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2020 REGIONAL ECONOMIC LABOR OUTLOOK ALIGNMENT

Finger Lakes

Prepared by the CTE Technical Assistance Center of NY

www.nyctecenter.org

FINGER LAKES

REGIONAL ECONOMIC LABOR OUTLOOK ALIGNMENT

National Career Clusters	Regional Economic Development Council Focus Industries ¹	Regional Industry Jobs with Strong Projected Growth (> 7% from 2016 through 2026) ²	Ten Most Common Occupations in Significant Industries ³	Further Description of Significant Industries
<p>Agriculture, Food and Natural Resources</p>	<p>Upstate Revitalization Initiative (URI) Pillar: Agriculture & Food Production</p> <ul style="list-style-type: none"> • Dairy, Fruit, & Vegetable Production • Wineries & Craft Beverages • Ag-tech, Ag-research, & Sustainable Farming • Agro-tourism <p>Target: \$75M Committed: \$23M Additional NYS: \$28M Leverage: \$633M Jobs Created: 2780+ Projects: 14</p> <p>The Finger Lakes region has a robust food ecosystem with key equipment, research and infrastructure that is meeting the rapidly changing needs of consumers. The Finger Lakes region is an interconnected food ecosystem with agricultural assets that spread across nine counties and positions the region to be a global leader in agriculture and food production. Assets such as Cornell AgriTech and Agriculture and Food Technology Park, Rochester Institute of Technology's Center for Sustainable Packaging, New York State Pollution Prevention Institute, the Food Processing Industry Cluster Initiative, and the Center for Food System Innovation, all contribute to attracting and retaining the needed workforce for this industry.</p>			

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<p>Architecture and Construction</p>		<p>Architecture and Engineering Occupations (10%) Architects, Surveyors, and Cartographers (13%) - <i>Architects, Except Landscape and Naval</i> - <i>Surveyors</i></p> <p>Drafters, Engineering Technicians, and Mapping Technicians (9%) - <i>Architectural and Civil Drafters (14%)</i> - <i>Electrical and Electronics Drafters (16%)</i> - <i>Architectural and Civil Drafters (20%)</i> - <i>Electro-Mechanical Technicians (17%)</i> - <i>Environmental Engineering Technicians (20%)</i> - <i>Mechanical Engineering Technicians (10%)</i></p> <p>Installation, Maintenance, and Repair Occupations (9%) Other Installation, Maintenance, and Repair Occupations (11%) - <i>Heating, Air Conditioning, and Refrigeration Mechanics and Installers</i> - <i>Industrial Machinery Mechanics</i> - <i>Maintenance Workers, Machinery</i> - <i>Millwrights</i> - <i>Maintenance and Repair Workers, General</i> - <i>Helpers--Installation, Maintenance, and Repair Workers</i></p>	<p>Specialty Trade Contractors</p> <ol style="list-style-type: none"> 1. Electricians 2. Plumbers, Pipefitters, and Steamfitters 3. Construction Laborers 4. Carpenters 5. Heating, Air Conditioning, and Refrigeration Mechanics and Installers 6. First-Line Supervisors of Construction Trades and Extraction Workers 7. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 8. Operating Engineers and Other Construction Equipment Operators 9. Painters, Construction and Maintenance 10. Sales Representatives, Services, All Other 	<p>Construction</p> <p>Skilled trade occupations comprise much of the employment within the specialty trade contractors (NAICS Industry 238) industry. Employment increased from 2013 to 2018. Construction jobs tend to pay above average wages, and the industry is projected to continue to grow. Over the next decade, the impending retirement of many baby boomers will result in job opportunities, especially among the skilled trades.</p>

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Architecture and Construction (continued)		Construction and Extraction Occupations (11%) Supervisors of Construction and Extraction Workers (13%) <ul style="list-style-type: none"> - <i>First-Line Supervisors of Construction Trades and Extraction Workers (13%)</i> Construction Trades Workers (11%) <ul style="list-style-type: none"> - <i>Cement Masons and Concrete Finishers</i> - <i>Construction Laborers</i> - <i>Operating Engineers and Other Construction Equipment Operators</i> - <i>Electricians</i> - <i>Glaziers</i> - <i>Insulation Workers, Mechanical</i> - <i>Pipelayers</i> - <i>Plumbers, Pipefitters, and Steamfitters</i> - <i>Roofers</i> - <i>Sheet Metal Workers</i> Helpers, Construction Trades (15%) <ul style="list-style-type: none"> - <i>Helpers--Pipelayers, Plumbers, Pipefitters, and Steamfitters</i> Other Construction and Related Workers (12%) <ul style="list-style-type: none"> - <i>Construction and Building Inspectors</i> - <i>Hazardous Materials Removal Workers</i> - <i>Highway Maintenance Workers</i> 		
Arts, A/V Technology & Communications		Arts, Design, Entertainment, Sports, and Media Occupations (8%) Entertainers and Performers, Sports and Related Workers (12%) <ul style="list-style-type: none"> - <i>Coaches and Scouts</i> - <i>Music Directors and Composers</i> - <i>Musicians and Singers</i> 		

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<p>Business Management & Administration</p>	<p>Upstate Revitalization Initiative (URI) Enabler: Entrepreneurship & Development Target: \$75M Committed: \$55M Additional NYS: \$10M Leverage: \$51M Projects: 6</p> <p>Pathways to Prosperity Target: \$100M Committed: \$48M Additional NYS: \$8M Leverage: \$35M Jobs Created: 620+ Projects: 17</p> <p>The Finger Lakes region will continue to focus on workforce development and providing pathways to prosperity, entrepreneurship and innovation, and taking advantage of its regional network of higher education institutions.</p> <p>A focus on entrepreneurship is also spurring downtown development in Rochester. RIT's Center For Urban Entrepreneurship's recent Business Pitch Competition was created to provide a unique opportunity to those businesses within the City of Rochester that are challenged by the need to secure access to capital; and to help such businesses grow within and provide services to the City of Rochester.</p>	<p>Management Occupations (11%) Operations Specialties Managers (13%)</p> <ul style="list-style-type: none"> - <i>Administrative Services Managers</i> - <i>Computer and Information Systems Managers</i> - <i>Financial Managers</i> - <i>Human Resources Managers</i> - <i>Training and Development Managers</i> <p>Other Management Occupations (12%)</p> <ul style="list-style-type: none"> - <i>Construction Managers</i> - <i>Education Administrators, Postsecondary</i> - <i>Food Service Managers</i> - <i>Medical and Health Services Managers</i> - <i>Natural Sciences Managers</i> - <i>Property, Real Estate, and Community Association Managers</i> - <i>Social and Community Service Managers</i> <p>Business and Financial Operations Occupations (12%) Business Operations Specialists (11%)</p> <ul style="list-style-type: none"> - <i>Compliance Officers</i> - <i>Cost Estimators</i> - <i>Human Resources Specialists</i> - <i>Management Analysts</i> - <i>Meeting, Convention, and Event Planners</i> - <i>Fundraisers</i> - <i>Compensation, Benefits, and Job Analysis Specialists</i> - <i>Training and Development Specialists</i> - <i>Market Research Analysts and Marketing Specialists</i> 	<p>Professional, Scientific and Technical Services</p> <ol style="list-style-type: none"> 1. Accountants and Auditors 2. Customer Service Representatives 3. Computer User Support Specialists 4. Sales Representatives, Services, All Other 5. Lawyers 6. Paralegals and Legal Assistants 7. Software Developers, Applications 8. Computer Systems Analysts 9. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 10. Bookkeeping, Accounting, and Auditing Clerks <p>Management of Companies and Enterprises</p> <ol style="list-style-type: none"> 1. Customer Service Representatives 2. Accountants and Auditors 3. Bookkeeping, Accounting, and Auditing Clerks 4. First-Line Supervisors of Office and Administrative Support Workers 5. Computer User Support Specialists 6. Market Research Analysts and Marketing Specialists 7. Software Developers, Applications 8. Financial Managers 9. Computer Systems Analysts 10. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 	<p>Professional and Business Services</p> <p>The professional and business services sector has two industries on the significant industries list. They are professional, scientific and technical services (NAICS Industry 541) and management of companies and enterprises (NAICS Industry 551). Although there are marked differences between these industries, they share one common trait – they tend to sell to other businesses rather than consumers.</p> <p>Professional, scientific and technical services gained jobs (+2,300) between 2013 and 2018. In addition, this industry is expected to grow more rapidly as the economy expands in the coming years. Employment in management of companies and enterprises declined (-1,800) between 2013 and 2018. Professional, scientific and technical services (\$70,400) and management of companies and enterprises (\$98,800) both paid above-average annual wages for the region in 2018.</p>

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<p>Education and Training</p>	<p>Upstate Revitalization Initiative (URI) Enabler: Skills & Talent Development</p> <p>Entrepreneurship and Development Target: \$75M Committed: \$55M Additional NYS: \$10M Leverage: \$51M Projects: 6</p> <p>Upstate Revitalization Initiative (URI) Enabler: Higher Education & Research Target: \$75M Committed: \$42M Additional NYS: \$2.5M Leverage: \$309M Jobs Created: 225+ Projects: 7</p> <p>The efforts of the FLREDC have facilitated and streamlined coordination between business, education and workforce training systems to create pipelines of talent and sustain economic growth. Such efforts are already underway, and the fruits of this strategy are demonstrating the impact that this pillar has on the region. The highly skilled talent pool due in large part to the 19 colleges and universities within the region, is readily available and increasingly in demand.</p>	<p>Education, Training, and Library Occupations (13%)</p> <p>Postsecondary Teachers (21%)</p> <ul style="list-style-type: none"> - Business Teachers - Computer Science Teachers - Mathematical Science Teachers - Engineering Teachers - Biological Science Teachers - Atmospheric, Earth, Marine, and Space Sciences Teachers - Chemistry Teachers - Environmental Science Teachers - Physics Teachers - Anthropology and Archeology Teachers - Area, Ethnic, & Cultural Studies Teachers - Economics Teachers - Political Science Teachers - Psychology Teachers - Sociology Teachers - Social Sciences Teachers, All Other - Health Specialties Teachers - Nursing Instructors and Teachers - Education Teachers - Criminal Justice & Law Enforcement Teachers - Social Work Teachers - Art, Drama, and Music Teachers - Communications Teachers - English Language & Literature Teachers - Foreign Language & Literature Teachers - History Teachers - Philosophy and Religion Teachers - Graduate Teaching Assistants - Recreation and Fitness Studies Teachers - Vocational Education Teachers 	<p>Educational Services</p> <ol style="list-style-type: none"> 1. Teacher Assistants 2. Secondary School Teachers, Except Special and Career/Technical Education 3. Elementary School Teachers, Except Special Education 4. Substitute teachers 5. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 6. Middle School Teachers, Except Special and Career/Technical Education 7. Janitors and Cleaners, Except Maids and Housekeeping Cleaners 8. Health Specialties Teachers, Postsecondary 9. Bus Drivers, School or Special Client 10. Educational, Guidance, School, and Vocational Counselors 	<p>Educational Services</p> <p>With nearly 75,000 jobs between the public and private sectors, educational services (NAICS Industry 611) has, by far, the most employment of any significant industry in the region. This sector added jobs (+4,300) between 2013 and 2018. The most common job titles in this sector include teacher assistant, elementary school teacher and secondary school teacher. The industry's 2018 average annual wage (\$54,500) was higher than the all industry average annual wage (\$49,200) in the region.</p>

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Education and Training (continued)		Education, Training, and Library Occupations (13%) Other Teachers and Instructors (12%) - <i>Self-Enrichment Education Teachers</i> - <i>Teachers and Instructors, All Other, Except Substitute Teachers</i> Librarians, Curators, and Archivists (11%) - <i>Curators</i> - <i>Librarians</i>		

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Finance		Business and Financial Operations Occupations (12%) Financial Specialists (13%) <ul style="list-style-type: none"> - Accountants and Auditors - Appraisers and Assessors of Real Estate - Financial Analysts - Personal Financial Advisors - Credit Counselors - Loan Officers - Tax Preparers 	Professional, Scientific and Technical Services <ol style="list-style-type: none"> 1. Accountants and Auditors 2. Customer Service Representatives 3. Computer User Support Specialists 4. Sales Representatives, Services, All Other 5. Lawyers 6. Paralegals and Legal Assistants 7. Software Developers, Applications 8. Computer Systems Analysts 9. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 10. Bookkeeping, Accounting, and Auditing Clerks 	<p>Professional and Business Services The professional and business services sector has two industries on the significant industries list. They are professional, scientific and technical services (NAICS Industry 541) and management of companies and enterprises (NAICS Industry 551). Although there are marked differences between these industries, they share one common trait – they tend to sell to other businesses rather than consumers.</p> <p>Professional, scientific and technical services gained jobs (+2,300) between 2013 and 2018. In addition, this industry is expected to grow more rapidly as the economy expands in the coming years. Employment in management of companies and enterprises declined (-1,800) between 2013 and 2018. Professional, scientific and technical services (\$70,400) and management of companies and enterprises (\$98,800) both paid above-average annual wages for the region in 2018.</p>
Government & Public Administration				

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<p>Health Science</p>	<p>Upstate Revitalization Initiative (URI) Pillar: Healthcare & Life Sciences</p> <ul style="list-style-type: none"> • Medical Devices (Incl. Tissue, Wearables, Apps) • Diagnostics & Imaging • Healthcare IT, Data Science, & Analytics • Precision Medicine • Drug Discovery • Healthcare Provision <p>The strong growth, employment levels, and regional presence of the Healthcare & Life Science industry in our region, coupled with extensive overlap with adjacent regional sectors make this very important for the Finger Lakes.</p>	<p>Healthcare Practitioners and Technical Occupations (19%) Health Diagnosing and Treating Practitioners (20%)</p> <ul style="list-style-type: none"> - <i>Chiropractors</i> - <i>Dentists, General</i> - <i>Dietitians and Nutritionists</i> - <i>Optometrists</i> - <i>Obstetricians and Gynecologists</i> - <i>Pediatricians, General</i> - <i>Surgeons</i> - <i>Physicians and Surgeons, All Other</i> - <i>Physician Assistants</i> - <i>Occupational Therapists</i> - <i>Physical Therapists</i> - <i>Radiation Therapists</i> - <i>Respiratory Therapists</i> - <i>Speech-Language Pathologists</i> - <i>Therapists, All Other</i> - <i>Veterinarians</i> - <i>Registered Nurses</i> - <i>Nurse Anesthetists</i> - <i>Nurse Practitioners</i> - <i>Audiologists</i> 	<p>Ambulatory Health Care Services</p> <ol style="list-style-type: none"> 1. Home Health Aides 2. Receptionists and Information Clerks 3. Registered Nurses 4. Emergency Medical Technicians and Paramedics 5. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 6. Personal Care Aides 7. Dental Hygienists 8. Dental Assistants 9. Licensed Practical and Licensed Vocational Nurses 10. First-Line Supervisors of Office and Administrative Support Workers <p>Hospitals</p> <ol style="list-style-type: none"> 1. Registered Nurses 2. Nursing Assistants 3. Clinical Laboratory Technologists and Technicians 4. Interviewers, Except Eligibility and Loan 5. Physicians and Surgeons, All Other 6. Licensed Practical and Licensed Vocational Nurses 7. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 8. Nurse Practitioners 9. Maids and Housekeeping Cleaners 10. Medical and Health Services Managers 	<p>Health Care</p> <p>Growth in health care industry employment is, like educational services, driven more by demographics than by overall economic conditions. Nearly all health care occupations are expected to be in demand over the next decade as New York State’s population continues to age. The health care sector consists of three main components:</p> <ul style="list-style-type: none"> • Ambulatory health care services (NAICS Industry 621) • Hospitals (NAICS Industry 622) • Nursing and residential care facilities (NAICS Industry 623) <p>The average annual wage at hospitals (\$58,700) and ambulatory health care services (\$50,000) exceeded the regional average annual wage (\$49,200) in 2018. Meanwhile, nursing and residential care facilities paid wages (\$34,400) well below the all industry average. This is largely a reflection of the mix of occupations in the health care industries. For example, in nursing and residential care facilities, the three most common occupations are relatively low-paying. They include nursing assistants, personal care aides and home health aides.</p>

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Health Science (continued)		Health Technologists and Technicians (17%) <ul style="list-style-type: none"> - <i>Medical and Clinical Laboratory Technologists</i> - <i>Medical and Clinical Laboratory Technicians</i> - <i>Dental Hygienists</i> - <i>Diagnostic Medical Sonographers</i> - <i>Nuclear Medicine Technologists</i> - <i>Radiologic Technologists</i> - <i>Magnetic Resonance Imaging Technologists</i> - <i>Emergency Medical Technicians and Paramedics</i> - <i>Pharmacy Technicians</i> - <i>Surgical Technologists</i> - <i>Veterinary Technologists and Technicians</i> - <i>Ophthalmic Medical Technicians</i> - <i>Licensed Practical and Licensed Vocational Nurses</i> - <i>Medical Records and Health Information Technicians</i> - <i>Opticians, Dispensing</i> Other Healthcare Practitioners and Technical Occupations (14%) <ul style="list-style-type: none"> - <i>Athletic Trainers</i> 	Nursing and Residential Care Facilities <ol style="list-style-type: none"> 1. Nursing Assistants 2. Personal Care Aides 3. Home Health Aides 4. Licensed Practical and Licensed Vocational Nurses 5. Registered Nurses 6. Social and Human Service Assistants 7. Food Servers, Nonrestaurant 8. Janitors and Cleaners, Except Maids and Housekeeping Cleaners 9. Rehabilitation Counselors 10. Maids and Housekeeping Cleaners 	

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Health Science (continued)		<p>Healthcare Support Occupations (25%) Nursing, Psychiatric, and Home Health Aides (25%)</p> <ul style="list-style-type: none"> - Home Health Aides - Nursing Assistants - Orderlies <p>Occupational Therapy and Physical Therapist Assistants and Aides (33%)</p> <ul style="list-style-type: none"> - Occupational Therapy Assistants - Physical Therapist Assistants <p>Other Healthcare Support Occupations (22%)</p> <ul style="list-style-type: none"> - Dental Assistants - Medical Assistants - Medical Equipment Preparers - Veterinary Assistants and Laboratory Animal Caretakers - Phlebotomists 		
Hospitality & Tourism		<p>Food and Beverage Serving Workers (18%)</p> <ul style="list-style-type: none"> - Bartenders - Combined Food Preparation and Serving Workers, Including Fast Food - Counter Attendants, Cafeteria, Food Concession, and Coffee Shop - Waiters and Waitresses - Food Servers, Nonrestaurant <p>Other Food Preparation and Serving Related Workers (16%)</p> <ul style="list-style-type: none"> - Dining Room and Cafeteria Attendants and Bartender Helpers - Dishwashers 		

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<p>Human Services</p>	<p>Our region’s early childcare and education sector is itself a key sector of our economy, although a precarious one. A 2005 study of Monroe County showed that it provides \$210 million in annual gross receipts, employs 7,500 people, and creates 1.5 jobs for each new job in the sector⁵. The Committee for Economic Development estimates the total 2016 economic contribution of childcare to New York’s economy as \$8.59 billion, with \$2.27 billion in direct earnings from 133,439 direct jobs in the early care sector⁶. Nationally, the number of childcare establishments and total employment grew by 40% from 1997 - 2012, employing 1.57 million employees, and generating \$41.5 billion total revenue in 2012.</p> <p>And yet New York’s quality early childcare and education sector is in crisis today; the system itself is not sustainable. The cost of childcare in our state is out of reach for most working families, often their largest monthly bill, rivaling the cost of mortgage payments. Child Care Aware ranks New York among the most expensive states for childcare in the nation as the average cost for full-time center-based infant care is over \$15,000 per year.</p>	<p>Community and Social Service Occupations (20%) Counselors, Social Workers, and Other Community and Social Service Specialists (20%)</p> <ul style="list-style-type: none"> - Substance Abuse and Behavioral Disorder Counselors - Educational, Guidance, School, and Vocational Counselors - Mental Health Counselors - Rehabilitation Counselors - Child, Family, and School Social Workers - Healthcare Social Workers - Mental Health and Substance Abuse Social Workers - Social Workers, All Other - Health Educators - Probation Officers and Correctional Treatment Specialists - Social and Human Service Assistants - Community Health Workers <p>Religious Workers (15%)</p> <ul style="list-style-type: none"> - Clergy <p>Building and Grounds Cleaning and Maintenance Occupations (12%)</p> <ul style="list-style-type: none"> - Supervisors of Building and Grounds Cleaning and Maintenance Workers (14%) - Building Cleaning and Pest Control Workers (11%) - Grounds Maintenance Workers (17%) 	<p>Social Assistance</p> <ol style="list-style-type: none"> 1. Personal Care Aides 2. Social and Human Service Assistants 3. Teacher Assistants 4. Preschool Teachers, Except Special Education 5. Childcare Workers 6. Home Health Aides 7. Child, Family, and School Social Workers 8. Educational, Guidance, School, and Vocational Counselors 9. Janitors and Cleaners, Except Maids and Housekeeping Cleaners 10. Recreation Workers 	<p>Social Assistance</p> <p>Job opportunities in social assistance (NAICS Industry 624) should be numerous through 2026 due to turnover and rapid job growth. In fact, some of the fastest growing occupations in the region are found in social assistance, such as: home health aides; personal and home care aides; and social and human service assistants. The annual average wages in social assistance (\$26,500) were lower than the all industry average in 2018 due to the large number of part time and low-paying service jobs.</p>

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Human Services (continued)		<p>Personal Care and Service Occupations (20%) Supervisors of Personal Care and Service Workers (19%)</p> <ul style="list-style-type: none"> - <i>First-Line Supervisors of Personal Service Workers</i> <p>Animal Care and Service Workers (20%)</p> <ul style="list-style-type: none"> - <i>Animal Trainers</i> - <i>Nonfarm Animal Caretakers</i> <p>Entertainment Attendants and Related Workers (21%)</p> <ul style="list-style-type: none"> - <i>Gaming and Sports Book Writers and Runners</i> - <i>Amusement and Recreation Attendants</i> - <i>Locker Room, Coatroom, and Dressing Room Attendants</i> <p>Personal Appearance Workers (12%)</p> <ul style="list-style-type: none"> - <i>Hairdressers, Hairstylists, and Cosmetologists</i> - <i>Manicurists and Pedicurists</i> <p>Baggage Porters, Bellhops, and Concierges (19%)</p> <ul style="list-style-type: none"> - <i>Baggage Porters and Bellhops</i> - <i>Concierges</i> <p>Tour and Travel Guides (14%)</p> <p>Other Personal Care and Service Workers (22%)</p> <ul style="list-style-type: none"> - <i>Personal Care Aides</i> - <i>Fitness Trainers and Aerobics Instructors</i> - <i>Recreation Workers</i> - <i>Residential Advisors</i> 		

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<p>Information Technology</p>	<p>Upstate Revitalization Initiative (URI) Pillar: Software & IT</p> <ul style="list-style-type: none"> • Software development • Digital media • AI • Data Science • Cybersecurity • Augmented & Virtual Reality <p>Software & IT reflects the emerging economic presence of Software development in our region. Software and IT also has a high growth potential and strong interconnectivity to other pillars.</p> <p>Upstate Revitalization Initiative (URI) Enabler: Digital Technology Adoption</p> <p>Downtown Rochester is being rebuilt before our eyes into a new Downtown Innovation Zone with over 190 creative-class companies, led by an explosion of software and IT companies like Datto, LiveTiles, and a more than \$200 million investment to expand the nationally-recognized The Strong National Museum of Play and to “ROC the Riverway,” where 13 initial projects will reimagine public access to the Genesee River waterfront.</p>	<p>Computer and Mathematical Occupations (11%) Computer Occupations (10%)</p> <ul style="list-style-type: none"> - Information Security Analysts - Software Developers, Applications - Web Developers - Database Administrators - Computer User Support Specialists - Computer Network Support Specialists 	<p>Professional, Scientific and Technical Services</p> <ol style="list-style-type: none"> 1. Accountants and Auditors 2. Customer Service Representatives 3. Computer User Support Specialists 4. Sales Representatives, Services, All Other 5. Lawyers 6. Paralegals and Legal Assistants 7. Software Developers, Applications 8. Computer Systems Analysts 9. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 10. Bookkeeping, Accounting, and Auditing Clerks 	<p>Professional and Business Services</p> <p>The professional and business services sector has two industries on the significant industries list. They are professional, scientific and technical services (NAICS Industry 541) and management of companies and enterprises (NAICS Industry 551). Although there are marked differences between these industries, they share one common trait – they tend to sell to other businesses rather than consumers.</p> <p>Professional, scientific and technical services gained jobs (+2,300) between 2013 and 2018. In addition, this industry is expected to grow more rapidly as the economy expands in the coming years. Employment in management of companies and enterprises declined (-1,800) between 2013 and 2018. Professional, scientific and technical services (\$70,400) and management of companies and enterprises (\$98,800) both paid above-average annual wages for the region in 2018.</p>

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<p>Law, Public Safety, Corrections and Security</p>		<p>Legal Occupations (10%) Legal Support Workers (13%) - <i>Paralegals and Legal Assistants</i></p>	<p>Professional, Scientific and Technical Services</p> <ol style="list-style-type: none"> 1. Accountants and Auditors 2. Customer Service Representatives 3. Computer User Support Specialists 4. Sales Representatives, Services, All Other 5. Lawyers 6. Paralegals and Legal Assistants 7. Software Developers, Applications 8. Computer Systems Analysts 9. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 10. Bookkeeping, Accounting, and Auditing Clerks 	<p>Professional and Business Services</p> <p>The professional and business services sector has two industries on the significant industries list. They are professional, scientific and technical services (NAICS Industry 541) and management of companies and enterprises (NAICS Industry 551). Although there are marked differences between these industries, they share one common trait – they tend to sell to other businesses rather than consumers.</p> <p>Professional, scientific and technical services gained jobs (+2,300) between 2013 and 2018. In addition, this industry is expected to grow more rapidly as the economy expands in the coming years. Employment in management of companies and enterprises declined (-1,800) between 2013 and 2018. Professional, scientific and technical services (\$70,400) and management of companies and enterprises (\$98,800) both paid above-average annual wages for the region in 2018.</p>

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<p>Manufacturing</p>	<p>Upstate Revitalization Initiative (URI) Pillar: Next Generation Manufacturing</p> <ul style="list-style-type: none"> Advanced Manufacturing Nanoscale Manufacturing Energy Storage Biomaterials Other Advanced Technology Applications <p>Next Gen Manufacturing & Technology Target: \$125M Committed: \$107M Additional NYS: \$42M Leverage: \$372M Jobs Created: 5520+ Projects: 38</p> <p>The support for existing Manufacturing companies in the Finger Lakes region continues to be important and is leading to job creation and retention.</p> <ul style="list-style-type: none"> Rochester Insulated Glass has completed phase one of a two-phase expansion of its headquarters in Ontario County. Amanda Tool, a high-tech tool manufacturer and fabricator, is expanding operations in Genesee County. 	<p>Production Occupations (-4%) Food Processing Workers (14%)</p> <ul style="list-style-type: none"> <i>Bakers</i> <i>Meat, Poultry, and Fish Cutters and Trimmers</i> <i>Food Batchmakers</i> <i>Food Cooking Machine Operators and Tenders</i> 	<p>Food Manufacturing</p> <ol style="list-style-type: none"> Packaging and Filling Machine Operators and Tenders Food Batchmakers Industrial Truck and Tractor Operators First-Line Supervisors of Production and Operating Workers Bakers Laborers and Freight, Stock, and Material Movers, Hand Heavy & Tractor-Trailer Truck Drivers Industrial Machinery Mechanics Assemblers and fabricators Inspectors, Testers, Sorters, Samplers, and Weighers <p>Machinery Manufacturing</p> <ol style="list-style-type: none"> Machinists Assemblers and fabricators, all other, including team assemblers Mechanical Engineers Ophthalmic Laboratory Technicians Engineers, All Other First-Line Supervisors of Production and Operating Workers Inspectors, Testers, Sorters, Samplers, and Weighers Electrical, electronic, and electromechanical assemblers, except coil winders, tapers, and finishers General and Operations Managers Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific Products 	<p>Manufacturing Food manufacturing (NAICS Industry 311), machinery manufacturing (NAICS Industry 333) and computer and electronic product manufacturing (NAICS Industry 334) made the list of significant industries in the region. They provide a relatively large number (27,900) of high-paying jobs in the Finger Lakes. The average annual wage in computer and electronic product manufacturing (\$88,200) was nearly 80 percent more than the all industry average wage (\$49,200) in 2018. The most common occupations in these industries include assemblers, inspectors, testers and engineers.</p>

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<p>Manufacturing (continued)</p>	<ul style="list-style-type: none"> • Studco Building Systems, a sheet metal manufacturer, plans to grow its North American operations in Monroe County. • DYNALEC Corporation, a communications equipment manufacturer, will expand in Wayne County adding 12,000 square-feet to its existing plant. • Z-AXIS, an electronics design and contract manufacturer will upgrade its Ontario County facility including 20 new jobs. • Medical Case Manufacturer and Distributor, FieldTex, will expand its operations in Monroe County. The company expects to complete the expansion project in the first quarter of 2020 and is planning to hire up to 51 new employees over the next five years. • IEC Electronics Corporation's new, state-of-the-art facility in Wayne County will allow the electronic manufacturing solutions provider to create up to 362 new jobs and retain 463 positions at the new 150,000-square-foot facility. 		<p>Computer and Electronic Product Manufacturing</p> <ol style="list-style-type: none"> 1. Electrical, electronic, and electromechanical assemblers, except coil winders, tapers, and finishers 2. Software Developers, Systems Software 3. Industrial Engineers 4. Electrical Engineers 5. Inspectors, Testers, Sorters, Samplers, and Weighers 6. Industrial Engineering Technicians 7. Software Developers, Applications 8. First-Line Supervisors of Production and Operating Workers 9. Electrical and Electronics Engineering Technicians 10. Mechanical Engineers 	

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<p>Marketing, Sales and Service</p>			<p>Professional, Scientific and Technical Services</p> <ol style="list-style-type: none"> 1. Accountants and Auditors 2. Customer Service Representatives 3. Computer User Support Specialists 4. Sales Representatives, Services, All Other 5. Lawyers 6. Paralegals and Legal Assistants 7. Software Developers, Applications 8. Computer Systems Analysts 9. Secretaries and Administrative Assistants, Except Legal, Medical, and Executive 10. Bookkeeping, Accounting, and Auditing Clerks 	<p>Professional and Business Services</p> <p>The professional and business services sector has two industries on the significant industries list. They are professional, scientific and technical services (NAICS Industry 541) and management of companies and enterprises (NAICS Industry 551). Although there are marked differences between these industries, they share one common trait – they tend to sell to other businesses rather than consumers.</p> <p>Professional, scientific and technical services gained jobs (+2,300) between 2013 and 2018. In addition, this industry is expected to grow more rapidly as the economy expands in the coming years. Employment in management of companies and enterprises declined (-1,800) between 2013 and 2018. Professional, scientific and technical services (\$70,400) and management of companies and enterprises (\$98,800) both paid above-average annual wages for the region in 2018.</p> <p><i>Sales Representatives, Services and Market Research Analysts and Marketing Specialists are common occupations in several other industries identified in this report.</i></p>

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<p>Science, Technology, Engineering & Mathematics</p>	<p>Upstate Revitalization Initiative (URI) Pillar: Optics, Photonics & Imaging</p> <ul style="list-style-type: none"> • Integrated Photonics • Imaging • Lasers • Sensors • Displays <p>Target: \$50M Committed: \$209M Additional NYS: \$44M Leverage: \$347M Jobs Created: 830+ Projects: 7</p> <p>Specific actions and strategies towards building our place-brand are already underway. Bringing visionary Optics, Photonics and Imaging (OPI) Companies and Emerging Technologies to the Finger Lakes Region bolsters and markets the Finger Lakes region’s reputation as the imaging capital of the world. The innovations and commitments demonstrated through the Luminare New York Accelerator Competition further showcases the region as a cornerstone of the OPI industry.</p>	<p>Computer and Mathematical Occupations (11%) Mathematical Science Occupations (32%) - <i>Operations Research Analysts</i></p> <p>Architecture and Engineering Occupations (10%) Engineers (10%) - <i>Biomedical Engineers</i> - <i>Civil Engineers</i> - <i>Electrical Engineers</i> - <i>Industrial Engineers</i> - <i>Materials Engineers</i></p> <p>Drafters, Engineering Technicians, and Mapping Technicians (9%) - <i>Architectural and Civil Drafters (14%)</i> - <i>Electrical and Electronics Drafters (16%)</i> - <i>Architectural and Civil Drafters (20%)</i> - <i>Electro-Mechanical Technicians (17%)</i> - <i>Environmental Engineering Technicians (20%)</i> - <i>Mechanical Engineering Technicians (10%)</i></p>		

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<p>Science, Technology, Engineering & Mathematics (continued)</p>	<p>Rochester Precision Optics will expand its headquarters in the Town of Henrietta, Monroe County, adding more than 200 new jobs to the region. The company’s growth will accommodate two new projects—the relocation of an infrared research and development company from Florida acquired by Rochester Precision Optics in May, as well as the addition of 20,000 square feet at the facility to increase production across the company’s plastics, glass, coating, diamond turning and IT divisions. During the expansion, Rochester Precision Optics will retain the 275 jobs currently held at the John Street site.</p> <p>Upstate Revitalization Initiative (URI) Pillar: Healthcare & Life Sciences</p> <ul style="list-style-type: none"> • Medical Devices (Incl. Tissue, Wearables, Apps) • Diagnostics & Imaging • Healthcare IT, Data Science, & Analytics • Precision Medicine • Drug Discovery • Healthcare Provision <p>Photonics manufacturer IDEX Health & Science, LLC recently officially opened its new Optical Center of Excellence in Monroe County. The new center will support the company’s life science, semi-conductor, and defense businesses.</p>	<p>Life, Physical, and Social Science Occupations (14%)</p> <p>Life Scientists (14%)</p> <ul style="list-style-type: none"> - Food Scientists and Technologists - Biochemists and Biophysicists - Medical Scientists, Except Epidemiologists <p>Physical Scientists (15%)</p> <ul style="list-style-type: none"> - Chemists - Environmental Scientists and Specialists, Including Health <p>Social Scientists and Related Workers (11%)</p> <ul style="list-style-type: none"> - Clinical, Counseling, and School Psychologists - Urban and Regional Planners - Historians <p>Life, Physical, and Social Science Technicians (15%)</p> <ul style="list-style-type: none"> - Agricultural and Food Science Technicians - Biological Technicians - Environmental Science and Protection Technicians, Including Health 		

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Science, Technology, Engineering & Mathematics (continued)	<p>Upstate Revitalization Initiative (URI) Pillar: Software & IT</p> <ul style="list-style-type: none"> • Software development • Digital media • AI • Data Science • Cybersecurity • Augmented & Virtual Reality <p>Upstate Revitalization Initiative (URI) Enabler: Higher Education & Research Target: \$75M Committed: \$42M Additional NYS: \$2.5M Leverage: \$309M Jobs Created: 225+ Projects: 7</p>			
Transportation, Distribution & Logistics				

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¹ 2019 Progress Report - FINGER LAKES REGION ECONOMIC DEVELOPMENT COUNCIL <https://regionalcouncils.ny.gov/sites/default/files/2019-11/FLREDCProgressReport.pdf>

² New York State Department of Labor Long-Term Industry Employment Projections, 2016-2026 <https://labor.ny.gov/stats/2016-2026-Statewide-and-Regional-Long-Term-Occupational-Projections-with-Separations.xls>

³ 2019 Significant Industries* - New York State Department of Labor <https://labor.ny.gov/stats/PDFs/Significant-Industries-Finger-Lakes.pdf>

* Eleven industries are designated as “significant” in the Finger Lakes. Employment increased in nine of these industries between 2013 and 2018. In addition, ten industries employed at least 10,000 people during 2018. Nine of these industries offered above average wages.

All significant industries shared one or more of the following characteristics: rapid growth (percentage basis); large growth (absolute basis); high wages (average annual wage above the regional average of \$49,200 in 2018); or strong expected growth through 2026.

A broad set of industries were identified for this report. They cover six major industry groups: construction; manufacturing; professional and business services; educational services; health care; and social assistance.