Meeting Packet Cover



Careers & Workforce Subcommittee

January 14th, 2025

9:00am
Morris Hall (17 HOB)

Meeting Packet

Daniel Perez
Speaker

Berny Jacques
Chair

Meeting Notice

Committee Meeting Notice

HOUSE OF REPRESENTATIVES

Careers & Workforce Subcommittee

Start Date and Time:	Tuesday, January 14, 2025 09:00 am
End Date and Time:	Tuesday, January 14, 2025 11:00 am
Location:	Morris Hall (17 HOB)
Duration:	2.00 hrs

Meeting Florida's workforce needs: presentation and discussion on Florida's manufacturing industry

To submit an electronic appearance form, and for information about attending or testifying at a committee meeting, please see the "Visiting the House" tab at www.flhouse.gov.

NOTICE FINALIZED on 01/07/2025 4:50PM by Vernon.Andrea

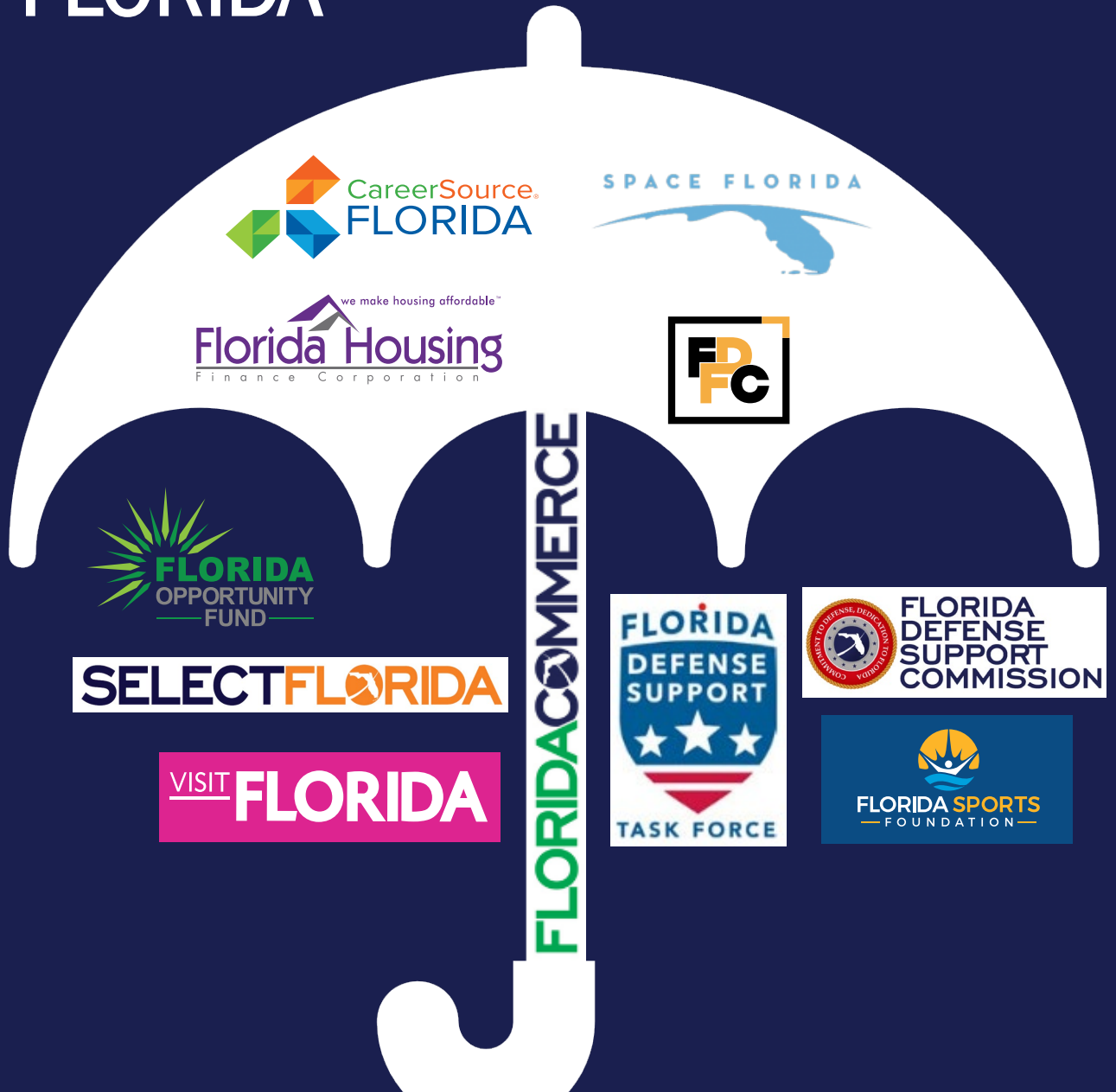
Florida Manufacturing

FLORIDA COMMERCE

Florida Manufacturing

Florida Secretary of Commerce, J. Alex Kelly

COMMERCE IN FLORIDA

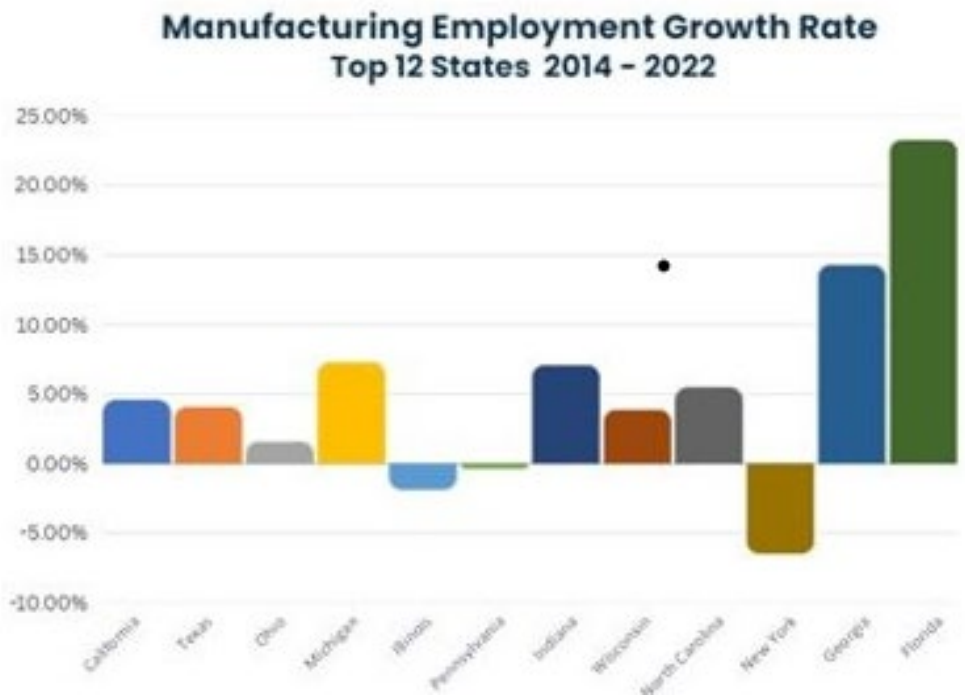


Florida is a Manufacturing State

- Florida's manufacturing output (GDP) has grown from $43.5 billion in 2014 to $73 billion in 2022, a 67.8% growth rate over 9 years. This rate of growth has significantly outpaced all other leading manufacturing states.
- Florida became the 10th largest state in the country for manufacturing employment, reaching 422,800 in September 2023, passing both Georgia and New York.
- Florida's proximity to buyers, suppliers, labor, and transportation enables companies to cut costs, develop close relationships with their communities, and provide high-quality jobs that can strengthen families and support sustained economic growth.

Poised for Growth

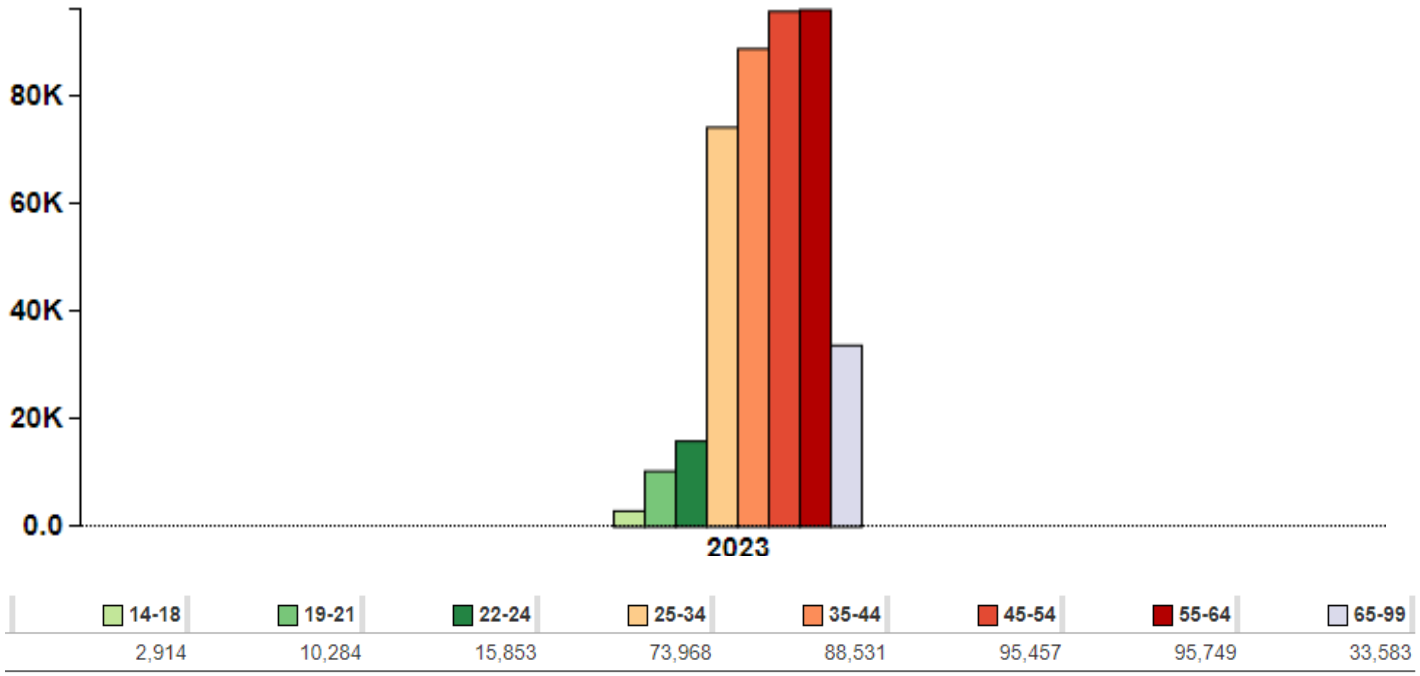
- Florida has a diverse manufacturing and innovative sector, positioned to benefit from the reshoring of manufacturing jobs.
- Proximity to buyers, suppliers, labor, and transportation enables companies to cut costs, develop close relationships with their communities, and provide high-quality jobs that can strengthen families and support sustained economic growth.
- From 2014-2022, Florida had the highest growth in manufacturing employment among large states.
- Florida is up 6,495 manufacturing establishments since 2019, growing by approximately 30% - a remarkable growth in six years.
- Statewide manufacturing establishments are opening at a faster rate than job growth, demonstrating that the threshold to start a manufacturing business is very accessible to entrepreneurs.



Employment

- Manufacturing employment represents one of the largest sectoral job multipliers in the economy.
- Manufacturing employment in Florida has grown by 23.3% since 2014, again significantly higher than other leading manufacturing states.
- The average number of manufacturing jobs per establishment has declined from 18.5 in 2019 to 15.7 in 2024, suggesting that technological advancements like automation, robotics and AI are allowing manufacturers to produce more with fewer people.
- The age profile of manufacturing workers is older than in most other industries. As Florida continues to see more retirements, the manufacturing industry may be disproportionately affected.
  - The chart and table below show the age distribution of manufacturing workers in Florida in 2023. (see table below; also attached)

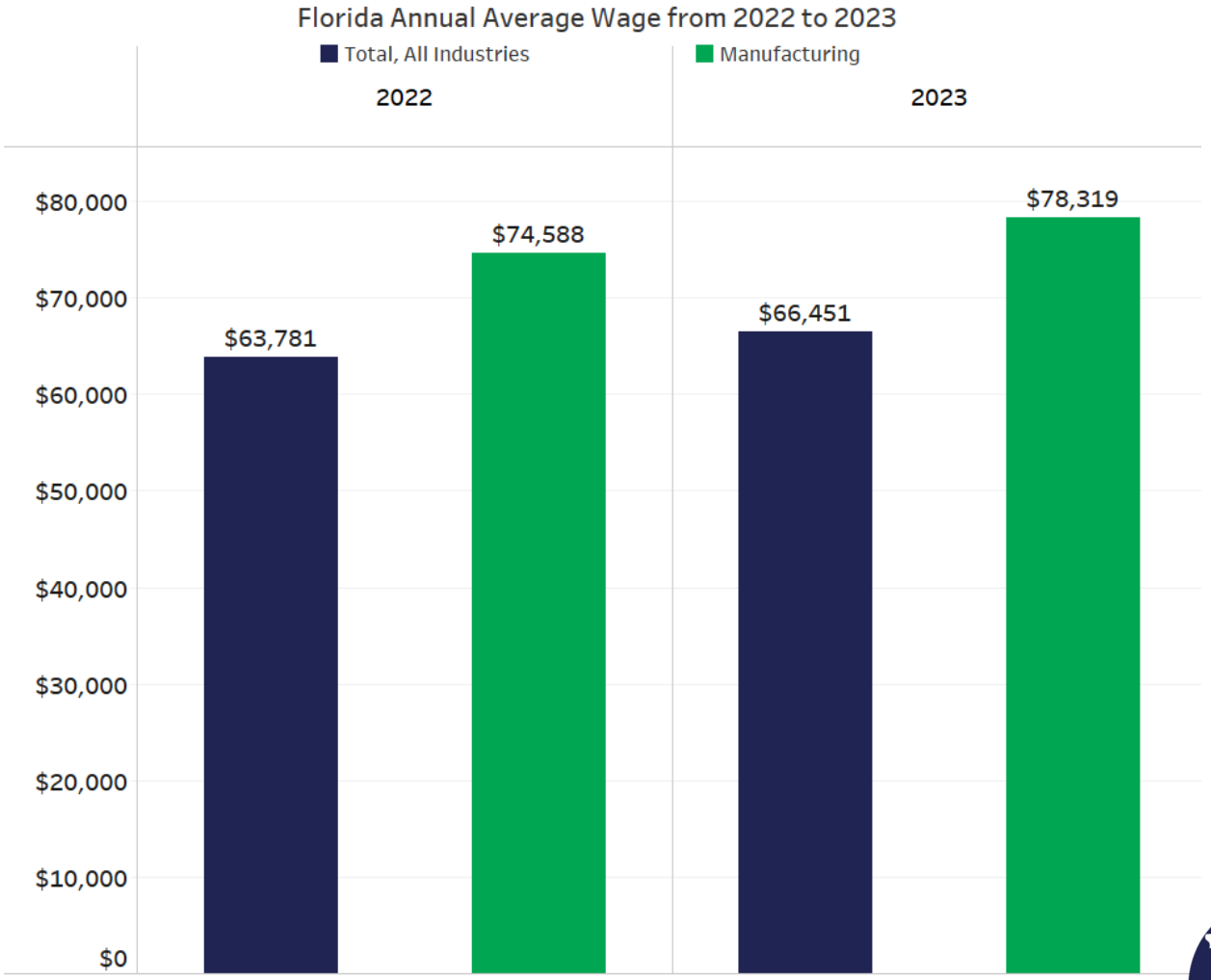
Florida Manufacturing Workers by Age - 2023



14-18	19-21	22-24	25-34	35-44	45-54	55-64	65-99
2,914	10,284	15,853	73,968	88,531	95,457	95,749	33,583

Higher Wages

- Manufacturing jobs are premium jobs, offering higher wages, increased productivity, and economic resilience.
- Based on 2022 data published by FloridaCommerce's Bureau of Workforce Statistics and Economic Research, manufacturing jobs generally pay higher wages than those in other industries.
- From 2022 through 2023, the average annual wage of the manufacturing industry cluster increased more than the average annual wage of all industries and grew at a faster rate.



Manufacturing Drives Export Trade

- In 2022, U.S. manufactured goods exports totaled nearly $1.6 trillion, or 77 percent of all U.S. merchandise exports.
- Of that, Florida's manufactured goods exports totaled more than $62.3 billion, just over 92 percent of Florida's total merchandise exports - 3.9 percent of the U.S. total manufactured goods exports value.

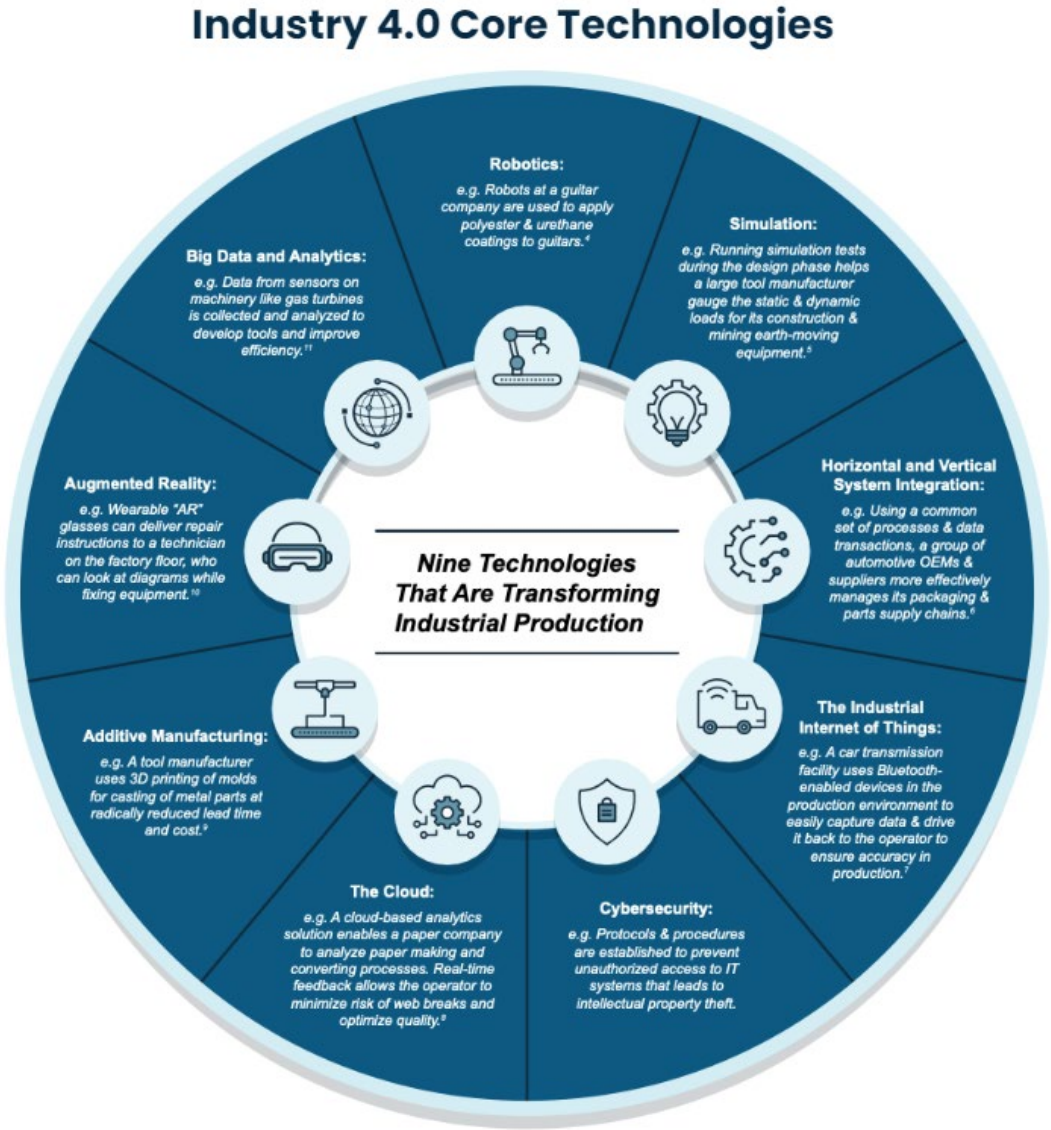
Table 2

Florida's 2022 Exports and Imports by NAICS Commodities

	Exports		Imports	
NAICs Commodities	Value ($B)	%	Value ($B)	%
Agriculture, Forestry, Fishing & Hunting	$1.46	2.15%	$11.94	10.66%
Mining, Quarrying, & Oil & Gas Extraction	$0.15	0.22%	$0.51	0.46%
Manufacturing	**$62.37**	**92.1%**	**$92.83**	**82.90%**
Other	$3.75	5.53%	$6.70	5.98%
State Totals	$67.73	100%	$111.98	100%

Greater Use of Advanced Technologies

- ❑ Florida is poised to harness its strong R&D base for significant advances in manufacturing and new technology adoption.
- ❑ Identifying and leveraging different funding and partnership opportunities will provide resources to support sustained technology growth, adoption, and use throughout Florida, leading to a stronger manufacturing ecosystem.



Source: Boston Consulting Group

Aviation and Aerospace Manufacturing

Florida is a global leader in aviation and aerospace manufacturing, with over 17,000 aerospace-related companies, employing over 120,000 workers, and generating over $19 billion in annual revenue.

17K

AEROSPACE RELATED COMPANIES

>120K

WORKERS EMPLOYED

>$19B

ANNUAL REVENUE

Defense Manufacturing

Defense Manufacturing: Florida is home to over 30,000 federal contractors, and over 25,000 manufacturers, many of which support defense.

>30K

FEDERAL CONTRACTORS

3RD

NATIONWIDE EMPLOYMENT

914,000

JOBS IN FLORIDA

Computer and Electronics Product Manufacturing

Semiconductor and related microelectronics product manufacturing as well as broader electronics and communications equipment manufacturing.

5th

NATIONWIDE EMPLOYMENT

>$3.7B

GDP GENERATED IN 2021

Medical Devices, Equipment, and Pharmaceuticals Manufacturing

Florida ranks second in the nation for medical device manufacturing, with strong production in medical device subcategories, such as $2 billion (27% of the national total) for contact lens manufacturing.

2nd

IN THE NATION

27%

NATIONAL CONTACT LENS MANUFACTURING

Boat and Ship Building Manufacturing

Florida is the top state for boat building and shipbuilding manufacturing, with over 19% of the establishments in the U.S. boat building sector located in Florida.

>19%

OF ALL ESTABLISHMENTS IN FLORIDA

Strong Policies

Governor Ron DeSantis and the Florida Legislature have set clear goals to ensure that Florida students are prepared to fill the high-demand, high-wage jobs of today and the future.

KEY LEGISLATIVE MILESTONES

Executive Order 19-31: Aims for Florida to be #1 in workforce education by 2030.

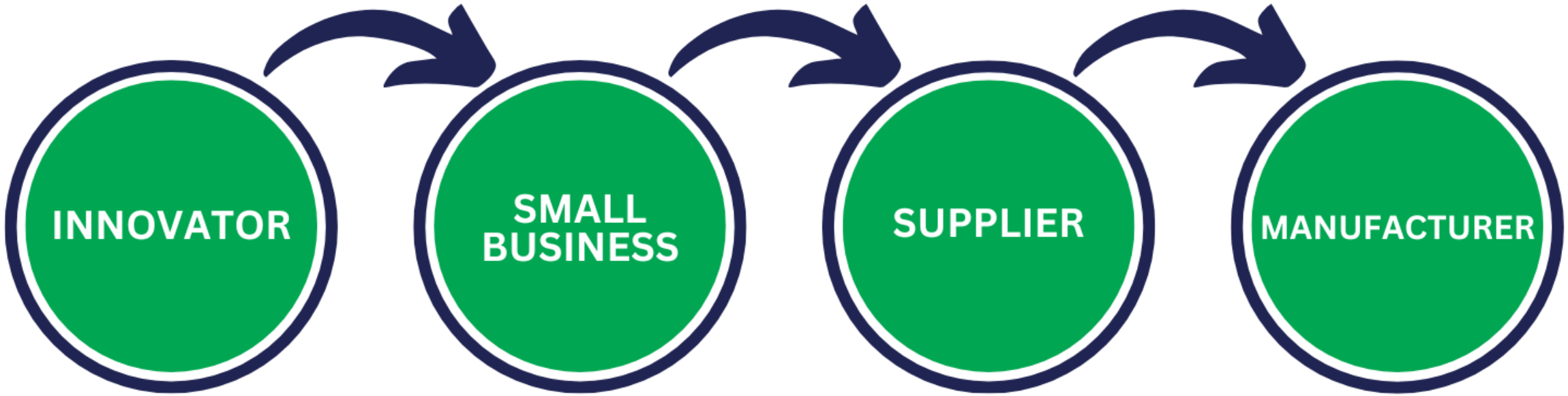
The 2021 REACH Act: Establishes the REACH Office for workforce development, focusing on education, training, and support services.

REACH Act 2.0 (2023): Reinforces the emphasis on Career and Technical Education (CTE) to provide high-quality jobs and enhance Florida's economy.

CTE Success: 17 pathways, nearly 800,000 students enrolled, significant growth in manufacturing.

Economic Benefits: Reduced import dependence, strengthened local manufacturing, and a more resilient economy.

Small Business is the Benchmark



Programs Available for Growing & Attracting Small Manufacturers in Florida

- ❑State Small Business Credit Initiative (SSBCI)
- ❑Rebuild Florida Business Loan Fund (RLF)
- ❑Small Business Emergency Bridge Loan Program (EBL)
- ❑Microfinance Loan Guarantee Program (MFG)
- ❑Partners: Florida Small Business Development Center Network (SBDC), Florida High Tech Corridor Council, Hispanic Business Initiative Fund (Prospera), Florida Opportunity Fund (FOF), Florida Export Finance Corporation, Florida First Capital Finance Corporation

Incentives, Grants, Tax Offsets, International Support

- ❑SelectFlorida: 18 offices in 16 countries, international trade shows and sales/trade missions, export assistance, certificates of free trade
- ❑Capital Investment Tax Credits (CITC), High Impact Performance Incentives (HIPI)
- ❑Semi-Conductor, Defense, and Space Technology Tax Exemption, Brownfield Redevelopment, and numerous other sales and use tax breaks
- ❑Job Growth Grant Fund (JGGF), Rural Infrastructure Fund (RIF), Small Cities CDBG, Broadband Grants
- ❑Defense Grants (DIG, DRG, FL Defense Support Commission)
- ❑Community Planning Technical Assistance (CPTA) and Competitive Florida
- ❑Bond Financing: Private Activity Bonds, FDFC, Space Florida

Challenges

Changes in Workforce Demographics:

- ❑As Florida's manufacturing workers retire, gaps are left within this employment sector.
- ❑Manufacturing jobs are premium jobs, paying higher wages and maintaining economic resilience against downturns.
- ❑It is imperative to continue elevating manufacturing through workforce education, including educating those entering the workforce about the high-tech, high-wage manufacturing jobs available.

Thank You

Presentation(s)

Vision for Semiconductors in Florida

Florida House – Careers & Workforce Subcommittee
January 14, 2025

David P. Arnold, Ph.D.
Director, Florida Semiconductor Institute
University of Florida

fsi.institute.ufl.edu

UF | Florida Semiconductor Institute
UNIVERSITY of FLORIDA

FLORIDA LEADING THE WORLD IN SPECIALTY ELECTRONICS



RESEARCH



WORKFORCE



ECOSYSTEM

SEMICONDUCTORS → AN AMERICAN TOP EXPORT

U.S. exports of semiconductors totaled $62 billion in 2021, fourth highest among U.S. exports behind only airplanes, refined oil, and crude oil. This consistently high level has been due to the fact that over 80 percent of semiconductors sold to customers today are sold outside of the U.S. market.

TOP U.S. EXPORTS IN 2021

Refined Oil



$92B

Aircraft



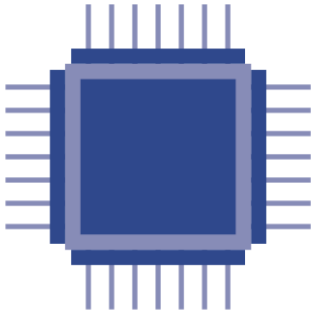
$80B

Crude Oil



$69B

Semiconductors



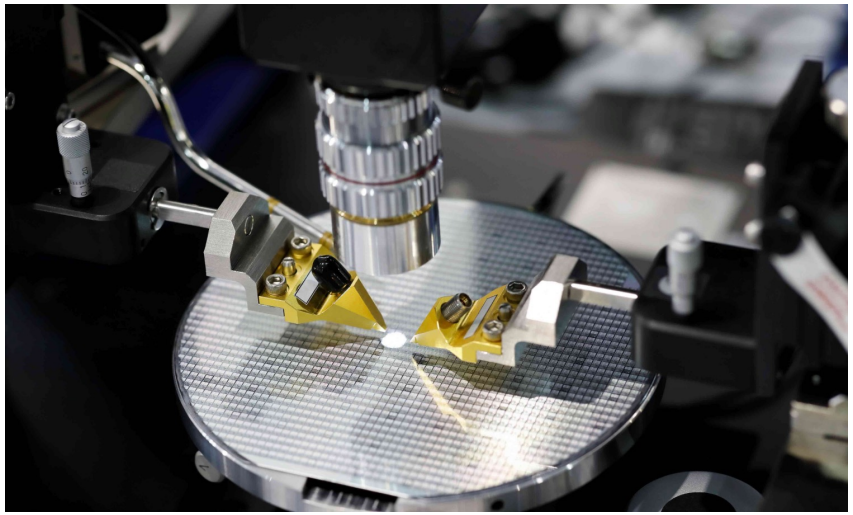
$62B

Semiconductor Industry Association

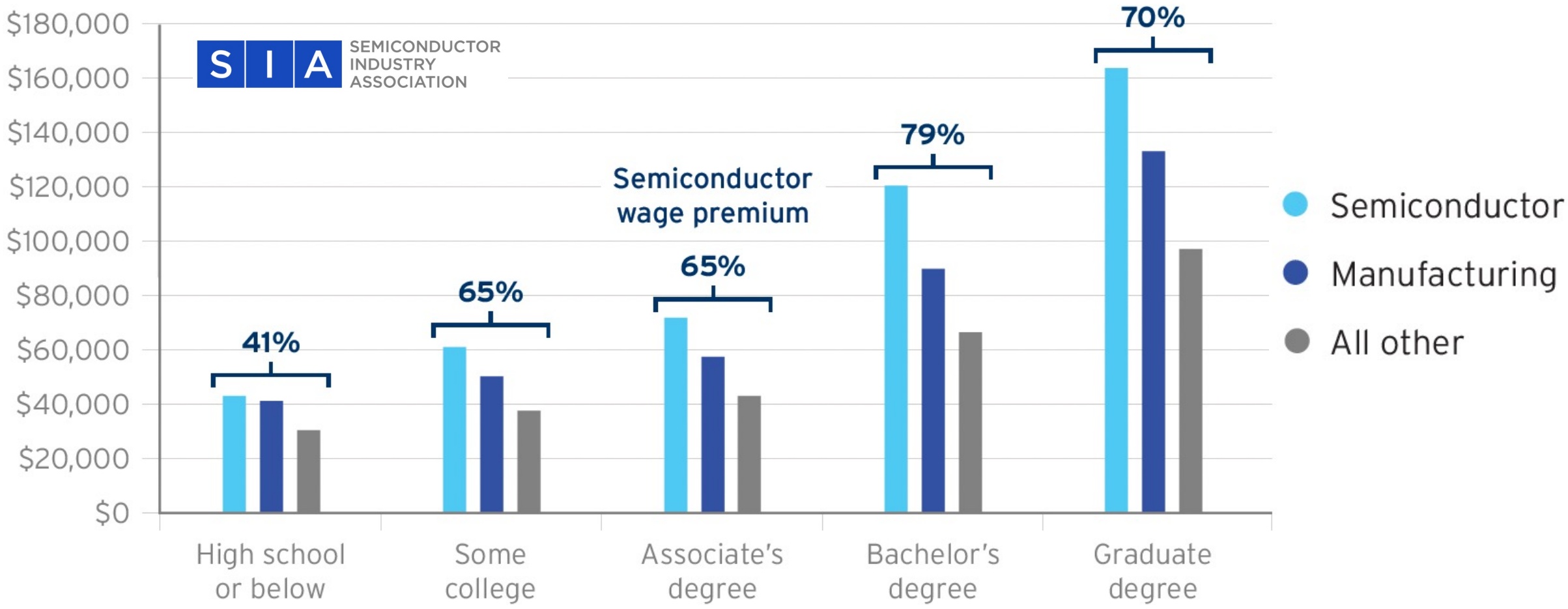
SEMICONDUCTOR INDUSTRY IS UNIQUE

- **Extreme Capital Costs**
  - Both buildings and manufacturing tools
  - Cutting-edge fab facilities cost $5B+
- **Reliance on Fundamental R&D**
  - Stretch boundaries of physics, chemistry, materials, and manufacturing
  - University research is a critical driver
- **Global Reorganization**
  - CHIPS Act
  - Re-onshoring semiconductor manufacturing
  - AI driving unprecedented demand for chips





SEMICONDUCTOR INDUSTRY OFFERS HIGH WAGES



FL → 5th LARGEST SEMICONDUCTOR WORKFORCE

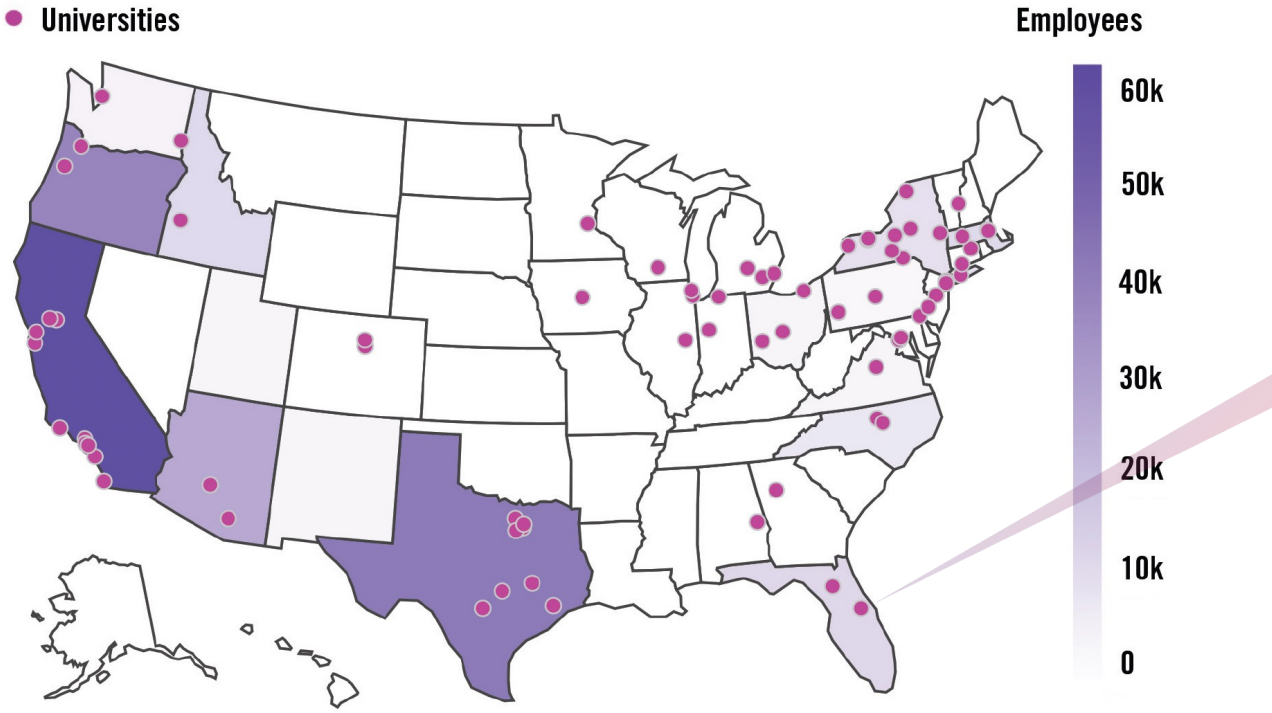


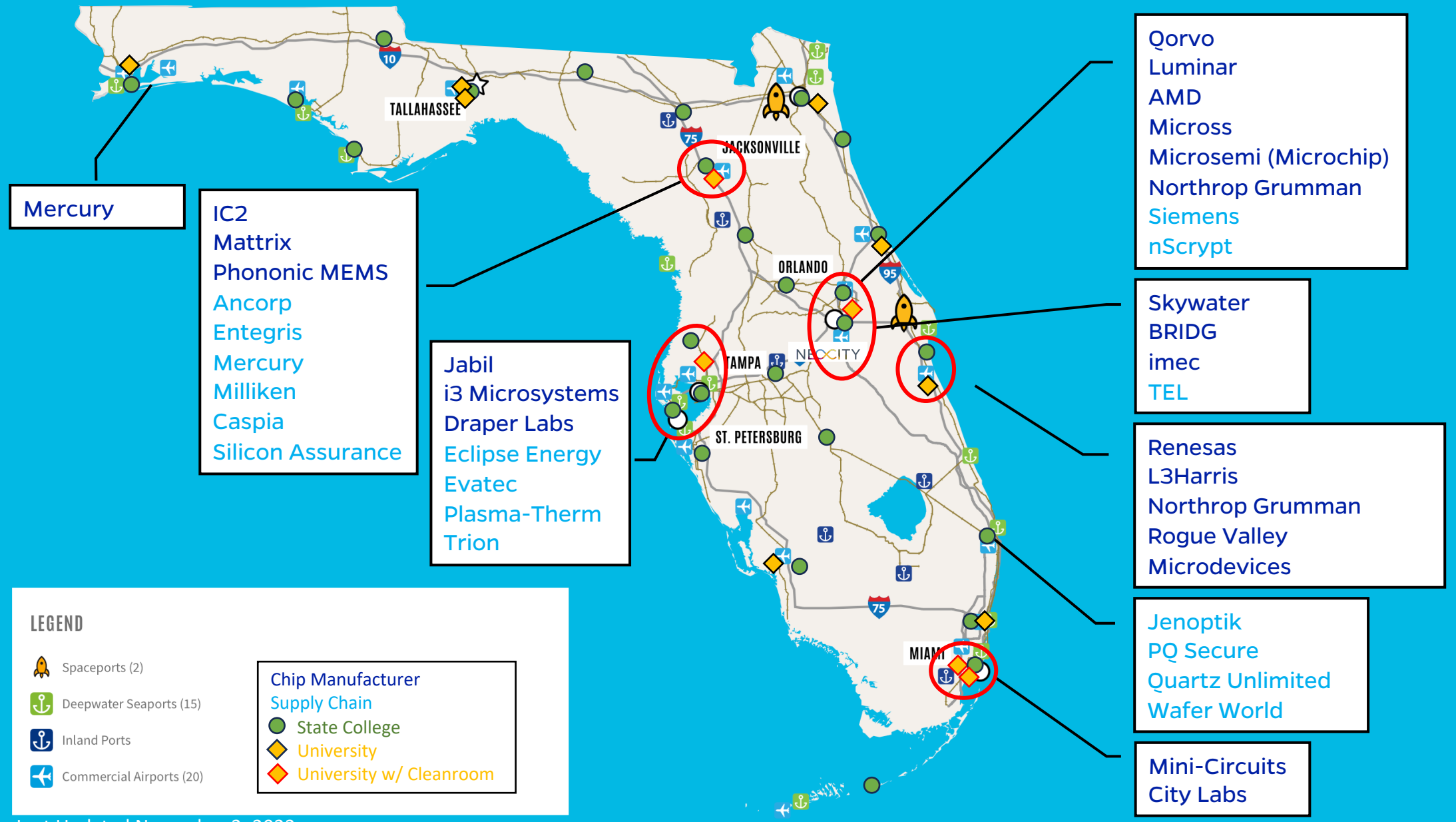
EXHIBIT 11: U.S. SEMICONDUCTOR EMPLOYEES PER STATE AND U.S. UNIVERSITIES WITH SEMICONDUCTOR PROGRAMS [33, 34]

MITRE Engenuity

Rank	State	Semiconductor employment	Share of U.S. semiconductor employment
1	California	63,300	23%
2	Texas	43,800	16%
3	Oregon	40,300	15%
4	Arizona	28,900	10%
5	Florida	12,900	5%
6	Idaho	12,300	4%
7	Massachusetts	12,200	4%
8	New York	10,200	4%
9	North Carolina	7,900	3%
10	Washington	5,000	2%
11	Virginia	4,100	1%
12	Ohio	4,000	1%
13	New Mexico	4,000	1%
14	Utah	3,700	1%
15	Pennsylvania	3,300	1%

Semiconductor Industry Association

FLORIDA MANUFACTURERS AND SUPPLY CHAIN



Last Updated November 3, 2023

RECENT FSI ACTIVITIES

Signature Investments in FSI

- **$80M** 2024 State Appropriation – FSI Launch + Jacksonville Expansion
- **$15M** (up to $160M) NSF Regional Engine (BRIDG, UF, UCF, CareerSource…)
- **$25M** (portion of $285M) CHIPS Manufacturing USA Institute

Ecosystem Building

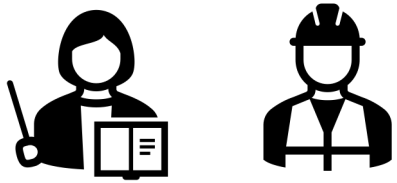
- **Florida Semiconductor Summit** – February 25-27
- **R&D** – 70 Faculty @ 5 Universities + 33 Industry Affiliates
- **Workforce** – Amatrol, AmSkills, FLDOE, FloridaMakes, Florida Chamber, K-12, Key Innovates, REACH Office, SACA

Join Us at FSS!

2024 WORKFORCE DEVELOPMENT

191

Educators Trained



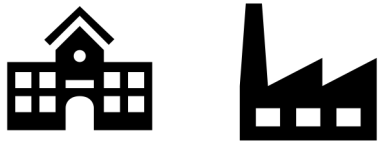
295

Students Supported

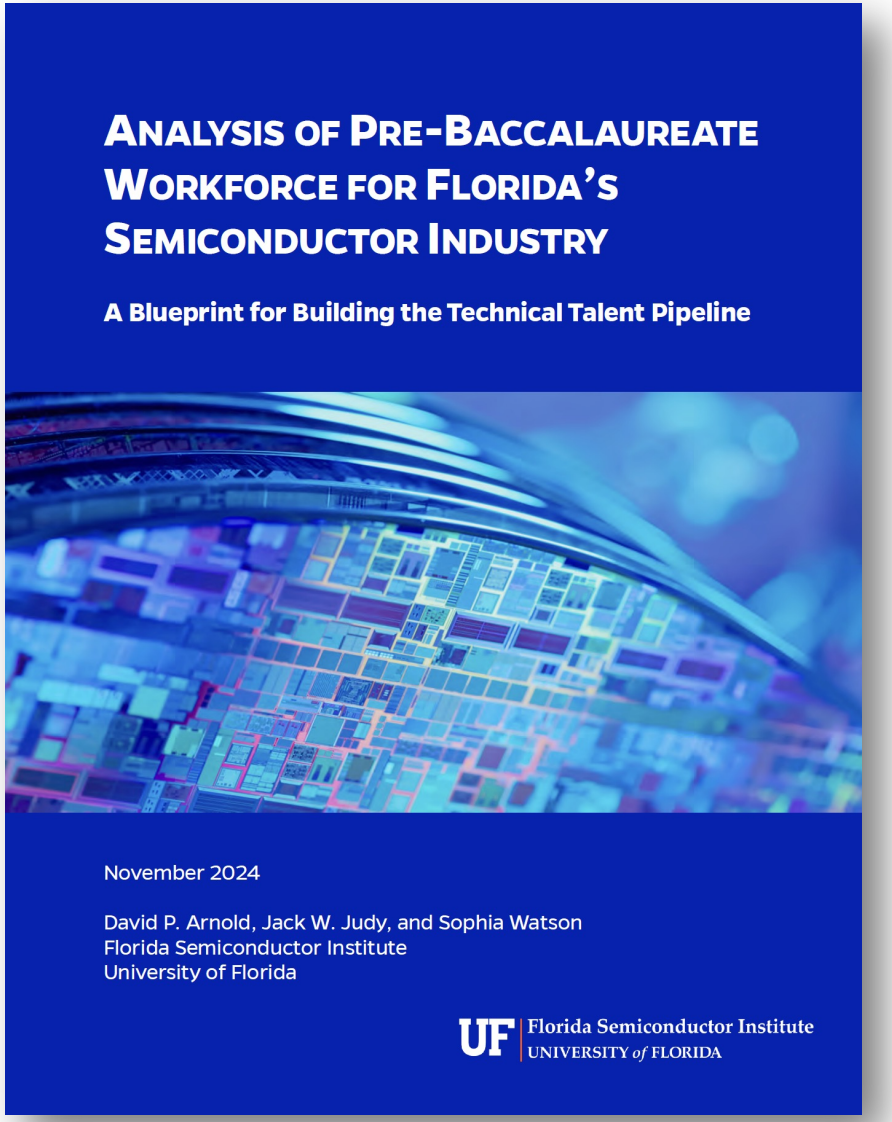


434

Organizations Engaged



STRATEGIC WORKFORCE REPORT



Download the Report



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