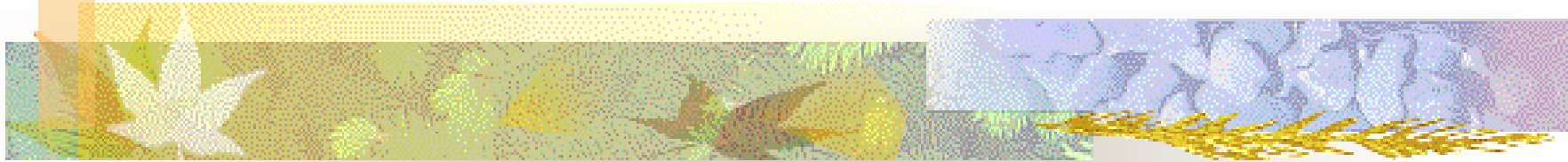


Economic Analysis of Tourism as a Beach Management Tool



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Conference on America's Beaches March 2, 2005, Miami, FL



The U.S. Coastal Zone

- Shore protection impacts all aspects of the coastal economy – tourism, property values, employment, and tax revenues.
- Tourism is tied to the environmental and recreational quality of coastal beaches.



Defining the Coast

- **Coastal States.** The 30 states bordering an ocean or Great Lakes.
- **Coastal Zone Counties.** 340 counties so defined by each state for the purpose of the Coastal Zone Management Act.

Source: Colgan, C., 2004, The Changing Ocean and Coastal Economy of the United States, http://essp.csumb.edu/noep/Download/govns_brief.pdf

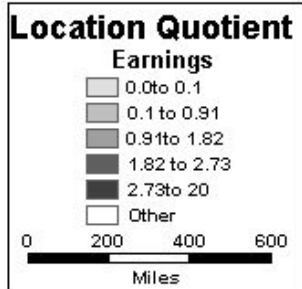
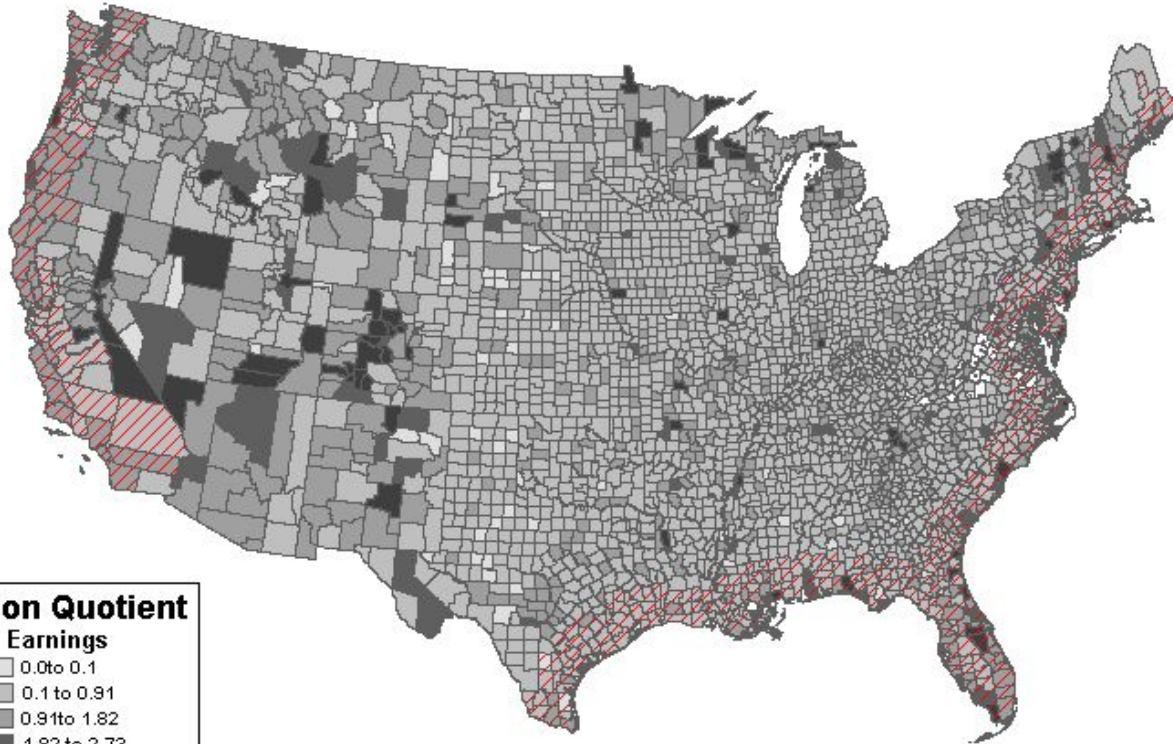
Total Coastal Economy

	Establishments	Wage & Salary Employment	Wages (Millions)	Gross State Product (Millions)
1990				
Total U.S. Economy	NA	109,043,000	\$2,743,643	\$5,706,658
Total Coastal States	4,998,116	76,477,272	\$1,850,303	\$3,887,225
Coastal Watershed Counties	3,101,001	49,068,567	\$1,246,219	\$2,584,802
Coastal Zone Counties	2,267,894	36,359,010	\$884,366	\$1,865,741
Near Shore*	776,991	10,784,785	\$264,346	\$558,634
2000				
Total U.S. Economy	NA	131,720,000	\$4,834,254	\$9,415,552
Total Coastal States	6,495,532	100,452,156	\$3,632,333	\$7,023,413
Coastal Watershed Counties	3,831,358	60,696,525	\$2,334,920	\$4,512,357
Coastal Zone Counties	2,906,685	44,659,916	\$1,698,336	\$3,264,539
Near Shore*	1,065,576	14,574,973	\$536,196	\$1,058,596
Percent Change 1990–2000				
Total U.S. Economy	NA	20.8%	76.2%	65.0%
Total Coastal States	30.0%	31.3%	96.3%	80.7%
Coastal Watershed Counties	23.6%	23.7%	87.4%	74.6%
Coastal Zone Counties	28.2%	22.8%	92.0%	75.0%
Near Shore*	37.1%	35.1%	102.8%	89.5%

Sources: Bureau of Labor Statistics, Bureau of Economic Analysis, National Ocean Economics Project.

Source: C. Colgan, 2003. Appendix C: Living Near ... and Making a Living From ... The Nation's Coasts and Oceans, http://www.oceancommission.gov/documents/prepub_report/append_c.pdf

Location Quotient for the US Tourism Industry



$$lq(i) = \frac{\frac{\text{Travel and Tourism Earnings in Region } i}{\text{Total Earnings in Region } i}}{\frac{\text{Travel and Tourism Earnings in the U.S.}}{\text{Total Earnings in the U.S.}}}$$

“Tourism-Generated Earnings in the Coastal Zone: A Regional Analysis”

Klein, Y., J. Osleeb and M. Viola, *Journal of Coastal Research*, Vol. 20, No. 4, 2004



Local Economic Benefits of Tourism

- Revenues to the Tourism Industry
- Direct and Indirect Employment
- Tax Revenues – Sales, Income, and Property Taxes



International Tourism Indicators

Country of Destination	Tourist Arrivals (Thousands)	International Receipts (US\$ Million)	International Expenditures (US\$ Million)
United States	48,491	74,881	59,351
United Kingdom	N.A.	20,223	35,631
France	73,042	31,507	18,631
Spain	46,776	32,497	5,523
Japan	4,438	3,428	32,808



U.S. Coastal Zone: Tourism

- Travel and tourism is the nation's largest services export industry, third largest retail sales industry and one of America's largest employers.
- In 2000, tourism to the United States generated \$582.5 billion in revenues, 7.8 million jobs, \$171.5 billion in payroll income, and \$99.5 billion in tax revenues.



Beaches and Tourism

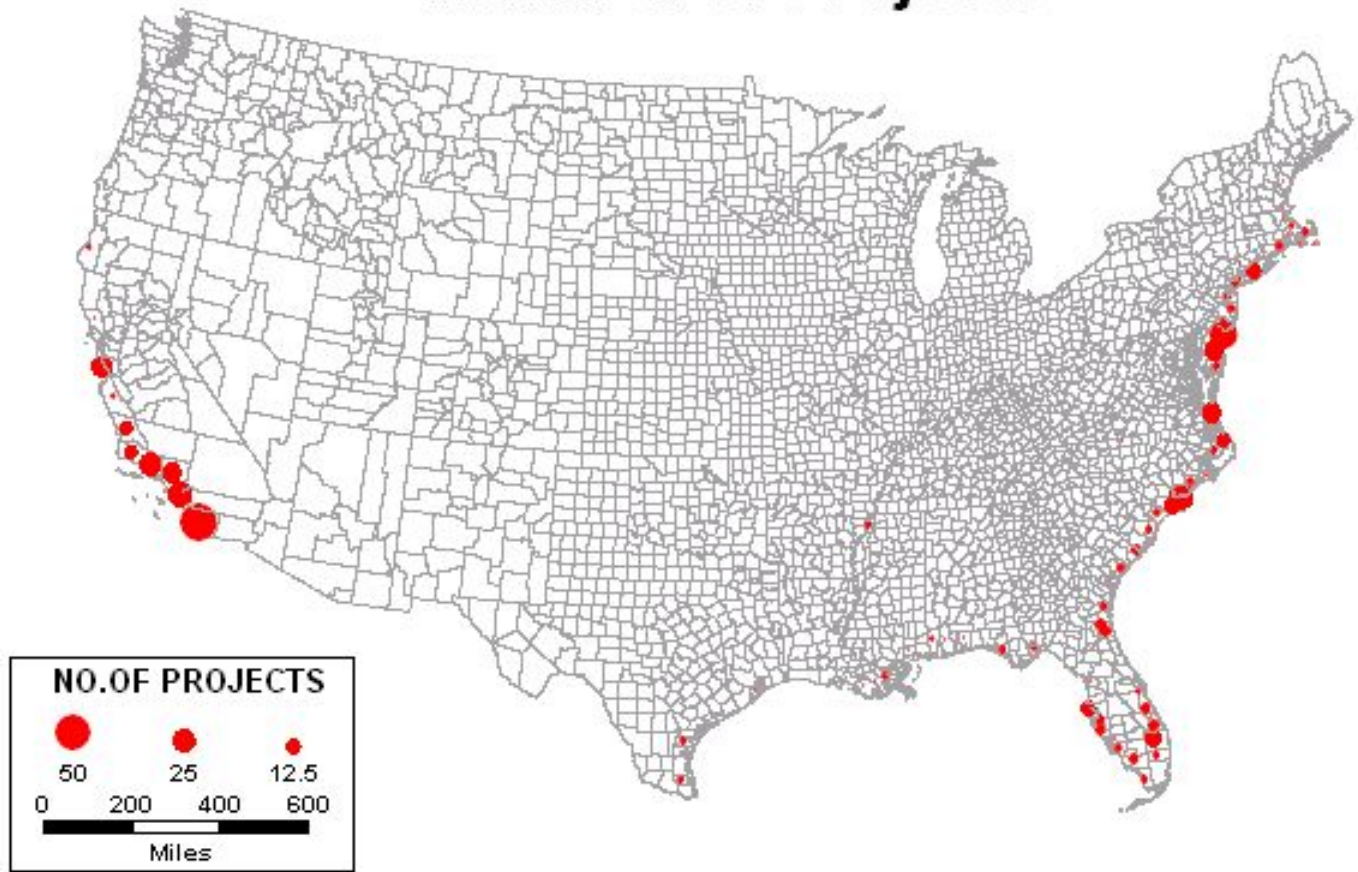
- Beaches are a major tourist destination.
- U.S. Beaches compete with destinations in Europe and the Pacific rim.
- The environmental and recreational quality of the coastal zone has a major impact on tourism, and thus on the economy of the coastal zone.



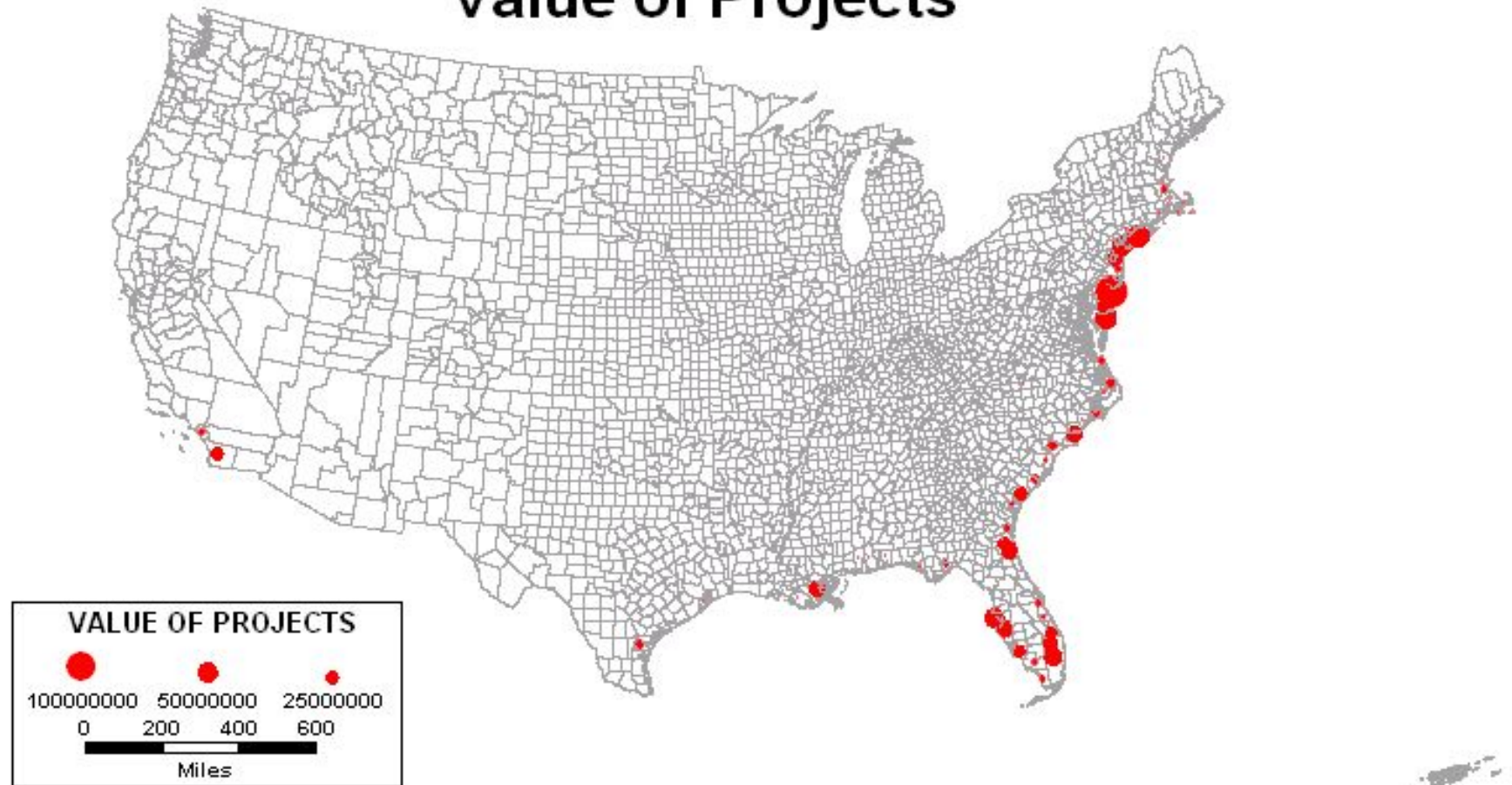
Impacts of Beach Quality

- Recreation and Tourism
- Property Values of Undeveloped Land and Existing Residential and Commercial Property
- Development of New Residential and Commercial Structures

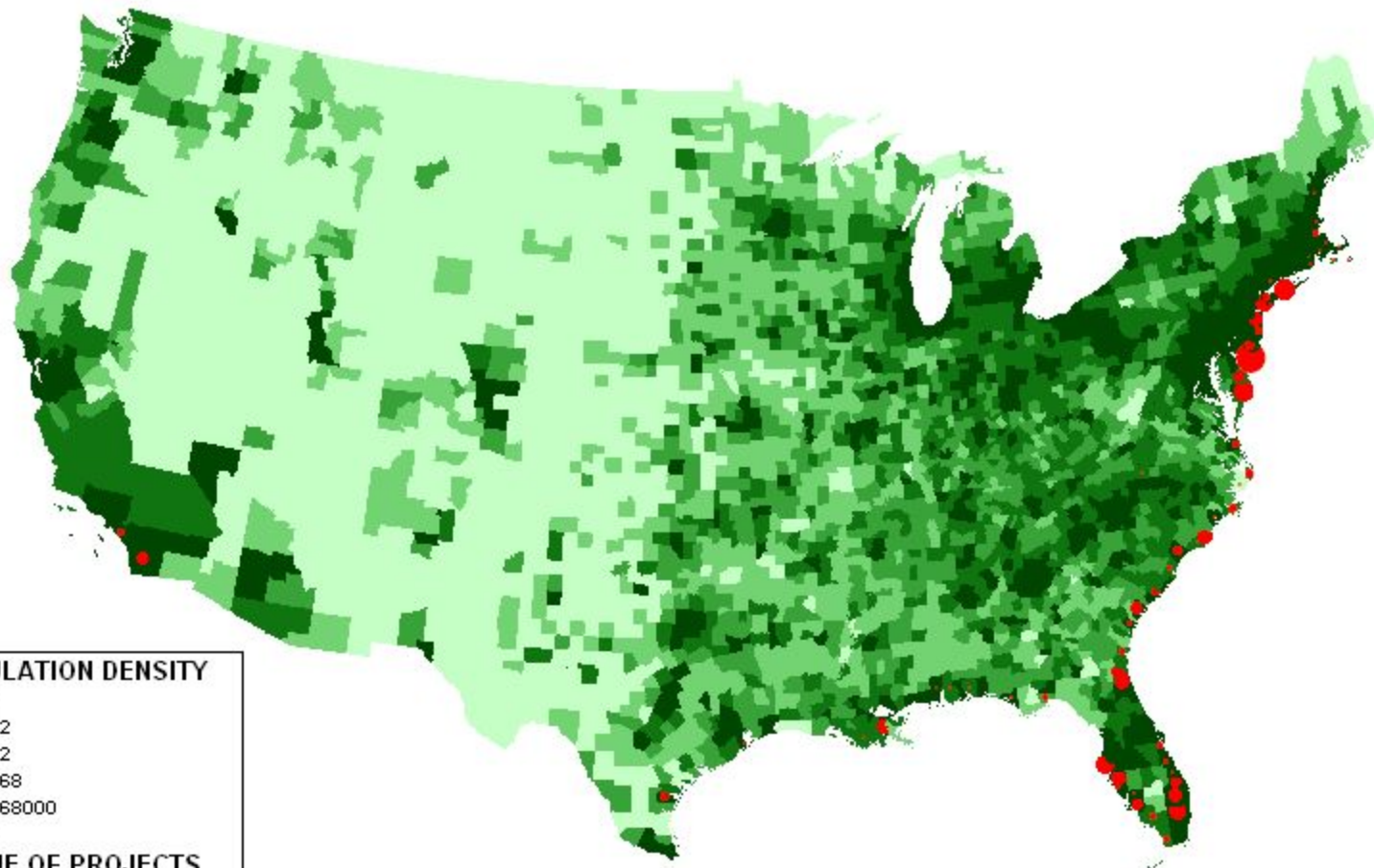
Number of Projects



Value of Projects



Value of Projects and Population Density



POPULATION DENSITY

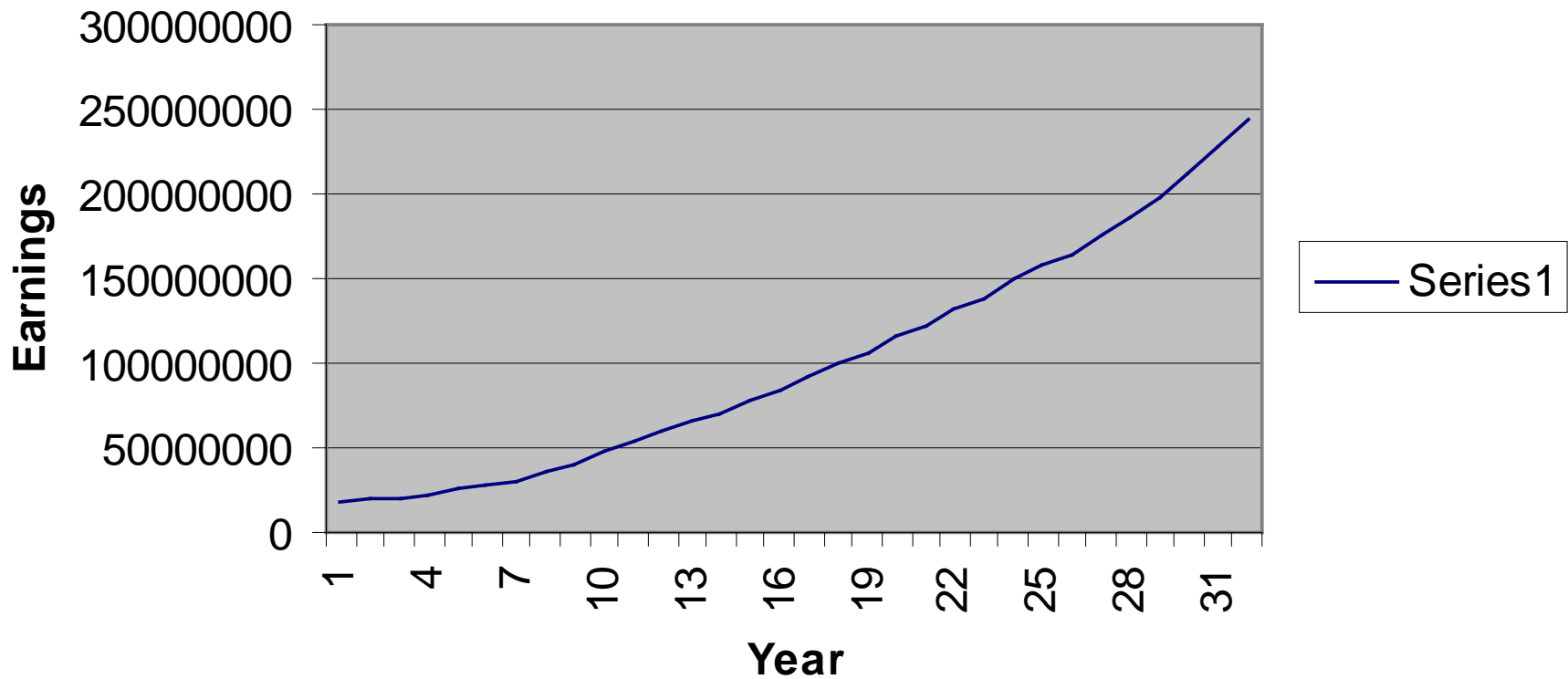
- 0 to 12
- 13 to 32
- 33 to 62
- 62 to 168
- 169 to 68000

Other

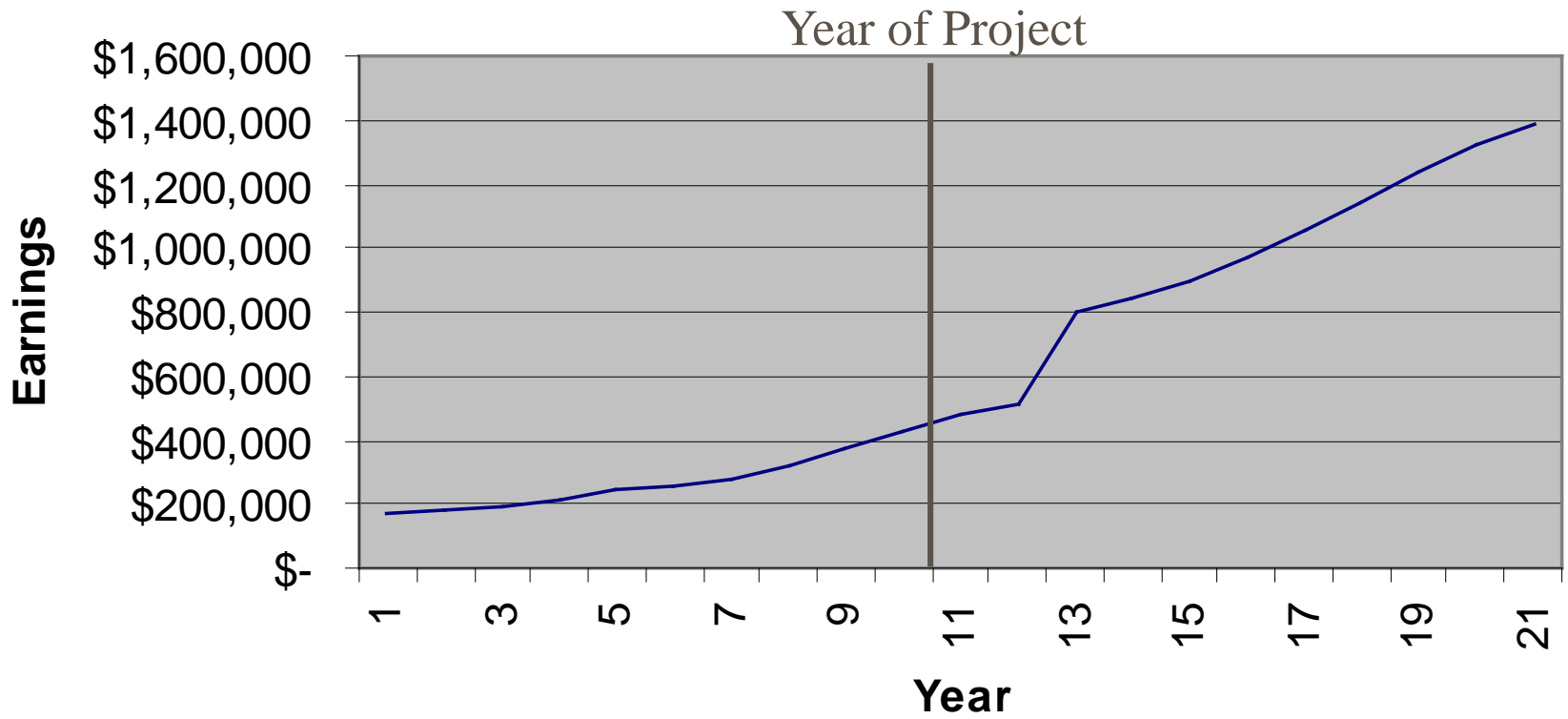
VALUE OF PROJECTS



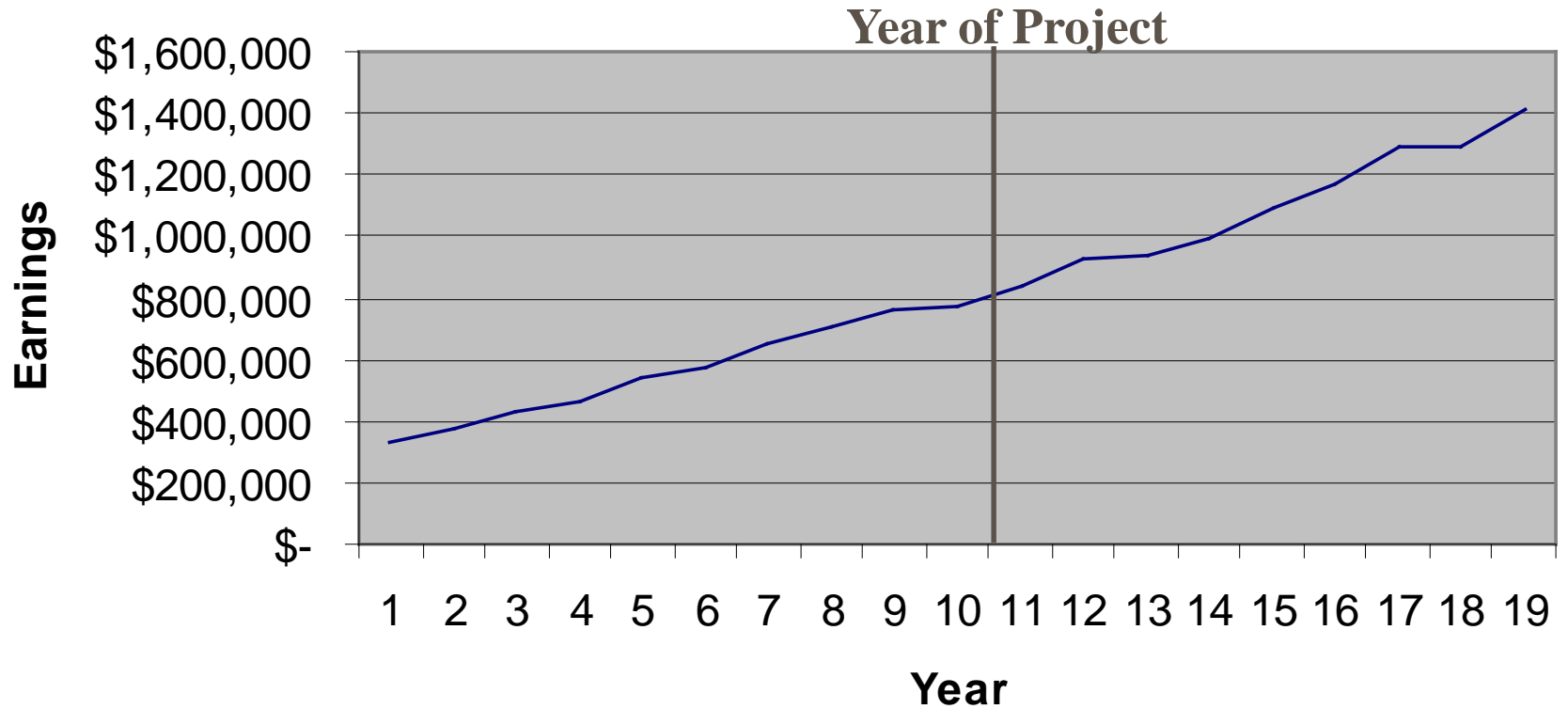
Tourist Earning US Total



Miami-Dade

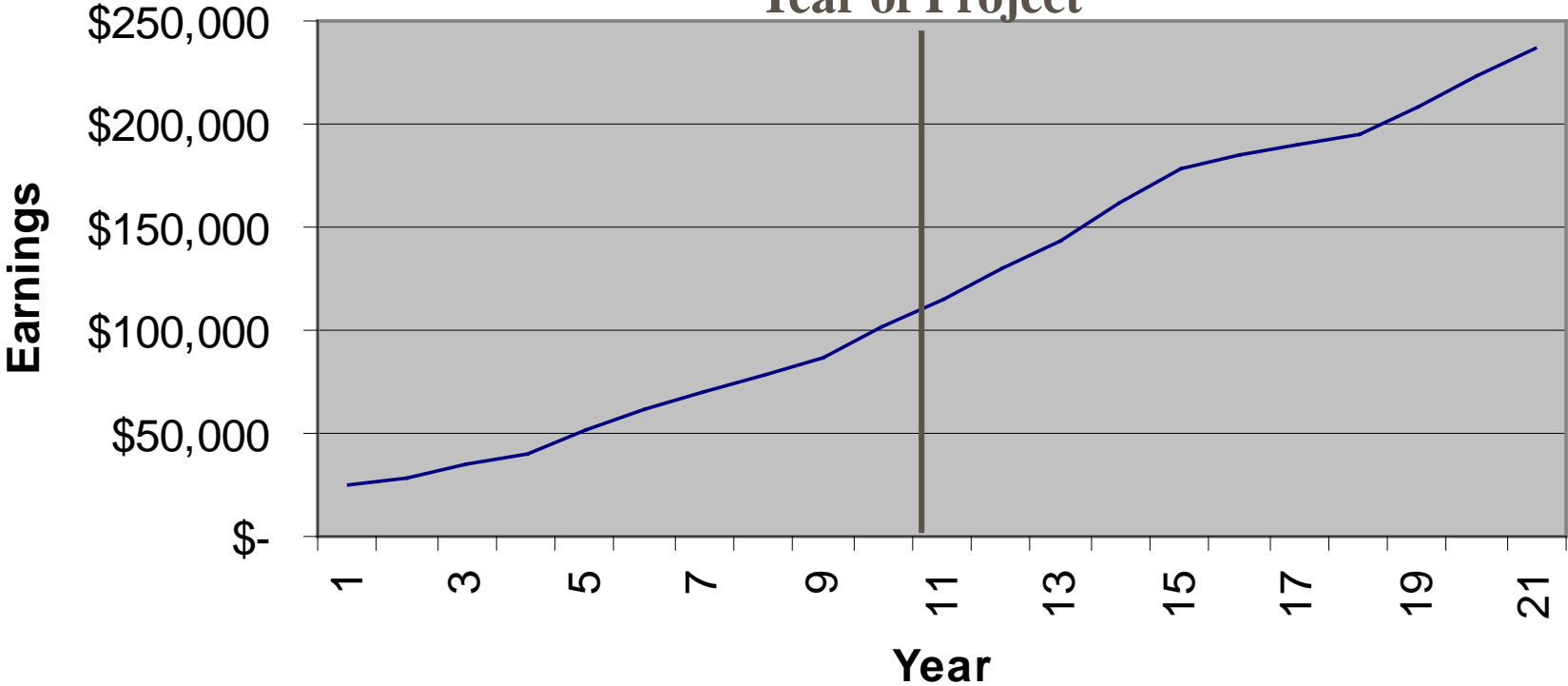


Palm Beach



Virginia Beach

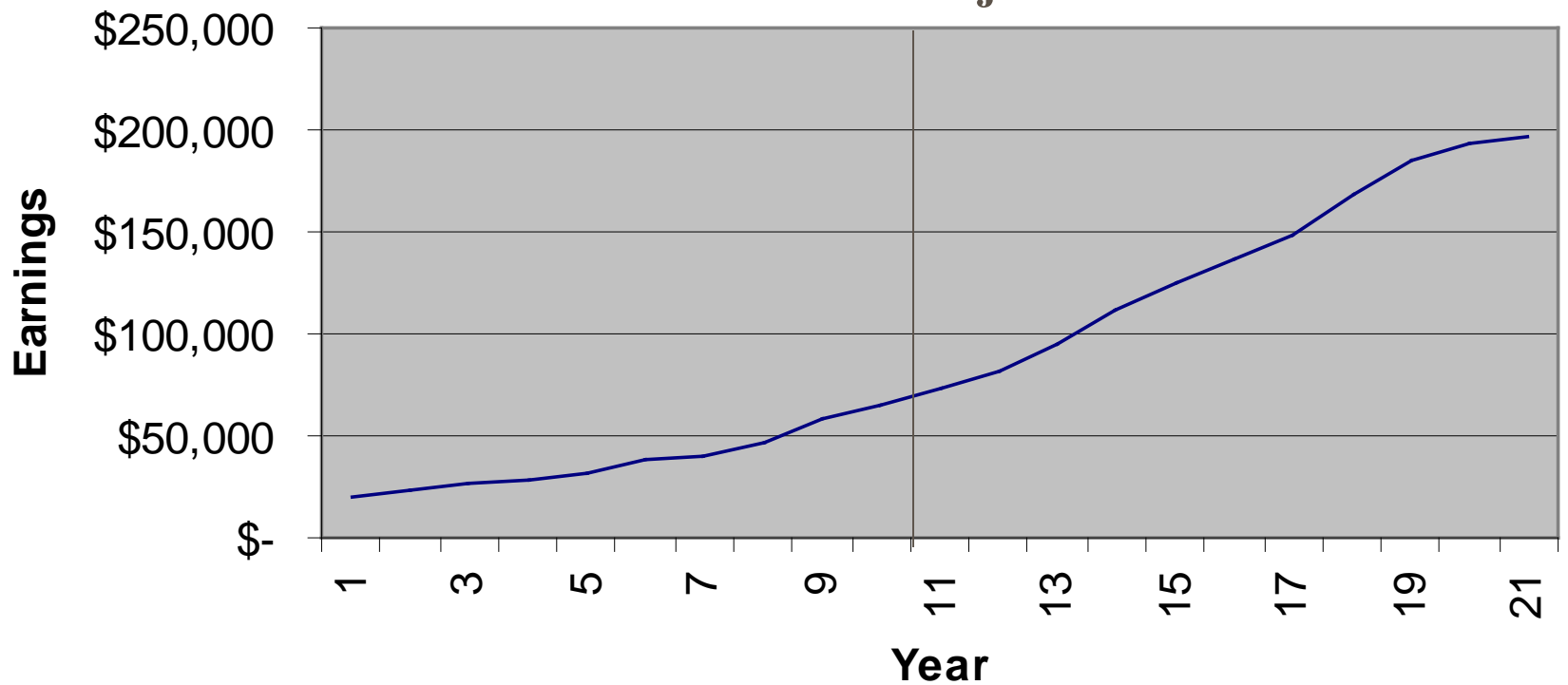
Year of Project





Brevard

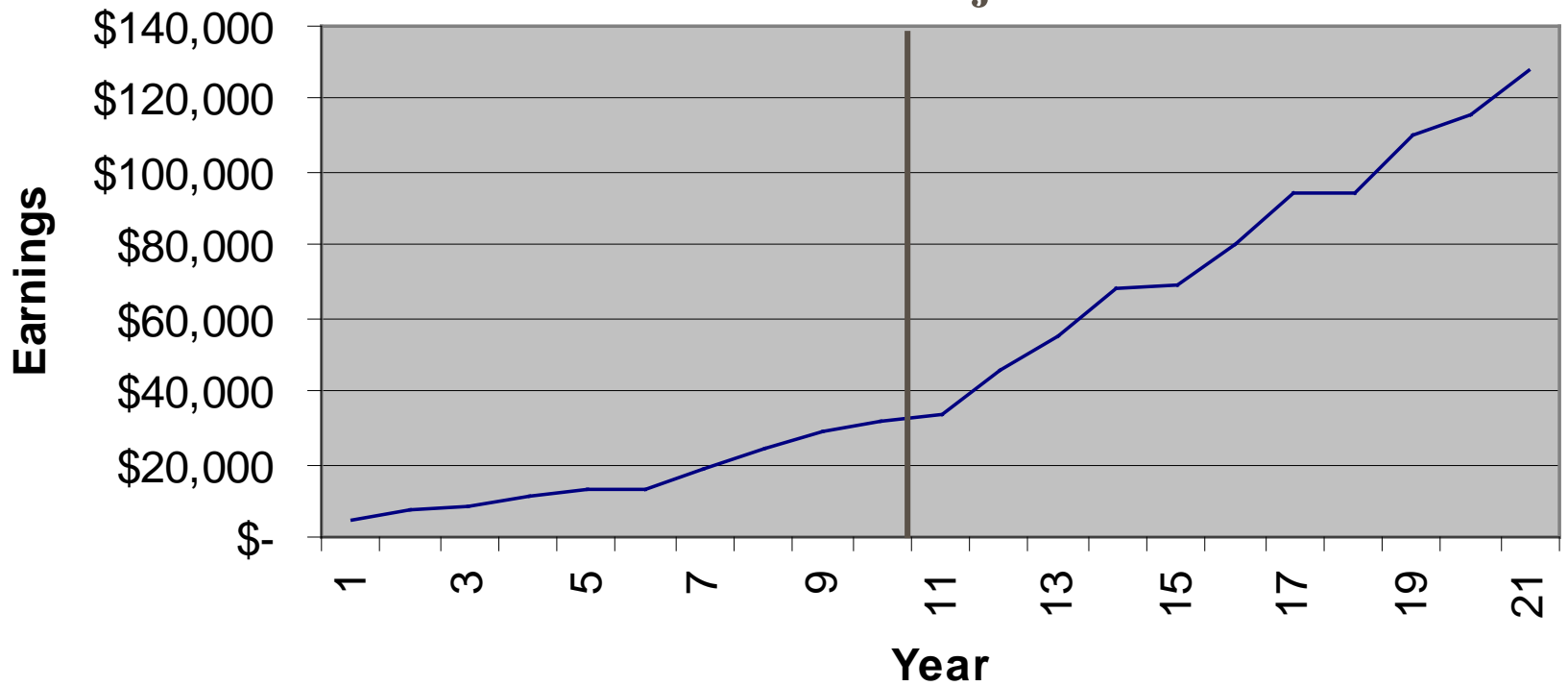
Year of Project





Beaufort, SC

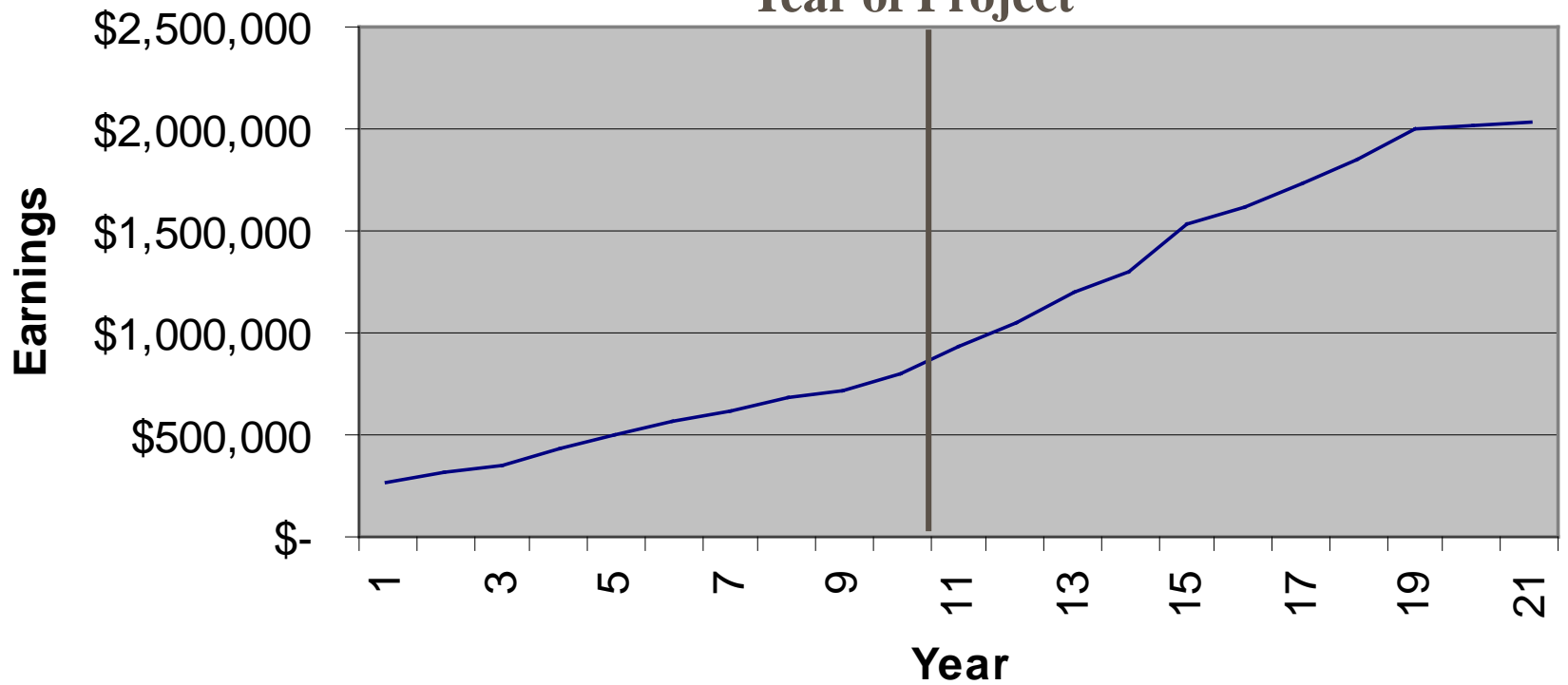
Year of Project





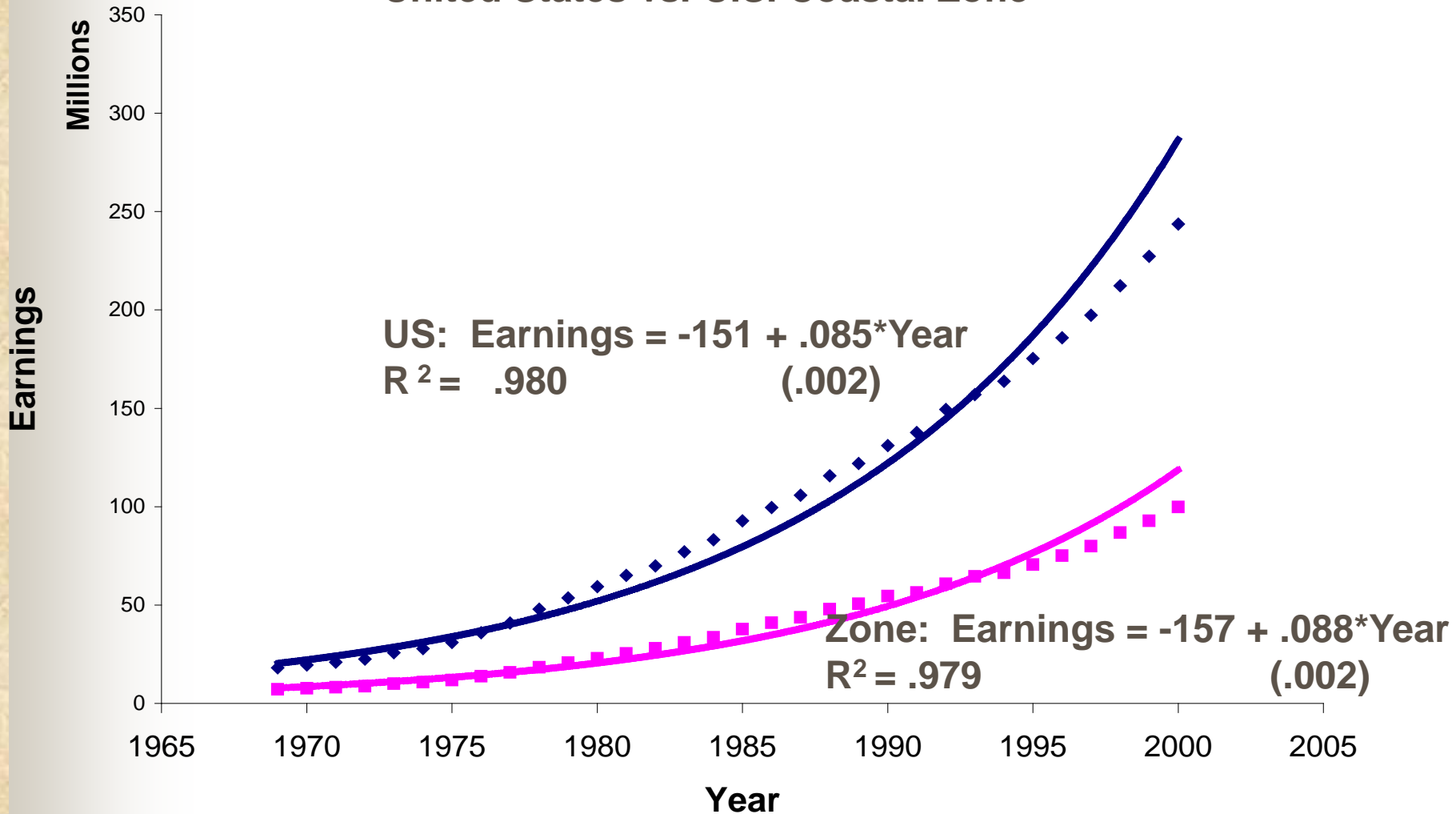
San Diego

Year of Project



Earnings in the Tourism Sector

United States vs. U.S. Coastal Zone



Trends in Tourism Earnings: Counties with Beach Nourishment Projects

County	Growth Rate	Standard Error	Adjusted R ²
Coastal Zone	.088	.002	.980
Miami-Dade FL	.095	.003	.965
Palm Beach FL	.107	.003	.972
Brevard FL	.098	.004	.958
Virginia Beach VA	.107	.004	.95
Beaufort SC	.126	.006	.923
San Diego CA	.097	.003	.977



Conclusions

Two types of economic benefits to the tourism sector derive from local beach management projects:

1. A bump in tourism employee earnings resulting from either higher paying opportunities or an increase in employment in the industry.
2. A structural change in the tourism industry in which tourism becomes a larger contributor to the local economy.



Conclusions (Cont.)

3. In all cases by managing the beach through proper investments such as through replenishment generates economic benefits in the form of increased earnings in the tourism industry.