

WORKFORCE DEVELOPMENT

WESTCHESTER COUNTY ECONOMIC DEVELOPMENT | BY BRIDGET GIBBONS

BUILDING THE FUTURE OF SMART MANUFACTURING AND ADVANCED INDUSTRY



A strategic partnership to develop a high-tech workforce, fuel innovation and strengthen the region's manufacturing sector.



Manufacturing has long been part of Westchester County's history, and today the region is home to a sizable cluster of more than 600 manufacturers. From global leaders like PepsiCo, IBM, and Regeneron to the many small and midsize firms that form the backbone of advanced production, Westchester has the depth and diversity to drive growth. These companies depend on engineers, technicians, and problem-solvers to fuel innovation across their global operations. Now, Westchester's manufacturing landscape is at the edge of a transformation, driven by advanced technologies, data-driven decision-making, and a new collaboration with Rensselaer Polytechnic Institute (RPI) designed to prepare the next generation of talent.

"This partnership aligns perfectly with our vision for Westchester County as a hub for innovation and advanced manufacturing," said Bridget Gibbons, Director of Economic Development. "By investing in our workforce, we are not only supporting our existing companies but also attracting the next generation of high-tech employers."

A PARTNERSHIP WITH PURPOSE

Employers across Westchester are struggling to find enough skilled workers. This challenge comes at the very moment advanced technologies like automation, robotics, and data analytics are reshaping production. Without intentional investment in talent, the region risks losing ground to competitors.

Some of America's most successful innovation hubs – San Francisco, Seattle, Austin, Atlanta, all share a common success factor: sustained investment in talent. Westchester is following that same path through a partnership with RPI's Rensselaer at Work programs, which provide working professionals with flexible, industry-informed STEM education. The goal is to create a deeper, more specialized talent pool in areas such as smart manufacturing, biotech, advanced production, and computational sciences.

This strategic partnership was created with input from Westchester employers themselves, ensuring programs reflect both today's workforce demands and tomorrow's market opportunities. "When technical talent is readily available in Westchester, employers are more inclined to invest here," said Dr. Aric Krause, Dean of Rensselaer at Work. "Through this partnership, we're strengthening a technically trained, ready-to-lead workforce."

Westchester County Executive Ken Jenkins sees the collaboration as a long-term investment in the region's competitiveness. "This partnership has expanded the lifelong learning opportunities available in Westchester where people can train for the skills they need," he said. "By aligning education with industry needs, equipping our residents with forward-looking skills, and helping employers adapt to emerging industries, we're not only supporting business growth today but building the foundation for a stronger economy and a more competitive Westchester for years to come."

KEY PROGRAMS POWERING WESTCHESTER MANUFACTURING

RPI's Rensselaer at Work offerings go beyond theory: every program uses project-based learning, so participants gain hands-on experience while addressing real-world industry challenges. Current manufacturing-relevant programs include:

- **Smart Manufacturing Acceleration Roadmap Professional Certification ProCourse:** Implementing Industry 4.0, data analytics, and process optimization in partnership with CESMII—The Smart Manufacturing Institute.
- **Lean Six Sigma Graduate Certificate:** Streamlining operations for efficiency and quality.
- **Data Fluency & Analytics:** Building data-driven decision-making capabilities throughout all RPI's Rensselaer at Work programs.
- **MBA for Professionals in STEM:** Developing leaders with both technical expertise and business strategy skills.



Following years of success with our traditional one-day Haas Demo Day, we're excited to introduce a fresh format built to deliver more value, flexibility, and deeper insight throughout the year: Haas Demo Day: Technology Spotlights.

► Seminar Topics

- Preventative Maintenance and Reliability
- Optimizing Lathe Boring Operations
- Don't Fear 5-Axis
- Metalworking Fluids: Selection, Use & Care

► Who Should Attend

- Shop Owners
- Machinist
- Programmers
- Engineers



Scan for More Info
& Dates

201-327-5215

Allendale Machinery Systems
18 Park Way, Upper Saddle River, NJ 07458

www.AllendaleMachinery.com

and

Expertise tailored to your business
and a personal relationship.

With us it's not one or the other.

**TD Commercial
Banking**

Member FDIC. TD Bank, NA. The TD logo and other trademarks are owned by the Toronto-Dominion Bank and used under license.





Krause noted: “We’ve re-engineered every course to; match where industries are going—not just where they are today.”

RPI: A PROVEN LEADER IN INNOVATION

Founded in 1824 as the nation’s first technological research university, RPI has built a 200-year legacy of preparing leaders at the intersection of science, engineering, and business. As part of the Westchester partnership, employers gain access to workforce programs built with their direct input and tied to real company challenges, creating a one-to-one link between classroom learning and industry needs.

Through its Center for Smart Convergent Manufacturing Systems, a New York State–designated Center for Advanced Technology, RPI brings together AI, additive manufacturing, and advanced materials to create smarter, more agile production systems. For Westchester companies, this means access to cutting-edge research and innovation that can improve productivity, enable faster customization, and accelerate new product development. It is the kind of capacity most small and midsize firms could never tap on their own—now made possible through this partnership.

EXPANDING OPPORTUNITY ACROSS THE WORKFORCE

This strategic partnership recognizes that manufacturing growth depends on every level of the workforce, not just engineers. With 60–70% of high-tech manufacturing staff working on the production floor, RPI’s Westchester partnership is launching an

Undergraduate Degree Completion Program in Production and Operations Management in Fall 2026.

The program is for employees already working in manufacturing who want to move into supervisory and operational leadership roles without pausing their careers. For many Westchester workers, it is a direct pathway to advancement—and for employers, it offers a way to retain and cultivate a homegrown workforce.

SHAPING WESTCHESTER’S FUTURE

The RPI + Westchester County partnership is more than an academic collaboration; it is a catalyst for sustainable economic growth. By integrating workforce development, applied research, and employer partnerships, this initiative ensures Westchester will have the talent and innovation pipeline needed to compete in a global manufacturing economy.

“You have to continue developing the talent you have while also bringing in new hires for smart succession planning,” said Krause. “Westchester County and RPI’s partnership’s does both.”

To learn more, visit: <https://westchestercatalyst.com/RPI>

*Bridget Gibbons, Director of
Westchester County Economic
Development.*

