Privatization of the Aerospace Sector and its Economic Impact on Florida

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Introduction

A decade after the end of the NASA (The National Aeronautics and Space Administration) shuttle program, innovations within the aerospace industry have been accelerating. Private sector activity is revolutionizing the field of space transport by increasing innovations, raising funds and improving efficiency. Florida is a key player in space sector growth due, in part, to locational characteristics, existing public infrastructure, and a pro-business environment. While other states have a strong reputation in the space sector, recently, Florida has become a significant force in the industry.

Research Questions & Hypotheses

1. How is Florida's space industry performing in comparison to Texas?

H1: Florida's space industry exhibits positive trends, whereas Texas' space industry is experiencing a descending trend.

H0: Florida's space industry is not performing differently than Texas' space sector

2. What, if any, has been the role of privatization to stimulate growth in Florida's aerospace economy?

H1: Privatization has had positive effects on Florida's space sector while having a descending effect on Texas.

H0: Privatization's influence on the space sector is not different for Florida and Texas.

Methodology

Data measuring the period of 2001-2022 from the U.S. Bureau of Labor Statistics and Federal Reserve Bank of St. Louis measure aerospace employment; including, durable goods, aerospace product, and parts manufacturing in Florida and Texas. The Federal Aviation Administration provides values of permitted and licensed launches; each states' launch value is reported as a proportion of national launches.

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Results

Model:

$$PFL\_LAUCNHES = \beta_0 + \beta_1(Trend) + \beta_2(DummyxTimeTrend) + \varepsilon$$

$$PTX\_LAUNCHES = \beta_0 + \beta_1(Trend) + \beta_2(DummyxTimeTrend) + \varepsilon$$

$$FL\_EMP = \beta_0 + \beta_1(Trend) + \beta_2(DummyxTimeTrend) + \varepsilon$$

$$TX\_EMP = \beta_0 + \beta_1(Trend) + \beta_2(DummyxTimeTrend) + \varepsilon$$

Statistic	FL_EMP	TX_EMP	PFL_LAUNCHES	PTX_LAUNCHES
Coefficient	0.21047	-0.31436	0.21867	-0.01591
P-value	0.039	0.002	0.045	0.044
Std. err.	0.09497	0.08935	0.01016	0.00738
Mean	21.134	46.713	0.372	0.125

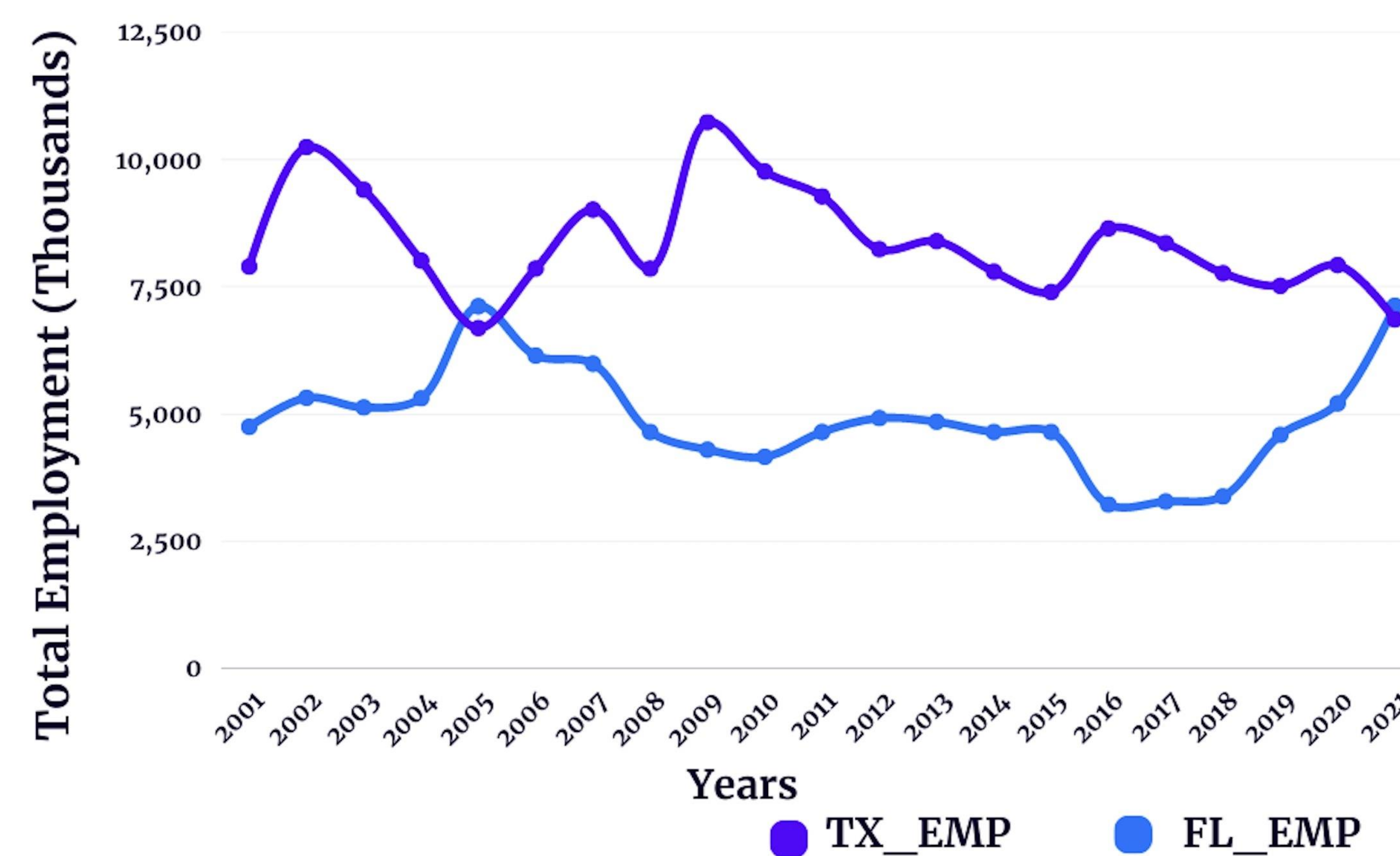*Table 1.* Regression Results

Figure 2. Total Employment
(Aerospace Job Codes: 17-2011 and 17-3021)

Limitations

To supplement the agency data gap, the employment estimates for Texas in 2004 and Florida in 2008, 2011, 2014, and 2015 reflect the average number of employees.

Conclusions: The Florida represented variables exhibit a positive interaction from post-privatization. In Texas, these variables exhibit a negative interaction (as seen by the coefficients in *table 1*).
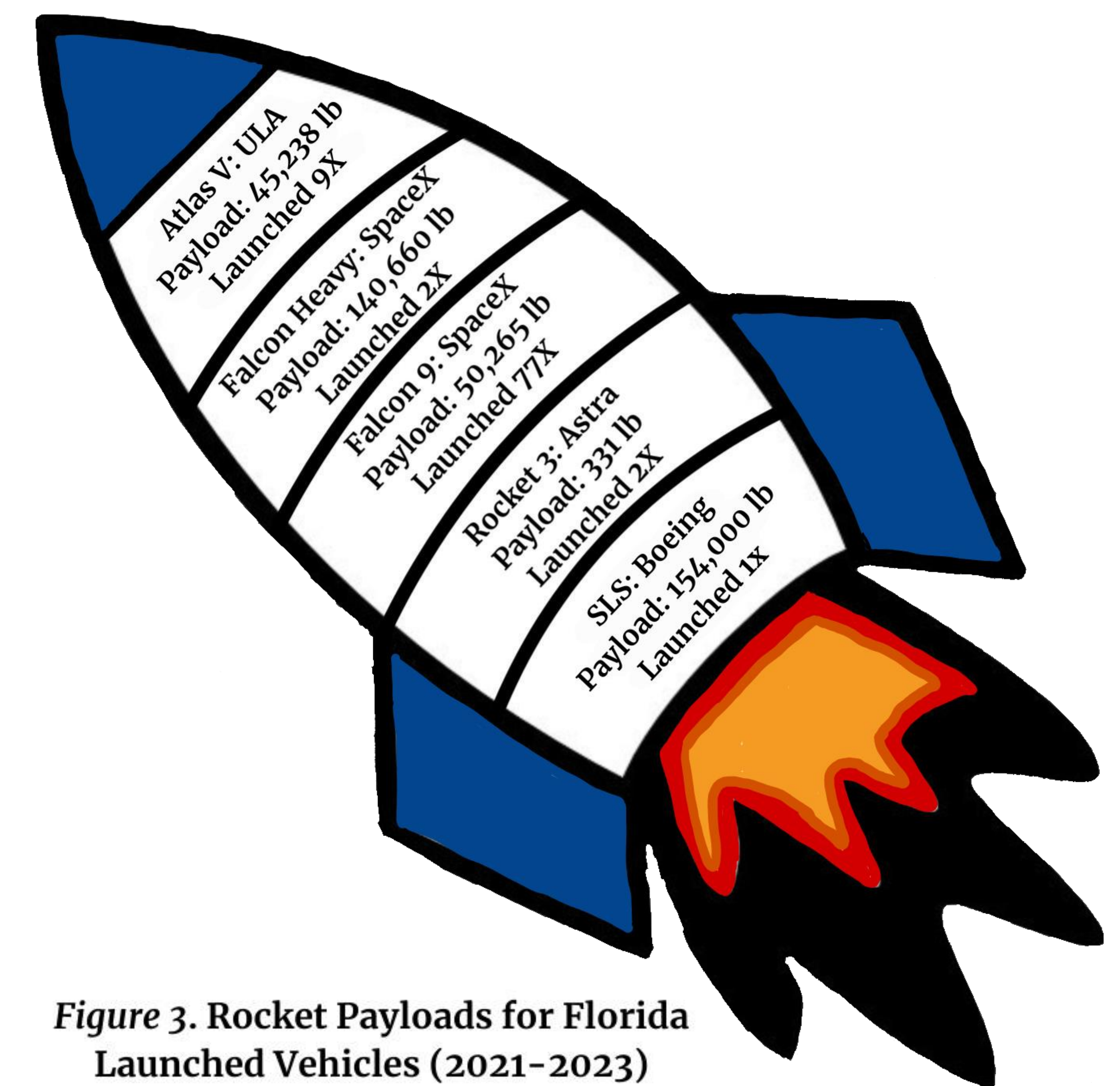

Figure 3. Rocket Payloads for Florida Launched Vehicles (2021-2023)

Policy Recommendations & Future Research

To stay competitive, Florida policy should continue to support tax incentives like the Qualified Defense Contractor Tax Refund, and exemptions on sales tax for space materials. To advance analysis, more data needs to be collected to show the indirect effects of the aerospace sector on state employment figures. These can account for underestimations influenced by seasonal workers and workers in related fields.

References