

Modeling & Simulation in Florida- Grades K-12

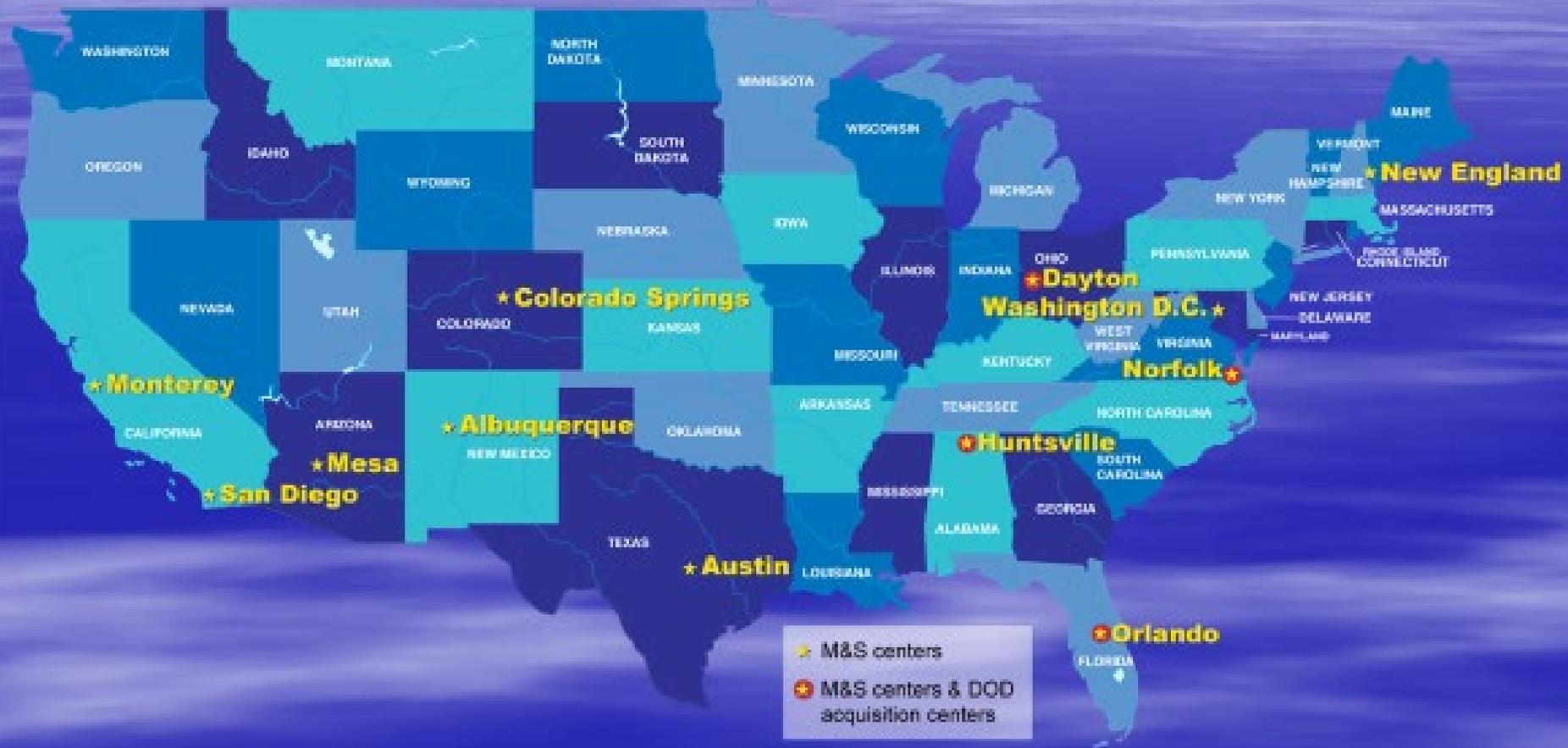
A Model of Success



Background and Status

- **Aging and growing technological obsolescent workforce while M&S applications are growing . Students learn differently today**
- **NCS decided to initially address high schools in developing the workforce of the future.**
- **NCS M&S Curriculum was adopted from the Old Dominion University version and modified to include virtual simulation, project management, ethics, intellectual property and logistics.**
- **The State of Florida approved the NCS M&S Curriculum, Framework and Standards.**
- **The State of Florida approved the NCS M&S Industry Certification and provides funding for student exams. Certified students have the skill-set to qualify for internships and entry level positions in STEM/M&S industry. At present, four companies have hired interns.**
- **An Industry Certification Board was established to oversee the exam process and establish goals. To date, 316 Florida students certified, 29 teachers passed the exam.**
- **In 2018, the State of Virginia Approved the NCS M&S Industry Certification.**
- **The State of Ohio was applied to for M&S Industry Certification. In process.**

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Medical Simulation Industry

200 employees



Interactive Digital Media Industry

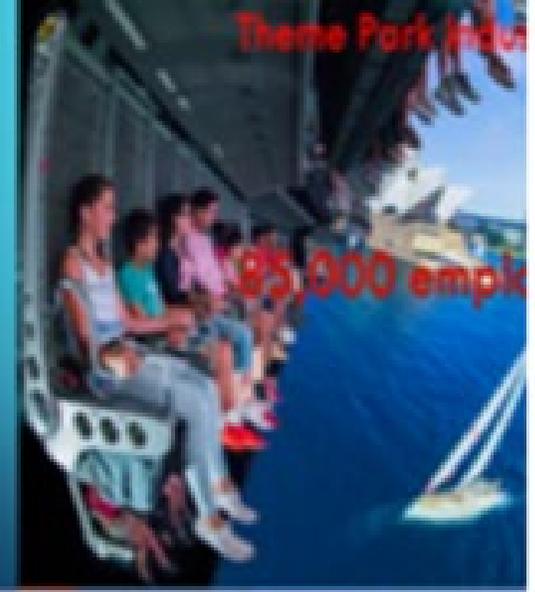
1,000 employees

Modeling & Simulation...



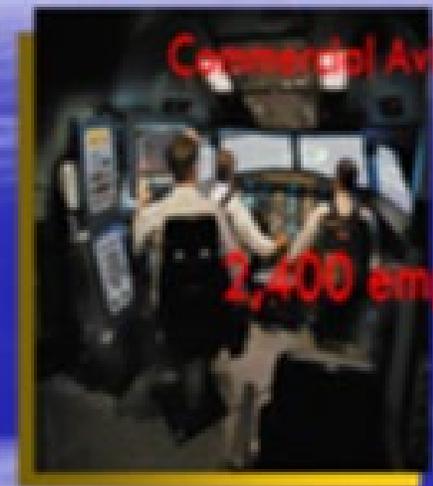
Defense Industry

30,000 employees



Theme Park Industry

85,000 employees



Commercial Aviation Industry

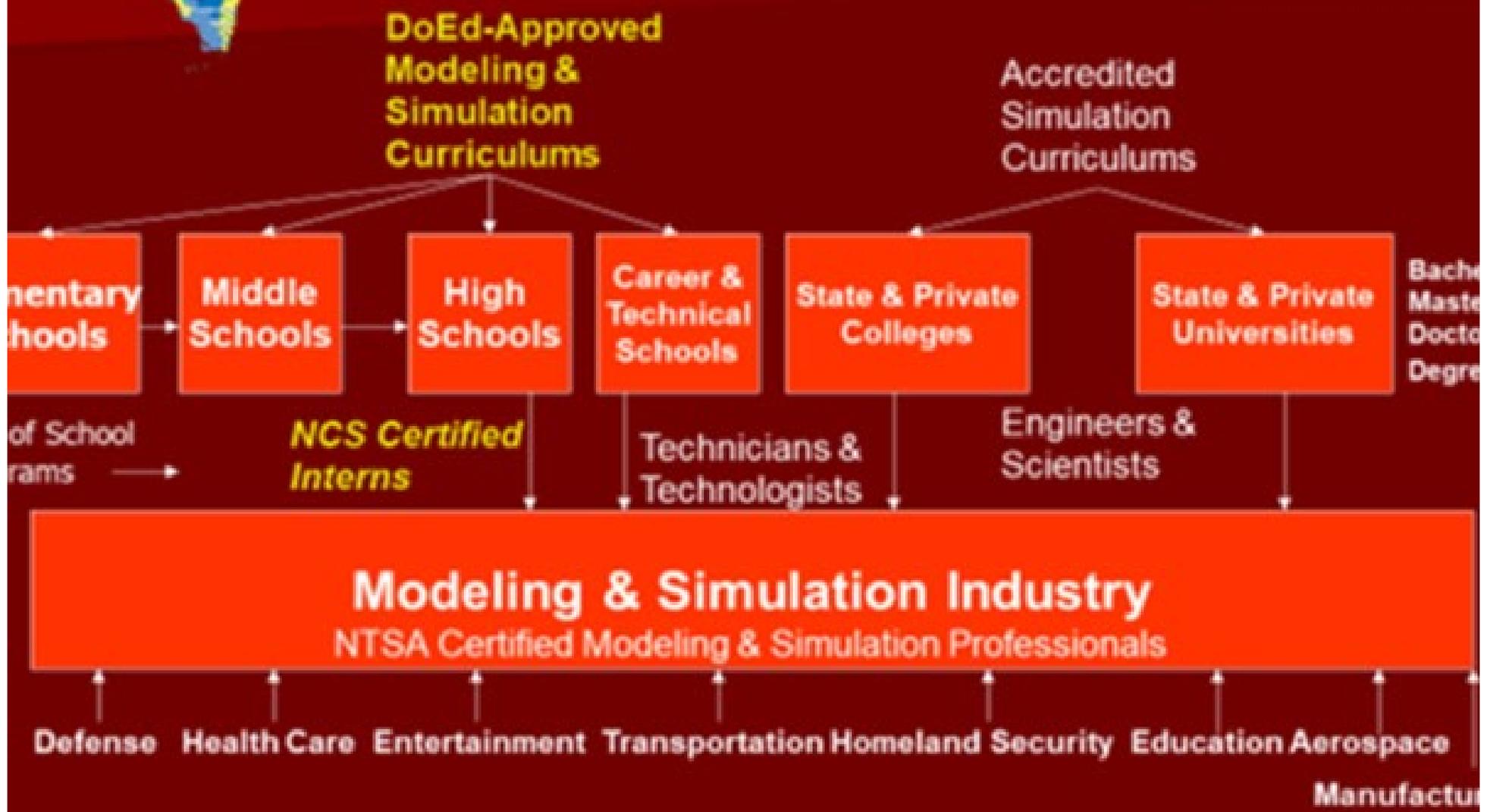
2,400 employees

Airbus 320 Simulator

The Engine of Florida's Workforce



Florida's Modeling & Simulation STEM/M&S Workforce Pipeline

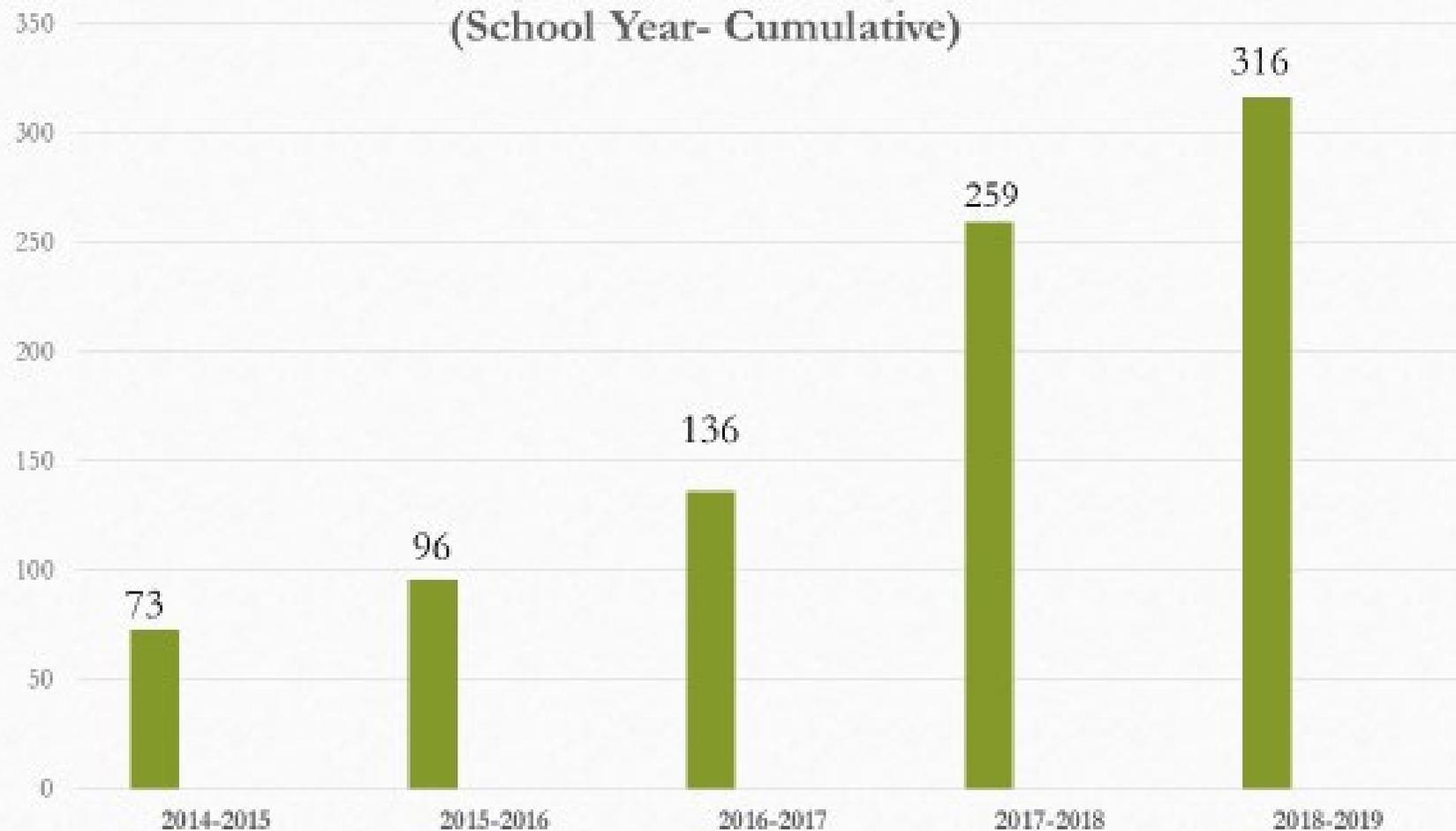


Florida Schools with M&S/Gaming Emphasis

Crooms Academy of Information Technology (Seminole Co.)
East River High School (Orange County)
Hagerty High School (Seminole County) *
Middleton High School (Hillsborough County)
Orange Technical College (MFC) (Orange County)
Timber Creek High School (Orange County)
West Centennial High School (St. Lucie County)

* Lead M&S School with 4 year M&S, State-approved Curriculum
(Refer to NCS website www.simulationinformation.com)

Certified Modeling & Simulation High School Students (School Year- Cumulative)



Note: Data as of 1 January 2019

M&S Congressional Caucus Actions

- a) A study/survey be conducted to identify, review and catalog available simulation programs that are candidates for transfer to K-12 education. Candidate software must be non-proprietary, free to schools and operable on standard school computers.
- b) Jointly, the Department of Education and Department of Defense should establish a network of four M&S Education Centers at existing institutions in Orlando, FL, Norfolk, VA, Dayton, OH, and Huntsville AL. Education and simulation experts will evaluate and compare candidate simulation program capabilities with course objectives and standards.

M&S Congressional Caucus Actions (Cont.)

- c) In cooperation with State DOEs and school districts, “model” schools will be identified to integrate the technology into courses. The training technology effectiveness of this new strategy shall be measured
- d) Request the Department of Education examine the incentives structure for teachers who teach STEM courses including M&S, and those teachers who are the pioneers in incorporating new technologies such as M&S into their courses deserve recognition and financial reward.

M&S Congressional Caucus Actions (Cont.)



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- e) Encourage colleges and universities to incorporate M&S into teacher-in-training (pre-service) education and provide those students with the simulation tools they will encounter and use at their schools after graduation.
- f) Industry must embrace hiring certified M&S high school and technical school students as summer interns to begin growing their workforce which is an aging and somewhat obsolescent in technology

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