



The **New Jersey STEM Pathways Network (NJSPN)** is a strategic public-private alliance defining and guiding a **STEM** vision for cradle to career pathways in New Jersey.

# STEM



SCIENCE • TECHNOLOGY • ENGINEERING • MATH

## WHAT WE DO

Using data to drive all objectives and achieve our mission, the NJSPN:

- 1 Aligns resources to scale and replicate promising practices.
- 2 Identifies learning opportunities by convening **New Jersey's STEM** experts.
- 3 Promotes **STEM** career pathways by training state leaders and creating deeper public awareness of opportunities available in the 21st century workforce.

## New Jersey: OUR OPPORTUNITY

New Jersey students have not made statistically-significant gains in 4th or 8th grade science since 2009.<sup>1</sup>

Out of 100 **STEM** occupations, **93%** of them had wages above the national average. STEM workers earn about **26% more** than their non-STEM counterparts.<sup>2</sup>

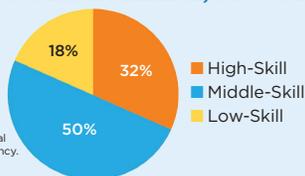
Students expressing interest in **STEM** show higher levels of **college readiness**.<sup>3</sup>

Between 2017 and 2027, the number of **STEM** jobs will grow **9%** in New Jersey—with positions in computing, engineering and advanced manufacturing leading the way.<sup>4</sup>

There are **1.4** open jobs in **STEM** for every unemployed person in New Jersey.<sup>5</sup>

**Demand for Middle-Skill Jobs Will Remain Strong**  
Between 2014-2024, 50 percent of job openings will be middle-skill.

JOB OPENING BY SKILL LEVEL, NJ 2014-2024

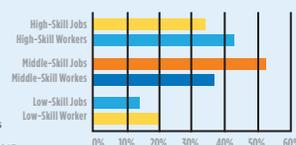


Source: NSC analysis of long-term occupational projections from state/labor employment agency.

**Middle-Skill Gap**

JOBS AND WORKERS BY SKILL LEVEL, NJ 2015

Middle-skill jobs account for **53 percent** of NJ's labor market, but only **37 percent** of the state's workers are trained in the middle-skill level.



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

“middle skilled” - jobs that require more training than a high-school diploma, yet less than a four-year college degree.

1: US Department of Education, 2015. 2: ACT, 2017. 3: Economic Modeling Specialists International, 2017. 4: National Skills Coalition, 2018. 5: Change the Evaluation, 2017.

# NJ STEM Ecosystems

Replicating the National **STEM** Learning Ecosystems model, the NJSPN has fostered the creation of four **STEM** Learning Ecosystems to advance collaboration across educators, business, government and community-based organizations in order to form more integrated cradle-to-career pipelines.

Representing six New Jersey counties, the Ecosystems are opportunities to address unique regional challenges, while also providing a space to pilot, scale and replicate work that expands a statewide vision of **STEM**.

## Delran **STEM** Ecosystem Alliance BURLINGTON COUNTY

An integrated, interactive **STEM** community that provides all learners access to high-quality **STEM** learning and work opportunities.

- Expansion of Robotics programming in grades 2-8
- Development of county-level **STEAM** camps for grades 3-12
- Computer Science exposure for K-8 students
- Sustainable energy and agricultural programs to engage students
- Building a digital fabrication lab to prepare students for the 21st century economy

## Newark **STEAM** Coalition NEWARK, ESSEX COUNTY

- Alignment of in-and-out-of school learning opportunities to integrate preparation for 21st century economy
- Workforce development initiatives, including connections between youth and employers

A resource-rich ecosystem that prepares PreK-16 students to participate in a 21st Century workforce by closing opportunity gaps that ensures prosperity for the community.

## Liberty **STEM** Alliance HUDSON COUNTY

- County wide Hack-a-Thon to advance Computer Science
- Workforce development events, with Latinas in **STEM**
- Professional Development for in-and-out of school educators

A renowned community dedicated to enriching **STEM** opportunities in Hudson County by incorporating all voices, creating pathways, and serving as an information hub.

## South Jersey **STEM** & Innovation Partnership CAMDEN, CUMBERLAND AND SALEM COUNTIES

A diverse community of educational institutions, subject matter experts and industry leaders developing the region's talent pipeline.

- Hack-a-Thons (HackSJSIP) in Camden and Salem Counties to promote Computer Science
- Increase digital literacy of students and educators Talent Pipeline development (Engineering, Cybersecurity, Mechatronics)
- **STEM** Advisory Board to give employers a voice in building talent to fill their regional needs prepare for future innovations.



An annual event in March, **NJ STEM Month** is a celebration of the Garden State's incredible accomplishments in science, technology, engineering, math and innovation.

ALL organizations in the state are called to showcase and celebrate excellent work in **STEM** for **NJ STEM Month** by hosting/attending events and engaging on social media.



- **Become a member**
- Participate in **NJ STEM** Month
- **Make a donation**

To make a donation please make checks payable to the Research & Development Council of New Jersey; ATTN: New Jersey STEM Pathways Network

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The New Jersey STEM Pathways Network, a strategic public-private alliance, was established in 2014 by the New Jersey Office of the Secretary of Higher Education to define and guide a STEM vision for cradle to career pathways in New Jersey. The NJSPN is chaired by Laura Overdeck, Chair of the Overdeck Family Foundation and Founder of Bedtime Math and is managed by the Research & Development Council of New Jersey.

The NJSPN aims to attract, cultivate and retain a 21st century workforce in New Jersey, ensuring the state remains a top global competitor in STEM industry and continues its rich history of innovation.

Join us by visiting: [www.njstempathways.org](http://www.njstempathways.org) and by following [@njstempathways](https://twitter.com/njstempathways) and [#NJSTEMMonth](https://twitter.com/NJSTEMMonth)