

Siemens Foundation STEM Middle-Skill Initiative

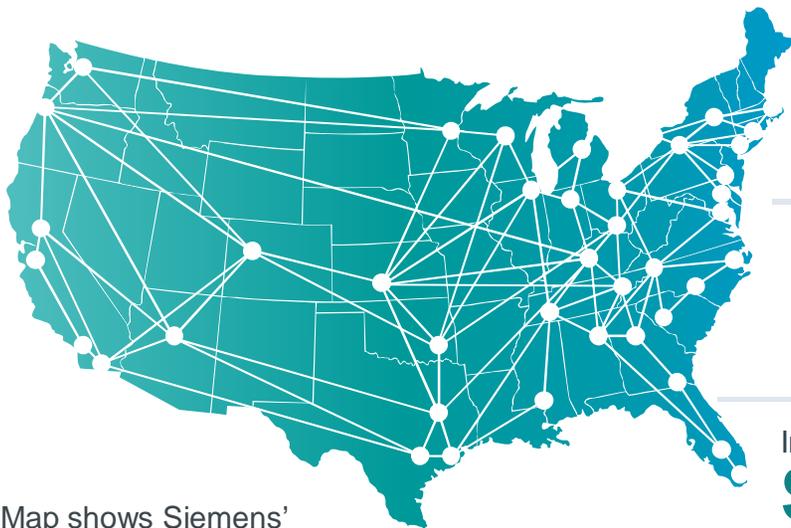
NOTES TO ACCOMPANY PAGE 1

I appreciate the opportunity to discuss the Siemens Foundation's work in middle-skills and why we are—like so many in this room-- laser focused in this area.

Our work starts with the belief that one of the greatest challenges we face in this country today is the loss of the social compact we have with one another—the loss, for too many, in the promise that hard work and dedication to educating and advancing oneself, one's family, and one's community—is a ticket to the middle class or at least a living wage.

Of course, there are more than a few reasons for that loss so understanding who Siemens is as an industry leader and workforce pioneer is important to understanding why we're focused on middle skill jobs.

In just the past 15 years, Siemens has invested more than \$35 billion in the US



Map shows Siemens' major employment hubs

Employing more than
50,000 people

Investing more than
\$50 million
annually in workforce training

Operating
more than 60
Manufacturing sites

Foundation STEM
investments exceeding
\$100 million
since 1998

Investing more than
\$1 billion
annually in R&D

Exporting more than
\$5 billion
annually

Supporting more than
800,000 US jobs
linked to Siemens' global
business operations in FY15

Siemens will continue

to deploy our innovative technologies to meet America's greatest challenges, particularly in the fields of:



NOTES TO ACCOMPANY PAGE 3

For those of you not familiar with Siemens, Siemens is in deep in the STEM industries that grow our economy and support innovation around the globe. Siemens keeps the digital factory of the 21st century online. Supports cyber security of small, medium and large enterprises across the country. Protects life in hospitals and other medical facilities by providing critical imaging. Sources energy for the U.S. from oil and gas to wind and other renewables and distributes it to our homes and businesses. And keeps our society mobile, getting us from point A to B on America's railways—both light and heavy.

As you can see, Siemens is investing in the 21st century STEM skilled workforce we need to keep these industries moving forward, including our work at the foundation.

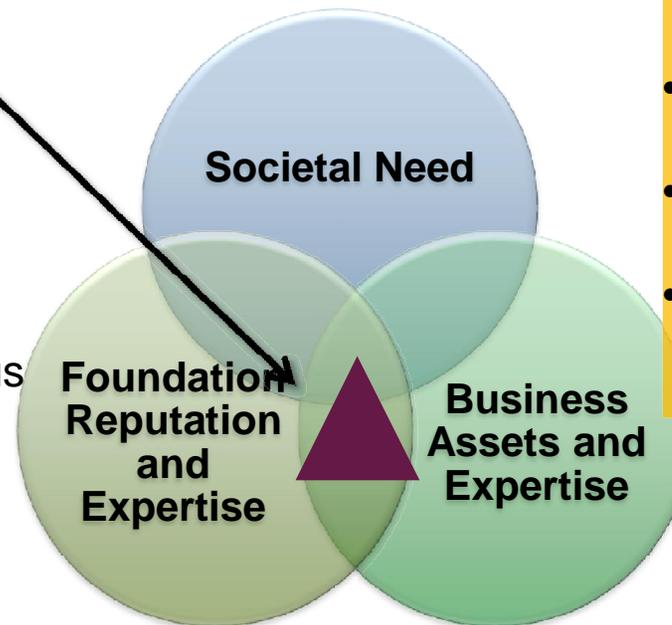
Igniting and Sustaining Today's STEM Workforce....

The Siemens Foundation has invested more than \$100 million in the United States to advance workforce development and education initiatives in science, technology, engineering and math. Our mission is inspired by the culture of innovation, research and continuous learning that is the hallmark of Siemens' companies. Together, the programs at the Siemens Foundation are narrowing the opportunity gap for young people in the U.S. in STEM careers, and igniting and sustaining today's STEM workforce and tomorrow's scientists and engineers.

Restricted © Siemens Foundation 2017

STEM Middle-Skill Initiative

- STEM Education
- Youth Focus



- Low youth employment
- Low college graduation rates
- Low numeracy and literacy skills
- First generation worse off than parents

- History
- Reputation
- Culture

NOTES TO ACCOMPANY PAGE 4

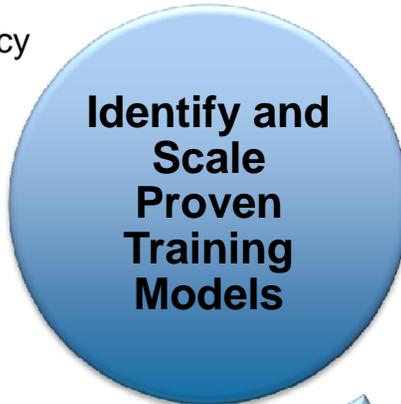
This is the reason at the Siemens Foundation, we're all about STEM. Too often, though, people forget that STEM jobs include those that do not require a four year degree and are achieved through a two year degree, an apprenticeship, or another path. Those jobs, often referred to as middle-skill, technical or skilled, are family and community-sustaining and are launching pads into a life-long career in growing STEM industries full of possibilities and opportunity.

Unfortunately, far too many young adults in the U.S. aren't poised to take on these careers, leaving them behind in the race to economic sufficiency.

We at the Siemens Foundation—along with many in this room-- are working to close this opportunity gap for young adults in the U.S. and strengthen the talent pipeline for U.S. STEM employers at the same time through our STEM Middle-Skill Initiative, which we started in 2015.

SMSI Key Projects Supporting Our Imperatives

NGA Work-base Learning State Policy Academy
American Apprenticeship Initiative
Grantee Assistance



Aspen Prize for Community College Excellence
New America Blueprint to Scale Apprenticeships in High Schools

Prime Sponsor of the 1st Ever Apprenticeship Forward national conference

Gubernatorial European Apprenticeship Study Trip

Supporting Research in Apprenticeships



Siemens Technical Scholars

Governor Summits on Work-based Learning

Advance CTE National Survey on Effective CTE Marketing Messaging for Parents and Students

NOTES TO ACCOMPANY PAGE 5

Let me show you a visual of what the STEM Middle-Skill Initiative is all about.

We're working on three flanks to address this critical issue:

First, we're accelerating training models that work, like apprenticeships and work-based learning;

Second, we're rehabbing the image of middle-skill jobs and the educational pathways that enable young adults to secure these jobs; and

Third, we're elevating the economic opportunity available in STEM middle-skill jobs by raising it consistently in the national dialogue on education, talent development, and inequality.

Through our partnerships, we're tackling some of the most pressing challenges in growing the middle-skill workforce at the Siemens Foundation. Together, we're:

Exploring opportunities and challenges for expanding apprenticeships in the United States and the public-private partnerships necessary to support them;

Supporting states and local communities in their efforts to attract and recruit students into career technical education;

NOTES TO ACCOMPANY PAGE 5

Expanding effective work-based learning programs for young adults and employers and share best practices;

Researching best practices in scaling apprenticeship in the American high school; and

Recognizing exemplary young adults in STEM community college programs and educating their peers about STEM technical careers through their stories.

Our targeted strategy is carried out in our grant work with leading national partners such as the National Governors Association, who organized the work-based learning academy and support your work across Washington state and this great Governor's summit!

And, as many of you heard at our last cross-state meeting in Montana, we're launching the next phase of the work-based learning academy NGA later this fall with a new cohort of states in partnership with leaders like you who can share the challenges and the victories.

Hopefully, it's clear through our work more broadly and the investments we've made here in Washington State through our partners at NGA and Advance CTE, we believe in the promise of career technical education and work-based learning. It's an underutilized model and we're on a mission to get more take up across the U.S. with partners like you all here in Washington state.

NOTES TO ACCOMPANY PAGE 5

We're incredibly proud of your work in the last two years of this academy with our partners at NGA. And, the amazing support you've received from Governor Inslee and his leadership team across the board speaks volumes about Washington's dedication to the next generation of workers.