

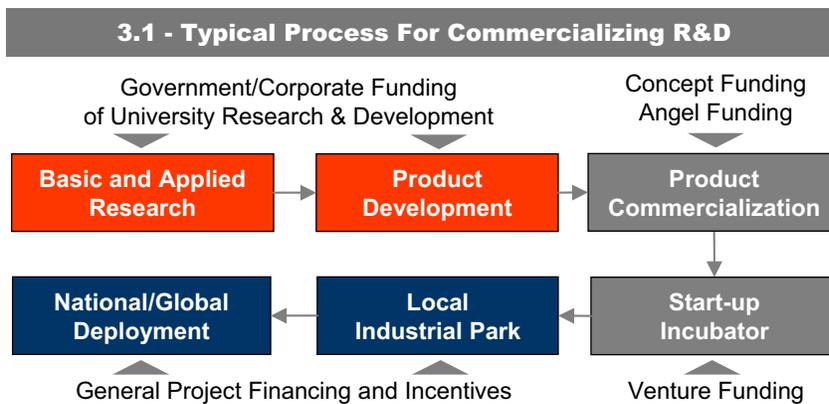
3 **Assessment of Resources
That Support Economic
Development**

I. Overview on Resources to Stimulate/Support Economic Development

A key indicator of potential growth within a region is the presence of the resources required to stimulate and support growth. The resources required will be determined by the industries and types of operations being considered for growth. In general, resources will include:

- R&D resources for technology-derived businesses
- Incubators and support for new business startups
- Quality and quantity of available labor
- Training and education resources
- Transportation (air, interstate, rail, etc.) with access to customers and suppliers
- Local business environment
- Business costs (real estate, labor, utilities, taxes, etc.)
- Availability of flat land, facilities and utility access/capacity (power, gas, water, sewer, telecom)
- Quality of life for attracting professionals into the community

When there is a strategy to derive technology businesses from local R&D, there is a well-defined process that takes place as shown in the chart below. Basic and applied research as well as initial product development are conducted in a university, private industry or government R&D center with funding provided by private or government sources. A product with perceived potential goes through the commercialization process (patents and ownership designations) through the provision for concept and angel funding. Product development becomes a business venture and the product/business life cycle start-up begins. For new companies, there are business incubators that provide a variety of business services, facilities and management support at low rates to help get the business established. Within this section, an overview and assessment of each local resource will be presented and assessed to determine what is available to Schoharie County to support economic development.



II. Assessment of Resources

An assessment of each resource is provided in the table below:

Section/Pages With Report	Description of Resource	Assessment/Comments
Section III Pgs. 3.3 – 3.6	R&D Resources for Technology-Driven Companies	Significant university research at RPI in Troy and SUNY – University at Albany as well as at several private firms located throughout the Capital Region
Section IV Pgs. 3.7 – 3.8	Incubators and Resources for New Business Start-Ups	There are several incubators with start-up resource capability throughout the Capital Region
Section V Pgs. 3.9 – 3.10	Technology companies within the Capital Region	There are 170+ technology companies throughout the region with about 10 companies located in rural areas
Section VI Pgs. 3.11 – 3.16	Quantity and Quality of Available Labor	Largest concentration in the Cobleskill/Esperance corridor with other labor coming from Schenectady and Albany Counties
Section VII Pgs. 3.17 – 3.18	Major private employers in Schoharie County	Limited industry (primarily plastics) along with education institutions, healthcare, construction and tourism
Section VIII Pgs. 3.19 – 3.21	Training Education Resources	SUNY Cobleskill has two-year and some four-year business, science and IT opportunities . . . not a community college. Will offer to package technical training that is non-accredited
Section IX Pgs. 3.22 – 3.23	Transportation	The I-88 corridor has excellent access to an interstate and the NYS Thruway as well as Albany International Airport, rail lines and the Port of Albany
Section X Pgs. 3.24 – 3.25	Business Costs	Land at or below rest of region, taxes equal and higher than some locations, labor will be on par with region and energy in Richmondville is low for commercial users
Section XI Pg. 3.25	Local Business Environment	Based on local attitudes, regulations and support for specific industries and types of operations
Section XII Pgs. 3.26 – 3.27	Availability of Flat Land	Limited flat land along I-88 and U.S. Route 20 corridors
Section XIII Pg. 3.28	Available Facilities With Utility Access	The former Guilford Mills complex with a total of 485,000 SF on 40 acres with complete utility access adjacent to I-88 in Cobleskill is the primary available property in the county and has mixed use potential
Section XIV Pgs. 3.29 – 3.33	Quality of Life for Recruiting Professionals to the Community	Country and small town ambience with access to metro area. Low inventory of housing, moderate to high taxes and schools are not rated as high as metro suburban schools

III. R&D Operations in the Capital Region

Commercial R&D Operations

There are a variety of commercial R&D operations throughout the region that develop products and solutions for local, national and global customers.

Operation	Location	Scope of Activity	Employment
1. DarTech	Rensselaer	Biotechnology	<10
2. Albany NanoTech – Energy and Environmental Technology Applications Center	Albany	Advanced materials and energy	11 - 20
3. Mohawk Innovative Technology	Albany	Advanced materials, energy and biotechnology	11 - 20
4. M&P Lab	Schenectady	Materials analysis	21 - 50
5. Adirondack Environmental Service	Albany	Material/product testing	21 - 50
6. Ordway Research Institute	Albany	Biotechnology	51 - 100
7. Albany NanoTech – Center for Excellence in Nanoelectronics	Albany	Advanced materials, energy and nanotechnology	100 - 500
8. Foster-Miller Technologies	Albany	Advanced materials, energy, biotechnology, information technology, nanotechnology	100 - 500
9. New York Oncology/Hematology	Albany	Medical laboratory	100 - 500
10. Benet Laboratories (U.S. Army)	Watervliet	Advanced materials, energy, information technology, nanotechnology	>500
11. Wadsworth Center	Albany	Biotechnology	>500
12. GE Global Research	Niskayuna	Advanced materials, energy, information technology, biotechnology and nanotechnology	>500
13. Regeneron	Rensselaer	Biotechnology	>500

University R&D Operations

The two primary university research operations within the Capital Region are:

Operation	Location	Scope of R&D Activity
1. Rensselaer Polytechnic Institute	Troy	Biotechnology, information technology, nanotechnology, microelectronics and modeling & simulation
2. SUNY – University at Albany	Albany	Advanced materials, nanotechnology, biotechnology, energy and environmental/atmospheric sciences

III. R&D Operations in the Capital Region (cont'd)

GE Global Research Center

GE has its global R&D center headquarters in Niskayuna (near Schenectady) along with complementary operations in India and China. Total R&D employment is over 2,000 and the key areas of emphasis are technologies related to:

- Advanced computing as well as information and decision processing
- Ceramics and metallurgy
- Combinatorial chemistry and environmental
- Electronic and photonic systems
- Energy and propulsion
- Imaging (medical applications)
- Mechanical and e-engineering
- Inspection and manufacturing
- Micro and nano structures
- Polymers and specialty chemicals



GE's R&D efforts help support existing product lines and processes as well as seek new business opportunities through new technologies and applications

GE Plastics

In addition to resin manufacturing in Selkirk and silicone manufacturing in Waterford, GE Plastics has a Customer Innovation Center in Selkirk to help customers apply the use of color in a molded product and then produce a prototype part or component on-site in the molding lab. GE Plastics also has their global headquarters and technology application center in nearby Pittsfield, MA.



III. R&D Operations in the Capital Region (cont'd)

Rensselaer Polytechnic Institute

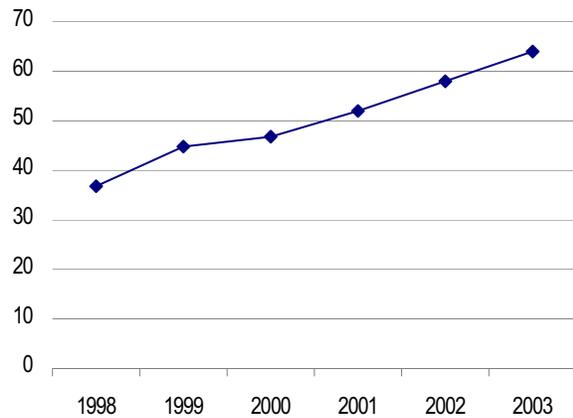
R&D activity at RPI continues to expand and has grown from \$38 million in 1998 to \$64 in 2003 which is significant for a university of its size. Most major U.S. universities have research budgets in the \$200+ million range, with a significant amount of the research applied toward life sciences. Funding for RPI’s research comes from federal agencies (over 50%), another 12% from corporate sources and the balance from state and private sources.

The majority of RPI’s R&D is focused on engineering science rather than basic research. This results in R&D output having output of RPI’s efforts having more emphasis on real-life applications and solutions than on theory and therefore may be more easily and quickly converted to actual products.

RPI’s R&D efforts are primarily focused on the following areas:

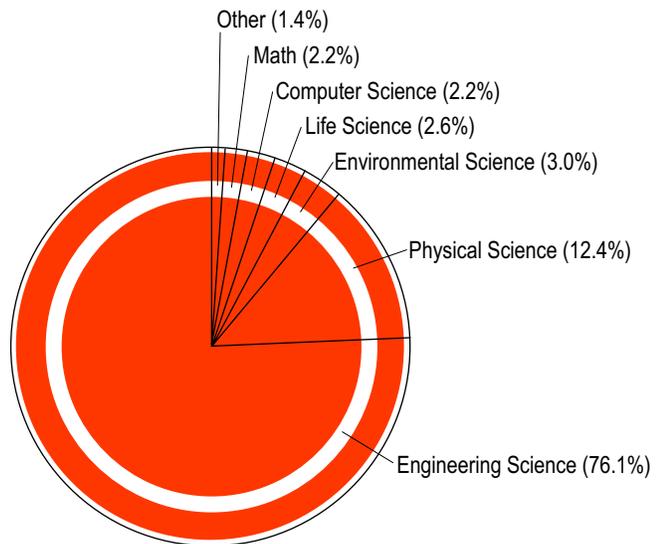
- Biotechnology
- Information Technology
- Nanotechnology
- Microelectronics
- Modeling & Simulation

3.2 - RPI R&D Budget: 1998 - 2003



Source: RPI R&D Annual Report

3.3 - R&D Program Activity at RPI



Source: University R&D statistics compiled by the University of FL and is based on the spending budget in 2000.

III. R&D Operations in the Capital Region (cont'd)

SUNY – University at Albany

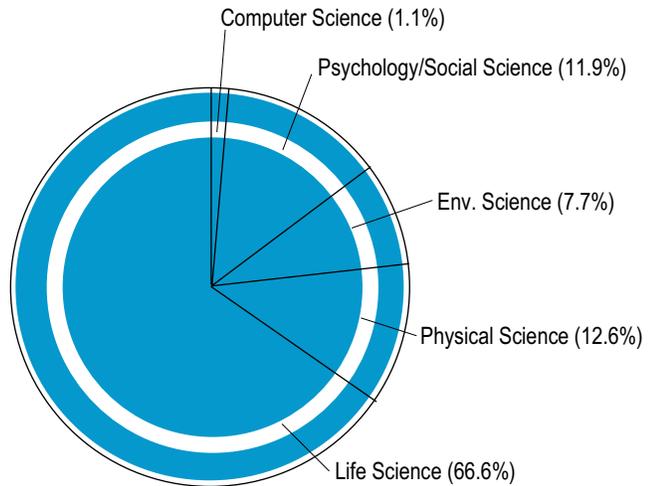
Research expenditures exceed \$80 million. Key areas of focus for research include:

- Biotechnology/life sciences
- Computer and information technology
- Environmental sciences and technology
- Advanced materials
- Physical sciences

The State of New York is investing substantially in nano-technology with applications in:

- Electronics
- Photonics (light-based signals)
- Materials processing
- Sensors
- Metrology (measurement) and analysis
- Computer modeling
- Thin film applications

3.4 - R&D Program Activity at SUNY - Albany



Source: University R&D statistics compiled by the University of FL and is based on the spending budget in 2000.



Artist's rendering of Albany NanoTech's facility at SUNY – Albany currently under construction

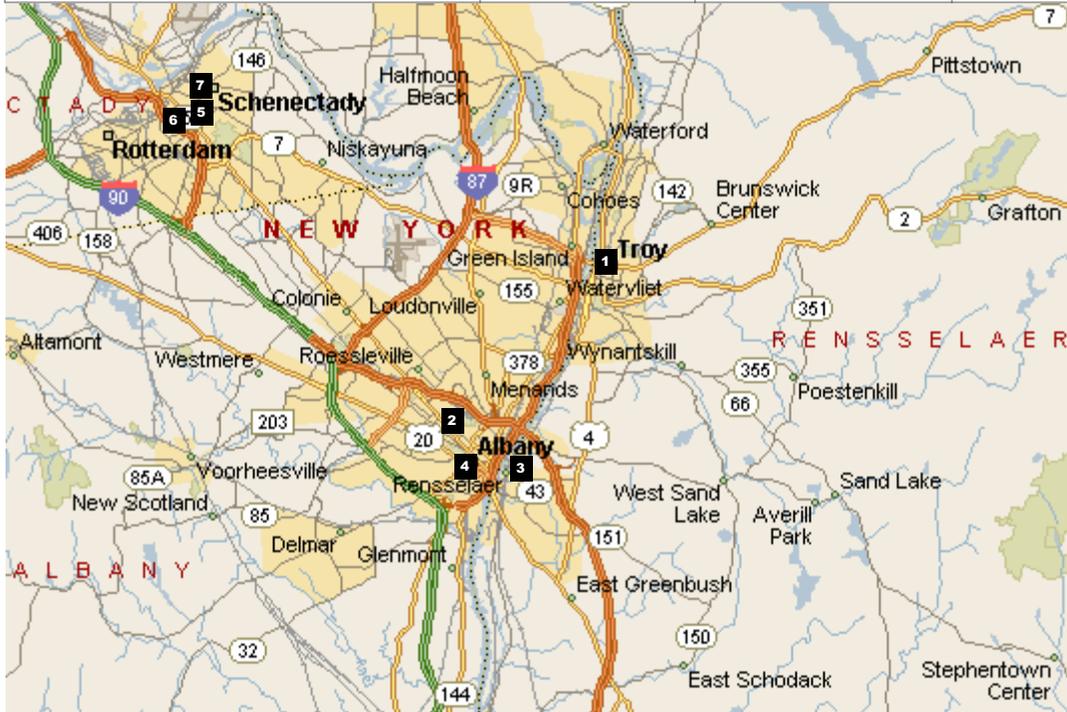
IV. Business Incubators in the Capital Region

RPI has had an technology business incubator program operating since the early 1980’s. More recently, other incubators have been established to stimulate business growth to expand job opportunities throughout the region.

Incubators are typically facilities of various sizes and configurations that support the growth of startup companies with low-cost space, access to utilities, shared office/business services and mentorship on developing business and marketing plans, and the mechanics of running a business.

3.5 - Examples of Incubator Operations Within the Capital Region

Facility	Location	Use Categories	Size (SF)
1. Rensselaer Incubator Program	Troy/Watervliet	Technology	100,000+
2. Center for Environmental Sciences & Technology Management	Albany	Technology	120,000
3. East Campus at State University of NY	Rensselaer	Biomedical	100,000
4. Albany Center for Economic Success	Albany	Mixed-Use	18,000
5. Schenectady Business & Technology Center	Schenectady	Technology	15,000
6. Schenectady County Community Bus. Center	Schenectady	Mixed-Use	19,000
7. U-Start Business Incubator (Union College)	Schenectady	Technology	2,000



IV. Business Incubators in the Capital Region (cont'd)

RPI's Office of Technology Commercialization

The Office of Technology Commercialization oversees and facilitates the management of intellectual property and the transfer of R&D activity from RPI into potential products and businesses. The office processes approximated 80 disclosures and negotiates 12-15 agreements per year.

Rensselaer Incubator Program

Established over 20 years ago, the Rensselaer Incubator program has helped establish over 180 companies representing a total employment of over 2,000 jobs and an annual revenue of over \$500 million. The overall function of the operation is three-fold:

- Enrich the academic environment at RPI
- Support technology transfer
- Stimulate regional economic development

The incubator operation is located both on the main campus of RPI as well as across the Hudson River in Watervliet. Services that are offered to startup companies include:

- Office/manufacturing/lab space
- Utilities (power, water, sewer, phone/internet)
- Shared office services
- Business support services

The incubator program has remained self-sufficient since it's inception and continues to host a variety of businesses. There are currently 43 tenants in the program.

Rensselaer Technology Park

The park consists of over 1,200 contiguous acres in Rensselaer County along the Hudson River between the cities of Troy and Rensselaer. There are 450 developed acres with 23 buildings comprised of over one million square feet of space. Currently, the park hosts 50 tenants representing a wide diversity of technologies that support 2,200 jobs. The park has a formal master plan that includes areas for technology facilities, housing, water front and open space.

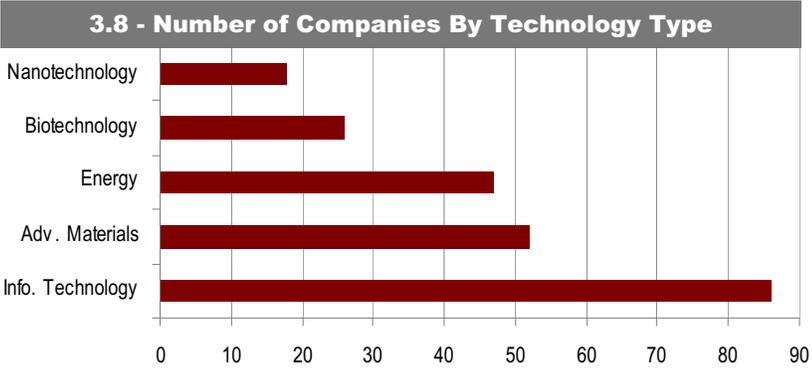
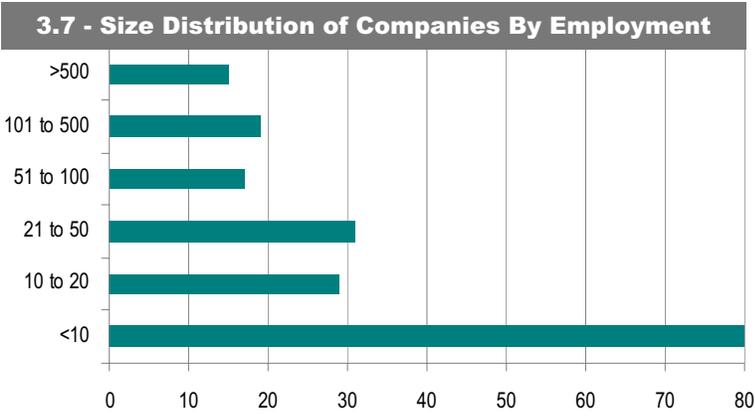
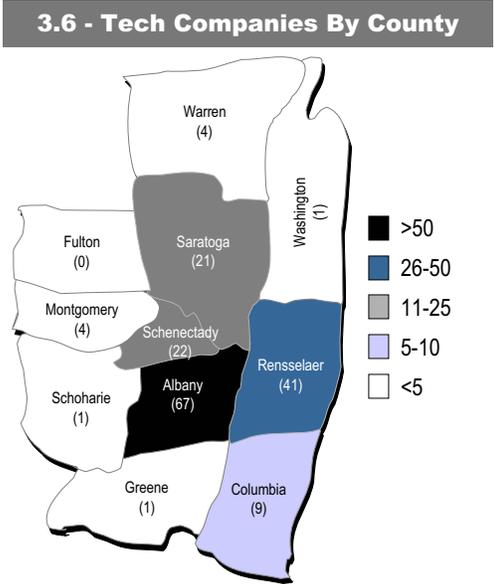


V. Technology Companies Within the Capital Region

There are approximately 170 technology-related companies throughout the capital region representing five core technology areas:

- Nanotechnology
- Biotechnology
- Energy
- Advanced materials
- Information technology

Details on each company are available at www.technologyroadmap.org.

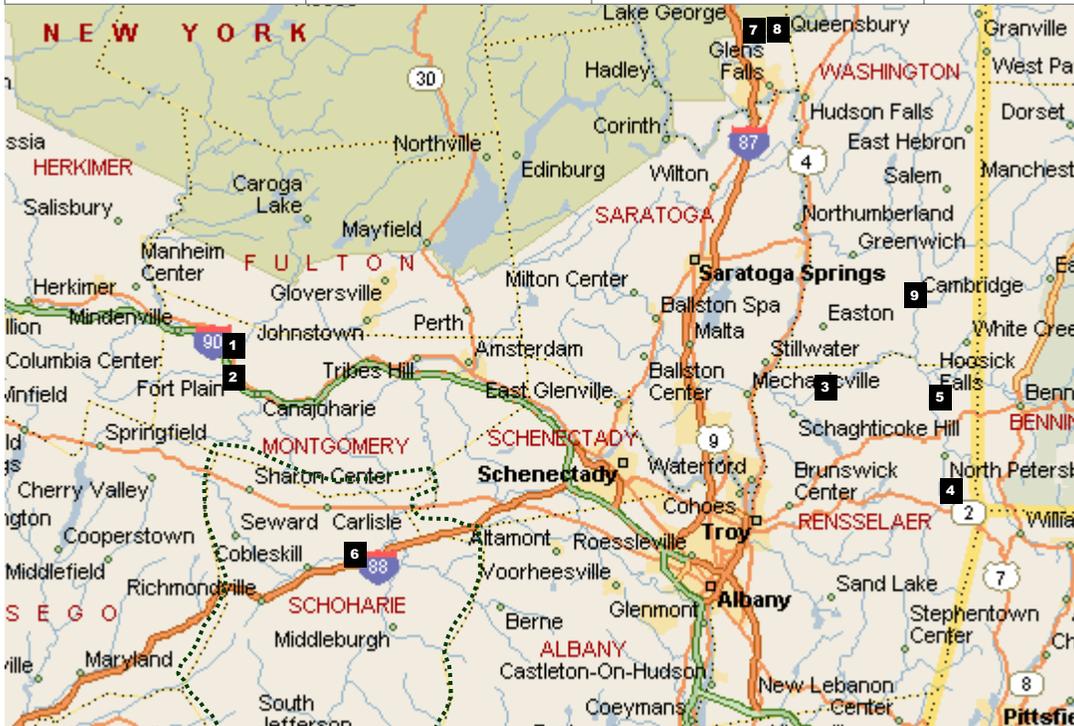


V. Technology Companies Within the Capital Region

Technology Companies in Rural Areas

A number of technology companies are located in small towns and rural areas throughout the Capital Region as noted below:

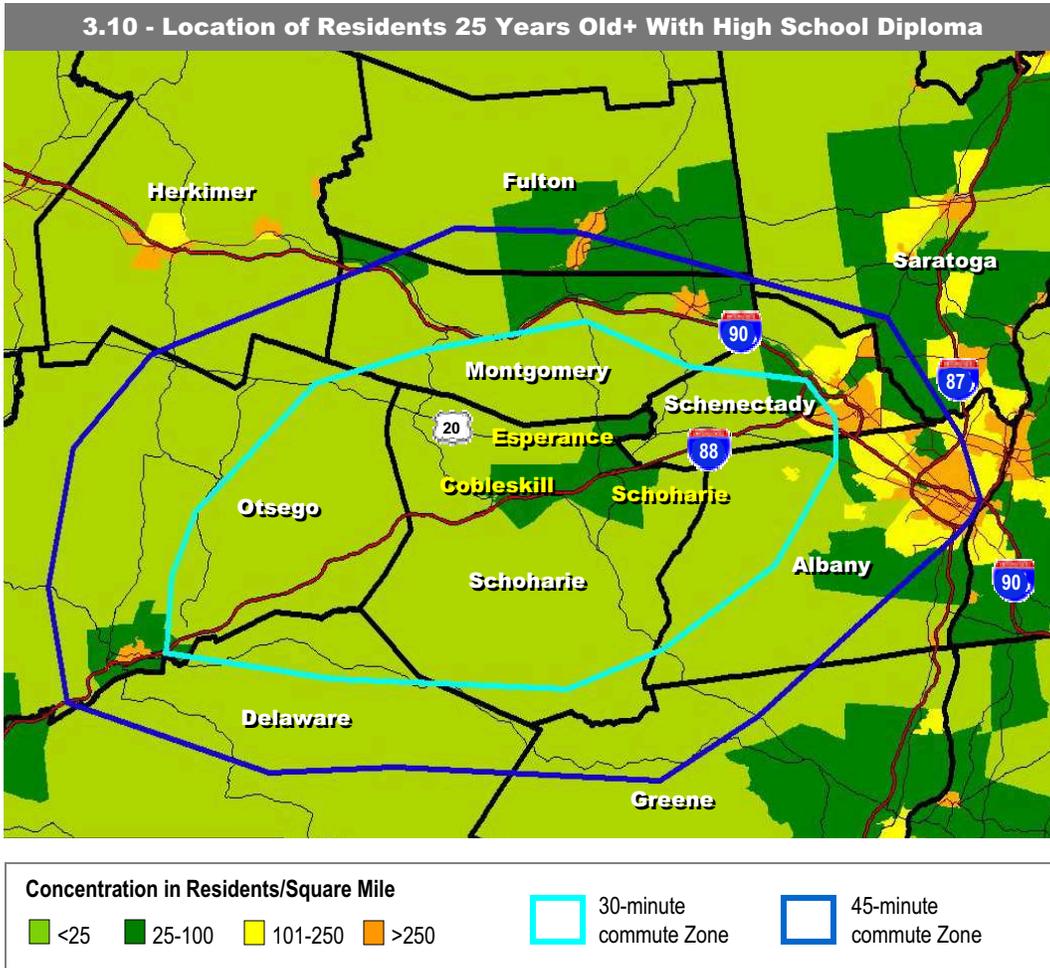
3.9 - Tech Companies in Rural Areas			
Company	County/City	Scope of Activity	Employees
1. Temper Corporation	Montgomery/Fonda	Precision metal components	21 – 50
2. Anderson Instruments	Montgomery/Fultonville	Instrumentation	51 - 100
3. WindoTherm	Rensselaer/Valley Falls	Window insulation	5 - 10
4. Taconic	Rensselaer/Petersburg	Engineered materials	100 - 500
5. Saint-Gobain Performance Plastics	Rensselaer/Hoosick Falls	Packaging	100 - 500
6. Kintz Plastics	Schoharie/Howes Cave	Multi-forming of plastic products	100 - 500
7. Adirondack Mfg.	Warren/Queensbury	Machining of stainless steel parts	2 – 5
8. Dagen Technology	Warren/Queensbury	IT (software development)	5 - 10
9. Ed Levin Jewelry	Washington/Cambridge	Specialty natural jewelry	21 - 50



VI. Labor Resources

Education Attainment: High School Diploma

Strong high school education concentration in the Towns of Esperance, Schoharie and Cobleskill.

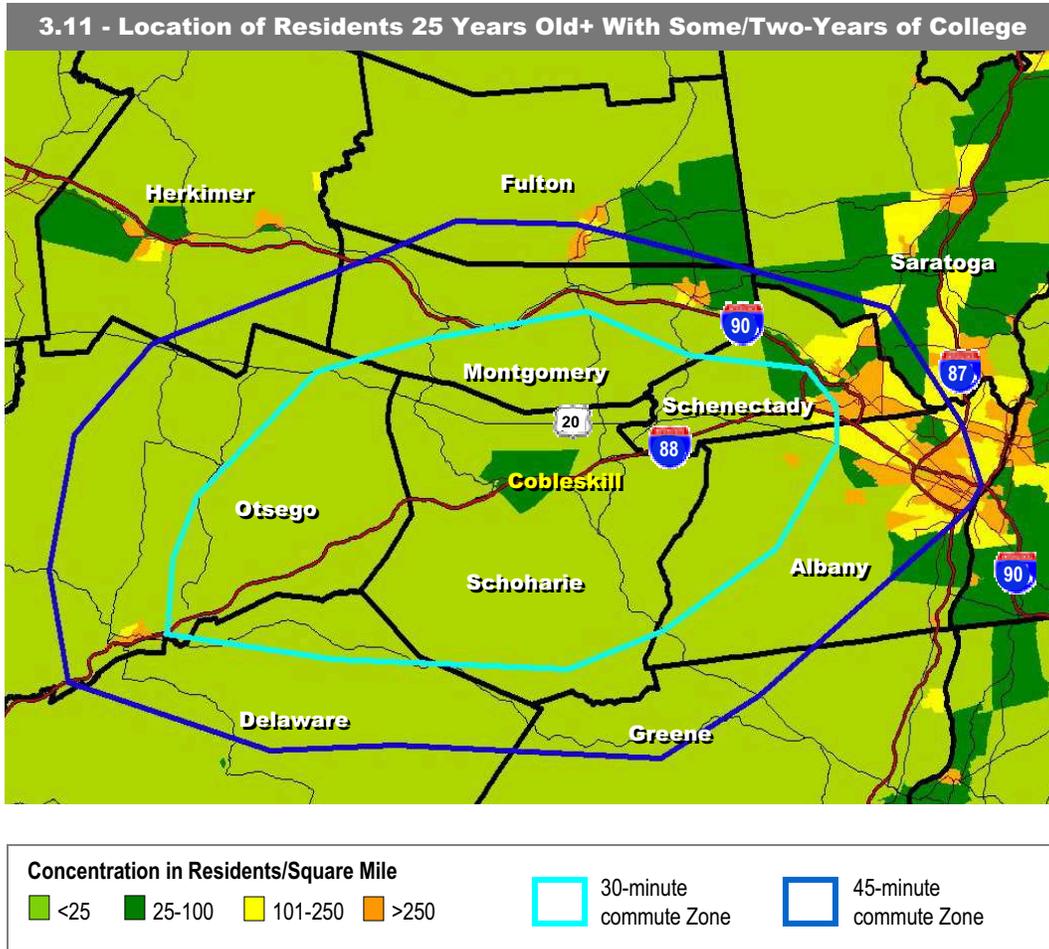


Residents With High School Diploma	
30-Minute Commute	45-Minute Commute
23,906	105,441

VI. Labor Resources (cont'd)

Education Attainment: Some and Two Years of College

High concentration of some and two-year college grads is in the Town of Cobleskill. The next closest major source is in eastern Schenectady County.

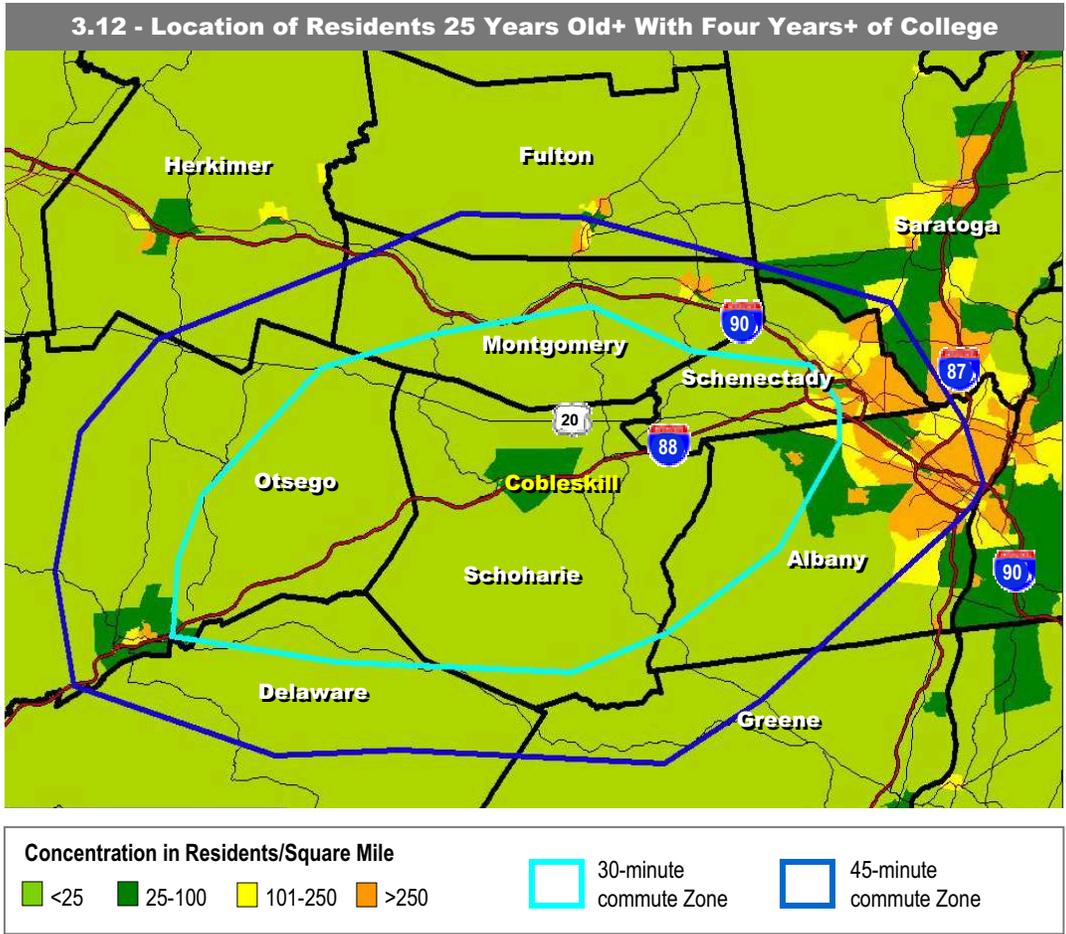


Residents With Some/two Years College	
30-Minute Commute	45-Minute Commute
17,433	92,354

VI. Labor Resources (cont'd)

Education Attainment: Four Years of College and Above

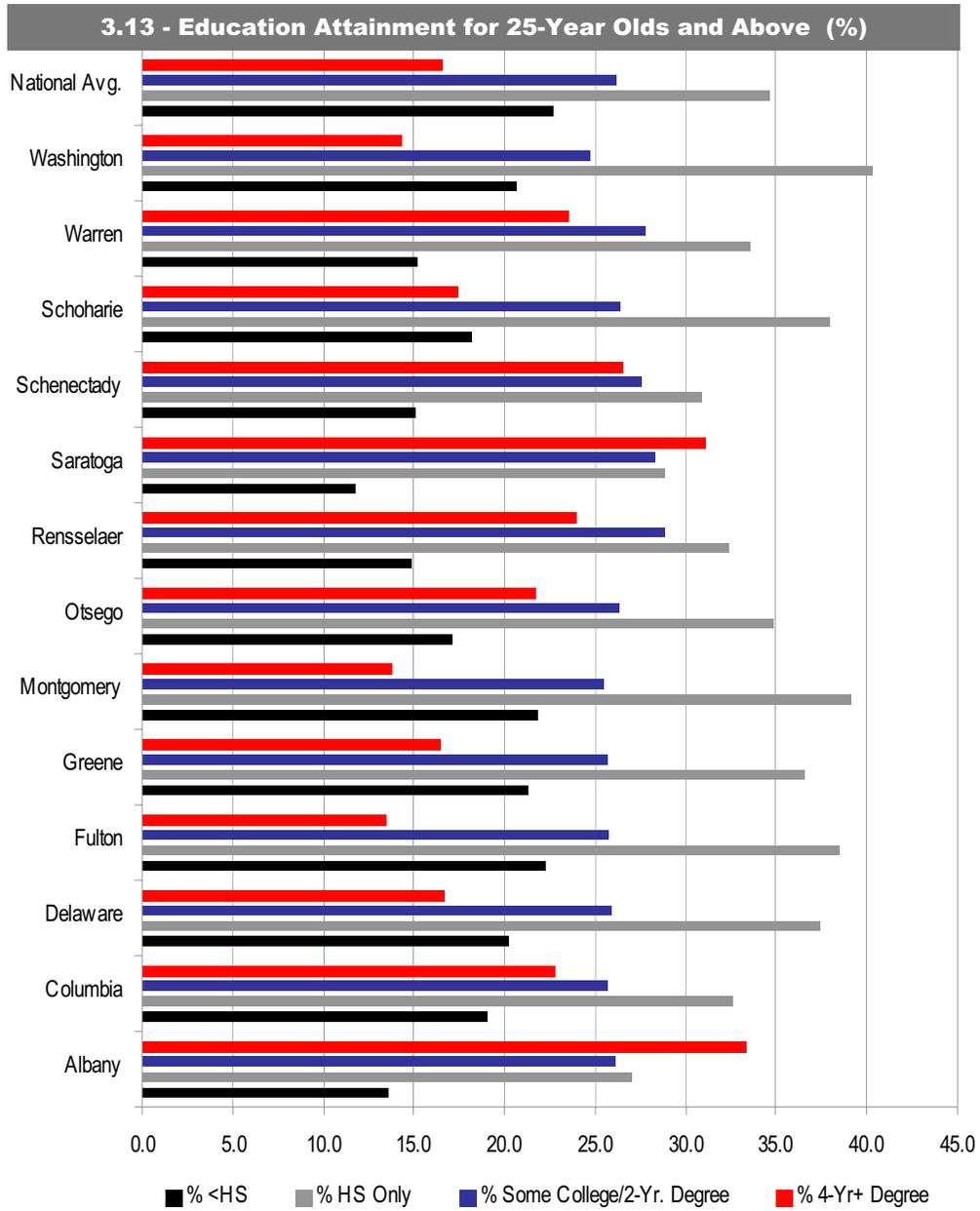
Four-year and above college grads are in the Town of Cobleskill as well as in Schenectady and Albany Counties.



Residents With Four Years+ of College	
30-Minute Commute	45-Minute Commute
13,026	99,621

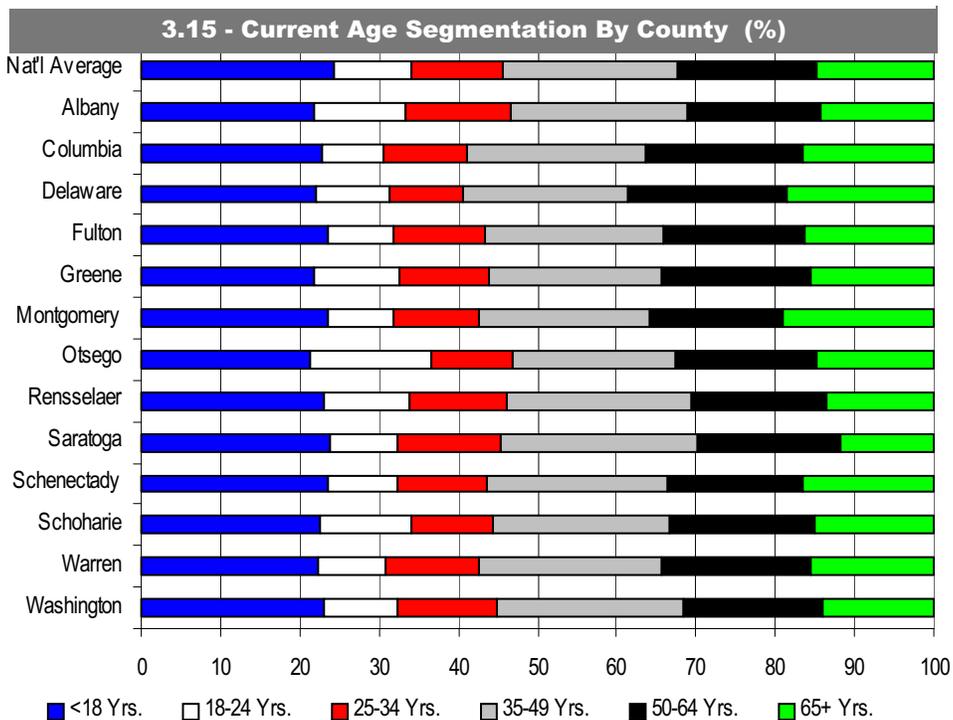
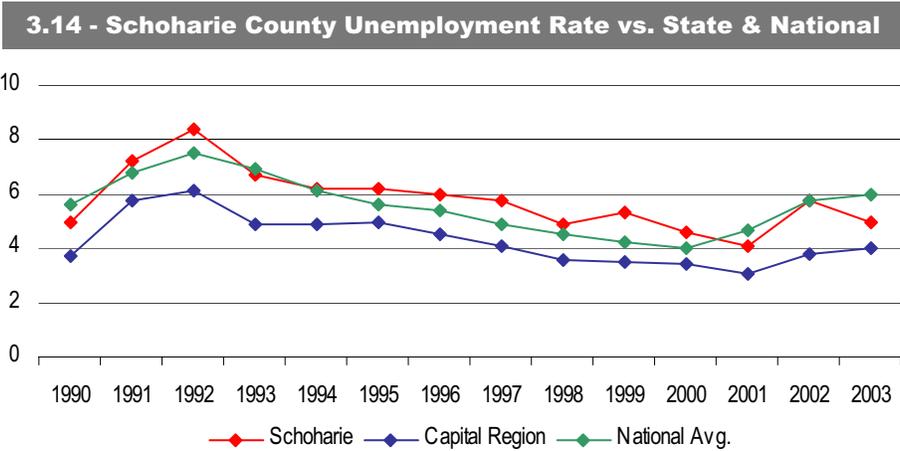
VI. Labor Resources (cont'd)

Most counties in the Capital Region have the percentage of college grads above the national average and a low rate without a high school diploma.



VI. Labor Resources (cont'd)

Schoharie unemployment is currently tracking lower than the national average but higher than the Capital Region which reflects employment in more volatile jobs in low-end service and manufacturing (primarily out of the county). Schoharie County age profile tracks national averages while Schenectady and Montgomery have a higher 65+ year old cohort.



VI. Labor Resources (cont'd)

Interviews With Local Employers

Interviews were conducted with a cross-section of Schoharie County businesses and institutions to gain an overview on the quality of the workforce and insights into operating a business in the county. A summary of information gathered from the interviews is provided below:

- **Work Ethic:** viewed as high and reflects farming community culture and the perceived value of having a good job that supports a rural life style.
- **Qualifications/Quality of Workers:** the quality and qualifications of older workers that have both formal training and experience is high. For example, graduates of GE's former Apprentice Program are highly qualified, however, this program was discontinued several years ago. Manufacturing and related skills are missing from the younger workers and must be taught. Some firms select high potential high school grads and send them to area technical schools for further training. The issue of having access to "manufacturing savvy" workers is a regional issue due to the decline in the manufacturing base along with the shift to higher technology manufacturing processes.
- **Labor Supply:** employers draw labor from a 30-minute radius from multiple counties. For higher skilled and management positions, individuals commute to Schoharie County from throughout the Capital Region, as far north as Glens Falls. With the presence of the Wal-Mart distribution center in northern Schoharie County employing 680 and with the Target distribution center in nearby Montgomery County planning to employ 650 (eventually 950), caution should be taken when considering additional warehousing operations in that area due to the availability of qualified labor.
- **Interface Between Local Schools and Employers:** interface between local employers and high schools and SUNY Cobleskill is minimal and needs to be improved through some type of forum backed by school-to-work, internships, part-time jobs and formal recruiting activities.
- **Training:** some employers provide in-house training that ranges from 8-hours to several weeks while others send employees to Hudson Valley Community College or other technical schools within the Capital Region.
- **Role of SUNY Cobleskill in the Community:** current role is very limited but the potential is high and the desire on the part of the college administration is positive.

VII. Major Private Employers

3.16 - Major Retail, Commercial & Industrial Employers Within Schoharie County				
	Company	Description	Location	Employment
1	Wal-Mart Distribution Center	Distribution operation	Sharon Springs	500+
2	Wal-Mart Super Center	Retail store	Cobleskill	250+
3	Kintz Plastics	Plastics molding and forming	Howes Cave	132
4	Howes Cavern	Tourist destination	Howes Cave	100+
5	Cobleskill Stone Products	Crushed stone products	Cobleskill	100
6	Lancaster Development	Heavy Construction	Richmondville	75
7	Best Western Inn	Hospitality	Cobleskill	50+
8	MacDonalds	Restaurant	Cobleskill	50+
9	Golden Acres Farm & Ranch	Resort	Gilboa	50+
10	Support Services Alliance	Insurance underwriting	Schoharie	50+
11	Price Chopper	Retail food	Cobleskill	50+
12	JJP Slip Forming	Poured concrete	Middleburgh	55
13	Rua & Sons	Retail tires & rims	Cobleskill	50
14	A&K Slipforming	Poured concrete	Cobleskill	50
15	Sterling Insurance Co.	Insurance underwriter	Cobleskill	50
16	Mill Services, Inc.	Mill work	Cobleskill	45
17	Chenango Concrete Corp.	Ready mix concrete	Richmondville	45
18	Middleburgh Telephone Co.	Telecommunications	Middleburgh	45
19	Boreali's Restaurant	Restaurant	Howes Cave	30
20	Allied Electric Supply	Retail electrical supplies	Cobleskill	30
21	Fenimore Asset Mgmt.	Financial services	Cobleskill	30
22	Lamont Engineering	Engineering/planning services	Cobleskill	30
23	Glovemasters	Leather gloves	Richmondville	30
24	Pioneer Farm Credit	Farm loans	Cobleskill	25
25	Sharon Springs Garage	Retail farm equipment	Sharon Springs	25
26	Bank of Richmondville	Banking	Cobleskill	25
27	American Std. Mfg.	Sheet metal fabrication	Central Bridge	20+
28	Harva Company	Plastics	Schoharie	20+

■ Distribution Ctr.
 ■ Retail
 ■ Mfg.
 ■ Hospitality/Tourism
 ■ Construction
 ■ Financial Serv.
 ■ Telecom
 ■ Professional Serv.