

# Clusters: A Framework for Economic Development

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# Roadmap

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- **Making Sense of Your Economy**
- **A Cluster Example**
- **Integrating Clusters into Economic Development**

# State economies are complex

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- Billions of transactions
- Millions of workers, customers
- Tens of thousands of firms

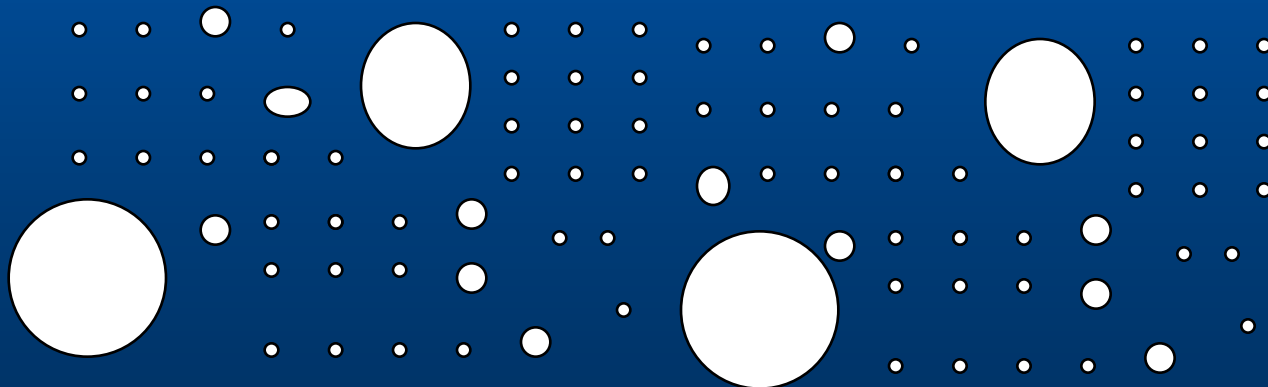
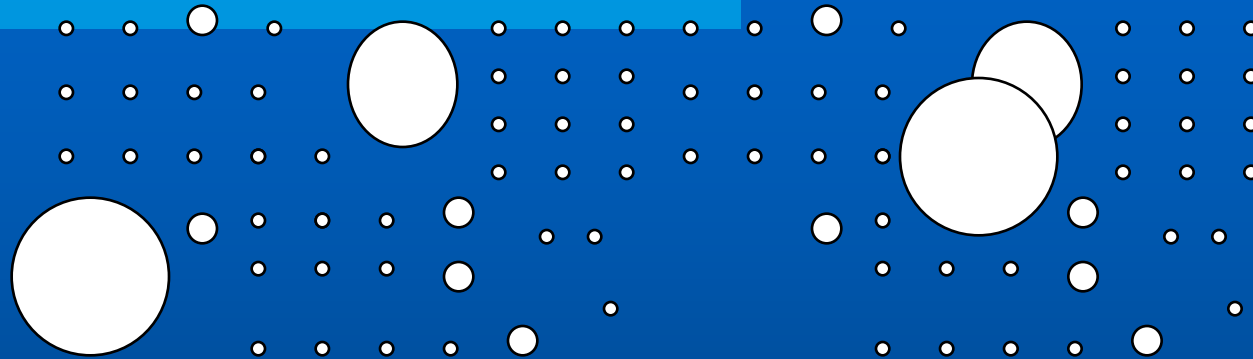
**Question:**

**How can your policies and programs reach and influence this huge, complex system?**

# Washington State

<b>Firm Size</b>	<b>Workers</b>	<b>Establishments</b>
< 5 employees	208,600	141,200
5 to 9	209,100	31,700
10 to 19	274,000	20,300
20 to 49	406,000	13,400
50 to 99	299,000	4,300
100 to 249	360,000	2,400
250 to 499	182,600	500
500 to 999	107,500	160
More than 1000	239,000	75
<b>Total</b>	<b>2,285,800</b>	<b>214,035</b>

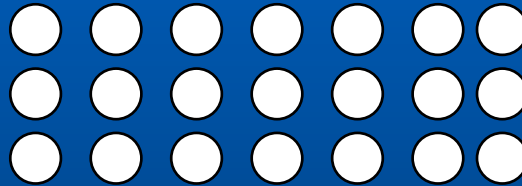
# Picturing the state economy



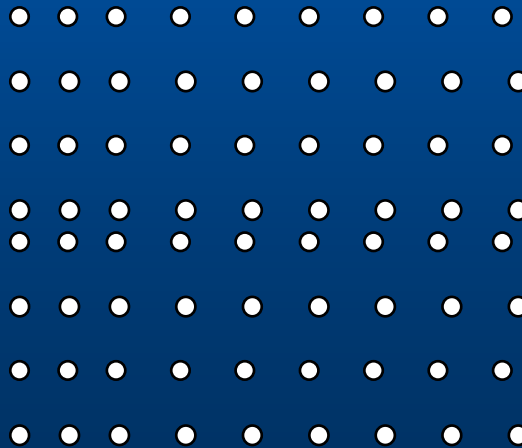
# By business size



Large Business



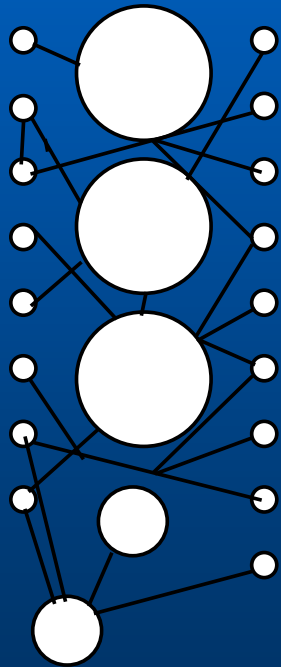
Medium Business



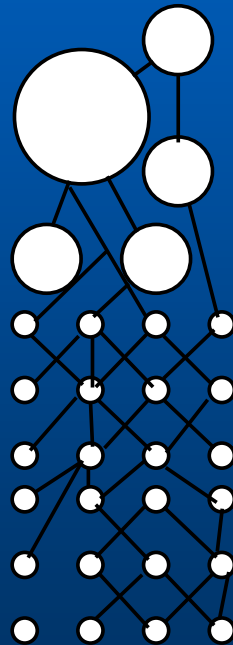
Small Businesses

# By cluster

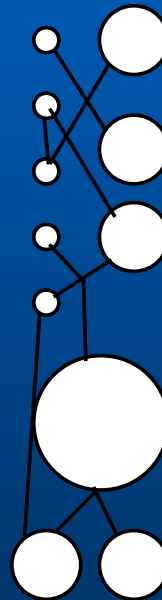
Aerospace



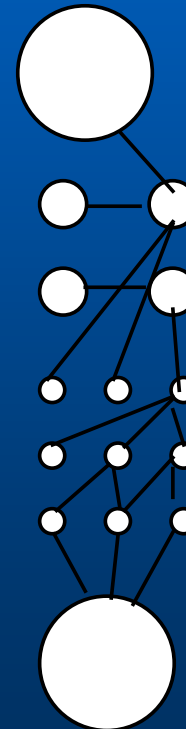
Wood Products



Ag.



Software

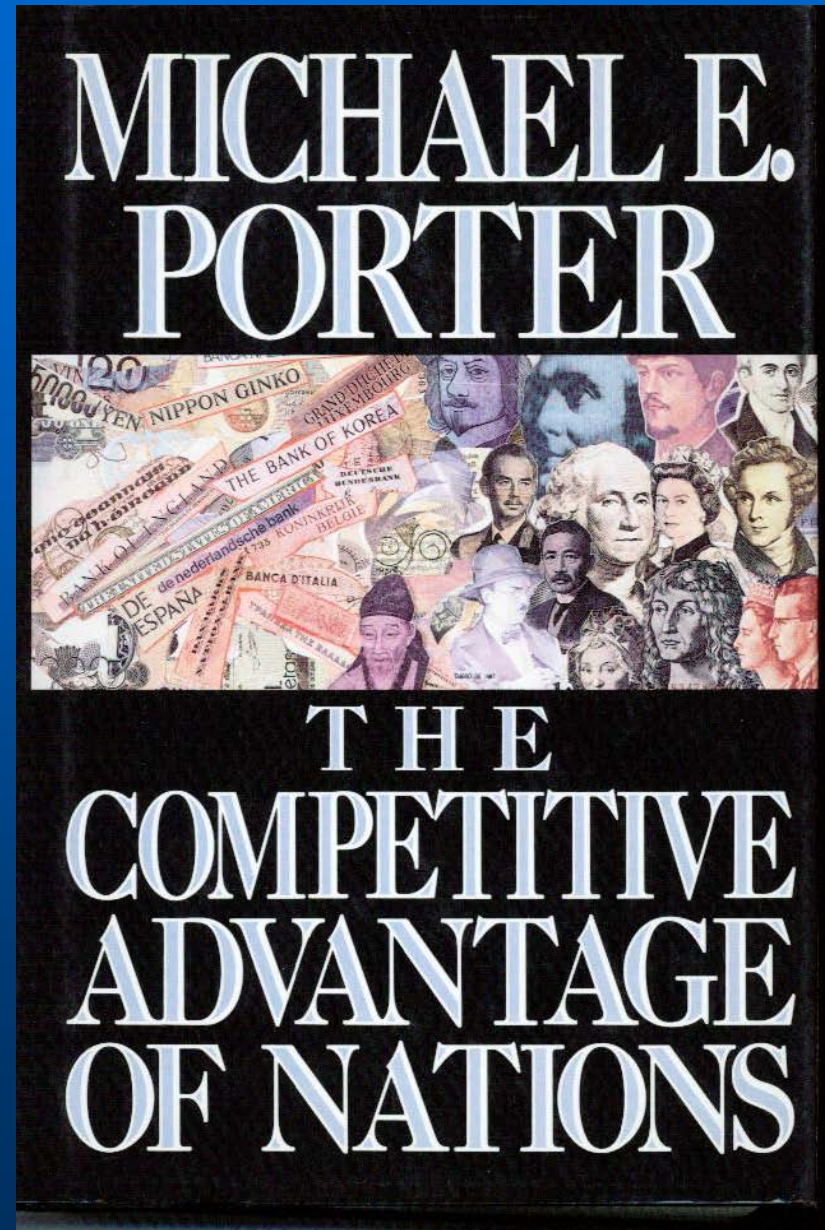


Biotech



# Clusters

- Starts from the business strategy
- Economic success isn't random
- Similar and related businesses draw advantages from proximity
- Clustering holds for most “traded” businesses



# Defining clusters

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**Clusters are geographic concentrations of interconnected companies and institutions in a particular field, including:**

- suppliers of specialized inputs, machinery, services**
- distribution channels and customers**
- manufacturers of complementary products**
- companies related by skills, technologies or common inputs**
- related institutions such as research organizations, universities, standard-setting organizations, training entities, and others**

# Business advantages of clusters

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- Labor Market Pooling
- Supplier Specialization
- Knowledge Spillovers
- Entrepreneurship

# Clusters

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- Ideas
- Relationships
- Place

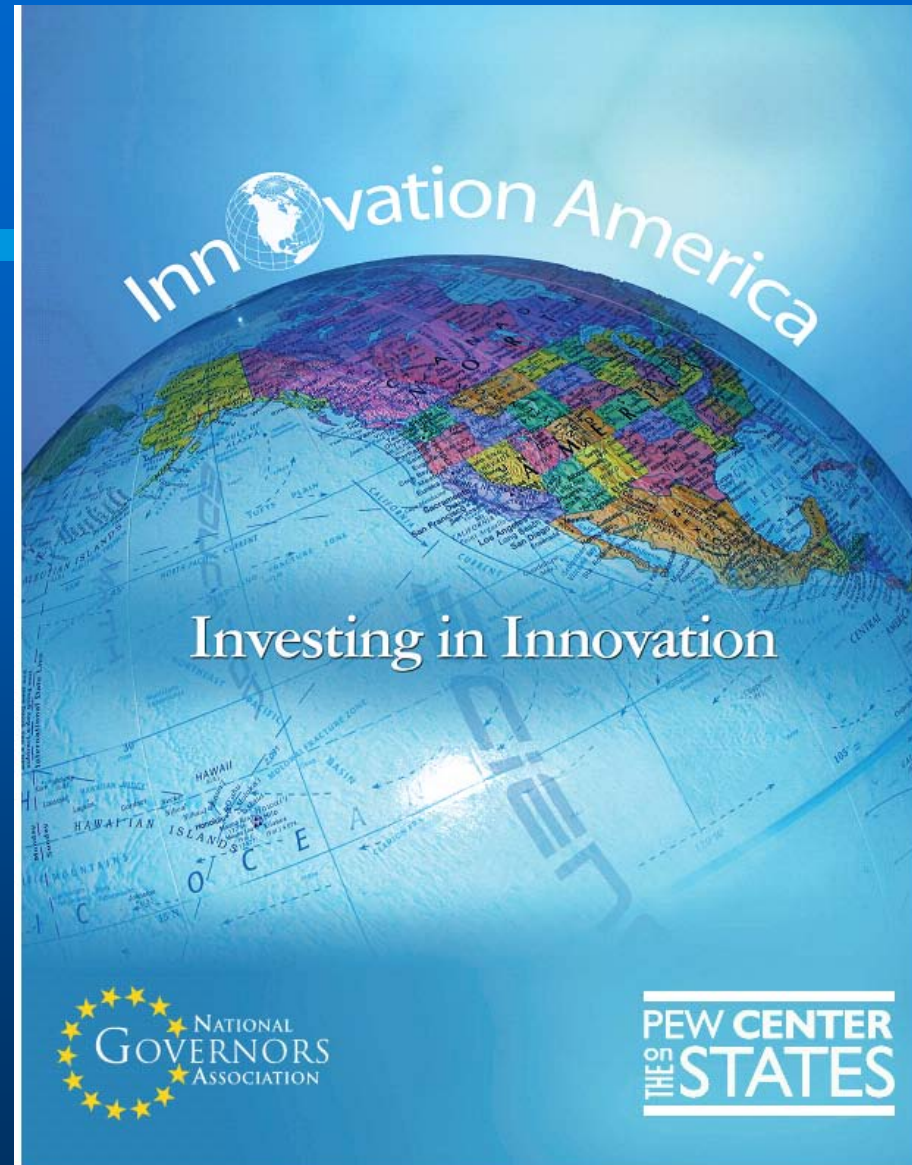
# Cluster Geography

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- **Every cluster has its own geography**
  - Auto cluster (I-65 & I-75 corridors)
  - Garment District: A few city blocks
- **Clusters don't respect state lines**
- **Organize by cluster boundary**
  - Example: NW Food Processors Assn.

# Collaboration

- Promote “Open Innovation” model
- Look to connect to best knowledge available



# ATHLETIC & OUTDOOR

A SIGNATURE INDUSTRY FOR THE PORTLAND REGION

# Definition

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## **Athletic & Outdoor Cluster**

**Firms that design, produce and market apparel, footwear and related equipment for sports, recreational and casual use**

# *Core NAICS Codes for Athletic & Outdoor Cluster*

NAICS Code	Sector Name
315	Apparel Manufacturing
3162	Footwear Manufacturing
33992	Sporting and Athletic Goods Manufacturing
42391	Sporting and Recreational Goods and Supplies Merchant Wholesalers
4243	Apparel, Piece Goods and Notions Merchant Wholesalers
5414	Specialized Design Services
3322	Cutlery and Handtool Manufacturing
336991	Motorcycle, Bicycle, and Parts Manufacturing

Note: Not an exclusive list of firms that are included in the cluster; firms in other NAICS categories, for example, professional services, are part of the cluster, but not the “core.”

# A Global Marketplace

## Sales by Market Area

Company	U.S.	Rest of World
Nike	34.1%	65.9%
Adidas	23.3%	76.7%
Columbia	55.2%	44.8%
LaCrosse	94.8%	5.2%

Note: For Adidas U.S. data covers is N. America.

Source: Company Annual Reports

# Key Metrics

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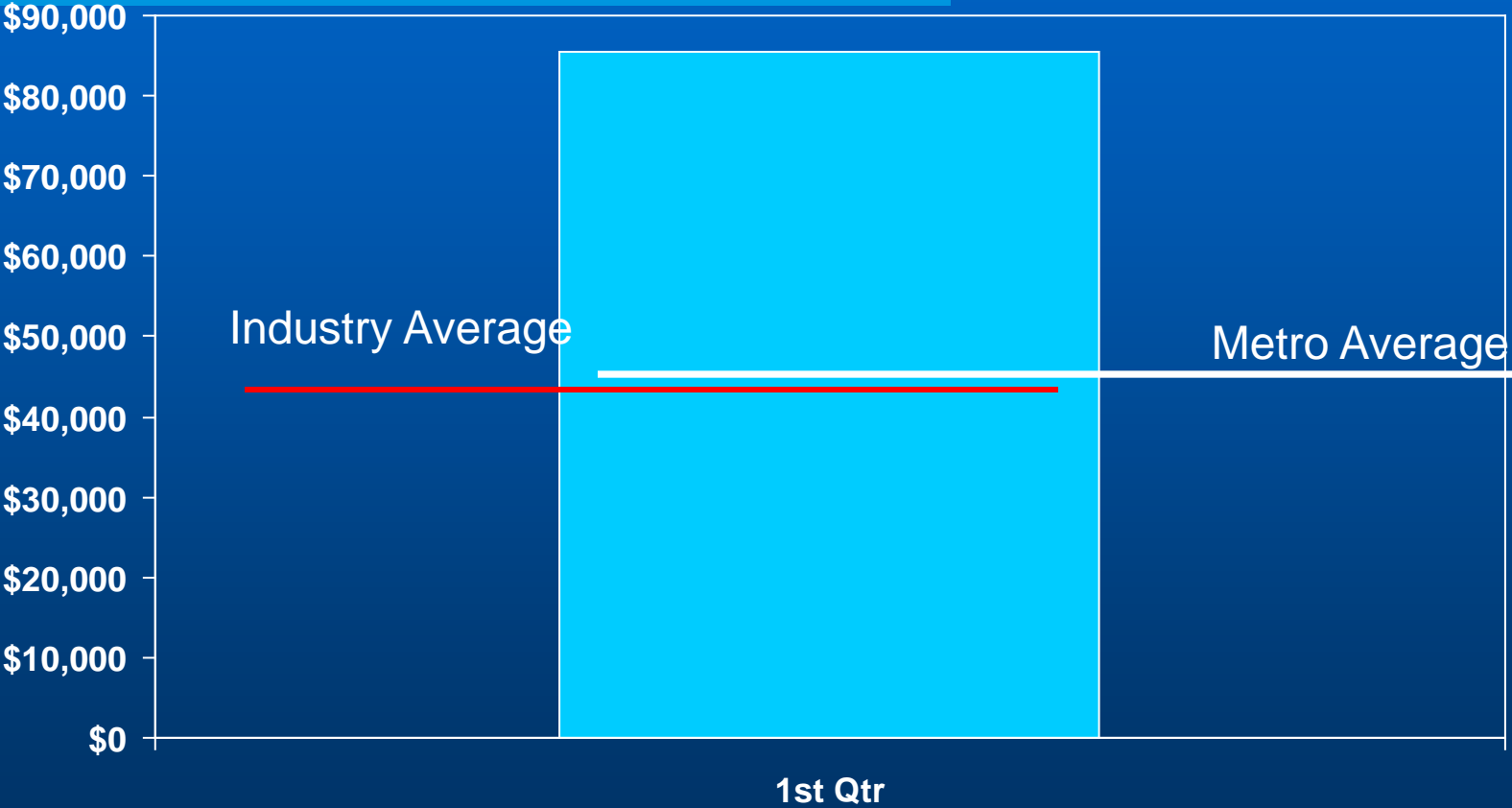
- **14,000 Employees**
- **700 firms with a payroll**
- **3,200 “non-employer” firms**
- **Average wage: \$82,700**

# The Big Three

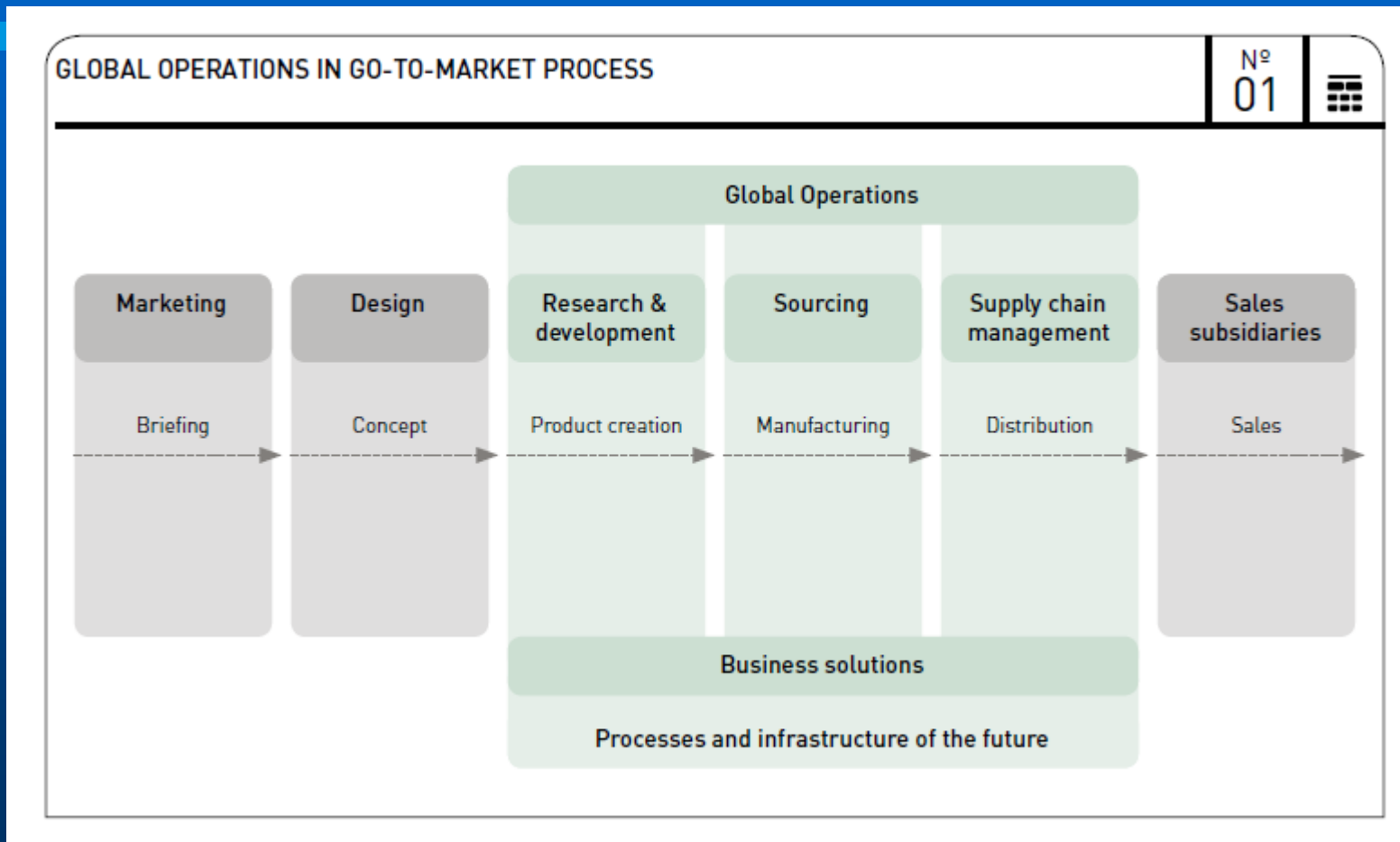
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Firm	Portland	Worldwide
Nike	5,700	34,300
Columbia	1,500	3,100
Adidas	800	38,982

# High Wages

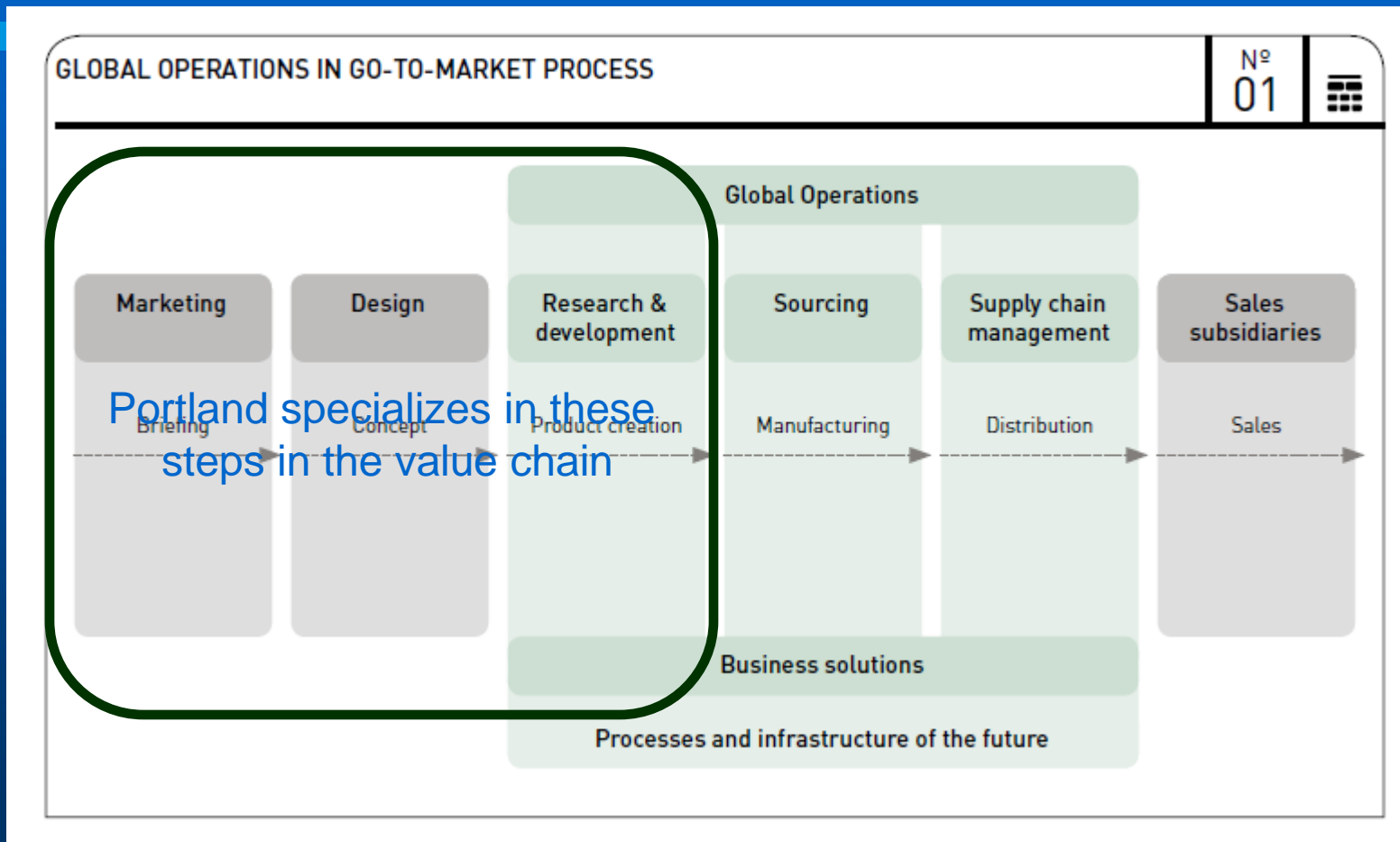


# Athletic & Outdoor value chain



Source: adidas 2009 Annual Report, page 88

# Portland: high value functions



# Athletic & Outdoor Value Chain

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<u>Function</u>	<u>Location</u>	<u>Wage</u>
Production	China	\$2-\$3/hour
Distribution	Midwest	\$12-14/hour
Design, Finance Marketing, Mgt.	Portland	\$40/hour

# Patent Analysis

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- **Patents by firm**
- **Market share of patents in key classifications**
- **Time series data on patents**
- **Relative contribution to Oregon patenting**

FIG. 1

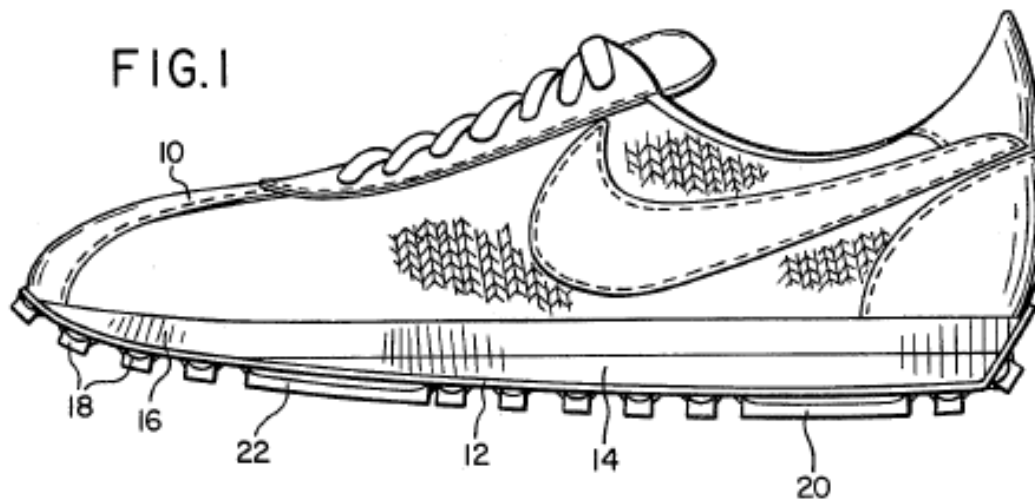
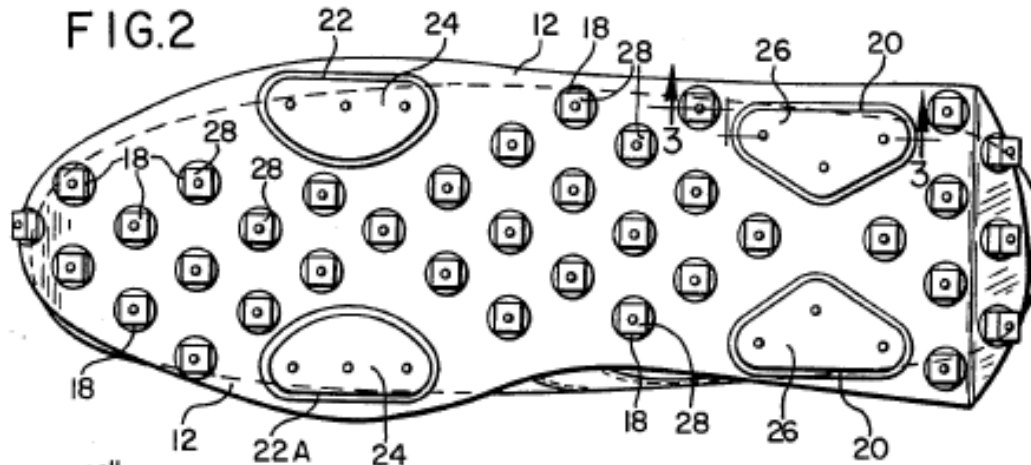


FIG. 2



# Footwear Patents

## Footwear Patents (Class 36), by State, 1990 to 2010

1	Oregon	274
2	California	239
3	Massachusetts	182
4	Washington	72
5	Florida	54
6	Michigan	54
7	North Carolina	49
8	New York	48
9	Ohio	44
10	Vermont	44

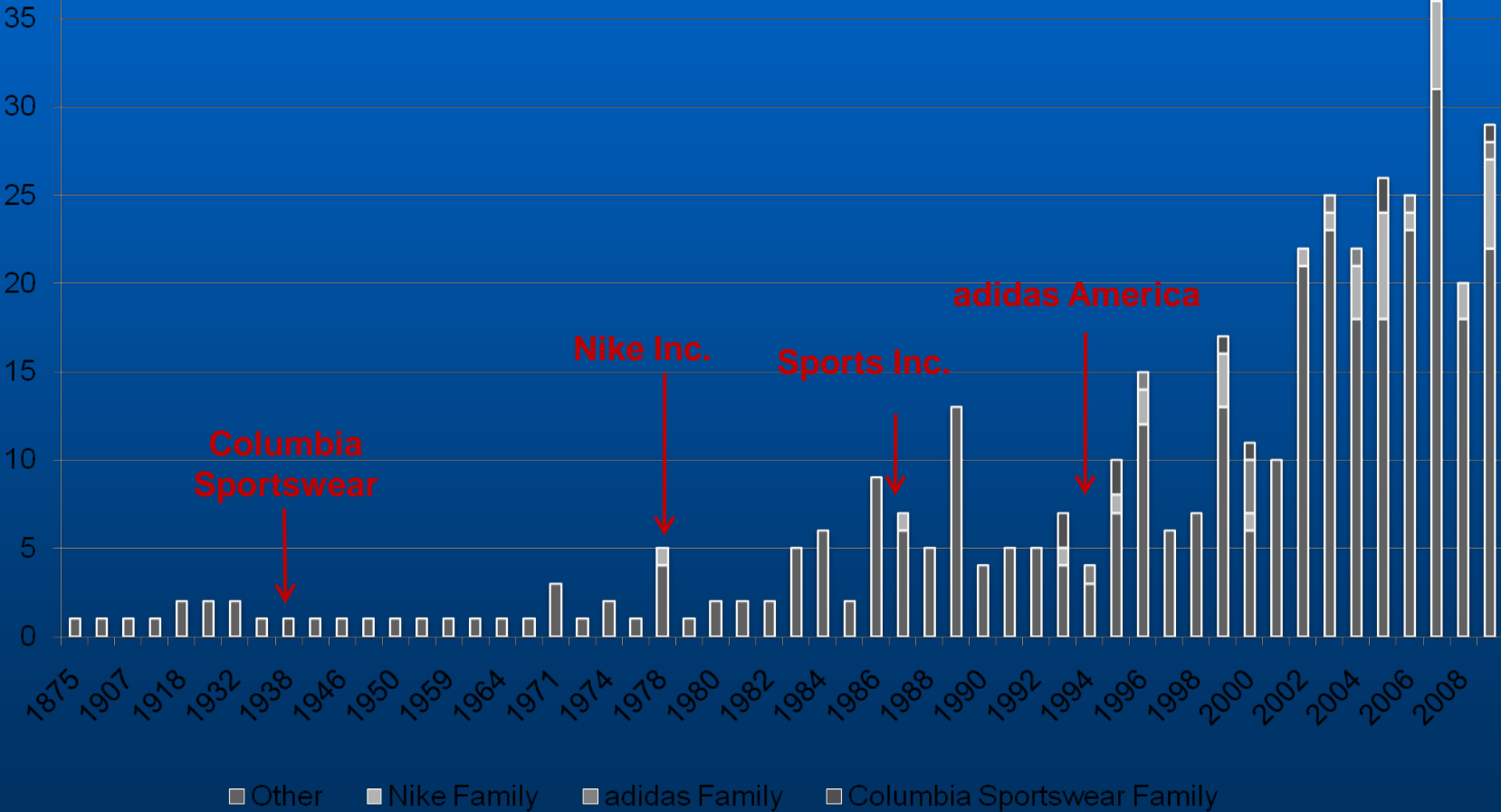
# Competitor Regions

NAICS	315	3162	4243	43434
Industry	Apparel	Footwear	Apparel Wholesaling.	Footwear Wholesaling
Portland	500 (0.32)	<b>345 (2.77)</b>	<b>6,017 (5.17)</b>	<b>5,246 (24.87)</b>
Los Angeles	<b>63,010 (7.31)</b>	786 (1.14)	<b>23,309 (3.6)</b>	<b>3,557 (3.04)</b>
New York	<b>28,634 (2.32)</b>			
Boston	1,551 (0.42)	<b>929 (3.13)</b>	<b>3,916 (1.41)</b>	<b>866 (4.99)</b>
Seattle	1,621 (0.63)			503 (1.44)
San Francisco	3,148 (1.02)		2,051 (0.89)	419 (1)
Boulder	71 (0.63)		<b>866 (1.44)</b>	
Memphis	295 (0.32)		<b>1,851 (2.69)</b>	

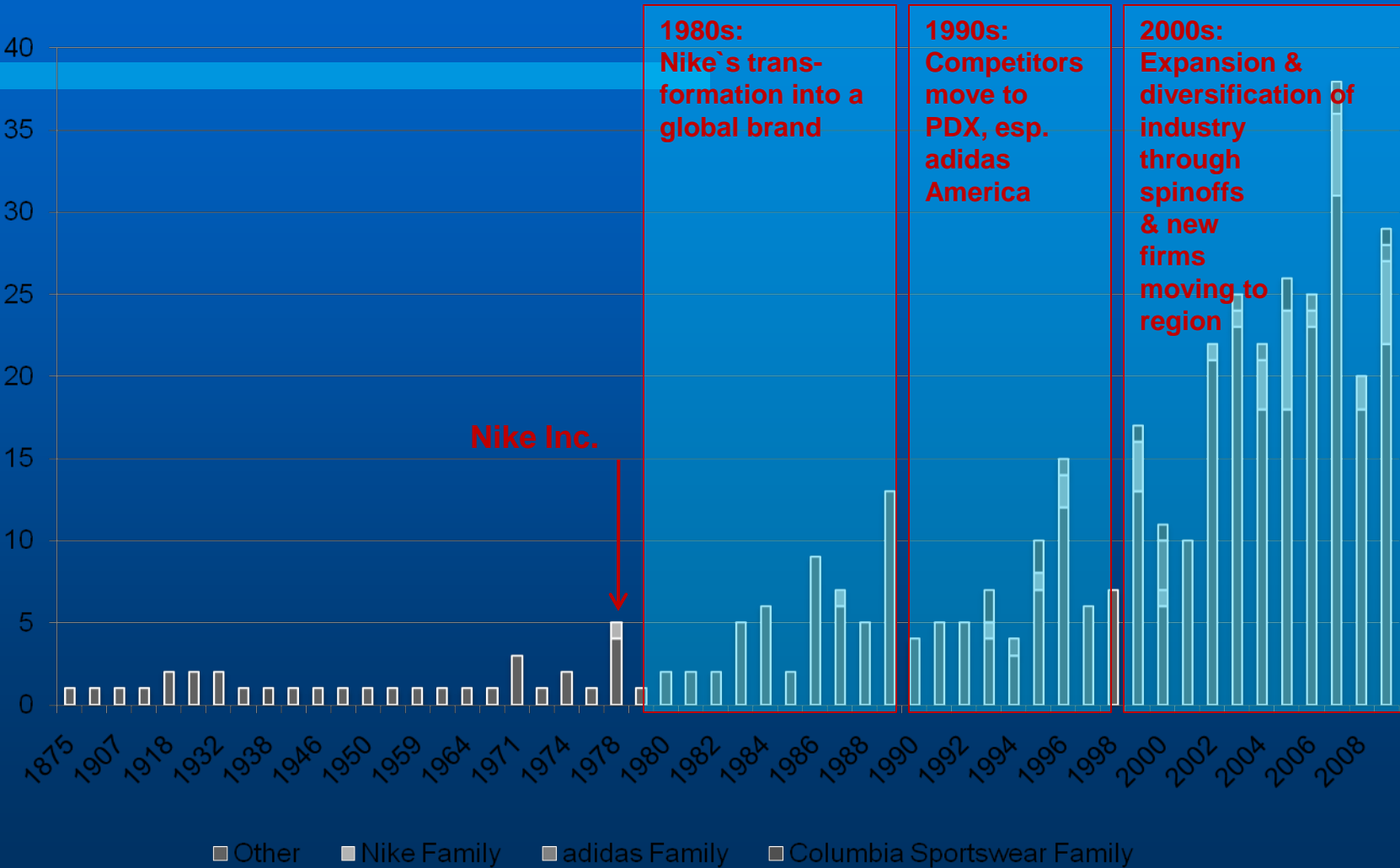
# Emergence of firms in Portland,

# Oregon

Moved to PDX:  
 Yakima Racks (2004)  
 Keen (2006)  
 Icebreaker, Li Ning (2007)



# Three Phases



Source: Portland Activewear & Outdoor Gear Industry Research Project

# Genealogy

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- **Genealogy Diagram**
- **Summary of Survey**
- **Other Highlights from Genealogy**
- **Analysis of Employment Department data**

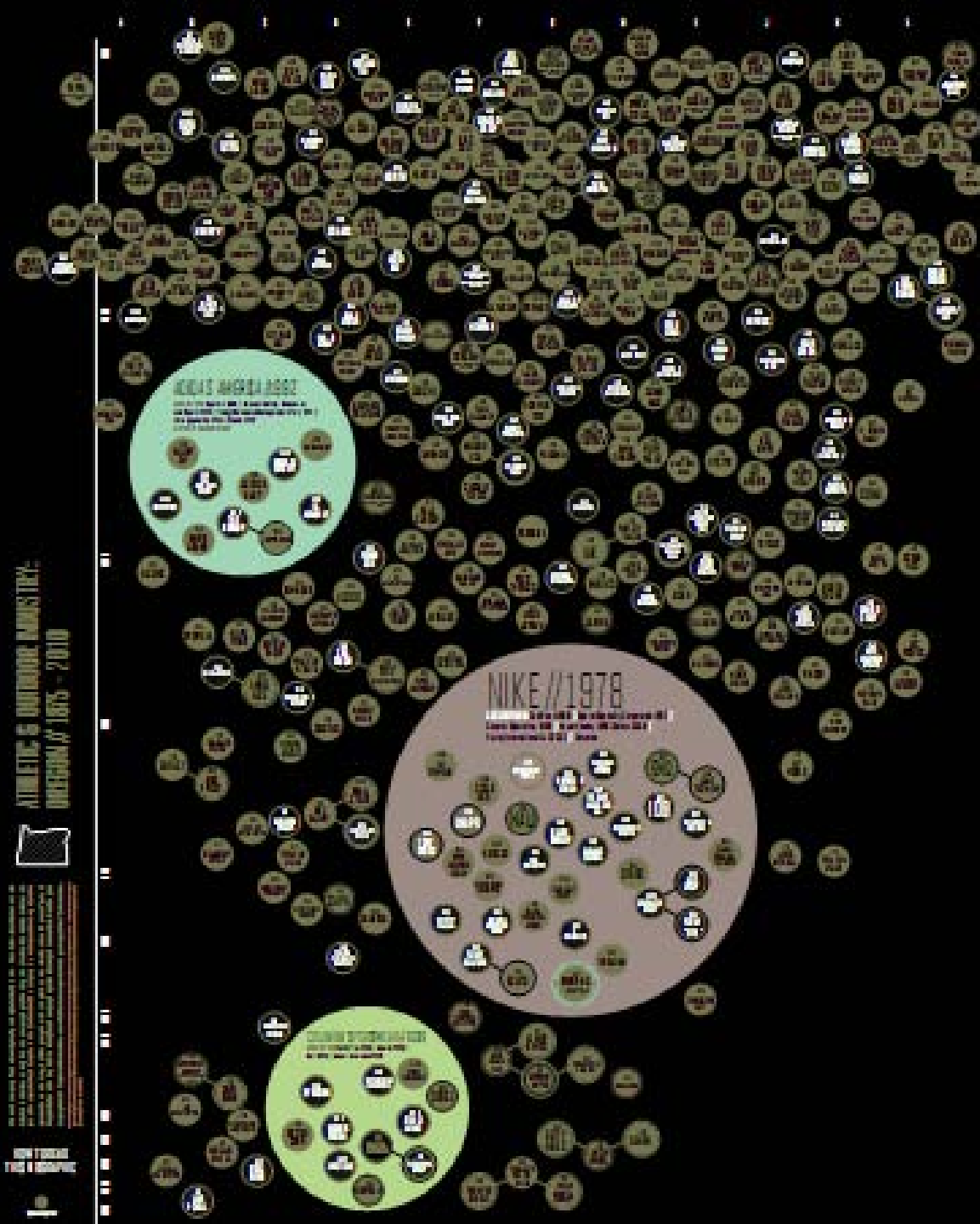
# Athletic and Outdoor Cluster

ATHLETIC & OUTDOOR INDUSTRIES:  
OVERVIEW OF 1975 - 2010



THE STATE'S ECONOMIC DEVELOPMENT DEPARTMENT HAS IDENTIFIED THE ATHLETIC AND OUTDOOR INDUSTRIES AS A STRATEGIC CLUSTER. THIS CLUSTER IS COMPOSED OF SEVERAL INDUSTRIES THAT ARE INTERRELATED AND HAVE THE POTENTIAL TO GROW AND ATTRACT INVESTMENT. THE CLUSTER INCLUDES THE FOLLOWING INDUSTRIES:

HOW TO FIND THE CLUSTER



# Action Plan

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- **Industry-led summit**
- **Materials Library**
- **Portland Center for Design & Innovation**
- **Collaboration on sustainability**
- **Develop Eco-Index**
- **OSU Apparel Design program to Portland**

# Clusters as a framework for policy

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- **An organizing principle for engaging a state in a discussion of its economic strengths and weaknesses**
- **A flexible tool at the intersection of analysis and policy-making**
- **Not a separate program; a way of organizing to influence the economy**

# Clusters thrive on talent

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- **Clusters depend on concentrations of talented people**
- **Clusters benefit workers: more opportunities, better matching**
- **Clusters benefit firms: higher skills**
- **Spillovers: “Knowledge is in the air”**

# Generating new ideas

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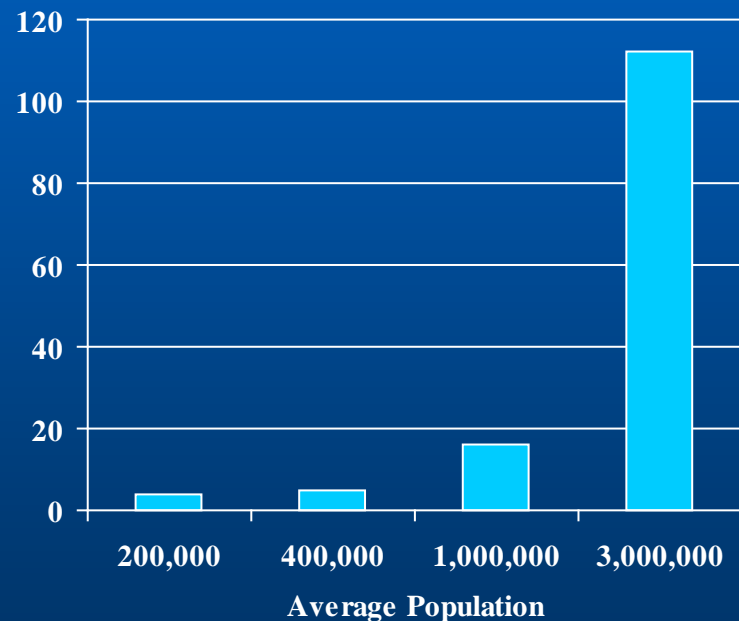
- **States are increasingly recognizing the importance of knowledge-driven growth**
  - Growing new industries
  - Raising productivity of existing industries
- **University research, tech-transfer and entrepreneurship are important**

# Clusters amplify returns from research

Pure **university-based** regional economic development policies are not effective enough to "upgrade" localities to a higher tier of innovative activities **alone**.

The presence of a "critical mass" of agglomeration in the area surrounding the university is required in order to expect substantial local economic effects of academic research.

Innovations per \$300 million R&D



McMahan, 2007

Varga, 2000

# Clusters and research

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- **Clusters promote a two-way flow of information: which ideas have potential markets**
- **Clusters provide customers for good research**
- **Clusters enable entrepreneurship, which turns new ideas into businesses**

# Policy implications

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- **Identify and work with your clusters**
- **Encourage relationships between clusters and education and training efforts and research institutions**
- **Get clusters to help set priorities and provide resources**

# Using clusters: key steps

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- **Build ongoing relationships**
- **Avoid hierarchy**
- **Reach small and new firms and quickly; sense new trends**
- **Depth and redundancy are positive**
- **Encourage experimentation and adaptation**
- **Allow market-testing of new ideas—take risks; terminate failures.**

# Clusters: A Framework for Economic Development

For More Information

[www.ImpresaConsulting.com](http://www.ImpresaConsulting.com)