



**Tioga County Industrial Development Agency
October 2, 2019 • 4:30pm•
Ronald E. Dougherty County Office Building
56 Main Street, Owego, NY 13827
Agenda**

Call to Order and Introductions

Attendance

IDA Board Members

Roll Call: R. Kelsey, T. Monell, A. Gowan, M. Sauerbrey, E. Knolles

Absent:

Excused: J. Ceccherelli, K. Gillette

Guests: C. Curtis, C. Haskell

Privilege of the Floor: Drew Griffin, Tioga County IT Deputy Director

Live Streaming Quotes:

Zoom

WebEx

GoTo Meeting

Approval of Minutes

- A. [September 4, 2019 Regular Meeting Minutes](#)
- B. [September 4, 2019 Loan Committee Minutes](#)
- C. [September 4, 2019 Finance Committee Minutes](#)
- D. [September 23, 2019 Governance Committee Minutes](#)

Financials

- A. [Balance Sheet](#)
- B. [Profit & Loss](#)
- C. [Transaction Detail](#)
- D. Bank Reconciliations – Reviewed by A. Gowan

ED&P Update: L. Tinney

- A. Housing Study – [Phase II Executive Summary](#)
- B. [Workforce Pipeline Study](#)

Project Updates: C. Curtis

- A. V&S – Construction in progress
 - 1. Capital Assistance
 - a. Department of Budget
 - b. Empire State Development
 - c. [Notice of Award to Procon](#)



2. Ground breaking [event](#)
3. County request for lateral extension
- B. Owego Gardens II
 1. Financing (Home Leasing)
 2. Water tank
- C. DRI
 1. Homes and Community Renewal (HCR) Agreement
 2. Sub recipient agreements

New Business: C. Curtis

- A. [William Caloroso Resolution](#)
- B. Engineering Excellence Award – Larson Design Group
- C. Project List
- D. TEAM Tioga breakfast
 1. Sub-committee
 2. Tentative budget

Old Business: C. Curtis

- A. Public Authority Accountability Act (PAAA)
 1. Audit Committee Report: R. Kelsey, A. Gowan
 - a. Annual Audit Recommendation
 2. Governance Committee: J. Ceccherelli, A. Gowan, R. Kelsey
 - a. C. Curtis training -NYS Comptroller Introduction to Governmental Accounting School
 3. Finance Committee: R. Kelsey, A. Gowan, K. Gillette
 - a. [2020 PARIS Budget](#)
 4. Loan Committee
 - a. Nothing to report
 5. Annual Policy Review

PILOT Updates: C. Curtis

- A. Sales Tax Exemptions Update: C. Curtis
 1. V&S Sales Tax Exemption Report
- B. Best Buy Agency Fee invoiced 9/18/2019 - \$16,070.00
- C. School PILOTs invoiced 9/13/2019
- D. Delaware River Solar, LLC
- E. Spencer-Tioga Solar

Motion to move into Executive Session pursuant to Public Officers Law Section 105

Next Meeting: Wednesday November 6, 2019

Adjournment

Tioga County Industrial Development Agency
September 4, 2019 • 4:30 p.m. • Ronald E. Dougherty County Office
Building
56 Main Street, Owego, NY 13827

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Regular Meeting Minutes

I. **Call to Order and Introductions** – Chairman R. Kelsey called the meeting to order at 4:32 p.m.

II. **Attendance**

IDA Board Members:

A. Roll Call: R. Kelsey, A. Gowan, J. Ceccherelli, K. Gillette, M. Sauerbrey, E. Knolles, T. Monell

B. Absent: None

C. Excused: None

D. Guests: C. Curtis, L. Tinney, J. Meagher, M. Freeze, C. Haskell (*arrived @ 5:00 p.m.*)

III. **Privilege of the Floor** – None

C. Curtis introduced Megan Griffiths to the TCIDA Board. M. Griffiths recently joined TEAM Tioga as the Agriculture Development Specialist with the Economic Development & Planning Department.

IV. **Approval of Minutes**

A. August 7, 2019 Regular Meeting Minutes

Motion to approve August 7, 2019 regular meeting minutes, as written.

(M. Sauerbrey, J. Ceccherelli)

Aye – 7

No – 0

Abstain – 0

Carried

V. **Financials** –

A. Balance Sheet

B. Profit & Loss

C. Transaction Detail; Cash Accounts Only

Motion to acknowledge financials, as presented. (A. Gowan, T. Monell)

Aye – 7

No – 0

Abstain – 0

Carried

VI. ED&P Update: L. Tinney

- A. DRI Projects – L. Tinney reported the Downtown Revitalization Initiative (DRI) approved nine “Key Façade Revitalization” projects and eight “Support Business Development” projects that will be administered by TCIDA. There will be one contract between Homes and Community Renewal (HCR) and TCIDA and TCIDA will contract independently with each project. HCR anticipates issuing grant agreements within the next 60 days. HCR will issue reimbursement upon invoice with payment processing anticipated to be 2-4 weeks. HCR is confirming a 5% administrative fee will be allowed to be collected by TCIDA (Key Façade Revitalization = \$22,655.75 and Support Business Development = \$60,666.20). L. Tinney will draft agreements to share with J. Meagher and the committee the TCIDA Board deems appropriate for review.
- B. Housing Study – L. Tinney will report on this topic at the 10/2/19 board meeting.
- C. Workforce Pipeline Study – L. Tinney will report on this topic at the 10/2/19 board meeting.

VII. Project Updates: C. Curtis

- A. V&S –
 - 1. Capital Assistance – C. Curtis reported TCIDA is waiting for official award from Empire State Development (ESD), as there has been no official notification regarding the \$300,000 financial assistance.
 - 2. Bid Opening – 9/3/19 – C. Curtis reported the lowest bidder for the water & sewer extension was Procon. There were three bids submitted. TCIDA Board requested C. Curtis obtain written notification from J. Gensel, Fagan Engineers, regarding deadline for how long the bid is good.
- B. Owego Gardens II –
 - 1. Purchase & Sale Agreement – C. Curtis reported the purchase & sale agreement has been executed.
 - 2. DRI Owego Gardens II Water Tower – C. Curtis reported the DRI did not fund the Owego Gardens II water tower. L. Tinney informed TCIDA Board the bids requested for this project would be valid for nine months, as per bid specifications.

Motion to approve IDA funding for a portion of the Owego Gardens II water tower, as it was not one of the DRI chosen projects (K. Gillette, J. Ceccherelli)

Aye – 7

Abstain – 0

No – 0

Carried

VIII. New Business: C. Curtis

- A. Lease Payment Report – C. Curtis presented the railroad lease utility easements report. In an effort to streamline an annual January billing cycle for all leases, C. Curtis prorated the bills in April 2019, as they were initially billed annually by month of origin. To date, C. Curtis reported all payments totaling \$11,307, with the exception of Time Warner/Charter Communications for \$233.37, have been received. In comparison, C. Curtis reported last year’s total was \$12,098.08. For 2020, C. Curtis anticipates the total amount to be approximately \$12,525 due to a 2% escalation.

ACTION: C. Curtis will present the Lease Payment Report to the IDA Board on an annual basis every March.

B. Livestreaming of IDA Meetings – C. Curtis reported Governor Cuomo signed the Bill on 8/27/19 requiring all NYS IDA's to livestream IDA meetings effective 1/1/20. Suggestion made to move the meetings to the Hubbard Auditorium.

ACTION: C. Curtis will provide IT associated costs and livestreaming procedure to the IDA Board at the October meeting. C. Haskell will schedule Hubbard Auditorium and advise C. Curtis of any meeting date conflicts.

C. Workers Comp Insurance – C. Curtis reported this topic was not an agenda item; however, reported she was contacted by Don Patterson, TCIDA insurance representative, regarding a cost savings of \$233.00 if TCIDA were to consider changing carriers from Am Trust to Utica National. C. Curtis reported the premium is due 9/8/19.

Motion to authorize Worker's Comp Insurance carrier change from Am Trust to Utica National for a cost savings of \$233.00 effective with 9/8/19 premium due date. (J. Ceccherelli, E. Knolles)

Aye – 7

Abstain – 0

No - 0

Carried

Old Business: C. Curtis

D. Public Authority Accountability Act (PAAA)

1. Audit Committee Report: R. Kelsey, A. Gowan, E. Knolles

a. NYS Comptroller Audit – C. Curtis reported audit is still ongoing, however, no further documentation has been requested. C. Curtis reported issuance of final report anticipated within the next 1-3 months.

b. Tioga Downs Letter of Intent to Recapture – C. Curtis reported Tioga Downs was given 20-day notice to review. C. Curtis reported Phases 2 & 3 were under the allowable amount by \$46,000, however, Phase 4 was over the allowable amount by \$117,000 due to change orders related to improved design. Tioga Downs sent the TCIDA Board a letter requesting consideration of raising the exemption amount to cover all Phase 4 related expenses.

J. Meagher reported no hearing is required and there is nothing prohibiting TCIDA from honoring the request and changing the exemption amount.

Motion to authorize increase of the sales and compensating use tax exemption for Tioga Downs Phase 4 by \$117,000 due to unforeseen project related expenses. (K. Gillette, T. Monell)

Aye – 7

Abstain – 0

No - 0

Carried

2. Governance Committee: J. Ceccherelli, A. Gowan, R. Kelsey

a. Sexual Harassment Prevention Training – M. Sauerbrey reported the video training and attestation is accessible via the County's website – www.tiogacountyny.com under the County Attorney's page. The attestation requires employee ID number and Department; therefore, Board members can choose any number for the employee ID and use ED&P as the Department. Training must be completed by 10/9/19.

ACTION: C. Curtis will send detailed instructions to TCIDA Board members with instructions on accessing and completing the required training.

- b. Public Authorities Board Member Training – C. Curtis reported E. Knolles completed the webinar training on 8/21/19.
- 3. Finance Committee: R. Kelsey, A. Gowan, and K. Gillette
 - a. Review of 2020 PARIS Budget – C. Curtis reported the Finance Committee met just prior to this meeting to review the 2020 PARIS Budget. C. Curtis reported the Committee discussed changes, which would be made for timely submission by end of October.
 - b. Budget Review – C. Curtis reported the TCIDA budget would be reviewed at the 10/2/19 IDA Board meeting.
- 4. Loan Committee: (S. Thomas, R. Kelsey, A. Gowan, D. Barton, K. Dougherty)
 - R. Kelsey reported the Loan Committee met just prior to this meeting to review the following two potential loans:
 - a. Patrick Elston – Loan request of \$40,000 for building and business acquisition, as well as building improvements. The Loan Committee approved this \$40,000 loan request with no contingencies noted.
 - b. Manuel’s Pallets & Crates – The Loan Committee was unable to grant loan request of \$17,000 at this time.

Motion to accept the Finance Committee’s recommendation for approval of Patrick Elston’s loan request of \$40,000 with no contingencies. (M. Sauerbrey, E. Knolles)

Aye – 7	Abstain – 0
No - 0	Carried

IX. PILOT Updates: C. Curtis

A. Sales Tax Exemptions Update

- 1. Best Buy Sales Tax Agreement – C. Curtis reported the sales tax agreement was issued for the full amount, as presented to the public and in the cost benefit analysis.

X. Motion to move into Executive Session pursuant to Public Officers Law Section 105 at 5:25 p.m. to discuss financial and personnel matters. (J. Ceccherelli, E. Knolles)

Aye – 7	Abstain – 0
No – 0	Carried

Executive Session adjourned at 5:35 p.m.

Motion to authorize salary increase of \$2,500 (6%) for C. Curtis effective 1/1/20.

Motion to authorize continuance of L. Tinney’s consultant contract with the TCIDA for 2020 at the same 2019 rate of \$2,125 per month effective 1/1/20.

XI. Next Meeting: Wednesday, October 2, 2019 at 4:30 p.m. Legislative Conference Room.

XII. Adjournment – Meeting adjourned at 5:35 p.m.

Respectfully submitted,

Cathy Haskell

IDA Executive Assistant



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**Tioga County IDA
Loan Committee Meeting
September 4, 2019 • 3:30 pm •
Minutes**

Members: S. Thomas, R. Kelsey, A. Gowan, K. Dougherty, D. Barton
Present: S. Thomas, R. Kelsey, D. Barton, A. Gowan
Guests: C. Curtis

Call to Order

New Business

- A. Elston Enterprises, LLC – Patrick Elston – Loan Application
IRP - \$40,000.00 – 5.25% interest rate for 15 years (\$321.55/month)
The loan committee reviewed the loan application provided by Patrick Elston. The loan committee agreed to recommend the application be approved by the TCIDA Board of Directors subject to the following terms and conditions:
- Approval contingent on sufficient appraisal and Citizens and Northern Bank’s final commitment
 - Collateral consists of a second security interest subject and subordinate to Citizens and Northern Bank on the real property located at 138 Main Street, Owego, NY 13827
 - Patrick Elston shall provide evidence of proper property and casualty insurance in an amount sufficient to cover the outstanding debt, with the TCIDA named as a mortgagee and loss payee
 - Patrick Elston shall certify he will comply with the requirements of federal and state laws concerning civil rights, the environment, flood protection insurance, and the Americans with Disabilities Act
 - Key Person Life Insurance on Patrick Elston, at least in the amount of outstanding debt and assigned to the TCIDA shall be provided
 - Patrick Elston and Kristen Weisbrod shall provide their unconditional personal guarantees
- (A. Gowan, D. Barton)
Aye – 4 Abstain – 0
No – 0 Carried.
- B. Manuel’s Pallets & Crates – Loan Application
RBEG - \$17,000.00 – 3.25% interest rate for 5 years (\$307.36/month)
The loan committee reviewed the loan application provided by Dana, Heather, Jesse, and Josh Manuel. The loan committee agreed to recommend the application be denied due to credit history.
(D. Barton, R. Kelsey)
Aye – 4 Abstain – 0
No – 0 Carried.

Adjourned: Meeting adjourned at 4:00 pm.

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**Tioga County IDA
Finance Committee Meeting
September 23, 2019 • 4:00 pm •
Minutes**

Members: R. Kelsey, A. Gowan, K. Gillette

Present: R. Kelsey, A. Gowan, K. Gillette

Guests: C. Curtis

Call to Order

New Business

A. 2020 PARIS Budget

1. Proposed 2020 PARIS Budget reviewed with no changes requested.

Adjourned: Meeting adjourned at 4:30 pm.

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**Tioga County IDA
Governance Committee Meeting
September 23, 2019 • 11:00 am •
Minutes**

Members: J. Ceccherelli, A. Gowan, R. Kelsey

Present: J. Ceccherelli, R. Kelsey

Guests: C. Curtis, L. Tinney

Call to Order

New Business

- A. C. Curtis Employee Evaluation
 - 1. Evaluation form dated 8/20/2019 reviewed and goals discussed
- B. C. Curtis Time Tracking
 - 1. L. Tinney will review and sign C. Curtis' time tracking on a bi-weekly basis
- C. C. Curtis Compensation
 - 1. C. Curtis requested Governance Committee review of compensation schedule
- D. Executive Assistant Duties and Compensation
 - 1. Governance Committee will review duties and compensation associated with Executive Assistant position

Adjourned: Meeting adjourned at 12:30 pm.

Tioga County Industrial Development Agency

Balance Sheet

As of September 30, 2019

	Sep 30, 19	Sep 30, 18	\$ Change
ASSETS			
Current Assets			
Checking/Savings			
Restricted Cash Accounts			
Community- Facade Improvement	95,587.30	54,279.79	41,307.51
CCTC- Industrial Park	11,995.37	11,995.37	0.00
USDA Funds			
CCTC- Loan Loss Reserve	40,438.20	40,419.58	18.62
TSB- IRP 2016 (Formerly IRP 4)	131,204.64	197,160.36	-65,955.72
TSB- RBEG	127,966.77	205,543.19	-77,576.42
TSB- marketing	1,477.74	1,477.33	0.41
Total USDA Funds	<u>301,087.35</u>	<u>444,600.46</u>	<u>-143,513.11</u>
Total Restricted Cash Accounts	408,670.02	510,875.62	-102,205.60
CCTC- CDs			
Land Acquisition (879)	534,542.01	528,439.10	6,102.91
Capital Improvement (284)	315,216.99	310,716.91	4,500.08
Total CCTC- CDs	849,759.00	839,156.01	10,602.99
Temporarily Restricted Cash Acc			
TSB-Owego Gardens	22,661.35	22,168.35	493.00
TSB-Crown Cork and Seal	300,105.67	300,134.21	-28.54
Community- BestBuy PILOT Acct.	570,244.20	570,153.58	90.62
Total Temporarily Restricted Cash Acc	893,011.22	892,456.14	555.08
Unrestricted Cash Accounts			
TSB ICS	2,348,202.84	2,125,683.40	222,519.44
TSB- checking	3,277,325.32	3,101,479.41	175,845.91
TSB- general fund	125,585.80	125,493.62	92.18
Total Unrestricted Cash Accounts	<u>5,751,113.96</u>	<u>5,352,656.43</u>	<u>398,457.53</u>
Total Checking/Savings	7,902,554.20	7,595,144.20	307,410.00
Other Current Assets			
Accounts Receivable 1300.01	730,888.89	329,158.69	401,730.20
Allowance for Doubtful Accounts	-35,000.00	-35,000.00	0.00
Commercial Facade Loan Program			
Loan Rec - 2017-01-C	36,250.00	43,750.00	-7,500.00
Loan Rec - 2018-03-C	17,500.00	20,937.50	-3,437.50
Loan Rec - 2018-02-C	1,398.00	3,221.25	-1,823.25
Loan Rec - 2018-01-C	6,720.02	8,561.25	-1,841.23
Loan Rec - 2017-03-C	7,820.00	10,820.00	-3,000.00
Loan Rec - 2017-02-C	25,955.26	29,666.80	-3,711.54
Loan Rec - 2016-03-C	9,844.92	13,126.68	-3,281.76
Loan Rec - 2016-02-C	22,916.84	31,250.12	-8,333.28
Loan Rec - 2016-01-C	4,738.80	6,420.26	-1,681.46
Loan Rec - 2015-06-C	10,244.02	14,268.48	-4,024.46
Loan Rec - 2014-01-C	1,864.74	3,899.22	-2,034.48
Loan Rec - 2015-02-C	0.00	-0.08	0.08
Loan Rec - 2015-05-C	8,086.53	11,678.25	-3,591.72
Total Commercial Facade Loan Program	<u>153,339.13</u>	<u>197,599.73</u>	<u>-44,260.60</u>
RBEG			
Loan Rec - RBEG 2019 -06	78,364.69	0.00	78,364.69
Total RBEG	78,364.69	0.00	78,364.69
IRP 4			
Loan Rec - 2019 - 06A	97,955.85	0.00	97,955.85
Loan Rec 2018-02-A	8,407.34	9,750.00	-1,342.66
Loan Rec 2018-01-A	66,469.99	69,931.91	-3,461.92
Loan Rec 2017-05-A	12,702.56	17,479.29	-4,776.73
Loan Rec 2017-04-A	35,469.22	37,495.38	-2,026.16
Loan Rec 2017-03-A	15,775.58	17,618.61	-1,843.03
Loan Rec 2017-02-A	62,910.13	79,082.73	-16,172.60
Loan Rec 2017-01-A	19,599.51	21,763.23	-2,163.72
Loan Rec 2016-01-A	15,205.88	23,283.36	-8,077.48
Loan Rec 2015-03-A	3,649.40	6,129.34	-2,479.94
Loan Rec 2013-02-A	-14.16	926.74	-940.90
Loan Rec 2009-02-A	51,251.58	52,051.58	-800.00
Total IRP 4	<u>389,382.88</u>	<u>335,512.17</u>	<u>53,870.71</u>
IRP 3			
Loan Rec 2013-01-A	0.00	675.45	-675.45
Loan Rec 2007-08-A	22,655.81	29,743.34	-7,087.53
Total IRP 3	22,655.81	30,418.79	-7,762.98
IRP 2			
Loan Rec 2011-03-A	27,751.72	39,120.45	-11,368.73
Total IRP 2	<u>27,751.72</u>	<u>39,120.45</u>	<u>-11,368.73</u>
Total Other Current Assets	<u>1,367,383.12</u>	<u>896,809.83</u>	<u>470,573.29</u>

Tioga County Industrial Development Agency

Balance Sheet

10/01/19

As of September 30, 2019

Accrual Basis

	Sep 30, 19	Sep 30, 18	\$ Change
Total Current Assets	9,269,937.32	8,491,954.03	777,983.29
Fixed Assets			
Land- Mitchell	58,453.51	58,453.51	0.00
Equipment			
2012 computer upgrade	1,436.88	1,436.88	0.00
Equipment - Other	264.00	264.00	0.00
Total Equipment	1,700.88	1,700.88	0.00
Land- Cavataio	2,500.00	2,500.00	0.00
Land-general	601,257.05	584,257.05	17,000.00
Land-Louns			
Lopke	8,993.03	8,993.03	0.00
Town of Nichols	20,000.00	20,000.00	0.00
Hess	259,561.43	259,561.43	0.00
Land-Louns - Other	139,612.53	139,612.53	0.00
Total Land-Louns	428,166.99	428,166.99	0.00
Land 434	376,800.36	376,800.36	0.00
Railroad Improvements	1,979,330.50	1,979,330.50	0.00
Z Accumulated Depreciation	-1,175,790.43	-1,154,503.43	-21,287.00
Total Fixed Assets	2,272,418.86	2,276,705.86	-4,287.00
TOTAL ASSETS	11,542,356.18	10,768,659.89	773,696.29
LIABILITIES & EQUITY			
Liabilities			
Current Liabilities			
Other Current Liabilities			
Accrued Expenses	462,389.00	0.00	462,389.00
2100 - Payroll Liabilities	0.00	1,646.82	-1,646.82
PILOT Payments			
Gateway Owego, LLC	1,500.00	0.00	1,500.00
Crown Cork and Seal	299,971.46	300,000.00	-28.54
+ - 231 Main Town/County	-0.01	-0.01	0.00
Owego Gardens	22,627.00	22,134.00	493.00
School - 231 Main Street	0.01	7,413.19	-7,413.18
231 Main Village	0.00	5,106.53	-5,106.53
CNYOG			
School- CNYOG	0.00	3,012,189.21	-3,012,189.21
CNYOG - Other	3,409,128.66	30,113.46	3,379,015.20
Total CNYOG	3,409,128.66	3,042,302.67	366,825.99
Best Buy PP	570,000.00	570,000.00	0.00
Rynone	44.08	44.08	0.00
Total PILOT Payments	4,303,271.20	3,947,000.46	356,270.74
Total Other Current Liabilities	4,765,660.20	3,948,647.28	817,012.92
Total Current Liabilities	4,765,660.20	3,948,647.28	817,012.92
Long Term Liabilities			
Loan Pay- IRP 4	232,632.80	232,632.80	0.00
Loan Pay- IRP 3	192,027.10	202,342.67	-10,315.57
Loan Pay- IRP 2	123,432.31	134,427.04	-10,994.73
Loan Pay- IRP 1	51,531.31	69,112.00	-17,580.69
Total Long Term Liabilities	599,623.52	638,514.51	-38,890.99
Total Liabilities	5,365,283.72	4,587,161.79	778,121.93
Equity			
Board Designated Funds	1,406,302.63	1,406,302.63	0.00
1110 - Retained Earnings	4,770,357.55	5,771,758.35	-1,001,400.80
Net Income	412.28	-996,562.88	996,975.16
Total Equity	6,177,072.46	6,181,498.10	-4,425.64
TOTAL LIABILITIES & EQUITY	11,542,356.18	10,768,659.89	773,696.29

Tioga County Industrial Development Agency

Profit & Loss Prev Yr. Comparison

10/01/19

Accrual Basis

January through September 2019

	Jan - Sep 19	Jan - Sep 18	\$ Change
Ordinary Income/Expense			
Income			
Refund of Insurance	788.00	0.00	788.00
Loan Interest Income			
IRP 4 - 2019 - 06A	993.20	0.00	993.20
RBEG 2019 -06	794.59	0.00	794.59
IRP 2			
2011-03-A	1,220.42	1,637.99	-417.57
Total IRP 2	1,220.42	1,637.99	-417.57
IRP 3			
2013-01-A	0.00	98.48	-98.48
2007-08-A	1,202.44	1,526.21	-323.77
Total IRP 3	1,202.44	1,624.69	-422.25
IRP 4			
2018-02-A	270.68	0.00	270.68
2018-01-A	1,608.72	1,968.62	-359.90
2017-04-A	1,087.14	1,146.91	-59.77
2017-03-A	275.80	344.47	-68.67
2017-05-A	277.03	370.59	-93.56
2017-01-A	341.48	434.22	-92.74
2017-02-A	1,158.65	1,606.76	-448.11
2016-01-A	697.92	994.61	-296.69
2015-03-A	135.68	274.80	-139.12
2013-02-A	0.00	77.86	-77.86
2010-02-A	148.01	0.00	148.01
Total IRP 4	6,001.11	7,218.84	-1,217.73
Loan Interest Income - Other	572.27	0.00	572.27
Total Loan Interest Income	10,784.03	10,481.52	302.51
Loan Program Fee			
Facade	0.00	100.00	-100.00
IRP 4	1,950.00	2,347.50	-397.50
RBEG	150.00	0.00	150.00
Loan Program Fee - Other	0.00	200.00	-200.00
Total Loan Program Fee	2,100.00	2,647.50	-547.50
Loan Late Fee			
2018-01-C	5.00	0.00	5.00
2015-03 - 2015-03-A	60.00	30.00	30.00
Loan Late Fee - Other	0.00	15.99	-15.99
Total Loan Late Fee	65.00	45.99	19.01
4110 - Grants			
Waverly Trade Center DOT Grant	10,880.00	73,443.06	-62,563.06
4110 - Grants - Other	465,000.00	1,696,136.00	-1,231,136.00
Total 4110 - Grants	475,880.00	1,769,579.06	-1,293,699.06
Interest Income-			
Interest Income- TSB ICS	14,250.88	5,683.40	8,567.48
Community- Facade Improvement	25.81	32.06	-6.25
CCTC Loan Loss Reserve Account	13.41	15.13	-1.72
Community- Lounsberry	80.96	85.92	-4.96
TSB- checking	260.27	345.14	-84.87
TSB-general fund	66.87	160.26	-93.39
TSB- IRP 4	37.55	54.88	-17.33
TSB- RBEG	35.23	46.76	-11.53
TSB- marketing	0.30	0.33	-0.03
Total Interest Income-	14,771.28	6,423.88	8,347.40

Tioga County Industrial Development Agency

Profit & Loss Prev Yr. Comparison

January through September 2019

Accrual Basis

	Jan - Sep 19	Jan - Sep 18	\$ Change
Leases/Licenses	11,307.00	11,998.08	-691.08
OHRy freight	76,140.20	108,801.60	-32,661.40
Total OHRy	76,140.20	108,801.60	-32,661.40
4170 - PILOT Program Fees			
V&S NY Galvanizing LLC	84,131.50	0.00	84,131.50
Gateway	16,416.39	0.00	16,416.39
SUN8 PDC LLC	0.00	288,073.00	-288,073.00
Owego Garden - Home Leasing	2,500.00	0.00	2,500.00
Best Buy	2,500.00	0.00	2,500.00
4170 · PILOT Program Fees - Other	0.00	2,500.00	-2,500.00
Total 4170 · PILOT Program Fees	105,547.89	290,573.00	-185,025.11
Total Income	697,383.40	2,200,550.63	-1,503,167.23
Expense			
IDA Paint Program			
2019 · 2019	1,000.00	0.00	1,000.00
2018	0.00	1,523.47	-1,523.47
Total IDA Paint Program	1,000.00	1,523.47	-523.47
66900 · Reconciliation Discrepancies	0.00	-0.02	0.02
Grant Expense	465,000.00	17,595.10	447,404.90
WWTP Crown Cork and Seal	0.00	-18,633.74	18,633.74
Marketing	0.00	710.38	-710.38
Waverly Trade Center DOT Grant	10,880.00	73,443.06	-62,563.06
Tioga Industrial Park Corporate Drive	0.00	5.00	-5.00
Total Tioga Industrial Park	0.00	5.00	-5.00
Education			
Haskell	139.00	0.00	139.00
Curtis	309.00	0.00	309.00
Education - Other	50.00	3,501.80	-3,451.80
Total Education	498.00	3,501.80	-3,003.80
Loan Admin Fee			
IRP 4	0.00	0.00	0.00
Total Loan Admin Fee	0.00	0.00	0.00
Loan Program Expense	60.00	132.65	-72.65
6120 · Bank Service Charges			
Check order			
TSB IRP 4	57.30	0.00	57.30
TSB RBEG	57.30	0.00	57.30
Total Check order	114.60	0.00	114.60
6120 · Bank Service Charges - Other	60.00	175.20	-115.20
Total 6120 · Bank Service Charges	174.60	175.20	-0.60
Copies	489.40	392.36	97.04
6160 · Dues and Subscriptions	1,710.00	1,580.00	130.00
E=mt3			
site preparation	0.00	200.00	-200.00
Total E=mt3	0.00	200.00	-200.00
Employee benefit			
IRA Company Match	1,029.84	1,379.12	-349.28
IRA	0.00	1,508.33	-1,508.33

Tioga County Industrial Development Agency

Profit & Loss Prev Yr. Comparison

January through September 2019

10/01/19

Accrual Basis

	Jan - Sep 19	Jan - Sep 18	\$ Change
Total Employee benefit	1,029.84	2,887.45	-1,857.61
6180 · Insurance			
WC (Utica)	663.00	0.00	663.00
Travel/Accident (Hartford)	750.00	750.00	0.00
D & O (Philadelphia Ins. Co)	3,292.00	3,287.00	5.00
6190 · Disability (First Rehab Life)	157.04	0.00	157.04
Employee Health (SSA)	3,501.68	2,992.64	509.04
6185 · Property & Liability (Dryden)	9,803.08	11,719.00	-1,915.92
RR Liability (Steadfast)	19,923.84	20,883.84	-960.00
WC (Amtrust)	788.00	533.00	255.00
Total 6180 · Insurance	38,878.64	40,165.48	-1,286.84
6200 · Interest Expense			
6210 · Finance Charge	0.00	0.39	-0.39
6220 · Loan Interest			
IRP 3	0.00	0.21	-0.21
Total 6220 · Loan Interest	0.00	0.21	-0.21
6200 · Interest Expense - Other	6,385.15	6,770.20	-385.05
Total 6200 · Interest Expense	6,385.15	6,770.80	-385.65
6240 · Miscellaneous	602.66	0.00	602.66
6550 · Office Supplies			
other	173.32	176.73	-3.41
6550 · Office Supplies - Other	861.26	581.67	279.59
Total 6550 · Office Supplies	1,034.58	758.40	276.18
6560 · Payroll Expenses			
Payroll Expenses - HSA	900.00	0.00	900.00
M. Tinney	0.00	1,480.28	-1,480.28
6560 · Payroll Expenses - Other	31,270.38	46,561.38	-15,291.00
Total 6560 · Payroll Expenses	32,170.38	48,041.66	-15,871.28
PILOT Program Expenses			
Distributed Sun	0.00	305.00	-305.00
Total PILOT Program Expenses	0.00	305.00	-305.00
6250 · Postage and Delivery	110.04	88.44	21.60
6270 · Professional Fees			
Ag Ec Dev Specialist Position	4,131.00	0.00	4,131.00
Administrative Services			
Tinney, M	2,300.00	0.00	2,300.00
Haskell	6,200.00	6,828.00	-628.00
Tinney	17,000.00	13,500.00	3,500.00
Total Administrative Services	25,500.00	20,328.00	5,172.00
6650 · Accounting			
Piaker & Lyons	0.00	9,500.00	-9,500.00
Jan Nolis	3,291.25	2,183.75	1,107.50
6650 · Accounting - Other	12,500.00	0.00	12,500.00
Total 6650 · Accounting	15,791.25	11,683.75	4,107.50
6655 · Consulting	0.00	19,500.00	-19,500.00
6280 · Legal Fees			
Loan Program Fees	0.00	1,369.25	-1,369.25
Special Project Fees	18,000.00	0.00	18,000.00
6280 · Legal Fees - Other	30,868.50	30,319.50	549.00
Total 6280 · Legal Fees	48,868.50	31,688.75	17,179.75

Tioga County Industrial Development Agency

10/01/19

Profit & Loss Prev Yr. Comparison

Accrual Basis

January through September 2019

	Jan - Sep 19	Jan - Sep 18	\$ Change
6270 · Professional Fees - Other	8,744.94	29,134.50	-20,389.56
Total 6270 · Professional Fees	103,035.69	112,335.00	-9,299.31
6670 · Program Expense			
Water Tower	30,547.25	0.00	30,547.25
Total 6670 · Program Expense	30,547.25	0.00	30,547.25
Property Taxes			
96 · Smith Creek Rd	181.63	2,197.55	-2,015.92
540 · Stanton Hill	21.03	81.74	-60.71
Spring St	0.25	0.22	0.03
Berry Road (47)	106.32	97.94	8.38
Carmichael Road	3.95	3.74	0.21
Smith Creek Road	17.66	16.27	1.39
Glenmary Drive	11.03	10.06	0.97
Metro Road	9.19	8.39	0.80
Total Property Taxes	351.06	2,415.91	-2,064.85
Real Estate Taxes	2,357.00	0.00	2,357.00
Recording fees	0.00	1,215.00	-1,215.00
6770 · Supplies			
6790 · Office	0.00	518.49	-518.49
6770 · Supplies - Other	127.70	0.00	127.70
Total 6770 · Supplies	127.70	518.49	-390.79
6340 · Telephone	160.04	240.06	-80.02
6350 · Travel & Ent			
6370 · Meals	0.00	325.93	-325.93
6380 · Travel	188.25	797.34	-609.09
6350 · Travel & Ent - Other	180.84	0.00	180.84
Total 6350 · Travel & Ent	369.09	1,123.27	-754.18
Total Expense	696,971.12	297,490.22	399,480.90
Net Ordinary Income	412.28	1,903,060.41	-1,902,648.13
Other Income/Expense			
Other Expense			
Transferred Assets	0.00	2,899,623.29	-2,899,623.29
Total Other Expense	0.00	2,899,623.29	-2,899,623.29
Net Other Income	0.00	-2,899,623.29	2,899,623.29
Net Income	412.28	-996,562.88	996,975.16

Tioga County Industrial Development Agency

10/01/19

Transaction Detail by Account

Accrual Basis

September 2019

Type	Date	Num	Name	Memo	Amount
Restricted Cash Accounts					
Community- Facade Improvement					
Deposit	09/04/2019			Loan Payment	299.31
Deposit	09/04/2019			Loan Payment	625.00
Deposit	09/10/2019			Loan Payments	1,384.84
Deposit	09/10/2019			Deposit	319.54
Deposit	09/19/2019			Loan Payment	273.48
Total Community- Facade Improvement					2,902.17
USDA Funds					
TSB- IRP 2016 (Formerly IRP 4)					
Deposit	09/04/2019			Loan Payments	917.35
Deposit	09/10/2019			Loan Payments	4,925.82
Deposit	09/10/2019			Loan Application Fee	150.00
Total TSB- IRP 2016 (Formerly IRP 4)					5,993.17
TSB- RBEG					
Deposit	09/10/2019			Loan Payment	809.97
Total TSB- RBEG					809.97
Total USDA Funds					6,803.14
Total Restricted Cash Accounts					9,705.31
Unrestricted Cash Accounts					
TSB- checking					
Check	09/03/2019	6320	Cathy Haskell	Administrative Assistance Aug 2019 I...	-775.00
Check	09/03/2019	6321	LeeAnn Tinney	Prof Services: Sep 2019	-2,125.00
Check	09/03/2019	6322	Christine E Curtis	Pay Period: 08/18/2019 - 8/31/2019	-1,240.77
Deposit	09/04/2019			Loan App Fee	150.00
Check	09/04/2019	6323	Christine Curtis	Mileage Reimbursement 5-22-19 thru...	-180.84
Check	09/18/2019	6324	Christine E Curtis	Pay Period: 09/01/2019 - 09/14/2019	-1,240.77
Check	09/18/2019	6325	Franklin Temple...	Christine E Curtis; Simple IRA Septe...	-196.16
Check	09/18/2019	X	EFTPS	Sep 2019 Federal Tax Deposit	-732.56
Check	09/18/2019	X	NYS Division of ...	Sep 2019 State Tax Deposit	-125.22
Check	09/18/2019	6326	Jan Nolis, CPA	Professional Time 1.75 hours; reconc...	-175.00
Check	09/18/2019	6327	Tioga County	Sep Wireless Charges - IT Invoice #2...	-40.01
Check	09/18/2019	6328	Tioga County	Copier Lease Billing	-2.90
Deposit	09/18/2019			OHRV	7,678.50
Check	09/20/2019	6329	State Comptroller	Introduction to Gov Accounting - C.C...	-170.00
Check	09/20/2019	X	Intuit	check order	-173.32
Check	09/23/2019	6330	Tioga County C...	2019 Economic Forum - C. Curtis att...	-25.00
Check	09/23/2019	6331	Excellus Health ...	2019 Health Insurance - Oct - C.Curti...	-437.71
Check	09/24/2019	6332	Utica National I...	Acc# 203167808 Workers Comp Poli...	-663.00
Deposit	09/25/2019			Deposit	788.00
Deposit	09/25/2019			PILOT Payment	3,134,157.17
Total TSB- checking					3,134,470.41
Total Unrestricted Cash Accounts					3,134,470.41
TOTAL					3,144,175.72

EXECUTIVE SUMMARY

Tioga County Housing and Community Investment Initiative



July 2019



Payne-Corveleyn Consulting Team

Susan Payne

Strategic Planning and Economic Development Consultant

Elisabeth Corveleyn

Strategy, Market Analytics and Planning Consultant

Tioga County Housing and Community Investment Initiative

Executive Summary: Recommendations

Tioga County Housing and Community Investment Initiative Recommendations

Initiated in December of 2018 and funded by a USDA grant to the Tioga County Rural Economic Area Partnership (REAP) Zone, the Tioga County Housing and Community Investment Initiative addresses the need for revitalization of neighborhoods and community cores expressed in the 2017 Tioga County Housing Study. A project summary of the initiative's vision, goal, objectives and recommendations for strategy implementation recommendations issued in June 2019 follows:

Vision of the Investment Initiative:

Tioga County communities will achieve balance and sustainability in their social and economic fabrics and enhance the potential for their future vibrancy.

Goal of the Investment Initiative:

Tioga County communities will strengthen community cores and create a quality mix of residential neighborhoods that will play a key role in attracting and retaining a quality workforce, create pathways to home ownership while also addressing the needs of the aging population, and increase property values.

Strategic Objectives:



1. Respond to the need for a mixed-income housing stock that reflects the population's social and economic characteristics and functions as an effective tool in attracting and retaining a talented workforce.
2. Focus on retention of the prime workforce (24 – 45 yrs.).
3. Set a path to home ownership.
4. Address the housing and community transition associated with an aging population.
5. Enhance the quality of life that makes the community core and neighborhoods attractive to current and prospective residents.
6. Reverse less desirable housing conditions in neighborhoods that lead to depreciation and downward price pressure, and that drive qualified buyers away from neighborhoods.

Summary of Recommendations:

1. Proactively implement the philosophy that neighborhood revitalization is the core of success.
2. Utilize tools effective in neighborhood revitalization.
3. Actively involve key constituency groups.
4. Create a comprehensive new home buyer education and pipeline program that leverages existing programs and resources.
5. Collaborate with NYS and Tioga County government agencies, regulatory agencies and community organizations to maximize the effectiveness of tools and resources available to support the local and county-wide investment strategies.
6. Pursue funding sources to support projects and seed the organizational structure.
7. Assemble community investment projects.
8. Develop and implement a county-wide communication program to promote the initiative and opportunities for homeowners, prospective homeowners and developers.
9. Annually assess performance and report progress to investors and the community.
10. Establish an organizational structure.

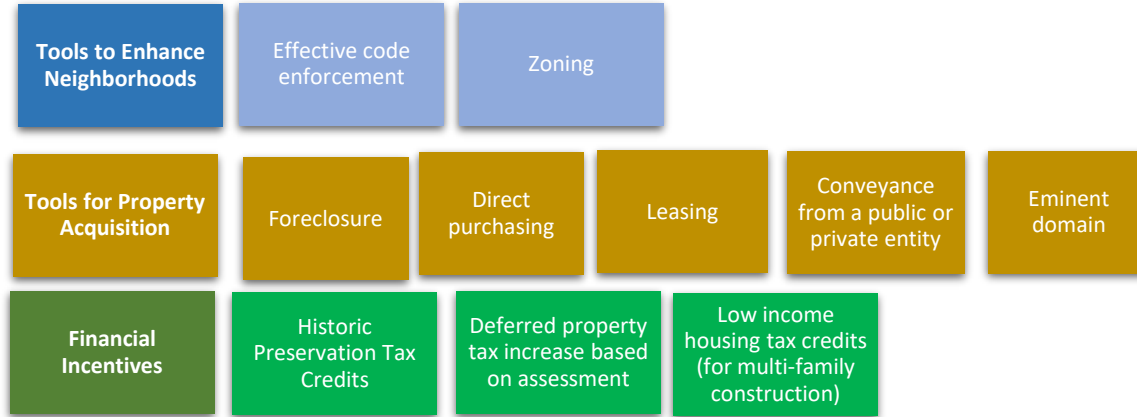
Recommendation Detail

1. Proactively Implement the Philosophy that Neighborhood Revitalization is the Core of Success

- Adopt and practice the philosophy that an attractive and well-maintained mixed-income neighborhood ensures that low-income and moderate-income residents can afford to remain in their neighborhood, but that also draws new residents from across the income spectrum.
- Develop and implement a strategy unique to each target neighborhood that not only addresses the need for demolition and new construction, but also calls for the preservation of existing housing through rehabilitation of single and multi-family housing units, and also preservation and promotion of rental housing for low and moderate-income residents.
- Follow the assessment and prioritization process used in the model communities: Villages of Newark Valley, Owego and Waverly. Begin by designating specific areas or neighborhoods that have the potential to thrive if investments in housing and infrastructure are made. As each neighborhood is identified, conduct an assessment of housing, basic infrastructure conditions (sidewalks, lighting, streets), assets such as parks and schools, current home values and rate of sales, status of properties in foreclosure, areas of blight and more. As appropriate, target conversion of multi-family units back to single-family homes to restore the neighborhood and increase property values.
- Keep focused on the block-by-block revitalization strategy because:
 - The value of a home in a compact neighborhood is more affected by the condition of adjacent houses than in a lower-density suburban neighborhood.
 - Conversely, an increase in the condition of a house in a compact neighborhood has greater positive impact on its neighbors than in a lower density area.
 - There are even greater consequences in stagnant markets with little possibility for houses to appreciate in value.
 - When housing becomes available through the normal turn-over process it is often in need of substantial renovation and updating to meet the expectations of home buyers ... *“Move in Ready.”*

- Take the “whole house approach” to revitalization rather than making piecemeal repairs. If it is determined necessary, engage technical services to conduct a block-by-block assessment and rating of the level of rehabilitation required for housing (single-family and multi-family) in the target neighborhoods.
- Actively seek funding to implement local infrastructure upgrades in the target neighborhoods such as demolition, streetscape improvements, infrastructure repairs and upgrades, and creation of shovel-ready sites for new construction.

2. Utilize Tools Effective in Neighborhood Revitalization



3. Actively Involve Key Constituency Groups

- Tioga County Economic Development and Planning (TCED&P)
- Tioga County Industrial Development Agency (IDA)
- Tioga County Local Development Corporation (TCLDC)
- Tioga County Property Development Corporation (Land Bank)
- Tioga Opportunities, Inc. (TOI)
- Resources such as Arbor Housing and Bishop Sheen
- Local municipalities
- Local developers
- Banks
- Realtors
- Major employers
- School districts

4. Create a Comprehensive Home Buyer Education and Pipeline Program that Leverages Existing Programs and Resources

- Create a county-wide central resource for homeowner assistance to leverage all of the programs available to existing and new homeowners.
- Establish an aggressive county-wide homeowner and prospective homeowner outreach and education program that provides information about the wide range of financing programs available through New York State, Veteran programs, and banks.
- Develop a first-time homebuyer pipeline program that targets prospective home buyers at all income levels; with a particular emphasis on families transitioning from subsidized housing assistance.

Leverage Agencies that Offer Counseling, Homeowner Assistance and Housing Rehabilitation Programs. Examples:

Tioga Opportunities, Inc. administers home improvements programs such as the Weatherization Assistance Program (WAP) and EmPower New York that provides free energy efficiency upgrades to homes for qualified homeowners and landlords.

Arbor Housing & Development is a chartered member of [NeighborWorks America](#). Arbor Housing and Development's Community Revitalization projects have successfully combined residential and retail spaces in downtown areas thanks to grants from the NYS Division of Housing and Community Renewal as well as other funders. Arbor also provides extensive counseling services such as [Pre-purchase/Credit Counseling: educating people on how to improve their credit scores and prepare for homeownership.](#) [Post Purchase Counseling: helping people transition from renting to owning.](#) [Delinquency and Foreclosure Counseling: helping people resolve their mortgage delinquency issues.](#) [Reverse Mortgage Counseling: educating seniors on how to make the best use of the equity in their homes.](#) Funds from an AHC entity (Bishop Sheen Ecumenical Housing Foundation, Inc. serves Tioga County) for Home Improvement grants of up to \$40,000 for homeowners. AHC utilizes the annual [HUD low income limits](#) as a baseline; however, there is a tiered structure for determining income qualifications, which varies with each project.

The Bishop Sheen Ecumenical Housing Foundation serves Chemung, Schuyler, Seneca and Tioga Counties. Bishop Sheen administers the new NYS **Southern Tier and Finger Lakes Storm and Flood Recovery Program** created to provide funding to primary homeowners whose damages exceed insurance claims and other available aid. With maximum grants of \$50,000, the program will help eliminate the unmet need of homeowners. The program will be administered by New York State Homes and Community Renewal.

The initiative recommendations also include utilization of the many New York State Housing Financing Programs for purchase and revitalization of housing stock.

5. Collaborate with NYS and county-wide government agencies, regulatory agencies and community organizations to maximize the effectiveness of tools and resources available to support the local and county-wide investment strategies. Examples of New York State programs include:

- Opportunity Zones (currently limited to Census Tract #36107020701 in the Town & Village of Spencer and Census Tract #36107020600 in the Town/Village of Nichols and Town of Tioga).
- NYS's new (2019) program for housing rehabilitation. Village of Waverly received an award of \$500,000 through CDBG to support the rehabilitation activities of 17 homeowners.
- NYS HCR's Middle-Income Housing Program (MIHP) for new construction of rental units.
- NY Main Street Grants.

6. Pursue Funding Sources to Support Projects and Seed the Organizational Structure

- Area foundations such as Tioga Downs Foundation.
- Major employers. Also, leverage employee incentives (i.e., housing relocation package).
- Federal and NYS grant programs such as ARC and CDBG.
- Funds derived from various assessments that may be imposed by a special district.
- Government (county and/or local) capital improvement fund established by the Tioga County Legislature.
- Loan guarantees from federal and state programs. Example: Business improvement district borrows from a bank to acquire or rehabilitate a property and obtains a USDA loan guarantee to make the bank loan possible.
- Loan loss reserve/guarantees to spur banks, Community Development Financial Institutions (CDFI), and credit to make loans to low- and moderate-income homeowners with property maintenance needs related to foreclosure or delinquency or otherwise unable to qualify for repair financing.
- Federal Home Loan Banks' (FHL Bank) housing and community investment programs: **Affordable Housing Program (AHP)**, **Community Investment Program (CIP)**, **Community Investment Cash Advance Program (CICA)** and **Community Support Program (CSP)**.

7. Assemble “Community Investment” Projects

- Create a “market ready” program – a collaboration between the Land Bank or other administrative entity, together with major investors (such as employers) and developers (both private and non-profit, such as the entity being considered by TOI).
- Work with area employers and local developers to develop community investment projects.

8. Develop and Implement a County-wide Communication Program to Promote the Initiative and Opportunities for Homeowners, Prospective Homeowners and Developers

9. Annually Assess Performance and Report Progress to Investors and the Community At-large

- Adopt metrics to measure success.
 - Change in the number and status of vacant houses (single and multi-family) in target areas: sold, rehabilitated and demolished.
 - Change in the number of vacant houses occupied Village-wide and in a target area.
 - Total dollars invested in house rehabs, new residential construction, and improvements in the community/downtown core.
 - Number of vacant mixed-use properties purchased and rehabilitated.
 - Change in property values Village-wide and in a target neighborhood.
 - Change in the number of single and multi- family houses valued at \$50,000 or less.
 - Change in rate of sales and value of residential properties (all home sales).
 - Change in the rate of sales and value of mixed-use and commercial properties in the community core.
- Establish benchmarks from which to measure progress.
- Prepare an annual report (digital and PPT) and distribute it widely throughout the county.

10. Establish an Organizational Structure to Drive the Overall Strategy

Develop an organizational structure to drive implementation of the strategy. The Task Force agreed that the Tioga County Housing and Community Investment Initiative should be driven by a public-private partnership committed to targeted investment in rehabilitation of the existing housing stock and new construction to meet the housing needs of various target market groups throughout the county and strengthen the long-term stability of the communities. It will be a “creative alliance” formed between government entities, nonprofit community organizations, property owners and private developers, employers, school districts, financial institutions and other community stakeholders to achieve a common purpose.

These groups have a shared vision to achieve the following objectives.

- Stabilize and strengthen the tax base.
- Retain population base.
- Attract new residents.
- Meet the needs of the employers in their efforts to attract and retain talent.
- Revitalize neighborhoods resulting in mixed-income housing that ensures low and moderate-income residents can afford to remain in the neighborhood but that also draws new residents from across the income spectrum.

The investment model is based on a strong collaborative relationship among the various partners using a combination of cash investments in property acquisition and revitalization in targeted neighborhoods, regulatory enforcement, leveraging external resources and financing tools, and programs to inform property owners of opportunities. The model requires a strong leadership organization that is focused on achieving the overall objectives, soundly investing property and cash resources, securing active participation by Tioga County and the local municipalities for regulatory enforcement and property acquisition, maintaining a close working relationship with the Tioga County Property Development Corporation (Land Bank), and leveraging housing revitalization programs available through organizations such as Tioga Opportunities, Inc., Bishop Sheen, and Arbor Housing.

A critical ingredient of success of the organizational structure will be to effectively employ a multi-faceted financial strategy that leverages investments from the public and private sectors including local municipalities, developers, major employers, financial institutions, external grant sources, and Federal and New York State financing programs that provide incentives for property owners to purchase and renovate houses, as well as developers of single and multi-family housing. These resources paired with well-informed realtors and employer incentives will serve as motivations for individual property owners and developers to invest in Tioga County communities.

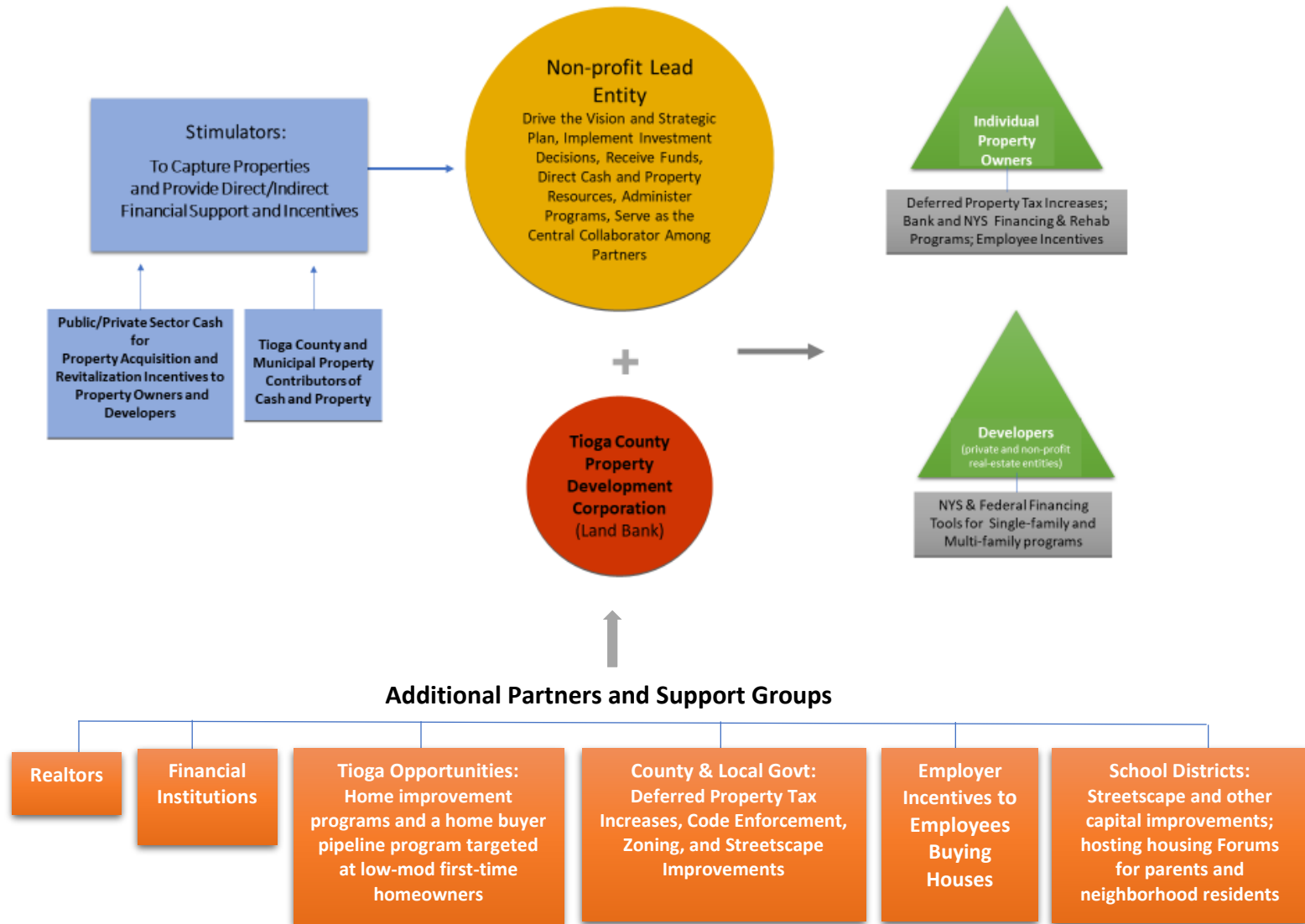
Strong community cores and neighborhood anchors also are essential to achieving the overall goals of the initiative. In many communities this will be accomplished through the school districts and their neighborhood schools. Investments by the school districts in their campus amenities and streetscapes serve as a major influence on the character and financial stability of a neighborhood.

A critical ingredient of success of the organizational structure will be to effectively employ a multi-faceted financial strategy that leverages investments from the public and private sectors including local municipalities, developers, major employers, financial institutions, external grant sources, and Federal and New York State financing programs that provide incentives for property owners to purchase and renovate houses, as well as developers of single and multi-family housing. These resources paired with well-informed realtors and employer incentives will serve as motivations for individual property owners and developers to invest in Tioga County communities.

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Overall Organization Structure

Successful public/private partnerships function as a four-legged stool. They involve government and quasi-government entities, independent nonprofit organizations, for-profit interests, investors and stakeholders.



Principles of Success

The starting point of a successful public-private partnership is for all partners to agree upon a shared set of objectives and an understanding of motivations, expectations, financial roles, and other commitments.

1. Remain vigilant on implementation of the action steps necessary to achieve the shared vision and overall goal of the initiative.
2. Make certain there is continuous and strong leadership representing the partners and stakeholders.
3. Merge public and private interests and build adequate resources to make the initiative truly impactful.
4. Actively engage the partners in decision-making.
5. Create and constantly update a plan for revitalization showing targeted areas for investment opportunities. In addition, the administrative entity together with the public partners must development goals and resources, including commitments for inducements and incentives for prioritized projects in the plan. This specificity will enable developers to understand the scope of the development opportunities in Tioga County.
6. Have the financial capital available to invest in overall housing rehabilitation and specific projects.
7. Make sure building codes and other regulations together with enforcement support revitalization effort.
8. Capture properties and have targeted sites in hand to quickly facilitate revitalization or new development.
9. Have a mutual understanding of the risks and benefits of the initiative and individual projects, and the need to work together to overcome significant obstacles and challenges.
10. Establish a clear and rational decision-making process. Agreement on process helps ensure that partnerships establish effective policies and implement them efficiently and collaboratively.
11. Allow for incremental “baby step” decision making.
12. Create checks and balances, and a mechanism to continuously assess the effectiveness of decisions and implementation procedures.
13. Continue due diligence on proposals for loans and grants, particularly on large projects.
14. Create a pipeline for home ownership.
15. Keep the residents informed about opportunities for them as property owners and of the initiative’s successes.

Agree on the Terms of Success

What distinguishes a public/private partnership is a shared vision, a mutually agreed upon set of objectives, a realistic investment strategy, and a close working relationship based on collaboration.



Workforce Development Pipeline Strategy

Tioga County

Identifying the Labor & Talent Supply Key Findings

May 2019



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Data Sources

All the data discussed or shown in graphs and charts throughout the report are compiled from the following sources:

- United States Census Bureau American Community Survey Estimates
- United States Census Bureau County Business Patterns
- United States Census Bureau Longitudinal Employer-Household Dynamics Statistics
- United States Census Bureau of Labor Statistics Occupational Employment Survey Estimates
- Chmura JobsEQ® Platform Industry and Occupation Snapshot Estimates
- Cornell University. Program of Applied Demographics
- World Health Organization Global Health Expenditure database

The above information (where applicable) was collected for the following geographic descriptions:

- United States
- New York
- The Southern Tier Region (Broome County, Chemung County, Chenango County, Delaware County, Schuyler County, Steuben County, Tioga County and Tompkins County).
- Tioga County



1. Executive Summary

The continuous changes in the global economy, the new technological advancements, and increasing competition have reshaped the demand for workers. Today employment demand requires higher skills and education levels. This rising concern for qualified candidates has embedded itself into the discussion of supply and demand alignment. Today, communities are recognizing the necessity to respond to businesses needs to develop, attract and retain a skilled and reliable labor force. The discussion for workforce development is crucial in economic development and strategic planning. This discussion involves local economic development and workforce development organizations, as well as educational institutions and employers, which work cohesively to meet local labor demands.

Tioga County has chosen this time to undertake a study that will be carried out in two phases. This report reflects the work carried out as Phase 1, and offers a comprehensive data analysis of Tioga's workforce and talent pipeline. It supports a better understanding of the characteristics of the current labor force, the talent needs of local stakeholders, and it examines the link between businesses, education institutions and other stakeholders to strengthen the creation of a highly skilled labor talent pool capable of meeting current and future labor demand.

Phase 2 is slated for early fall 2019, and will result in the development of a comprehensive workforce strategy that builds on the findings of Phase 1, and presents a series of strategic priorities and tangible actions that will address identified challenges and opportunities. The workforce strategy will improve the ability of stakeholders to train, attract, and retain a quality workforce. It will further a sense of collaboration and partnership among stakeholders as they work collectively towards a common goal of labor supply and demand alignment.

Phase 1 combined research and analysis of the current economic and workforce context in Tioga County, the Southern Tier Region, and the State of New York with a comprehensive statistical review and input from 33 local businesses. This study also focused on five key industries for the Tioga County economy. These industries include advanced manufacturing; health care services; warehousing and distribution; hospitality; and professional services.

Among the key findings of this study it is worth noting:

- The population in Tioga County has decreased by 4.8% in the last decade.
- A third of the people in the county are over 55 years of age.
- 8% of the county's total talent supply has not graduated high school. The participation rate of this group reached 56% in 2017, the lowest of all groups; this group also registered the largest unemployment rate with 12%.
- The top employment industry sectors in Tioga are manufacturing (13.6%), educational services (13.6%), retail trade (13.5%) and health care and social assistance (13.1%).
- The sector that added more jobs to Tioga County was accommodation and food services (514 employees), followed by mining, quarrying and oil/gas extraction (175 employees), and real estate, rental, and leasing (171 employees).
- The highest employing occupations in Tioga County are management, business, science, and arts occupations, accounting for 35% of total employment.



- 79% of all establishments in Tioga County employ 1 to 9 people.
- By 2015, 59% of Tioga County's labor force worked outside the region. Only 22% of Tioga County's labor force live and work within the County.
- 30 out of 33 businesses surveyed said they had experienced challenges in recruiting, hiring and retaining talent. According to the respondents, the most difficult occupations to hire or retain are engineers, nurses, and machine operators.



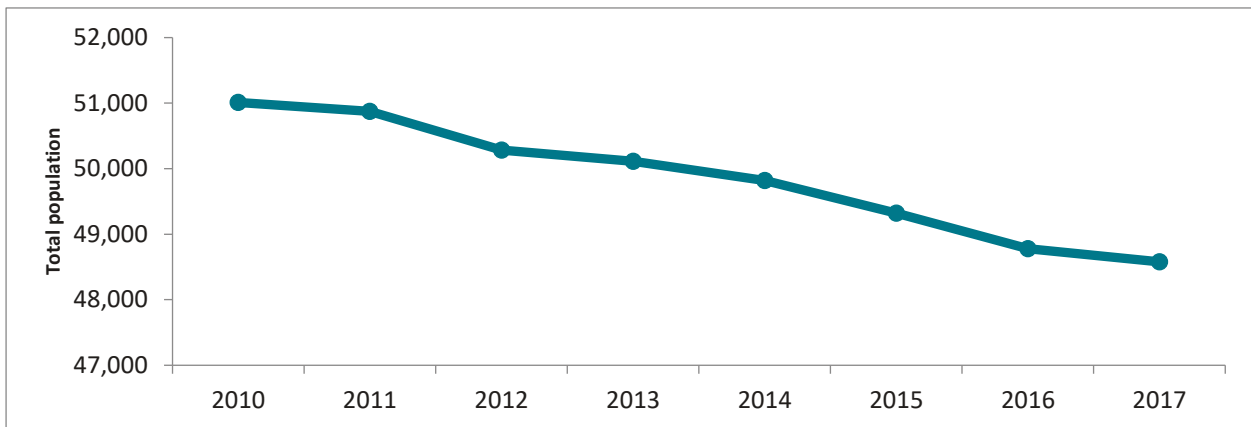
2. Socio-Economic Characteristics

2.1 General Population Characteristics

Tioga County is the 48th largest county by population in the State of New York out of 62 counties. In 2017, the estimated population of Tioga was 48,578 and represented 0.2% of New York's total population of 19.8 million. The population in Tioga County has decreased by 4.8% from 2010 to 2017, a total of 2,432 people.

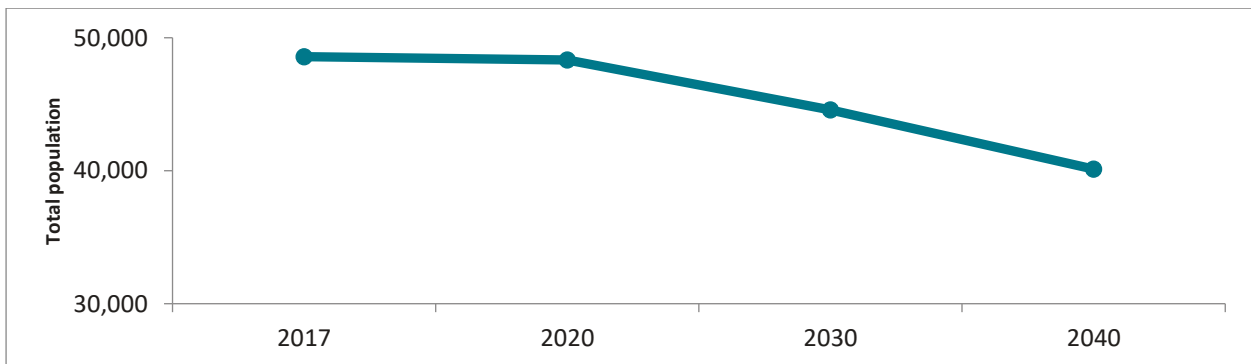
A study conducted by the Program on Applied Demographics of Cornell University projects the population of the County to be 40,121 people by 2040¹, 17% fewer people than in 2017. Figure 1 shows the population estimates for Tioga County from 2010 to 2017 and Figure 2 shows projections from 2017 to 2040.

Figure 1: Population estimates for Tioga County (as of July 1) from 2010 to 2017



Source: U.S. Census Bureau, Population Division

Figure 2: Projected population for Tioga County 2017 to 2040



Source: Cornell University. Program of Applied Demographics. 2017.

¹ Cornell University. Program of Applied Demographics. 2017. Retrieved from <<https://pad.human.cornell.edu/profiles/Tioga.pdf>>



Table 1 shows the population changes for the nine county subdivisions. The largest population fall took place in Berkshire (-15%). The only place in Tioga where the population grew was Nichols (+7%).

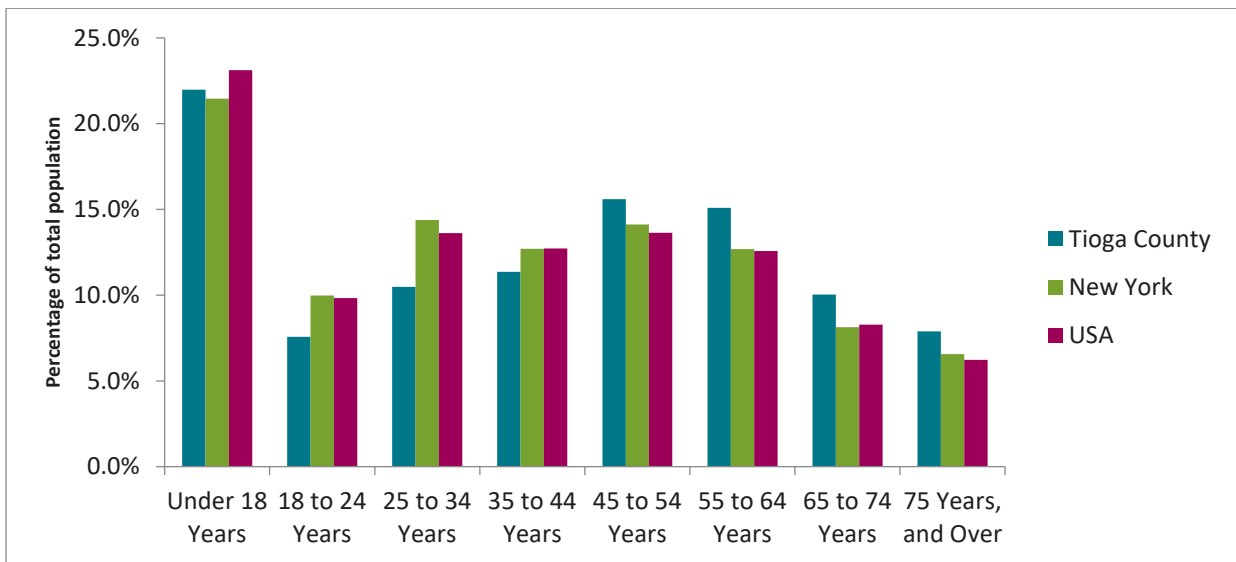
Table 1: Population estimates for county subdivisions (Tioga County, NY) 2010-2017

County subdivisions	2010	2017	Total change	% Change
Barton	8,911	8,599	-312	-4%
Berkshire	1,422	1,213	-209	-15%
Candor	5,321	5,087	-234	-4%
Newark Valley	3,985	3,791	-194	-5%
Nichols	2,533	2,712	179	7%
Owego	20,020	19,092	-928	-5%
Richford	1,160	1,056	-104	-9%
Spencer	3143	3,014	-129	-4%
Tioga	4882	4,758	-124	-3%

Source: U.S. Census Bureau, 2006-2010 American Community Survey

In terms of age, 22% of Tioga’s population is under the age of 18. This share is similar in both New York (21.5%) and the USA (23.1%). Figure 3 shows that the percentage of people 55 and older is 33%, this is 5% higher than the state and the country. On the other hand, the percentage of people in the core working ages (18-55) is lower in Tioga (45%) than it is New York (51.2%) and the USA (49.8%).

Figure 3: Share of the total population in Tioga County, New York State and USA by age group, 2017

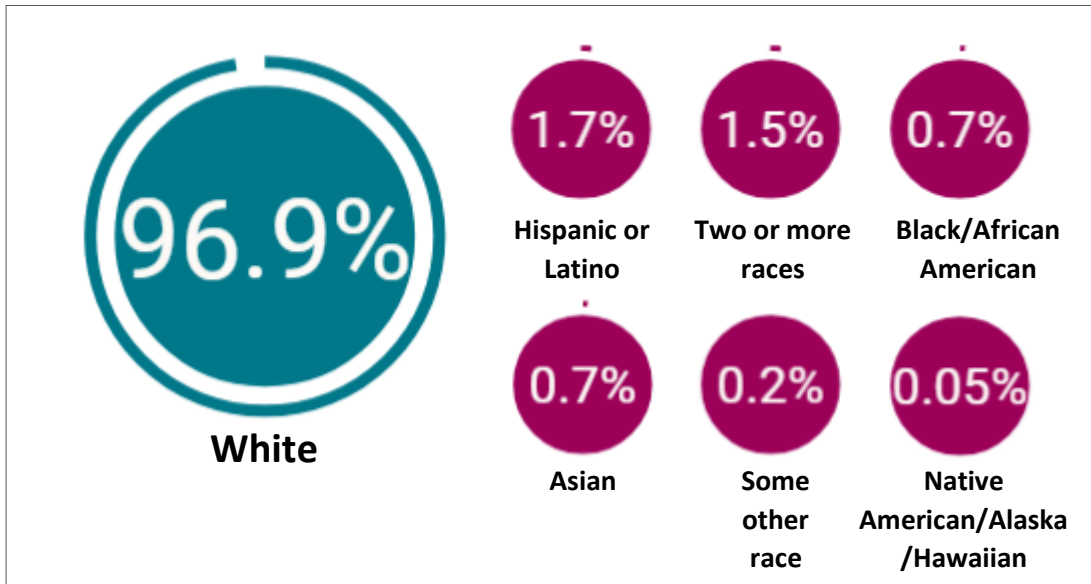


Source: Source: Chmura JobsEQ®

The racial composition of a community is an important social characteristic to identify the diverse needs of its population. Tioga’s population is mostly white. This group makes up 96.9% of the county’s population. The second largest ethnic groups are Hispanics and Latinos with approximately 1.7%, followed by people with two or more races with 1.5%. The rest of the ethnic groups in Tioga represent less than 1% of the total population.



Figure 4: Share of the total population in Tioga County by detailed race, 2017

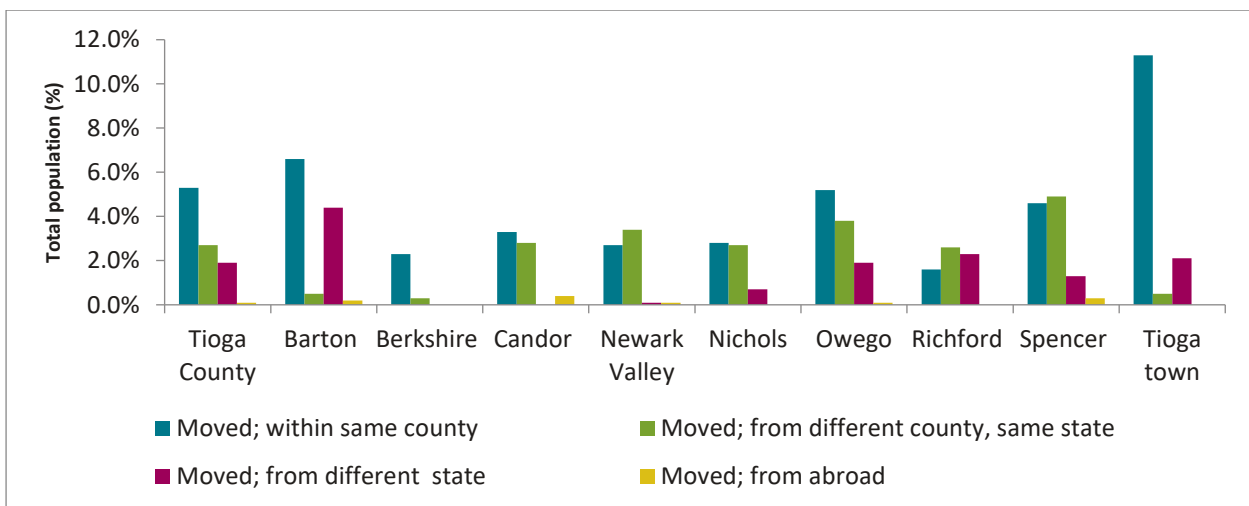


Source: Source: Chmura JobsEQ®

2.2 Migration Patterns

Understanding the immigrant profile and migration patterns of an area are central to bridging the labor supply and demand gap. Most of the people in Tioga moved within the same county (5.3%), or from a different county but within the same state (2.7%). Only 1.9% moved from a different state and 0.1% moved from another country.

Figure 5: Migration patterns in Tioga County, NY, 2017

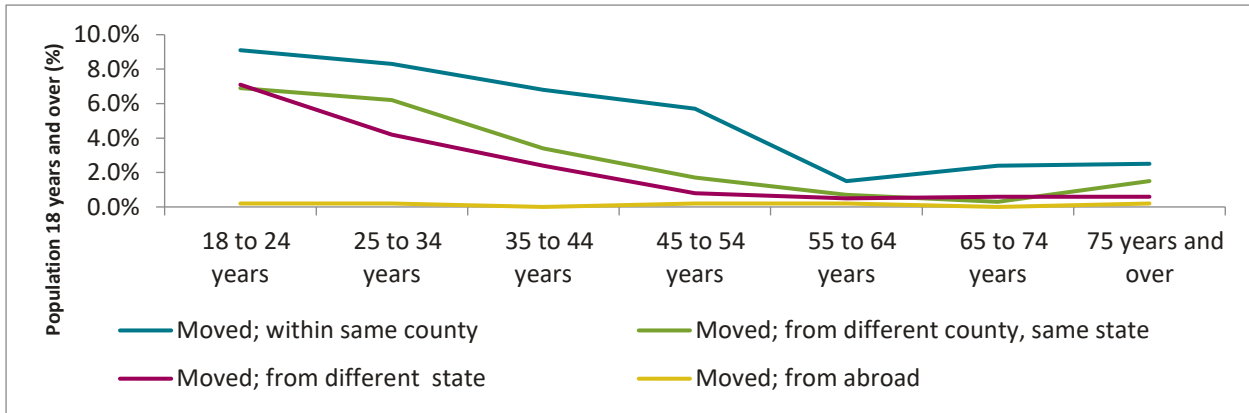


Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



Figure 6 shows the migration patterns in Tioga County by age group. In-migration from outside the county was the highest in the 18-to-24 years age group in both people coming from other counties in New York and other states.

Figure 6: Migration patterns for Tioga County by age, 2017



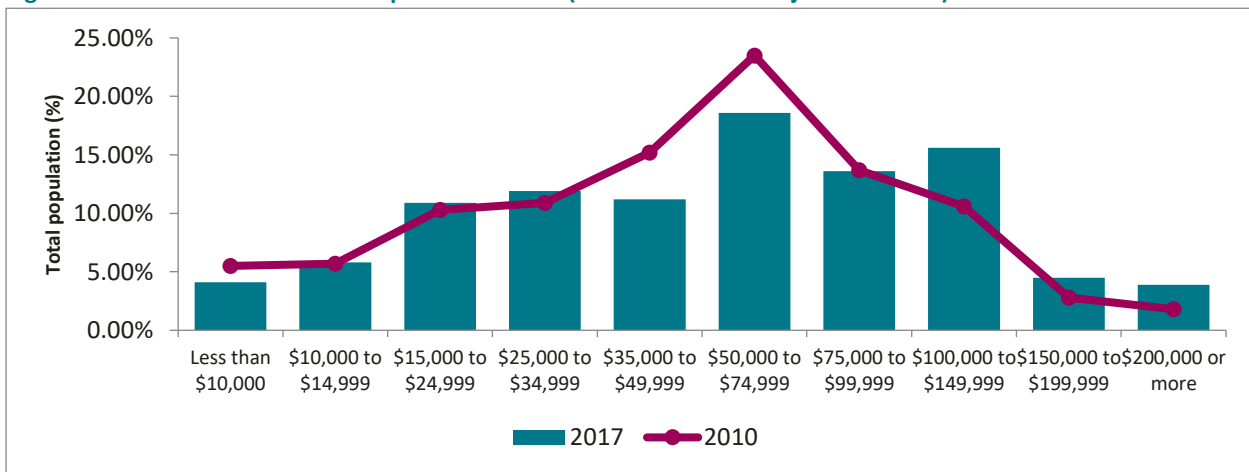
Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

2.3 Household Income

The median household income of Tioga County in 2017 was \$57,153. This is comparatively lower than the median household income of New York State at \$62,765. However, this amount is similar to the national median household income at \$57,625 and higher than those of surrounding counties such as Tompkins, Chemung, Cortland and Broome.

In 2017, approximately 18.60% of the households in Tioga County had a household income from \$50,000 to \$74,999. Moreover, the proportion of households with less than \$10,000 decreased from 5.5% in 2010 to 4.1% in 2017, while the proportion of the population with household incomes of \$100,000 and higher increased from 15.2% in 2010 to 24% in 2017.

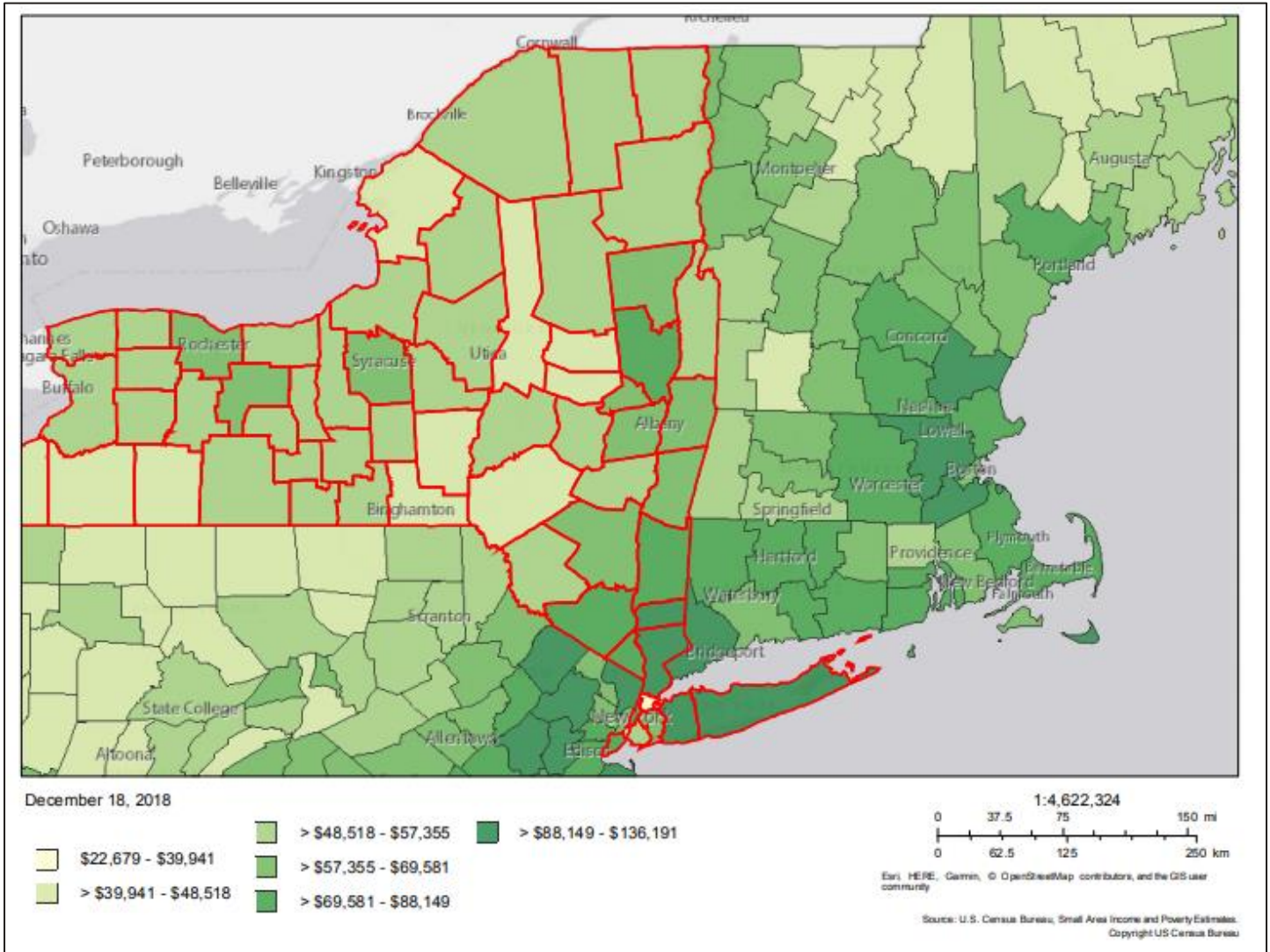
Figure 7: Household income in the past 12 months (in 2017 inflation-adjusted dollars)



Source: U.S. Census Bureau, 2006-2010 American Community Survey



Figure 8: Thematic map of household; estimate; median income (dollars) by county, 2017



Source: U.S. Census Bureau, Small Area Income and Poverty Estimates

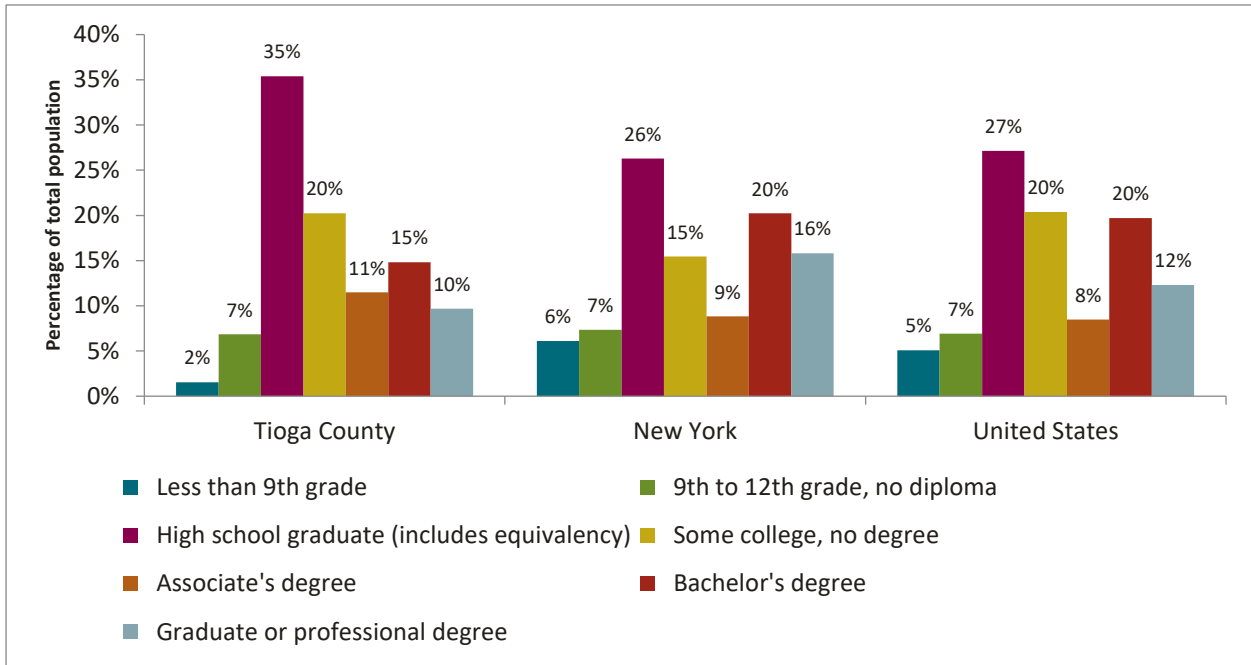
2.4 Education Profile

2.4.1 Population by educational attainment

It is estimated that nearly 9% of Tioga’s population 18 and over do not have a high school diploma compared to 13% in New York and 12% in the United States. An average of 25% of the County’s residents hold a bachelor’s degree or higher. This percentage is lower than both the state and the country.



Figure 9: Tioga County educational attainment for the population 18 years and over



Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

2.4.2 Population by type of bachelor’s degree

Table 2 shows a small 1% increase (84 people) in the population 25 years and over with a bachelor’s degree from 2013 to 2017. Business and education saw the largest growth with 13% and 7% respectively, while science and engineering degrees and arts, humanities and others fell by 4% and 2% respectively.

In 2017, 38% (3,257 people) had a bachelor’s degree in science and engineering². 20% of the population had a bachelor’s degree in education. Science and engineering related fields and business had the smallest shares of population 25 years and over by field of study.

Table 2: Population 25 years and over with a bachelor’s degree or higher attainment, 2013 and 2017

Bachelor's degree or higher for population 25 years and over	New York		Tioga County		Net Change 2013-2017		% of total by field of study in Tioga County	
	2013	2017	2013	2017	NY	Tioga	2013	2017
Total	4,386,500	4,820,813	8,507	8,591	10%	1%	100%	100%
Science and Engineering	1,505,121	1,649,985	3,389	3,257	10%	-4%	40%	38%
Science and Engineering Related Fields	372,836	418,819	985	1,003	12%	2%	12%	12%

² This includes degrees in computers, mathematics and statistics, biological, agricultural, and environmental sciences, physical and related sciences, psychology, social sciences, engineering and multidisciplinary studies.



Bachelor's degree or higher for population 25 years and over	New York		Tioga County		Net Change 2013-2017		% of total by field of study in Tioga County	
	2013	2017	2013	2017	NY	Tioga	2013	2017
Business	820,598	908,813	975	1,097	11%	13%	11%	13%
Education	527,977	551,063	1,577	1,690	4%	7%	19%	20%
Arts, Humanities and Other	1,159,968	1,292,133	1,581	1,544	11%	-2%	19%	18%

Source: U.S. Census Bureau, 2009-2013 5-Year American Community Survey

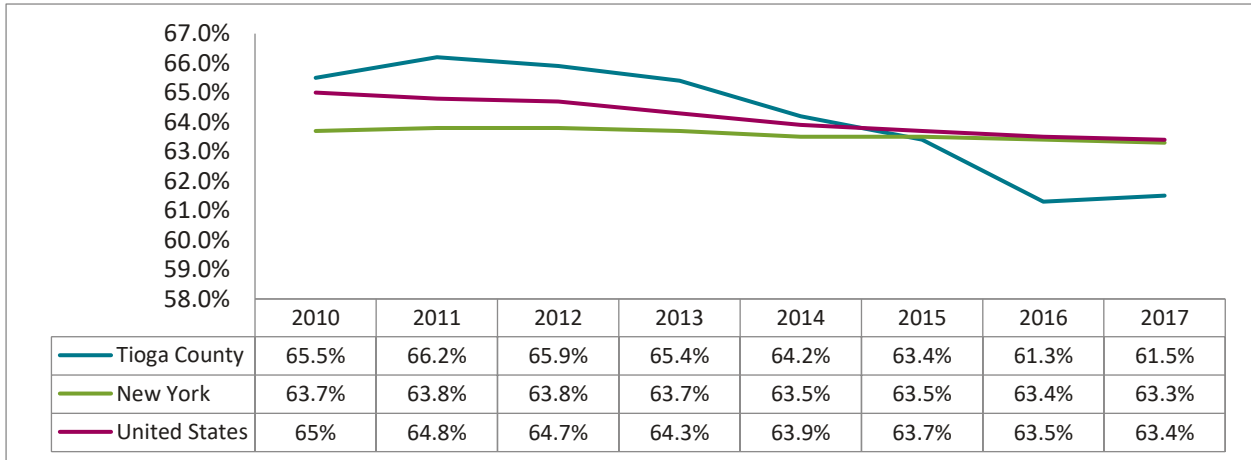
3. Labor Force Characteristics

The labor force data identifies the current state of a region’s labor market by studying its participation, employment and unemployment rates compared to regional and national rates. The analysis provides information regarding education, job creation, business support and income among others.

3.1 Participation rate

The labor force participation rate is defined as the labor force as a percent of the civilian non-institutional population³. By 2010, the participation rate in Tioga County was higher than both New York and the United States. However, since 2010 this figure has fallen under the aforementioned areas. This might be result of the population decline in Tioga.

Figure 10: Labor force participation rate, 2010 to 2017



Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

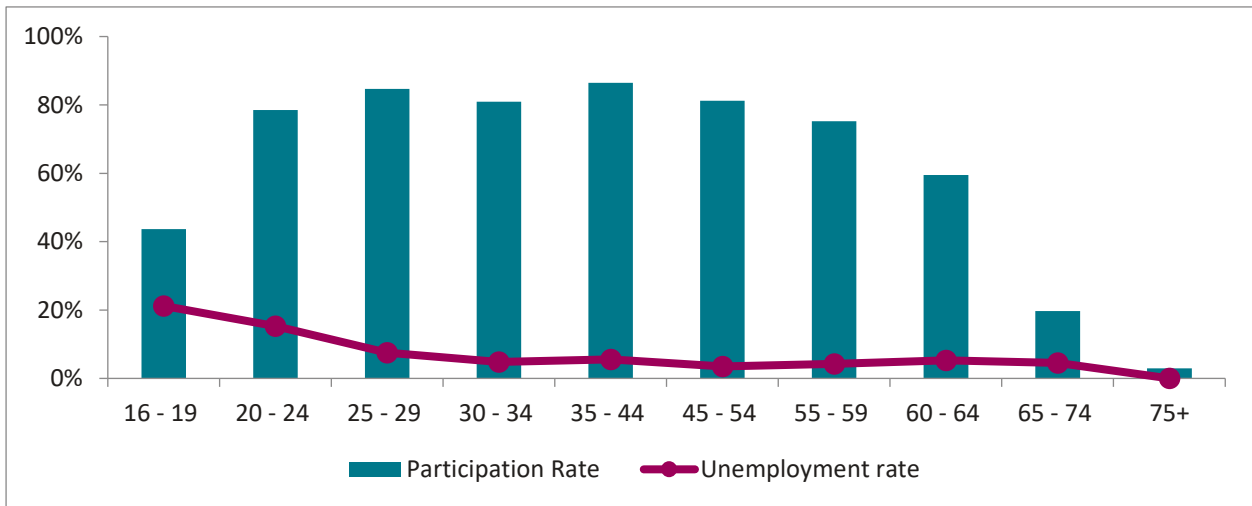
Figure 11 shows the participation rate by age group and the corresponding unemployment rates. The age group with the highest participation in the labor force is between 35 to 44 years. The unemployment rate for this group is at 6%. The senior population is less active in terms of employment;

³ Bureau of Labor Statistics. <https://www.bls.gov/cps/lfcharacteristics.htm>



approximately 20% of the population between 65 to 74 years are in the labor force, with an unemployment rate of 5%. For the young population of 16 to 19 years of age, the participation rate reached 44%. This group also had the largest unemployment rate among all age groups with 21%. This represents an opportunity for Tioga County to provide more employment opportunities to youth.

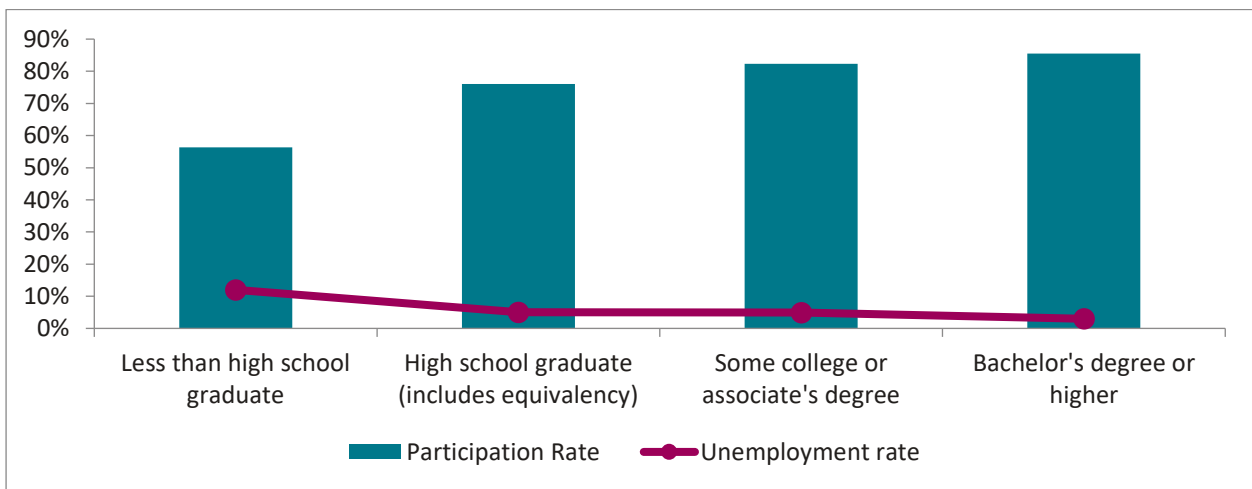
Figure 11: Participation rate and unemployment rate by age group, Tioga County, 2017



Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

Upon analyzing the labor force participation and unemployment rates by educational attainment in Tioga County, it was seen that 8% of the county’s total talent supply has an educational attainment level that is less than that of a high school graduate. The participation rate of this group reached 56% in 2017, the lowest of all groups, and the largest unemployment rate with 12%. On the other hand, people with bachelor’s degree represented 26% of total labor force. This group has the largest participation rate and the lowest unemployment rate of all groups (86% and 3% respectively).

Figure 12: Participation rate and unemployment rate by educational attainment, Tioga County, 2017



Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



3.2 Employment by industry

Table 3 shows the total employment by industry for Tioga County compared to New York as a whole. The top employing industry sectors in Tioga are manufacturing (13.6%), educational services (13.6%), retail trade (13.5%) and health care and social assistance (13.1%). The industry sectors with less people employed were management of companies and enterprises (0.03%) and agriculture, forestry, fishing and hunting (0.8%).

Table 3: Employment by industry, Tioga County and New York, 2017

Industry (NAICS)	New York		Tioga County	
	Estimate	%	Estimate	%
Total	9,467,631	100%	23,012	100%
Agriculture, forestry, fishing and hunting	49,377	0.5%	185	0.8%
Mining, quarrying, and oil and gas extraction	6,750	0.1%	252	1.1%
Construction	528,962	5.6%	1590	6.9%
Manufacturing	590,021	6.2%	3139	13.6%
Wholesale trade	229,675	2.4%	640	2.8%
Retail trade	1,000,344	10.6%	3116	13.5%
Transportation and warehousing	437,823	4.6%	599	2.6%
Utilities	57,943	0.6%	232	1.0%
Information	277,518	2.9%	337	1.5%
Finance and insurance	542,271	5.7%	476	2.1%
Real estate and rental and leasing	219,921	2.3%	344	1.5%
Professional, scientific, and technical services	750,602	7.9%	1191	5.2%
Management of companies and enterprises	7,461	0.08%	8	0.03%
Administrative and support and waste management services	356,309	3.8%	792	3.4%
Educational services	1,032,933	10.9%	3130	13.6%
Health care and social assistance	1,572,923	16.6%	3010	13.1%
Arts, entertainment, and recreation	236,114	2.5%	300	1.3%
Accommodation and food services	669,710	7.1%	1741	7.6%
Other services, except public administration	470,708	5.0%	927	4.0%
Public administration	430,266	4.5%	1003	4.4%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates

The employment trends by industry (Table 4) for Tioga County show that the sector that added the most jobs to Tioga County was accommodation and food services (514 employees), followed by mining, quarrying and oil/gas extraction (175 employees), and real estate, rental and leasing (171 employees).

The industry that experienced the fastest growth was mining, quarrying and oil/gas extraction. This sector grew 227% from 2010 to 2017. Real estate, rental and leasing was the second fastest growing industry with 99% increase in the same period of time. Twelve out of twenty industry sectors experienced decline in the number of people employed. Manufacturing lost 1,186 employees, followed by health care and social assistance with a loss of 365 employees. Jobs in agriculture experienced the fastest percentage decline from 2010 to 2017 (-59%), followed by management of companies and enterprises (-43%).



Table 4: Employment (population 16 years and over) net change by industry for Tioga County, 2010 and 2017

Industry (NAICS)	2010	2017	Net change	% Change
Total	24,696	23,012	-1,684	-7%
Agriculture, forestry, fishing and hunting	451	185	-266	-59%
Mining, quarrying, and oil and gas extraction	77	252	175	227%
Construction	1622	1590	-32	-2%
Manufacturing	4325	3139	-1,186	-27%
Wholesale trade	634	640	6	1%
Retail trade	3104	3116	12	0%
Transportation and warehousing	619	599	-20	-3%
Utilities	188	232	44	23%
Information	440	337	-103	-23%
Finance and insurance	775	476	-299	-39%
Real estate and rental and leasing	173	344	171	99%
Professional, scientific, and technical services	1545	1191	-354	-23%
Management of companies and enterprises	14	8	-6	-43%
Administrative and support and waste management services	694	792	98	14%
Educational services	3135	3130	-5	0%
Health care and social assistance	3375	3010	-365	-11%
Arts, entertainment, and recreation	387	300	-87	-22%
Accommodation and food services	1227	1741	514	42%
Other services, except public administration	924	927	3	0%
Public administration	987	1003	16	2%

Source: U.S. Census Bureau, 2006-2010 American Community Survey

Table 5 shows the Location Quotients (LQ) for employment by Industry in Tioga County. The Location Quotients provide a good representation of the local economy and specialized industries in the region. If the LQ for employment in a particular industry is 1.25 or higher, the industry is specialized with a higher employment rate compared to other industries. If the LQ is below 0.75, it shows the industry has low growth and insufficient opportunities for employment. If the LQ is between 0.75 and 1.25, it shows that the industry employs people on par with state employment. LQ of 1.0 represents perfect parity (i.e. neither lagging nor leading).

The industry sector with the highest concentration in Tioga is mining, forestry, fishing and hunting. However, the size of this industry is small when compared to other sectors in the region. Manufacturing and Educational services, the two largest industries by employment in Tioga, had an LQ of 2.19 and 1.25 respectively, indicating that they are specialized in the region.

Industries such as transportation and warehousing, health care and social assistance, and professional, scientific, and technical services have a LQ below one. This shows that employment in these industries is low compared to employment in New York.



Table 5: Location quotient (LQ) by industry for Tioga County, 2010 and 2017

Industry (NAICS)	LQ 2010	LQ 2017	Trend
Agriculture, forestry, fishing and hunting	3.37	1.54	Declining
Mining, quarrying, and oil and gas extraction	4.87	15.36	Growing
Construction	1.11	1.24	Growing
Manufacturing	2.42	2.19	Declining
Wholesale trade	0.91	1.15	Growing
Retail trade	1.19	1.28	Growing
Transportation and warehousing	0.54	0.56	Stable
Utilities	1.20	1.65	Growing
Information	0.57	0.50	Stable
Finance and insurance	0.51	0.36	Declining
Real estate and rental and leasing	0.30	0.64	Growing
Professional, scientific, and technical services	0.87	0.65	Declining
Management of companies and enterprises	0.70	0.44	Declining
Administrative and support and waste management services	0.79	0.91	Growing
Educational services	1.17	1.25	Growing
Health care and social assistance	0.87	0.79	Declining
Arts, entertainment, and recreation	0.69	0.52	Declining
Accommodation and food services	0.80	1.07	Growing
Other services, except public administration	0.75	0.81	Growing
Public administration	0.81	0.96	Growing

Source: U.S. Census Bureau, 2006-2010 American Community Survey

3.3 Employment by Occupation

The highest employing occupations in Tioga County are management, business, science and arts occupations, which account for 35% of total employment (Table 6). Employment in sales and office occupations are the second highest, followed by service occupations. Employment in production, transportation, and material moving occupations are high compared to the state and the nation.

Table 6: Percentage of employed population 16 years and over, 2017, Standard Occupation Codes (SOC)

Occupation	Tioga County %	New York %	United States %
Management, business, science, and arts occupations:	35%	40%	37%
Sales and office occupations:	22%	23%	24%
Service occupations:	20%	20%	18%
Production, transportation, and material moving occupations:	13%	9%	12%
Natural resources, construction, and maintenance occupations:	10%	7%	9%

Source: U.S. Census Bureau, 2013-2017 American Community Survey 5-Year Estimates



Table 7 shows the employment percentages in Tioga County by detailed occupations in 2017. A significant share of people in the County were employed in office and administrative support occupations (13%) followed by sales and related occupations (10%), management occupations (9%), production occupations (7%) and food preparation and serving related occupations (7%).

Table 7: Percentage of labor force by occupations, Tioga County 2017

Occupation	2017	%
Total	23,012	100%
Office and administrative support occupations	2884	13%
Sales and related occupations	2,216	10%
Management occupations	2,182	9%
Production occupations	1,712	7%
Food preparation and serving related occupations	1680	7%
Construction and extraction occupations	1,386	6%
Education, training, and library occupations	1356	6%
Building and grounds cleaning and maintenance occupations	1188	5%
Business and financial operations occupations	893	4%
Health diagnosing and treating practitioners and other technical occupations	859	4%
Transportation occupations	851	4%
Personal care and service occupations	829	4%
Installation, maintenance, and repair occupations	784	3%
Computer and mathematical occupations	710	3%
Architecture and engineering occupations	710	3%
Material moving occupations	488	2%
Healthcare support occupations	464	2%
Health technologists and technicians	435	2%
Community and social service occupations	360	2%
Law enforcement workers including supervisors	268	1%
Arts, design, entertainment, sports, and media occupations	222	1%
Fire fighting and prevention, and other protective service workers including supervisors	196	1%
Legal occupations	163	1%
Life, physical, and social science occupations	151	1%
Farming, fishing, and forestry occupations	25	0%

Source: U.S. Census Bureau, 2006-2010 American Community Survey

Upon analyzing occupation growth and decline from 2010 to 2016, the following observations can be made:

- The largest growth in occupation number was in food preparation and serving related occupations (417 jobs), followed by management occupations (377 jobs). For the same time period, building and grounds cleaning and maintenance occupations increased by 358 jobs.
- Office and administrative support occupations and production occupations experienced the largest decline losing 802 and 499 jobs respectively. In fact, 17 out of the 25 major occupational groups experienced decline.



Table 8: Employment net change by Occupation for Tioga County, 2010 and 2017

Occupation	2017	2010	Net change	% change
Total	23,012	24,696	-1,684	-7%
Management occupations	2,182	1,805	377	21%
Business and financial operations occupations	893	873	20	2%
Computer and mathematical occupations	710	942	-232	-25%
Architecture and engineering occupations	710	600	110	18%
Life, physical, and social science occupations	151	313	-162	-52%
Community and social service occupations	360	450	-90	-20%
Legal occupations	163	189	-26	-14%
Education, training, and library occupations	1356	1422	-66	-5%
Arts, design, entertainment, sports, and media occupations	222	345	-123	-36%
Health diagnosing and treating practitioners and other technical occupations	859	818	41	5%
Health technologists and technicians	435	598	-163	-27%
Healthcare support occupations	464	480	-16	-3%
Fire fighting and prevention, and other protective service workers including supervisors	196	209	-13	-6%
Law enforcement workers including supervisors	268	251	17	7%
Food preparation and serving related occupations	1680	1263	417	33%
Building and grounds cleaning and maintenance occupations	1188	830	358	43%
Personal care and service occupations	829	669	160	24%
Sales and related occupations	2,216	2,358	-142	-6%
Office and administrative support occupations	2884	3686	-802	-22%
Farming, fishing, and forestry occupations	25	318	-293	-92%
Construction and extraction occupations	1,386	1,493	-107	-7%
Installation, maintenance, and repair occupations	784	886	-102	-12%
Production occupations	1,712	2,211	-499	-23%
Transportation occupations	851	1055	-204	-19%
Material moving occupations	488	632	-144	-23%

Source: U.S. Census Bureau, 2006-2010 American Community Survey

3.4 Wages by Occupation

Data for wages by occupation is only available for the Metropolitan Statistical Area and not for the County level. Binghamton, NY MSA includes Broome County and Tioga County.

The mean hourly and annual median wage by occupation in the Metropolitan Statistical Area is presented in Table 9. The annual median wage for all occupations is \$45,590. Management occupations have the highest annual median wage of \$104,060. The lowest annual median wage is for the food preparation and serving related occupations with \$22,660.



Table 9: Wages by Occupation in Binghamton, NY MSA, May 2017

Occupation	Median hourly wage	Mean hourly wage	Annual mean wage
All occupations	\$16.72	\$21.92	\$45,590
Management occupations	\$43.68	\$50.03	\$104,060
Business and financial operations occupations	\$28.52	\$31.89	\$ 66,340
Computer and mathematical occupations	\$36.87	\$40.22	\$83,650
Architecture and engineering occupations	\$32.73	\$34.89	\$72,580
Life, physical, and social science occupations	\$22.70	\$27.00	\$56,170
Community and social service occupations	\$19.84	\$21.22	\$44,150
Legal occupations	\$34.20	\$39.93	\$83,050
Education, training, and library occupations	\$23.10	\$25.13	\$52,260
Arts, design, entertainment, sports, and media occupations	\$17.50	\$21.02	\$43,710
Healthcare practitioners and technical occupations	\$28.43	\$35.74	\$74,350
Healthcare support occupations	\$13.61	\$14.85	\$30,890
Protective service occupations	\$20.32	\$22.28	\$46,340
Food preparation and serving related occupations	\$9.53	\$10.89	\$22,660
Building and grounds cleaning and maintenance occupations	\$11.21	\$12.78	\$26,580
Personal care and service occupations	\$11.38	\$13.47	\$28,020
Sales and related occupations	\$11.57	\$16.67	\$34,680
Office and administrative support occupations	\$14.74	\$16.33	\$33,960
Farming, fishing, and forestry occupations	\$14.57	\$16.71	\$34,750
Construction and extraction occupations	\$20.40	\$22.69	\$47,190
Installation, maintenance, and repair occupations	\$19.66	\$22.08	\$45,930
Production occupations	\$14.49	\$16.54	\$34,400
Transportation and material moving occupations	\$13.66	\$15.11	\$31,440

Source: Occupational Employment Statistics Data



4. Business Patterns Assessment

The County business patterns data provides information on the number of establishments and establishment size by number of employees (Table 10). There was a total of 14,711 businesses with employees in Tioga County in 2016. Key observations include:

- The majority of business establishments (with employees) are in retail trade and other services.
- The industries that employ more than 250 people are manufacturing, transportation and warehousing, health care and social assistance, and arts, entertainment and recreation.
- 79% of all establishments in Tioga County employ 1 to 9 people.



Table 10: Business patterns data, Business establishments by employee size, Tioga County, 2016

Industry	Total	1-4	5-9	10-19	20-49	50-99	100-249	250-499	500-999	1000 +
All establishments	787	478	145	88	54	12	6	4	0	0
Agriculture, forestry, fishing and hunting	2	2	0	0	0	0	0	0	0	0
Mining, quarrying, and oil and gas extraction	8	3	0	1	3	1	0	0	0	0
Utilities	2	0	2	0	0	0	0	0	0	0
Construction	98	78	10	7	3	0	0	0	0	0
Manufacturing	36	21	6	2	2	1	3	1	0	0
Wholesale trade	30	17	6	0	3	3	1	0	0	0
Retail trade	130	55	34	24	15	2	0	0	0	0
Transportation and warehousing	15	12	1	0	0	1	0	1	0	0
Information	16	9	5	0	2	0	0	0	0	0
Finance and insurance	36	17	15	2	2	0	0	0	0	0
Real estate and rental and leasing	10	8	1	1	0	0	0	0	0	0
Professional, scientific, and technical services	57	46	7	2	1	1	0	0	0	0
Management of companies and enterprises	1	1	0	0	0	0	0	0	0	0
Administrative and support and waste management and remediation services	46	35	4	2	3	1	1	0	0	0
Educational services	6	5	0	1	0	0	0	0	0	0
Health care and social assistance	76	27	21	20	6	0	1	1	0	0
Arts, entertainment, and recreation	19	12	3	1	2	0	0	1	0	0
Accommodation and food services	92	46	15	18	11	2	0	0	0	0
Other services (except public administration)	104	81	15	7	1	0	0	0	0	0
Industries not classified	3	3	0	0	0	0	0	0	0	0

Source: U.S. Census Bureau, 2016 County Business Pattern



5. Employment Characteristics

5.1 Job Flows

The employment characteristics of industries in Tioga County in terms of job flows and earnings are presented in Table 11.

The employment characteristics of the main industry sectors show that:

- The number of workers who started a new job (new hires) decreased from 2007 to 2017 by 1%.
- The number of workers who returned to the same employer where they had worked within the previous year (hire recalls) has increased by 50 jobs in 2017 compared to 2007.
- Accommodation and food services, and transportation and warehousing in Tioga County had the largest increase of new hires in 2016.
- The largest net job change was in educational services and transportation and warehousing.
- Manufacturing saw a decrease of 15 jobs (job gain-job losses).



Table 11: Employment characteristics by industry sector, 3rd quarter, Tioga County, 2007-2017

Industry	Full-Quarter Employment		New Hires		Hires Recalls		Firm Job Gains		Firm Job Loss		Net Job Change	
	2007	2017	2007	2017	2007	2017	2007	2017	2007	2017	2007	2017
All industry	12774	11619	1888	1868	426	476	572	726	1074	438	-502	288
Agriculture, forestry, fishing and hunting	47	130	14	31	8	20	5	37	4	12	1	25
Mining, quarrying, and oil and Gas Extraction	22	37	3	6	0	3	1	1	2	8	-1	-6
Utilities			0	0	0	0						
Construction	461	469	136	138	29	23	52	58	30	22	22	36
Manufacturing	5499	3484	296	220	66	18	83	48	33	13	51	36
Wholesale Trade	442	459	66	87		6	15	16	8	9	7	6
Retail Trade	1005	1046	242	212	38	46	69	82	147	60	-78	22
Transportation and Warehousing	331	358	29	109	4	10	3	83	6	8	-3	74
Information	73	87	9	10	5	0	6	5	1	6	5	-1
Finance and Insurance	208	190	14	9			6	5	9	5	-2	0
Real Estate and Rental and Leasing	40	38	9	14	8	7	12	14	9	1	3	13
Professional, Scientific, and Technical Services	456	325	36	11	7	7	8	6	29	9	-21	-3
Management of Companies and Enterprises	18	114	5	10	0	3	0	0	4	5	-4	-5
Administrative and Support and Waste Management and Remediation Services	337	372	221	140	22	25	40	12	289	53	-248	-41
Educational Services	1141	946	112	79	39	152	39	166	9	9	30	157
Health Care and Social Assistance	493	1136	173	171	87	20	133	42	290	57	-157	-16
Arts, Entertainment, and Recreation	396	154	82	29	11	36	7	8	89	16	-82	-8
Accommodation and Food Services	633	1241	336	492	24	40	43	93	96	121	-53	-27
Other Services (except Public Administration)	256	247	51	41	17	11	26	26	35	11	-9	15
Public Administration	910	773	54	58	58	48	36	31	44	29	-8	3

Source: Longitudinal Employer-Household Dynamics LED Extraction Tool, Quarterly Workforce Indicators



5.2 Commuting Patterns

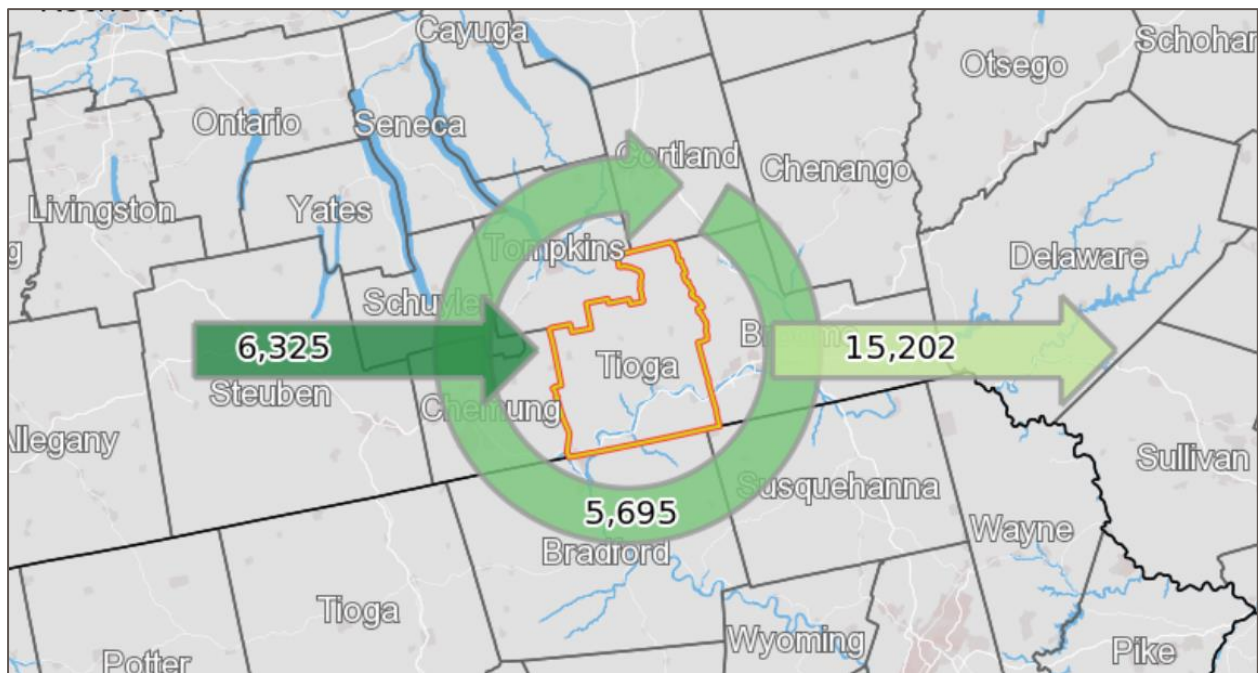
The Commuter flow patterns are presented below for the county by studying two factors, namely, where do residents in the county commute to for work? And where do people who work in the county commute from?

Figure 13 shows the inflow and outflow job counts in Tioga County. According to this data, by 2015:

- 6,325 people employed in Tioga County, live outside the county.
- 15,202 residents of Tioga County commute outside the county boundaries to work.
- 5,695 people both live and work in Tioga County.

The data shows that more people leave Tioga County to work than people coming from other counties. By 2015, 59% of Tioga County's labor force worked outside the county's boundaries at the same time, 22% of Tioga's labor force live and work within the County.

Figure 13: Inflow and outflow job counts (Primary jobs), Tioga County, 2015



Source: U.S. Census Bureau, Center for Economic Studies

Where do people who work in Tioga County live or commute from?

Commuter flows for people who work in Tioga County is shown in Table 12.

Approximately 27% of local employment is filled from people who lived outside the County. Most of these commuters come from surrounding areas such as Broome County, NY (22.4%), Bradford County, PA (6.6%) and Chemung County, NY (5.4%).



Table 12: Place of residence of people commuting to Tioga County, 2015

County	2015	
	Count	Share
Tioga County, NY	5,695	47.4%
Broome County, NY	2,695	22.4%
Bradford County, PA	792	6.6%
Chemung County, NY	646	5.4%
Tompkins County, NY	333	2.8%
Onondaga County, NY	302	2.5%
Susquehanna County, PA	128	1.1%
Cortland County, NY	100	0.8%
Chenango County, NY	97	0.8%
Steuben County, NY	71	0.6%
All Other Locations	1,161	9.7%

Source: U.S. Census Bureau, Center for Economic Studies

Where do residents of Tioga County commute to for work?

Commuter flows for Tioga County’s residents by place of work is shown in Table 13. Approximately 59% of Tioga’s labor force travel outside the county to work. The most common commute destinations are Broome County, NY (26.8%), Tompkins County, NY (11.8%), Bradford County, PA (8.1%) and Chemung County, NY (4.3%).

Table 13: Commuting destination for the people living in Tioga County, 2015

County	2015	
	Count	Share
Tioga County, NY	5,695	27.3%
Broome County, NY	5,606	26.8%
Tompkins County, NY	2,471	11.8%
Bradford County, PA	1,696	8.1%
Chemung County, NY	904	4.3%
Onondaga County, NY	596	2.9%
Monroe County, NY	355	1.7%
New York County, NY	255	1.2%
Cortland County, NY	240	1.1%
Albany County, NY	237	1.1%
All Other Locations	2,842	13.6%

Source: U.S. Census Bureau, Center for Economic Studies



6. Talent Supply and Demand

6.1 Sector Focus

This project centers on supporting industries in the attraction of talent. To validate the industry selection, a combination of qualitative and quantitative research was carried out on the five identified target sectors.

- Advanced manufacturing
- Healthcare
- Warehousing/Distribution
- Hospitality
- Professional services

Talent supply and demand are seen as the two elements that make up the labor market equation. However, experience has clearly demonstrated that it is not as simple as looking at the numbers in isolation, rather it is necessary to keep several key points in mind when considering talent supply and demand and its alignment to fill vacancies.

Data Availability

The data was sourced from the U.S. Census Bureau, specifically the 2016 County Business Patterns series, which includes the number of establishments, employment, first quarter payroll, and annual payroll in the county. The data was analyzed using the North American Industry Classification System (NAICS) at the industry group level (4-digit codes). The occupation data was gathered from the Bureau of Labor Statistics.

6.2 Advanced Manufacturing

6.2.1 National Context

The National Science and Technology Council promotes the major role of manufacturing in the United States economy with the largest economic multiplier of any sector and creating four additional jobs for every one job in manufacturing. The impact of manufacturing is expected to grow with the development of new technology and processes. This development will require a large number of highly skilled workers with a projected 3.5 million new manufacturing jobs to be created in the next decade although 2 million of these positions may remain unfilled due to a skills gap. 80 percent of manufacturers currently report a moderate or serious shortage of qualified applicants for skilled and highly-skilled production positions⁴.

⁴ National Science and Technology Council, 2016
<https://www.whitehouse.gov/sites/whitehouse.gov/files/images/Blog/NSTC%20SAM%20technology%20areas%20snapshot.pdf>



6.2.2 Business Establishments in Advanced Manufacturing

The United States Census Bureau’s latest 2016 County Business Patterns data recorded 21 businesses with payroll in the advanced manufacturing sector by Tioga County. The Southern Tier Region (STR), which is formed by the counties of Broome, Chemung, Chenango, Delaware, Schuyler, Steuben, Tioga and Tompkins, has 392 businesses. The State of New York has 9,066 businesses. This means that Tioga County has 5.4% of the STR advanced manufacturing businesses and 0.2% of New York’s advanced manufacturing businesses.

Table 14 indicates the distribution of the business establishments by industry classification at the state, regional and county levels. Tioga County underperforms the distribution of establishments in each sub-sector. The top subsector by number of establishments in the three geographies is fabricated metal product manufacturing.

Table 14: Establishments with payroll in advanced manufacturing, New York, Southern Tier Region and Tioga County, 2016

NAICS	Industry	New York	STR	Tioga County
325	Chemical manufacturing	568	23	1
326	Plastics and rubber products manufacturing	444	16	2
327	Nonmetallic mineral product manufacturing	633	44	3
331	Primary metal manufacturing	180	6	1
332	Fabricated metal product manufacturing	2,221	96	8
333	Machinery manufacturing	874	39	1
334	Computer and electronic product manufacturing	656	51	2
335	Electrical equipment, appliance, and component manufacturing	311	15	n/a
336	Transportation equipment manufacturing	312	34	1
337	Furniture and related product manufacturing	953	22	1
339	Miscellaneous manufacturing	1,914	46	1

Source: U.S. Census Bureau, 2016 County Business Patterns

6.2.3 Employees in Advanced Manufacturing

The United States Census Bureau’s latest 2016 County Business Patterns data recorded 314,694 people employed in advance manufacturing in the State of New York. The Southern Tier Region has 26,415 or 8% of these employees. Tioga County has 3,238, this represent 12% of the region’s employees in this sector.

Tioga has significantly higher proportions of employees in the following sectors, compared to the Southern Tier Region:

- Computer and electronic product manufacturing (54%). In fact, around 86% of all workers in advanced manufacturing in Tioga County work in this sector.
- Plastics and rubber products manufacturing (20%).



Table 15: Employees in advanced manufacturing, New York, Southern Tier Region and Tioga County, 2017

NAICS	Industry	New York	STR	Tioga County
	Total	314,694	26,415	3,238
325	Chemical Manufacturing	38,673	1,110	13
326	Plastics and Rubber Products Manufacturing	21,542	620	125
327	Nonmetallic Mineral Product Manufacturing	16,130	2,206	35
331	Primary Metal Manufacturing	10,402	272	n/a
332	Fabricated Metal Product Manufacturing	50,091	3,024	265
333	Machinery Manufacturing	38,566	3,903	1
334	Computer and Electronic Product Manufacturing	57,827	8,117	2,773
335	Electrical Equipment, Appliance, and Component Manufacturing	13,418	1,036	n/a
336	Transportation Equipment Manufacturing	20,796	3,924	1
337	Furniture and Related Product Manufacturing	13,563	881	15
339	Miscellaneous Manufacturing	33,686	1,322	10

Source: Chmura JobsEQ®.

Note: Some of the estimates presented in this report are generated through JobsEQ® and can at times have a small margin between estimates. This apply to all JobsEQ data in this report.

6.2.4 Annual Payroll in Advanced Manufacturing

The United States Census Bureau’s latest 2016 County Business Patterns data recorded an annual payroll of \$ 17.9 billion in the advanced manufacturing sector in New York. The Southern Tier Region has \$804 million or 4% of the state total. Tioga County annual payroll in this sector is hard to measure due to the withholding of data to avoid disclosing data for individual companies. Table 16 shows that only two industry subsectors count with data. The annual payroll of these subsector accounts for \$1.9 million, less than 0.25% of the state’s total.

Table 16: Annual Payroll in advanced manufacturing, New York, Southern Tier Region and Tioga County, 2016 (\$1,000s)

NAICS	Industry	New York	STR	Tioga County
	Total	\$17,967,736	\$804,105	\$1,982
325	Chemical manufacturing	\$2,774,950	\$17,600	D
326	Plastics and rubber products manufacturing	\$1,070,183	\$10,807	D
327	Nonmetallic mineral product manufacturing	\$812,677	\$46,443	\$1,155
331	Primary metal manufacturing	\$605,781	D	D
332	Fabricated metal product manufacturing	\$2,577,946	\$145,261	\$827
333	Machinery manufacturing	\$2,446,724	\$111,345	D
334	Computer and electronic product manufacturing	\$3,252,618	\$229,252	D
335	Electrical equipment, appliance, and component manufacturing	\$739,279	\$37,200	D
336	Transportation equipment manufacturing	\$1,374,458	\$159,408	D
337	Furniture and related product manufacturing	\$613,821	\$1,347	D
339	Miscellaneous manufacturing	\$1,699,299	\$45,442	D

Source: U.S. Census Bureau, 2016 County Business Patterns

D: Withheld to avoid disclosing data for individual companies; data are included in higher level totals



6.2.5 Advanced Manufacturing Occupations

Tioga County has an estimate of 3,245 people working in the advanced manufacturing sector. The top five occupations making up 25% of the workforce in the sector are:

- Electrical and electronic equipment assemblers (11%).
- Team assemblers (5%).
- Inspectors, testers, sorters, samplers, and weighers (3%).
- Software developers, systems software (3%).
- Plating and coating machine setters, operators, and tenders, metal and plastic (3%).

All of these occupations except for software developers/systems software have an average wage lower than the Southern Tier Region. For software developers, systems software the average wage is \$107,100 compared to \$100,000 in the region.

In terms of growth, these occupations are expected to experience an increase in demand in the next 5 year:

- Electrical and electronic equipment assemblers (109 jobs or 31%).
- Team assemblers (47 jobs or 31%).
- Inspectors, testers, sorters, samplers, and weighers (36 jobs or 33%).
- First-line supervisors of production and operating workers (27 jobs or 37%).
- Electrical and electronic engineering technicians (27 jobs or 30%).

Table 17: Top 20 occupations employed in advanced manufacturing and 5-year demand, Tioga County, 2017

SOC	Title	Current		5-Year Demand			
		Employment	Average Wage	Labor Exits	Transfers	Growth	Total
	Total	3,245	n/a	500	878	-339	1,038
51-2022	Electrical and Electronic Equipment Assemblers	353	\$29,000	76	96	-63	109
51-2092	Team Assemblers	151	\$33,900	27	46	-26	47
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	111	\$32,400	20	36	-20	36
15-1133	Software Developers, Systems Software	101	\$107,100	7	23	-9	21
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	91	\$30,500	10	29	-13	26
17-3023	Electrical and Electronic Engineering Technicians	89	\$48,200	13	22	-8	27
17-2072	Electronics Engineers, Except Computer	80	\$81,100	9	15	-5	18
15-1132	Software Developers, Applications	76	\$88,200	5	18	-3	20



SOC	Title	Current		5-Year Demand			
		Employment	Average Wage	Labor Exits	Transfers	Growth	Total
17-2112	Industrial Engineers	75	\$87,500	8	15	-3	19
51-1011	First-Line Supervisors of Production and Operating Workers	74	\$54,000	11	22	-6	27
11-1021	General and Operations Managers	70	\$107,200	7	19	-6	21
17-2071	Electrical Engineers	70	\$78,500	8	13	-5	16
51-4041	Machinists	65	\$42,900	11	20	-4	26
17-2141	Mechanical Engineers	60	\$84,000	6	12	-5	12
11-9041	Architectural and Engineering Managers	50	\$147,400	5	11	-4	11
51-9141	Semiconductor Processors	47	\$49,800	9	16	-4	20
43-4051	Customer Service Representatives	44	\$33,700	10	15	-4	22
43-5071	Shipping, Receiving, and Traffic Clerks	43	\$32,700	8	12	-4	15
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	43	\$25,900	10	17	-3	24
13-1023	Purchasing Agents, Except Wholesale, Retail, and Farm Products	41	\$64,400	6	10	-5	10

Source: Chmura JobsEQ®.

Table 18: Educational requirements and projected growth, advanced manufacturing, National 2016-2026

SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
51-1011	First-Line Supervisors of Production and Operating Workers	Bachelor's degree	None	1,000 to 4,999	As fast as average
51-2022	Electrical and Electronic Equipment Assemblers	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-2023	Electromechanical Equipment Assemblers	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-2031	Engine and Other Machine Assemblers	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-2041	Structural Metal Fabricators and Fitters	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-2092	Team Assemblers	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-2099	Assemblers and Fabricators, All Other	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline



SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	High school diploma or equivalent	Moderate-term on-the-job training	1,000 to 4,999	Little or no change
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	Postsecondary nondegree award	Moderate-term on-the-job training	1,000 to 4,999	Much faster than average
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4041	Machinists	High school diploma or equivalent	Long-term on-the-job training	5,000 to 9,999	Slower than average
51-4051	Metal-Refining Furnace Operators and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4052	Pourers and Casters, Metal	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4071	Foundry Mold and Coremakers	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4072	Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4111	Tool and Die Makers	Postsecondary nondegree award	Long-term on-the-job training	Declining	Decline
51-4121	Welders, Cutters, Solderers, and Brazers	High school diploma or equivalent	Moderate-term on-the-job training	10,000 to 49,999	As fast as average
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-4199	Metal Workers and Plastic Workers, All Other	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-5111	Prepress Technicians and Workers	Postsecondary nondegree award	None	Declining	Decline
51-5112	Printing Press Operators	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-5113	Print Binding and Finishing Workers	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-6021	Pressers, Textile, Garment, and Related Materials	No formal educational credential	Short-term on-the-job training	Declining	Decline



SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
51-6031	Sewing Machine Operators	No formal educational credential	Short-term on-the-job training	Declining	Decline
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-6093	Upholsterers	High school diploma or equivalent	Moderate-term on-the-job training	1,000 to 4,999	Slower than average
51-7011	Cabinetmakers and Bench Carpenters	High school diploma or equivalent	Moderate-term on-the-job training	1,000 to 4,999	Slower than average
51-7021	Furniture Finishers	High school diploma or equivalent	Short-term on-the-job training	0 to 999	Slower than average
51-7041	Sawing Machine Setters, Operators, and Tenders, Wood	High school diploma or equivalent	Moderate-term on-the-job training	0 to 999	Little or no change
51-7042	Woodworking Machine Setters, Operators, and Tenders, Except Sawing	High school diploma or equivalent	Moderate-term on-the-job training	0 to 999	Little or no change
51-8021	Stationary Engineers and Boiler Operators	High school diploma or equivalent	Long-term on-the-job training	1,000 to 4,999	As fast as average
51-8031	Water and Wastewater Treatment Plant and System Operators	High school diploma or equivalent	Long-term on-the-job training	Declining	Decline
51-8091	Chemical Plant and System Operators	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-8092	Gas Plant Operators	High school diploma or equivalent	Long-term on-the-job training	0 to 999	Little or no change
51-8093	Petroleum Pump System Operators, Refinery Operators, and Gaugers	High school diploma or equivalent	Moderate-term on-the-job training	1,000 to 4,999	Slower than average
51-9011	Chemical Equipment Operators and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-9012	Separating, Filtering, Clarifying, Precipitating, and Still Machine Setters, Operators, and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	0 to 999	Little or no change
51-9021	Crushing, Grinding, and Polishing Machine Setters, Operators, and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-9022	Grinding and Polishing Workers, Hand	No formal educational credential	Moderate-term on-the-job training	Declining	Decline
51-9023	Mixing and Blending Machine Setters, Operators, and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-9031	Cutters and Trimmers, Hand	No formal educational credential	Short-term on-the-job training	Declining	Decline
51-9032	Cutting and Slicing Machine Setters, Operators, and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-9041	Extruding, Forming, Pressing, and Compacting Machine Setters, Operators, and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-9111	Packaging and Filling Machine Operators and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	5,000 to 9,999	Slower than average



SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
51-9121	Coating, Painting, and Spraying Machine Setters, Operators, and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	0 to 999	Little or no change
51-9122	Painters, Transportation Equipment	High school diploma or equivalent	Moderate-term on-the-job training	1,000 to 4,999	As fast as average
51-9123	Painting, Coating, and Decorating Workers	No formal educational credential	Moderate-term on-the-job training	0 to 999	Little or no change
51-9151	Photographic Process Workers and Processing Machine Operators	High school diploma or equivalent	Short-term on-the-job training	Declining	Decline
51-9192	Cleaning, Washing, and Metal Pickling Equipment Operators and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	0 to 999	Little or no change
51-9195	Molders, Shapers, and Casters, Except Metal and Plastic	High school diploma or equivalent	Long-term on-the-job training	Declining	Little or no change
51-9196	Paper Goods Machine Setters, Operators, and Tenders	High school diploma or equivalent	Moderate-term on-the-job training	Declining	Decline
51-9198	Helpers--Production Workers	High school diploma or equivalent	Short-term on-the-job training	10,000 to 49,999	Faster than average
51-9199	Production Workers, All Other	High school diploma or equivalent	Moderate-term on-the-job training	10,000 to 49,999	As fast as average

Source: Bureau of Labor Statistics, 2019

6.2.6 Advanced Manufacturing Talent Demand Assessment

When examining the industry's forecasted demand scenario (Table 19), it is evident that the industry will need to replace nearly 1,065 workers in the next five years. Approximately 502 workers are anticipated to exit the workforce in the next five years, with another 902 transferring to another industry. Overall industries in the advance manufacturing sector are expected to fall by 10% in the next five years.

Table 19: Industry snapshot of employment demand, advanced manufacturing, Tioga County

North American Industry Classification System (NAICS)	5-Year History		5-Year Forecast				
	Total Change Empl	Avg Ann % Chg in Empl Region	Total New Demand	Separations (Approximate)		Growth	
				Exits	Transfers	Empl	Avg Ann Rate
Total	-21	▼ -0.6%	1,065	502	902	-339	▼ -10%
Chemical Manufacturing	-15	▼ -14.2%	5	2	4	-1	▼ -1.9%
Plastics and Rubber Products Manufacturing	19	▲ 3.3%	51	23	41	-12	▼ -2.1%
Nonmetallic Mineral Product Manufacturing	-10	▼ -4.8%	16	7	11	-3	▼ -1.5%
Fabricated Metal Product Manufacturing	209	▲ 36.2%	113	46	86	-19	▼ -1.5%
Machinery Manufacturing	-11	▼ -42.0%	0	0	0	0	▼ -0.4%



North American Industry Classification System (NAICS)	5-Year History		5-Year Forecast				
	Total Change Empl	Avg Ann % Chg in Empl Region	Total New Demand	Separations (Approximate)		Growth	
				Exits	Transfers	Empl	Avg Ann Rate
Computer and Electronic Product Manufacturing	-79	▼-0.6%	868	419	752	-303	▼-2.3%
Electrical Equipment, Appliance, and Component Manufacturing	0	n/a	0	0	0	0	n/a
Transportation Equipment Manufacturing	-59	▼-61.1%	0	0	0	0	▼-0.4%
Furniture and Related Product Manufacturing	-35	▼-21.6%	7	3	5	-1	▼-1.3%
Miscellaneous Manufacturing	-40	▼-26.9%	5	2	3	0	▼-0.4%

Source: JobsEQ®

6.2.7 Advanced Manufacturing Talent Supply Assessment

From 2014 to 2017, educational institutions in the Southern Tier Region graduated approximately of 12,819 people in advanced manufacturing degrees; this represents an average of 2,563 new graduates per year. The number of graduates in these areas has experienced a growth of 27% since 2014.

Most of the graduates in fields related to advanced manufacturing in the Southern Tier Region are in areas such as computer science, electrical and electronic engineering, mechanical engineering, operations research and chemical engineering.

Table 20: Graduates with degrees related to advanced manufacturing, Southern Tier Region, New York

CIP Code	Description	2014	2015	2016	2017	Total
N/A	Total	2,772	3,112	3,412	3,523	12,819
11.0701	Computer Science	464	615	737	767	2583
14.1001	Electrical and Electronics Engineering	323	412	408	414	1557
14.1901	Mechanical Engineering	375	390	392	355	1512
14.3701	Operations Research	202	189	198	223	812
14.0701	Chemical Engineering	156	166	204	203	729
14.0501	Bioengineering and Biomedical Engineering	135	143	201	192	671
14.3501	Industrial Engineering	128	94	169	188	579
11.0103	Information Technology	65	93	132	223	513
14.0301	Agricultural Engineering	112	129	94	103	438
14.0801	Civil Engineering, General	99	108	90	100	397
14.1801	Materials Engineering	69	86	78	92	325
14.2701	Systems Engineering	44	75	73	76	268
14.0101	Engineering, General	66	69	66	62	263
11.0101	Computer and Information Sciences, General	63	52	72	73	260
14.1201	Engineering Physics/Applied Physics	51	66	53	48	218
11.0401	Information Science/Studies	47	58	51	53	209
14.0901	Computer Engineering, General	37	51	59	44	191
15.1501	Engineering/Industrial Management	29	23	39	48	139
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	37	36	33	23	129
14.1401	Environmental/Environmental Health Engineering	26	39	29	32	126
15.1001	Construction Engineering Technology/Technician	19	33	27	33	112



CIP Code	Description	2014	2015	2016	2017	Total
15.1302	CAD/CADD Drafting and/or Design Technology/Technician	15	24	26	30	95
15.0201	Civil Engineering Technology/Technician	23	24	20	12	79
14.0201	Aerospace, Aeronautical and Astronautical/Space Engineering	20	20	14	17	71
15.0805	Mechanical Engineering/Mechanical Technology/Technician	20	18	16	14	68
15.0403	Electromechanical Technology/Electromechanical Engineering Technology	16	16	20	15	67
48.0508	Welding Technology/Welder	16	12	19	18	65
15.0101	Architectural Engineering Technology/Technician	20	9	12	6	47
11.1006	Computer Support Specialist	7	7	15	13	42
15.0702	Quality Control Technology/Technician	20	19	0	0	39
15.1201	Computer Engineering Technology/Technician	11	8	7	13	39
48.0503	Machine Shop Technology/Assistant	4	4	17	13	38
11.1002	System, Networking, and LAN/WAN Management/Manager	11	5	6	0	22
11.0801	Web Page, Digital/Multimedia and Information Resources Design	5	6	7	3	21
15.0613	Manufacturing Engineering Technology/Technician	9	3	3	5	20
48.0501	Machine Tool Technology/Machinist	10	0	7	0	17
14.1101	Engineering Mechanics	4	5	3	3	15
15.0406	Automation Engineer Technology/Technician	0	0	9	6	15
15.0404	Instrumentation Technology/Technician	1	2	3	1	7
11.1099	Computer/Information Technology Services Administration and Management, Other	3	3	0	0	6
52.1909	Special Products Marketing Operations	2	0	2	2	6
11.9999	Computer and Information Sciences and Support Services, Other	4	0	0	0	4

Source: EMSI Q4 2018 Data

With a projected local demand of 1,065 new workers in the next five years, and a potential regional supply that exceeds that number, the regional skilled labor supply can feed the demand gap.

6.3 Health Care Services

Health Care Services is a significant contributor to the American economy. Expenditure on health care has risen steadily from 12.5% of National GDP in 2000 to 16.8% in 2015. Several major demographic shifts in the USA have contributed to this industry expansion, with more growth projected in the future.

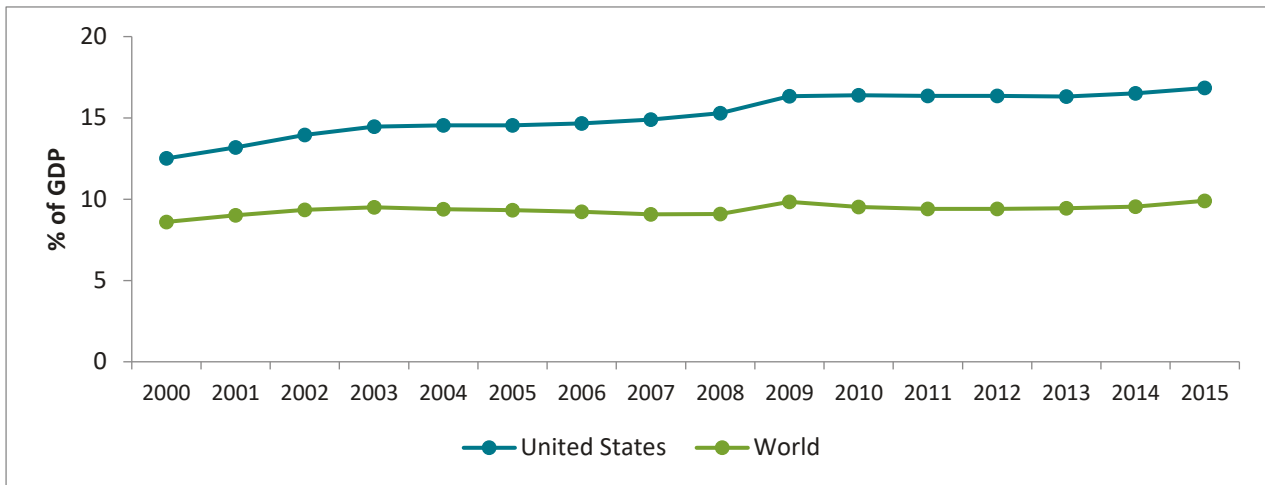
The number of Americans ages 65 and older is projected to more than double from 46 million today to over 98 million by 2060, and the 65-and-older age group's share of the total population will rise to nearly 24 percent from 15 percent⁵. Obesity rates among older adults have been increasing, standing at about 25% of adult population in New York by 2017⁶.

⁵ The Population Reference Bureau report, "Aging in the United States," 2016

⁶ Robert Wood Johnson Foundation. Retrieved from < <https://stateofobesity.org/adult-obesity/>>



Figure 14: Historic health expenditure (% of GDP), United States and World, 2000-2015



Source: World Health Organization Global Health Expenditure database (apps.who.int/nha/database)

6.3.1 Business Establishments in the Health Care Services

The United States Census Bureau’s latest 2016 County Business Patterns data recorded 57,619 establishments with payroll in the health care and social assistance services. 1,562 (3%) of these businesses are located in the Southern Tier Region. By 2016 Tioga County accounted for 76 of these businesses in the Southern Tier Region, this represented around 5% of the regional total.

Compared to New York, the Southern Tier Region has a high concentration of businesses classified as hospitals according to the North American Industry Classification System⁷; about 18% of the state totals are located in the Southern Tier Region.

Table 21: Establishments with payroll in health care, New York, Southern Tier Region and Tioga County, 2016

NAICS	Industry	New York	STR	Tioga County
621	Ambulatory health care services	39,163	855	38
622	Hospitals	304	55	4
623	Nursing and residential care facilities	5,671	252	13
624	Social assistance	12,481	400	21

Source: United States Census Bureau County Business Patterns 2016

6.3.2 Employees in Health Care Services

The health care sector employs 1,694,769 people in New York. The Southern Tier Region has 43,492 or 3% of the state total. Tioga County has 1,367; this represents 3% of the regional total or 0.1% of New York’s total.

⁷ Industries in the Hospitals subsector provide medical, diagnostic, and treatment services that include physician, nursing, and other health services to inpatients and the specialized accommodation services required by inpatients. Hospitals may also provide outpatient services as a secondary activity. Establishments in the Hospitals subsector provide inpatient health services, many of which can only be provided using the specialized facilities and equipment that form a significant and integral part of the production process (www.bls.gov)



In terms of proportion of workers, it is observed that this is different in the three geographies:

- In New York, 35% of employees in healthcare services work in ambulatory health care services.
- In the Southern Tier Region, 33% of employees work in hospitals.
- In Tioga County, 46% work in nursing and residential care facilities.

Table 22: Employees in health care, New York, Southern Tier Region and Tioga County, 2017

NAICS	Industry	New York	STR	Tioga
	Total	1,694,769	43,492	1,367
621	Ambulatory Health Care Services	591,393	9,429	280
622	Hospitals	452,826	14,283	29
623	Nursing and Residential Care Facilities	276,676	11,036	626
624	Social Assistance	373,874	8,744	432

Source: JobsEQ®

6.3.3 Annual Payroll in Health Care Services

The annual payroll for health care services in the state of New York was \$75.8 billion. Due to withheld data from Chenango County, Schuyler County, Tioga County and Tompkins County, the total annual payroll cannot be calculated accurately for the Southern Tier Region. However, the amount is near \$1.7 billion a year; this is 2% of the state’s total. Tioga County annual payroll in this sector is around \$33.7 million or 2% of the Southern Tier Region’s total.

Table 23: Annual Payroll in health care, New York, Southern Tier Region and Tioga County, 2016 (\$1,000s)

NAICS	Industry	New York	STR	Tioga
62	Health care and social assistance	\$75,868,966	\$1,709,627	\$33,793
621	Ambulatory health care services	\$26,089,392	\$532,830	\$10,964
622	Hospitals	\$33,396,944	\$642,363*	D
623	Nursing and residential care facilities	\$8,597,176	\$259,991	\$16,169
624	Social assistance	\$7,785,454	\$169,220	\$5,207

Source: U.S. Census Bureau, 2016 County Business Patterns

D: Withheld to avoid disclosing data for individual companies; data are included in higher level totals

*Due to unavailable data from Chenango County, Schuyler County, Tioga County and Tompkins County the amount is presented does not represent an accurate value.

6.3.4 Health Care Services Occupations

Tioga County has an estimate of 1,357 people working in the health care sector occupations. The top five occupations making up 43% of the workforce in the sector are:

- Personal care aides (14%).
- Nursing assistants (13%).
- Child care workers (6%).



- Licensed practical and licensed vocational nurses (5%).
- Registered nurses (5%).

The first three occupations have an annual average wage that range \$25,000 to \$28,500. Registered nurses have the highest annual average wage at \$62,300.

In terms of growth, these occupations are expected to experience an increase in demand in the next 5 year:

- Personal care aides (156 jobs or 84%).
- Nursing assistants (89 jobs or 49%).
- Child care workers (53 jobs or 70%).
- Home health aides (32 jobs or 67%).
- Licensed practical and licensed vocational nurses (21 jobs or 29%).

Table 24: Top 20 occupations employed in health care services and 5-year demand, Tioga County, 2017

SOC	Title	Current		5-Year Demand			
		Empl	Average Wage	Exits	Transfers	Growth	Total
	Total	1,357	n/a	366	363	12	741
39-9021	Personal Care Aides	187	\$28,500	80	60	16	156
31-1014	Nursing Assistants	181	\$27,800	53	44	-8	89
39-9011	Childcare Workers	76	\$25,300	31	23	-1	53
29-2061	Licensed Practical and Licensed Vocational Nurses	73	\$42,600	12	12	-3	21
29-1141	Registered Nurses	64	\$62,300	9	7	-2	14
31-1011	Home Health Aides	47	\$27,800	15	13	4	32
21-1093	Social and Human Service Assistants	33	\$33,000	8	12	1	21
43-4171	Receptionists and Information Clerks	30	\$28,600	10	10	1	21
43-9061	Office Clerks, General	22	\$29,100	7	6	-1	12
37-2012	Maids and Housekeeping Cleaners	22	\$23,200	8	6	-1	13
29-1123	Physical Therapists	22	\$83,700	2	3	2	7
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	18	\$36,700	5	5	-1	8
25-2011	Preschool Teachers, Except Special Education	17	\$27,500	4	5	0	8
35-2012	Cooks, Institution and Cafeteria	17	\$27,900	5	7	-1	11
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	16	\$26,600	5	5	-1	9
39-9032	Recreation Workers	15	\$25,900	5	8	0	12
35-3041	Food Servers, Nonrestaurant	15	\$21,300	5	5	-1	10
31-9092	Medical Assistants	14	\$30,500	3	5	1	9
21-1021	Child, Family, and School Social Workers	13	\$42,700	2	4	1	7
39-1021	First-Line Supervisors of Personal Service Workers	12	\$33,900	3	3	0	6

Source: JobsEQ®



Table 25: Healthcare support occupations educational requirements and projected growth national 2016-2026

SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
31-1014	Nursing Assistants	Postsecondary nondegree award	None	50,000 or more	Faster than average
31-9092	Medical Assistants	Postsecondary nondegree award	None	50,000 or more	Much faster than average
31-1011	Home Health Aides	High school diploma or equivalent	Short-term on-the-job training	50,000 or more	Much faster than average
31-9091	Dental Assistants	Postsecondary nondegree award	None	50,000 or more	Much faster than average
31-9097	Phlebotomists	Postsecondary nondegree award	None	10,000 to 49,999	Much faster than average
31-1015	Orderlies	High school diploma or equivalent	Short-term on-the-job training	1,000 to 4,999	As fast as average
31-2021	Physical Therapist Assistants	Associate degree	None	10,000 to 49,999	Much faster than average
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	High school diploma or equivalent	Short-term on-the-job training	10,000 to 49,999	Much faster than average
31-2011	Occupational Therapy Assistants	Associate degree	None	10,000 to 49,999	Much faster than average
31-9011	Massage Therapists	Postsecondary nondegree award	None	10,000 to 49,999	Much faster than average
31-9093	Medical Equipment Preparers	High school diploma or equivalent	Moderate-term on-the-job training	5,000 to 9,999	Faster than average
31-9099	Healthcare Support Workers, All Other	High school diploma or equivalent	None	10,000 to 49,999	Faster than average
31-9094	Medical Transcriptionists	Postsecondary nondegree award	None	Declining	Decline
31-2022	Physical Therapist Aides	High school diploma or equivalent	Short-term on-the-job training	10,000 to 49,999	Much faster than average
31-9095	Pharmacy Aides	High school diploma or equivalent	Short-term on-the-job training	Declining	Decline

Source: Bureau of Labor Statistics, 2019

6.3.5 Health Care Services Talent Demand Assessment

When examining the industry’s forecasted demand scenario (Table 26), it is recognized that the industry will need to replace 758 workers in the next five years. Approximately 396 workers are anticipated to exit the workforce in the next five years, with another 371 transferring to another industry. Overall, industries in the health care sector are expected to grow by 0.2% in the next five years.

Table 26: Industry snapshot of employment demand, health care services, Tioga County

North American Industry Classification System (NAICS)	5-Year History		5-Year Forecast				
	Total Change Empl	Avg Ann % Chg in Empl Region	Total New Demand	Separations (Approximate)		Growth	
				Exits	Transfers	Empl	Avg Ann Rate
Total	108	▲ 8%	758	369	371	17	▲ 0.2%



North American Industry Classification System (NAICS)	5-Year History		5-Year Forecast				
	Total Change Empl	Avg Ann % Chg in Empl Region	Total New Demand	Separations (Approximate)		Growth	
				Exits	Transfers	Empl	Avg Ann Rate
Ambulatory Health Care Services	-76	▼-4.7%	142	59	64	18	▲1.3%
Hospitals	29	n/a	3	5	5	-7	▼-5.5%
Nursing and Residential Care Facilities	175	▲6.8%	326	172	171	-17	▼-0.5%
Social Assistance	-20	▼-0.9%	287	133	131	23	▲1.0%

Source: JobsEQ®

6.3.6 Health Care Services Talent Supply Assessment

From 2014 to 2017, 13,460 people graduated in fields related to healthcare services from educational institutions in the Southern Tier Region; this represents an average of 3,365 new graduates per year. In 2017, the number of graduates grew 4% compared to 2014.

Most of these graduates were in areas such as registered nursing, biology/biological sciences, psychology, etc.

Table 27: Graduates with degrees related to healthcare services, Southern Tier Region, New York

CIP Code	Description	2014	2015	2016	2017	Total
N/A	Total	3,306	3,304	3,393	3,457	13,460
51.3801	Registered Nursing/Registered Nurse	539	627	688	728	2582
26.0101	Biology/Biological Sciences, General	567	586	596	555	2304
42.0101	Psychology, General	455	456	458	471	1840
26.9999	Biological and Biomedical Sciences, Other	137	211	193	177	718
51.2308	Physical Therapy/Therapist	159	173	173	170	675
51.3501	Massage Therapy/Therapeutic Massage	198	100	102	145	545
26.1501	Neuroscience	0	165	126	217	508
51.3901	Licensed Practical/Vocational Nurse Training	156	121	71	92	440
51.0801	Medical/Clinical Assistant	114	91	101	77	383
51.2306	Occupational Therapy/Therapist	74	87	93	95	349
26.0202	Biochemistry	78	63	79	65	285
26.0406	Cell/Cellular and Molecular Biology	69	74	67	55	265
26.0908	Exercise Physiology	48	56	60	55	219
42.2706	Physiological Psychology/Psychobiology	129	2	63	11	205
51.3805	Family Practice Nurse/Nursing	66	56	35	40	197
51.0201	Communication Sciences and Disorders, General	26	23	36	45	130
51.0602	Dental Hygiene/Hygienist	26	34	33	28	121
51.1501	Substance Abuse/Addiction Counseling	34	32	31	20	117
51.1009	Phlebotomy Technician/Phlebotomist	34	27	25	27	113
51.0701	Health/Health Care Administration/Management	28	28	25	27	108
51.0713	Medical Insurance Coding Specialist/Coder	25	25	23	27	100
51.0806	Physical Therapy Technician/Assistant	24	15	25	24	88
26.1101	Biometry/Biometrics	18	18	23	25	84
51.1004	Clinical/Medical Laboratory Technician	26	16	20	20	82



CIP Code	Description	2014	2015	2016	2017	Total
51.2201	Public Health, General	14	20	18	18	70
51.0907	Medical Radiologic Technology/Science - Radiation Therapist	25	0	21	21	67
51.0913	Athletic Training/Trainer	17	15	14	17	63
51.0000	Health Services/Allied Health/Health Sciences, General	18	16	16	9	59
42.2804	Industrial and Organizational Psychology	14	10	14	16	54
51.0203	Speech-Language Pathology/Pathologist	22	9	11	12	54
51.0707	Health Information/Medical Records Technology/Technician	12	13	15	11	51
26.1201	Biotechnology	5	8	15	22	50
42.2703	Developmental and Child Psychology	11	9	16	12	48
51.0911	Radiologic Technology/Science - Radiographer	24	7	6	5	42
26.0204	Molecular Biology	12	8	6	15	41
51.0702	Hospital and Health Care Facilities Administration/Management	7	14	10	9	40
51.0716	Medical Administrative/Executive Assistant and Medical Secretary	18	12	2	3	35
51.0708	Medical Transcription/Transcriptionist	10	14	7	2	33
51.3808	Nursing Science	4	6	6	12	28
51.2309	Therapeutic Recreation/Recreational Therapy	7	5	9	5	26
42.2801	Clinical Psychology	5	7	5	8	25
51.0204	Audiology/Audiologist and Speech-Language Pathology/Pathologist	7	6	6	6	25
26.0502	Microbiology, General	7	6	4	5	22
51.3811	Public Health/Community Nurse/Nursing	5	6	7	4	22
26.1504	Neurobiology and Behavior	3	1	8	4	16
51.0799	Health and Medical Administrative Services, Other	6	2	4	4	16
51.0904	Emergency Medical Technology/Technician (EMT Paramedic)	4	4	5	3	16
26.1104	Computational Biology	1	4	2	7	14
51.3803	Adult Health Nurse/Nursing	1	2	3	6	12
51.9999	Health Professions and Related Clinical Sciences, Other	0	0	0	12	12
42.2701	Cognitive Psychology and Psycholinguistics	2	1	4	4	11
26.0203	Biophysics	4	4	2	1	11
26.0507	Immunology	4	4	1	2	11
26.1001	Pharmacology	4	1	2	3	10
51.0710	Medical Office Assistant/Specialist	0	0	4	3	7
26.1006	Environmental Toxicology	2	2	2	0	6
51.1005	Clinical Laboratory Science/Medical Technology/Technologist	0	1	1	0	2
51.3810	Psychiatric/Mental Health Nurse/Nursing	1	0	1	0	2

Source: EMSI Q4 2018 Data

With a projected local demand of 785 new workers in the next five years, and a potential regional supply that exceeds that number, the regional skilled labor supply can feed the demand gap.



6.4 Warehousing and Distribution

Warehousing and distribution is an important industry in the United States, experiencing growth in recent years of a rate of 6.3% year over year. Part of this growth is the result of the rise of e-commerce and online retail, the increasing influx of international freight and the outsourcing of warehousing and logistics services by manufacturing and retail to third-party providers⁸.

As the sector becomes more important there has been a much-publicized driver shortage in trucking seen as part of a larger employee shortage problem facing the entire transportation industry, including the warehouse and logistics sectors.⁹ This shortage of trained individuals to replace a rapidly aging workforce in trucking and warehousing will ultimately raise transport and storage costs for shippers. However other technology solutions are being touted as potential solutions to this issue with companies like Tesla developing self-driving tech for semi-trucks.¹⁰

6.4.1 Business Establishments in Warehousing and Distribution

The United States Census Bureau's latest 2016 County Business Patterns data recorded 12,886 businesses with employees in the warehousing and distribution sector in New York. The Southern Tier Region accounted for 334 of these businesses or 3% of the state total. Due to unavailable data in Tioga County it is not possible to provide accurate business counts estimates, however the information data available suggests that at least 15 businesses in the warehousing distribution sector are located in this county; this represents 4% of the Southern Tier Region's total.

Table 28: Establishments with payroll in health care, New York, Southern Tier Region and Tioga County, 2016

NAICS	Industry	New York	STR	Tioga County
	Total	12,886	334	15
481	Air transportation	296	10	n/a
483	Water transportation	138	n/a	n/a
484	Truck transportation	4,844	170	9
485	Transit and ground passenger transportation	3,196	49	n/a
486	Pipeline transportation	70	16	n/a
487	Scenic and sightseeing transportation	178	4	n/a
488	Support activities for transportation	2,609	44	5
492	Couriers and messengers	1,029	26	n/a
493	Warehousing and storage	526	15	1

Source: U.S. Census Bureau, 2016 County Business Patterns

⁸ Staffing Industry, retrieved from <https://www2.staffingindustry.com/row/Editorial/Industrial-Staffing-Report/Dec.-15-2016/Trends-in-the-warehousing-and-distribution-industry?>

⁹ Third Party Logistics Study www.3plstudy.com/3plindex.php

¹⁰ Tesla Developing Self-Driving Semi-Truck www.reuters.com/article/us-tesla-truck-autonomous/exclusive-tesla-developing-self-driving-tech-for-semi-truck-wants-to-test-in-nevada-idUSKBN1AP2GD



6.4.2 Employees in the Warehousing and Distribution Sector

Warehousing and distribution employs 430,246 people in New York. The Southern Tier Region has 7,711 or 2% of the state total. Tioga County has 681; this represents 9% of the regional total or 0.2% of New York's total.

In terms of proportion of workers, it is observed that this is different in the three geographies

- Most of the employees for this sector in New York and the Southern Tier Region are in the transit and ground passenger transportation subsector (40% and 27% respectively).
- In Tioga County 44% of the employees in this sector are in warehousing and storage.

Table 29: Employees in health care, New York, Southern Tier Region and Tioga County, 2017

NAICS	Industry	New York	STR	Tioga County
	Total	430,246	7,711	681
481	Air Transportation	34,479	174	n/a
482	Rail Transportation	15,278	283	32
483	Water Transportation	3,909	2	n/a
484	Truck Transportation	45,506	1,559	128
485	Transit and Ground Passenger Transportation	172,888	2,044	94
486	Pipeline Transportation	408	135	n/a
487	Scenic and Sightseeing Transportation	3,151	41	n/a
488	Support Activities for Transportation	42,075	399	14
491	Postal Service	44,109	1,121	84
492	Couriers and Messengers	43,439	857	28
493	Warehousing and Storage	25,004	1,096	301

Source: JobsEQ®

6.4.3 Annual Payroll in the Warehousing and Distribution Sector

The United States Census Bureau's latest 2016 County Business Patterns data recorded an annual payroll of \$11.8 billion in the warehousing/distribution sector in New York. The Southern Tier Region recorded \$194 million or 2% of the state total. Tioga County's annual payroll for this industry represented 7% of the Southern Tier Region.

Due to unavailable and withheld data, figures for the Southern Tier Region and Tioga County are not accurate.

Table 30: Annual Payroll in warehousing/distribution, New York, Southern Tier Region and Tioga County, 2016 (\$1,000s)

NAICS	Industry	New York	STR	Tioga County
	Total	\$11,835,007	\$194,091	\$12,741
481	Air transportation	\$2,569,551	*	*
483	Water transportation	\$257,517	*	*
484	Truck transportation	\$2,027,269	\$69,582	\$3,611
485	Transit and ground passenger transportation	\$2,693,571	\$23,895	*



NAICS	Industry	New York	STR	Tioga County
486	Pipeline transportation	\$67,933	\$6,584	*
487	Scenic and sightseeing transportation	\$103,744	*	*
488	Support activities for transportation	\$1,767,875	\$9,763	\$241
492	Couriers and messengers	\$1,487,416	\$22,072	*
493	Warehousing and storage	\$860,131	\$6,075	D

Source: U.S. Census Bureau, 2016 County Business Patterns

*Denotes unavailable data | D: Withheld to avoid disclosing data for individual companies; data are included in higher level totals

6.4.4 Warehousing and Distribution Occupations

Tioga County has an estimate of 615 people working in the warehousing and distribution occupations. The top five occupations making up 62% of the workforce in the sector are:

- Heavy and tractor-trailer truck drivers (20%).
- Laborers and freight, stock, and material movers, hand (18%).
- Bus drivers, school or special client (9%).
- Postal service mail carriers (9%).
- Industrial truck and tractor operators (5%).

In terms of growth, these occupations are expected to experience an increase in demand in the next 5 year:

- Laborers and freight, stock, and material movers, hand (83 jobs or 77%).
- Heavy and tractor-trailer truck drivers (61 jobs or 50%).
- Bus drivers, school or special client (32 jobs or 55%).

Table 31: Top 20 occupations employed in warehousing and distribution - 5-year demand, Tioga County, 2017

SOC	Title	Current		5-Year Demand			
		Empl	Average Wage	Exits	Transfers	Growth	Total
	Total	615	\$44,651	150	192	-7	334
53-3032	Heavy and Tractor-Trailer Truck Drivers	122	\$39,800	25	38	-2	61
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	108	\$25,900	28	49	6	83
53-3022	Bus Drivers, School or Special Client	57	\$29,200	22	11	-2	32
43-5052	Postal Service Mail Carriers	55	\$49,600	10	7	-7	9
53-7051	Industrial Truck and Tractor Operators	41	\$39,800	7	16	1	23
53-3033	Light Truck or Delivery Services Drivers	25	\$32,800	5	8	0	13
33-9099	Protective Service Workers, All Other	17	\$21,500	11	9	-1	20
53-7064	Packers and Packagers, Hand	17	\$30,700	6	7	1	14
43-5081	Stock Clerks and Order Fillers	16	\$26,500	5	6	0	11



SOC	Title	Current		5-Year Demand			
		Empl	Average Wage	Exits	Transfers	Growth	Total
43-5053	Postal Service Mail Sorters, Processors, and Processing Machine Operators	15	\$43,300	3	2	-2	2
43-5051	Postal Service Clerks	14	\$52,000	3	2	-2	3
43-5071	Shipping, Receiving, and Traffic Clerks	14	\$32,700	3	4	1	7
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	9	\$52,500	2	3	1	6
49-3031	Bus and Truck Mechanics and Diesel Engine Specialists	9	\$45,500	1	2	0	4
43-9061	Office Clerks, General	8	\$29,100	2	2	0	4
43-4051	Customer Service Representatives	6	\$33,700	2	2	0	4
11-1021	General and Operations Managers	6	\$107,200	1	2	0	3
53-4031	Railroad Conductors and Yardmasters	6	\$53,300	1	2	0	2
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	6	\$52,500	1	2	0	3
43-5032	Dispatchers, Except Police, Fire, and Ambulance	6	\$36,500	1	2	0	2

Source: JobsEQ®

Table 32 shows the educational requirements and projected national growth for the occupations employed in warehousing and distribution.

Table 32: Warehousing/distribution occupations educational requirements and projected growth national 2016-2026

SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
53-7062	Laborers and Freight, Stock, and Material Movers, Hand	No formal educational credential	Short-term on-the-job training	50,000 or more	As fast as average
53-3032	Heavy and Tractor-Trailer Truck Drivers	Postsecondary nondegree award	Short-term on-the-job training	50,000 or more	As fast as average
53-7051	Industrial Truck and Tractor Operators	No formal educational credential	Short-term on-the-job training	10,000 to 49,999	As fast as average
53-7064	Packers and Packers, Hand	No formal educational credential	Short-term on-the-job training	10,000 to 49,999	Slower than average
53-3033	Light Truck or Delivery Services Drivers	High school diploma or equivalent	Short-term on-the-job training	50,000 or more	As fast as average
53-3022	Bus Drivers, School or Special Client	High school diploma or equivalent	Short-term on-the-job training	10,000 to 49,999	As fast as average
53-3031	Driver/Sales Workers	High school diploma or equivalent	Short-term on-the-job training	Declining	Little or no change
53-7061	Cleaners of Vehicles and Equipment	No formal educational credential	Short-term on-the-job training	10,000 to 49,999	Faster than average



SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
53-1021	First-Line Supervisors of Helpers, Laborers, and Material Movers, Hand	High school diploma or equivalent	None	10,000 to 49,999	As fast as average
53-1031	First-Line Supervisors of Transportation and Material-Moving Machine and Vehicle Operators	High school diploma or equivalent	None	10,000 to 49,999	As fast as average
53-3041	Taxi Drivers and Chauffeurs	No formal educational credential	Short-term on-the-job training	10,000 to 49,999	As fast as average
53-3021	Bus Drivers, Transit and Intercity	High school diploma or equivalent	Moderate-term on-the-job training	10,000 to 49,999	As fast as average
53-6021	Parking Lot Attendants	No formal educational credential	Short-term on-the-job training	5,000 to 9,999	As fast as average
53-6031	Automotive and Watercraft Service Attendants	No formal educational credential	Short-term on-the-job training	10,000 to 49,999	Faster than average
53-7063	Machine Feeders and Offbearers	No formal educational credential	Short-term on-the-job training	1,000 to 4,999	Slower than average
53-7081	Refuse and Recyclable Material Collectors	No formal educational credential	Short-term on-the-job training	10,000 to 49,999	Faster than average
53-7011	Conveyor Operators and Tenders	No formal educational credential	Short-term on-the-job training	Declining	Little or no change
53-7032	Excavating and Loading Machine and Dragline Operators	High school diploma or equivalent	Moderate-term on-the-job training	1,000 to 4,999	As fast as average
53-7021	Crane and Tower Operators	High school diploma or equivalent	Moderate-term on-the-job training	1,000 to 4,999	As fast as average
53-2012	Commercial Pilots	High school diploma or equivalent	Moderate-term on-the-job training	1,000 to 4,999	Slower than average

Source: Bureau of Labor Statistics, 2019

6.4.5 Warehousing and Distribution Talent Demand Assessment

When examining the industry's forecasted demand scenario (Table 33), the industry will need to replace 362 workers in the next five years. Approximately 157 workers are anticipated to exit the workforce in the next five years, with another 211 transferring to another industry. Overall industries in the warehousing/distribution sector are expected to fall by 0.2% in the next five years.

Table 33: Industry snapshot of employment demand, warehousing and distribution, Tioga County

North American Industry Classification System (NAICS)	5-Year History		Total New Demand	5-Year Forecast			
	Total Change Empl	Avg Ann % Chg in Empl Region		Separations (Approximate)		Growth	
				Exits	Transfers	Empl	Avg Ann Rate
Total	37	▲5%	362	157	211	-6	▼-0.2%
Rail Transportation	1	▲0.8%	11	5	9	-2	▼-1.6%
Truck Transportation	-2	▼-0.3%	61	26	40	-5	▼-0.8%
Transit and Ground Passenger Transportation	-46	▼-7.6%	51	31	22	-3	▼-0.6%



North American Industry Classification System (NAICS)	5-Year History		5-Year Forecast				
	Total Change Empl	Avg Ann % Chg in Empl Region	Total New Demand	Separations (Approximate)		Growth	
				Exits	Transfers	Empl	Avg Ann Rate
Support Activities for Transportation	1	▲ 1.2%	7	3	4	0	▲ 0.2%
Postal Service	-3	▼ -0.8%	18	16	13	-11	▼ -2.8%
Couriers and Messengers	2	▲ 1.7%	16	6	10	0	▲ 0.1%
Warehousing and Storage	84	▲ 6.8%	198	70	113	15	▲ 1.0%

Source: JobsEQ®

6.4.6 Warehousing and Distribution Talent Supply Assessment

Graduates of fields related to warehousing and distribution in the Southern Tier Region remain low in comparison to other fields. In 2014, only 2 graduates obtained degrees related to this industry. By 2017, the number increased to 10 people, all of them in logistics, material, and supply chain management.

Table 34: Graduates with degrees related to warehousing and distribution, Southern Tier Region, New York

CIP Code	Description	2014	2015	2016	2017	Total
N/A	Total	2	7	3	10	22
52.0203	Logistics, Materials, and Supply Chain Management	2	7	3	10	22
11.0802	Data Modeling/Warehousing and Database Administration	0	0	0	0	0
47.0409	Parts and Warehousing Operations and Maintenance Technology/Technician	0	0	0	0	0
52.0409	Parts, Warehousing, and Inventory Management Operations	0	0	0	0	0
49.0104	Aviation/Airway Management and Operations	0	0	0	0	0
49.0202	Construction/Heavy Equipment/Earthmoving Equipment Operation	0	0	0	0	0
49.0205	Truck and Bus Driver/Commercial Vehicle Operator and Instructor	0	0	0	0	0
49.0206	Mobil Crane Operation/Operator	0	0	0	0	0
49.0207	Flagging and Traffic Control	0	0	0	0	0
49.0208	Railroad and Railway Transportation	0	0	0	0	0
49.0299	Ground Transportation, Other	0	0	0	0	0
49.0303	Commercial Fishing	0	0	0	0	0
49.0304	Diver, Professional and Instructor	0	0	0	0	0
49.9999	Transportation and Materials Moving, Other	0	0	0	0	0

Source: EMSI Q4 2018 Data

With a projected local demand of 362 new workers in the next five years, and a potential regional supply that falls behind that number, the regional skilled labor supply will not be able to feed the demand gap.

6.5 Hospitality

This sector includes all industries within the accommodation and food services sector. Hospitality is one of the largest growing industries in the United States. In fact, revenue from this industry increased from 115.6 billion in 2001 to 208 billion in 2017¹¹.

¹¹ <https://www.statista.com/statistics/245841/total-revenue-of-the-us-hotel-industry/>



The development of this industry has been closely connected with technology in the last few years, and major technology trends are shaping and driving the hospitality industry worldwide. These trends include¹²:

- Travel apps and the increase of the tourism industry.
- The emergence of a parallel industry that includes services like Airbnb and other shared spaces apps.
- The demand for personalized services and the use of digital tools to cater to millennial travelers.

6.5.1 Business Establishments in the Hospitality Sector

The United States Census Bureau’s latest 2016 County Business Patterns data recorded 53,199 businesses with payroll in the hospitality sector. The Southern Tier Region has 1,661 businesses or 3% of the state’s total. Tioga County has a total of 92 businesses with payroll in the hospitality sector; this represents 6% of the regional businesses and 0.17% of the state’s total.

In all areas, most of the businesses within this sector are in the food services and drinking places.

Table 35: Establishments with payroll in hospitality, New York, Southern Tier Region and Tioga County, 2016

NAICS	Industry	New York	STR	Tioga County
	Total	53,199	1,661	92
721	Accommodation	3,064	215	11
722	Food services and drinking places	50,135	1,446	81

Source: U.S. Census Bureau, 2016 County Business Patterns

6.5.2 Employees in the Hospitality Sector

By 2017, an estimate of 800,111 people worked in the hospitality sector in the state of New York. Approximately 3% of these workers (22,514 people) were employed in the Southern Tier Region.

With 1,464 employees in this sector, Tioga County workers represent about 7% of the region’s employees and 0.2% of the state’s total. The biggest proportion of workers in this sector is employed in the food services and drinking places.

Table 36: Employees in the hospitality sector, New York, Southern Tier Region and Tioga County, 2017

NAICS	Industry	New York	STR	Tioga County
	Total	800,111	22,514	1,464
721	Accommodation	107,480	3,141	643
722	Food Services and Drinking Places	692,631	19,373	821

Source: JobsEQ®

¹² <https://www.entrepreneur.com/article/321723>



6.5.3 Annual Payroll in the Hospitality Sector

The United States Census Bureau’s latest 2016 County Business Patterns data recorded an annual payroll of \$19.3 billion in New York. The Southern Tier Region represented 2% of this amount. Tioga County’s annual payroll in the hospitality sector was \$13.7 million; this is 4% of the regional annual payroll and 0.07% of the state’s total.

In the three areas a significantly large amount of the payroll (between 78% to 90%) was on the food services and drinking places.

Table 37: Annual Payroll in hospitality, New York, Southern Tier Region and Tioga County, 2016 (\$1,000s)

NAICS	Industry	New York	STR	Tioga County
	Total	\$19,324,891	\$358,342	\$13,778
721	Accommodation	\$4,324,494	\$42,695	\$1,427
722	Food services and drinking places	\$15,000,397	\$315,647	\$12,351

Source: U.S. Census Bureau, 2016 County Business Patterns

6.5.4 Hospitality Occupations

Tioga County has an estimate of 1,499 people working in hospitality occupations. The top five occupations making up 44% of the workforce in the sector are:

- Combined food preparation and serving workers, including fast food (16%).
- Waiters and waitresses (13%).
- Cooks, restaurant (5%).
- Gaming dealers (5%).
- Maids and housekeeping cleaners (5%).

In terms of growth, these occupations are expected to experience an increase in demand in the next 5 year:

- Combined food preparation and serving workers, including fast food (224 jobs or 94%).
- Waiters and waitresses (170 jobs or 86%).
- Cooks, restaurant (49 jobs or 65%).



Table 38: Top 20 occupations employed in hospitality - 5-year demand, Tioga County, 2017

SOC	Title	Current		5-Year Demand			
		Empl	Average Wage	Exits	Transfers	Growth	Total
	Total	1,499	\$43,871	492	627	-72	1,048
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	240	\$22,300	108	113	4	224
35-3031	Waiters and Waitresses	197	\$24,900	70	107	-7	170
35-2014	Cooks, Restaurant	76	\$25,900	22	29	-2	49
39-3011	Gaming Dealers	74	\$20,900	20	30	-7	44
37-2012	Maids and Housekeeping Cleaners	71	\$23,200	24	19	-5	38
35-3011	Bartenders	64	\$22,600	15	35	-4	46
35-1012	First-Line Supervisors of Food Preparation and Serving Workers	63	\$32,600	14	29	-1	42
35-9021	Dishwashers	47	\$21,900	17	18	-2	32
35-2021	Food Preparation Workers	42	\$23,700	16	18	-2	32
35-2011	Cooks, Fast Food	41	\$21,400	11	15	-4	23
41-2011	Cashiers	38	\$22,100	17	16	-3	30
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	37	\$22,800	16	14	-2	27
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	35	\$26,600	11	10	-3	18
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	33	\$23,900	18	17	-1	35
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	31	\$21,300	17	14	-2	29
33-9032	Security Guards	27	\$33,600	7	9	-3	13
43-4081	Hotel, Motel, and Resort Desk Clerks	26	\$25,100	7	12	-2	17
11-9051	Food Service Managers	19	\$52,700	3	7	-1	10
39-1011	Gaming Supervisors	19	\$50,600	4	9	-2	12
49-9071	Maintenance and Repair Workers, General	16	\$37,400	3	4	-1	6

Source: JobsEQ®

Table 39: Occupations educational requirements and projected growth national 2016-2026

SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
13-1121	Meeting, Convention, and Event Planners	Bachelor's degree	None	10,000 to 49,999	Faster than average
39-3019	Gaming Services Workers	High school diploma or equivalent	Short-term on-the-job training	1,000 to 4,999	Slower than average
35-3011	Bartenders	None	Short-term on-the-job training	10,000 to 49,999	Slower than average
35-1011	Chefs and Head Cooks	High school diploma or equivalent	None	10,000 to 49,999	Faster than average



SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
35-2010	Cooks	None	Short-term on-the-job training	50,000 or more	As fast as average
35-3000	Food and Beverage Serving and Related Workers	None	Short-term on-the-job training	50,000 or more	Faster than average
35-2020	Food Preparation Workers	None	Short-term on-the-job training	50,000 or more	As fast as average
35-3031	Waiters and Waitresses	None	Short-term on-the-job training	50,000 or more	As fast as average
11-9050	Food Service Managers	High school diploma or equivalent	None	10,000 to 49,999	As fast as average
11-9081	Lodging Managers	high school diploma or equivalent	None	1,000 to 4,999	Slower than average
37-2012	Janitors and Building Cleaners	None	short-term on-the-job training	50,000 or more	Faster than average
41-2011	Cashiers	None	Short-term on-the-job training	Declining	Little or no change
35-9011	Dining Room and Cafeteria Attendants and Bartender Helpers	None	Short-term on-the-job training	10,000 to 49,999	As fast as average
35-9031	Hosts and Hostesses, Restaurant, Lounge, and Coffee Shop	None	Short-term on-the-job training	10,000 to 49,999	As fast as average
35-3022	Counter Attendants, Cafeteria, Food Concession, and Coffee Shop	None	Short-term on-the-job training	10,000 to 49,999	As fast as average
33-9032	Security Guards	High school diploma or equivalent	Short-term on-the-job training	50,000 or more	As fast as average
43-4081	Hotel, Motel, and Resort Desk Clerks	High school diploma or equivalent	Short-term on-the-job training	10,000 to 49,999	Slower than average
49-9071	Maintenance and Repair Workers, General	High school diploma or equivalent	Moderate-term on-the-job training	50,000 or more	As fast as average

Source: Bureau of Labor Statistics, 2019

6.5.5 Hospitality Talent Demand Assessment

In the past five years, the hospitality sector experienced an important growth of approximately 41%. In the next five years the sector will need to replace around 1,031 workers. Approximately 489 workers are anticipated to exit the workforce in the next five years, with another 611 transferring to another industry. Overall industries in the hospitality sector are expected to fall by 1% in the next five years.

Table 40: Industry snapshot of employment demand, hospitality, Tioga County

North American Industry Classification System (NAICS)	5-Year History		Total New Demand	5-Year Forecast			
	Total Change Empl	Avg Ann % Chg in Empl Region		Separations (Approximate)		Growth	
				Exits	Transfers	Empl	Avg Ann Rate
Total	602	▲ 41.1%	1,031	489	611	-70	▼ -1.0%
Accommodation	482	▲ 31.8%	370	191	234	-56	▼ -1.8%
Food Services and Drinking Places	120	▲ 3.2%	661	298	377	-14	▼ -0.3%

Source: JobsEQ®



6.5.6 Hospitality Talent Supply Assessment

From 2014 to 2017, 2,679 people graduated from fields related to hospitality in the Southern Tier Region; this represents an average of 669 new graduates per year. Compared to 2014, the number of graduates in this field decreased 5% in 2017.

Areas where these people graduated include hotel, motel administration/management, hospitality administration, cosmetology, sport/fitness administration and general merchandising, sales and related operations

Table 41: Graduates with degrees related to hospitality, Southern Tier Region, New York

CIP Code	Description	2014	2015	2016	2017	Total
N/A	Total	712	605	689	673	2,679
52.0904	Hotel/Motel Administration/Management	345	290	320	290	1,245
52.0901	Hospitality Administration/Management, General	57	86	64	74	281
12.0401	Cosmetology/Cosmetologist, General	82	24	66	25	197
31.0504	Sport and Fitness Administration/Management	61	37	48	42	188
52.1899	General Merchandising, Sales, and Related Marketing Operations, Other	33	31	39	25	128
12.0503	Culinary Arts/Chef Training	19	29	42	25	115
52.0909	Hotel, Motel, and Restaurant Management	28	25	12	19	84
31.0101	Parks, Recreation and Leisure Studies	24	15	14	20	73
31.0501	Health and Physical Education/Fitness, General	12	14	15	15	56
52.0906	Resort Management	13	11	14	12	50
31.0505	Kinesiology and Exercise Science	10	8	11	16	45
52.1905	Tourism and Travel Services Marketing Operations	11	7	4	10	32
52.0305	Accounting and Business/Management	0	0	6	23	29
52.1001	Human Resources Management/Personnel Administration, General	0	0	2	27	29
31.0301	Parks, Recreation and Leisure Facilities Management, General	7	5	9	7	28
31.0508	Sports Studies	3	4	8	11	26
12.0409	Aesthetician/Esthetician and Skin Care Specialist	0	11	0	8	19
12.0410	Nail Technician/Specialist and Manicurist	0	7	0	6	13
12.0504	Restaurant, Culinary, and Catering Management/Manager	5	1	2	4	12
52.0213	Organizational Leadership	0	0	0	9	9
52.0304	Accounting and Finance	0	0	9	0	9
52.1909	Special Products Marketing Operations	2	0	2	2	6
52.0907	Meeting and Event Planning	0	0	1	3	4
52.0908	Casino Management	0	0	1	0	1

Source: EMSI Q4 2018 Data

With a projected local demand of 1,031 new workers in the next five years, and a potential regional supply that exceeds that number, the regional skilled labor supply can feed the demand gap.



6.6 Professional Services

This industry sector specializes in performing professional, scientific and technical activities. These services demand a high degree of knowledge, expertise and training. Some of the services provided by this industry include legal services, accounting, architecture, engineering, computer services consulting, research, translation, veterinary and advertising, among others.

6.6.1 Business Establishments in the Professional Services Sector

The United States Census Bureau's latest 2016 County Business Patterns data recorded a total of 61,607 businesses with payroll in the professional, scientific and technical services. The Southern Tier Region accounted for 1,018 businesses or 1.7% of the state's total.

The proportion of businesses in Tioga County represented 6% of the region's businesses and approximately 0.09% of the businesses in New York.

Table 42: Establishments with payroll in professional services, New York, Southern Tier Region and Tioga County, 2016

NAICS	Industry	New York	STR	Tioga County
541	Professional, scientific, and technical services	61,607	1,018	57

Source: U.S. Census Bureau, 2016 County Business Patterns

6.6.2 Employees in the Professional Services Sector

By 2017 there were a total of 760,404 workers employed in the professional, scientific and technical services sector. The Southern Tier Region employs 11,543 or 1.5% of the state's total.

This sector employs 427 people in Tioga County or 4% of the region's employees and less than 0.06% of New York's workers in these industries.

Table 43: Employees in the professional services sector, New York, Southern Tier Region and Tioga County, 2017

NAICS	Industry	New York	STR	Tioga County
541	Professional, scientific, and technical services	760,404	11,543	427

Source: JobsEQ®

6.6.3 Annual Payroll in the Professional Services Sector

The United States Census Bureau's latest 2016 County Business Patterns data recorded an annual payroll of \$60.82 billion in the professional services sector. The Southern Tier Region recorded an annual payroll of \$413.5 million or 0.7% of the state's total.

Tioga County recorded an annual payroll of \$10.3 million in this sector. This amount represents 2.5% of the region's sector payroll and 0.02% of the state's total.



Table 44: Annual Payroll in professional services sector, New York, Southern Tier Region and Tioga County, 2016 (\$1,000s)

NAICS	Industry	New York	STR	Tioga County
541	Professional, scientific, and technical services	\$60,826,624	\$413,502	\$10,323

Source: U.S. Census Bureau, 2016 County Business Patterns

6.6.4 Professional Services Occupations

Tioga County has an estimate of 414 people working in professional service occupations. The top five occupations making up 27% of the workforce in the sector are:

- Software developers, applications (8%).
- Accountants and auditors (5%).
- Managers, all others (5%).
- Management analysts (5%).
- Lawyers (4%)

In terms of growth, these occupations are expected to experience an increase in demand in the next 5 year:

- Software developers, applications (16 jobs or 49%).
- Veterinary assistants and laboratory animal caretakers (11 jobs or 84%).
- Accountants and auditors (10 jobs or 44%).

Table 45: Top 20 occupations employed in professional services - 5-year demand, Tioga County, 2017

SOC	Title	Current		5-Year Demand			
		Empl	Average Wage	Exits	Transfers	Growth	Total
	Total	414	67,253	65	110	8	182
15-1132	Software Developers, Applications	33	\$88,200	3	9	4	16
13-2011	Accountants and Auditors	22	\$72,000	3	6	0	10
11-9199	Managers, All Other	22	\$93,500	3	5	0	7
13-1111	Management Analysts	20	\$70,100	3	5	0	9
23-1011	Lawyers	16	\$84,500	2	2	0	3
15-1133	Software Developers, Systems Software	14	\$107,100	1	4	1	5
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	13	\$26,000	4	6	1	11
15-1121	Computer Systems Analysts	13	\$88,900	1	3	0	5
15-1151	Computer User Support Specialists	12	\$48,700	1	3	1	5
15-1131	Computer Programmers	12	\$90,300	1	3	-1	3
43-4171	Receptionists and Information Clerks	11	\$28,600	3	4	0	7
29-2056	Veterinary Technologists and Technicians	10	\$36,800	2	2	1	4
27-4021	Photographers	10	\$36,300	2	2	0	4
11-1021	General and Operations Managers	9	\$107,200	1	3	0	4



SOC	Title	Current		5-Year Demand			
		Empl	Average Wage	Exits	Transfers	Growth	Total
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	9	\$36,700	2	2	-1	4
29-1131	Veterinarians	9	\$110,300	1	1	0	2
43-9061	Office Clerks, General	9	\$29,100	3	3	0	5
43-3031	Bookkeeping, Accounting, and Auditing Clerks	8	\$36,600	2	2	0	4
43-4051	Customer Service Representatives	7	\$33,700	2	3	0	4
11-3021	Computer and Information Systems Managers	7	\$143,900	1	2	0	3

Source: JobsEQ®

Table 46: Occupations educational requirements and projected growth national 2016-2026

SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
15-1132	Software Developers, Applications	Bachelor's degree	None	50,000 or more	Much faster than average
13-2011	Accountants and Auditors	bachelor's degree	None	50,000 or more	Faster than average
11-9199	Managers, All Other	Bachelor's degree	None	50,000 or more	As fast as average
13-1111	Management Analysts	Bachelor's degree	None	50,000 or more	Faster than average
23-1011	Lawyers	Doctoral or professional degree	None	50,000 or more	As fast as average
15-1133	Software Developers, Systems Software	Bachelor's degree	None	10,000 to 49,999	Faster than average
31-9096	Veterinary Assistants and Laboratory Animal Caretakers	High school diploma or equivalent	Short-term on-the-job training	10,000 to 49,999	Much faster than average
15-1121	Computer Systems Analysts	Bachelor's degree	None	50,000 or more	As fast as average
15-1151	Computer User Support Specialists	Some college, no degree	None	50,000 or more	Faster than average
15-1131	Computer Programmers	Bachelor's degree	None	Declining	Decline
43-4171	Receptionists and Information Clerks	High school diploma or equivalent	Short-term on-the-job training	50,000 or more	As fast as average
29-2056	Veterinary Technologists and Technicians	Associate degree	None	10,000 to 49,999	Much faster than average
27-4021	Photographers	High school diploma or equivalent	Long-term on-the-job training	Declining	Decline
11-1021	General and Operations Managers	Bachelor's degree	None	50,000 or more	As fast as average
43-6014	Secretaries and Administrative Assistants, Except Legal, Medical, and Executive	High school diploma or equivalent	Short-term on-the-job training	Declining	Decline
29-1131	Veterinarians	Doctoral or professional degree	None	10,000 to 49,999	Much faster than average
43-9061	Office Clerks, General	High school diploma or equivalent	Short-term on-the-job training	Declining	Little or no change



SOC	Occupations	Entry-Level Education	On-The-Job Training	Projected Number of New Jobs	Projected Growth Rate
43-3031	Bookkeeping, Accounting, and Auditing Clerks	Some college, no degree	Moderate-term on-the-job training	Declining	Little or no change
43-4051	Customer Service Representatives	High school diploma or equivalent	Short-term on-the-job training	50,000 or more	As fast as average
11-3021	Computer and Information Systems Managers	Bachelor's degree	None	10,000 to 49,999	Faster than average

Source: Bureau of Labor Statistics, 2019

6.6.5 Professional Services Talent Demand Assessment

When examining the industry's forecasted demand scenario, the industry will need to replace 193 workers in the next five years.

Approximately 69 workers are anticipated to exit the workforce in the next five years, with another 115 transferring to another industry. Overall industries in the professional service sector are expected to grow by 0.4% in the next five years.

Table 47: Industry snapshot of employment demand, professional services, Tioga County

North American Industry Classification System (NAICS)	5-Year History		Total New Demand	5-Year Forecast			
	Total Change Empl	Avg Ann % Chg in Empl Region		Separations (Approximate)		Growth	
				Exits	Transfers	Empl	Avg Ann Rate
Professional, Scientific, and Technical Services	-15	▼-0.7%	193	69	115	9	▲0.4%

Source: JobsEQ®

6.6.6 Professional Services Talent Supply Assessment

In most of the industry subsectors included in the professional services industry, a college or university degree is fundamental. Areas such as engineering, accounting, architecture and law are part of this industry sector.

In the Southern Tier Region, these degrees were the most common among graduates. From 2014 to 2017 an estimate of 26,433 people obtained degrees related to professional services; this represents an average of 6,608 new graduates per year. From 2014 to 2017 the number of graduates in these areas increased by 17%.

Most of these graduates were in areas such as business administration, computer science, accounting, electrical and electronic engineering and mechanical engineering.



Table 48: Graduates with degrees related to professional services, Southern Tier Region, New York

CIP Code	Description	2014	2015	2016	2017	Total
N/A	Total	6,062	6,423	6,841	7,107	26,433
52.0201	Business Administration and Management, General	1,205	1,291	1,342	1,369	5,207
11.0701	Computer Science	464	615	737	767	2,583
52.0301	Accounting	441	484	516	509	1,950
14.1001	Electrical and Electronics Engineering	323	412	408	414	1,557
14.1901	Mechanical Engineering	375	390	392	355	1,512
52.1002	Labor and Industrial Relations	328	340	360	353	1,381
52.0904	Hotel/Motel Administration/Management	345	290	320	290	1,245
14.3701	Operations Research	202	189	198	223	812
22.0101	Law	191	183	183	202	759
14.0701	Chemical Engineering	156	166	204	203	729
14.0501	Bioengineering and Biomedical Engineering	135	143	201	192	671
14.3501	Industrial Engineering	128	94	169	188	579
11.0103	Information Technology	65	93	132	223	513
14.0301	Agricultural Engineering	112	129	94	103	438
04.0201	Architecture	109	100	105	109	423
14.0801	Civil Engineering, General	99	108	90	100	397
22.0203	American/U.S. Law/Legal Studies/Jurisprudence	89	91	63	130	373
14.1801	Materials Engineering	69	86	78	92	325
52.0801	Finance, General	48	87	81	79	295
52.1401	Marketing/Marketing Management, General	66	64	92	70	292
04.0301	City/Urban, Community and Regional Planning	73	76	68	66	283
52.0901	Hospitality Administration/Management, General	57	86	64	74	281
14.2701	Systems Engineering	44	75	73	76	268
14.0101	Engineering, General	66	69	66	62	263
11.0101	Computer and Information Sciences, General	63	52	72	73	260
52.1101	International Business/Trade/Commerce	95	23	51	53	222
52.0302	Accounting Technology/Technician and Bookkeeping	49	57	50	65	221
14.1201	Engineering Physics/Applied Physics	51	66	53	48	218
11.0401	Information Science/Studies	47	58	51	53	209
14.0901	Computer Engineering, General	37	51	59	44	191
52.9999	Business, Management, Marketing, and Related Support Services, Other	48	33	44	30	155
22.0302	Legal Assistant/Paralegal	50	27	34	32	143
04.0601	Landscape Architecture	38	37	34	32	141
52.1899	General Merchandising, Sales, and Related Marketing Operations, Other	33	31	39	25	128
14.1401	Environmental/Environmental Health Engineering	26	39	29	32	126
52.1201	Management Information Systems, General	11	24	37	35	107
04.0401	Environmental Design/Architecture	25	20	25	34	104
52.1501	Real Estate	23	22	17	25	87
52.0909	Hotel, Motel, and Restaurant Management	28	25	12	19	84
52.2001	Construction Management	22	19	17	23	81
14.0201	Aerospace, Aeronautical and Astronautical/Space Engineering	20	20	14	17	71
52.0408	General Office Occupations and Clerical Services	10	28	13	17	68
04.0902	Architectural and Building Sciences/Technology	17	14	13	17	61
52.0906	Resort Management	13	11	14	12	50
52.0701	Entrepreneurship/Entrepreneurial Studies	11	13	8	16	48
22.0000	Legal Studies, General	9	10	16	10	45



CIP Code	Description	2014	2015	2016	2017	Total
52.0401	Administrative Assistant and Secretarial Science, General	37	1	4	1	43
11.1006	Computer Support Specialist	7	7	15	13	42
50.0402	Commercial and Advertising Art	11	8	9	9	37
52.1905	Tourism and Travel Services Marketing Operations	11	7	4	10	32
41.0301	Chemical Technology/Technician	9	8	5	9	31
52.0204	Office Management and Supervision	10	7	6	6	29
52.0305	Accounting and Business/Management	0	0	6	23	29
52.1001	Human Resources Management/Personnel Administration, General	0	0	2	27	29
52.0203	Logistics, Materials, and Supply Chain Management	2	7	3	10	22
52.0303	Auditing	5	6	3	8	22
11.1002	System, Networking, and LAN/WAN Management/Manager	11	5	6	0	22
11.0801	Web Page, Digital/Multimedia and Information Resources Design	5	6	7	3	21
52.0803	Banking and Financial Support Services	8	6	2	2	18
41.0101	Biology Technician/Biotechnology Laboratory Technician	5	3	7	2	17
14.1101	Engineering Mechanics	4	5	3	3	15
04.0801	Architectural History and Criticism, General	5	2	2	2	11
52.0213	Organizational Leadership	0	0	0	9	9
52.0304	Accounting and Finance	0	0	9	0	9
22.0301	Legal Administrative Assistant/Secretary	6	0	1	0	7
52.1909	Special Products Marketing Operations	2	0	2	2	6
11.1099	Computer/Information Technology Services Administration and Management, Other	3	3	0	0	6
52.1005	Human Resources Development	0	0	3	2	5
52.0907	Meeting and Event Planning	0	0	1	3	4
11.9999	Computer and Information Sciences and Support Services, Other	4	0	0	0	4
52.0101	Business/Commerce, General	1	1	0	1	3
04.9999	Architecture and Related Services, Other	0	0	2	0	2
52.0908	Casino Management	0	0	1	0	1
52.1399	Management Sciences and Quantitative Methods, Other	0	0	0	1	1

Source: EMSI Q4 2018 Data

With a projected local demand of 193 new workers in the next five years, and a potential regional supply that exceeds that number, the regional skilled labor supply can feed the demand gap.

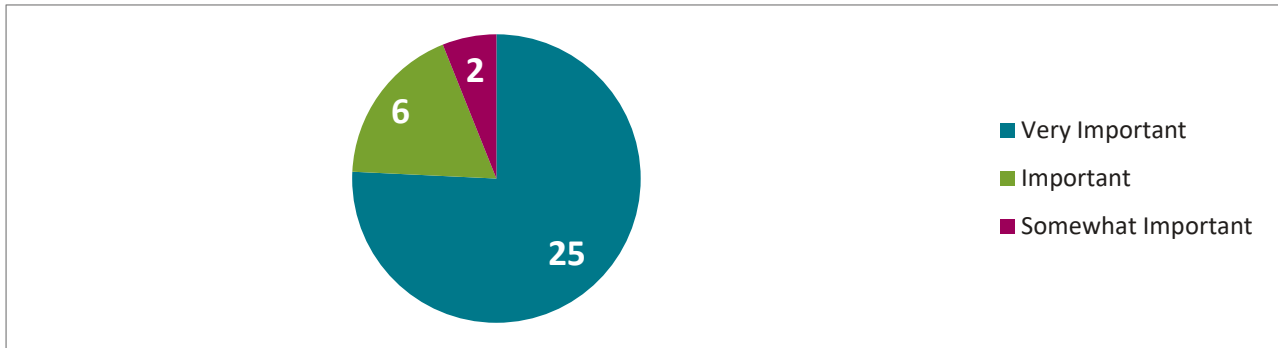
7. Labor Supply and Talent Business Survey

To garner insight and perspective of local employers, a business survey was carried out, resulting in a participation of 33 businesses. The survey focused on questions related to labor needs, challenges and practices to support recruitment and retention. In total, 18 responses were gathered online, while the remaining participated by phone. The survey revealed the following:

The majority of respondents consider that a skilled workforce is very important or important to their operations. The most critical occupations to respondent operations are jobs related to machine operation, health workers/nurses and engineering/technicians.



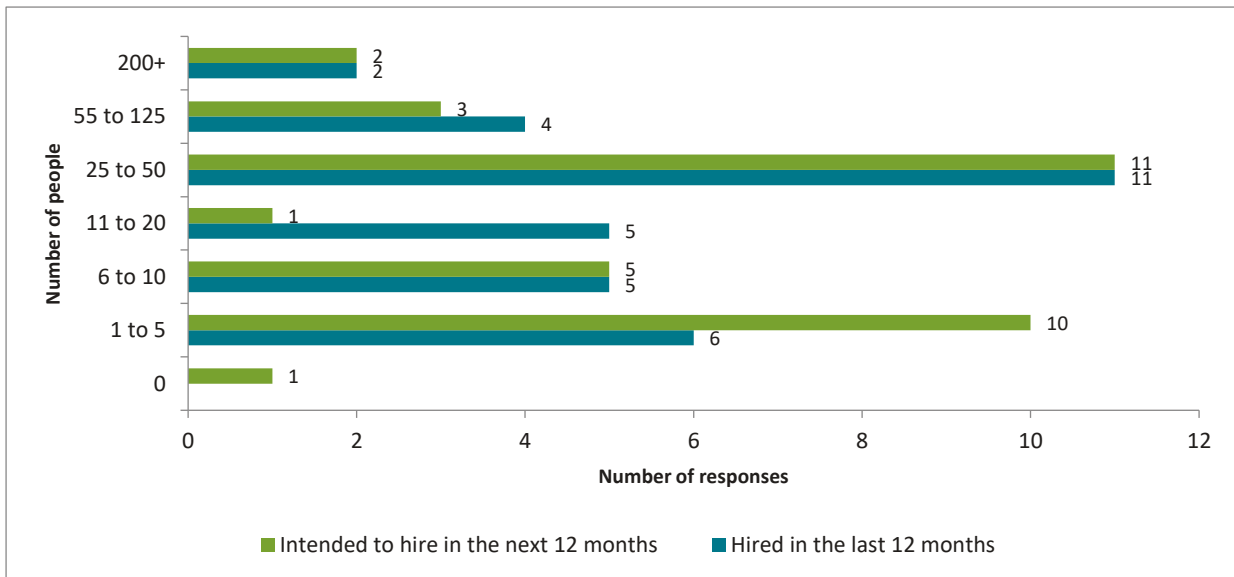
Figure 15: How important is a skilled workforce to your operations?



Source: MDB CATI Survey – Total responses: 33

11 respondents hired 25 to 50 people in the last year, the same number of respondents indicating they will hire in the same range in the next 12 months. Only 2 respondents said they hired more than 200 people in the last year. The same number of respondents said they will hire more than 200 people in the next 12 months.

Figure 16: In the past 12 months how many workers has your business hired? – How many workers does your business intend to hire in the next 12 months?

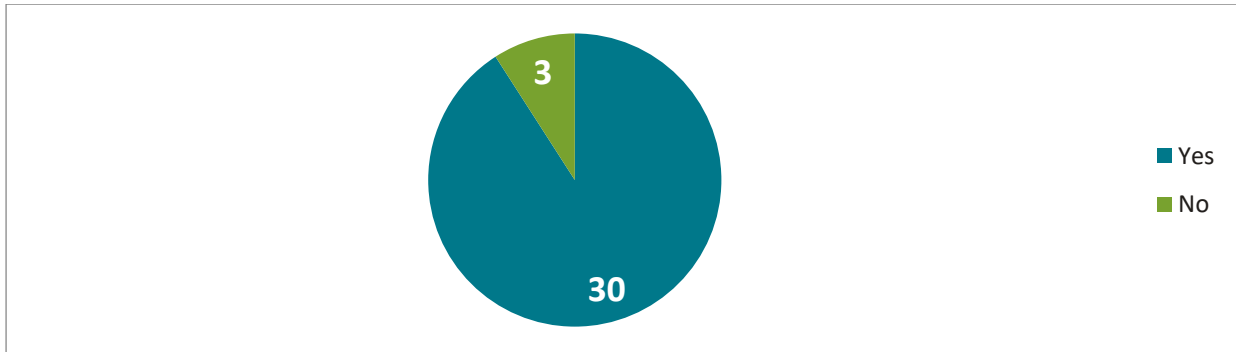


Source: MDB CATI Survey – Total responses: 33

The majority of respondents have experienced challenges in recruiting, hiring and retaining talent. According to these businesses, the most difficult occupations, skills or trades to hire or retain are engineers (primarily system and computer engineers), registered nurses, machine operators and maintenance workers.



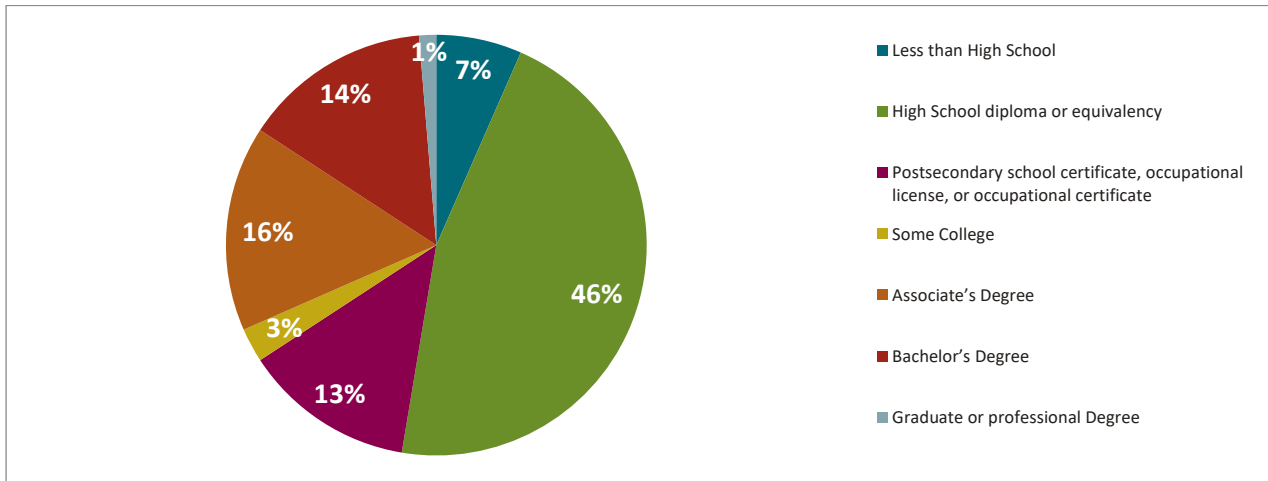
Figure 17: In the last 12 months, has your business experienced any challenges in recruiting, hiring, or retaining talent for specific occupations?



Source: MDB CATI Survey – Total responses: 33

In terms of the educational level required for these hard-to-fill positions, most of the respondents said these positions required at least a high school diploma (46%), an associate degree (16%) or a bachelor’s degree (14%).

Figure 18: What level of education is required for hard-to-fill positions?

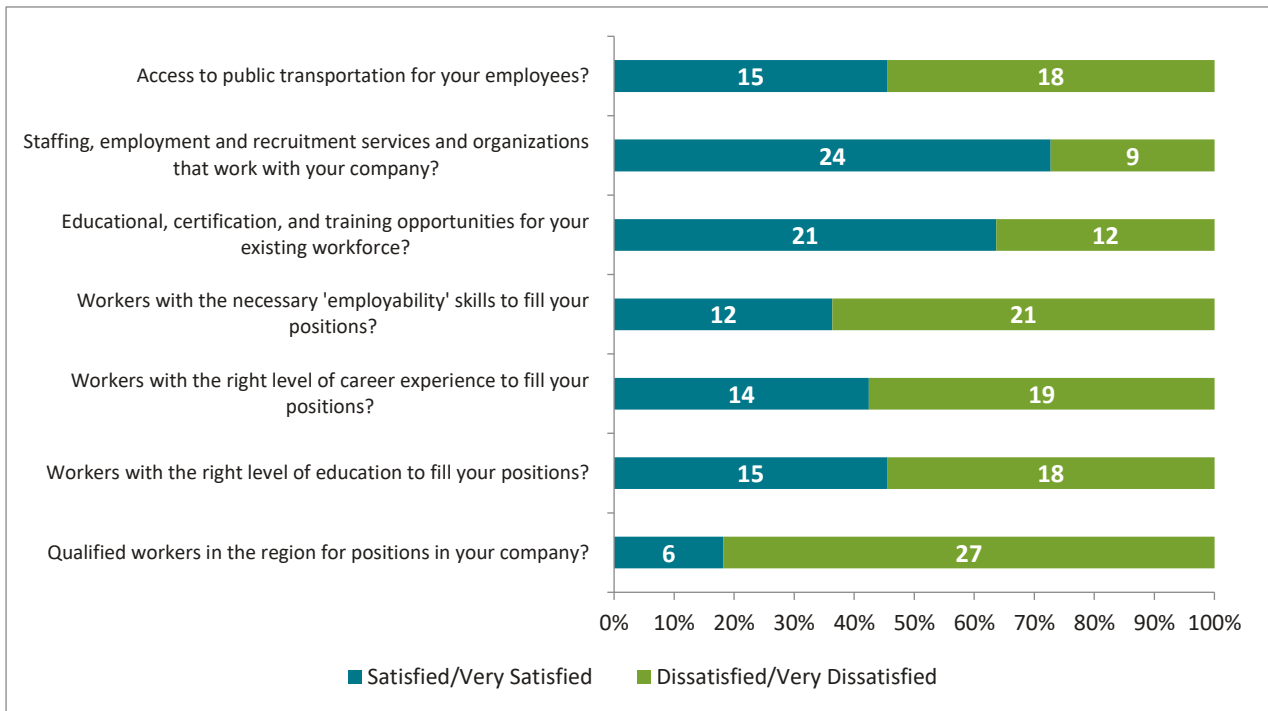


Source: MDB CATI Survey - Total responses: 33

Overall, respondents show dissatisfaction with many local factors including the availability of qualified workers in the region, workers with right level of education, workers with the necessary employability skills, and the access to public transportation for their employees. Respondents said they were satisfied with staffing, employment and recruitment services, and organizations that work with their respective companies and the educational, certification, and training opportunities available for their existing workforce.



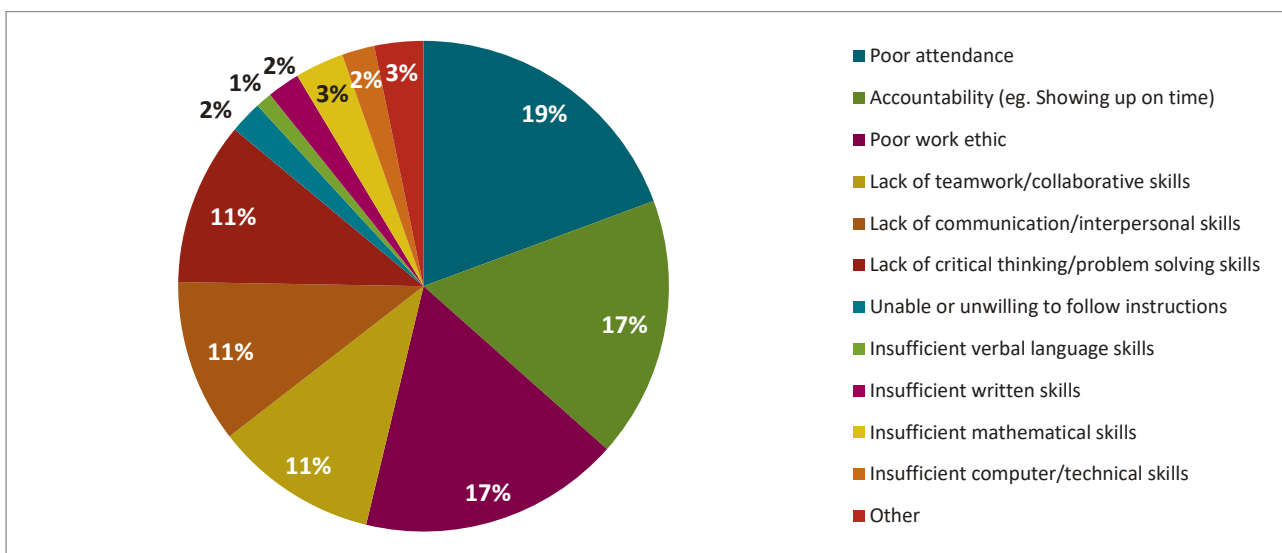
Figure 19: how satisfied are you with the following factors?



Source: MDB CATI Survey – Total responses: 33

In terms of employability skills, respondents identified poor attendance as the key skill lacking from the available workers (19%), followed by accountability (17%), and poor work ethic (17%). This indicates a lack of what is often referred to as the “soft skills” among workers.

Figure 20: Which employability skills do you feel are lacking from the available workers?

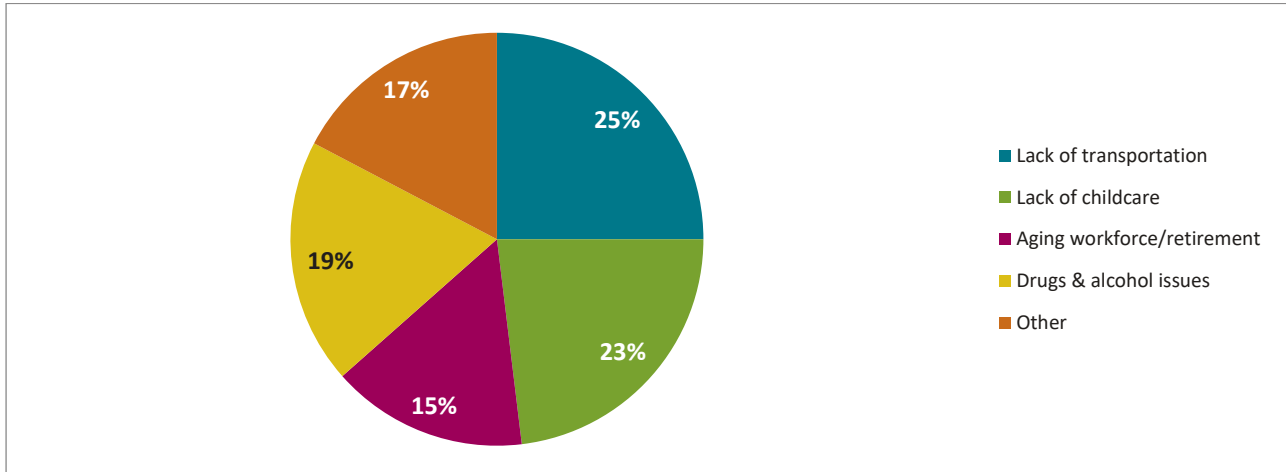


Source: MDB CATI Survey - Total responses: 33



Respondents also identified the barriers they encounter when recruiting, hiring and retaining employees. Most of the businesses indicated lack of transportation (25%), lack of childcare (23%) and drug and alcohol issues as the main barriers.

Figure 21: What barriers do you encounter in recruiting, hiring, and retaining employees?



Source: MDB CATI Survey - Total responses: 33

When asked about the workforce that is nearing retirement and what positions will be needed to fill in the next 3-5 years, most of the respondents identified the following positions: engineers, nurses, machinist/machine operators and maintenance mechanics.

Table 49: What proportion of your workforce falls within the following age categories?

Proportion of workforce	15 to 34 years	35 to 54 years	55 to 65 years	65+ years
0% to 10%	12%	3%	30%	82%
11% to 20%	15%	0%	18%	0%
21% to 40%	39%	39%	27%	3%
41% to 60%	12%	27%	9%	0%
61% to 80%	6%	15%	0%	0%
90% to 100%	0%	0%	0%	0%
Unsure	15%	15%	15%	15%

Source: MDB CATI Survey - Total responses: 33

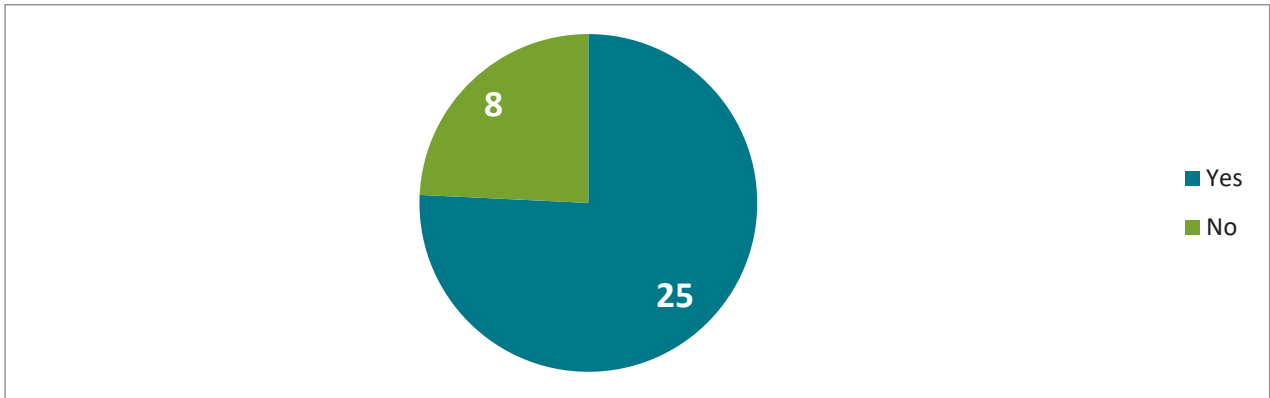
Businesses are being more strategic trying to address recruitment and retention barriers. Most respondents indicated they have in-house training programs and advancement opportunities in order to create more incentives. Businesses also said that they have raised the starting wage and payment rates significantly to attract potential workers.

In terms of what specific educational, certification, and training opportunities businesses would like to see available to support future growth, the responses varied according to the business sector needs. However, one common response was the need for more “vocational training schools” in the area.



Overall, the majority of the businesses would be willing to support local solutions that educate students in the local sectors and support the building of experiential learning opportunities.

Figure 22: Would you be willing to support local solutions that educate students on our local sectors, and support the building of experiential learning opportunities



Source: MDB CATI Survey – Total responses: 33

V&S New York Galvanizing Groundbreaking Event

**SAVE THE DATE!
MARK YOUR CALENDAR!**



Tuesday, November 5th
10:30 AM
Voigt & Schweitzer build site
272 Corporate Drive
Owego, NY

**Welcome V&S New York Galvanizing
to Owego!**



TEAM Tioga
56 Main Street
Owego, NY 13827

(607) 687-8255

RESOLUTION RECOGNIZING
WILLIAM E. CALOROSO
15 YEARS OF DEDICATED
SERVICE TO TIOGA COUNTY

WHEREAS: William E. Caloroso was appointed to the position of Board Member of the Tioga County Industrial Development Agency on 1/1/94; and

WHEREAS: William E. Caloroso recognized the importance of a viable economic environment for the citizens for Tioga County, served as Treasurer of the Board and Chair of the Railroad Committee; and

WHEREAS: William E. Caloroso faithfully volunteered his time and was dedicated and loyal in the performance of his duties and responsibilities during his 15 years, thereby earning the respect of his colleagues and peers throughout Tioga County; and

WHEREAS: William E. Caloroso, passed away on Friday September 6, 2019; therefore be it

RESOLVED: That the Tioga County Industrial Development Agency Board of Directors, on its own behalf, as well as on behalf of the citizens of Tioga County, express heartfelt condolences and sincere gratitude to the family of William E. Caloroso for his 15 years of dedicated and loyal service to the residents of Tioga County; and be it further

RESOLVED: That this resolution be spread upon the minutes of this meeting and a certified copy be presented to William E. Caloroso' s loving wife Joann Caloroso.

New York State Comptroller
THOMAS P. DiNAPOLI

Tioga County Industrial Development Agency (0585)
Fiscal Year End Date: 12/31/2020
Status: UNSUBMITTED

* This page has been modified successfully.

Budget & Financial Plan

Budgeted Revenues, Expenditures, and Changes in Current Net Assets

You must enter Budget & Financial Plan information prior to submittal.

	Last Year (Actual) 2018		Current Year (Estimated) 2019		Next Year (Adopted) 2020		Proposed 2021		Proposed 2022		Proposed 2023	
	Modify	Delete	Modify	Delete	Modify	Delete	Modify	Delete	Modify	Delete	Modify	Delete

Revenue & Financial Sources

Operating Revenues

Charges for Services	\$14,745.00	\$16,540.00	\$16,771.00	\$17,006.00	\$17,246.00	\$17,491.00
Rentals & Financing Income	150,664.00	137,000.00	140,000.00	140,000.00	140,000.00	140,000.00
Other Operating Revenues	363,981.00	182,274.00	47,000.00	47,000.00	47,000.00	47,000.00

Non-Operating Revenues

Investment Earnings	22,672.00	22,000.00	22,000.00	22,000.00	22,000.00	22,000.00
State Subsidies / Grants	1,769,579.00	475,880.00	300,000.00	0.00	0.00	0.00

New York State Comptroller
THOMAS P. DiNAPOLI

	Last Year (Actual) 2018	Current Year (Estimated) 2019	Next Year (Adopted) 2020	Proposed 2021	Proposed 2022	Proposed 2023
Federal Subsidies / Grants	0.00	0.00	0.00	0.00	0.00	0.00
Municipal Subsidies / Grants	0.00	0.00	0.00	0.00	0.00	0.00
Public Authority Subsidies	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Operating Revenues	0.00	0.00	0.00	0.00	0.00	0.00
Proceeds from the Issuance of Debt	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00
Total Revenues & Financing Sources	\$2,321,641.00	\$833,694.00	\$525,771.00	\$226,006.00	\$226,246.00	\$226,491.00
Expenditures						
Operating Expenditures						
Salaries and Wages	54,935.00	42,500.00	45,000.00	45,000.00	45,000.00	45,000.00
Other Employee Benefits	4,500.00	5,378.00	5,378.00	5,378.00	5,378.00	5,378.00
Professional Services Contracts	124,484.00	148,980.00	153,449.00	158,053.00	162,794.00	167,678.00
Supplies and Materials	37,663.00	34,556.00	35,247.00	35,952.00	36,671.00	37,405.00
Other Operating Expenditures	10,539.00	2,318.00	3,358.00	3,365.00	3,372.00	3,380.00
Non-Operating Expenditures						
Payment of Principal on Bonds and Financing Arrangements	0.00	0.00	0.00	0.00	0.00	0.00
Interest and other Financing Charges	0.00	0.00	0.00	0.00	0.00	0.00
Subsidies to Other Public Authorities	0.00	0.00	0.00	0.00	0.00	0.00
Capital Asset Outlay	230,744.00	17,000.00	978,000.00	0.00	0.00	0.00
Grants and Donations	0.00	0.00	0.00	0.00	0.00	0.00
Other Non-Operating Expenditures	0.00	0.00	0.00	0.00	0.00	0.00
Total Expenditures	\$462,865.00	\$250,732.00	\$1,220,432.00	\$247,748.00	\$253,215.00	\$258,841.00
Capital Contributions	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00	\$0.00

New York State Comptroller
 THOMAS P. DiNAPOLI

Last Year (Actual)	Current Year (Estimated)	Next Year (Adopted)	Proposed	Proposed	Proposed
2018	2019	2020	2021	2022	2023

Excess (Deficiency) of Revenues and Capital Contributions Over Expenditures	\$1,858,776.00	\$582,962.00	\$(694,661.00)	\$(21,742.00)	\$(26,969.00)	\$(32,350.00)
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Definitions