

2019 Michigan Aerospace Industry Profile

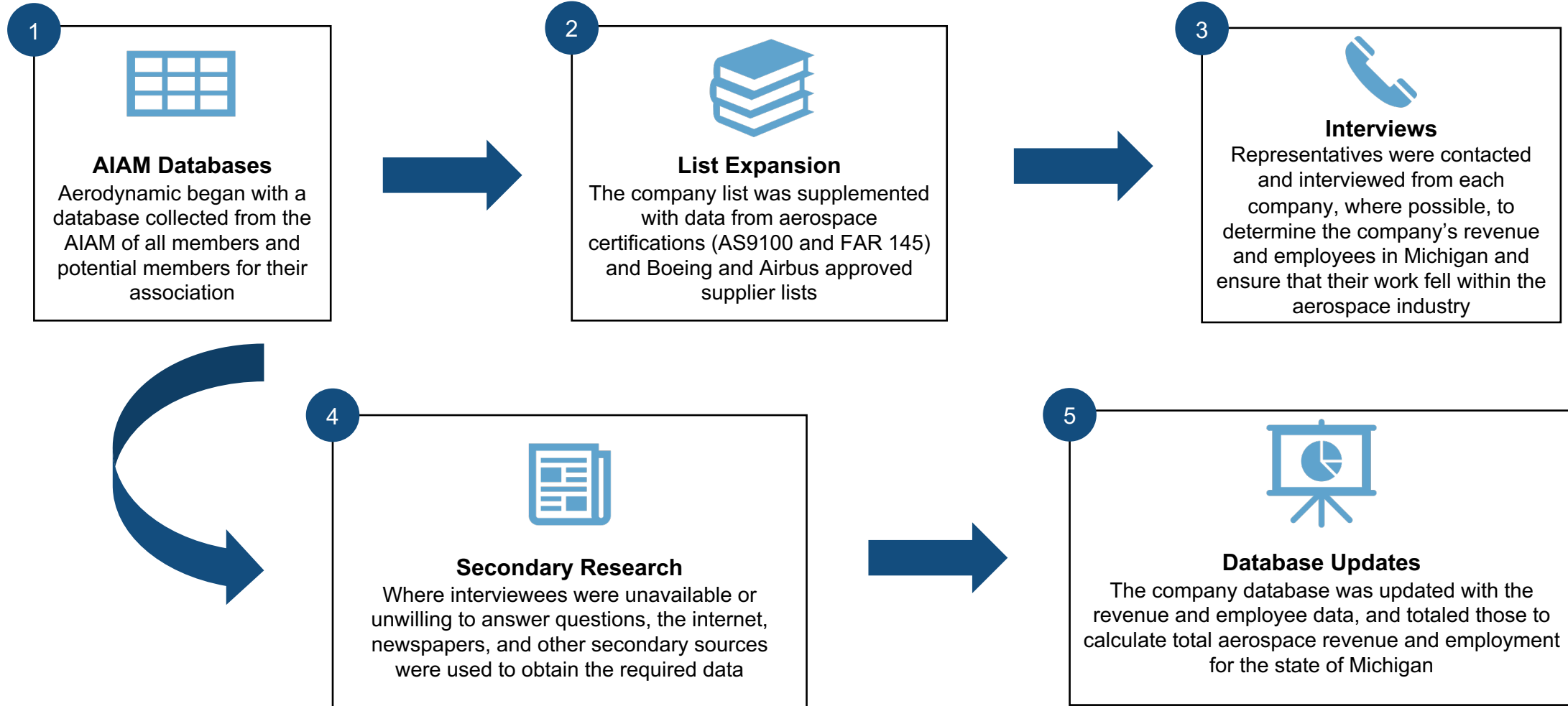


Executive Summary
19 September 2019



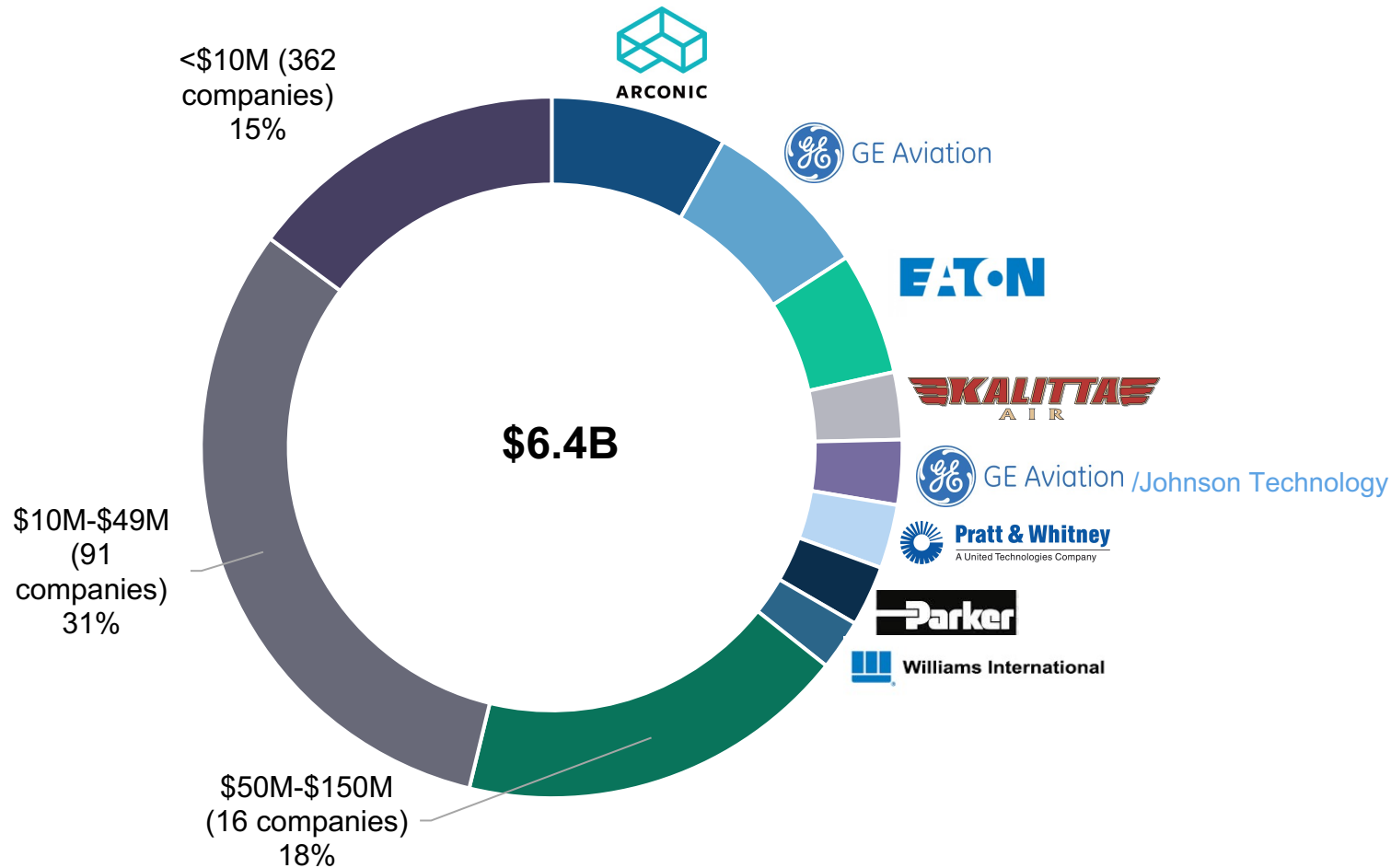
Due to the lack of quality information on Michigan’s industry, AeroDynamic undertook a project to research the size of the Michigan aerospace industry in greater detail

Methodology



477 companies in Michigan are directly contributing to an OEM or Tier 1 the aerospace industry

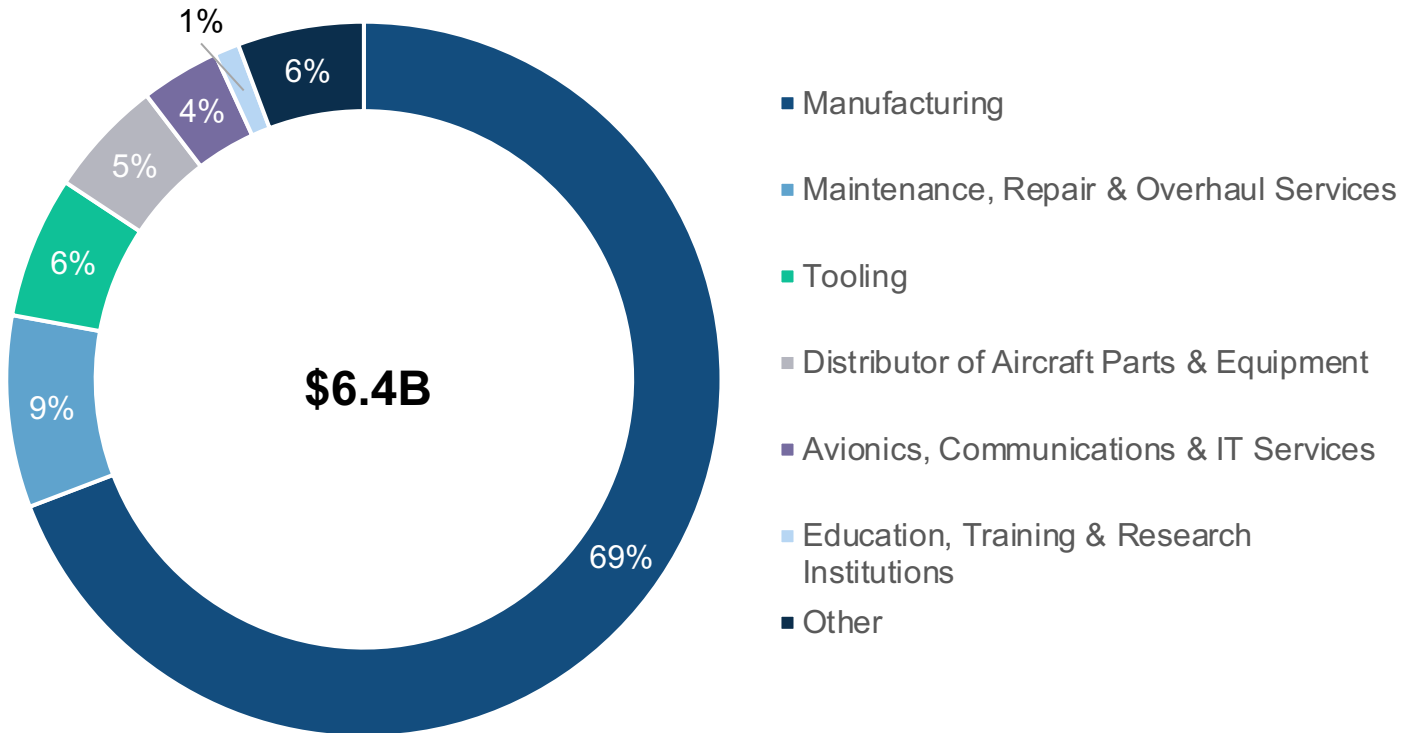
Michigan Aerospace Companies (2018 Aerospace Revenue From Michigan Operations)



Arconic	<ul style="list-style-type: none"> • 2,100 employees, \$525M in revenue • Key activity is Super Alloy Castings
GE Aviation	<ul style="list-style-type: none"> • 1,326 employees, \$500M in revenue • Key activity is Avionics
Eaton	<ul style="list-style-type: none"> • 1,825 employees, \$365 in revenue • Key activity is Manufacturing for conveyance, fuel and motion control
Kalitta Air	<ul style="list-style-type: none"> • 1,400 employees, \$200 in revenue • Key activity is Maintenance, Repair and Overhaul Services at the Oscoda facility
GE Aviation/Johnson Technology	<ul style="list-style-type: none"> • 550 employees, \$193 in revenue • Key activity is Manufacturing for turbine blades
Pratt & Whitney	<ul style="list-style-type: none"> • 750 employees, \$190 in revenue • Key activity is Manufacturing for geared turbofan blades
Parker	<ul style="list-style-type: none"> • 600 employees, \$180 in revenue • Key activity is Manufacturing for hydraulic systems and maintenance

Manufacturing comprises nearly 70% of aerospace activity in Michigan

Michigan Aerospace Revenue by Segment \$(M)

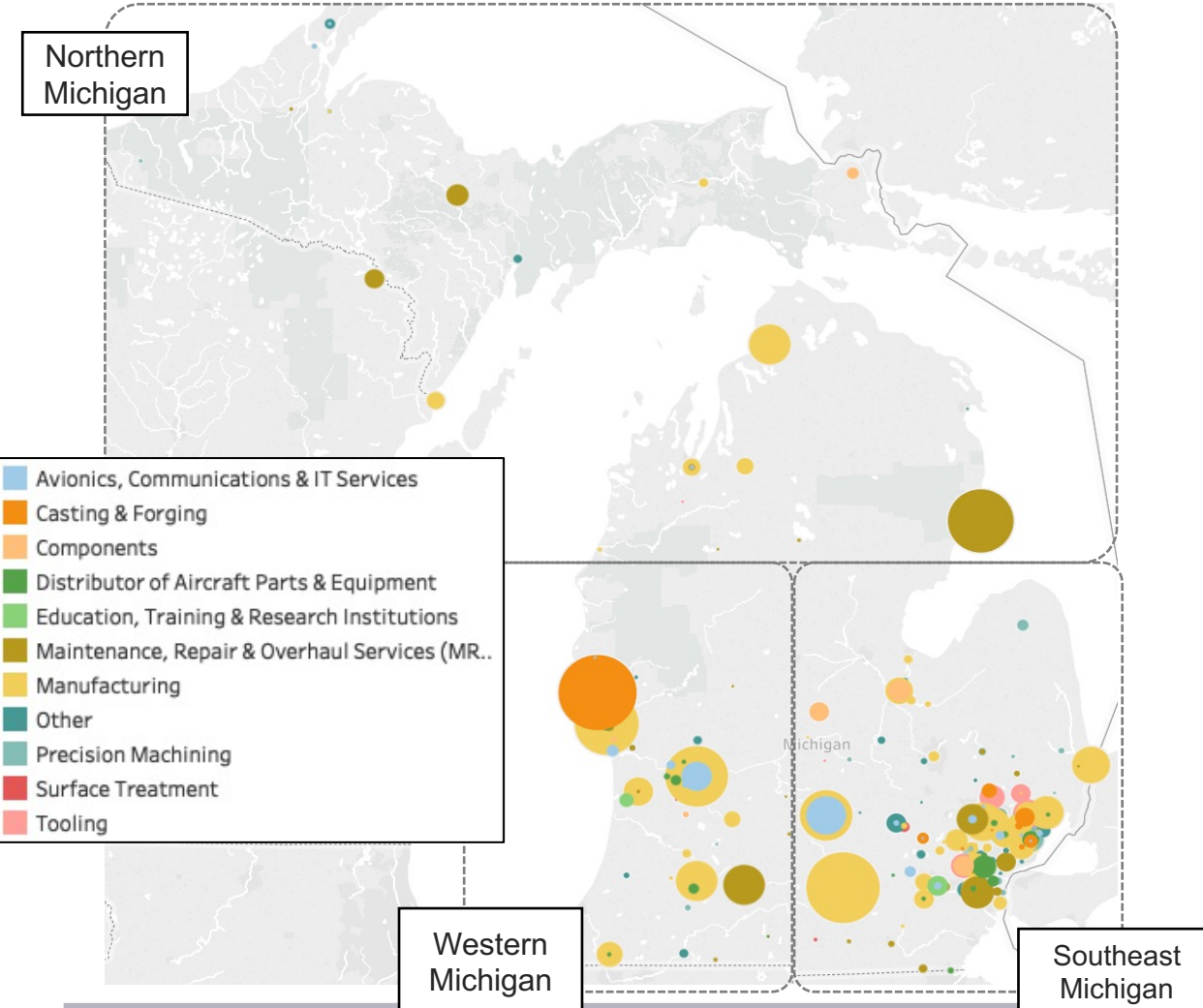


Comments

- › Manufacturing is the largest segment in Michigan’s aerospace industry, making up over \$4.4 billion
- › Michigan was recently given an ‘A’ rating on their manufacturing scoreboard by Ball State, and as mentioned earlier was ranked the 4th most attractive state to begin an aerospace manufacturing facility in
- › Clearly manufacturing is a very large driver of Michigan’s aerospace industry, as it is for the state’s economy overall
- › MRO is relatively small in Michigan, as it usually makes a larger percent of the market than 9%. Leading companies in MRO include Delta Air Lines, Kalitta Air, and Spirit Airlines
- › Tooling is a relatively large percentage of total revenue, approaching \$400 million in revenue.
- › The state is also home to companies that have capabilities in distribution, avionics, education, and other segments as well

The key companies in Southeast Michigan are Eaton, Pratt & Whitney and Williams International

Geographical Distribution of Michigan's Aerospace Industry (# Employees)

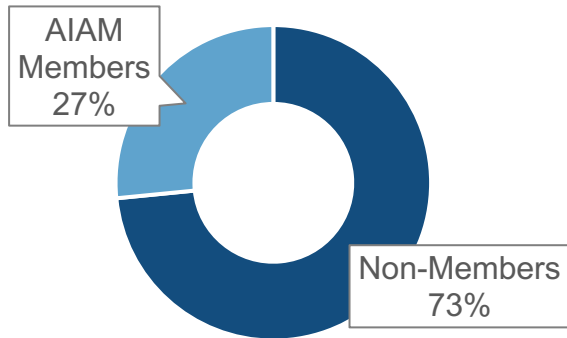


Comments

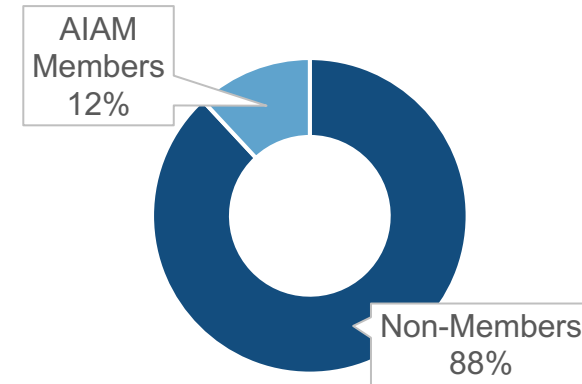
Cluster	Size (Employees, Aerospace Revenue)	Key Activities (Portion of Revenue)	Key Companies (Portion of Revenue)
Southeast Michigan	15,500 employees \$3.4B	<ul style="list-style-type: none"> Manufacturing 54% Tooling 10% Precision machining 8% Distribution 5% MRO 5% Other 16% 	<ul style="list-style-type: none"> Eaton 11% Pratt & Whitney 6% Williams Intl 4% Steel Industries 2% 300+ Others 77%
Western Michigan	9,700 employees \$2.5B	<ul style="list-style-type: none"> Manufacturing 75% Distribution 6% Avionics, Communications, IT Services 4% Other 16% 	<ul style="list-style-type: none"> Arconic 21% GE Aviation 20% Johnson Technology 8% Parker Aerospace 7% Kaydon Bearings 5% 100+ Others 40%
Northern Michigan	3,300 employees \$0.5B	<ul style="list-style-type: none"> MRO 53% Manufacturing 27% Composites 9% Avionics, Communications & IT 6% Other 18% 	<ul style="list-style-type: none"> Moeller Aerospace Technologies 14% Enstrom Helicopters 12% Envoy Airlines 12% Wayne Wire Cloth Prod 10% Phoenix Composites 7% 30+ Others 45%

Currently 57 AIAM member companies represent 22% of aerospace employees and contribute 27% to the aerospace revenue in the state

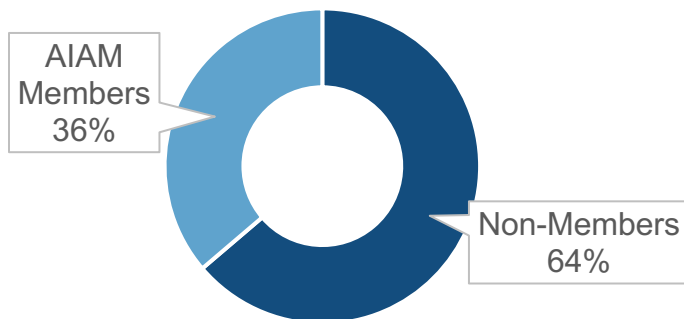
Michigan Aerospace Revenue



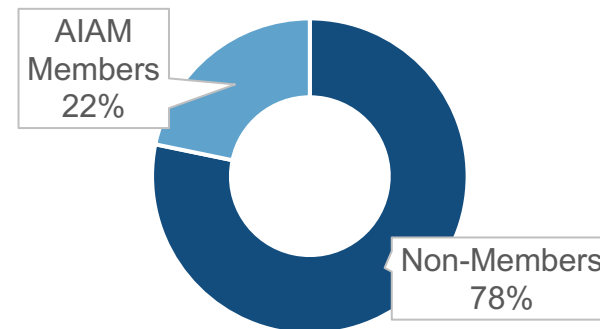
Michigan Aerospace Companies



Michigan Aerospace Manufacturing Revenue



Michigan Aerospace Employees



*AIAM currently has 98 members, 57 of which are contributing to aerospace activity in the state of Michigan

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