



# Boxed In

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Columbia University

# Bboxed In

How Intermodalism Enabled  
Destructive Interport Competition

**1. Methods**

**2. Theory**

**3. Pressures**

**4. Competition**

**5. Job creation**

**6. Monopolies**

**7. Policy**



**Methods**

## **Spatial regression**

County Business Patterns, FHA, NHGIS, Book of States

## **GIS mapping**

NHGIS, Containerisation International Yearbook, World Port Source

## **Archival**

*Cargo Handling, Waterfront Worker*, NAPA minutes

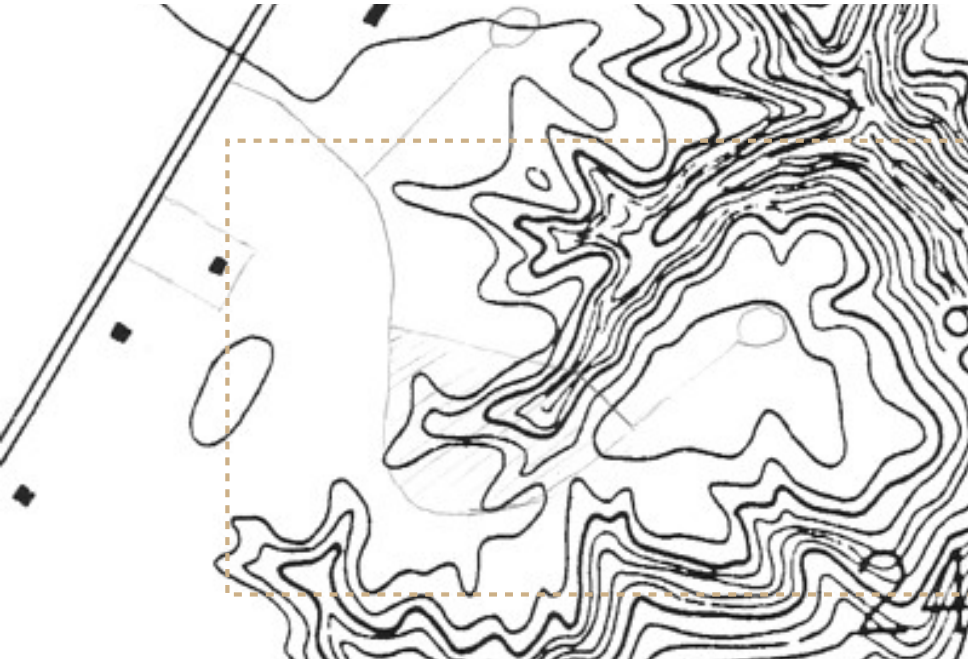
## **Case study**

Interviews, industry journals, newspapers

# 2

**Theory**

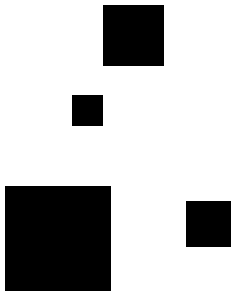
## Territory and terrain



**Area of effective production**  
= geographic space of possible production



**Diffuse**



**Fragmented**



# 3

**Pressures**

# 1. Technological change



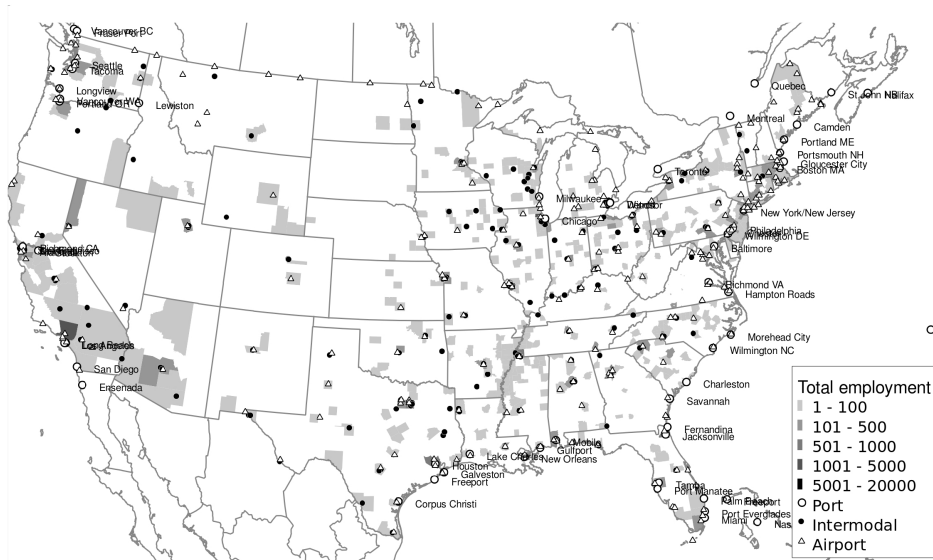
## Ports and hinterlands



## Overlapping hinterlands

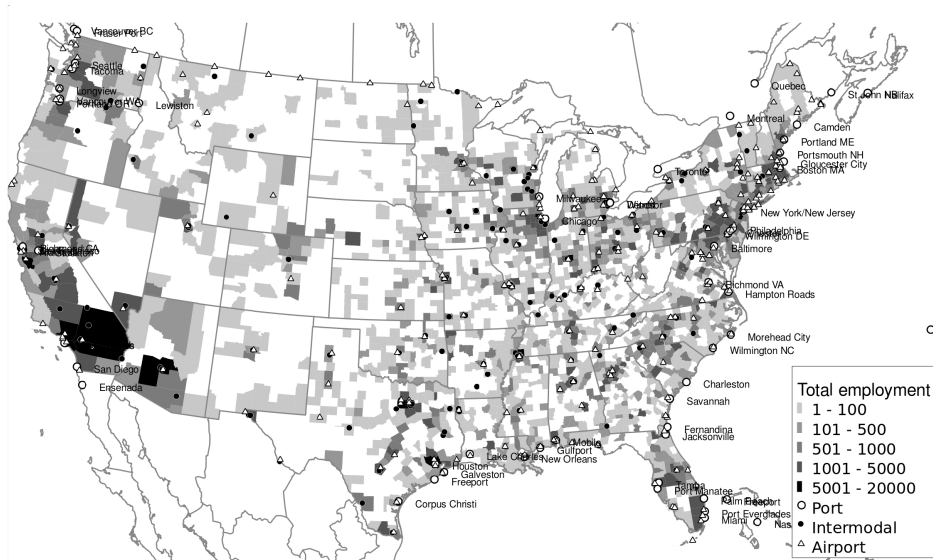


# Total employment in general warehousing (SIC 4225) in 1974 by county



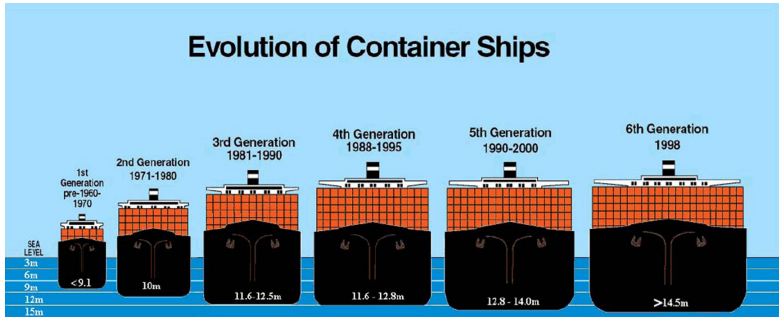
Source: NHGIS and County Business Patterns

# Total employment in general warehousing (NAICS 493111 and 531130) in 2007 by county

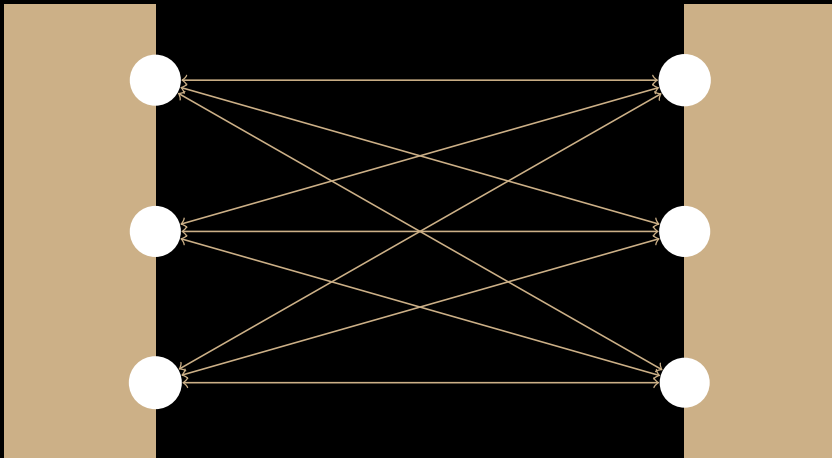


Source: NHGIS and County Business Patterns

## 2. Perverse incentives

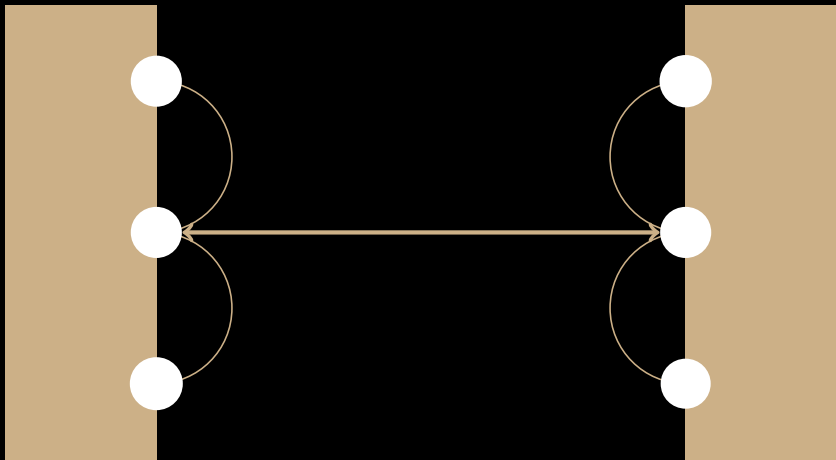


## Pre-container shipping routes

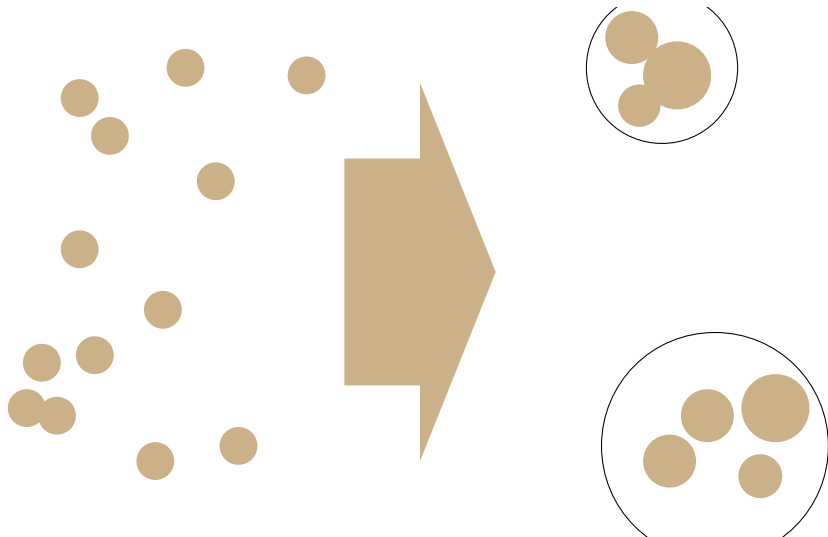




## Load center hub-and-spoke network



### 3. Deregulation and concentration



# 4

**Competition**



# Port authority fragmentation



# Port authority fragmentation



**Port costs**

\$700m subsidy

Other bidders

Lower bargaining



**Labor  
fragmentation**



**Labor costs**

Poorer working conditions  
Weakened bargaining  
No job creation



5

**Job creation**

# Three justifications for subsidy competition

Direct employment

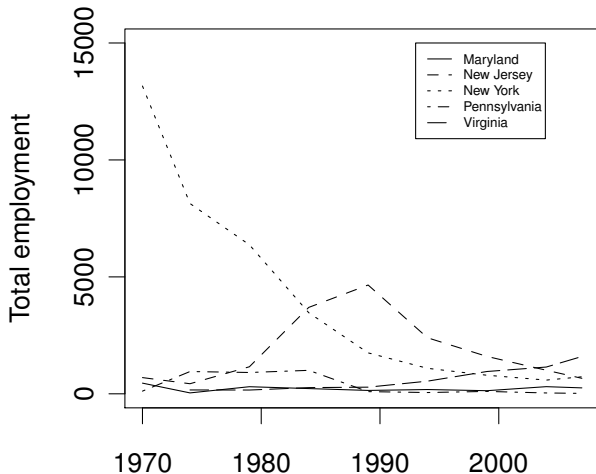
Related employment

Indirect employment

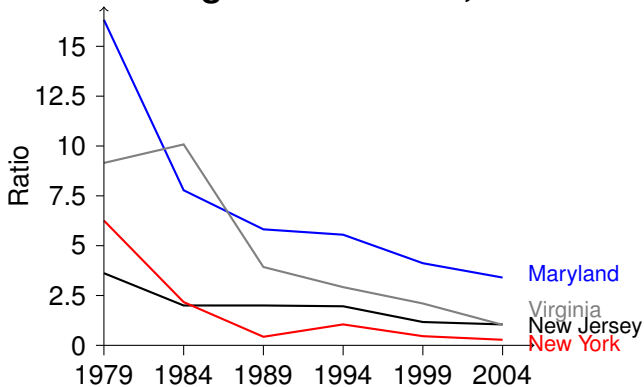
# Three justifications for subsidy competition

Direct employment

## Direct employment: Marine cargo handling



## Ratio of longshoremen to 1,000 TEUs

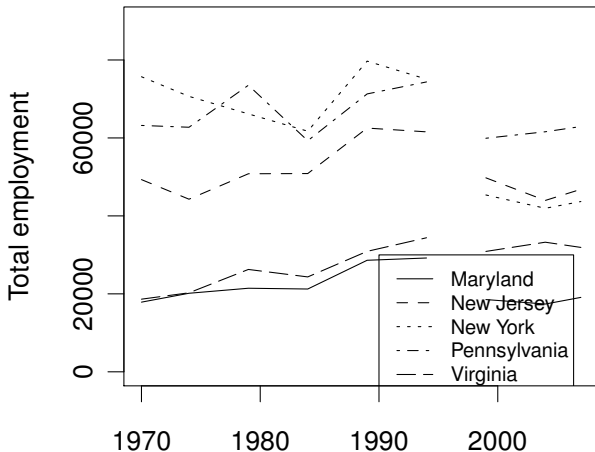


Source: Country Business Patterns

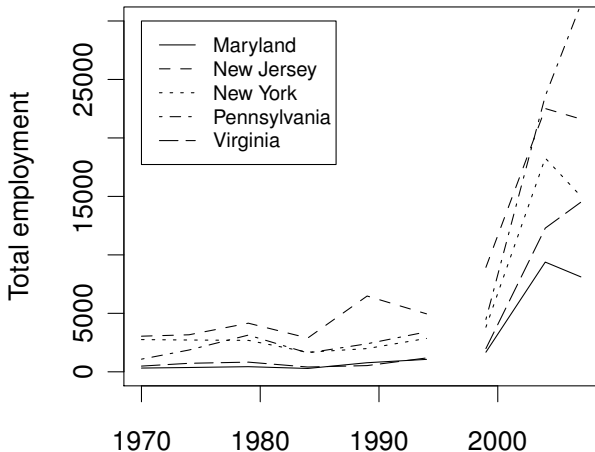
# Three justifications for subsidy competition

Related employment

## Related employment: General freight trucking



## Related employment: General warehousing and storage





# Three justifications for subsidy competition

Indirect employment

## Indirect employment

### Marshall: Decoupling

Transportation  
costs unimportant

Labor pooling

Spillover effects

### Cooley: Coupling

Transportation and  
social organization  
shape each other

Mechanical breaks  
drive location

## Marshall versus Cooley

	Marshall	Cooley
Natural resources	Decoupled	Decoupled
Heavy industry	Decoupled	Decoupled (?)
Manufacturing	Decoupled	Coupled
Retail	Decoupled	Coupled
Creative	Decoupled	Decoupled

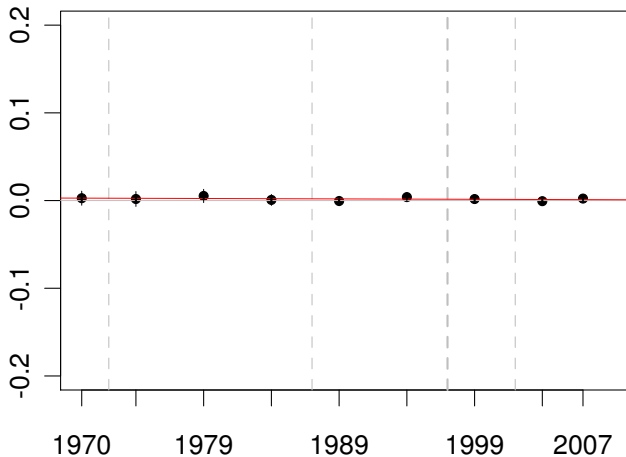
# Variable definitions

**Table: Variables**

Variables	Descriptions
emp_log	Log of total employment in selected industry classification
pop_density_log	Log of population density, which reflects the relative urbanization of the county
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intermodal	100km from county centroid to closest intermodal terminal (as recorded in 2000) that is greater than 80km from a port

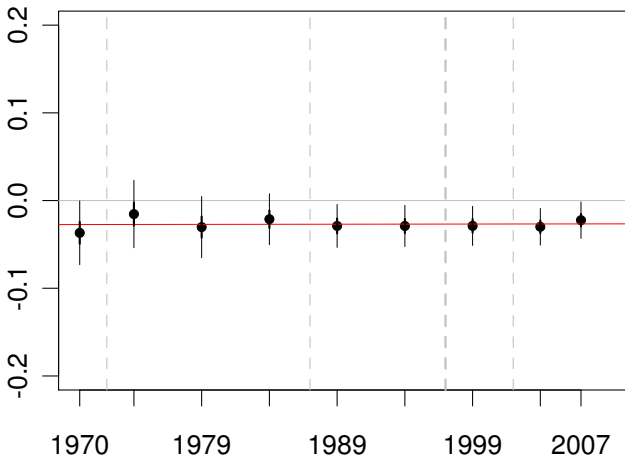
# Natural resources: Mining, Iron Ore

port



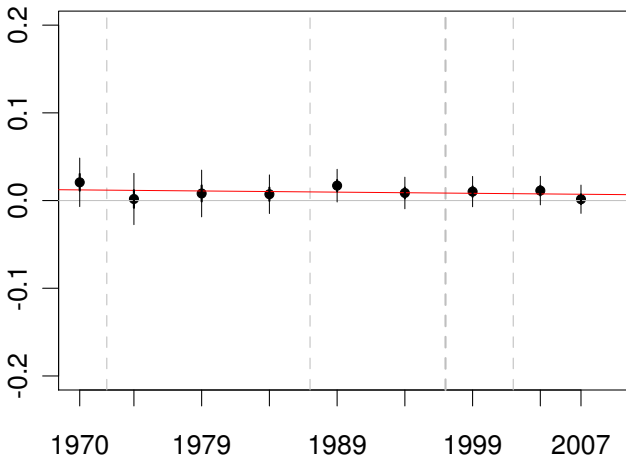
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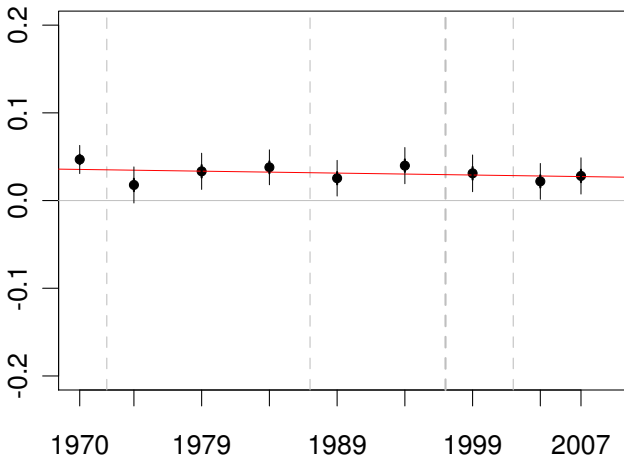
# Natural resources: Mining, Iron Ore

intermodal



# Heavy industry: Ready-Mix Concrete

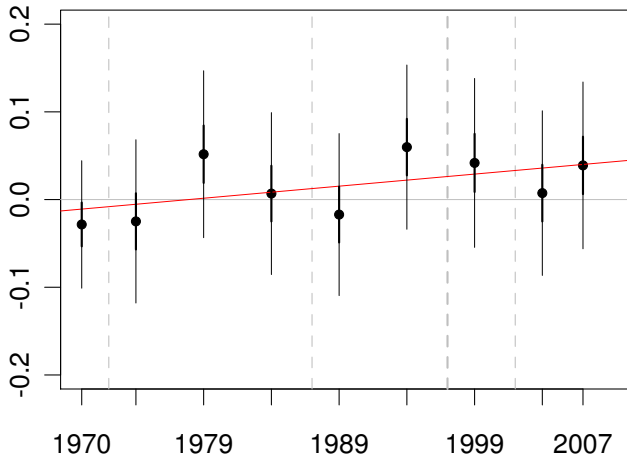
port





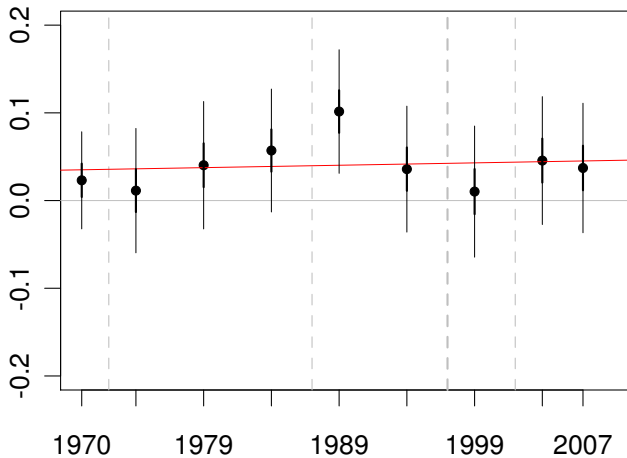
# Heavy industry: Ready-Mix Concrete

airport



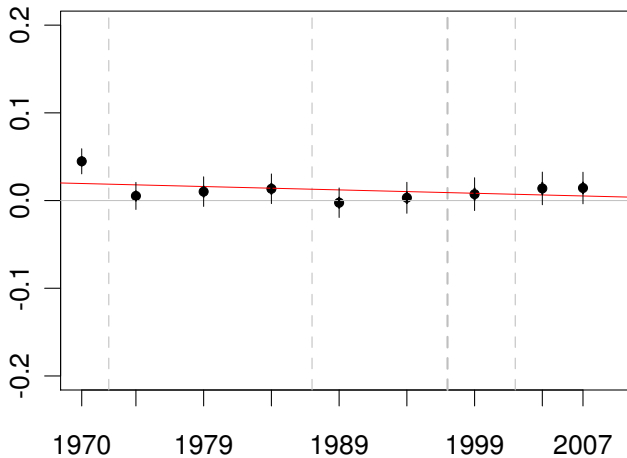
# Heavy industry: Ready-Mix Concrete

intermodal



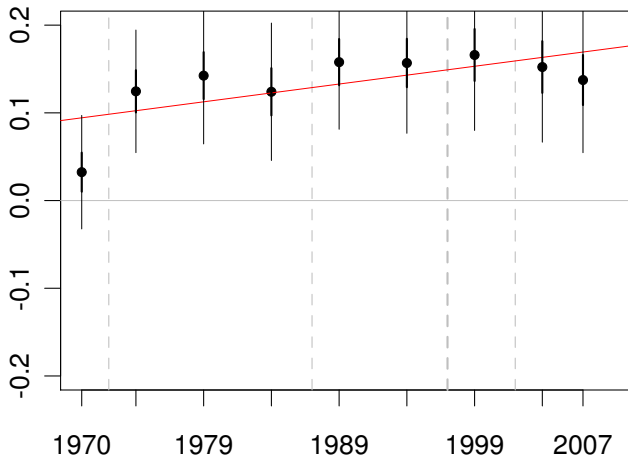
# Retail: Bookstores

port



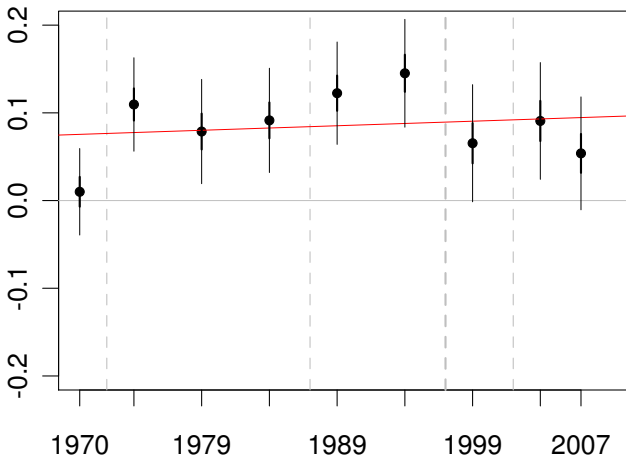
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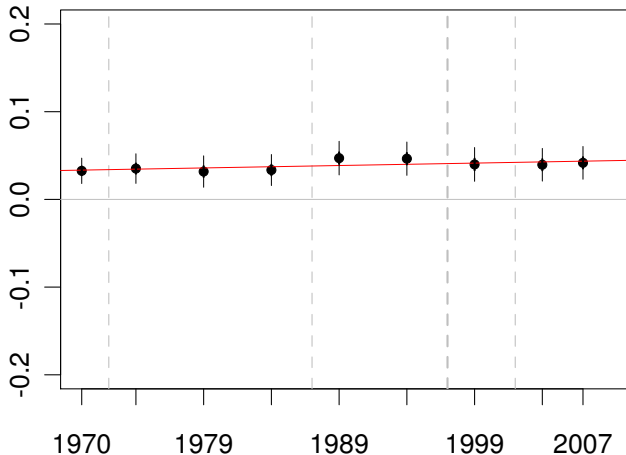
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intermodal



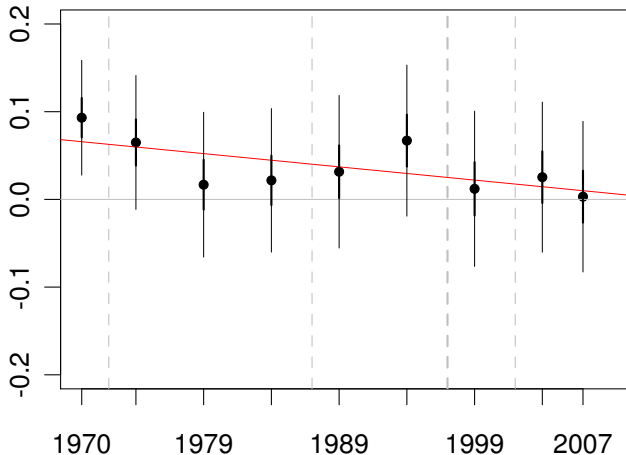
# Manu: Electroplating, plating, polishing, anodizing, & coloring

port



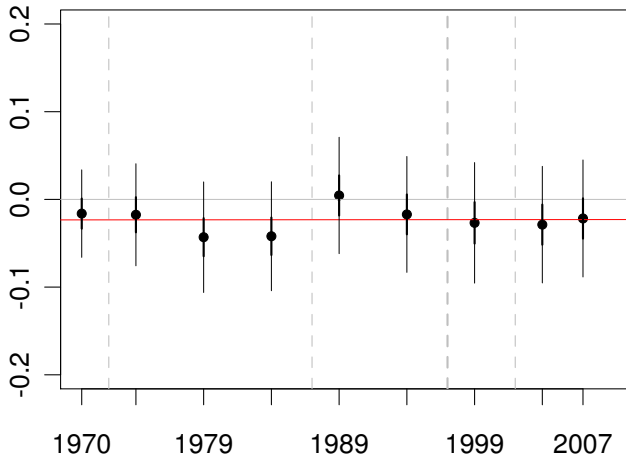
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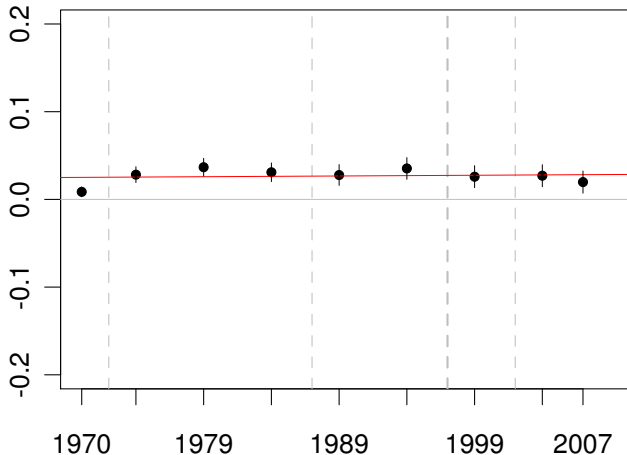
intermodal





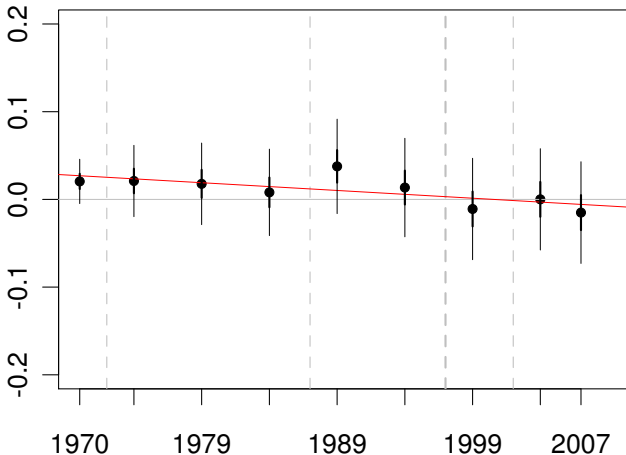
# Creative: Motion picture and video production

port



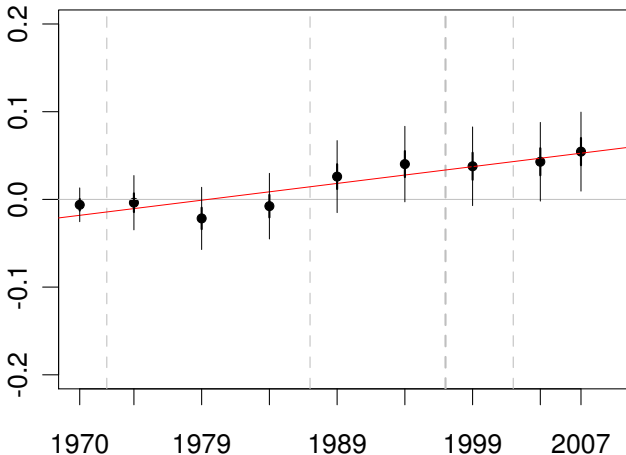
# Creative: Motion picture and video production

airport



# Creative: Motion picture and video production

intermodal



## Marshall versus Cooley: Revisited

	Marshall	Cooley	Findings
Natural resources	Decoupled	Decoupled	Decoupled
Heavy industry	Decoupled	Decoupled (?)	Decoupled
Manufacturing	Decoupled	Coupled	Decoupled
Retail	Decoupled	Coupled	Decoupled
Creative	Decoupled	Decoupled	Uncertain

# Conclusions

Ports  $\neq$  engines of regional growth

Coupled activity  $\rightarrow$  intermodal terminals and airports

An aerial photograph of a city, likely San Francisco, showing the Golden Gate Bridge and the surrounding urban landscape. The city is densely packed with buildings and green spaces, with the water of the bay visible in the foreground and background.

# Destructive competition

Unnecessary

Local costs, nat'l benefits

Transfers wealth

Lowers working conditions

# 6

**Alternatives**



# Big Strike SF, 1934





**Policy**

## **Port consolidation**

**Protect labor gains**

**Stop transfer of wealth to global companies**

**End of local costs for national benefits**

**Port pricing in national interest**



Thank you.

# Appendix

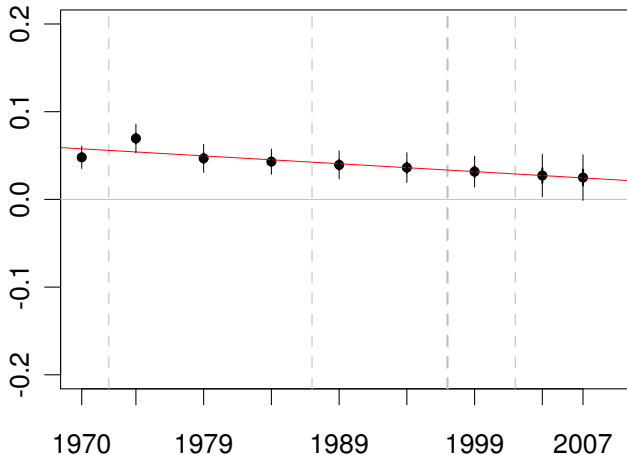
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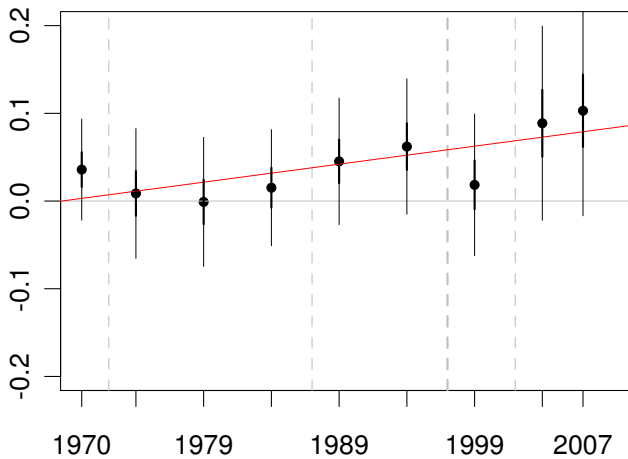
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# Transportation and warehousing: General warehousing and storage

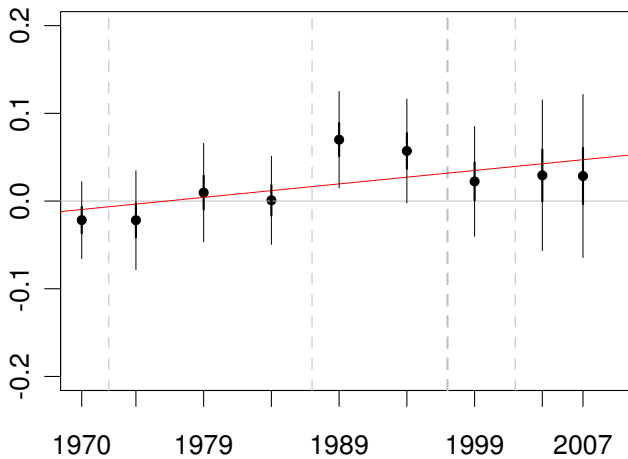
port



## airport



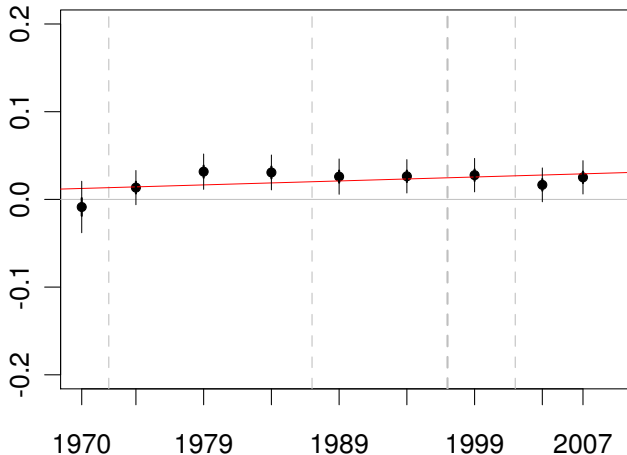
## intermodal



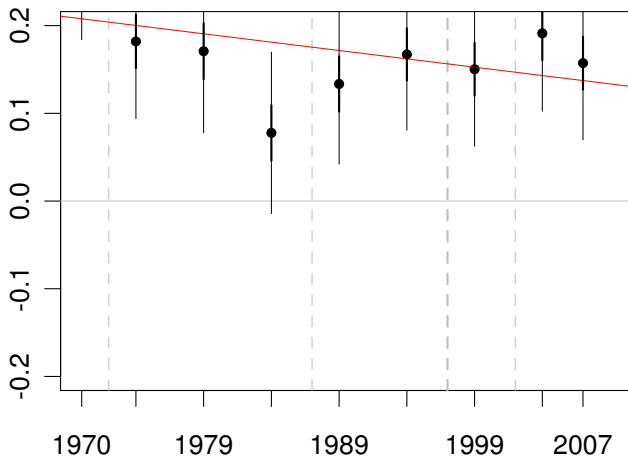


# Transportation and warehousing: General freight trucking

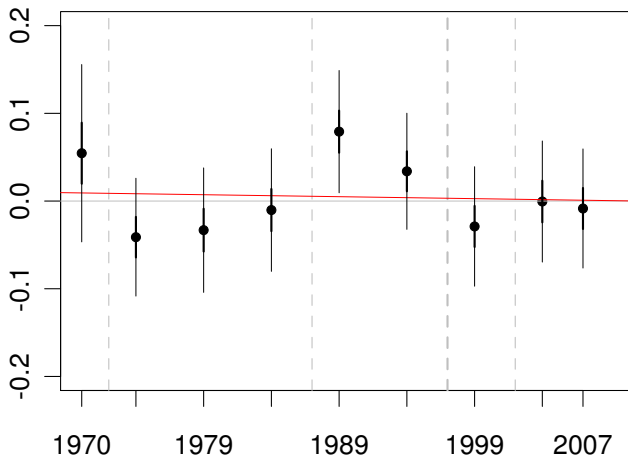
port



## airport

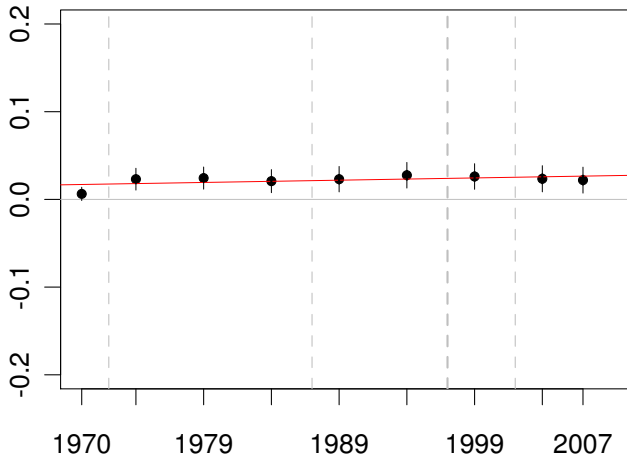


## intermodal

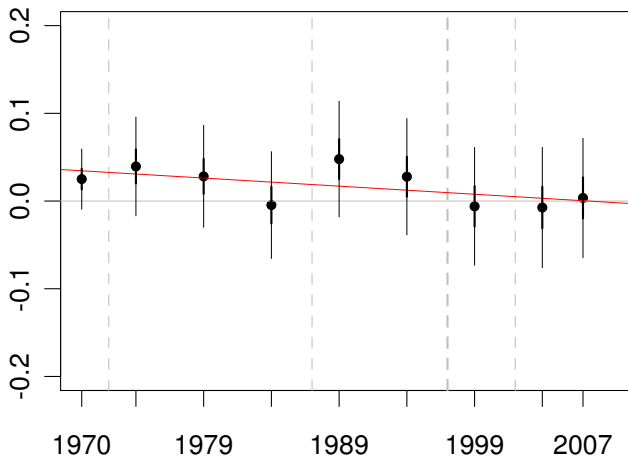


# Manufacturing: Adhesive manufacturing

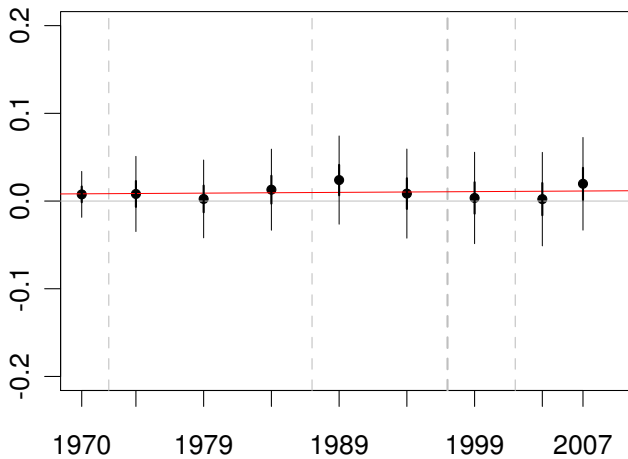
port



## airport

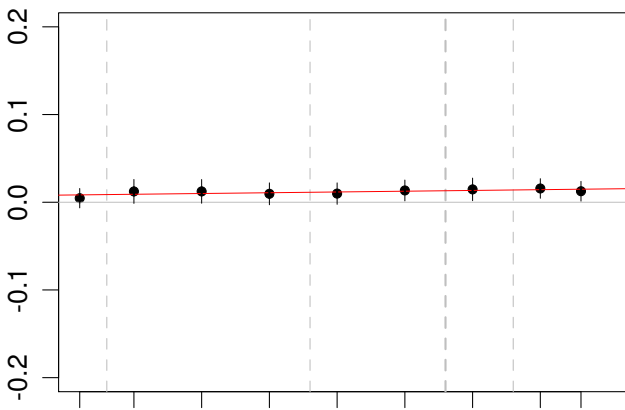


## intermodal

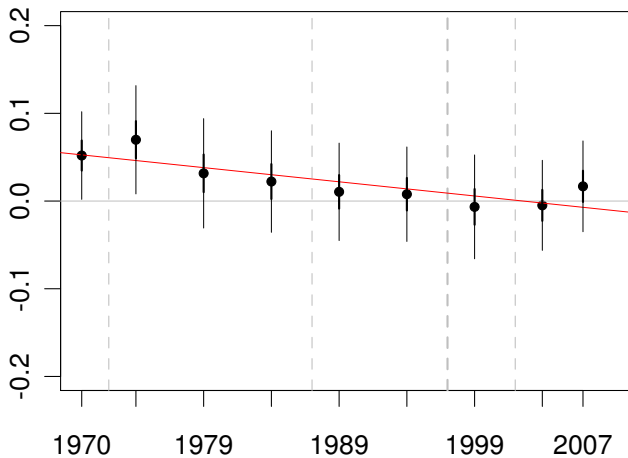


# Manufacturing: Machine Tool Manufacturing, Metal Forming Types

port

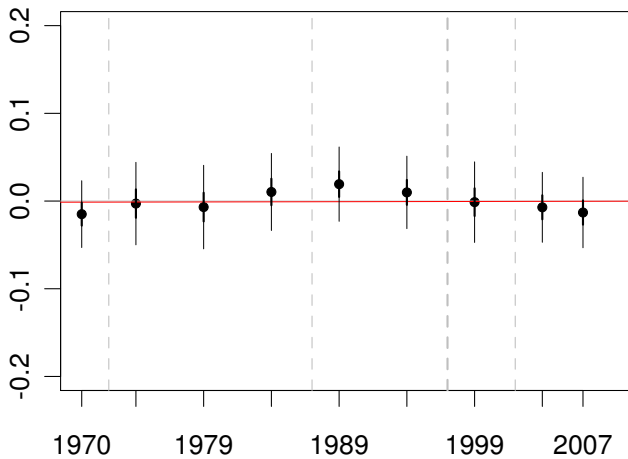


## airport



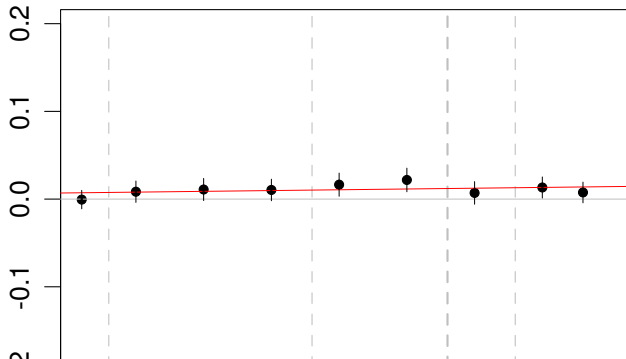


## intermodal

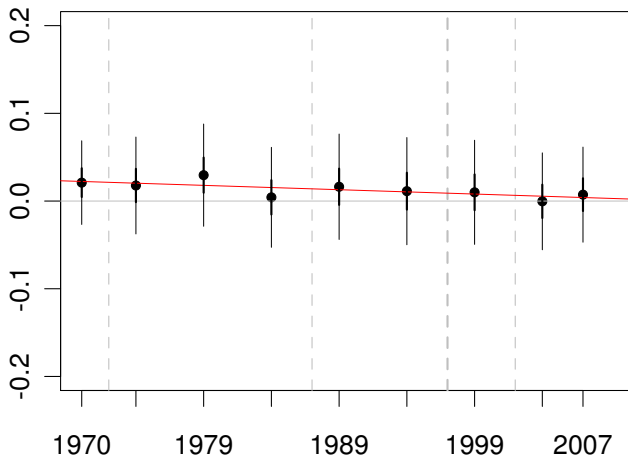


# Manufacturing: Automatic Environmental Control Manufacturing for Residential, Commercial, and Appliance Use

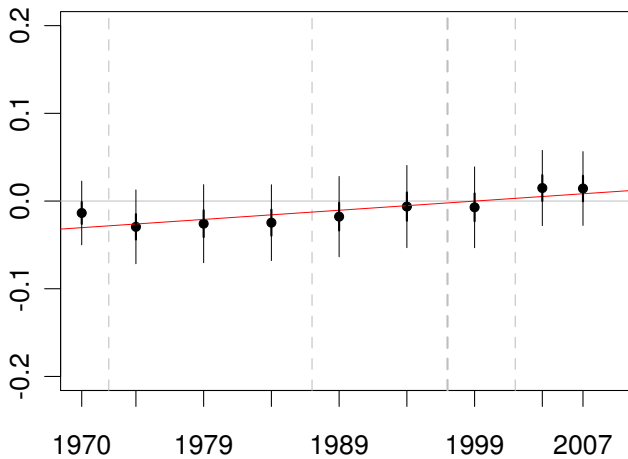
port



## airport

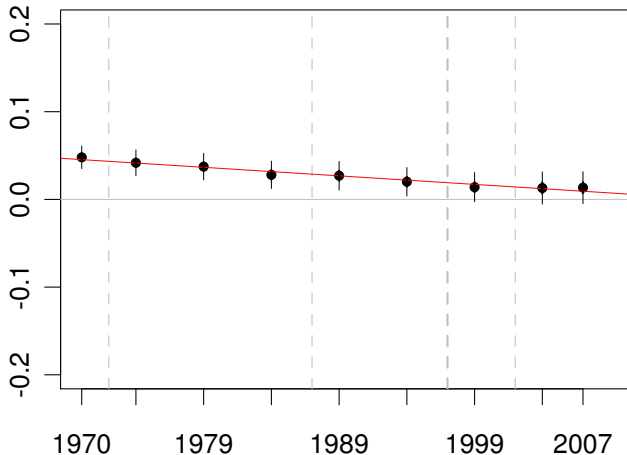


## intermodal

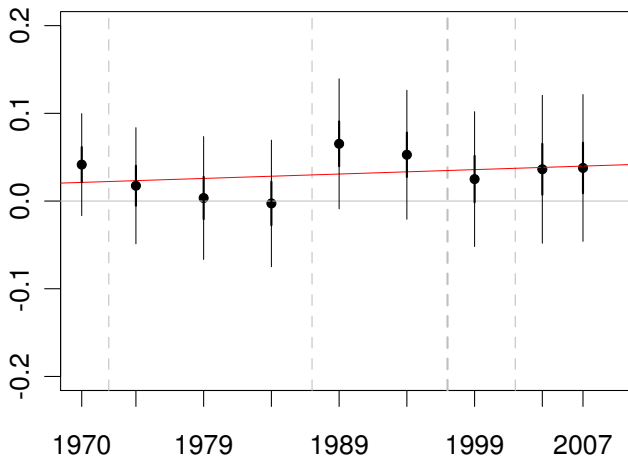


# Creative: Periodical publishers

port



## airport



## intermodal

