



JENNIFER MCNELLY
SENIOR VICE PRESIDENT

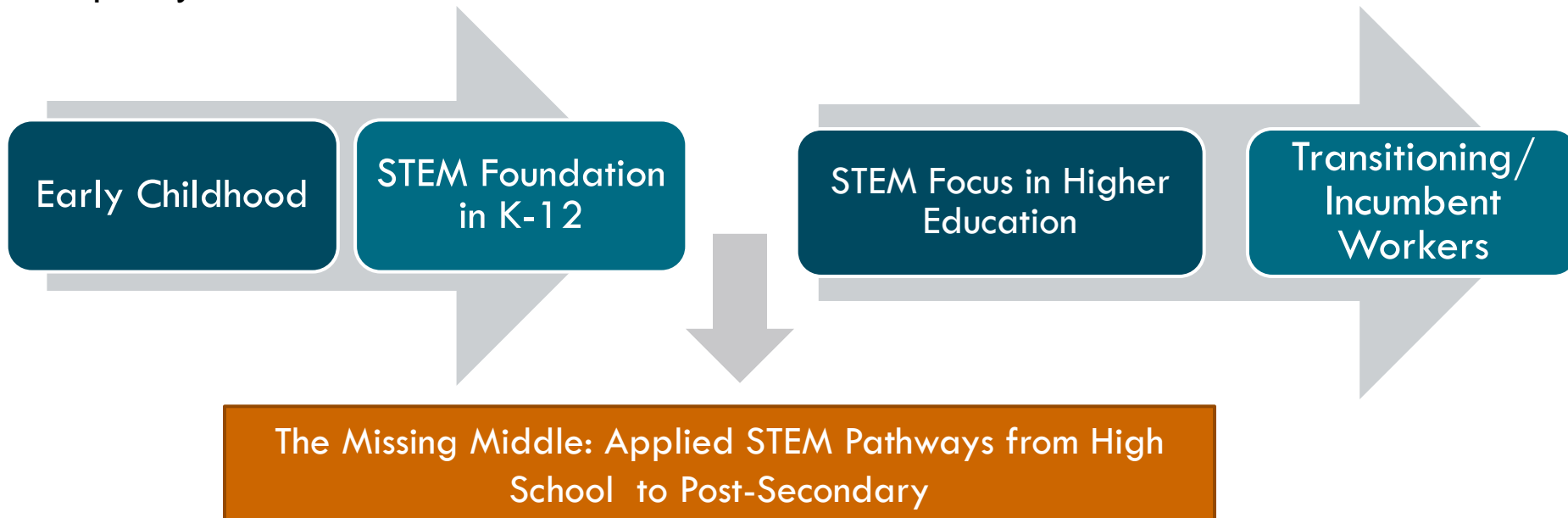
2/8/11

Prepared For: ASEE

National Dialogue and Dilemma

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Our Education and Workforce Development agenda focuses on implementing quality education reform for the entire continuum:



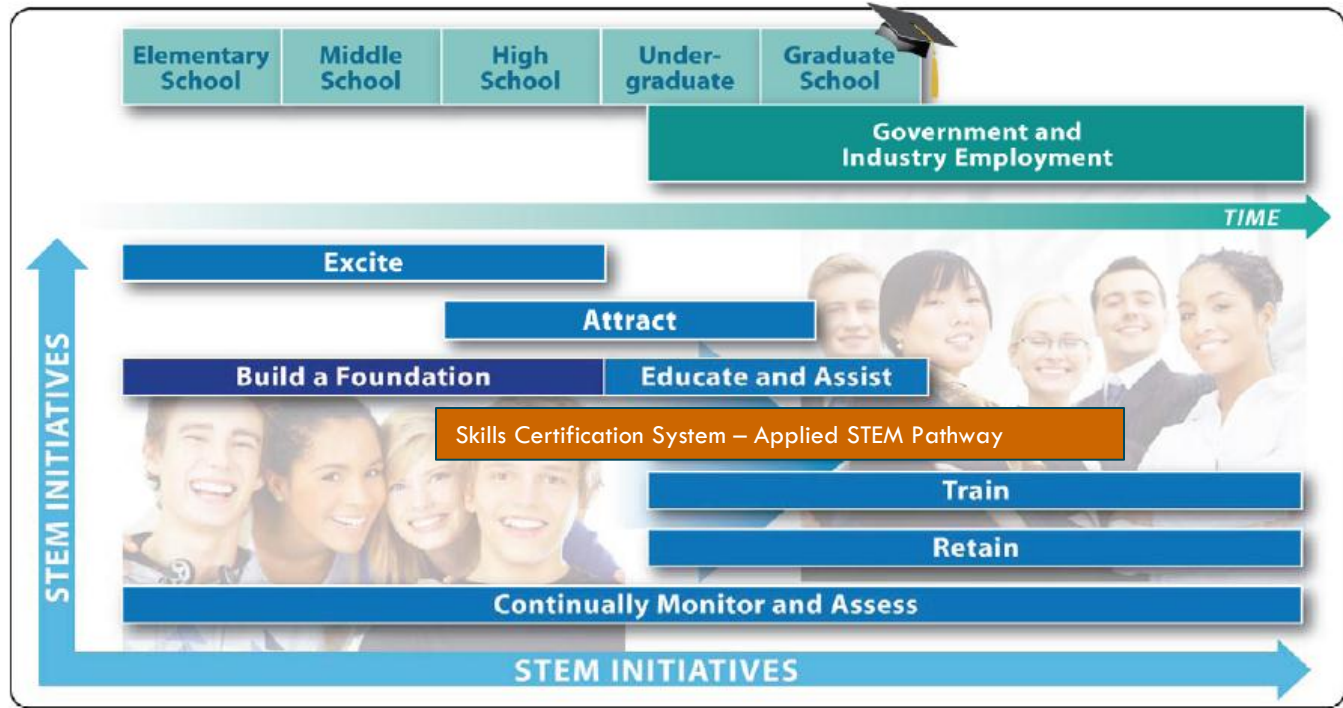
Manufacturing Skills Certification System The Applied STEM Pathway

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Expanding the STEM Pipeline

Engage Across the Entire Spectrum of Students

Conceptual Framework For STEM Discussions



Focusing on Specific Phases Clarifies Objectives



THE NATIONAL ASSOCIATION OF MANUFACTURERS ENDORSED

Skills Certification System

Providing
competency-
based, customized
education and training
for the
manufacturing
workforce...*today and*
tomorrow





Education Path

Certification Path

Career Path



ALIGNING STEM EDUCATION, CERTIFICATION AND CAREER PATHWAYS

For Florida via Engineering Technology A.S. Degree

EDUCATION PATHWAY	CERTIFICATION PATHWAY	CAREER PATHWAY
MASTERS OR PHD		
BACHELORS OF SCIENCE / ENGINEERING TECHNOLOGY (various disciplines) <ul style="list-style-type: none"> Florida State Colleges; FA&MU; BACHELOR OF APPLIED SCIENCE / TECHNOLOGY MANAGEMENT / _____ <ul style="list-style-type: none"> Florida State Colleges; USF Polytechnic Day/evening/hybrid 	<ul style="list-style-type: none"> ISA Certified Automation Professional SME Manufacturing Engineer SME Manufacturing Technologist 	<ul style="list-style-type: none"> Mechatronics Engineer (17-2199.05) Manufacturing Engineer (17-2199.04) Mfg Technologist (17-3029.06) Plant Engineer \$51k - \$79k
BACHELOR OF SCIENCE / ENGINEERING DISCIPLINES <ul style="list-style-type: none"> USF, UF, UCF, FSU, FAU, FIU, UWF, UNF, private Day/evening/hybrid 		
ASSOCIATE IN (APPLIED) SCIENCE – ENGINEERING TECHNOLOGY <ul style="list-style-type: none"> 60 Credit Hours/ Two Years Full Time Day /evening/online/hybrid ASSOCIATE OF ARTS/ ENGINEERING <ul style="list-style-type: none"> 60 Credit Hours/ Two Years Full Time Day/evening/hybrid 	<ul style="list-style-type: none"> College technical certificates ISA Certified Control Systems Technician NIMS Level 1, Measurements, Materials, and Safety Fluid Power certificates 	<ul style="list-style-type: none"> Robotics Technician (17-3024.01) Manufacturing Technician (17-3029-09) Electrical Technician (17-3023) Mechanical Engineering Technicians (17-3027) Industrial Engineering Technicians (17-3026) Computer control programmer (51-4012) \$23k - \$39k
COLLEGE CREDIT CERTIFICATE PROGRAM <ul style="list-style-type: none"> Minimum of 12 Credit Hours/ Less than 1 Full Year (future alignment to appropriate credentials) 	<ul style="list-style-type: none"> Engineering Technology Support Certificate MSSC: Maintenance Awareness; Safety; Quality; Manufacturing Processes and Materials; Certified Production Technician (CPT) NIMS Level 1, Measurements, Materials, & Safety 	<ul style="list-style-type: none"> Electro-Mechanical Technician (17-3024) CNC Operators (51-4011) Automation Maintenance Technician \$17k - \$27k
HIGH SCHOOL CAREER PROGRAM Machine Operator/ Maintenance <ul style="list-style-type: none"> Less than One Year Full Time 	<ul style="list-style-type: none"> MSSC CPT (Maintenance Awareness; Safety; Quality; Manufacturing Processes and Materials; Florida Ready to Work Certificate 	<ul style="list-style-type: none"> Operator Production Worker (51-9199) \$17k - \$27k

Florida Ready to Work (ACT Career Readiness)
 Personal Effectiveness * Academic Competencies Workplace Competencies

Applied STEM (High School)
 Dual Enrollment - Career Academy – Youth Development Programs

Out of School/Low Skill Youth/Adults
 WIA/Career Centers – ESL/VESL - GED/ABE
 "Bridge" and Foundation Programs

Skilled Adults
 Retraining/Lay Offs – Continuing Education Company
 Specific Apprenticeship

(Credit hours are based on semester courses)