

# ECONOMIC IMPACT STUDY OF NASA IN FLORIDA

FISCAL YEAR 2017



# Executive Summary

## 2017 IMPACTS OF SPACEPORT OPERATIONS IN FLORIDA

**23,753**  
FLORIDA JOBS

**\$1.6B**  
TOTAL INCOME  
GENERATED

**\$2.2B**  
VALUE ADDED TO  
FLORIDA'S GDP

**\$3.9B**  
TOTAL ECONOMIC  
IMPACT IN FLORIDA

### SPACEPORT WORKFORCE

**1,964**  
NASA CIVIL SERVANTS

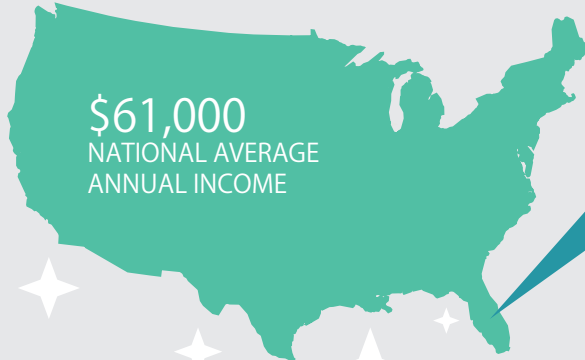
**5,488**  
NASA CONTRACTOR  
EMPLOYEES

**1,314**  
COMMERCIAL LAUNCH  
PROVIDER EMPLOYEES

**544**  
OTHER SPACEPORT  
TENANT EMPLOYEES

**884**  
KSC VISITOR COMPLEX  
EMPLOYEES

EVERY **\$1** SPENT AT KSC RESULTS IN  
FOR FLORIDA'S ECONOMY **\$1.92**



**SPACEPORT  
AVERAGE  
INCOME**  
**\$99,000**

### VISITORS

**1.693M**  
TOTAL VISITORS TO  
THE KSC VISITORS  
COMPLEX

**1.4M**  
OUT-OF-STATE  
VISITORS

**\$110.1M**  
OUT-OF-STATE  
VISITOR SPENDING

GROWTH OF THE MULTI-USER SPACEPORT  
NON-NASA JOBS AT KSC: 2010, 2017

**10%** **27%**  
2010 2017

**10,194 + 13,559**  
TOTAL SPACEPORT  
EMPLOYMENT ADDITIONAL FLORIDA  
JOBS CREATED

EVERY  
**10**  
JOBS  
AT KSC



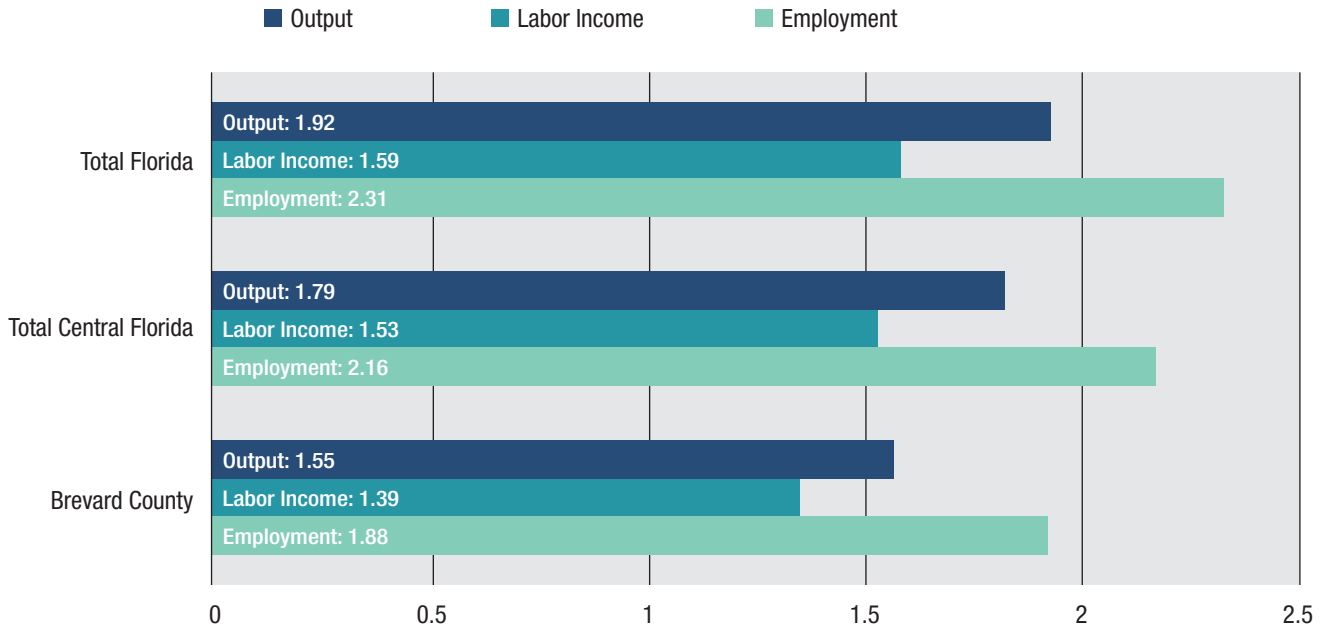
CREATES  
APPOX. **13.3**  
JOBS IN FLORIDA

The past fiscal year has been one of continuous change at NASA's Kennedy Space Center, bringing NASA's vision of transforming the center into a multi-user spaceport to reality. From the Shuttle Landing Facility to Launch Complex 39 and out to Exploration Park, the transformation is visible as commercial partners and NASA contractors work side-by-side with the government to advance the United States' position in space. The economic impact from these activities has provided, a healthy \$3.9B in output for the State of Florida in FY2017. Kennedy Space Center has evolved from a government-only space launch complex to a multi-user spaceport; for America's premier multi-user spaceport, the future looks very bright.

# Introduction

NASA's Kennedy Space Center (KSC) is a significant economic engine that injects operational and research expenditures into the regional economy. In addition, KSC's presence creates additional economic activities beyond its own budgetary spending as local business and commerce is enhanced by the injections of spending and the multiplier effect it has in the local economy. This study\* measures the totality of KSC's economic impact at various geographic levels: 1) the individual hosting county (Brevard), 2) the multi-county surrounding region (Brevard, Flagler, Lake, Orange, Osceola, Seminole, and Volusia), and 3) the entire state of Florida. The geographic regions are not isolated; any expenditure occurring in Brevard County impacts the analyses for Central Florida, and the entire state of Florida.

## Relevant Multipliers by Geographic Area



### Multiplier Factors

The jobs multiplier of 2.31 for the state of Florida indicates that each direct job (i.e., civil service, contractors, tenants, etc.) supports an additional 1.31 jobs within the state. The labor income multiplier of 1.59 for the state of Florida indicates that each dollar of labor income resulted in an additional \$0.59 of labor income within the state. Finally, the output multiplier of 1.92 indicates that each dollar of direct output associated with KSC resulted in an additional \$0.92 of statewide output. The same interpretation is applicable to the Central Florida regions and Brevard County.

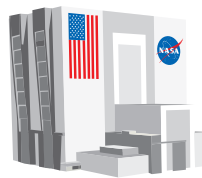
\* The economic impact analysis presented is based on research of 2017 economic data conducted by Aymone Pointet Emanis, MBA of the Economic Development Commission of Florida's Space Coast; and Michael H. Slotkin, PhD and Alexander R. Vamosi, PhD of Praecipio EFS.

# Kennedy Space Center Impact

NASA's Kennedy Space Center (KSC), as a multi-user spaceport, includes thousands of employees divided among the following categories: NASA civil service employees, NASA contractor employees, other spaceport tenant employees, commercial launch provider employees and Kennedy Space Center Visitor Complex (KSCVC) employees. As of 2017, the spaceport employed 10,194 people which created 13,559 jobs in Florida. The result is 23,753 total jobs statewide due to the work performed at Kennedy Spaceport. For every 10 direct jobs at the Spaceport an additional 13.3 jobs are created in Florida.

Employees of the spaceport (including all government, commercial, and academic sources) earned about \$1.0B in income in 2017 resulting in an additional \$0.6B of indirect and induced income for Florida.

## Spaceport Jobs



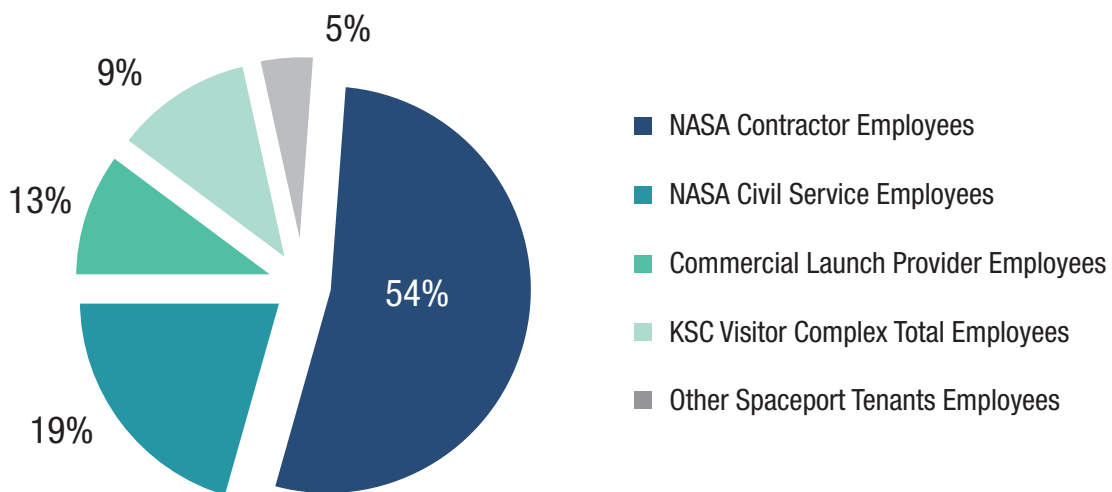
~10,194 Jobs

## Jobs in Florida



~23,753 Jobs

## Share of Direct NASA KSC Related Employment in Florida



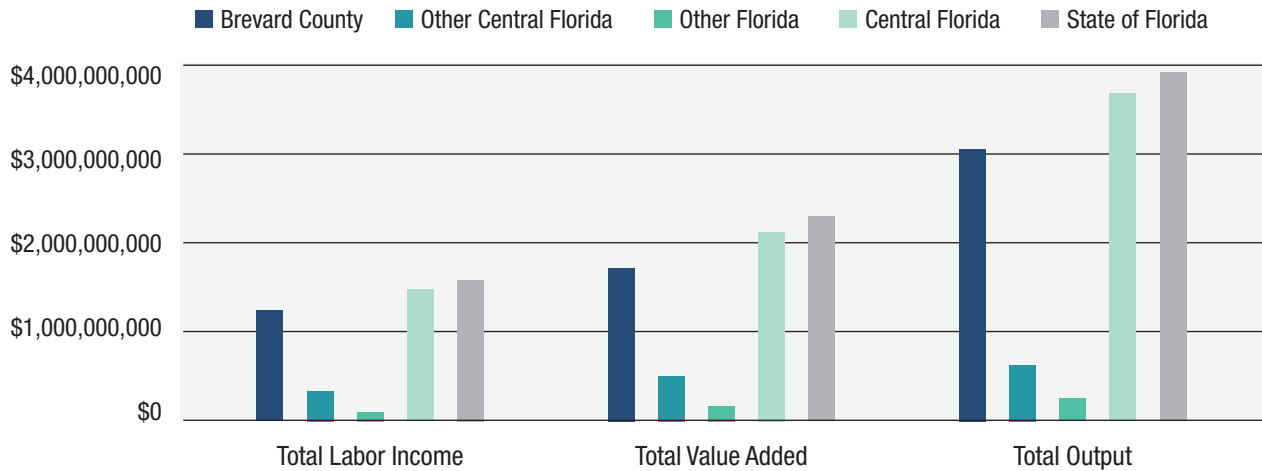
Spaceport Average Income \$99,646

# State of Florida Impact

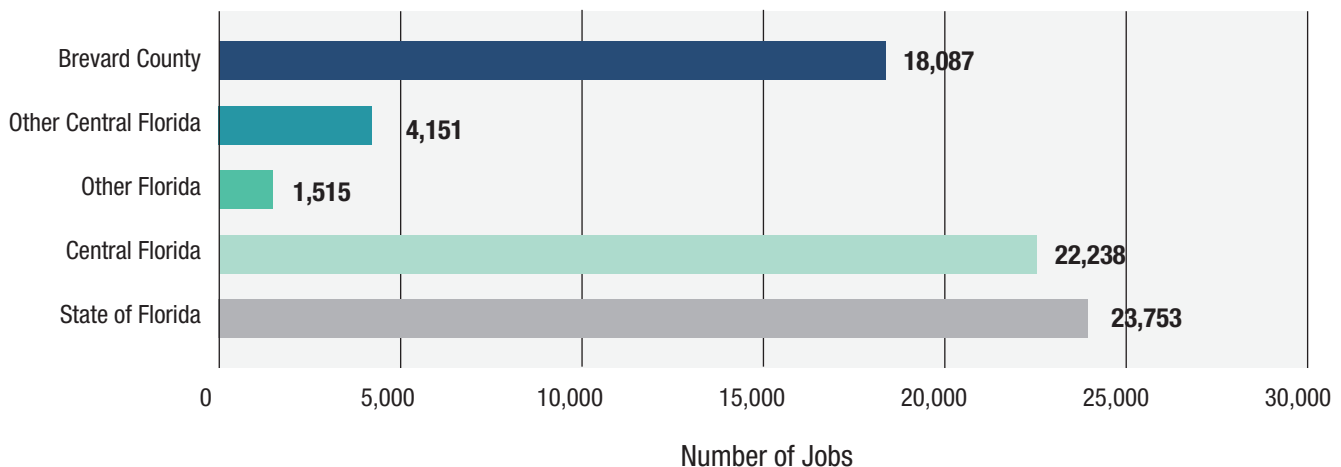
In FY17, earnings and commodity purchases related to operations at the spaceport had a direct economic impact of \$1.6B on Florida's economy, which subsequently resulted in an additional indirect and induced impact of \$2.2B for a total spaceport economic impact of \$3.9B in Florida (Brevard County \$3.0B, other Central Florida \$608M, other Florida \$274M).


Operations at the Spaceport generated \$2.2B to Florida's gross domestic product (GDP) which is the sum of labor income, indirect business taxes, and business income associated with the spaceport's operations.

## Total Economic Impact of all NASA Kennedy Space Center Activities by Geography



## Total Employment Impact of all NASA Kennedy Space Center Activities by Geography



 **Economic Impact**  
**\$3.9B**

# NASA Civil Service Impact

Civil service employees employed by NASA's Kennedy Space Center (KSC) or other NASA centers include workers involved in launch and launch control, payload processing, mission integration and technology development, as well as those workers involved in planning, maintenance, operation and management of KSC.

The 1,964 total Florida jobs ultimately translate into employment of 4,159 and \$597M in output.

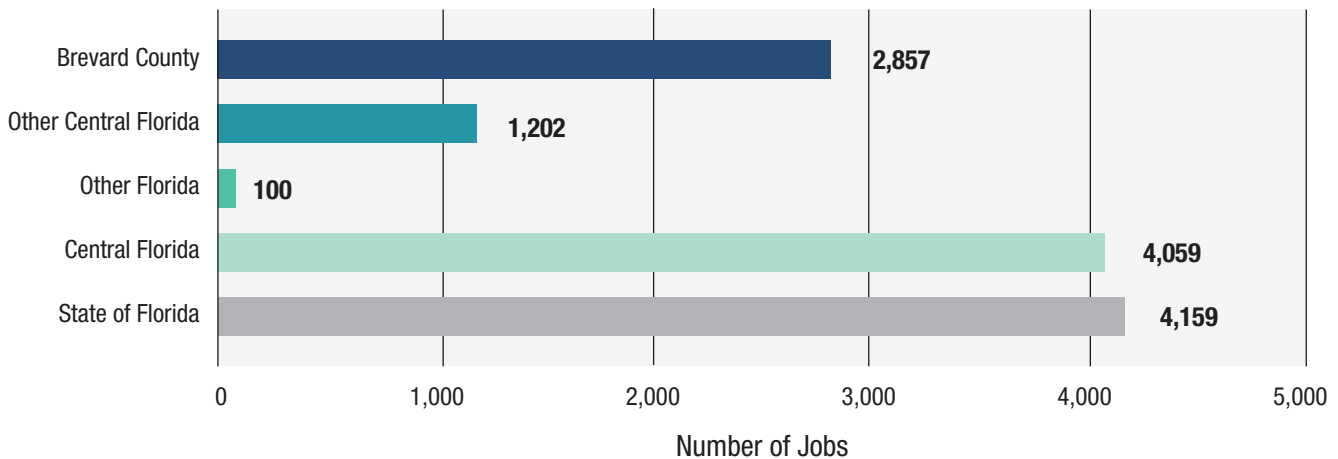


**Direct Jobs**  
~1,964 Florida Jobs

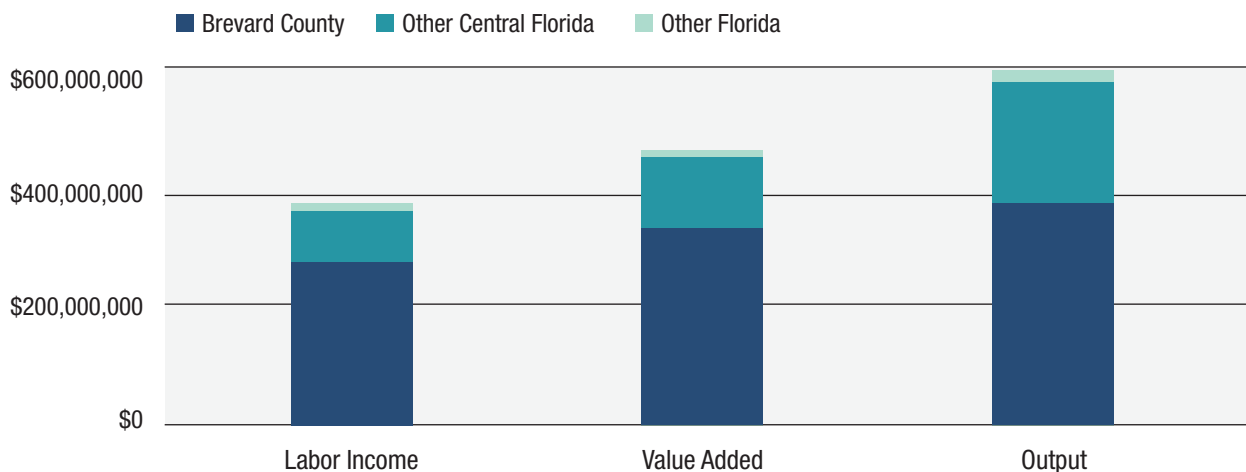


**Economic Impact**  
\$597M

## Contribution by Region to NASA Civil Service Total Employment Effects



## Contribution by Region to NASA Civil Service Total Effects



# NASA Contracts Impact

For FY 2017, NASA contracts (excluding those to launch providers) awarded to businesses throughout Florida, represent a total obligations value of \$931.2M, which includes \$130.7M for NASA's Kennedy Space Center (KSC) Orion work performed on a Johnson Space Center contract, and a total direct employment of 5,488. Based on each contract's specific place of performance, it was established that 99.8% of the obligations (\$930.0M) was attributable to Brevard County. Of the residual 0.2%, about \$291K was spent in other Central Florida counties, and \$902K was spent in the rest of Florida. The 5,488 total Florida jobs ultimately translate into employment of 12,569 and \$1.9B in output.



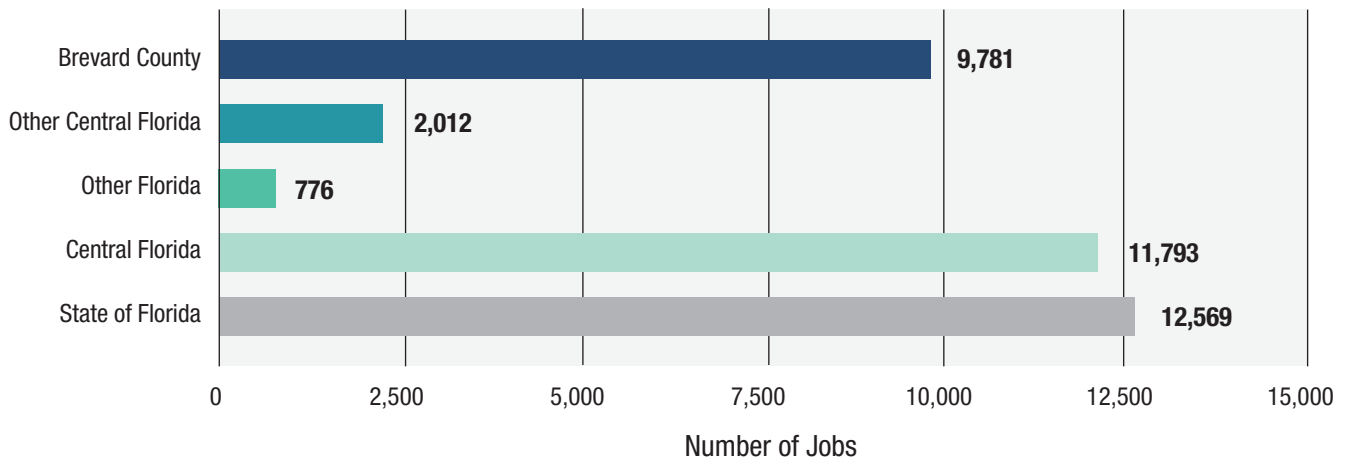
**Direct Jobs**  
~5,488 Florida Jobs



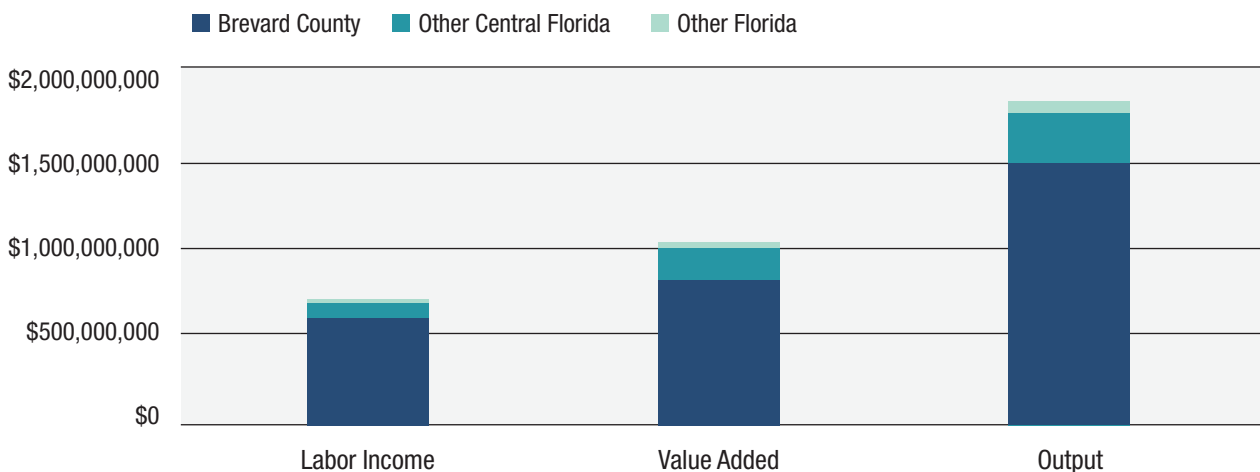
**Economic Impact**  
\$1.9B

**PROCUREMENT\***  
\$931.2M

## Contribution by Region to NASA Contractor Obligations Total Employment Effects



## Contribution by Region to NASA Contractor Total Effects



\* Commercial Launch Provider Contracts excluded from this data.

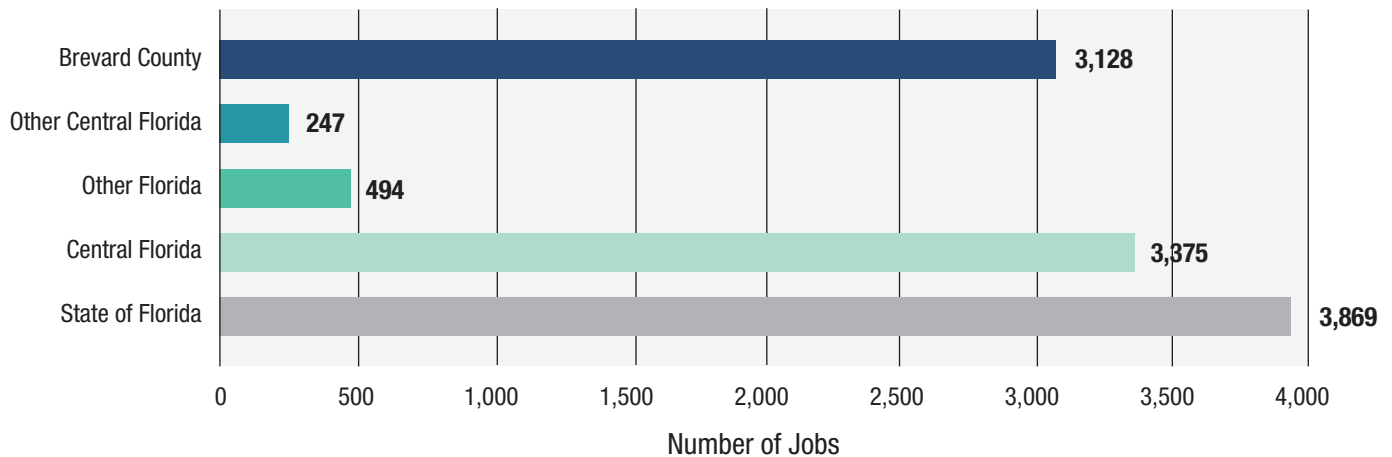
# Commercial Launch Providers

Today NASA's Kennedy Space Center (KSC) is characterized by its multi-user spaceport and the burgeoning commercial space industry. Launch providers such as United Launch Alliance, Space X, Boeing, and Blue Origin are key players in this process, and epitomize the likely conduct of next generation space exploration.

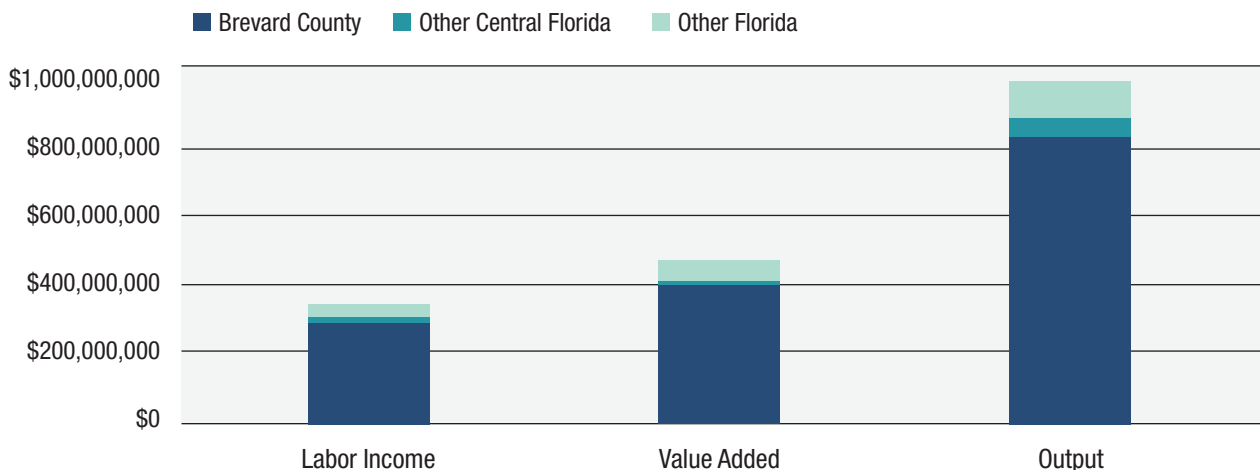
One of the difficulties in attempting to ascertain KSC's contribution to the impacts from Commercial Launch Provision is that while NASA contractual obligations of \$1.46B to the launch provider contractors is known, other private and public funds exist within those companies, and there is some uncertainty as to the full value of total expenditures. What is reasonably certain is the documented employment of 1,314 jobs, and while it is doubtful all of those jobs subsist solely on NASA contracts, they likely would not exist without those contracts.

The 1,314 jobs ultimately translates into employment of 3,869 and \$974.7M in output.

## Contribution by Region to Commercial Launch Providers Total Employment Effects



## Contribution by Region to Commercial Launch Providers Total Effects





# Other Spaceport Tenants

NASA's Kennedy Space Center reported 544 total Florida employees categorized under Other Spaceport tenants, including non-NASA federal civil servants and their contractors, workers who provide support services (such as Space Florida), and workers associated with research, development, experimentation, and testing in support of new technologies, procedures and products to enhance the multi-user spaceport and humankind.

The 544 total Florida Jobs ultimately translate into employment of 1,152 and \$165M in output.

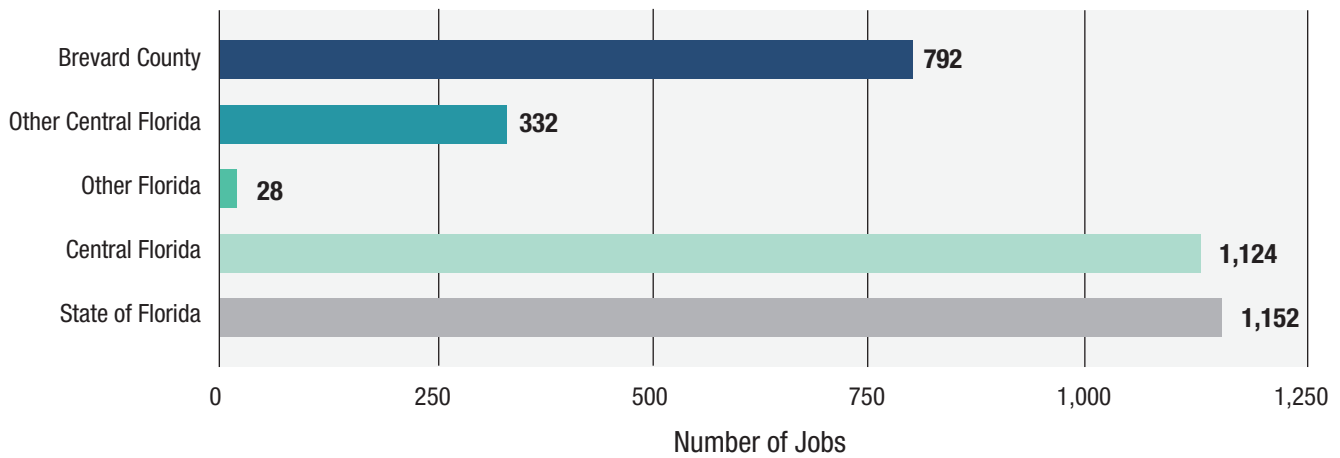


**Direct Jobs**  
~544 Jobs

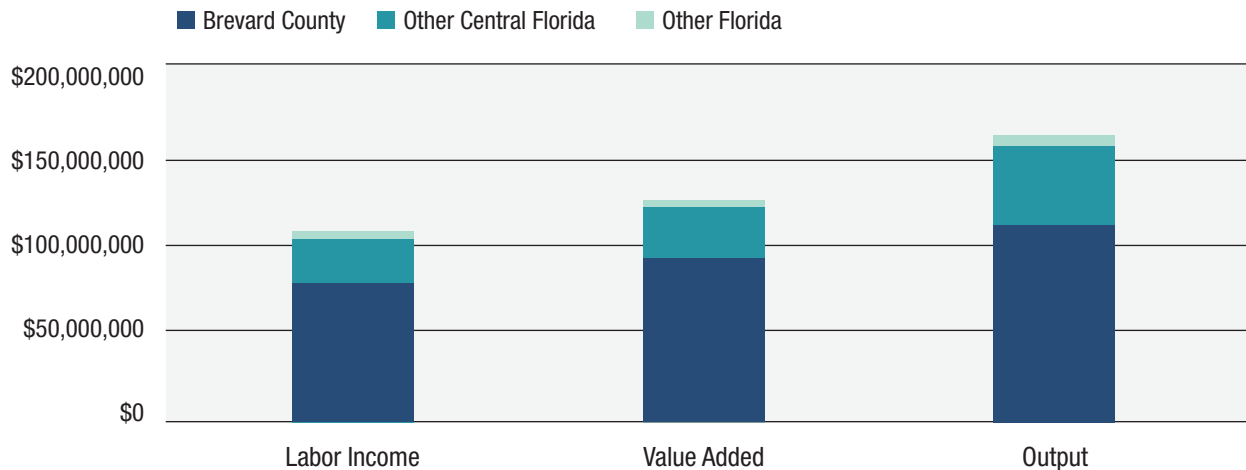


**Economic Impact**  
\$165M

## Contribution by Region to Other Spaceport Tenants Total Employment Effects



## Contribution by Region to Other Spaceport Tenants Total Effects

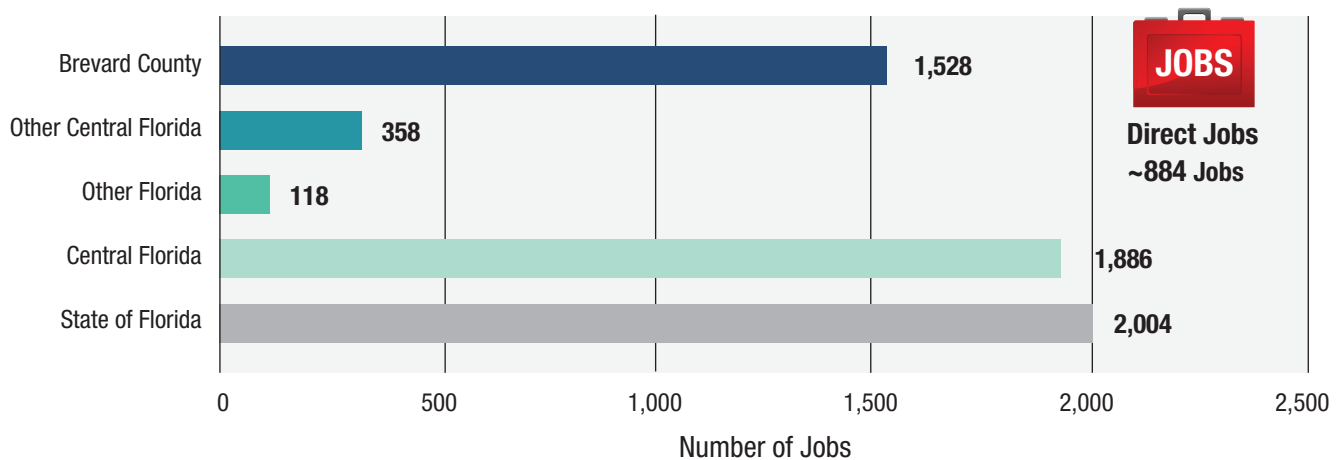


# KSC Visitor Complex and Business Visitor

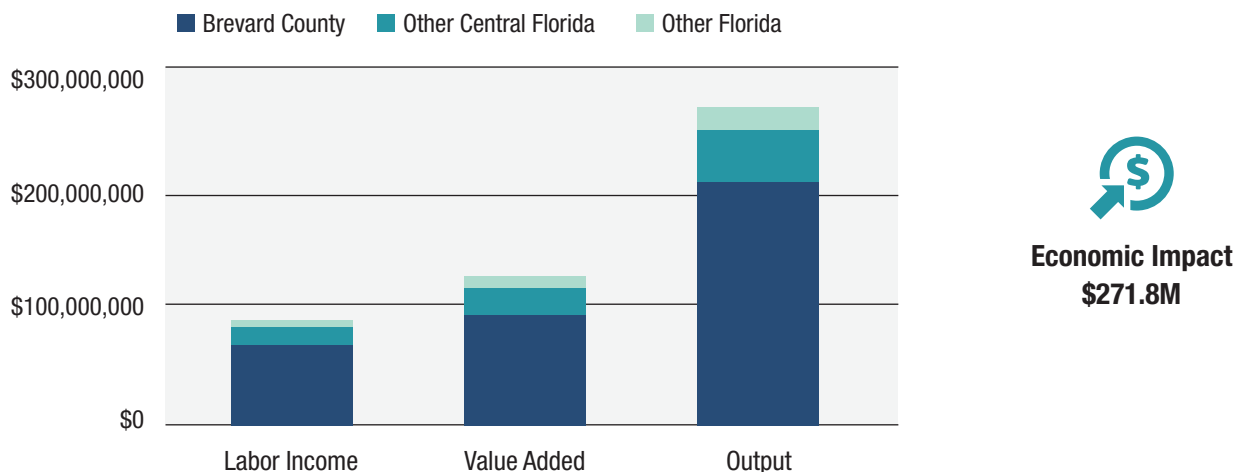
NASA's Kennedy Space Center (KSC's) economic impact is not only linked to employment and contracts associated with carrying out its aerospace programs; it also encompasses a tourism destination, the universally regarded Kennedy Space Center Visitor Complex (KSCVC).

In FY 2017, KSCVC welcomed a total of 1.693M visitors, of which 82% were from out of state. The expenditure flows derived from these tourists represented an injection of \$101.6M into Brevard's economy. From its revenue intake, KSCVC paid a total of \$35.3M in wage compensation to its 754 employees who reside within Central Florida, while \$35.7M of operational purchases were made within Florida. Finally, KSCVC expended an additional \$15.5M towards construction, including a new exhibit, renovation of facilities, and equipment enhancement.

## Contribution by Region to KSCVC Out of State Tourist Spending, Construction and NASA Business Visitors Total Employment Effects



## Contribution by Region to KSCVC Out of State Tourist Spending, Construction and NASA Business Visitors Total Effects



As you look across the Space Coast's horizon, you can see that our vision of transitioning NASA's Kennedy Space Center to a bustling spaceport that supports government and commercial space operations has become a reality. All of these accomplishments could not have been achieved without the dedication and amazing teamwork of the workforce at the center. I invite you to read more about all of the amazing work going on here at Kennedy Space Center at [https://www.nasa.gov/centers/kennedy/about/annual\\_rpt/annual\\_rpt-index.html](https://www.nasa.gov/centers/kennedy/about/annual_rpt/annual_rpt-index.html)

*Kennedy Space Center Director Robert Cabana*

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