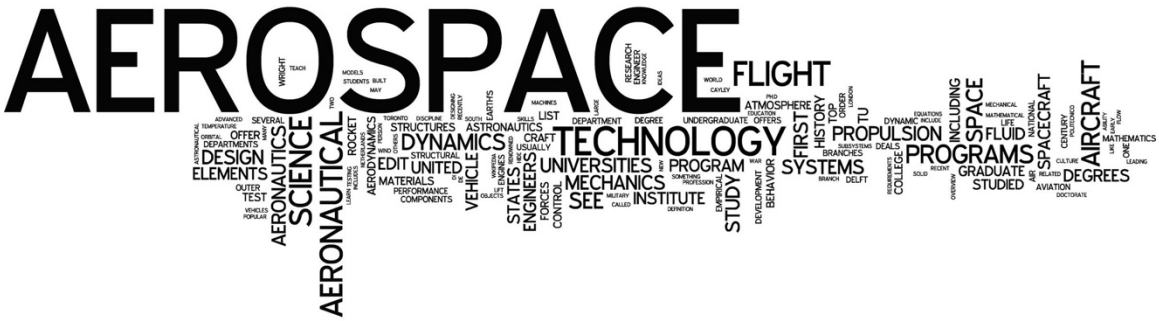
The Potential Economic Impact of Conforming the Texas Franchise Tax to the Federal Acquisition Regulation



Produced for

TEXAS ASSOCIATION OF MANUFACTURERS

Winter 2019

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Summary

The Governor's Office describes well the vital role that Texas plays in the nation's defense, especially as it relates to aviation. According to their report *2017 Texas Aerospace, Aviation, and Defense*:

> From aerospace research and flight training to military aircraft development and space exploration, Texas is an epicenter of government and defense-related aerospace and aviation. NASA's Johnson Space Center in Houston and the 15 active military bases around the state are a testament to Texas' importance to the country's aerospace and defense initiatives.

Defense-related aerospace activity is a cornerstone of the modern Texas economy, as seventeen of the top twenty firms in the nation have a substantial presence in the state, and more than 44,000 workers currently earn an average of more than $100,000 annually in this industry. Meanwhile, Texas stacks up well on the fundamentals that support this industry, as the strong existing industry presence and attractive overall business climate are significant assets.

However, state franchise tax policy does not align with federal requirements, putting Texas at a competitive disadvantage versus states that are either better aligned and/or willing to offer stronger incentives to attract and retain defense-related aerospace activity. Partially as a result, Texas has lost both market share (falling a full percentage point in recent years) and 4,000 net jobs in this sector from the average level of employment during 2007-2012.

Conversations with industry leaders suggest that conforming Texas' franchise tax law to the Federal Acquisition Regulation (FAR) would significantly improve the state's competitive position to attract and retain defense-related aerospace activity. Given that, it is reasonable to assume that the 4,000 lost jobs might be recovered; were that to happen, the total economic impact would be as follows:

Annual additional economic activity:	$4.1 billion
Annual additional value-added:	$2.3 billion
Annual additional earnings:	$1.4 billion
Total permanent jobs:	19,493
Annual State tax revenue:	$76.1 million

Said differently, for every thousand jobs that Texas attracts or retains in defense-related aerospace, the economy realizes a total of just over a billion dollars in economic activity, $350 million in wages, and almost 4,000 additional jobs. Seen in this light, the prospect for aligning the franchise tax with the FAR could pay outsized dividends.

Introduction

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The Governor's Office report covers a wide range of aviation-related activity, including commercial airlines. This report is focused more narrowly on defense-related aviation activity. The report goes on to note that Texas has been in forefront of global military aviation for well over a century, as the first ever military flight took place at Fort Sam Houston in San Antonio in 1910. Today, there are more than 131,000 active-duty military personnel based in Texas, while the US Air Force stations 60 percent more active personnel in Texas than in any other state. With NASA's Johnson Space Center in Houston, the new Army Futures Command, 15 active military bases across the state, and major military aircraft manufacturing and maintenance operations, the Texas economy and our nation's aerospace and defense capabilities are inextricably linked. In that same vein, private defense, space, and civil contractors employ tens of thousands in Texas in aircraft and avionics manufacturing, defense R&D, and maintenance and overhaul.

While Texas is integral to the air defense of the United States, our role could be even larger. The fundamentals are in place: a strong industry presence, capable labor force, and an overall favorable business climate all contribute to Texas having the third largest concentration of activity in Aerospace Product & Parts Manufacturing (NAICS 3364) in the country, behind Washington state and California. However, the situation could be improved, as changes in State tax policy could materially impact our overall market share. Specifically, conforming Texas' franchise tax policy to federal acquisition regulation policy on procurement of defense-related aviation services could solidify Texas' current market position in this space and could easily stimulate growth over time. The following analysis illustrates how that process might play out.

Industry Overview

Global Trends

The defense-related aerospace industry is experiencing a period of transition as global conditions, market structures, and advancements in technology are changing simultaneously. While demand continues to grow steadily, new players are challenging the current market structure through innovation and shifting regional demand. In response to these conditions, companies are pressured to embrace new technology in production methods and in the types of goods and services they offer.

As global security threats become more prevalent, governments around the world are increasing defense spending. Domestically, military spending is on the rise again after several years of decline, with increased defense budgets for 2018 and 2019. The U.S. joins other countries around the world who are increasing defense spending, including China, Russia, Saudi Arabia, Japan, and India. These conditions present opportunities and challenges to defense-related aerospace companies, with rapid technological change a key variable. According to research conducted by Accenture:

> 70% of aerospace and defense executives are planning for new and emerging technology adoption in a period of two years or less. They are broadening the diversity of the technologies being explored, with over half saying that they have invested in artificial intelligence, the Internet of Things, augmented/virtual reality robotics, and drones.

As the defense-related aerospace industry evolves, PwC keeps score, doing an annual aerospace manufacturing ranking of both countries and states within the U.S. The most recent report, released in September, provides the following assessment of the U.S:

> The United States is once again the dominant global player. With $240 billion in sales last year, coupled with a healthy GDP, strong transportation infrastructure, and educated workforce make it a hard country to beat. The U.S.'s A&D industry was the global leader in 2017, generating $143 billion, buoyed by continued passenger growth, low fuel costs, and strong ongoing momentum in world trade. The U.S.'s top ranking was also bolstered by the country's level of defense spending, which is the highest in the world. Congress recently gave final approval to a defense budget package of $717 billion. The U.S. ranked 36th in tax policy based on 2017 data. Given U.S. tax reform, which took effect in 2018, we expect to see a significant improvement in the U.S.'s tax policy rank in next year's report.

Texas Profile

PwC also evaluates states within the U.S. in terms of relative attractiveness. According to the most recent report, Texas ranks 2nd in terms of industry attractiveness, outranked only by Washington State. To wit:

> *Texas hosts a large industry presence, including Lockheed Martin's Aeronautics business, where it produces the F-35. The state has a strong economy and favorable tax policy. Seventeen of the 20 largest aerospace manufacturers in the world have major operations in Texas. In addition to Lockheed Martin, companies manufacturing in Texas include Airbus, Boeing, Bell Helicopter, Textron, and Gulfstream. And that number is increasing. Recently, Bell, part of Textron, signed a deal with Uber to develop and build a flying taxi prototype that would work in a similar way to Uber cars in metropolitan areas. Lockheed is ramping up production of its F-35 to fulfill growing orders and hiring additional workers to help it realize its plans to build up to 160 fighters a year by 2019. Boeing and Lockheed Martin are expected to receive additional funding for key missile defense and legacy aircraft platforms in the new defense budget.*

In addition to the industry players discussed by PwC, Raytheon has substantial activity in Texas, particularly in the Metroplex where its Space and Airborne Systems business is headquartered. The company is creating new high energy laser systems to protect critical infrastructure, convoys and military personnel from enemy drone attacks. Northrop Grumman maintains locations throughout Texas, and provides program support and systems development, logistics services for special mission aircraft, cyber security, data management solutions for military and civilian customers, and manages all corporate human resources accounting services in the state. L3 and Triumph are also doing defense-related aerospace work in Texas.

The report then ranks each U.S. state's relative attractiveness as a location for aerospace-related activity. Based on this work, Texas is second behind only Washington state, home of Boeing, as shown in Figure 1. PwC identifies Texas' strengths as a high level of existing industry concentration, a robust overall economy, and an attractive tax policy environment, with cost, labor force, and infrastructure receiving lower scores.

Figure 1: 2018 PwC State Rankings for Aerospace Attractiveness

Top 10 state rankings for aerospace attractiveness

State	Overall Rank	Cost	Labor	Infra-structure	Industry	Economy	Tax Policy
Washington	1	33	9	4	1	4	17
Texas	2	39	32	24	3	1	4
Georgia	3	7	19	24	7	5	20
Arizona	4	10	23	17	5	21	14
Colorado	5	44	3	8	22	25	16
Virginia	6	29	6	12	19	20	23
Pennsylvania	7	36	20	2	11	11	32
Michigan	8	20	30	21	9	6	21
Ohio	9	32	34	10	4	3	26
Indiana	10	9	39	7	15	9	21

Source: PwC, TXP

Consistent with the PwC 2018 report, data indicates that Texas is one of the dominant aerospace states in the nation, with a 2017 employment figure of 44,171 in NAICS 3364, Aerospace Manufacturing and Parts. The average annual Texas compensation for this sector is reported for 2017 at $104,552, meaning that total industry payroll last year in Texas exceeded $4.6 billion. Based on surveys of the largest firms in the state (collectively representing about three-fourths of total state employment in the industry) and national data, total economic activity in NAICS 3364 in Texas is estimated to have approached $22 billion last year.

By way of comparison, Washington State has the largest number of employees in this sector, 83,988 last year. California is a fairly close second (74,631), followed by Texas at 44,121, Arizona (26,324), Florida (21,498), Georgia (20,663), and Ohio (19,332). The ranking to states by industry size (as measured by employment in 2017) is compared to the PwC list above in Figure 2.

Figure 2: Relative Aerospace State Rankings

State	2017 Industry Employment Rank	2018 PwC Industry Attractiveness Rank
Alabama	8	19
Arizona	4	3
California	2	13
Colorado	10	5
Florida	5	15
Georgia	6	4
Ohio	7	9
Pennsylvania	9	7
Texas	3	2
Washington	1	1

Sources: BLS, PwC, TXP

What explains the discrepancy in these rankings? A number of factors are involved, including historic industry concentrations, overall business climates, and the presence of ancillary facilities such as specific military installations. However, economic development policy can also be a factor, as other states are aggressively pursuing attracting and retaining firms in this space. The fundamentals in many of these competitors are not as strong as Texas; Arizona, for example, ranks relatively highly in the most recent PwC rankings overall, but it is largely on the strength of a strong existing industry concentration (and an attractive cost structure to a lesser extent), with most other variables indicating relatively little comparative advantage related to the aerospace sector. To help overcome these competitive issues, financial and policy incentives are often seen as a means of enhancing a state's competitive position. By way of illustration, the following outlines what's offered by Arizona, California, and Georgia.

Discussion of Texas' Competitive Position

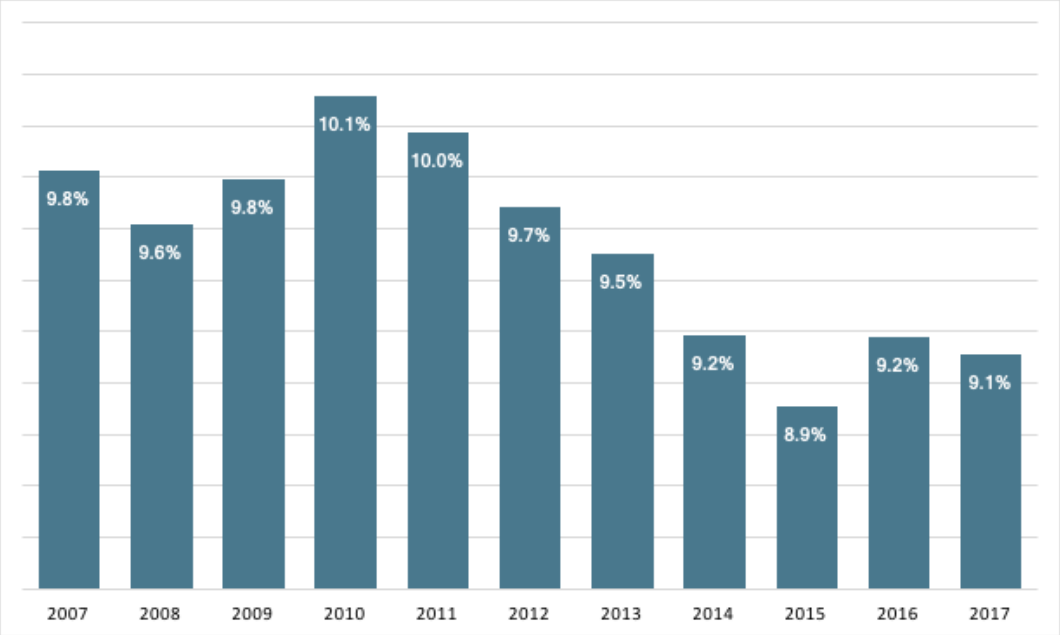
Texas clearly is among the national leaders in both actual defense-related aerospace presence and attractiveness to the industry. However, the relative position can shift over time, as the same report PwC produced in 2017 ranked Texas as tied for 8th with Colorado, while this year Colorado moves up to 5th. Similarly, Texas' share of national employment has declined over time, falling a full percentage point from 10.1 percent during 2010 to 9.1 percent last year. Figures 3, 4, and 5 provide more detail.

Figure 3: 2017 PwC State Rankings for Aerospace Attractiveness

State	Overall Rank	Cost	Labor	Infra-structure	Industry	Economy	Tax Policy
Georgia	1	10	19	12	4	7	20
Michigan	2	7	28	4	11	3	25
Arizona	3	21	23	6	5	24	4
North Carolina	4	15	24	25	6	5	14
Virginia	5	23	6	13	23	20	12
Ohio	6	21	35	2	3	8	30
Florida	6	20	30	9	12	10	18
Colorado	8	35	3	7	28	30	2
Texas	**8**	**28**	**33**	**11**	**1**	**5**	**27**
New York	10	24	8	21	9	11	38

Source: PwC, TXP

Figure 4: Texas Share of National Market: Employment in NAICS 3364



Source: BLS, TXP

Figure 5: Private Sector Employment in NAICS 3364

	2010	2017	Change
Total United States	474,905	484,333	9,428
Texas	48,029	44,121	-3,908
Rest of the United States	358,847	365,563	13,336

Sources: BLS, TXP

As discussed above, Texas enjoys both a strong overall economy and business climate and historic concentration in the defense-related aerospace sector. However, other elements of industry attractiveness are less robust, as costs, labor, and infrastructure tend to have lower scores when comparing the 2017 and 2018 PwC rankings. Especially noteworthy is the tax policy score, which rose from a ranking of 27 in 2017 to a ranking of 4 in the 2018 report. In looking at the methodology used in 2018, the tax policy ranking reflects a combination of state/local tax burdens as a share of state income and the individual state income tax rate applicable assuming annual income of $75,000. While those measures perhaps capture the overall taxing environment in Texas, they do not adequately describe the tax environment facing defense-related aerospace. At least as a partial consequence, per Figures 4 and 5, Texas' ranking has risen while actual presence in the state (as measured by employment) has declined.

Figure 6: Components of PwC Texas Aerospace State Rankings

State	2017 PwC Industry Attractiveness Rank	2018 PwC Industry Attractiveness Rank
Cost	28	39
Labor	33	32
Infrastructure	11	24
Industry	1	3
Economy	5	1
Tax Policy	**27**	**4**

Sources: PwC, TXP

One area to be addressed in enhancing the tax policy environment in Texas and moving to regain lost market share is conforming Texas' franchise tax to the Federal Acquisition Regulation (FAR). FAR is the set of rules regarding federal government contracts and procurement. It provides "uniform policy and procedures for acquisition" for manufacturers, vendors, and suppliers to follow in contracting with the federal government. Meanwhile, Texas' franchise tax law offers defense-related aerospace companies one deduction, either: A deduction for the cost of materials and assembly used in the direct manufacturing process, or a deduction for employee/contractor direct compensation, whether related to production of goods or services. These differences require companies in this space to maintain a

separate set of accounting books in addition to those maintained for federal tax purposes. Texas' franchise tax relies on a different method of accounting and definitions, and to the extent it uses Internal Revenue Code (IRC) definitions, they are tied to the IRC as it existed in 2007, not as it stands currently. That can be a particularly costly proposition for defense contractors who operate under a regimen tied to the code as it is currently written.

The following section outlines what several key competitor states are offering companies in the defense-related aerospace industry by way of comparison.

Example Aerospace & Defense Competitor States

Arizona

Aerospace & Defense Industry Profile

A 2015 study by the International Trade Administration, WorldTradeStatistics.com revealed that Arizona's aerospace & defense total exports rose by more than 21.8% from 2011 to 2014, reaching a $3.47 billion total. The increase was primarily due to a near $400 million increase in aircraft, engines and parts exports.

According to a 2012 Deloitte study, Arizona ranks fourth nationwide in aerospace industry payroll and fourth in aerospace revenue at $14.99 billion.

- More than 1,200 Arizona-based companies make this state America's third-largest supply chain contributor for aerospace & defense.
- 4th largest employment in aerospace and defense manufacturing with 32,546 workers
- Top 10 largest employment in aviation and aerospace services

Arizona continues to be attractive for aerospace manufacturing, with an ideal climate for aircraft testing and space observation, good transportation infrastructure, and business-friendly tax policy. An example of Arizona's appeal is the decision by AQST Space Systems to relocate its headquarters and operations hub to Mesa, Arizona, from Puerto Rico. AQST said it expects to hire up to 125 employees over the next three years to manufacture and assemble rockets for small satellites.

Aerospace & Defense Industry-Related Economic Incentives

The Qualified Facility tax credit (A.R.S. §41-1512) was established by the Arizona legislature in 2012, and amended in 2016, to promote the location and expansion of manufacturing facilities, including manufacturing-related research & development or headquarters facilities. The goal of the program is to encourage business investment that will produce high-quality employment opportunities for citizens of Arizona and enhance Arizona's position as a center for corporate headquarters, commercial research, and manufacturing. The Program

accomplishes this goal by providing a refundable tax credit to taxpayers who are expanding or locating a Qualified Facility in Arizona.

- The Arizona Commerce Authority (ACA) may authorize up to $70 million per calendar year in tax credits to qualified companies beginning January 2013 through December 2022.
- The tax credits will be authorized on a first-come, first-served basis, according to a priority placement number assigned by the ACA at the time of Pre-Approval.
- Subject to eligibility requirements, the Qualified Facility tax credit offers a refundable income tax credit equal to the lesser of:
    - 10 percent of the qualifying capital investment or
    - $20,000 per net new job at the facility or
    - $30,000,000 per taxpayer per year.

California

Aerospace & Defense Industry Profile

Global management consulting firm A.T. Kearney released an original study on the essential role the aerospace industry plays in sustaining the California economy. The study finds that in 2012, aerospace companies manufacturing or providing aerospace-related services in California accounted for $62 billion in revenues, representing 21% of the U.S. aerospace market and 9 percent of the global market.

With research supported by the National Defense Industrial Association and the Aerospace & Defense Forum, the analysis also details how aerospace is a crucial component of California's economy, both as a significant source of high-paying jobs and as an incubator for technological innovation. It is one of California's largest industries, with annual revenues equal to agriculture and entertainment combined. Including the $38.8 billion in indirect revenues it feeds to adjacent industries, the industry's total economic impact is more than $100 billion.

The report's findings state that the industry accounts for 510,800 jobs in California – 203,400 directly, including commercial, military, and civilian employment, and 307,400 in indirectly related industries such as finance, real estate, construction, and transportation. Regarding tax revenue, aerospace wages rate in the top 3 percent of all industries and generate $2.9 billion in California personal income tax revenue.

Aerospace & Defense Industry-Related Economic Incentives

The California Competes Tax Credit is an income tax credit available to businesses that want to come to California or stay and grow in California. Tax credit agreements are negotiated by GO-Biz and approved by a statutorily created “California Competes Tax Credit Committee,” consisting of the State Treasurer, the Director of the Department of Finance, the Director of

GO-Biz, and one appointee each by the Speaker of the Assembly and Senate Committee on Rules.

A total of $219,793,004 in California Competes Tax Credit is available for allocation in the 2018-2019 fiscal year. Applications for the California Competes Tax Credit will be accepted online at www.calcompetes.ca.gov during the following periods:

- July 30, 2018, through August 20, 2018 ($70 million available)
- January 2, 2019, through January 21, 2019 ($75 million available)
- March 4, 2019, through March 25, 2019 (Any remaining unallocated amounts)

Award of the credit will be based on the following factors:

- The number of jobs the business will create or retain in this state.
- The compensation paid or proposed to be paid by the business to its employees, including wages, benefits, and fringe benefits.
- The amount of investment in this state by the business.
- The extent of unemployment or poverty where the business is located.
- The incentives available to the business in this state, including incentives from the state, local government, and other entities.
- The incentives available to the business in other states.
- The duration of the business' proposed project and the duration the business commits to remain in this state.
- The overall economic impact in this state of the applicant's project or business.
- The strategic importance of the business to the state, region, or locality.
- The opportunity for future growth and expansion in this state by the business.
- The training opportunities provided to employees.
- The extent to which the anticipated benefit to the state exceeds the projected benefit to the business from the tax credit.
- The extent to which the credit will influence the applicant's ability, willingness, or both, to create new full-time jobs in this state that might not otherwise be created in the state by the applicant or any other business in California.

Beginning in fiscal year 2015/2016 through 2017/18, California has made more than $200 million in credits available to a variety of businesses and industries in the state. In 2016 alone, the state has provided $180 million tax credits supporting 35,000 jobs and helped inject $9 billion in investments in the state.

Georgia

Aerospace & Defense Industry Profile

- In FY2015, $6.4 Billion in U.S. Department of Defense (DoD) contract work was performed in Georgia with 49,558 people in DoD Contract dependent employment.

Of this, the Aerospace sector accounts for $2.7 Billion (42 percent) and 13,656, respectively.

- Georgia ranked 1st in aerospace attractiveness in PwC's 2017 Rankings.
- With major manufacturers like Lockheed Martin and Gulfstream Aerospace, aerospace products were the number one international export of the state at $8.3 billion in 2017 ranking Georgia 4th among U.S. States.
- Aircraft and Engine Parts continue to be a vital part of this industry cluster with companies like Pratt & Whitney, Triumph Aerostructures, and PCC Airfoils continuing to find success as they grow and expand here.

Georgia also has great strengths in the commercial and general aviation aircraft industry with Thrush Aircraft and Maule Air Inc. in the Southern part of the state. Defense contractors in Georgia are able to compete for government contracts and maintain the competitive advantage of a highly-skilled and trained workforce thanks to a strong military presence, a partnership with the U.S. Air Force and an outstanding education system. The state of Georgia has been named the number 1 state to do business for the past five years.

Aerospace & Defense Industry-Related Economic Incentives

Sales and Use Tax Exemption

Georgia helps companies lower their cost of doing business by offering the ability to purchase various types of goods and services tax free.

Job Tax Credit

Businesses in Georgia's strategic industries can earn as much as $4,000 in annual tax savings for each new job created, for up to five years. The exact value of the job credits depends on two factors – how many jobs are created, and where.

Quality Jobs Tax Credit

Companies that create at least 50 jobs in a 24-month period, at wages that are at least 10 percent higher than the county average, may qualify for a tax credit of $2,500-$5,000 per job.

Mega-Project Tax Credit

Businesses that employ at least 1,800 "net new" employees and have either a minimum annual payroll of $150 million or make a minimum $450 million investment in Georgia may qualify for the mega project tax credit.

Investment Tax Credit

Companies in manufacturing or telecommunications support that have operated in Georgia for at least three years are eligible to earn investment tax credits of 1 percent to 8 percent of qualified capital investments of $50,000 or more.

Retraining Tax Credit

Georgia businesses may offset their investment in retraining employees to use new equipment or learn new skills through a retraining tax credit. The credit equals 50 percent of direct training expenses, up to $500 credit per full-time employee, per training program.

Industry Comments on Competitor State Incentive Programs

- Arizona's Quality Facility program is seen by the industry as particularly competitive for expansion purposes. It allows them to recognize existing businesses as well as "new" businesses to the state. More importantly, it's refundable. This is considered a strong example of what other states competing against Texas offer.
- The industry favors Payroll Rebate Programs similar to those offered in Alabama, Indiana, Kentucky, North Carolina or other places. While they are spread over a period of years (10 generally), they are also refundable/cash rebates that can be directed to facility improvements or whatever the company chooses.

Defense-related aerospace companies face a competitive disadvantage under this provision in Texas, as their contracts with the Department of Defense require not only manufactured goods but also the ongoing services that support those products and associated employee compensation costs. An example of how that plays out in the real world was provided by an industry company with a significant Texas presence:

> *Salaries of design engineers headquartered in Texas conducting complete design on the next space capsule bringing US Astronauts back to the moon are precluded under current franchise tax structure. This is high tech, innovative, exploratory work that is being done in Texas, with revenue earned and apportioned in Texas, but cost of doing so cannot be considered deductible as it isn't categorized as COGS deductions the company has elected to take in the state.*

Calculation of the Economic Impact

Per the discussion above Texas has both lost market share in the defense-related aerospace industry in recent years and is facing an increasingly competitive environment. At least in part of the challenge is due to misalignment of Texas franchise tax policy and the FAR. Conversations with industry leaders suggest that successfully addressing this situation would substantially enhance Texas' competitive position and could easily allow the state to regain the level of market share in the fairly recent past. From 2007-2012, Texas average share of

national industry employment was 9.84 percent, or 48,121 jobs. As of 2017, Texas had 44,121 workers in NAICS 3364, the equivalent of 9.11 percent market share. If Texas were to regain those 4,000 direct jobs, an additional $396.9 million in direct annual wages and $1.9 billion in direct annual economic activity would also be realized.

Input-Output Modeling

The second step in the process is to translate the direct impacts estimated above in each Scenario through an input-output model of the Texas economy that allows measurement of the secondary, or "ripple" effects. Economists use a number of statistics to describe regional economic activity. Four common measures are "Output," which describes total economic activity and is generally equivalent to a firm's gross sales or top-line; "Value Added," which equals gross output of an industry or a sector less its intermediate inputs or purchases from other firms used in the production process; "Labor Income," which corresponds to wages and benefits; and "Employment," which refers to jobs that have been created in the local economy.

In an input-output analysis of new economic activity, it is useful to distinguish three types of expenditure effects: direct, indirect, and induced.

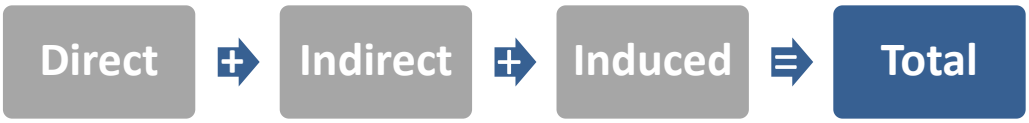
- **Direct effects** are changes associated with the immediate effects or final demand changes. Spending by aerospace companies to buy materials, services, and pay their employees are examples of direct effects.

- **Indirect effects** are changes in backward-linked industries caused by the changing input needs of directly affected industries – typically, additional purchases to produce additional output. Satisfying the demand from aerospace companies means that suppliers themselves must purchase goods and other services. These downstream purchases affect the economic output of other merchants.

- **Induced effects** are the changes in regional household spending patterns caused by changes in household income generated from the direct and indirect effects. A restaurant owner, for example, experiences increased income from wages earned by those who work at aerospace companies. Induced effects capture the way in which increased income is spent in the economy.

A multiplier reflects the interaction between different sectors of the economy. An output multiplier of 2.9 for example, means that for every $1,000 injected into the economy, all other sectors produce an additional $1,900 in output. The larger the multiplier, the greater the economic impact. In this analysis, TXP used the RIMS II input-output multipliers produced by the U.S. Bureau of Economic Analysis for Texas.

Figure 7: The Flow of Economic Impacts



Economic Impact Findings

The impact of regaining lost defense-related aerospace jobs in Texas could be significant, directly accounting for 4,000 jobs and almost $2 billion in economic activity. When the ripple effects are factored in, the impact rises to an annual total of about $4.1 billion ($2018) in total economic activity, $2.3 billion in value-added (GSP), $1.4 billion in total earnings, and just under 19,500 jobs. While the bulk of the increases are in Manufacturing, every segment of the state's economy will see gains. By the same token, the $1.4 billion personal income figure is larger than total 2017 personal income in two-thirds (169) of Texas' counties.

Figure 8: NAICS 3364 Net Gain at 2007-2012 Average Results ($2018 Millions)

	Output	Value-Added	Earnings	Jobs
Agriculture, etc.	$12.5	$5.2	$2.8	143
Mining	$21.4	$14.7	$3.8	38
Utilities	$47.2	$25.6	$7.3	67
Construction	$20.0	$11.1	$6.7	111
Durable Manufacturing	$2,313.5	$1,285.2	$814.5	6,484
Non-Durable Manufacturing	$133.9	$38.5	$22.0	349
Wholesale Trade	$101.8	$69.1	$32.5	445
Retail Trade	$139.7	$93.1	$50.8	1,721
Transportation & Warehousing	$77.8	$38.1	$24.4	543
Information	$81.2	$46.4	$16.1	246
Finance & Insurance	$182.8	$93.7	$48.0	959
Real Estate	$277.6	$193.9	$43.9	1,572
Professional Services	$132.9	$87.9	$62.5	880
Management of Firms	$58.3	$35.1	$24.6	299
Administrative & Waste Services	$102.8	$67.3	$47.2	1,531
Educational Services	$21.6	$13.3	$10.1	343
Health Services	$166.7	$100.0	$77.2	1,566
Arts/Entertainment/Recreation	$14.7	$8.7	$5.6	225
Accommodation	$14.7	$9.3	$4.2	130
Food Services	$57.3	$30.2	$19.0	902
Other Services	$71.2	$38.5	$27.4	764
Households	N.A.	N.A.	$2.0	13
Total Annual	**$4,049.7**	**$2,304.7**	**$1,352.7**	**19,493**

State of Texas Tax Revenue Impact

In order to provide an "order of magnitude" estimate for State tax revenue attributable to regaining lost market share of defense-related aerospace activity, this analysis uses the ratio of State of Texas tax collections to Texas GSP, or value-added. Two datasets were used to derive the ratio: 1) U.S. Department of Commerce Bureau of Economic Analysis GSP estimates by state; and 2) the U.S. Census Bureau State Government Tax Collections (STC) report. A brief description of the STC data collection methodology follows:

> *In this survey, "taxes" are defined as all compulsory contributions exacted by a government for public purposes, except employer and employee assessments for retirement and social insurance purposes, which are classified as insurance trust revenue. Outside the scope of this collection are data on the unemployment compensation "taxes" imposed by each of the state governments. However, all receipts from licenses and compulsory fees, including those that are imposed for regulatory purposes, as well as those designated to provide revenue are included.*

Figure 9: Texas Tax Revenue as a Percent of State GSP ($Billions)

Texas	2013	2014	2015	2016	2017
Texas Tax	$51.80	$55.15	$55.09	$52.13	$53.61
Texas GSP	$1,536.47	$1,612.97	$1,611.96	$1,601.52	$1,696.21
Tax Rev as %	**3.4%**	**3.4%**	**3.4%**	**3.3%**	**3.2%**

Sources: U.S. Department of Commerce Bureau of Economic Analysis/U.S. Census Bureau, TXP

Over the past five years, the average state tax revenue as a percent of state GDP was 3.3 percent. Applying this percentage to total value added attributable to the total economic impact associated with the potential increase in defense-related aerospace activity, the State of Texas would receive approximately $76.1 million in annual tax revenue ($2018).

Conclusion

Defense-related aerospace activity is a cornerstone of the modern Texas economy, as seventeen of the top twenty firms in the nation have a substantial presence in the state, and more than 44,000 workers currently earn an average of more than $100,000 annually in this industry. Meanwhile, Texas stacks up well on the fundamentals that support this industry, as the strong existing industry presence and attractive overall business climate are significant assets. However, state franchise tax policy does not align with federal requirements, putting Texas at a competitive disadvantage versus states that are either better aligned and/or willing to offer stronger incentives to attract and retain defense-related aerospace activity. Partially as a result, Texas has lost both market share (falling a full percentage point in recent years) and 4,000 net jobs in this sector from the average level of employment during 2007-2012.

Conversations with industry leaders suggest that conforming Texas' franchise tax law to the FAR would be very beneficial. This is not an incentive per se, but rather an accounting adjustment that would significantly improve the state's competitive position to attract and retain defense-related aerospace activity. Given that, it is reasonable to assume that the 4,000 lost jobs might be recovered. Said differently, for every thousand jobs that Texas attracts or retains in NAICS 3364, the economy realizes a total of just over a billion dollars in annual economic activity, $350 million in wages, almost 4,000 additional jobs, and about $19 million in State tax revenue. Seen in this light, the prospect for aligning the franchise tax with the FAR could pay outsized dividends.

About TXP

TXP offers a full-range of economic analysis and forecasting services to public and private clients. The firm specializes in applying focused primary research to enhance secondary data. TXP offers a number of other services to clients, including periodic reports highlighting economic trends in regional economies and presentations to a range of stakeholders. TXP currently serves as economist-on-retainer for a number of high-profile private and public sector clients throughout Texas.

TXP has successfully helped clients manage the balance between economic development, land use planning, and infrastructure development to ensure overall community prosperity. Our team provides in-depth analysis on the connection between tax base enhancement and service cost reduction, and works with communities, state agencies, local governments, universities, and developers to facilitate growth and redevelopment.

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