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# **I-86 INNOVATION CORRIDOR**

## ***Integrated Workforce Development Strategy Executive Summary***

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April 2018

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## INTRODUCTION

In late 2017, community leaders began the process of developing an Integrated Workforce Development Strategy for the I-86 Innovation Corridor, comprised of Chemung, Schuyler, and Steuben Counties in the Southern Tier of Upstate New York. The I-86 Innovation Corridor Initiative is led by a group of regional stakeholders representing the public sector, major employers, education providers, community and economic development organizations, and workforce development partners with the following vision:

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*The I-86 Innovation Corridor is recognized as a destination business development location, distinguished by its concentration of multi-national anchor companies, advanced infrastructure to support innovation and technology, rich educational and research resources, specialized and skilled workforce and vibrant communities*

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The Corridor’s four priority areas include: talent attraction and workforce development, business development, vibrant communities, and infrastructure development. This **Integrated Workforce Development Strategy** is an extension of significant planning and discussions in the region driving toward the vision articulated above and specifically aims to identify the Supply-side and Demand-side conditions of the local workforce to support the creation of coordinated regional talent strategy and targeted, high-impact, game-changing programs in workforce development. The Council for Adult and Experiential Learning (CAEL) and its partner Avalanche Consulting were selected to assist in the development of this plan.

## About the Strategy Development Process

CAEL and Avalanche Consulting conducted a three-phased process which included the following:



**Report 1: Talent Supply & Demand Analysis** identifies skills the workforce currently has, skills employers need, and how well the educational and training systems deliver graduates into the workforce pipeline. Identifying gaps and potential areas of misalignment informs strategic recommendations and opportunities to reorient the supply pipeline. This analysis includes both a quantitative component—examining historical and present industry trends, future projections, and real-time job posting data—as well as qualitative input from key industry and community leaders gathered through a series of curated focus groups and interviews to develop a complete understanding of the Corridor’s economic picture. The chapter concludes with an assessment of the critical gaps in the workforce pipeline that will hinder labor availability.



**Report 2: Education and Training Asset Inventory** catalogues and categorizes education and training program offerings at the secondary and post-secondary levels, both credit and non-credit, within key industry sectors. Once supply and demand gaps are identified, it’s important to understand the education and training infrastructure, specifically what offerings are available to residents and employers. This inventory looks at where the programs are available—at what institutions and locally within the three-county I-86 Innovation Corridor or in the greater education drawing area—and at what levels. This analysis also includes a qualitative analysis of assets and resources via interviews and focus groups with members of the education and training community. These discussions identify challenges faced by the educators who aim to supply a skilled workforce for the region’s target sectors, and amplify and scale promising practices that currently exist.



**Report 3: Integrated Workforce Development Strategy** builds off the information gathered in the gap analysis and education asset map. This strategy provides the region with actionable recommendations to bring labor supply and industry demand in closer alignment, ensuring that the economic future of the region is driven by talent. Chief among the recommendations derived through this study is the creation of a new organizational structure to oversee implementation—this important work cannot be done by fractions of people who have other jobs, but rather requires dedicated leadership and staffing. This strategy also includes implementation recommendations and details for several enabling initiatives that provide the region with evergreen labor market data, streamlined processes, and business leadership at a systems level.

## About the Consulting Team



The Council for Adult and Experiential Learning (CAEL) is a national, non-profit organization whose mission is to expand learning opportunities for adults. CAEL works to remove policy and organizational barriers to learning opportunities, identifies and disseminates effective practices, and delivers value-added services.



Avalanche Consulting's mission and passion is to help communities become more vibrant and prosperous. We are a leading national consultancy specializing in strategic planning, workforce analyses, and customized research for economic and workforce development organizations.



## About the Contributors

The consulting team would like to thank the following contributors to the **I-86 Innovation Corridor Integrated Workforce Development Strategy**:

### Integrated Workforce Development Strategy Funders

Chemung County	Schuyler County Partnership for Economic Development (SCOPEd)
Schuyler County	Southern Tier Economic Growth (STEG)
Schuyler County	Steuben County Industrial Development Agency (IDA)
Steuben County	Three Rivers Development

### I-86 Innovation Corridor Steering Committee

<b>Co-Chairs:</b>	Ed Fairbrother and Dan Panosian
<b>County Government:</b>	Tom Santulli, Chemung County; Tim O’Hearn, Schuyler County; Jack Wheeler, Steuben County
<b>Local Government:</b>	Ed Fairbrother, Town of Big Flats and Rita McCarthy, Town of Erwin
<b>Economic Development:</b>	Jamie Johnson, Steuben County Industrial Development Agency; Mike Krusen, STEG (Chemung County); Judy McKinney-Cherry, SCOPEd; Betsey Hale, Three Rivers Development Corporation
<b>Private Sector:</b>	Dawn Burlew, Corning Incorporated and Dan Panosian, Arnot Realty

### I-86 Workforce Work Group & Planning Advisory Committee

Jamie Johnson, Work Group Chair, Steuben County IDA	Jim Griffin, Hornell Industrial Development Agency	Suzanne Schapira, Corning Incorporated
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James Frame, GST BOCES	Dan Porter, CSS Workforce NY	Kris Yates, Gunlocke
Christopher Goll, Cameron Manufacturing	Dale Ruben, World Kitchen (Corelle Brands)	Ed Fairbrother, Town of Big Flats
	Tony Russo, Southern Tier Provisions	Dan Panosian, Co-chair, I-86 Initiative Steering Committee
	Thomas Santobianco, Bethany Village	Susan Payne, Consultant

## Additional Contributors

Alfred State College	Corning-Painted Post Area School District	NY State Department of Labor
Alstom Transit Inc.	CSS Workforce New York	Office of US Congressman Tom Reed
Arnot Health	CVS Caremark	Pathways, Inc.
Arnot Realty Corporation	Dresser-Rand, A Siemens Business	Pleasant Valley Winery
Bath Central School District	Elmira City School District	SCOPED
Bethany Village	Elmira College	Schuyler Hospital
BMS Manufacturing Co., Inc.	Elmira Savings Bank	SEPAC
CAF USA	F.M. Howell	Siemens
Cameron Manufacturing and Design (CAM Fab)	GST BOCES	SITEL
Campbell-Savona Central School District	GST STEM Academy (P-Tech)	STEG
Canisteo	Gunlocke	Southern Tier Provisions
Career Development Council (GST BOCES)	Guthrie Health Care System	St. James Mercy Hospital
Chemung Canal Trust Company	Hardinge	Steuben County
Chemung County Chamber of Commerce	Hilliard Corporation	Steuben County IDA
City of Hornell IDA	Hornell City School District	Three Rivers Development Corporation
Corning Center for Rehabilitation and Healthcare	Horseheads School District	Town of Big Flats
Corning Community College	HP Hood, LLC	Vulcraft
Corning Credit Union	IBEW	Wagner Lumber
Corning Enterprises	Kennedy Valve	Watkins Glen International
Corning Incorporated	Mercury Aircraft	Watkins Glen School District
	Micatu	Welliver
	NUCOR	World Kitchen (Corelle Brands)

## About the I-86 Innovation Corridor

The I-86 Innovation Corridor is comprised of Chemung, Schuyler, and Steuben Counties and boasts the highest concentration of advanced manufacturing and transportation equipment manufacturing companies in New York State's Southern Tier. Though the Corridor is relatively rural, with a combined three-county population of less than 200,000, it is home to several major and multinational corporations including the corporate headquarters, R&D, and manufacturing operations of Corning Incorporated. In addition to numerous other manufacturing companies—including materials, food, and furniture producers, the region also houses three of the world's leading rail design and manufacturing firms: Alstom Transportation, Inc., CAF USA, and Bombardier.

The Corridor is home to Fortune 500 companies that recruit world-class scientists and engineers and Elmira College, a private liberal arts college that attracts students, faculty, and administrators from other parts of the country to the area. At the same time, the region is seeing growth in lower wage and lower skill hospitality, production, and agriculture occupations and combating concentrated pockets of downtown poverty.

While the Corridor's population and labor force continue to age and contract, industries such as advanced manufacturing are seeing a **significant resurgence** and making major investments in the area. The availability of an adequate skilled workforce is chief among factors that will determine the region's ability to continue to support this growth and future expansion or whether companies look to other communities to make these investments. One thing is certain: **a coordinated and aligned approach to regional workforce and economic development is essential to ensure the I-86 Innovation Corridor's economic future.**

## TALENT SUPPLY & DEMAND FINDINGS

Employers in the I-86 Innovation Corridor are feeling the strain of the region’s declining population and aging labor pool—some manufacturers even report having to turn business away due to the lack of available workforce. Discussions with employers and local leaders indicate that **there is significant concern about labor availability in the region**, both today and in the next few years, as some companies ramp up their operations. Population loss was also cited as a top concern and cause for labor shortages, as well as **low levels of student graduates in technical fields**.

Additional factors identified below only compound the issue:

- Impending retirements amplified by the region’s disproportionately aging workforce—the “Silver Tsunami”
- Prevalence of illicit drug and alcohol use among the region’s residents and inability to pass drug screens and/or background checks
- A perceived lack of work ethic and over-reliance on public assistance—some employers express concern that people would rather “collect a check”
- Deficient basic skill levels—it is difficult to find people who can pass basic screening tests
- An inadequate K-12 pipeline, particularly for skilled trades and technical fields, due to lack of student awareness or interest as well as the availability of programs
- Challenges recruiting (locally and nationally) and retaining workers—which can be attributed to, at least in part, housing costs/low housing stock and high taxes

After nearly two decades of job declines in the I-86 Innovation Corridor, a new crisis has emerged—**hiring growth**. A national rebound in manufacturing has also been realized locally; Corridor manufacturing firms report strong future hiring plans and an intense concern for finding the qualified workforce they need. Healthcare employers suffer from the national shortage in nurses at a time when the Corridor’s aging population will require more health services. The local construction industry is recovering at a time when a lack of housing threatens to impede the region’s ability to recruit and retain the next generation of workers.

Simply put, the Corridor is facing a most urgent challenge to ensure continued business and economic vitality: **to develop the 21st century workforce needed by its growing employers**. Not only must the region produce a larger pipeline of student graduates, it must also effectively attract and retain workers from outside the region. And, the skills and education of this new workforce must match the growing need for specialized, technical positions that drive corporate competitiveness.

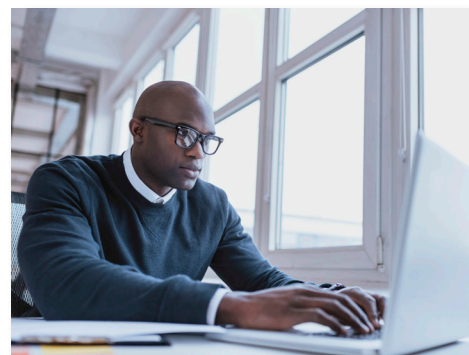


## What Skills and Occupations Are Most In-Demand and Difficult to Fill?

The I-86 Innovation Corridor is at a pivot point in its growth trajectory; numerous employers have indicated confidence in their long-term growth—many of whom are hiring right now. The consulting team evaluated job demand in the Corridor’s core targets: Advanced Manufacturing; Transportation, Distribution, and Logistics; Professional Services and Back Office; Information Technology; Health Care; Education; and Hospitality and Tourism. This analysis involved both quantitative data—examining historical trends, future projections, and real-time job posting data—as well as qualitative input from key industry and community leaders gathered through a series of curated focus groups and interviews to develop a complete understanding of the Corridor’s economic picture.

The following industries and companies are anticipating strong hiring growth in the future:

- Wayfair, a national home furnishing e-commerce customer service business, plans to create 450 jobs over the next three years.
- Alstom Transit Inc. and CAF USA plan to hire hundreds of workers to fulfill current rail car contracts, not to mention the potential for additional contracts. Suppliers to Alstom Transit and CAF USA represent additional opportunities for growth.
- Corning Incorporated is investing in new product development and supporting facilities that will bring hundreds of net new jobs, in addition to organic growth inside the organization’s corporate headquarters and scientific R&D operations.
- Arnot Health and Guthrie medical facilities, the two largest employers behind Corning Incorporated, anticipate continued growth in the region.
- Numerous other companies in the Corridor—both small and mid-sized firms—have expressed plans for growth and new investment.



A clear sign of current job demand, **companies in the above 6 target clusters issued 5,800 unique job postings in 2017** and these numbers will only get bigger. While job postings consist of a lot of employee turnover (switching jobs and/or employers), the data points to a strong reversal of negative job growth in the Corridor. After interviewing companies and comparing their hiring plans against short-term job forecasts, Avalanche Consulting estimates that an additional 1,275 net new jobs will be created in coming years due to manufacturing and office or research-related corporate announcements that did not appear to be reflected in the forecast estimate (from EMSI).

Demand for workers will extend from entry-level positions and middle-skill jobs to advanced STEM professions. Positions at all skill levels will be difficult to fill in the near-term for the Corridor’s growing employers. Numerous factors are driving labor shortages today and employer concern for long-term supply, including:

- Weak local production of post-secondary graduates underperforms current demand (and US averages).
- Continued population losses (about 1,500 per year) and the aging-out of older workers will drain the labor supply and reflects the difficulties in attracting new workers to the region.
- While high school graduate rates have improved, labor force participation rates are still below pre-recession levels, further tightening labor availability.

*The Supply and Demand Analysis was informed by multiple sources of input – both quantitative and qualitative. The following list of shortages reflects the comprehensive findings of both the data analysis combined with employer and local leadership feedback.*

## Critical Shortages Were Identified in the Following Positions



### ADVANCED MANUFACTURING

- Assemblers, entry-level
- Precision equipment repair
- Machinists
- Electrical/electronics repair
- Computer installation and repair
- Engineers
- Engineering Managers



### HEALTHCARE

- Home health and personal care Aides
- Pharmacy technicians
- Doctors, Psychiatrists, and Pharmacists
- Medical equipment specialists
- Physical therapists and aides
- Nurse practitioners
- Dental hygienists and lab techs
- EMT's



### CONSTRUCTION

- Construction equipment operators
- Electricians
- Plumbers
- Masonry
- Misc. Trades



### PROFESSIONAL SERVICES

- Customer service representatives
- Telemarketers
- Financial analysts
- Software developers
- Computer information systems



### EDUCATION

- Teachers, all levels
- Education administrators
- Librarians and library specialists



### HOSPITALITY AND TOURISM

- Retail salespersons
- Food prep
- Waiters
- Cooks
- Head Chefs



### TRANSPORTATION AND LOGISTICS

- Packers and material movers
- Truck drivers
- Supply chain managers



Beyond that, additional advanced-degree positions (bachelor’s and higher) will need to be filled by successfully recruiting graduates from other parts of New York and beyond, but the increasingly competitive market for workforce will make recruitment more difficult.

In summary, the I-86 Innovation Corridor is facing unique and present challenges in filling the positions that its employers are creating today. Near-term expansion plans will only worsen the situation. Going forward, the I-86 Innovation Corridor must:

- Effectively attract and retain workers from other parts of the state, country, and even world.
- Encourage students at all grade levels to be aware of the value of technical skills and that the reality of “lifelong learning” means they won’t risk getting pigeon-holed into fields that may disappear.
- Focus the alignment of the education and training system with in-demand skills and credentials using data and partnering with local employers to understand the skills they need and how they can be instilled in the current and future workforce.

## EDUCATION & TRAINING ASSET INVENTORY OBSERVATIONS

The Education and Training Asset Inventory catalogues and categorizes education and training program offerings at the secondary and post-secondary levels, both credit and non-credit, that support key industry sectors in the I-86 Innovation Corridor. After supply and demand gaps have been identified (see Talent Supply & Demand Analysis report), it is important to understand the education and training infrastructure, specifically what offerings are available to residents and employers.

The inventory looks at where the programs are offered—at what institutions locally within the three-county I-86 Innovation Corridor as well as the greater education drawing area—and at what levels. Ultimately, the content in this chapter will serve to identify gaps in program availability and inform future discussions between education, workforce development, economic development, and employers.

CAEL inventoried over 1,700 programs from 25 education and training providers across the I-86 Innovation Corridor (“target counties”) and broader education drawing area (“greater region”) that support occupations in eight target industry sectors. Providers and programs are concentrated near the Southern Tier with additional institutions further north and Mansfield University in Pennsylvania. Although technically located outside of the target I-86 Innovation Corridor counties, Alfred State College, Alfred University, and Keuka College are in close proximity to and are key sources of graduates for the three-county region.

Institutions in the three-county region provide mostly sub-baccalaureate education and training programs; credentials offered at the bachelor’s degree level or beyond are in Healthcare, Professional Services, and Education. This means that in most cases the Corridor must rely on graduates from institutions outside the Corridor—completing with other areas and larger metros—to fill positions that require a baccalaureate or graduate degree.

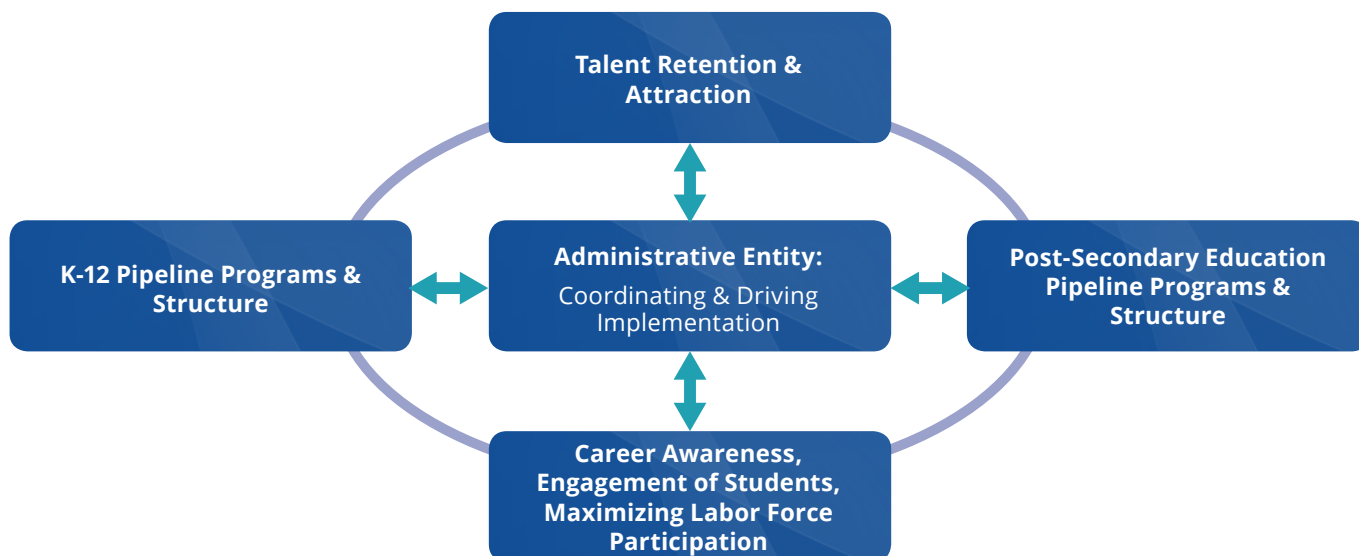


## INTEGRATED WORKFORCE DEVELOPMENT STRATEGY

This Integrated Workforce Development Strategy outlines goals and tactics designed to ensure that workforce efforts are well-coordinated and aligned with the regional economy. The strategy was informed by the labor market analysis conducted, the inventory of education and training assets, and feedback from employer, education, workforce development, and economic development stakeholders. Chief among the strategies identified is the establishment of an Administrative Entity to coordinate regional efforts and drive strategy implementation, advancing the goal of increased coordination and results.

An implementation plan outlining a timeline based on priority and articulating roles and responsibilities accompanies the strategy as separate document, as it will be updated and modified over time.

# INTEGRATED WORKFORCE DEVELOPMENT STRATEGY



## Summary of Goals and Strategies



### Strategic Goal 1:

Workforce and economic development stakeholder engagement and efforts in the I-86 Innovation Corridor are results-oriented, consistent, aligned, and coordinated by a central entity

*(Focused on Capacity, Collaboration, Communication, and Content)*

- Strategy 1.1 Create and support an Administrative Entity to coordinate efforts and drive strategy implementation
- Strategy 1.2 Create and maintain a web-based regional dashboard to benchmark and measure progress toward goals
- Strategy 1.3 Develop, implement, and sustain employer-driven Sector Partnerships across the region
- Strategy 1.4 Coordinate data collection and analysis on labor market trends and needs
- Strategy 1.5 Convene and facilitate an annual “State of the Workforce” forum



### Strategic Goal 2:

I-86 Innovation Corridor and the Southern Tier region of New York are recognized as an attractive community to live, work, start and grow a business, and learn

*(Focused on Talent Retention and Talent Attraction)*

- Strategy 2.1 Deploy significant, coordinated, and consistent Talent Retention efforts that leverage existing quality of place (vibrant communities) initiatives
- Strategy 2.2 Build upon the North American Hub for Advanced Transit Manufacturing’s Global Talent Attraction Initiative Strategy to develop a coordinated global Talent Attraction initiative for the region
- Strategy 2.3 Create a career awareness campaign and messaging strategy



### Strategic Goal 3:

K-12 students in all school districts are aware of and have access to high-quality education aligned with current and future economic growth opportunities in the I-86 Innovation Corridor

*(Focused on the K-12 Pipeline, Programs, and Structure)*

- Strategy 3.1 Contextualize curriculum and other learning opportunities to include work-based scenarios
- Strategy 3.2 Enhance advising and provide earlier and consistent interventions focused on career awareness and decision-making
- Strategy 3.3 Support program development and delivery that is in alignment with key industries and promotes entrepreneurship and innovation



### Strategic Goal 4:

Post-secondary education institutions and training programs are developed, enhanced, and modified to better align with economic needs and future innovations of the region

*(Focused on Post-Secondary Education Pipeline, Programs, and Structure)*

- Strategy 4.1 Enhance capacity of post-secondary institutions to serve the region's employers and increase the pipeline for entry to mid-level occupations and beyond
- Strategy 4.2 Support the development of the Corning Community College STEAM Innovation Campus
- Strategy 4.3 Explore the feasibility of expanding Corning Community College's University College model to include a satellite engineering program within the I-86 Innovation Corridor



### Strategic Goal 5:

The I-86 Innovation Corridor offers clearly articulated, comprehensive regional career pathways and related training across key industries that are promoted and available to the full spectrum of residents

*(Focused on Career Awareness, Engagement of Students, Maximizing Labor Force Participation, and Upskilling)*

- Strategy 5.1 Articulate clear career pathways related to target industries to enhance the K-20 (elementary – post-secondary) pipeline in educational paths aligned to key local economic opportunities
- Strategy 5.2 Support career development and upskilling opportunities to create an incumbent workforce that is responsive to rapidly changing technologies and skill needs
- Strategy 5.3 Engage and provide appropriate supports and skill development to discouraged populations to aid in entry or re-entry into the workforce and career progression
- Strategy 5.4 Improve education physical infrastructure and professional development opportunities for educators to support delivery of high-quality, industry-aligned programming
- Strategy 5.5 Promote the value of post-secondary credentials and remove barriers to acquiring them
- Strategy 5.6 Deploy a two-generation career awareness and guidance strategy, targeting both K-12 students and their parents