

The Bridge to Space

The Value of S.R. 405 to Florida's Space Economy



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REMI User's Conference

About Us

- Council of Governments Serving 8-County Region
- Provide Technical Assistance including Economic Modeling Services
- Region's Economic Development District



Serving Brevard, Lake, Marion, Orange, Osceola, Seminole, Sumter, and Volusia counties

Economic Development District



- Develop Comprehensive Economic Development Strategy (CEDS)
- Make Region's Economy More Resilient
- Identify Competitive Industry Clusters



Regional Innovation Clusters



Aviation/Aerospace Cluster



- Cluster's Epicenter is Brevard County
- Home to NASA's Kennedy Space Center and Patrick Air Force Base
- Numerous Suppliers and Related Establishments



Cluster Competitiveness



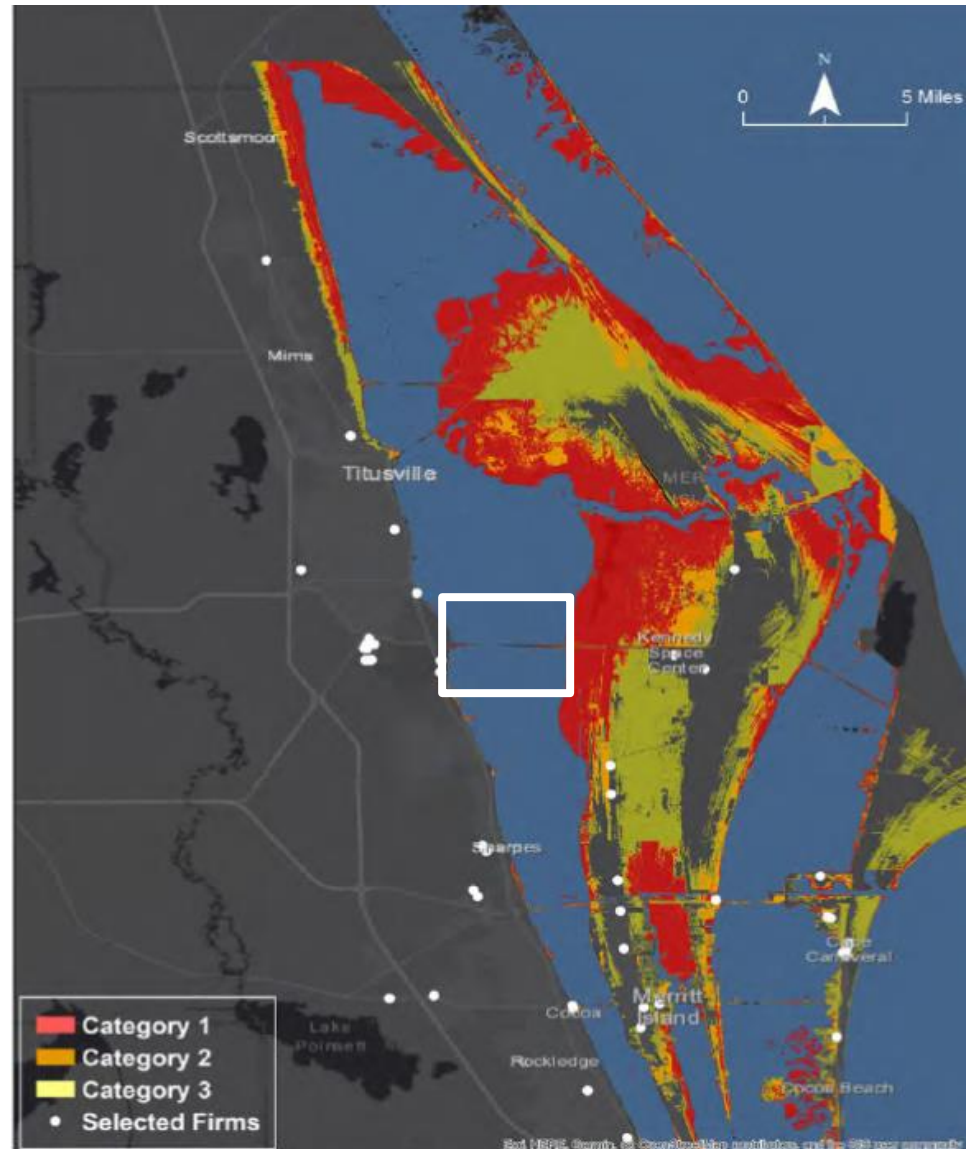
- Identify Workforce, Industry Base, and Place-based Assets
- Maintain Vital Infrastructure
- SR 405 Connects Kennedy Space Center Launch Complex with Mainland



SR 405 Issues



- Affected by Storm Surge and Sea Level Rise
- Current Structure Needs to Be Replaced
- Identify New Funding to Replace Bridge



EDA Grant



- Partnered with North Brevard Economic Development Zone
- Estimate Economic Importance of SR 405 to Brevard County's Economy
- Developed 4 Economic Impact Scenarios



Scenario 1



What is the Economic Value of SR 405?

Estimate the Current Value of SR 405 Based on Two Variables: Aerospace Company Earnings and the Amount Spent by Kennedy Space Center Visitors



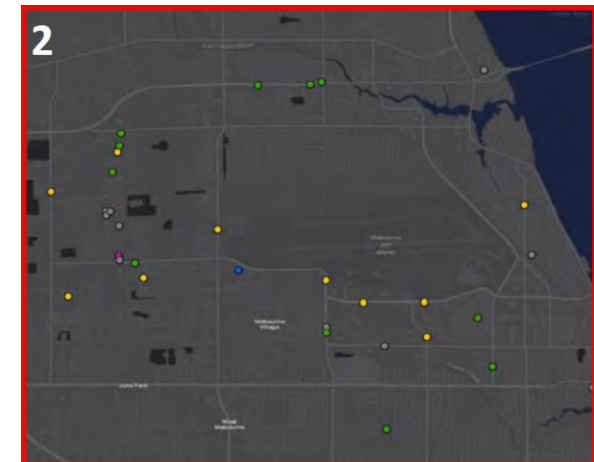
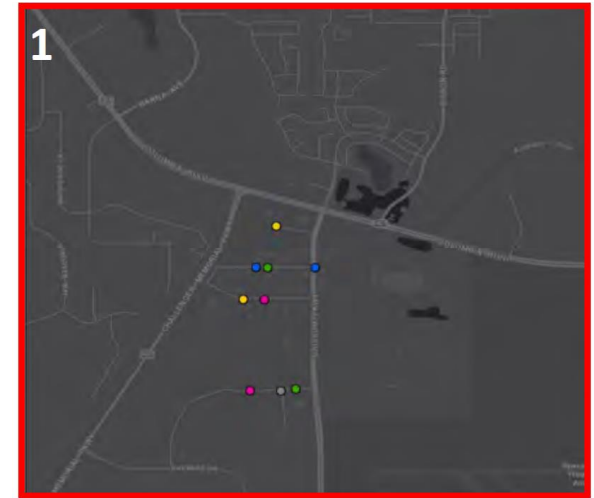
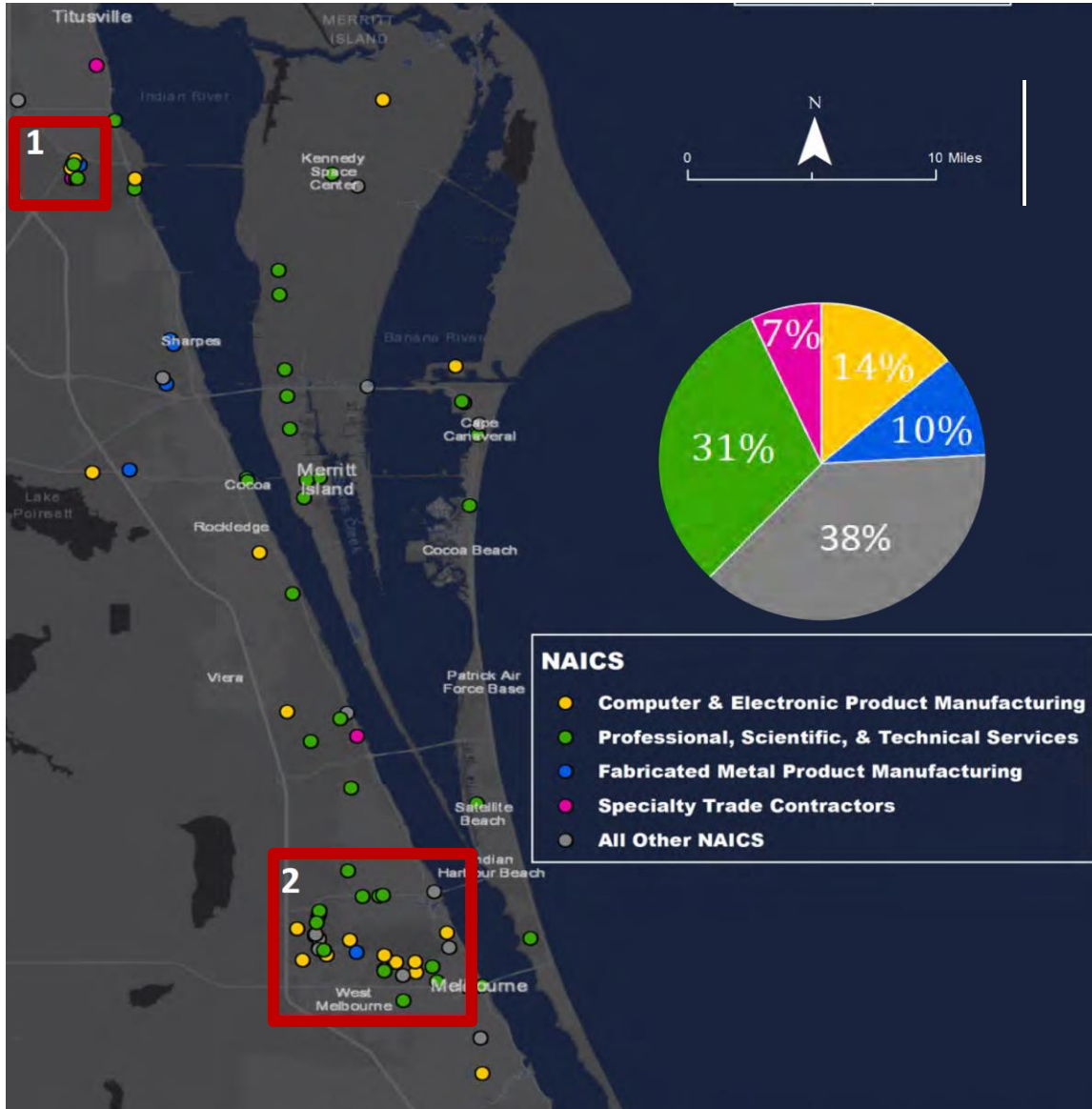
Aviation/Aerospace Profile



- Focused on Companies Serving Kennedy Space Center and Patrick Air Force Base
- 100+ Establishments
- Over 3,600 Employees
- \$686 Million in Annual Sales



Aviation/Aerospace Profile



Visitor Expenditures



- Kennedy Space Center Receives over 1.6 Million Visitors Annually
- Use the Space Coast Office of Tourism Hotel Occupancy and Visitor Characteristics Data

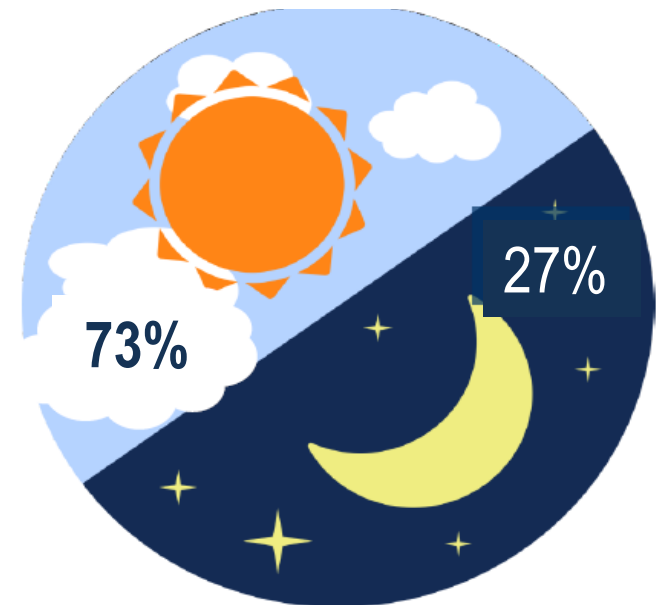


Visitor Expenditures



- \$336.6 Million in Total Visitor Expenditures
- Distributed Among Four Spending Categories:
 - Lodging
 - Food
 - Transportation
 - Entertainment/Shopping

**Average
Overnight Tourist
Expenditure
\$489**



Scenario 1 Results



Economic Indicator	Brevard County	Rest of Florida
Employment	14,809	1,496
Output	\$1,617,000,000	\$197,000,000
Personal Income	\$699,000,000	\$101,000,000
Gross Domestic Product	\$1,024,000,000	\$124,000,000

Scenario 2



Prospective Aerospace Economic Activity

Use a Vacant Land Use Analysis to Estimate Loss of Future Economic Activity in the North Brevard Economic Development Zone Due to Loss of the Bridge



Vacant Land Use Analysis



- Identify Vacant Parcels Using Property Appraiser Data
- Subtract Wetlands
- Use Floor Area Ratios to Calculate Developable Square Footage



Aerospace Employment



- Use Job/Square Foot Multiplier to Estimate Potential Employment
- Use Share of Aerospace Employment in Brevard County
- 29,061 Aerospace Jobs Capacity



**1 Job per 665
Square Feet**

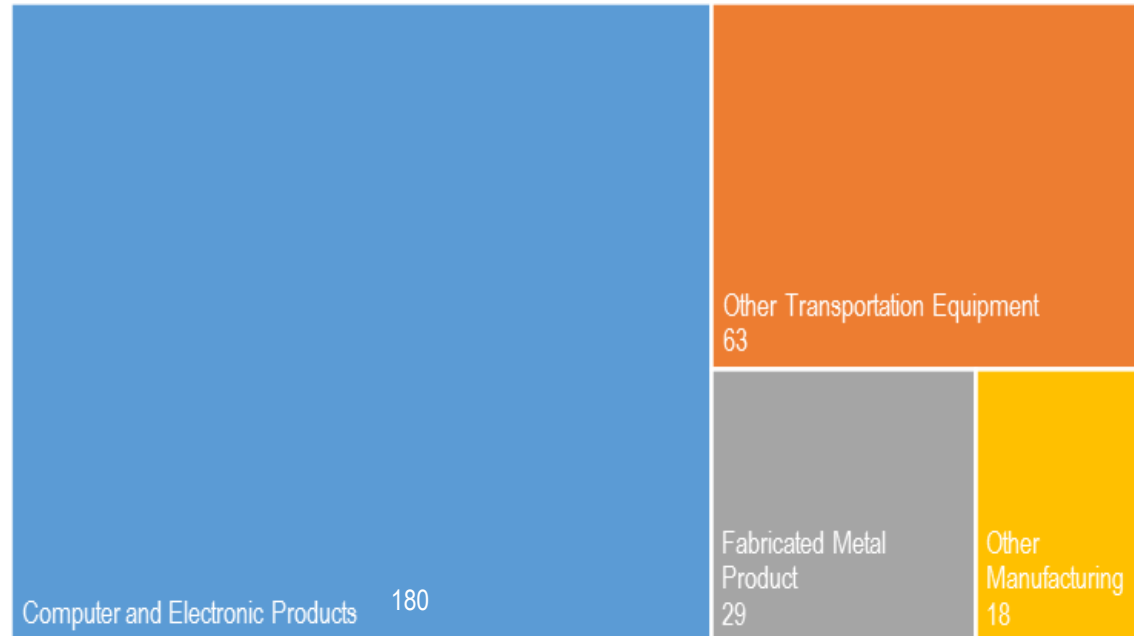


**37% Share of
Industrial Job Base**

Annual Aerospace Positions



- 1% Annual Growth Rate based on REMI Forecast
- 290 New Positions Per Year
- Use 10-Year Time Frame



Scenario 2 Results



Economic Indicator	10-Year Average
Total Employment	744
Output	\$164,300,000
Gross Domestic Product	\$103,700,000
Personal Income	\$77,200,000

Source: REMI PI+ v. 2.2.2

Scenario 3



What would be the Economic Loss?

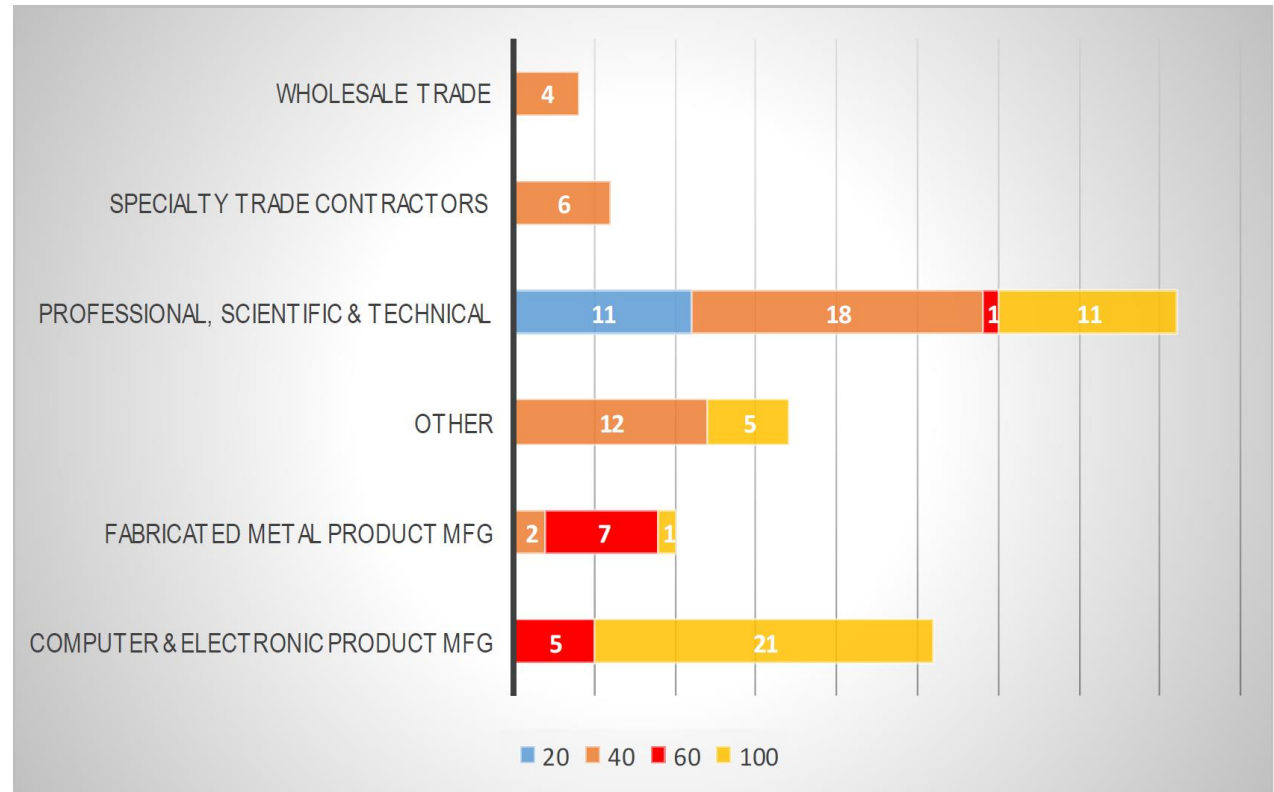
Estimate Brevard County's Economic Loss over a Ten-Year Period if SR 405 is Closed instead of being Replaced



Potential Output Losses



- Adjust Industry Output Losses based on Suppliers Dependence on NASA and Patrick Air Force Base



Visitor Spending Loss



- Assume Closure of Kennedy Space Center Visitor Complex
- Total Loss of Visitor Spending



Scenario 3 Results



Economic Indicator	Economic Losses
Total Employment	-13,149
Output	-\$1,530,100,000
Personal Income	-\$945,700,000
Gross Domestic Product	-\$975,000,000

Source: REMI PI+ v. 2.2.2

Output Loss by Industry



Industry	Output Loss
Professional, Scientific, and Technical Services	-\$277,800,000
Retail Trade	-\$233,900,000
Construction	-\$169,700,000
Computer & Electronic Product Manufacturing	-\$139,700,000
Amusement, Gambling, and Recreation Industries	-\$86,600,000

Source: REMI PI+ v. 2.2.2

Scenario 4



SR 405 Funding Comparison

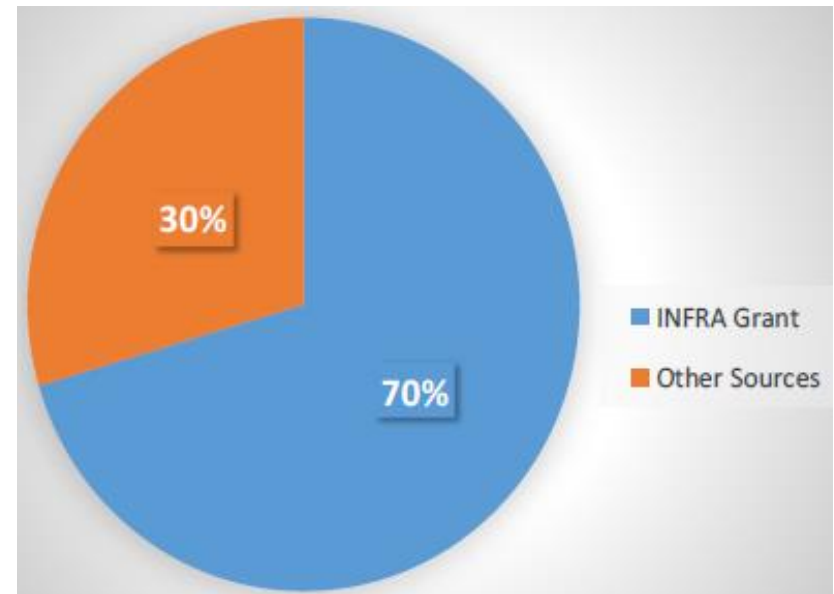
Estimate Economic Impact of Using Different Funding Sources to Pay for the Replacement of the Bridge



SR 405 Replacement Costs



- Total Cost to Replace the Bridge is \$127.8 Million
- Space Florida Awarded a \$90 Million INFRA Grant
- \$37.8 Million Needed to Complete the Project





Funding Source Comparison

Economic Indicator	Local Government	State Government
Total Employment	284	317
Gross Domestic Product	\$23,600,000	\$41,400,000
Output	\$37,400,000	\$24,200,000
Personal Income	\$20,600,000	\$25,800,000

SR 405 Project



Major Findings

- Redeveloping the SR 405 Bridge is Pivotal to Maintain the Competitiveness of Brevard County's Aerospace Cluster
- The Value of the Bridge to Brevard County's Economy Surpasses the Cost of Replacing It.



SR 405 Project



Other Lessons

- ECFRPC will Follow Similar Methodology to Estimate the Economic Value of Other Regional Industry Clusters
- Continue Using the REMI PI+ Model To Quantify the Economic Impact of Resiliency Projects



QUESTIONS

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