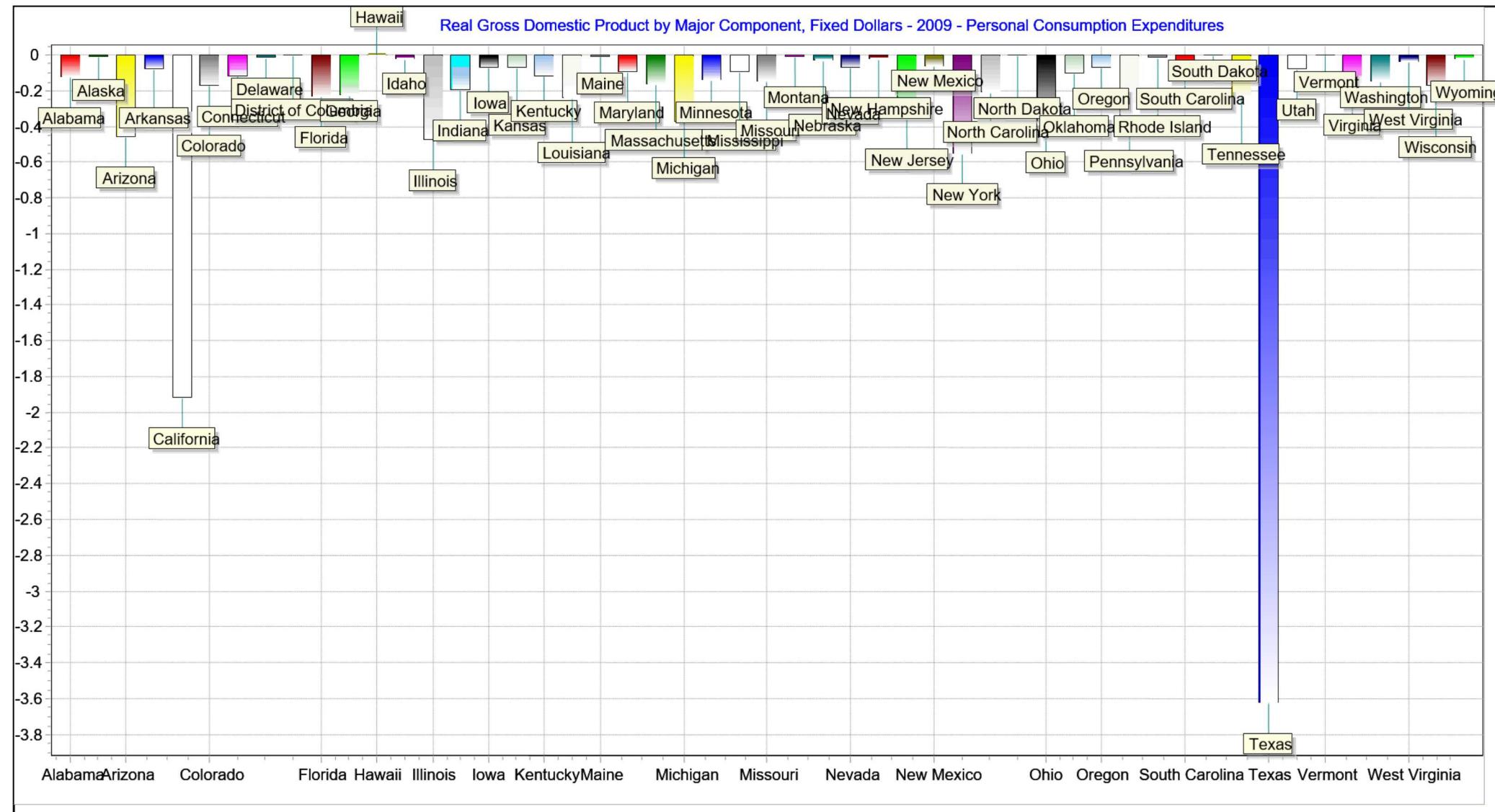
## Regional Purchase Coefficient for all Industries, by State



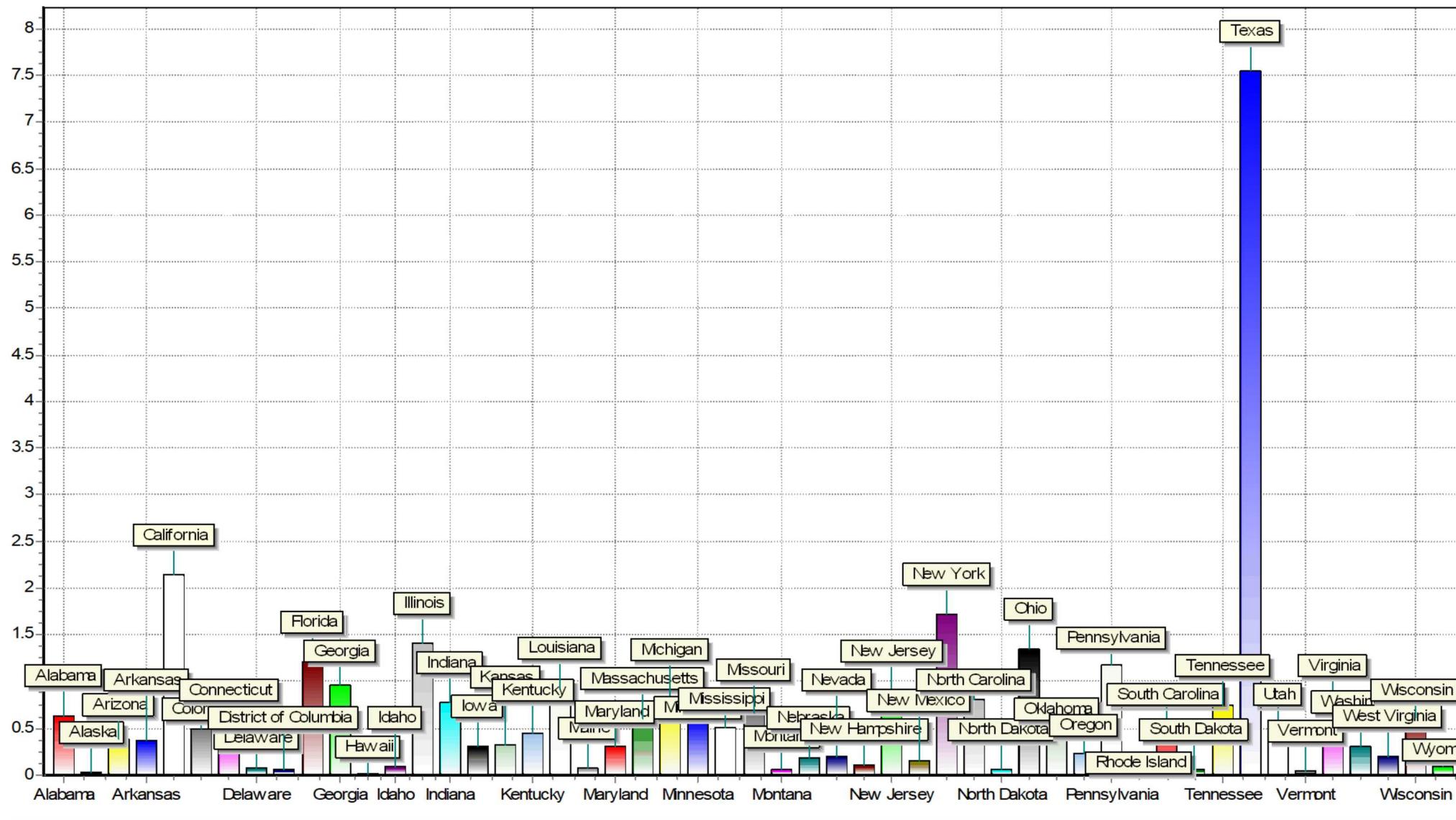
# Regional Purchase Coefficients for Manufacturing Sector, by US State



# GDP Impacts (\$B) of Lost Exports, by U.S. State



# GDP Impacts (\$B) of Lost Imports, by U.S. State



## GDP Impacts (\$B) of Lost Maquiladora Trade, by US state



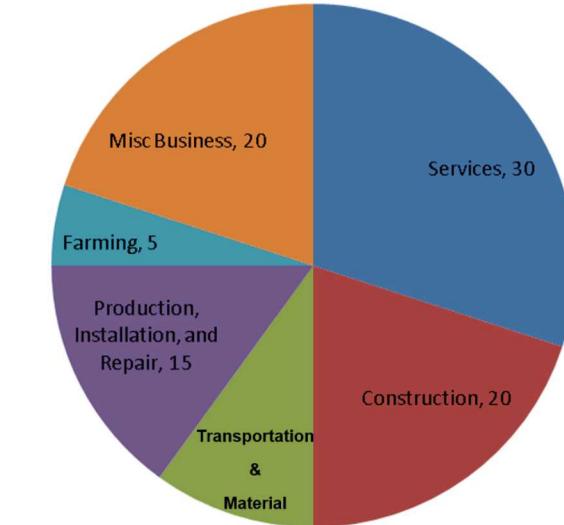
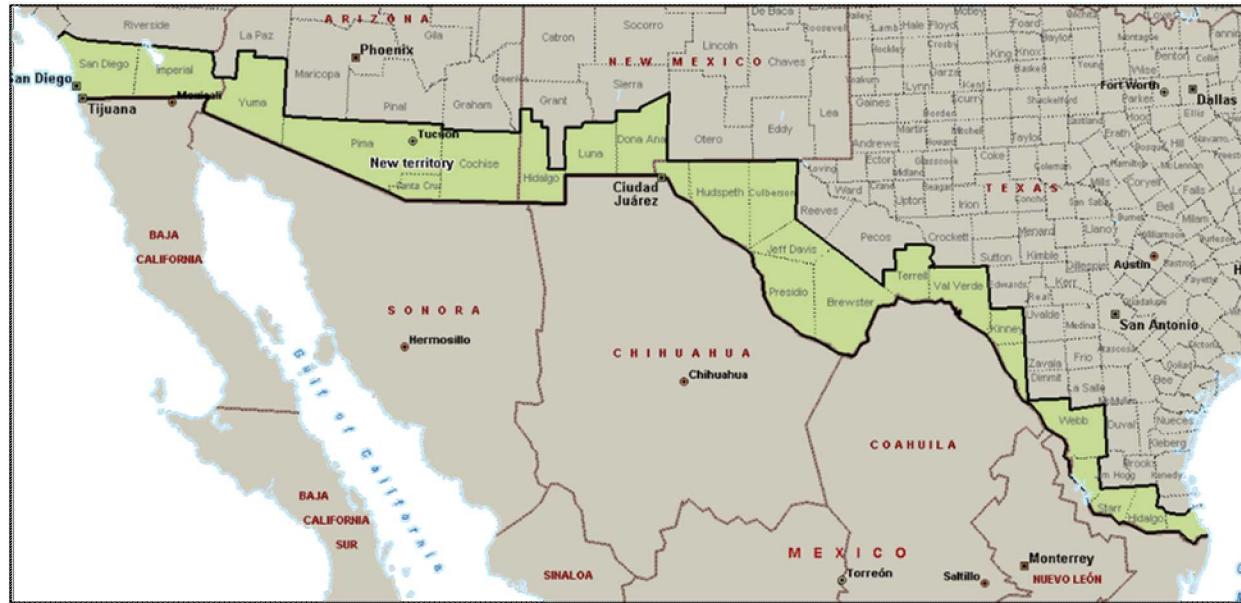


Figure 3-18: Distribution of Impacted Mexican Day Labor (%), by Economic Sector

Table 3-5: Macroeconomic Impacts of Two-Week Pedestrian Disruption

| Category               | Units                            | Value  | % U.S.   |
|------------------------|----------------------------------|--------|----------|
| Gross Domestic Product | Millions of Fixed (2010) Dollars | -400   | -0.0031% |
| Total Employment       | Number of Jobs                   | -4,600 | -0.0026% |
| Personal Income        | Millions of Current Dollars      | -240   | -0.002%  |

Table 3-6: Macroeconomic Impacts of Six-Month Pedestrian Disruption

| Category               | Units                            | Value   | % U.S.  |
|------------------------|----------------------------------|---------|---------|
| Gross Domestic Product | Billions of Fixed (2010) Dollars | -1.5    | -0.011% |
| Total Employment       | Number of Jobs                   | -19,140 | -0.011% |
| Personal Income        | Millions of Current Dollars      | -900    | -0.007% |

# Jobs Impacts

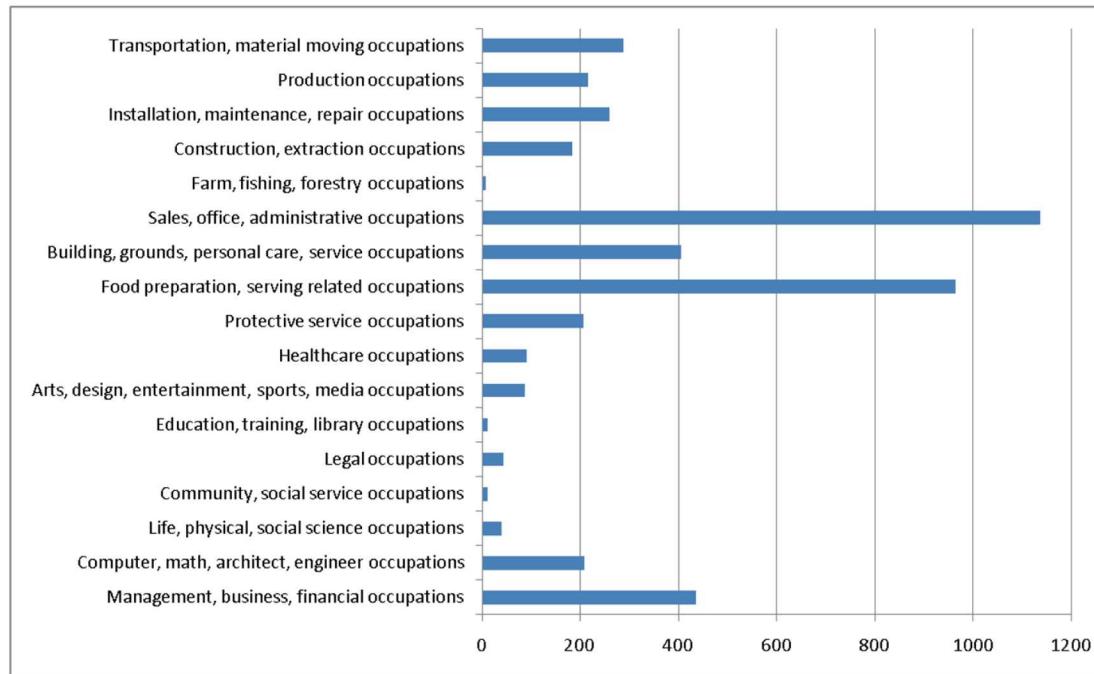


Figure 3-21: Employment Impacts (Jobs) of Two-Week Pedestrian Disruption

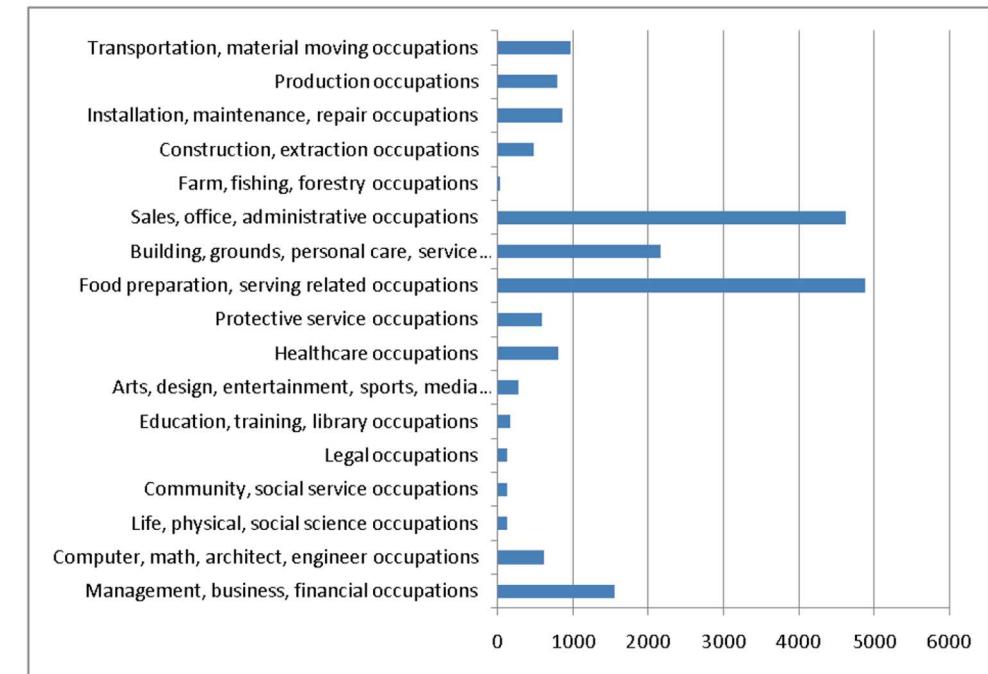


Figure 3-24: Employment Impacts (Jobs) of Six-Month Pedestrian Traffic Disruption, by Job Classification

## Discussion

- What does this prototypically represent as a more general shock to the US economy?
- What dynamics are we *\*not\** capturing with this analysis?
- What are pre-emptive policies that could lessen the effects of physical border closure?



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