

**The Florida Senate**  
**BILL ANALYSIS AND FISCAL IMPACT STATEMENT**

(This document is based on the provisions contained in the legislation as of the latest date listed below.)

Prepared By: The Professional Staff of the Commerce Committee

BILL: SM 1896  
 INTRODUCER: Senator Altman  
 SUBJECT: Commercial Civil, Military, or Academic Endeavors  
 DATE: March 2, 2010                      REVISED: \_\_\_\_\_

	ANALYST	STAFF DIRECTOR	REFERENCE	ACTION
1.	Pugh	Cooper	CM	<b>Favorable</b>
2.			RC	
3.				
4.				
5.				
6.				

**I. Summary:**

Cost and timing issues with the Space Shuttle program’s successor, Constellation, has led to concerns among Florida’s aerospace workers and industry about significant layoffs and retooling over the next 5 years. More recently, President Obama’s announced cancellation of Constellation and a shift toward reliance on commercial spaceflight companies have raised more questions about how Florida’s workforce will be affected.

SM 1896 urges the U.S. Congress to facilitate any commercial, civil, military, or academic endeavor, including job training and placement, which will maintain Florida’s high-skilled human space flight workforce.

**II. Present Situation:**

Space Workforce Issues

The last mission for the Space Shuttle program is scheduled for September 2010. The “moon to Mars” successor program (known as Constellation) is scheduled to begin launches no earlier than 2015.<sup>1</sup> The intervening period is referred to as the “shuttle gap,” in which a number of employees in the aerospace industry, in Florida and elsewhere, likely will lose their current jobs.<sup>2</sup>

<sup>1</sup> On January 14, 2004, then-President Bush announced a new mission for America’s civil space program that calls for human and robotic missions to the moon, Mars, and beyond. See Report of the President’s Commission on Implementation of United States Space Exploration Policy. Available at [http://www.nasa.gov/pdf/60736main\\_M2M\\_report\\_small.pdf](http://www.nasa.gov/pdf/60736main_M2M_report_small.pdf). Last visited Feb. 24, 2010.

<sup>2</sup> Senate Issue Paper 2009-305, Efforts to Address Workforce Issues Related to the Space Program. Published October 2008. Available at [http://www.flsenate.gov/data/Publications/2009/Senate/reports/interim\\_reports/pdf/2009-305cm.pdf](http://www.flsenate.gov/data/Publications/2009/Senate/reports/interim_reports/pdf/2009-305cm.pdf).

In August 2007, the Brevard Workforce Development Board, Inc., (BWDB) estimated that shuttle-related activity in Florida supports a workforce level of approximately 9,235 employees (6,340 United Space Alliance employees and 2,895 sub-tier and related support contractor employees). The majority of this workforce is located at or near the Kennedy Space Center. However, the total economic impact of the space shuttle program is statewide, and it has a specific shuttle-related supplier base of some 1,046 companies throughout the state.<sup>3</sup>

The BWDB further found that Shuttle workforce skills are highly translatable to any work that the state pursues as part of its next-generation space activities. The BWDB estimated that one-third of the space shuttle-related workforce will need transition assistance to a different industry or occupation, and one-third will need skills upgrades for the next generation space programs, public or private. The remaining one-third is expected to retire.<sup>4</sup> Disregarding the number of employees who will retire, the BWDB estimates that at least 3,500 aerospace workers will lose their current positions.<sup>5</sup>

However, the most recent BWDB report, dated January 2010, appears to indicate that of the 9,160 total current space shuttle-related workers, between 6,400 to 7,000 may be impacted greater than anticipated because they may not “easily transition, at this time, to known new programs...”<sup>6</sup> This report predates the Obama Administration’s announced cancellation of Constellation.

Additionally, the new report indicates that by March 2011, thousands of Florida aerospace workers may be laid off – a change from past transitions from one federal program to another, where there was a gradual ramping down of the labor force.

BWDB has been working with Workforce Florida, Inc., to implement training programs and placement services for aerospace employees who may already be laid off or are expected to lose their jobs in the next few years. Additionally, BWDB, the Governor’s Office, Enterprise Florida, Inc., and Space Coast area economic development entities have been coordinating efforts to recruit companies that need the type of highly skilled workforce available in the KSC region. They are trying to prevent a repeat of what happened to the Space Coast in the mid-1970s, when NASA transitioned from the Apollo program to the Space Shuttle program. According to some news accounts, as many as 10,000 workers affected by the transition left the area with their families; unemployment rose to 15 percent, and property values plunged.

#### NASA’s Economic Impact

NASA’s operations in Florida are a major economic driver.<sup>7</sup> The total amount of NASA spending (so-called “outside money”) for KSC-related activities was \$1.96 billion, including

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<sup>3</sup> Aerospace Workforce Outlook Report, Executive Summary, August 2007. Prepared by the Brevard Workforce Development Board, Inc. (BWDB). On file with the Senate Commerce Committee.

<sup>4</sup> Ibid.

<sup>5</sup> Aerospace Workforce Transition Program Implementation Plan, July 17, 2008. Prepared by the BWDB. This estimate constitutes the direct job losses due to the retirement of the shuttle program. BWDB staff also estimate that the indirect job losses could be 2.5 times greater. On file with the Senate Commerce Committee.

<sup>6</sup> Aerospace Workforce Outlook Report – Phase III, January 2010. Prepared by the BWDB. On file with the Senate Commerce Committee.

<sup>7</sup> Information in the paragraph was obtained from the report, “Economic Impact of NASA in Florida, FY 2008.” Available at [http://www.nasa.gov/centers/kennedy/pdf/318131main\\_economic-impact08.pdf](http://www.nasa.gov/centers/kennedy/pdf/318131main_economic-impact08.pdf). Last visited Feb. 24, 2010.

\$1.1 billion in wages in FY 2007-2008. Counting indirect spending, the total economic impact of NASA to Florida was estimated at \$4.1 billion in production output, \$2.1 billion in household income, 40,802 jobs, and \$103 million in state and local tax revenues. The study also found that 98 percent of the output impact and 99 percent of the jobs and wage impacts occur in the seven-county Central Florida region<sup>8</sup> around KSC.

#### A New Direction for NASA

Since 2005, concerns have been growing over the scheduled 2010 retirement of the Space Shuttle program and the estimated 5-year gap before its successor, Constellation, was scheduled to begin flights to the ISS and beyond. Last year, President Obama appointed a 10-member commission to evaluate U.S. space programs and policies; over the summer, this Review of U.S. Human Space Flight Plans Committee (dubbed the “Augustine Commission” for its chairman, retired Lockheed-Martin CEO Norm Augustine) held a number of hearings around the nation to hear public testimony. The committee’s report,<sup>9</sup> published in October 2009, concluded in its findings that:

- NASA’s current and (at-the-time) projected budgets were insufficient to meet the current deadlines to complete the Constellation system and get it airborne;
- The International Space Station is a valuable and costly asset that should be maintained;
- Use of commercial cargo vessels in low earth launches should be considered because it offers lower costs and frees up NASA to focus on longer-distance human exploration projects and other missions; and
- The U.S. should adopt a “flexible path” to space exploration, and not be locked into specific destinations by specific dates.

When President Obama released his FY 10-11 budget request on February 1, 2010, funding for the Constellation program was deleted. But there was increased funding over each of the next 5 years to:

- Pursue new exploration research and development programs in areas such as in-orbit refueling, heavy-lift and propulsion rocketry, and robotic precursor missions to outer space in advance of astronaut travel;
- Provide more funding for the ISS, with a goal to extend its lifetime to at least 2020 or beyond with assistance from other nations;
- Invest in opportunities to use commercial spaceflight companies to carry astronauts and cargo into space;
- Add nearly \$1 billion to modernize KSC to improved use by NASA and others;
- Spend an additional \$600 million to assist the remaining Space Shuttle flights;
- Provide grants and other funds to promote space-related research and development; and
- Increase funding for NASA’s expanded responsibilities for climate research.

Congress has begun committee hearings on the Obama Administration’s space proposals, and opposition has been expressed by some members of Congress concerned about the proposed shift.

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<sup>8</sup> The report lists those seven counties as Brevard, Flagler, Lake, Orange, Osceola, Seminole, and Volusia.

<sup>9</sup> The full report is at [http://www.nasa.gov/pdf/396093main\\_HSF\\_Cmte\\_FinalReport.pdf](http://www.nasa.gov/pdf/396093main_HSF_Cmte_FinalReport.pdf). The summary report is available at [http://www.nasa.gov/pdf/384767main\\_SUMMARY%20REPORT%20-%20FINAL.pdf](http://www.nasa.gov/pdf/384767main_SUMMARY%20REPORT%20-%20FINAL.pdf).

### **III. Effect of Proposed Changes:**

SM 1896 urges the U.S. Congress to “facilitate any commercial, civil, military, or academic endeavor, including job training and placement, which will maintain this nation’s highly skilled human space flight workforce, which currently resides in Florida.”

In making this request, the memorial notes that:

- Florida is the home of the nation’s only human space flight workforce;
- The United States’ “prowess in space” suffered when the Apollo program was abruptly terminated, followed by a lengthy gap in time before the onset of the Space Shuttle Program;
- The nation did not sufficiently facilitate alternate commercial, civil, military, or academic endeavors, including job training and placement, in Florida to preserve the skills of the Apollo workforce so that they could be put to use on the Space Shuttle Program;
- The unemployed, highly skilled Apollo workforce was forced to leave Florida to find employment elsewhere;
- The Space Shuttle Program was forced, in large part and at great expense, to use a new and untested workforce for space shuttle launch operations; and
- A gap of at least 5 years will occur between the Space Shuttle retirement and the next human space flight, but the United States should not repeat the workforce mistakes made at the end of the Apollo program.

Copies of the memorial, if approved by the Legislature and the Governor, will be distributed to the President of the United States, the President of the United States Senate, the Speaker of the United States House of Representatives, and to each member of Florida’s Congressional delegation.

### **IV. Constitutional Issues:**

A. Municipality/County Mandates Restrictions:

None.

B. Public Records/Open Meetings Issues:

None.

C. Trust Funds Restrictions:

None.

### **V. Fiscal Impact Statement:**

A. Tax/Fee Issues:

None.

B. Private Sector Impact:

None.

C. Government Sector Impact:

None.

**VI. Technical Deficiencies:**

None.

**VII. Related Issues:**

None.

**VIII. Additional Information:**

A. Committee Substitute – Statement of Substantial Changes:

(Summarizing differences between the Committee Substitute and the prior version of the bill.)

None.

B. Amendments:

None.