PROJECT SIGNATURE PAGE

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MASTER OF BUSINESS ADMINISTRATION

PROJECT TITLE: Attracting the Aerospace and Defense Industry

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Executive Summary: Attracting the Aerospace and Defense Industry
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Purpose and Methodology

As a new growing city in Southern California, Menifee is looking to attract new businesses to their city to expand their employment opportunities for their residents, expand their tax base, and build a resilient economy. Based on this commitment to their residents, Menifee established a growing need for the Aerospace and Defense Industry in their city. The Aerospace and Defense Industry is a high-tech industry made up of five sectors: military aircraft, commercial airliners, missiles, space, and general aviation. This report combines quantitative and qualitative data to analyze the industry in Southern California, market trends and threats to the businesses, site requirements for Aerospace and Defense companies, attraction strategies, and overall impact of the Aerospace and Defense businesses on a city.

This market research study of the Aerospace and Defense industry was completed by complying with both qualitative and quantitative data from a variety of sources. Both quantitative and qualitative data were extracted from multiple city and state Economic Development organizations reporting, California State University Library resources, public news, and industry-specific publications. For additional quantitative sources, both regional and country-wide data for the industry was extracted from the US Cluster Mapping Project and the United States Census. Additional resources were also provided by the City of Menifee, including the City’s Comprehensive Economic Development Strategy.

The goal of this project is to have a complete understanding of the attraction strategies, needs, and amenities that Aerospace and Defense Industry requires and make recommendations for the City of Menifee. This process included an analysis of the Aerospace and Defense Industry in Southern California, future technologies for the industry, factors in site selection, and attraction strategies of three cities.
Research Objectives

Analysis of Industry in Southern California

With extensive history and the year-round perfect weather conditions in Los Angeles, the aviation industry took root in Southern California and today has expanded to the surrounding areas and into the Aerospace and Defense industry. Figure 4 to the right shows the breakdown of the 329 establishments in Southern California by the county in 2018, including the 17 establishments in Riverside County.

Today, the industry supports over 310,281 workers in California, representing about 14.12% of the Aerospace and Defense workforce, bringing in $181 Billion in economic impact each year and $6.021 Million in state and local tax contributions.

Southern California aerospace companies reap the benefits of an extensive number of educational institutes that provide degrees and training for aerospace-related work. These institutions, paired with the numerous aerospace businesses and organizations in the area, create an environment for collaboration and technological innovation. Southern California is also the home of 19 military bases, including the seven bases with airfields, space, or missile operations.

While this industry has a stronghold in Southern California, certain factors are currently pushing businesses out of California and causing a decrease in Aerospace and Defense employment and businesses. Some of these factors include taxes, environmental regulations, increased wages,
increased cost of living, and labor unions. Figure 7 below shows how California compares to other top states with this industry.

**Figure 3: State Comparison of Wages and Taxes**

<table>
<thead>
<tr>
<th>State</th>
<th>Annual Wage in 2018</th>
<th>Corporate Income Tax</th>
<th>Personal Income Tax (based on a 100K salary)</th>
</tr>
</thead>
<tbody>
<tr>
<td>California</td>
<td>$105,235.29</td>
<td>8.84%</td>
<td>9.30%</td>
</tr>
<tr>
<td>Texas</td>
<td>$97,538.93</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Florida</td>
<td>$95,553.86</td>
<td>5.50%</td>
<td>-</td>
</tr>
<tr>
<td>Ohio</td>
<td>$90,314.49</td>
<td>-</td>
<td>4%</td>
</tr>
<tr>
<td>South Carolina</td>
<td>$84,104.35</td>
<td>5%</td>
<td>7%</td>
</tr>
</tbody>
</table>

**Key Future Technologies**

As a technology industry, new technologies have high relevance and are consistently changing. Most emerging technologies coming from outside the industry and are being adapted to fit the needs of these manufacturers. Many businesses are continuously investing and conducting research and development and investing in new equipment to keep up with the trend. Some key technologies include Additive Manufacturing (3D Printing), Zero Fuel Aircraft, and Unmanned Aerial Vehicles.

**Key Factors in Site Selection for A&D Companies**

Due to the economic benefits and growth brought by the Aerospace and Defense industry, site competition is extremely high. Cities/sites need to fulfill many requirements to attract the interest of these businesses. Some of these requirements are utilities, freight, and access to suppliers and the industry. Many companies look to the cities to develop or provide financial aid with site development for utilities and surrounding road infrastructure. These sites also must be located with access to Air, Ocean, and Ground transportation. This industry also requires a robust specialized talent pool and continuous pipeline. One of the workforce sources for this industry is newly retired
military-trained personnel; therefore, being located near an active Military Base is a tremendous asset. With about 41% of the job openings in this industry requiring a bachelor’s degree or higher and the need for continued research and development, Aerospace and Defense companies are also looking for communities near universities with a strong aerospace department and research capability.

The highly competitive environment for pursuing Aerospace and Defense companies has caused an increase in aggressive incentives to attract Aerospace and Defense businesses. These incentives come in many different forms, including tax breaks, employee training provisions, site preparation, and infrastructure improvements. It is expected of communities to collaborate with potential manufacturers with incentive packages to ensure the company can call the community “Home”.

**Key Strategies Employed by Sites and the Economic Impact**

Charleston, South Carolina and Mobile, Alabama used extensive incentives and collaboration to attract the A&D industry to their city. Many of these incentives included infrastructure, corporate income tax, sales tax, and training incentives. For Charleston to attract Boeing, the city and state gave about $470 million in incentives. Mobile also gave about $154 million in incentives to bring Airbus to their city, which included $52 for a training program for their workers. Both cities and states were impacted dramatically by these companies moving to their city. Today, the South Carolina aerospace and defense cluster created a total economic impact of $28.8 billion in 2020 for South Carolina and had a growth rate of 10.7% compared to 2.2% for the entire state's economy. Additionally, a single Aerospace job creation in South Carolina creates 1.7 additional jobs within the state. According to the University of South Alabama Center for Real Estate and Economic Development, Airbus has had a $1.1 billion economic impact on Mobile and the surrounding area after five years of production.
Torrance, Ca prevented a company from abandoning the city for the Southeast with incentives and governmental cooperation. Located in Torrance since 1967, L3 technologies, a subsidiary of Hughes Aircraft, was looking to consolidate two of their California-based operations in 2016 and was considering leaving the city after almost 50 years. The company was extended many different incentives, including training reimbursement, lower utility rates, California Compete Tax Credit, and waived business license renewal. With these new savings, the company decided there was no reason to pursue leaving the state and, in turn, doubled their business from $150 million to $300 million.

**Recommendations for Menifee**

While the City of Menifee has many factors in its favor for the city to grow and attract Aerospace and Defense companies, there are some areas of focus for the city to address to ensure favorable results. The first recommendation is that the City of Menifee needs to decide if they can compete with the extensive Incentive programs that other sites might offer and whether they want to continue to pursue this industry or not. This includes Training Assistance, Tax Credits, and infrastructure assistance or funding, similar to the incentive examples seen from the three site selections above.

If the city decides to continue to pursue this industry, the second recommendation is to pursue a variety of partnerships. One extremely beneficial partner would be the Advanced Manufacturing Partnership of Southern California. By doing this partnership, Menifee will increase networking opportunities, remain current with trends in the Aerospace and Defense Industry, and gain additional exposure to potential growing, expanding, or relocating companies. Additionally, Menifee should partner with Mt. San Jacinto Community College to expand its employment base. This year, Mt. San Jacinto Community College started an Aviation program that will be training new pilots and flight instructors. It would be extremely beneficial to extend this program to an Avionics program to
help create a pathway for local Aerospace and Defense companies to thrive. Other key partnerships for the City of Menifee would include partnerships with Banks, Educational Institutes, the State of California with the purpose of attracting Aerospace and Defense into the City of Menifee. These partnerships would bring additional financial, infrastructure, and workforce support. Additionally, potential partnerships create an image of commitment for potential companies beyond the city. Finally, the city should focus on pursuing two types of businesses. The first being smaller expanding, relocating, and new businesses from Los Angeles and San Diego with the city’s affordability. The second would be to pursue businesses in the future of the industry. By pursuing technology businesses that are the future of the industry, Menifee will ensure continued growth and economic development. Some key types of businesses to pursue include 3D Printing, Zero Fuel Aircraft, and Unmanned Aerial Vehicles.

**Conclusion**

While the A&D industry has had a rise in profits and is projected to continue growing, overall, there is little to no new establishment growth in the industry, especially in the last five years. On top of the low growth rate, consolidations, mergers, and acquisitions are happening across the industry, especially with aircraft manufacturing. Because of California’s current stronghold on the industry, the state is unlikely to extend additional incentives to attract additional companies, which could put Menifee at a financial disadvantage against their competitors.

Ideally, additional partnerships are the key to attracting this industry to Menifee. Menifee is in a unique situation of being in good proximity to the Southern California industry cluster, reaping the same weather benefits, and being more affordable than other cities of the cluster that it could attract some smaller or startup technology businesses; but for companies to truly consider Menifee, the city needs an attractive employment base and education system. If Menifee were to focus on the future of the industry rather than the existing industry by attracting 3D printing, unmanned aircraft
technology, and zero fueled aircrafts, it would position itself as a cluster of the future of Aerospace and Defense.