

The Rhode Island Ocean Cluster?

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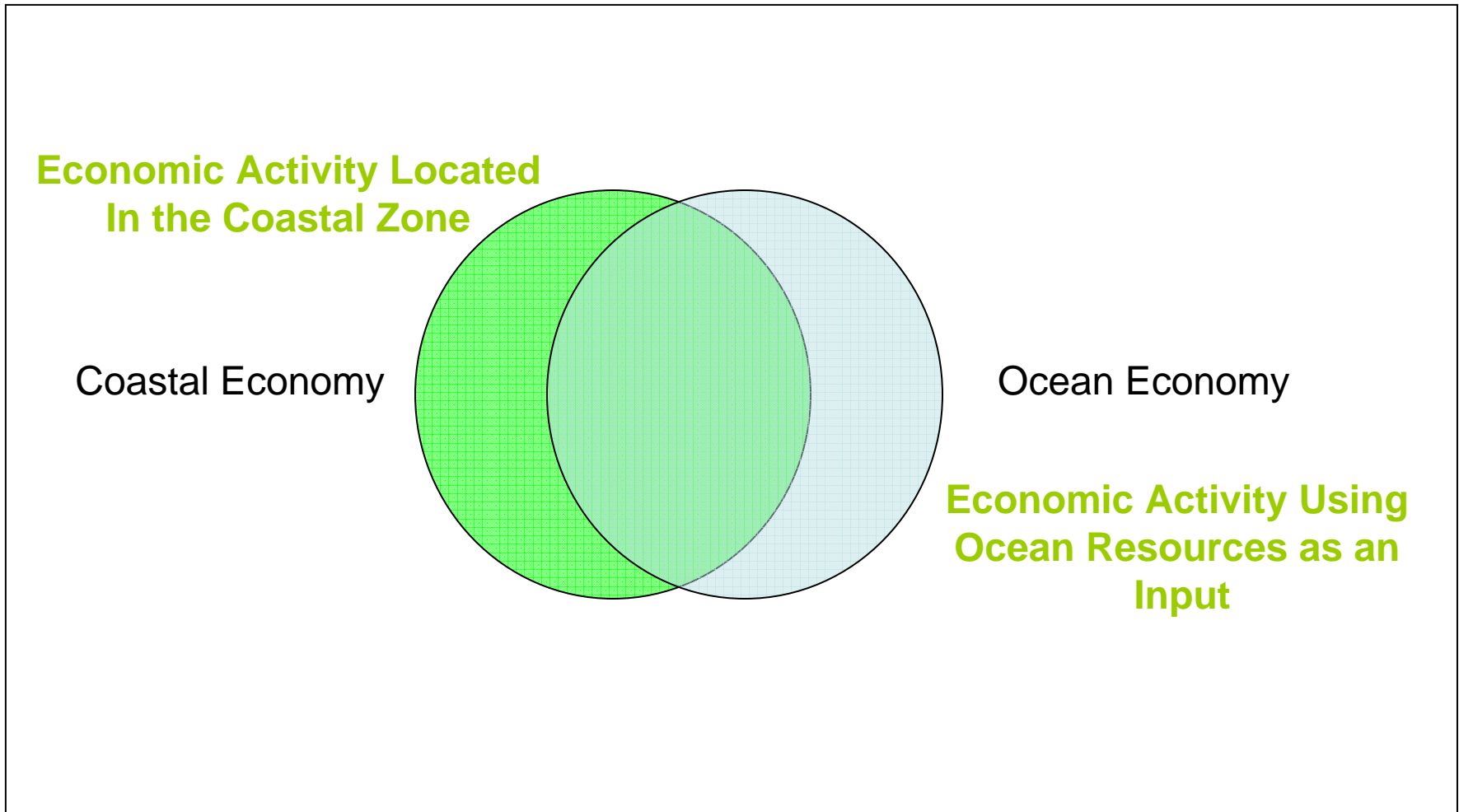
Muskie School

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The Coastal and Ocean Economies



The Private Ocean Economy Industries

Construction

Heavy Construction

Living Resources

Aquaculture (part)

Seafood Processing

Minerals

Limestone, Sand, and Gravel

Oil and Gas Exploration

Oil and Gas Production

Ship & Boat Building

Boat Building

Ship Building

Tourism & Recreation

Amusement and Recreation Services NEC

Zoos and Aquaria

Boat Dealers

Eating and Drinking Places

Hotels and Motels

Marinas

Recreational Vehicle Parks and Campgrounds

Sporting Goods Retailers

Transportation

Deep Sea Freight Transportation

Marine Transportation Services

Petroleum and Natural Gas Pipelines

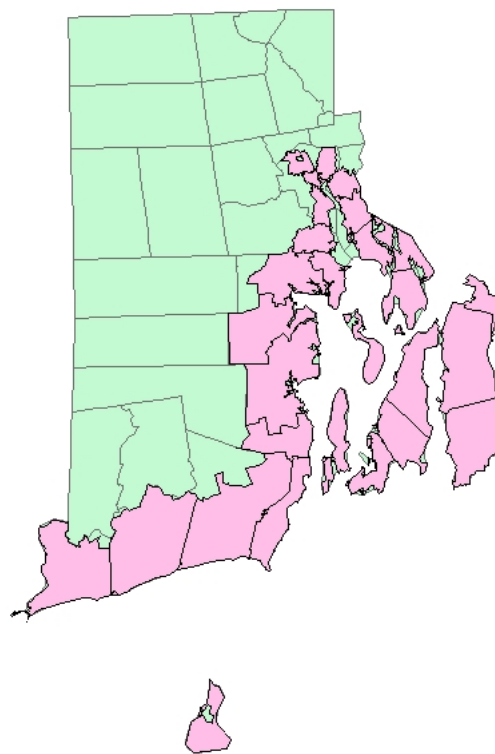
Search and Navigation Equipment

Warehousing

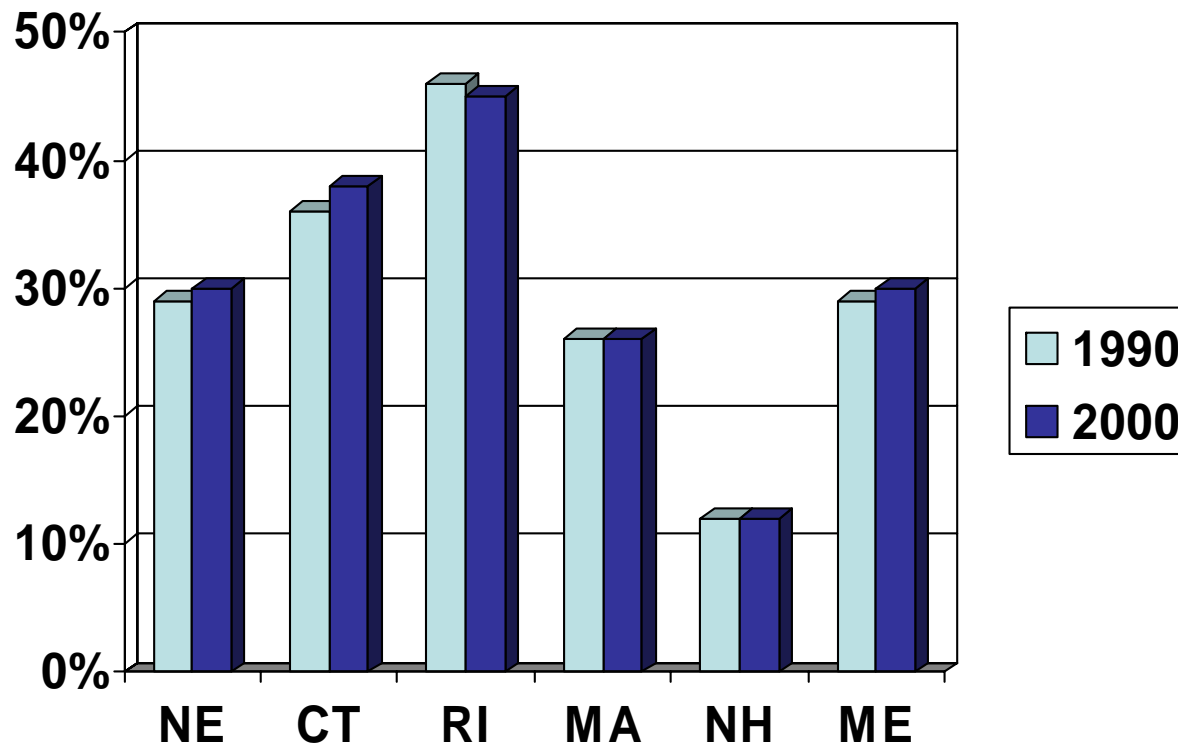
To be added:

**Scientific Research
Government**

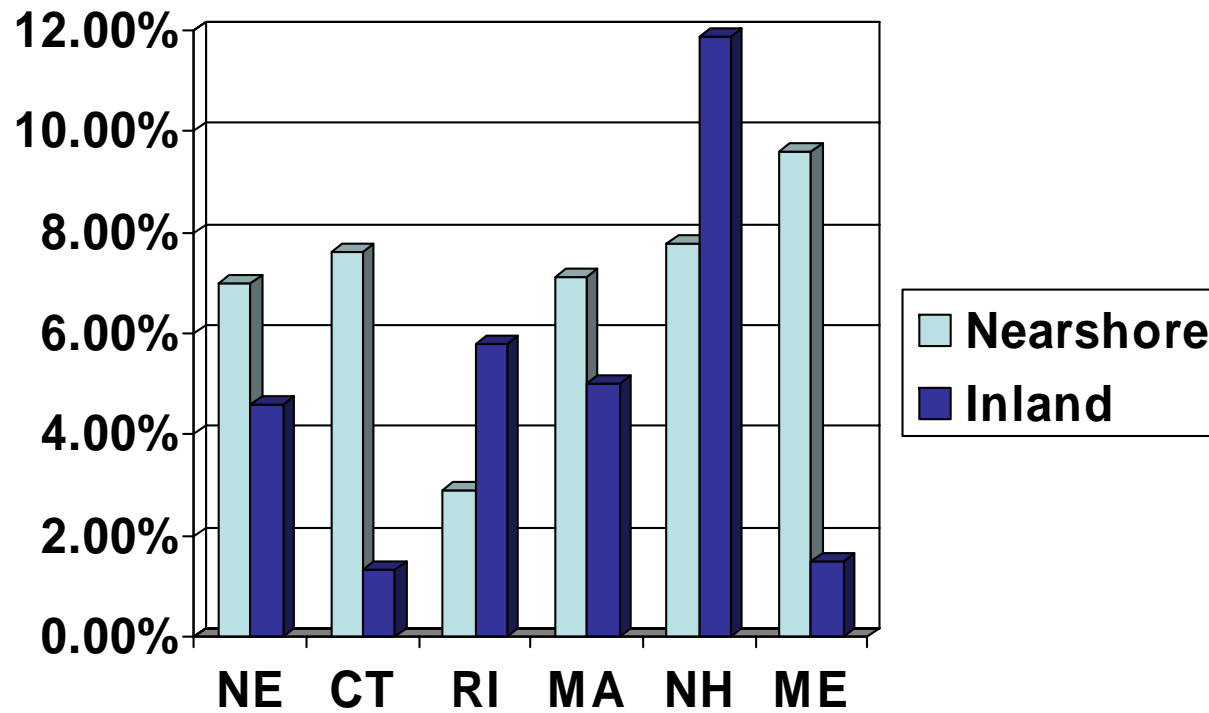
Industries in Red are Defined as Ocean if Located in Coastal Zip



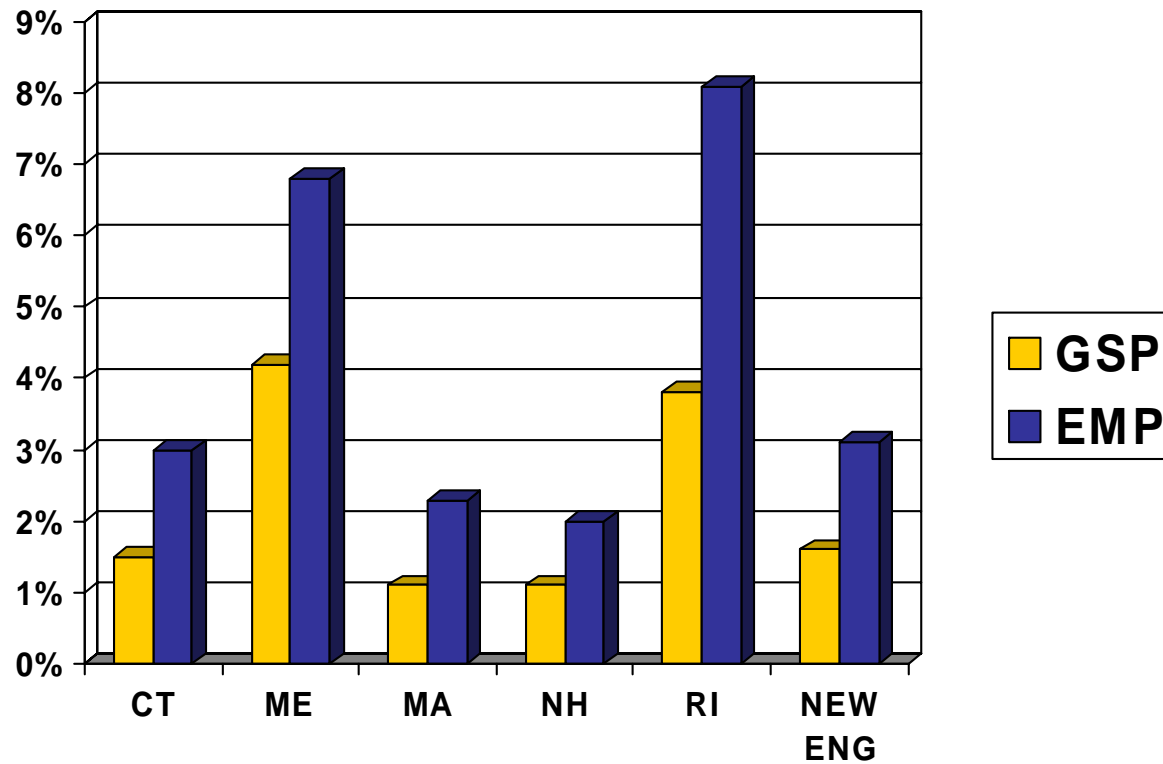
Proportion of State Population in Near Shore Areas 1990-2000



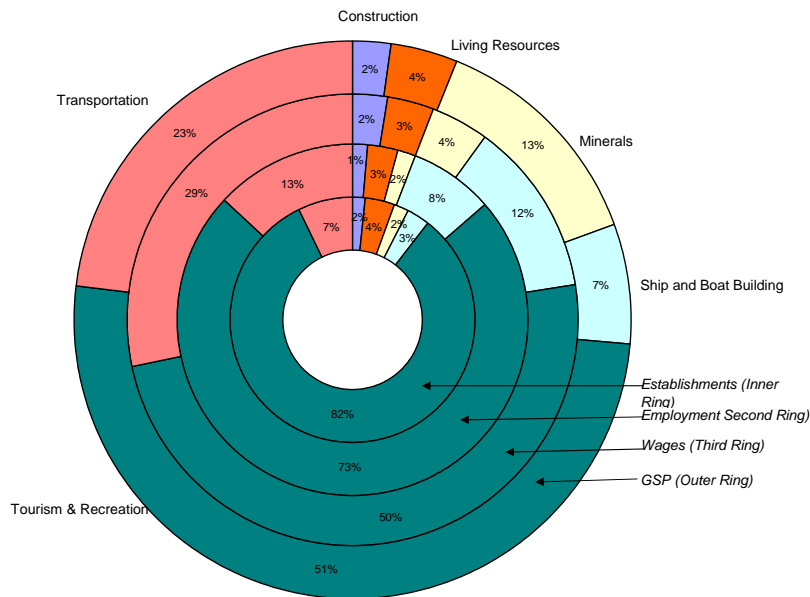
Population Growth in Inland and Near Shore Areas 1990-2000



Ocean Economy as Proportion of State Economies: 2000



The U.S. Ocean and RI Ocean Economies: 2000



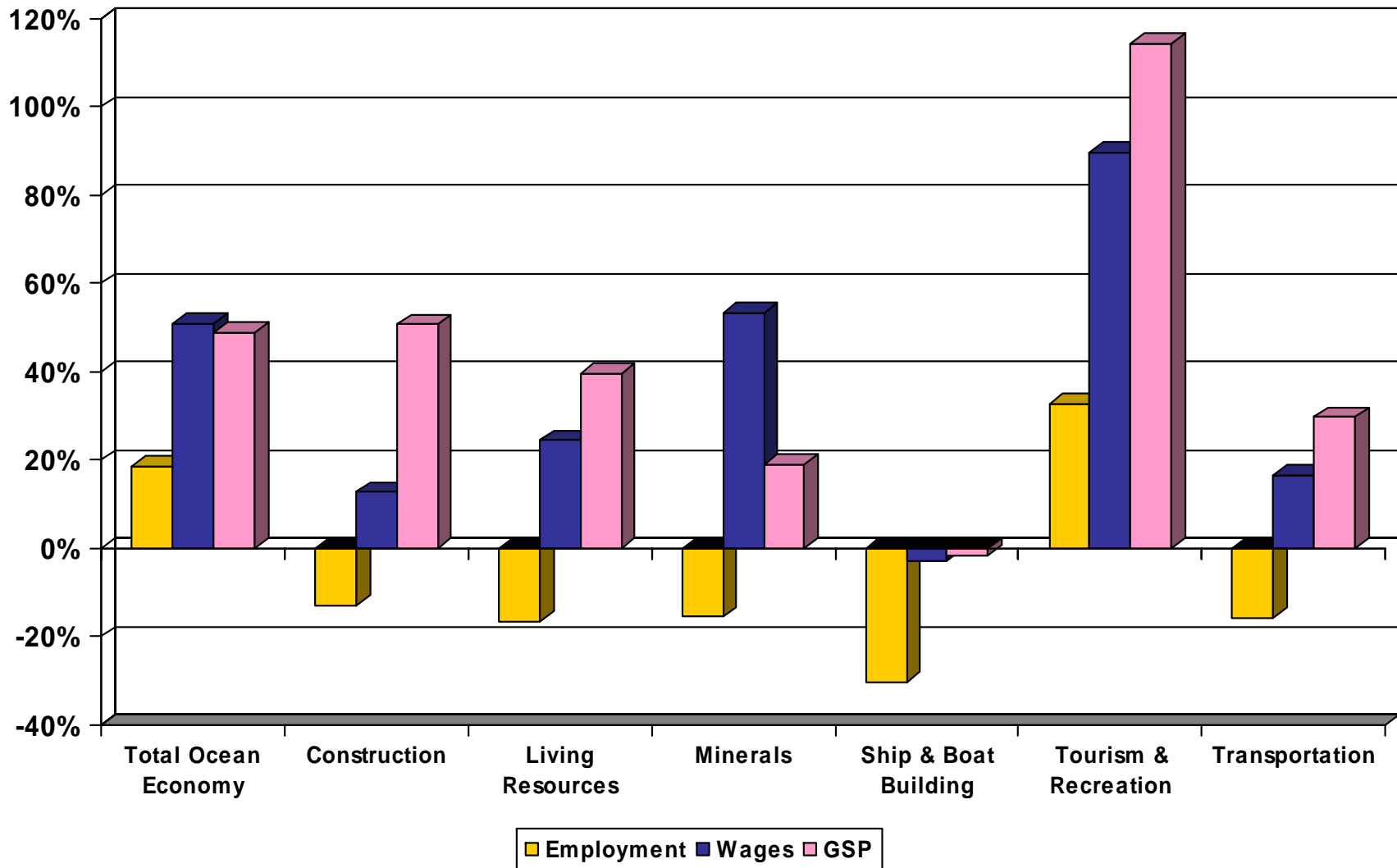
U.S.



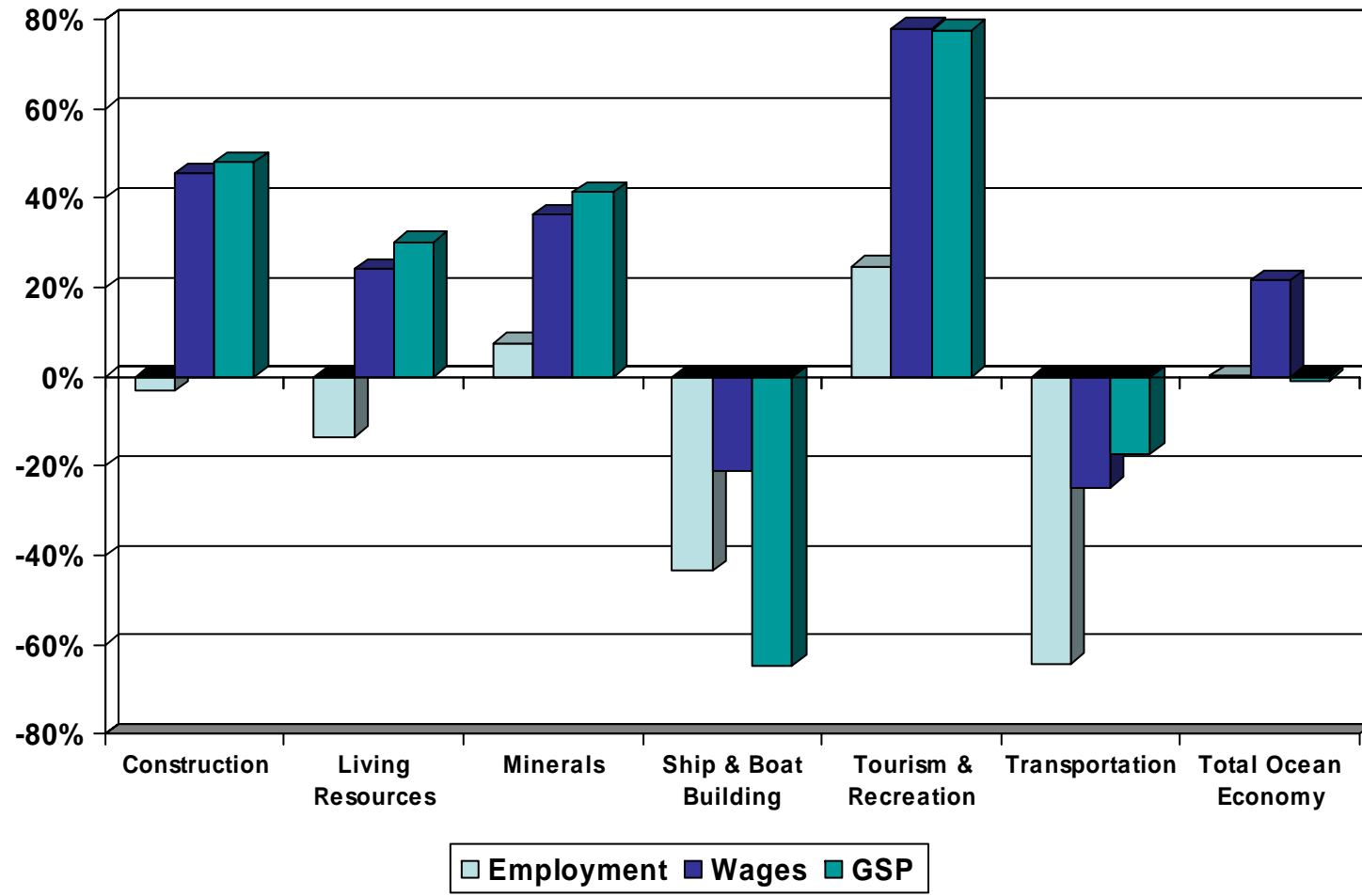
Rhode Island

Note: Fisheries Harvesting Missing

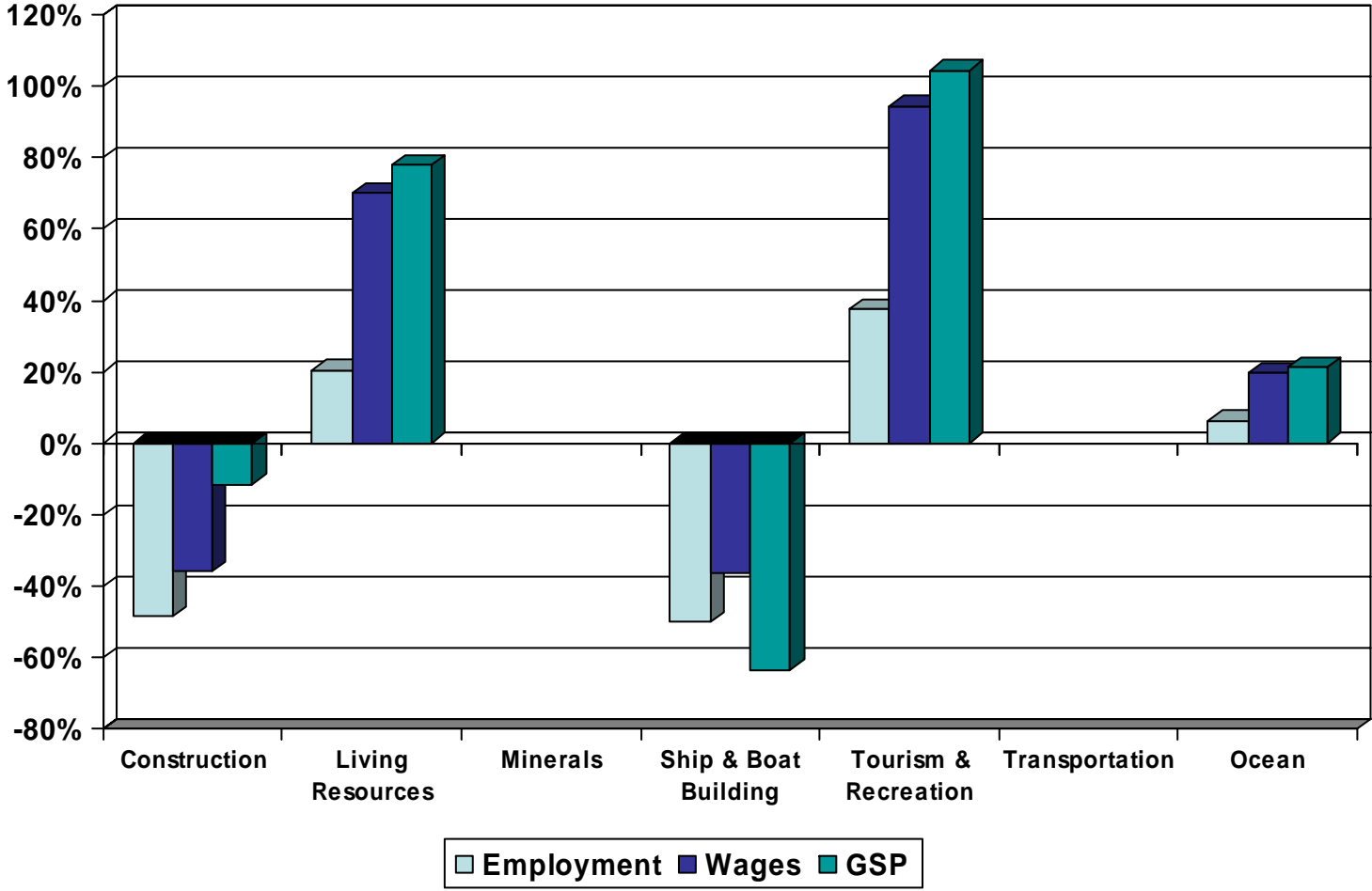
The U.S. Ocean Economy is Becoming the Tourism & Recreation Economy



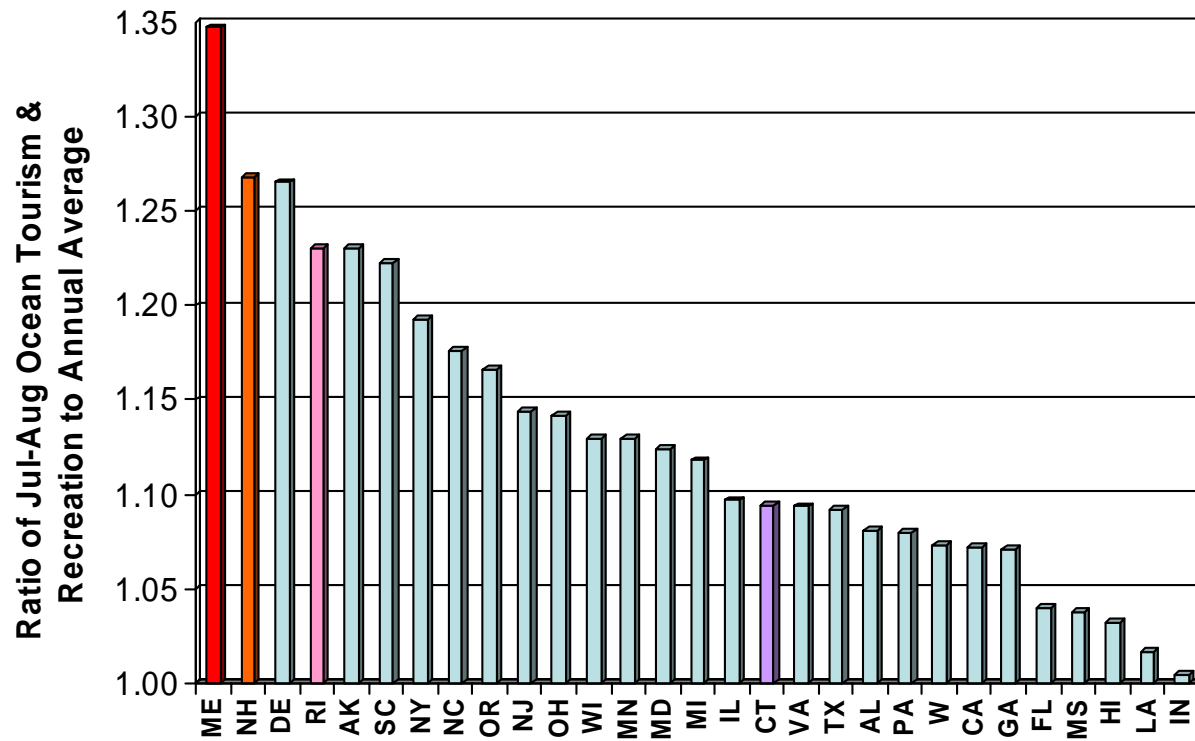
Change in the New England Ocean Economy 1990-2000



Change in the Rhode Island Ocean Economy 1990-2000



The Ocean Tourism Peak



What are clusters and why are they important?

- Inter-related firms, industries, and other organizations within a region
- Relationships
 - Sellers and Customers
 - Labor
 - Related and Supporting
- Regional Relationships
- Enhanced Competitiveness in all markets.
- Whole > Sum of Parts

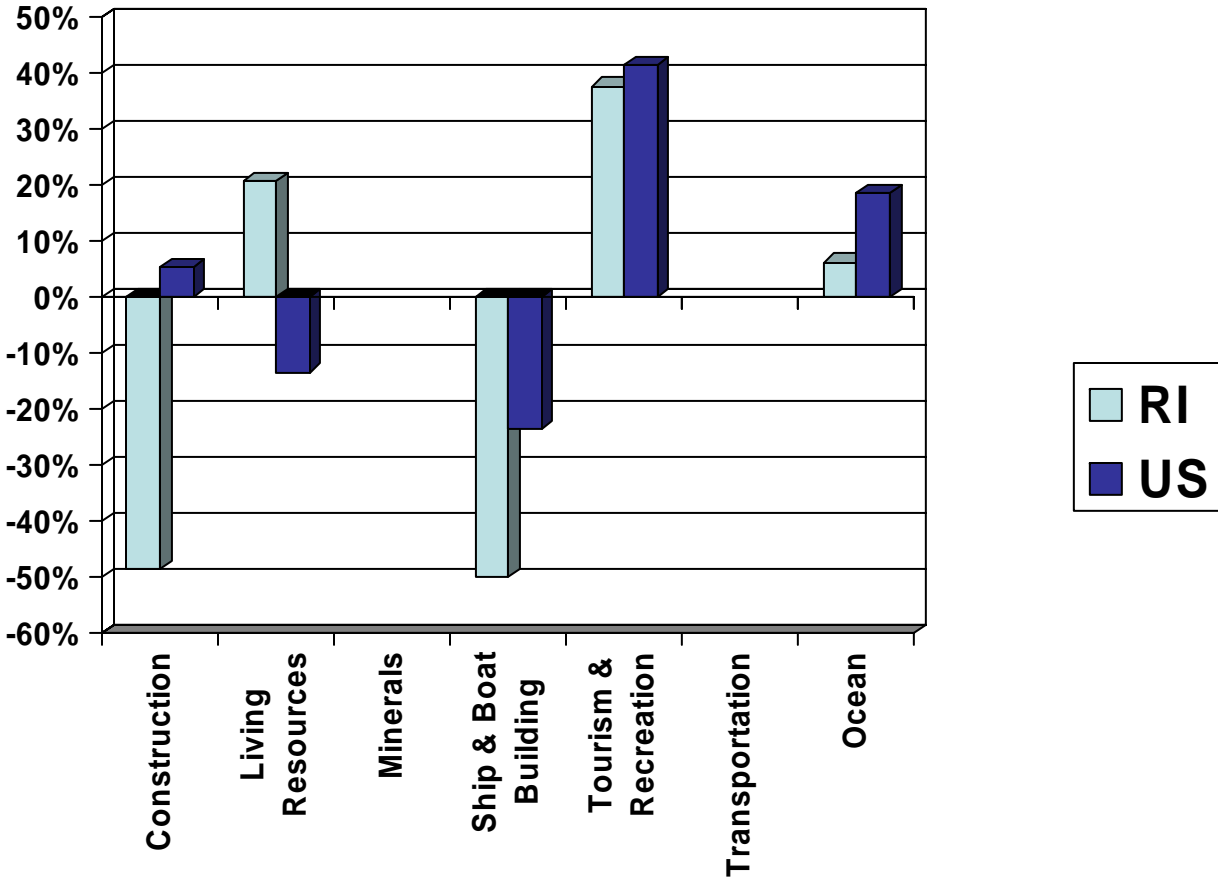
Cluster Characteristics

Innovation	Product Process	
Regional Business Functions	Research Development Production Marketing	
Entrepreneurship Objectives	Life Style-Growth	
Financing	Self -Outside Grants-Capital	
Relationships	Firms Labor Other Institutions Industry Associations Leadership Organizations	Horizontal Vertical
Locational Advantage	Geography-Knowledge	
Market Potential	Mature-Growth Markets Diversity of Markets Local Demand Exports	
Economic Performance		

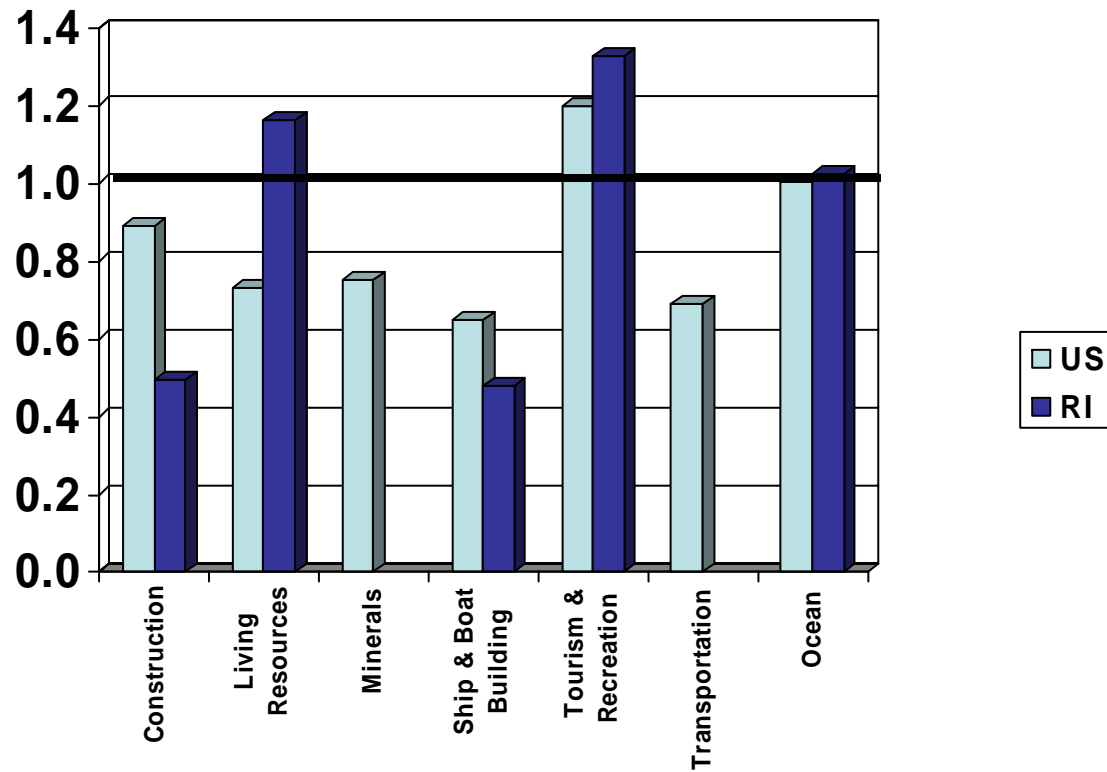
Cluster Characteristics for Ocean Industries

Innovation	Product	
	Process	
Regional Business Functions	Research	
	Development	
	Production	
	Marketing	
Entrepreneurship Objectives	Life Style-Growth	
Financing	Self -Outside	
	Grants-Capital	
Relationships	Firms	Horizontal
	Labor	Vertical
	Other Institutions	
	Industry Associations	
	Leadership Organizations	
Locational Advantage	Geography-Knowledge	
Market Potential	Mature-Growth Markets	
	Diversity of Markets	
	Local Demand	
	Exports	
Economic Performance		

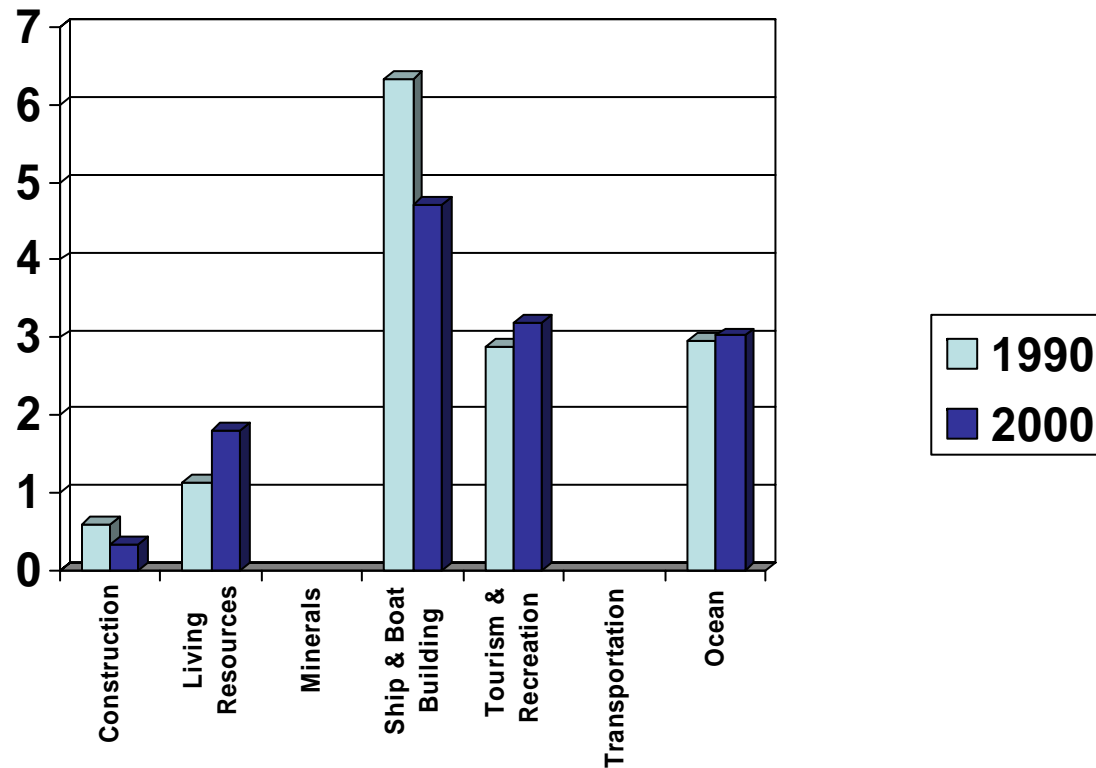
Employment Growth Rate: 1990-2000


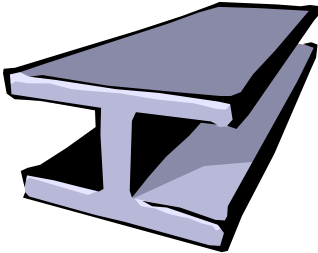




Change in Share of Employment: 1990-2000

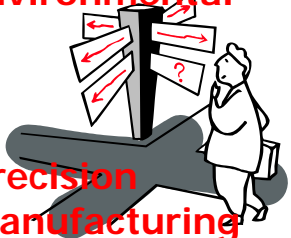





Location Quotients for Ocean Industries



		Cluster Strength	
		Low	High
Growth Potential	Low		
	High		

			Technology			Products		Other	
Innovation	Product		3	3	3	1	1	2	1
	Process		2	1	1	3	2	1	3
Regional Business Functions	Research		2	2	2	1	3	1	
	Development		3	1	3	2	2	2	2
	Production		2	1	3	3	3	1	2
	Marketing		2	1	2	1	2	1	3
Entrepreneurship Objectives	Life Style-Growth		2	2	2	1	2	2	2
Funding	Self -Outside		3	2	3	3	3	2	3
	Grants-Capital		2	2	3	3	3	2	3
Relationships	Firms	Horizontal	2	2	2	3	2	1	1
		Vertical	1	1	1	3	3	1	1
	Labor		2	3	2	3	3	2	2
	Other Institutions		1	2	1	3	3	1	1
	Industry Associations		2	2	2	3	3	1	
	Leadership Organizations		1	3	2	3	1	1	1
	Geography		2	3	3	1	1	1	3
Market Potential	Mature-Growth Markets		2	2	2	3	3	2	2
	Diversity of Markets		2	2	2	3	3	1	1
	Local Demand		1	1	2	1	1	2	1
	Exports		1	1	2	3	2	2	2

		Cluster Strength	
		Low	High
Growth Potential	Low	<p>environmental</p>  <p>Precision Manufacturing</p>	<p>Forest Products</p>  <p>Food</p>
	High	<p>Biotechnology</p>  <p>Info Technology</p> <p>Advanced Materials</p>	

Some Lessons for Ocean Clusters

- Rhode Island's economy remains an ocean economy compared with other coastal states.
- Rhode Island's ocean economy is like the U.S., shifting more and more towards tourism and recreation
- Whether the ocean economy has strong or weak cluster characteristics requires more investigation
- Ocean economy development may depend on other strength of other clusters
 - Tourism & Recreation
 - Ship & Boat Building –
 - Marine Technology
 - Composites and Materials
 - Recreational boating
 - Living Resources – Food