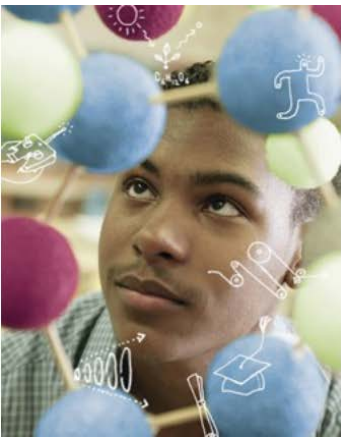


Connecticut Early College Opportunities

P-TECH Grades 9-14 School Model

Integrating workforce and education in Connecticut
Albert Schneider, VP, Global Client Innovation Centers, IBM





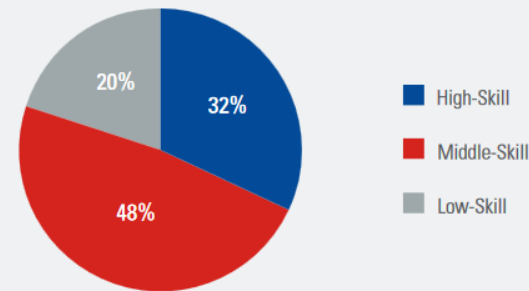
The Context for Our Work: The New Middle

- More than 16 million middle skill jobs by 2024
- Annual earnings: 40% pay more than \$55K; 14% pay more than \$80K

Demand for Middle-Skill Jobs Will Remain Strong

Between 2014-2024, 48 percent of job openings will be middle-skill.

Job Openings by Skill Level, United States, 2014-2024

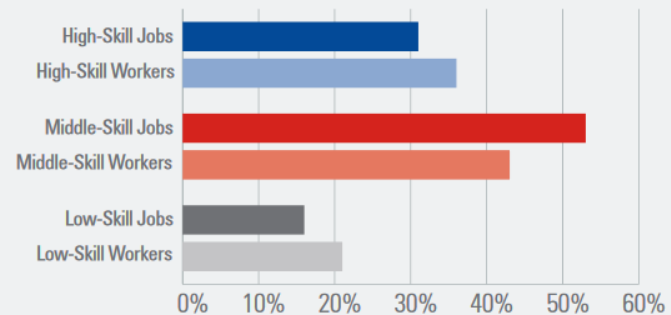


Source: NSC analysis of long-term occupational projections from state labor/employment agency.

A Middle-Skill Gap

Middle-skill jobs account for 53 percent of United States' labor market, but only 43 percent of the country's workers are trained to the middle-skill level.

Jobs and Workers by Skill Level, United States, 2015



Source: NSC analysis of Bureau of Labor Statistics Occupational Employment Statistics by State, May 2015 and American Community Survey data, 2015.

The New Middle is “New Collar”



“To create new collar jobs we will need new kinds of collaboration – involving federal and state governments, public school systems, community colleges and private business, across multiple industries. ... Together, we must work to reform education, policy and strategic approaches – in the U.S. and around the world – for today’s job opportunities that will build a future of growth and prosperity.”

-Ginni Rometty, Chairman and CEO, IBM Corporation

- Not “blue collar” or “white collar”
 - Technology industry alone has more than 500,000 open jobs in the United States
 - **SKILLS** are critical to filling these open position, but not necessarily a four year degree
-

A New Model for Education: P-TECH 9-14



- **Focus:** A new grade 9-14 public school model focused on STEM fields and Career and Technical Education
- **Mission:** Enable students to master the skills that they need either to graduate with a no-cost Associates in Applied Science degree that will enable them to secure an entry-level position in a growing STEM industry, or to continue and complete study in a four-year higher education institution.

**P-TECH: The pathway
from classroom to career
to a stronger economy**

P-TECH Key Tenets



- **Partnership** between school district, higher education partner and industry
- Six-year program, featuring **integrated high school and college coursework**, leading to an industry-recognized, postsecondary degree for *all* students. Students can graduate within the six-years, but the six-year model ensures that students have the time and seamless supports necessary to earn their degree.
- **Workplace learning strand**, including mentoring, worksite visits, speakers, project days, skills-based and paid internships
- **Open enrollment** with focus on historically underserved students
- **Cost-free** postsecondary degree
- **First-in-line for jobs** with industry partners

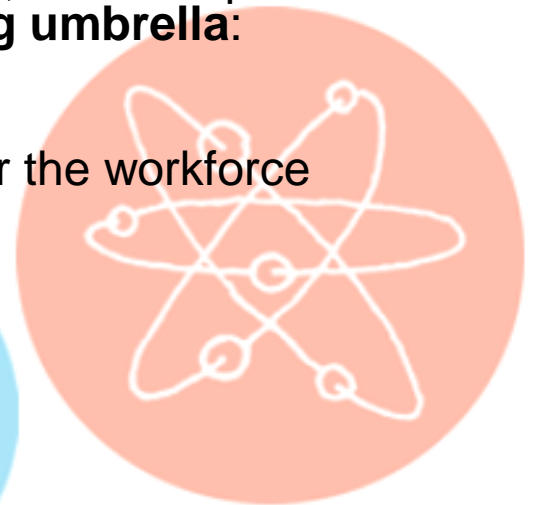


Key Innovation: Industry Partnership



Industry is a full partner in all aspects of the school, but has special responsibility over the **Workplace Learning umbrella**:

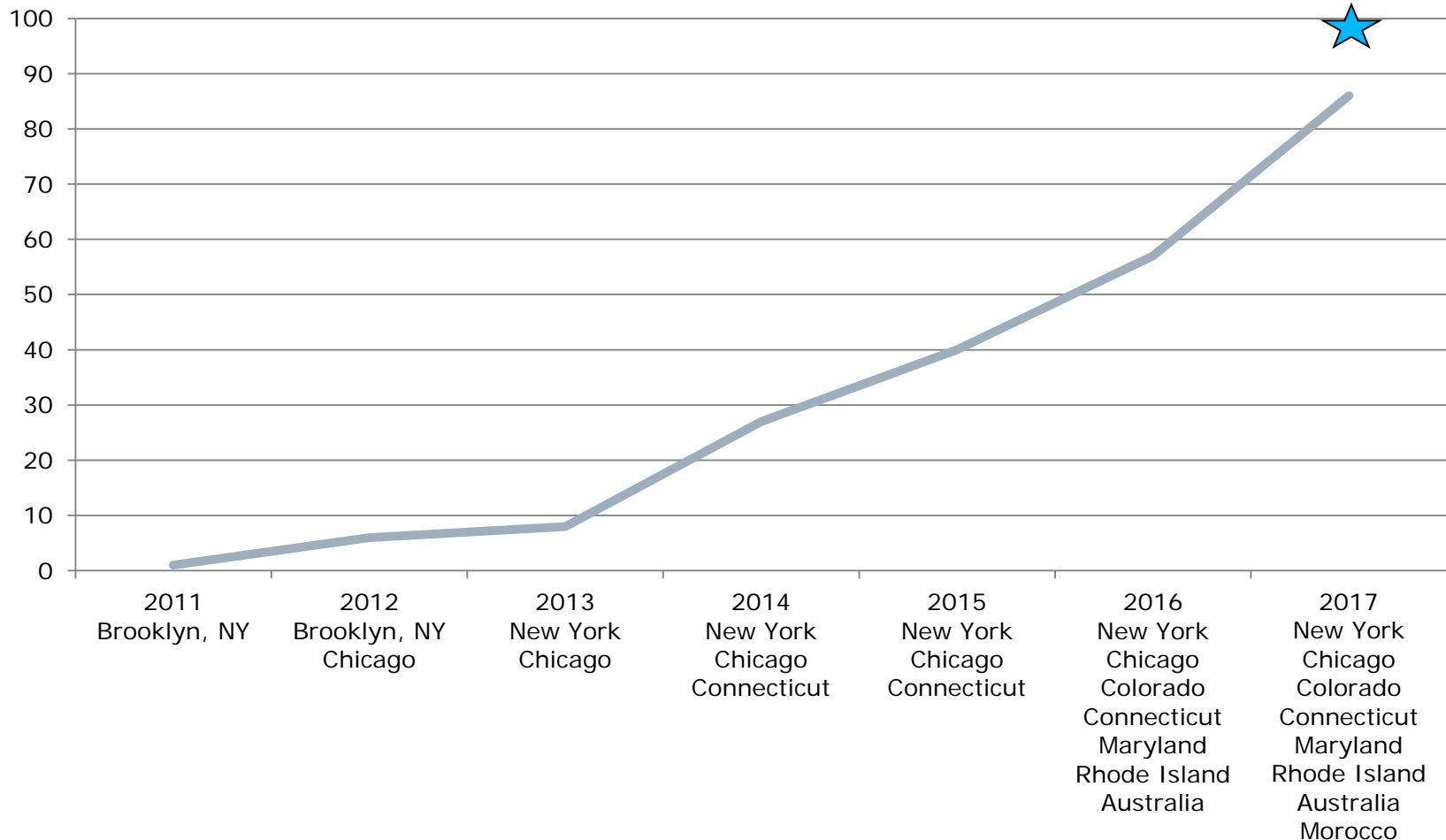
- Skills mapping to ensure graduates are ready to enter the workforce and/or pursue higher education
- Workplace Learning curriculum
- Mentors for all students
- Workplace experiences: Speakers, worksite visits, job shadowing
- Skills-based, paid internships
- First in line for jobs



High School Re-design Movement



P-TECH Replication



What is CT-ECO



The Connecticut Early College Opportunity (CT-ECO) program is based upon the successful IBM P-TECH model

- CT-ECO offers participating students an integrated high school and college program that aims for each student to graduate simultaneously with an AAS or AS degree.
- CT-ECO programs further prepare students with the skills and knowledge necessary to step seamlessly into well paying, high potential jobs in STEM fields.

Alliance Districts

The Alliance District program is a unique and targeted investment in Connecticut's 30 lowest-performing districts. In total, the Alliance Districts serve over 200,000 students and 410 schools. CT-ECO programs now exist in four of the designated districts and Connecticut has the opportunity to transform the educational experiences and outcomes of thousands of traditionally underserved and disenfranchised students and families across the state.

CT-ECO: Design Principles



- Open admissions with a focus on disadvantaged and at-risk students
 - Focus on Common Core State Standards
 - Focus on Early College
 - Focus on Careers
 - Focus on Personal Pathways
 - Focus on Extended Learning Time
-

CT-ECO: Our Students, The Pathways



2017

472 students served across CT

63% qualified for free or reduced lunch

57% Hispanic/Latino

23% Black/African American

41% Women

6% English Language Learners

Pathways

AAS Pathways: Mobile Programming and Software Engineering

AS Pathways: Computer Information Systems and Business Administration

Computer Applications

AS Pathways in Technology Studies: Manufacturing Principals and Industrial

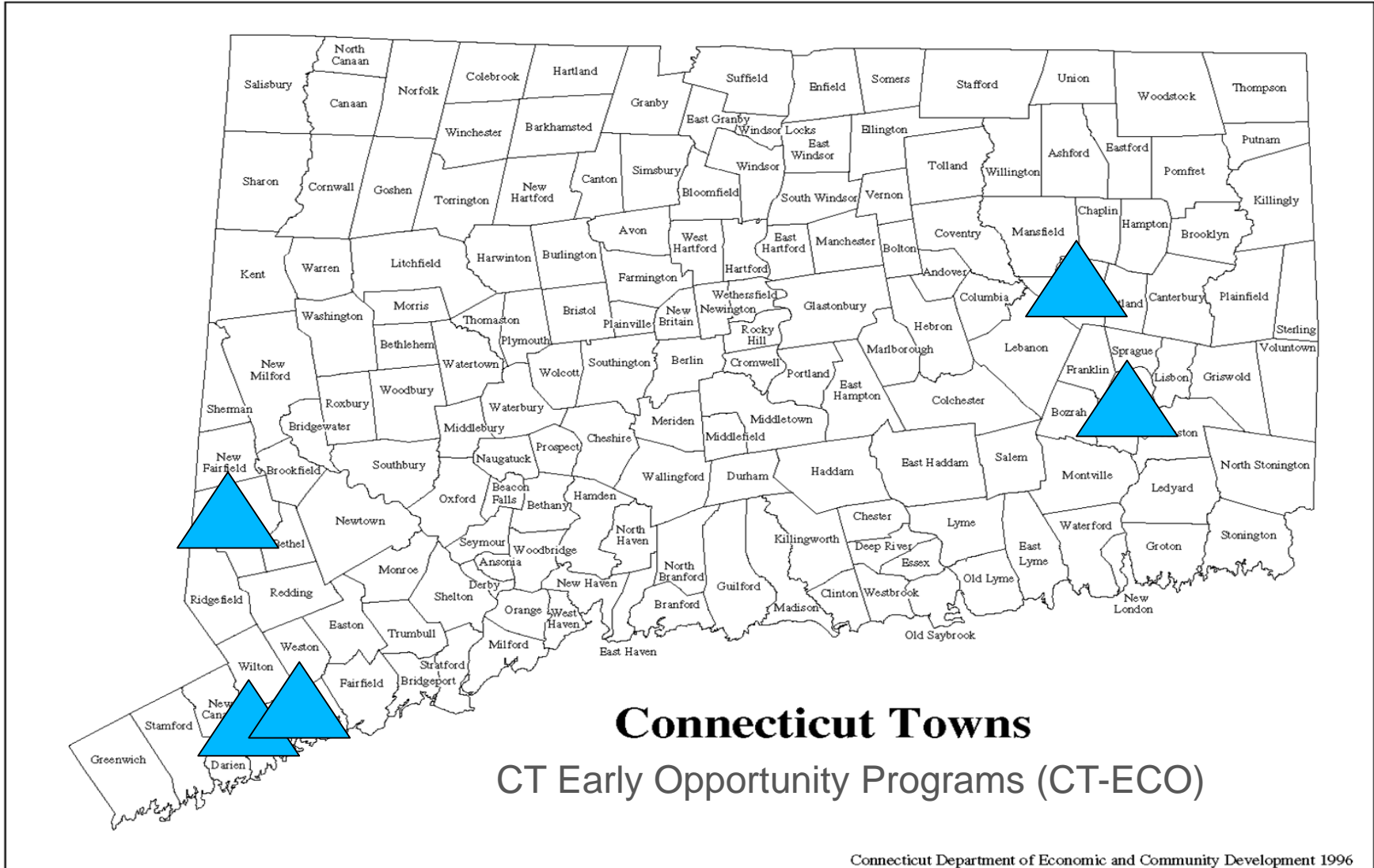
Supply Chain/Lean Manufacturing

AS Pathways in Technology Studies: Sheet Metal Fabrication and Mechanical Engineering Technology

CT 2014: Norwalk - IT

CT 2015: Norwalk – IT; Danbury – IT; Windham – ADV, New London

CT 2016: (2) Norwalk – IT & Medical; Danbury – IT; Windham – ADV; New London - ADV



CT-ECO Partnerships



K-12 Partners

Danbury School District
Norwalk School District
New London School District
Windham School District

Community College Partners

CT State College and University system office
Norwalk Community College
Naugatuck Valley Community College
Three Rivers Community College
Quinebaug Valley Community College

Industry Partners

IBM
NewOak Financial
Pitney Bowes
Electric Boat
Eastern Advance
Manufacturing Alliance
Norwalk Hospital

THANK YOU!

