



Jefferson County, New York

Comprehensive Economic Development Strategy (CEDS)

2012

Supplemental Report

## A "BLUEPRINT" FOR ECONOMIC DEVELOPMENT ACTION

Prepared by the Jefferson County CEDS Committee in  
Partnership with Camoin Associates, Inc.



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## INTRODUCTION

This Supplement provides additional detail and documentation of the data collected, methods used, and analysis conducted for the *Jefferson County, NY 2012 Comprehensive Economic Development Strategy* (i.e. the 2012 CEDS). The 2012 CEDS presents major findings of the analyses conducted, summarizes the CEDS Committee's economic development vision, and outlines an implementation plan to achieve this vision. In an effort to maintain a streamlined, straightforward CEDS document and implementation plan, much of the detailed analysis completed as part of this project has been compiled into this Supplement report. Data and information contained in this Supplement are provided to support the 2012 CEDS by serving as a thorough reference document.

The first section in the Supplement is the *Economic Data Analysis*, which contains detailed industry and occupation data for the County, Region, and State. From this data, Key Industries are identified and further detail on the top occupations within each of the Key Industries is analyzed. Following the Key Industry analysis is the *Workforce Analysis*, which includes an evaluation of Jefferson County's regional workforce skills, educational attainment, labor market demand, and career clusters and pathways.

The second section in the Supplement is *Interview Summaries*. Camoin Associates conducted interviews with local business leaders, economic developers, and other stakeholders to gain knowledge and information to help reveal the strengths of the relationship between firms, service providers, and other stakeholders involved in the local and regional economy.

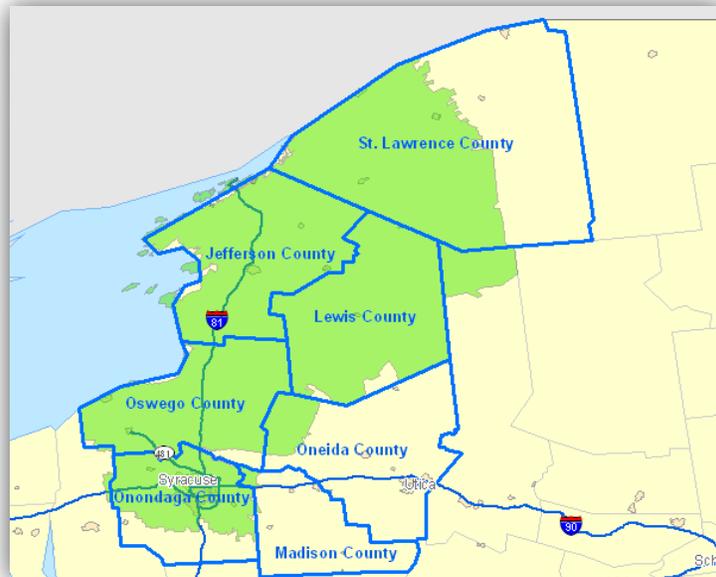
The third section is the *Action Plan Narrative*, a more detailed description of the Action Plan Matrix that is included in Section VII of the CEDS document. The Supplement narrative further describes the specific action items as well as provides performance measures for quantifying the impact of the various action items.

The final section of this Supplement, *Additional Information & References*, is included to provide a more detailed explanation for some of the terms and methods applied in the economic analysis.

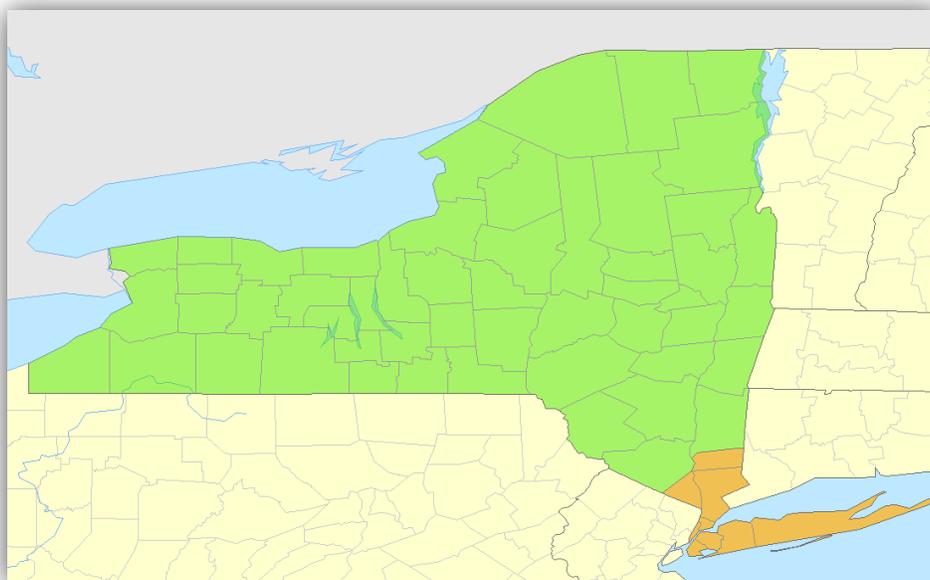
## ECONOMIC DATA ANALYSIS – COUNTY, REGION AND STATE DETAILS

Section IV of the 2012 CEDS contains an overview of the following Economic Data Analysis. This data analysis was conducted to identify existing conditions and trends within industry sectors that make up the local and regional economy. Jefferson County industry and occupational trends are compared to trends in the Jefferson County Economic Region and Upstate New York (see maps below, full-size maps are provided in the 2012 CEDS).

**Jefferson County's Economic Region**



**Upstate New York Study Area**



## Industry Analysis

Data presented in this section of the report are broken down into industry sectors, organized using the North American Industrial Classification System (NAICS). NAICS codes are maintained by the U.S. Census Bureau. The analysis begins by presenting data at the 2-digit NAICS code level, the highest aggregated level available, and then presents data at the 4-digit code level. Two-digit industry codes represent broad categories, such as educational services, whereas 4-digit industry codes present a finer level of detail, such as elementary and secondary schools. All of the industry data presented in this section are obtained from EMSI (Economic Modeling Specialists, Inc.) complete employment<sup>1</sup>. EMSI combines employment data from the Quarterly Census of Employment and Wages (QCEW) produced by the Department of Labor with data from the Regional Economic Information System (REIS) published by the Bureau of Economic Analysis (BEA) and augmented with County Business Patterns (CBP) and Nonemployer Statistics (NES) published by the U.S. Census Bureau.

Projections are based on the latest available EMSI industry data combined with past trends in each industry, national growth rates of industries (Bureau of Labor Statistics), and data from the New York State Department of Labor. Projections provided in this report are informed guesses based on past and current trends. Additional information about EMSI's projections can be found in the section of this document titled "Additional Information & References".

For those interested in understanding the composition of these NAICS codes and for more detail about what is included, we direct the reader to: <http://www.census.gov/eos/www/naics/>.

### Establishments by Industry

This first set of tables outlines the number of establishments within each industry at the 2-digit and 4-digit NAICS code level. Data collected from EMSI is shown for Jefferson County and Upstate New York (this data is only available at the county-level; therefore, information for the Economic Region is not available).

It is important to note that farms do not have the same reporting requirements as other businesses and are greatly underrepresented in the EMSI data. Therefore, the number of establishments in the agriculture, forestry, fishing and hunting industry has been supplemented with information from the 2007 Census of Agriculture and the 2009 USDA County Estimates Book. Please refer to the footnote at the bottom of the following table for additional information. Additionally, due to the complexity (process described above) of projecting the number of agriculture establishments, this adjustment has not been made for the Upstate New York region and EMSI data is shown. However, it is expected that as with Jefferson County, the number of establishments reported by EMSI is significantly lower than the actual number of establishments in this industry in Upstate New York.

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<sup>1</sup> The complete employment data set includes jobs that may or may not be covered by unemployment insurance, in other words it includes both traditional employment and non-traditional employment such as the self-employed (self-employed includes sole proprietorships and partnerships).

Industry by Number of Establishments in Jefferson County (2-Digit)			
NAICS	Description	2011 Jobs	2010 Establishments
11	Agriculture, Forestry, Fishing and Hunting <sup>1</sup>	1,484	940
44-45	Retail Trade	7,873	507
72	Accommodation and Food Services	4,269	343
23	Construction	3,285	328
62	Health Care and Social Assistance	7,467	302
81	Other Services (except Public Administration)	2,513	285
90	Government	28,427	152
54	Professional, Scientific, and Technical Services	1,577	148
48-49	Transportation and Warehousing	2,248	125
53	Real Estate and Rental and Leasing	2,073	125
52	Finance and Insurance	1,867	111
42	Wholesale Trade	1,170	102
56	Administrative and Support and Waste Management Services	1,888	101
31-33	Manufacturing	2,599	82
71	Arts, Entertainment, and Recreation	878	70
51	Information	857	53
61	Educational Services	381	21
55	Management of Companies and Enterprises	199	16
21	Mining, Quarrying, and Oil and Gas Extraction	163	12
22	Utilities	208	10
	Total	71,426	3,833

Source: EMSI Complete Employment - 2011.3

1. Considering that farms do not have the same reporting requirements as other businesses, the number of establishments in the NAICS 11 industry sector is an estimate. The 2009 USDA County Estimates Book shows 936 farms in Jefferson County and EMSI reports 46 establishments in this industry sector for 2010. Therefore, the conservative estimate of 940 establishments is made.

Source: [http://www.nass.usda.gov/Statistics\\_by\\_State/New\\_York/Publications/County\\_Estimates/2009countyestimatesbook.pdf](http://www.nass.usda.gov/Statistics_by_State/New_York/Publications/County_Estimates/2009countyestimatesbook.pdf).

Industry by Number of Establishments in Upstate NY (2-Digit)			
NAICS	Description	2011 Jobs	2010 Establishments
44-45	Retail Trade	416,555	25,795
23	Construction	167,241	18,709
62	Health Care and Social Assistance	503,009	18,409
81	Other Services (except Public Administration)	163,420	17,415
72	Accommodation and Food Services	244,322	16,929
54	Professional, Scientific, and Technical Services	226,517	16,582
42	Wholesale Trade	113,741	9,932
56	Administrative and Support and Waste Management Services	173,077	9,400
52	Finance and Insurance	186,628	8,898
31-33	Manufacturing	290,657	8,053
53	Real Estate and Rental and Leasing	130,494	6,347
90	Government	618,636	6,082
48-49	Transportation and Warehousing	111,856	5,540
71	Arts, Entertainment, and Recreation	86,386	3,440
51	Information	57,719	2,874
61	Educational Services	153,934	2,210
11	Agriculture, Forestry, Fishing and Hunting	59,455	2,030
55	Management of Companies and Enterprises	46,068	1,368
21	Mining, Quarrying, and Oil and Gas Extraction	15,288	362
22	Utilities	14,646	324
	Total	3,779,649	180,699

Source: EMSI Complete Employment - 2011.3

Top 25 Industries by Number of Establishments in Jefferson County (4-Digit)			
NAICS	Description	Jobs 2011	Establishments 2010
7221	Full-Service Restaurants	1,829	130
2361	Residential Building Construction	768	125
7222	Limited-Service Eating Places	1,575	114
9300	Local government	6,652	104
6211	Offices of Physicians	1,053	77
8111	Automotive Repair and Maintenance	523	70
4471	Gasoline Stations	466	58
7139	Other Amusement and Recreation Industries	486	57
5311	Lessors of Real Estate	581	50
2382	Building Equipment Contractors	642	48
5242	Agencies, Brokerages, & Other Insurance Related Activities	581	48
2383	Building Finishing Contractors	383	44
5221	Depository Credit Intermediation	468	44
7211	Traveler Accommodation	577	44
5617	Services to Buildings and Dwellings	580	42
6232	Residential Mental Retardation, Mental Health Facilities	503	42
2381	Foundation, Structure, and Building Exterior Contractors	283	41
4461	Health and Personal Care Stores	546	41
4911	Postal Service	278	39
6212	Offices of Dentists	336	39
9110	Federal government, civilian, except postal service	3,068	37
4411	Automobile Dealers	664	36
4481	Clothing Stores	513	36
6213	Offices of Other Health Practitioners	312	36
8131	Religious Organizations	401	36
11A0	Crop and animal production	1,233	35

Source: EMSI Complete Employment - 2011.3

Top 25 Industries by Number of Establishments in Upstate NY (4-Digit)			
NAICS	Description	Jobs 2011	Establishments 2010
7221	Full-Service Restaurants	95,916	6,263
7222	Limited-Service Eating Places	81,207	6,067
2361	Residential Building Construction	26,255	5,235
9300	Local government	398,333	4,642
6211	Offices of Physicians	59,948	4,637
5617	Services to Buildings and Dwellings	47,244	4,360
2382	Building Equipment Contractors	39,126	4,063
8111	Automotive Repair and Maintenance	26,747	4,002
5411	Legal Services	29,622	3,675
2383	Building Finishing Contractors	29,328	3,025
8131	Religious Organizations	31,273	3,025
5242	Agencies, Brokerages, and Other Insurance Related Activities	32,146	2,975
5415	Computer Systems Design and Related Services	30,887	2,904
4251	Wholesale Electronic Markets and Agents and Brokers	13,293	2,870
5221	Depository Credit Intermediation	36,686	2,820
4471	Gasoline Stations	20,875	2,617
5311	Lessors of Real Estate	45,592	2,578
6212	Offices of Dentists	18,748	2,510
4451	Grocery Stores	73,682	2,445
5416	Management, Scientific, and Technical Consulting Services	29,325	2,413
6213	Offices of Other Health Practitioners	28,437	2,381
2381	Foundation, Structure, and Building Exterior Contractors	18,516	2,344
5412	Accounting, Tax Preparation, Bookkeeping, & Payroll Services	28,669	2,335
8121	Personal Care Services	20,851	2,327
2389	Other Specialty Trade Contractors	26,543	2,249

Source: EMSI Complete Employment - 2011.3

## Largest Industries

The size of industry sectors within each geography is determined by looking at industry employment data collected from EMSI for both the 2-digit and 4-digit industry sectors. Each industry is ranked from largest to smallest by the number of employees in 2011. The percent of the workforce that this industry represents within the geography is shown as well. At the bottom of the 2-digit tables, the total employment for all industries is given; however, it is important to note that this number does not represent the total number of jobs in the community because at the 2-digit level this figure does not include employees of industries with less than 10 jobs.

This data is used to identify the largest industries and industry sectors, based on the number of individuals employed in that sector, within Jefferson County and the comparison geographies. It is also used to evaluate the distribution of employment by industry within each community.

Largest Industries in Jefferson County (2-Digit)			
NAICS	Description	Jobs 2011	% of Workforce
90	Government	28,427	39.8%
44-45	Retail Trade	7,873	11.0%
62	Health Care and Social Assistance	7,467	10.5%
72	Accommodation and Food Services	4,269	6.0%
23	Construction	3,285	4.6%
31-33	Manufacturing	2,599	3.6%
81	Other Services (except Public Administration)	2,513	3.5%
48-49	Transportation and Warehousing	2,248	3.1%
53	Real Estate and Rental and Leasing	2,073	2.9%
56	Administrative and Support and Waste Management Services	1,888	2.6%
52	Finance and Insurance	1,867	2.6%
54	Professional, Scientific, and Technical Services	1,577	2.2%
11	Agriculture, Forestry, Fishing and Hunting	1,484	2.1%
42	Wholesale Trade	1,170	1.6%
71	Arts, Entertainment, and Recreation	878	1.2%
51	Information	857	1.2%
61	Educational Services	381	0.5%
22	Utilities	208	0.3%
55	Management of Companies and Enterprises	199	0.3%
21	Mining, Quarrying, and Oil and Gas Extraction	163	0.2%
	Total	71,425	100%

Source: EMSI Complete Employment - 2011.3

Largest Industries in Economic Region (2-Digit)			
NAICS	Description	Jobs 2011	% of Workforce
90	Government	83,616	19.4%
62	Health Care and Social Assistance	54,403	12.6%
44-45	Retail Trade	44,955	10.4%
31-33	Manufacturing	28,211	6.5%
72	Accommodation and Food Services	27,806	6.4%
54	Professional, Scientific, and Technical Services	23,253	5.4%
52	Finance and Insurance	22,594	5.2%
56	Administrative and Support and Waste Management Services	21,480	5.0%
23	Construction	19,647	4.6%
81	Other Services (except Public Administration)	18,192	4.2%
42	Wholesale Trade	16,237	3.8%
61	Educational Services	15,932	3.7%
48-49	Transportation and Warehousing	14,920	3.5%
53	Real Estate and Rental and Leasing	13,023	3.0%
71	Arts, Entertainment, and Recreation	8,217	1.9%
51	Information	6,045	1.4%
11	Agriculture, Forestry, Fishing and Hunting	5,249	1.2%
22	Utilities	3,947	0.9%
55	Management of Companies and Enterprises	3,001	0.7%
21	Mining, Quarrying, and Oil and Gas Extraction	624	0.1%
	Total	431,352	100%

Source: EMSI Complete Employment - 2011.3

Largest Industries in Upstate NY (2-Digit)			
NAICS	Description	Jobs 2011	% of Workforce
90	Government	618,636	16.4%
62	Health Care and Social Assistance	503,009	13.3%
44-45	Retail Trade	416,555	11.0%
31-33	Manufacturing	290,657	7.7%
72	Accommodation and Food Services	244,322	6.5%
54	Professional, Scientific, and Technical Services	226,517	6.0%
52	Finance and Insurance	186,628	4.9%
56	Administrative and Support and Waste Management Services	173,077	4.6%
23	Construction	167,241	4.4%
81	Other Services (except Public Administration)	163,420	4.3%
61	Educational Services	153,934	4.1%
53	Real Estate and Rental and Leasing	130,494	3.5%
42	Wholesale Trade	113,741	3.0%
48-49	Transportation and Warehousing	111,856	3.0%
71	Arts, Entertainment, and Recreation	86,386	2.3%
11	Agriculture, Forestry, Fishing and Hunting	59,455	1.6%
51	Information	57,719	1.5%
55	Management of Companies and Enterprises	46,068	1.2%
21	Mining, Quarrying, and Oil and Gas Extraction	15,288	0.4%
22	Utilities	14,646	0.4%
	Total	3,779,649	100%

Source: EMSI Complete Employment - 2011.3

Top 25 Largest Industries in Jefferson County (4-Digit)			
NAICS	Description	Jobs 2011	% of Workforce
9120	Federal government, military	17,074	23.9%
9300	Local government	6,652	9.3%
9110	Federal government, civilian, except postal service	3,068	4.3%
6221	General Medical and Surgical Hospitals	1,891	2.6%
7221	Full-Service Restaurants	1,829	2.6%
9200	State government	1,633	2.3%
7222	Limited-Service Eating Places	1,575	2.2%
11A0	Crop and animal production	1,233	1.7%
6211	Offices of Physicians	1,053	1.5%
6244	Child Day Care Services	1,014	1.4%
4521	Department Stores	827	1.2%
4451	Grocery Stores	798	1.1%
6241	Individual and Family Services	798	1.1%
5614	Business Support Services	795	1.1%
2361	Residential Building Construction	768	1.1%
4529	Other General Merchandise Stores	743	1.0%
6231	Nursing Care Facilities	709	1.0%
5312	Offices of Real Estate Agents and Brokers	666	0.9%
4411	Automobile Dealers	664	0.9%
2382	Building Equipment Contractors	642	0.9%
4881	Support Activities for Air Transportation	613	0.9%
4441	Building Material and Supplies Dealers	589	0.8%
4543	Direct Selling Establishments	589	0.8%
5311	Lessors of Real Estate	581	0.8%
5242	Agencies, Brokerages, & Other Insurance Related Activities	581	0.8%

Source: EMSI Complete Employment - 2011.3

Top 25 Largest Industries in Economic Region (4-Digit)			
NAICS	Description	Jobs 2011	% of Workforce
9300	Local government	44,271	10.3%
9120	Federal government, military	18,212	4.2%
9200	State government	15,224	3.5%
6113	Colleges, Universities, and Professional Schools	11,858	2.7%
7221	Full-Service Restaurants	10,929	2.5%
6221	General Medical and Surgical Hospitals	10,899	2.5%
7222	Limited-Service Eating Places	9,594	2.2%
4451	Grocery Stores	8,426	2.0%
6211	Offices of Physicians	7,788	1.8%
5613	Employment Services	7,128	1.7%
6231	Nursing Care Facilities	6,955	1.6%
6241	Individual and Family Services	6,329	1.5%
9110	Federal government, civilian, except postal service	5,909	1.4%
5241	Insurance Carriers	5,648	1.3%
5617	Services to Buildings and Dwellings	5,359	1.2%
6244	Child Day Care Services	5,321	1.2%
5239	Other Financial Investment Activities	5,060	1.2%
2382	Building Equipment Contractors	4,636	1.1%
5242	Agencies, Brokerages, and Other Insurance Related Activities	4,586	1.1%
5413	Architectural, Engineering, and Related Services	4,437	1.0%
5311	Lessors of Real Estate	4,336	1.0%
7139	Other Amusement and Recreation Industries	4,164	1.0%
5419	Other Professional, Scientific, and Technical Services	4,065	0.9%
5221	Depository Credit Intermediation	4,021	0.9%
11A0	Crop and animal production	3,889	0.9%

Source: EMSI Complete Employment - 2011.3

Top 25 Largest Industries in Upstate NY (4-Digit)			
NAICS	Description	Jobs 2011	% of Workforce
9300	Local government	398,333	10.5%
9200	State government	156,587	4.1%
6221	General Medical and Surgical Hospitals	114,881	3.0%
6113	Colleges, Universities, and Professional Schools	98,487	2.6%
7221	Full-Service Restaurants	95,916	2.5%
7222	Limited-Service Eating Places	81,207	2.1%
4451	Grocery Stores	73,682	1.9%
6211	Offices of Physicians	59,948	1.6%
6231	Nursing Care Facilities	55,075	1.5%
5239	Other Financial Investment Activities	50,544	1.3%
5613	Employment Services	50,166	1.3%
6241	Individual and Family Services	49,339	1.3%
11A0	Crop and animal production	47,812	1.3%
5617	Services to Buildings and Dwellings	47,244	1.2%
5511	Management of Companies and Enterprises	46,068	1.2%
5311	Lessors of Real Estate	45,592	1.2%
6244	Child Day Care Services	45,515	1.2%
5419	Other Professional, Scientific, and Technical Services	41,766	1.1%
2382	Building Equipment Contractors	39,126	1.0%
5312	Offices of Real Estate Agents and Brokers	39,037	1.0%
5221	Depository Credit Intermediation	36,686	1.0%
5241	Insurance Carriers	35,151	0.9%
9120	Federal government, military	35,048	0.9%
5313	Activities Related to Real Estate	34,584	0.9%
7139	Other Amusement and Recreation Industries	34,564	0.9%

Source: EMSI Complete Employment - 2011.3

## Historic Growth

To identify the fastest growing industries in Jefferson County, the Economic Region, and Upstate New York, the historic (2001-2011) and projected (2011-2021) change in employment as prepared by EMSI is presented by the number of employees lost or gained and the percent change within each industry. This industry data is presented at both the 2-digit and 4-digit NAICS level. The total change in employment in each region can be found at the bottom of the 2-digit NAICS code tables.

It is important to look at past and projected change in employment by industry to identify which industries have experienced recent growth or decline and which are expected to grow or shrink in the future. The projections as calculated by EMSI and shown in the tables throughout this document can be used to detect industries that may be beginning to struggle or, alternatively, those that are thriving. Identification of industries in transition can help community leaders make decisions about how and where to direct economic development support.

Fastest Growing Industries in Jefferson County 2001-2011 (2-Digit)					
NAICS	Description	Jobs 2001	Jobs 2011	Change	% Change
90	Government	22,174	28,427	6,253	28%
62	Health Care and Social Assistance	6,067	7,467	1,400	23%
56	Administrative, Support & Waste Management	921	1,888	967	105%
53	Real Estate and Rental and Leasing	1,247	2,073	826	66%
23	Construction	2,569	3,285	716	28%
44-45	Retail Trade	7,259	7,873	614	8%
72	Accommodation and Food Services	3,708	4,269	561	15%
48-49	Transportation and Warehousing	1,745	2,248	503	29%
52	Finance and Insurance	1,513	1,867	354	23%
54	Professional, Scientific, and Technical Services	1,304	1,577	273	21%
81	Other Services (except Public Administration)	2,393	2,513	120	5%
61	Educational Services	265	381	116	44%
71	Arts, Entertainment, and Recreation	769	878	109	14%
21	Mining, Quarrying, and Oil and Gas Extraction	118	163	45	38%
42	Wholesale Trade	1,126	1,170	44	4%
51	Information	852	857	5	1%
22	Utilities	316	208	(108)	(34%)
11	Agriculture, Forestry, Fishing and Hunting	1,837	1,484	(353)	(19%)
31-33	Manufacturing	3,230	2,599	(631)	(20%)
55	Management of Companies and Enterprises	920	199	(721)	(78%)
	Total	60,333	71,425	11,092	18%

Source: EMSI Complete Employment - 2011.3

Fastest Growing Industries in Economic Region 2001-2011 (2-Digit)					
NAICS	Description	Jobs 2001	Jobs 2011	Change	% Change
62	Health Care and Social Assistance	44,829	54,403	9,574	21%
90	Government	77,500	83,616	6,116	8%
56	Administrative & Support & Waste Management	16,509	21,480	4,971	30%
54	Professional, Scientific, and Technical Services	19,875	23,253	3,378	17%
52	Finance and Insurance	19,595	22,594	2,999	15%
53	Real Estate and Rental and Leasing	10,329	13,023	2,694	26%
72	Accommodation and Food Services	25,192	27,806	2,614	10%
71	Arts, Entertainment, and Recreation	6,369	8,217	1,848	29%
61	Educational Services	14,360	15,932	1,572	11%
48-49	Transportation and Warehousing	13,932	14,920	988	7%
21	Mining, Quarrying, and Oil and Gas Extraction	545	624	79	14%
23	Construction	20,319	19,647	(672)	(3%)
81	Other Services (except Public Administration)	19,046	18,192	(854)	(4%)
11	Agriculture, Forestry, Fishing and Hunting	6,119	5,249	(870)	(14%)
55	Management of Companies and Enterprises	4,188	3,001	(1,187)	(28%)
42	Wholesale Trade	17,614	16,237	(1,377)	(8%)
44-45	Retail Trade	46,568	44,955	(1,613)	(3%)
22	Utilities	5,833	3,947	(1,886)	(32%)
51	Information	8,544	6,045	(2,499)	(29%)
31-33	Manufacturing	41,833	28,211	(13,622)	(33%)
	Total	419,099	431,352	12,253	3%

Source: EMSI Complete Employment - 2011.3

Fastest Growing Industries in Upstate NY 2001-2011 (2-Digit)					
NAICS	Description	Jobs 2001	Jobs 2011	Change	% Change
62	Health Care and Social Assistance	432,826	503,009	70,183	16%
52	Finance and Insurance	154,925	186,628	31,703	20%
53	Real Estate and Rental and Leasing	99,183	130,494	31,311	32%
54	Professional, Scientific, and Technical Services	196,108	226,517	30,409	16%
61	Educational Services	126,113	153,934	27,821	22%
72	Accommodation and Food Services	228,017	244,322	16,305	7%
71	Arts, Entertainment, and Recreation	71,880	86,386	14,506	20%
56	Administrative, Support & Waste Management	161,844	173,077	11,233	7%
21	Mining, Quarrying, and Oil and Gas Extraction	8,281	15,288	7,007	85%
55	Management of Companies and Enterprises	41,020	46,068	5,048	12%
90	Government	614,766	618,636	3,870	1%
81	Other Services (except Public Administration)	161,978	163,420	1,442	1%
48-49	Transportation and Warehousing	112,666	111,856	(810)	(1%)
22	Utilities	19,066	14,646	(4,420)	(23%)
11	Agriculture, Forestry, Fishing and Hunting	66,866	59,455	(7,411)	(11%)
23	Construction	177,399	167,241	(10,158)	(6%)
42	Wholesale Trade	127,679	113,741	(13,938)	(11%)
51	Information	77,648	57,719	(19,929)	(26%)
44-45	Retail Trade	438,834	416,555	(22,279)	(5%)
31-33	Manufacturing	420,301	290,657	(129,644)	(31%)
	Total	3,737,400	3,779,649	42,249	1%

Source: EMSI Complete Employment - 2011.3

Of the top twenty-five fastest-growing industries in the County, EMSI suggests that twelve grew by more than 100% - more than doubling the number of jobs within these industries in ten years. Other transit and ground passenger transportation went from 10 to 151 jobs and grew by about 1,400%. Additionally, warehousing and storage is shown to have grown from 26 to 196 or 550% and residential mental retardation and mental health facilities climbed from 154 to 503 jobs, an increase of 227%. These trends estimated by EMSI are further detailed in the following series of tables.

Top 25 Fastest Growing Industries in Jefferson County 2001-2011 (4-Digit)					
NAICS	Description	Jobs 2001	Jobs 2011	Change	% Change
9120	Federal government, military	11,252	17,074	5,822	52%
5614	Business Support Services	100	795	695	695%
9110	Federal government, civilian, except postal service	2,411	3,068	657	27%
6241	Individual and Family Services	344	798	454	132%
4529	Other General Merchandise Stores	297	743	446	150%
5312	Offices of Real Estate Agents and Brokers	237	666	429	181%
7221	Full-Service Restaurants	1,461	1,829	368	25%
5239	Other Financial Investment Activities	195	549	354	182%
6232	Residential Mental Retardation, Mental Health Facilities	154	503	349	227%
5313	Activities Related to Real Estate	233	565	332	142%
4881	Support Activities for Air Transportation	301	613	312	104%
7222	Limited-Service Eating Places	1,266	1,575	309	24%
2362	Nonresidential Building Construction	237	542	305	129%
6244	Child Day Care Services	748	1,014	266	36%
2361	Residential Building Construction	522	768	246	47%
4481	Clothing Stores	289	513	224	78%
5617	Services to Buildings and Dwellings	369	580	211	57%
9300	Local government	6,484	6,652	168	3%
6211	Offices of Physicians	900	1,053	153	17%
4931	Warehousing and Storage	26	169	143	550%
4859	Other Transit and Ground Passenger Transportation	10	151	141	1410%
4244	Grocery and Related Product Merchant Wholesalers	224	354	130	58%
8111	Automotive Repair and Maintenance	402	523	121	30%
6243	Vocational Rehabilitation Services	100	218	118	118%
2382	Building Equipment Contractors	528	642	114	22%

Source: EMSI Complete Employment - 2011.3

Top 25 Fastest Growing Industries in Economic Region 2001-2011 (4-Digit)					
NAICS	Description	Jobs 2001	Jobs 2011	Change	% Change
9120	Federal government, military	12,708	18,212	5,504	43%
5239	Other Financial Investment Activities	2,319	5,060	2,741	118%
6241	Individual and Family Services	3,869	6,329	2,460	64%
4529	Other General Merchandise Stores	1,333	3,746	2,413	181%
5613	Employment Services	5,095	7,128	2,033	40%
5312	Offices of Real Estate Agents and Brokers	1,905	3,829	1,924	101%
7222	Limited-Service Eating Places	7,714	9,594	1,880	24%
6211	Offices of Physicians	6,148	7,788	1,640	27%
5416	Management, Scientific, and Technical Consulting Services	1,806	3,433	1,627	90%
5313	Activities Related to Real Estate	2,042	3,413	1,371	67%
6113	Colleges, Universities, and Professional Schools	10,498	11,858	1,360	13%
7139	Other Amusement and Recreation Industries	2,806	4,164	1,358	48%
6244	Child Day Care Services	3,969	5,321	1,352	34%
5614	Business Support Services	1,506	2,770	1,264	84%
4931	Warehousing and Storage	816	1,905	1,089	133%
6231	Nursing Care Facilities	6,066	6,955	889	15%
6233	Community Care Facilities for the Elderly	785	1,540	755	96%
5221	Depository Credit Intermediation	3,277	4,021	744	23%
5419	Other Professional, Scientific, and Technical Services	3,349	4,065	716	21%
6116	Other Schools and Instruction	1,004	1,718	714	71%
9110	Federal government, civilian, except postal service	5,213	5,909	696	13%
6232	Residential Mental Retardation, Mental Health Facilities	1,228	1,898	670	55%
7221	Full-Service Restaurants	10,267	10,929	662	6%
6213	Offices of Other Health Practitioners	2,389	3,045	656	27%
9300	Local government	43,663	44,271	608	1%

Source: EMSI Complete Employment - 2011.3

Top 25 Fastest Growing Industries in Upstate NY 2001-2011 (4-Digit)					
NAICS	Description	Jobs 2001	Jobs 2011	Change	% Change
5239	Other Financial Investment Activities	27,639	50,544	22,905	83%
6113	Colleges, Universities, and Professional Schools	79,158	98,487	19,329	24%
5312	Offices of Real Estate Agents and Brokers	21,373	39,037	17,664	83%
4529	Other General Merchandise Stores	17,652	32,644	14,992	85%
5313	Activities Related to Real Estate	19,797	34,584	14,787	75%
6241	Individual and Family Services	35,484	49,339	13,855	39%
7222	Limited-Service Eating Places	67,788	81,207	13,419	20%
9300	Local government	385,254	398,333	13,079	3%
6232	Residential Mental Retardation, Mental Health Facilities	21,282	33,056	11,774	55%
5416	Management, Scientific, and Technical Consulting Services	18,726	29,325	10,599	57%
6211	Offices of Physicians	50,188	59,948	9,760	19%
5419	Other Professional, Scientific, and Technical Services	32,932	41,766	8,834	27%
5614	Business Support Services	19,441	28,192	8,751	45%
7221	Full-Service Restaurants	88,224	95,916	7,692	9%
6213	Offices of Other Health Practitioners	21,566	28,437	6,871	32%
5617	Services to Buildings and Dwellings	40,429	47,244	6,815	17%
6116	Other Schools and Instruction	12,239	19,003	6,764	55%
7139	Other Amusement and Recreation Industries	28,106	34,564	6,458	23%
2111	Oil and Gas Extraction	3,355	9,525	6,170	184%
4931	Warehousing and Storage	10,024	15,618	5,594	56%
4481	Clothing Stores	20,679	26,091	5,412	26%
5511	Management of Companies and Enterprises	41,020	46,068	5,048	12%
6244	Child Day Care Services	40,583	45,515	4,932	12%
5412	Accounting, Tax Prep. Bookkeeping, Payroll Services	23,753	28,669	4,916	21%
8121	Personal Care Services	16,124	20,851	4,727	29%

Source: EMSI Complete Employment - 2011.3

## Projected Growth

Similar to the analysis conducted on the historic growth, Camoin Associates looked at projections provided by EMSI to see what industries are expected to grow over the next ten years. These projections are based on historic local and national trends as well as the current economic climate and the most up-to-date projections for the future.

It is important to note here that while construction is showing large projected growth over the next 10 years, it is clear that the recent growth of the construction industry has been largely driven by construction at Fort Drum. According to local stakeholders interviewed for this project, construction activities at the post and post related construction in the community is actually expected to slow in the coming years. As such, it is expected that this industry will not grow as quickly as expressed in the table and may even experience negative growth.

Fastest Growing Industries in Jefferson County 2011-2021 (2-Digit)					
NAICS	Description	Jobs 2011	Jobs 2021	Change	% Change
62	Health Care and Social Assistance	7,467	8,949	1,482	20%
90	Government	28,427	29,540	1,113	4%
23	Construction	3,285	3,848	563	17%
53	Real Estate and Rental and Leasing	2,073	2,576	503	24%
52	Finance and Insurance	1,867	2,295	428	23%
72	Accommodation and Food Services	4,269	4,602	333	8%
48-49	Transportation and Warehousing	2,248	2,578	330	15%
81	Other Services (except Public Administration)	2,513	2,834	321	13%
56	Administrative, Support and Remediation Services	1,888	2,161	273	14%
54	Professional, Scientific, and Technical Services	1,577	1,764	187	12%
71	Arts, Entertainment, and Recreation	878	1,006	128	15%
51	Information	857	965	108	13%
61	Educational Services	381	463	82	22%
31-33	Manufacturing	2,599	2,679	80	3%
21	Mining, Quarrying, and Oil and Gas Extraction	163	226	63	39%
22	Utilities	208	206	(2)	(1%)
42	Wholesale Trade	1,170	1,147	(23)	(2%)
11	Agriculture, Forestry, Fishing and Hunting	1,484	1,335	(149)	(10%)
55	Management of Companies and Enterprises	199	31	(168)	(84%)
44-45	Retail Trade	7,873	7,436	(437)	(6%)
	Total	71,425	76,642	5,217	7%

Source: EMSI Complete Employment - 2011.3

Fastest Growing Industries in Economic Region 2011-2021 (2-Digit)					
NAICS	Description	Jobs 2011	Jobs 2021	Change	% Change
62	Health Care and Social Assistance	54,403	64,997	10,594	19%
90	Government	83,616	88,130	4,514	5%
72	Accommodation and Food Services	27,806	30,044	2,238	8%
52	Finance and Insurance	22,594	24,520	1,926	9%
54	Professional, Scientific, and Technical Services	23,253	25,128	1,875	8%
71	Arts, Entertainment, and Recreation	8,217	9,998	1,781	22%
53	Real Estate and Rental and Leasing	13,023	14,789	1,766	14%
81	Other Services (except Public Administration)	18,192	19,902	1,710	9%
61	Educational Services	15,932	16,811	879	6%
56	Administrative, Support and Remediation Services	21,480	21,845	365	2%
23	Construction	19,647	20,010	363	2%
42	Wholesale Trade	16,237	16,399	162	1%
51	Information	6,045	6,204	159	3%
55	Management of Companies and Enterprises	3,001	3,133	132	4%
21	Mining, Quarrying, and Oil and Gas Extraction	624	752	128	21%
48-49	Transportation and Warehousing	14,920	14,896	(24)	0%
11	Agriculture, Forestry, Fishing and Hunting	5,249	4,931	(318)	(6%)
22	Utilities	3,947	3,580	(367)	(9%)
44-45	Retail Trade	44,955	43,839	(1,116)	(2%)
31-33	Manufacturing	28,211	23,079	(5,132)	(18%)
	Total	431,352	452,987	21,635	5%

Source: EMSI Complete Employment - 2011.3

Fastest Growing Industries in Upstate NY 2011-2021 (2-Digit)					
NAICS	Description	Jobs 2011	Jobs 2021	Change	% Change
62	Health Care and Social Assistance	503,009	577,454	74,445	15%
53	Real Estate and Rental and Leasing	130,494	156,379	25,885	20%
54	Professional, Scientific, and Technical Services	226,517	252,194	25,677	11%
52	Finance and Insurance	186,628	212,012	25,384	14%
90	Government	618,636	634,741	16,105	3%
61	Educational Services	153,934	168,823	14,889	10%
71	Arts, Entertainment, and Recreation	86,386	100,633	14,247	16%
56	Administrative, Support and Remediation Services	173,077	186,495	13,418	8%
72	Accommodation and Food Services	244,322	256,432	12,110	5%
81	Other Services (except Public Administration)	163,420	173,657	10,237	6%
21	Mining, Quarrying, and Oil and Gas Extraction	15,288	21,378	6,090	40%
23	Construction	167,241	172,554	5,313	3%
42	Wholesale Trade	113,741	117,760	4,019	4%
55	Management of Companies and Enterprises	46,068	48,555	2,487	5%
51	Information	57,719	58,826	1,107	2%
48-49	Transportation and Warehousing	111,856	111,242	(614)	(1%)
22	Utilities	14,646	13,997	(649)	(4%)
11	Agriculture, Forestry, Fishing and Hunting	59,455	57,406	(2,049)	(3%)
44-45	Retail Trade	416,555	408,393	(8,162)	(2%)
31-33	Manufacturing	290,657	251,886	(38,771)	(13%)
	Total	3,779,649	3,980,817	201,168	5%

Source: EMSI Complete Employment - 2011.3

Top 25 Fastest Growing Industries in Jefferson County 2011-2021 (4-Digit)					
NAICS	Description	Jobs 2011	Jobs 2021	Change	% Change
9110	Federal government, civilian, except postal service	3,068	3,784	716	23%
5312	Offices of Real Estate Agents and Brokers	666	981	315	47%
5239	Other Financial Investment Activities	549	861	312	57%
6211	Offices of Physicians	1,053	1,353	300	28%
6241	Individual and Family Services	798	1,098	300	38%
6232	Residential Mental Retardation, Mental Health Facilities	503	800	297	59%
9300	Local government	6,652	6,919	267	4%
2361	Residential Building Construction	768	1,014	246	32%
6244	Child Day Care Services	1,014	1,260	246	24%
5313	Activities Related to Real Estate	565	766	201	36%
3256	Soap, Cleaning Compound Manufacturing	344	517	173	50%
7222	Limited-Service Eating Places	1,575	1,742	167	11%
7221	Full-Service Restaurants	1,829	1,976	147	8%
6212	Offices of Dentists	336	475	139	41%
4529	Other General Merchandise Stores	743	870	127	17%
5614	Business Support Services	795	922	127	16%
6231	Nursing Care Facilities	709	825	116	16%
5617	Services to Buildings and Dwellings	580	693	113	19%
6213	Offices of Other Health Practitioners	312	420	108	35%
7139	Other Amusement and Recreation Industries	486	592	106	22%
3399	Other Miscellaneous Manufacturing	141	238	97	69%
4931	Warehousing and Storage	169	265	96	57%
5242	Agencies, Brokerages, Insurance Related Activities	581	665	84	14%
5413	Architectural, Engineering, and Related Services	283	367	84	30%
2382	Building Equipment Contractors	642	723	84	5%

Source: EMSI Complete Employment - 2011.3

Top 25 Fastest Growing Industries in Economic Region 2011-2021 (4-Digit)					
NAICS	Description	Jobs 2011	Jobs 2021	Change	% Change
9300	Local government	44,271	46,940	2,669	6%
6211	Offices of Physicians	7,788	10,208	2,420	31%
5239	Other Financial Investment Activities	5,060	7,436	2,376	47%
6231	Nursing Care Facilities	6,955	8,757	1,802	26%
6241	Individual and Family Services	6,329	8,118	1,789	28%
5312	Offices of Real Estate Agents and Brokers	3,829	5,351	1,522	40%
4529	Other General Merchandise Stores	3,746	5,240	1,494	40%
5416	Management, Scientific, and Tech Consulting Services	3,433	4,760	1,327	39%
7222	Limited-Service Eating Places	9,594	10,920	1,326	14%
7139	Other Amusement and Recreation Industries	4,164	5,399	1,235	30%
6244	Child Day Care Services	5,321	6,483	1,162	22%
9200	State government	15,224	16,190	966	6%
9110	Federal government, civilian, except postal service	5,909	6,740	831	14%
5313	Activities Related to Real Estate	3,413	4,197	784	23%
6213	Offices of Other Health Practitioners	3,045	3,819	774	25%
2361	Residential Building Construction	3,095	3,755	660	21%
6212	Offices of Dentists	2,231	2,845	614	28%
5617	Services to Buildings and Dwellings	5,359	5,972	613	11%
5413	Architectural, Engineering, and Related Services	4,437	5,040	603	14%
6232	Residential Mental Retardation, Mental Health Facilities	1,898	2,495	597	31%
5614	Business Support Services	2,770	3,331	561	20%
7223	Special Food Services	2,312	2,838	526	23%
8121	Personal Care Services	2,387	2,907	520	22%
6116	Other Schools and Instruction	1,718	2,224	506	29%
4931	Warehousing and Storage	1,905	2,387	482	25%

Source: EMSI Complete Employment - 2011.3

Top 25 Fastest Growing Industries in Upstate NY 2011-2021 (4-Digit)					
NAICS	Description	Jobs 2011	Jobs 2021	Change	% Change
5239	Other Financial Investment Activities	50,544	71,461	20,917	41%
5312	Offices of Real Estate Agents and Brokers	39,037	53,063	14,026	36%
6211	Offices of Physicians	59,948	73,279	13,331	22%
6231	Nursing Care Facilities	55,075	67,824	12,749	23%
6241	Individual and Family Services	49,339	61,772	12,433	25%
9300	Local government	398,333	409,973	11,640	3%
4529	Other General Merchandise Stores	32,644	43,066	10,422	32%
5313	Activities Related to Real Estate	34,584	44,583	9,999	29%
5416	Management, Scientific, and Tech Consulting Services	29,325	39,324	9,999	34%
6113	Colleges, Universities, and Professional Schools	98,487	107,997	9,510	10%
6232	Residential Mental Retardation, Mental Health Facilities	33,056	41,772	8,716	26%
7222	Limited-Service Eating Places	81,207	88,848	7,641	9%
6213	Offices of Other Health Practitioners	28,437	34,897	6,460	23%
7139	Other Amusement and Recreation Industries	34,564	40,939	6,375	18%
5614	Business Support Services	28,192	34,564	6,372	23%
2111	Oil and Gas Extraction	9,525	15,679	6,154	65%
5617	Services to Buildings and Dwellings	47,244	53,216	5,972	13%
5419	Other Professional, Scientific, and Technical Services	41,766	47,475	5,709	14%
6244	Child Day Care Services	45,515	51,053	5,538	12%
8121	Personal Care Services	20,851	25,824	4,973	24%
6116	Other Schools and Instruction	19,003	23,820	4,817	25%
5415	Computer Systems Design and Related Services	30,887	34,918	4,031	13%
9200	State government	156,587	160,552	3,965	3%
5231	Securities & Commodity Contracts Intermediation	13,020	16,877	3,857	30%
6239	Other Residential Care Facilities	8,672	12,407	3,735	43%

Source: EMSI Complete Employment - 2011.3

## Location Quotient Analysis

Once the largest and fastest growing industries have been identified, the next step is to evaluate the competitive strengths of these industries.

A Location Quotient Analysis (LQ) is used to compare trends in one region to a larger reference region according to certain characteristics or assets of the region. **It is essentially a way of quantifying how concentrated a particular industry, demographic group, or other variable is in a region as compared to the state or nation.** Location quotients are one way to identify unique characteristics of a particular region. For this report, employment by industry within Jefferson County is compared to New York State and the U.S. to identify which industries might be more concentrated in Jefferson County. In other words, the LQ can help determine whether Jefferson County has a larger share of jobs within a particular industry as compared to the state or nation.<sup>2</sup>

LQ is calculated by dividing the percent of jobs within each industry by the percent of jobs in the same industry in the larger geography. For example, if the *Finance and Insurance* industry accounts for 2% of jobs in a community and at the national level this industry has 1% of the total jobs, the community has an LQ of 2.0 ( $0.02 \div 0.01 = 2$ ). So in this example, the *Finance and Insurance* industry has a larger share of employment compared to the nation. It employs twice as many individuals as expected. **Typically, only values above 1.20 or below 0.80 are considered “significant” findings for an LQ analysis.**

Significant industries with a high LQ and high employment are considered the foundation of an area’s economy because it is assumed in an ‘average’ economy local industries are fulfilling local needs first and therefore those with a high LQ must be producing a surplus to local needs. Industries that have a high concentration are assumed to produce more than what is needed locally (i.e. a surplus) and export their products and services rather than circulating money already in the region. These are known as export-oriented industries and they bring wealth into the local economy. By looking at LQ trends over time it is possible to determine which industries are becoming more concentrated and which industries are becoming less concentrated.

Highly concentrated industries in Jefferson County in 2011, as compared to the State, include agriculture, forestry, fishing and hunting (agriculture industry); government; and mining quarrying and oil and gas extraction (mining industry). The concentration of the agriculture industry declined from 2001 to 2011 and is expected to continue to do so through 2021. However, it will likely maintain a relatively high state LQ of 3.5 in 2021.

The LQ analysis of the Economic Region tells a slightly different story. Industries currently with a significant LQ compared to the State include utilities; agriculture, forestry, fishing and hunting; manufacturing; and government. The concentration of the utilities industry spiked in 2011 at 2.49 but is expected to decline over the next 10 years to 2.40. The State LQ’s of both the agriculture and manufacturing industries are expected to remain relatively constant with a modest decline through 2021. Regional industries with high concentrations relative to the nation include utilities; educational services; and government. Both utilities and educational services are projected to experience a decline of their national LQ’s over the next 10 years, but still remain significant.

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<sup>2</sup> Note: For the State LQ analysis, Jefferson County industries are compared to the state as a whole, not the Upstate region study area defined elsewhere in this report.

Most Concentrated Industries by State LQ in Jefferson County (2-Digit)					
NAICS	Description	Jobs 2011	LQ 2001	LQ 2011	LQ 2021
11	Agriculture, Forestry, Fishing and Hunting	1,484	4.31	3.50	3.25
90	Government	28,427	2.67	3.01	3.04
21	Mining, Quarrying, and Oil and Gas Extraction	163	2.11	1.50	1.50
44-45	Retail Trade	7,873	1.24	1.18	1.11
23	Construction	3,285	0.95	1.11	1.26
72	Accommodation and Food Services	4,269	1.15	0.99	0.99
48-49	Transportation and Warehousing	2,248	0.76	0.90	1.03
31-33	Manufacturing	2,599	0.76	0.83	0.99
22	Utilities	208	1.24	0.79	0.82
81	Other Services (except Public Administration)	2,513	0.88	0.76	0.78
62	Health Care and Social Assistance	7,467	0.81	0.73	0.75
53	Real Estate and Rental and Leasing	2,073	0.54	0.61	0.64
56	Administrative Support and Remediation Services	1,888	0.30	0.53	0.56
42	Wholesale Trade	1,170	0.48	0.48	0.47
51	Information	857	0.41	0.45	0.51
71	Arts, Entertainment, and Recreation	878	0.52	0.43	0.43
52	Finance and Insurance	1,867	0.36	0.36	0.41
54	Professional, Scientific, and Technical Services	1,577	0.29	0.28	0.27
55	Management of Companies and Enterprises	199	1.29	0.21	0.03
61	Educational Services	381	0.13	0.13	0.14

Source: EMSI Complete Employment - 2011.3

Most Concentrated Industries by National LQ in Jefferson County (2-Digit)					
NAICS	Description	Jobs 2011	LQ 2001	LQ 2011	LQ 2021
90	Government	28,427	2.70	2.92	2.92
44-45	Retail Trade	7,873	1.09	1.09	1.03
11	Agriculture, Forestry, Fishing and Hunting	1,484	1.30	1.05	1.01
62	Health Care and Social Assistance	7,467	1.09	0.94	0.97
23	Construction	3,285	0.71	0.89	0.99
48-49	Transportation and Warehousing	2,248	0.75	0.88	0.98
72	Accommodation and Food Services	4,269	0.94	0.85	0.86
22	Utilities	208	1.39	0.85	0.84
53	Real Estate and Rental and Leasing	2,073	0.61	0.68	0.73
81	Other Services (except Public Administration)	2,513	0.81	0.67	0.71
51	Information	857	0.58	0.65	0.70
71	Arts, Entertainment, and Recreation	878	0.67	0.56	0.56
31-33	Manufacturing	2,599	0.52	0.51	0.56
52	Finance and Insurance	1,867	0.53	0.49	0.53
42	Wholesale Trade	1,170	0.49	0.46	0.44
56	Administrative, Support and Remediation Services	1,888	0.26	0.44	0.44
54	Professional, Scientific, and Technical Services	1,577	0.35	0.32	0.31
21	Mining, Quarrying, and Oil and Gas Extraction	163	0.40	0.27	0.29
55	Management of Companies and Enterprises	199	1.39	0.24	0.04
61	Educational Services	381	0.23	0.22	0.23

Source: EMSI Complete Employment - 2011.3

Most Concentrated Industries by State LQ in Economic Region (2-Digit)					
NAICS	Description	Jobs 2011	LQ 2001	LQ 2011	LQ 2021
22	Utilities	3,947	3.30	2.49	2.40
11	Agriculture, Forestry, Fishing and Hunting	5,249	2.06	2.05	2.03
31-33	Manufacturing	28,211	1.43	1.49	1.44
90	Government	83,616	1.34	1.47	1.53
44-45	Retail Trade	44,955	1.14	1.12	1.11
42	Wholesale Trade	16,237	1.08	1.11	1.14
23	Construction	19,647	1.08	1.10	1.11
72	Accommodation and Food Services	27,806	1.12	1.06	1.09
56	Administrative and Support and Waste Management	21,480	0.77	0.99	0.96
48-49	Transportation and Warehousing	14,920	0.88	0.99	1.01
21	Mining, Quarrying, and Oil and Gas Extraction	624	1.40	0.96	0.85
81	Other Services (except Public Administration)	18,192	1.01	0.91	0.93
61	Educational Services	15,932	1.03	0.90	0.86
62	Health Care and Social Assistance	54,403	0.87	0.89	0.92
52	Finance and Insurance	22,594	0.67	0.73	0.73
54	Professional, Scientific, and Technical Services	23,253	0.63	0.67	0.66
71	Arts, Entertainment, and Recreation	8,217	0.62	0.67	0.72
53	Real Estate and Rental and Leasing	13,023	0.64	0.64	0.62
55	Management of Companies and Enterprises	3,001	0.84	0.53	0.54
51	Information	6,045	0.59	0.52	0.55

Source: EMSI Complete Employment - 2011.3

Most Concentrated Industries by National LQ in Economic Region (2-Digit)					
NAICS	Description	Jobs 2011	LQ 2001	LQ 2011	LQ 2021
22	Utilities	3,947	3.70	2.68	2.48
61	Educational Services	15,932	1.80	1.53	1.43
90	Government	83,616	1.36	1.42	1.47
62	Health Care and Social Assistance	54,403	1.16	1.13	1.19
42	Wholesale Trade	16,237	1.11	1.07	1.06
44-45	Retail Trade	44,955	1.01	1.03	1.02
52	Finance and Insurance	22,594	0.99	0.98	0.95
48-49	Transportation and Warehousing	14,920	0.86	0.96	0.95
31-33	Manufacturing	28,211	0.97	0.93	0.82
72	Accommodation and Food Services	27,806	0.92	0.92	0.95
23	Construction	19,647	0.81	0.88	0.87
71	Arts, Entertainment, and Recreation	8,217	0.79	0.87	0.95
56	Administrative and Support and Waste Management	21,480	0.67	0.82	0.76
81	Other Services (except Public Administration)	18,192	0.92	0.81	0.85
54	Professional, Scientific, and Technical Services	23,253	0.76	0.77	0.75
51	Information	6,045	0.83	0.75	0.76
53	Real Estate and Rental and Leasing	13,023	0.73	0.70	0.71
11	Agriculture, Forestry, Fishing and Hunting	5,249	0.62	0.61	0.63
55	Management of Companies and Enterprises	3,001	0.91	0.61	0.63
21	Mining, Quarrying, and Oil and Gas Extraction	624	0.26	0.17	0.16

Source: EMSI Complete Employment - 2011.3

At the 4-digit NAICS code level, each of the top twenty-five industries has a significant LQ for both the state and national analysis. Therefore, when considering LQ's for particular industries, it is important to also look at the number of jobs within the industry. For example, in Jefferson County in 2011 support activities for mining had a state LQ of 2.31; however, this industry only has 17 jobs.

Top performing non-government industries in Jefferson County with a significant state LQ include soap, cleaning compound manufacturing<sup>3</sup>; crop and animal production; other general merchandise stores; and nonresidential building construction.

Significant national LQ top performing non-government industries include soap, cleaning compound manufacturing; other transit and ground passenger transportation; residential mental retardation and mental health facilities; business support services; nonresidential building construction; residential building construction; other residential care facilities; and vocational rehabilitation services. Each of these industries is showing a positive trend in LQ from 2001 to 2021.

An additional observation about the LQ data for both Jefferson County and the Economic Region is that there is a vast diversity of manufacturing industries with significant LQ's that seem to be either increasing or holding steady. This may suggest that while many manufacturing industries are declining throughout the state and country, these industries are at least maintaining their presence locally.

Top 25 Most Concentrated Industries by State LQ in Jefferson County (4-Digit) - Sorted by 2011 LQ					
NAICS	Description	Jobs 2011	LQ 2001	LQ 2011	LQ 2021
9120	Federal government, military	17,074	33.47	46.38	46.06
3365	Railroad Rolling Stock Manufacturing	312	20.65	26.90	56.61
3212	Wood Product Manufacturing	43	9.78	9.66	9.85
3256	Soap, Cleaning Compound Manufacturing	344	5.29	8.49	16.00
3221	Pulp, Paper, and Paperboard Mills	262	14.72	7.53	2.15
9110	Federal government, civilian, except postal service	3,068	5.78	6.63	8.34
1141	Fishing	49	5.59	5.32	5.49
3115	Dairy Product Manufacturing	269	3.85	5.16	6.63
3353	Electrical Equipment Manufacturing	137	12.32	4.52	2.24
3273	Cement and Concrete Product Manufacturing	151	3.22	4.23	6.46
11A0	Crop and animal production	1,233	4.63	3.72	6.11
3262	Rubber Product Manufacturing	59	0.00	3.60	3.45
1151	Support Activities for Crop Production	88	3.29	3.47	6.66
3391	Medical Equipment and Supplies Manufacturing	305	2.85	3.03	3.41
3111	Animal Food Manufacturing	27	3.96	2.68	3.29
1133	Logging	62	1.87	2.66	2.70
4412	Other Motor Vehicle Dealers	112	3.27	2.66	2.31
3241	Petroleum and Coal Products Manufacturing	32	1.01	2.65	4.54
4471	Gasoline Stations	466	2.09	2.39	2.46
4246	Chemical Products Merchant Wholesalers	88	2.43	2.35	2.08
2131	Support Activities for Mining	17	0.00	2.31	2.01
4529	Other General Merchandise Stores	743	1.32	2.20	2.17
2362	Nonresidential Building Construction	542	0.88	2.19	3.09
8113	Machinery, Equipment Repair and Maintenance	94	0.94	2.03	2.80
3324	Boiler, Tank, & Shipping Container Manufacturing	56	0.00	2.02	0.00

Source: EMSI Complete Employment - 2011.3

<sup>3</sup> Note that Car-Fresh Corp (manufacturer of Little Trees Air Fresheners) is listed under this NAICS code (NAICS 3256) which is resulting in the high location quotient.

Top 25 Most Concentrated Industries by National LQ in Jefferson County (4-Digit) - Sorted by 2011 LQ					
NAICS	Description	Jobs 2011	LQ 2001	LQ 2011	LQ 2021
3365	Railroad Rolling Stock Manufacturing	312	29.74	40.54	32.98
9120	Federal government, military	17,074	14.77	20.33	21.04
3256	Soap, Cleaning Compound Manufacturing	344	6.11	7.66	11.74
3221	Pulp, Paper, and Paperboard Mills	262	9.82	5.78	1.68
3115	Dairy Product Manufacturing	269	3.82	4.89	6.05
9110	Federal government, civilian, except postal service	3,068	3.51	3.45	4.29
4859	Other Transit & Ground Passenger Transportation	151	0.37	3.19	2.87
3353	Electrical Equipment Manufacturing	137	5.69	2.35	1.23
3391	Medical Equipment and Supplies Manufacturing	305	2.42	2.31	2.07
4854	School and Employee Bus Transportation	186	1.44	2.26	1.97
3273	Cement and Concrete Product Manufacturing	151	1.45	2.08	2.93
6232	Residential Mental Retardation, Mental Health Fac.	503	0.85	1.94	2.75
5151	Radio and Television Broadcasting	183	1.70	1.73	1.87
4872	Scenic and Sightseeing Transportation, Water	17	3.73	1.72	2.13
5614	Business Support Services	795	0.26	1.70	1.79
2362	Nonresidential Building Construction	542	0.71	1.69	1.77
4246	Chemical Products Merchant Wholesalers	88	2.02	1.69	1.21
2361	Residential Building Construction	768	1.04	1.58	1.98
6239	Other Residential Care Facilities	113	1.19	1.56	2.06
3212	Plywood, & Eng. Wood Product Manufacturing	43	1.23	1.55	2.26
4412	Other Motor Vehicle Dealers	112	1.94	1.53	1.18
3324	Boiler, Tank, & Shipping Container Manufacturing	56	0.00	1.52	1.10
8134	Civic and Social Organizations	266	1.77	1.52	1.87
6243	Vocational Rehabilitation Services	218	0.82	1.44	1.33
1141	Fishing	49	1.49	1.43	1.54

Source: EMSI Complete Employment - 2011.3

Top 25 Most Concentrated Industries by State LQ in Economic Region (4-Digit) - Sorted by 2011 LQ					
NAICS	Description	Jobs 2011	LQ 2001	LQ 2011	LQ 2021
9120	Federal government, military	18,212	5.44	8.19	8.31
3334	HVAC & Comm. Refrigeration Equ. Manufacturing	1,094	11.66	7.53	1.91
3313	Alumina and Aluminum Production & Processing	684	7.86	7.50	13.05
3221	Pulp, Paper, and Paperboard Mills	1,159	13.90	5.51	4.64
3314	Nonferrous Metal Production and Processing	845	9.32	5.07	5.66
3315	Foundries	306	6.29	4.52	3.77
3365	Railroad Rolling Stock Manufacturing	312	3.74	4.45	9.58
1153	Support Activities for Forestry	180	4.13	4.05	4.23
1142	Hunting and Trapping	50	2.97	3.87	3.74
3222	Converted Paper Product Manufacturing	1,553	3.21	3.59	3.88
1133	Logging	487	3.27	3.47	3.35
3353	Electrical Equipment Manufacturing	555	2.62	3.04	3.29
3345	Navig. Measuring, Elec. & Control Inst. Man.	2,656	3.73	2.97	2.57
2211	Electric Power Gen. Transmission & Distribution	3,629	4.25	2.89	2.73
3363	Motor Vehicle Parts Manufacturing	1,296	2.40	2.86	3.12
3371	House & Inst. Furniture & Kitchen Cabinet Man.	856	3.63	2.85	2.08
4542	Vending Machine Operators	487	2.00	2.82	3.54
2372	Land Subdivision	185	2.47	2.82	4.28
3359	Other Electrical Equipment and Component Man.	592	1.59	2.72	2.34
3115	Dairy Product Manufacturing	855	2.00	2.72	2.37
4841	General Freight Trucking	3,618	3.34	2.69	2.69
3212	Plywood, and Engineered Wood Product Man.	72	2.61	2.65	2.73
3121	Beverage Manufacturing	684	1.97	2.64	2.10
4881	Support Activities for Air Transportation	748	2.35	2.48	4.69
4238	Machinery, Equip. & Supplies Wholesalers	2,112	4.13	2.39	2.07

Source: EMSI Complete Employment - 2011.3

Top 25 Most Concentrated Industries by National LQ in Economic Region (4-Digit) - Sorted by 2011 LQ					
NAICS	Description	Jobs 2011	LQ 2001	LQ 2011	LQ 2021
3365	Railroad Rolling Stock Manufacturing	312	4.28	6.71	5.58
3314	Nonferrous Metal Production and Processing	845	3.86	5.48	5.39
3313	Alumina and Aluminum Production and Processing	684	5.14	4.82	7.16
3221	Pulp, Paper, and Paperboard Mills	1,159	4.20	4.23	3.61
9120	Federal government, military	18,212	2.40	3.59	3.80
2211	Electric Power Gen. Transmission & Distribution	3,629	5.01	3.52	3.24
3334	HVAC & Comm. Refrigeration Equ. Manufacturing	1,094	7.55	3.33	0.51
6113	Colleges, Universities, and Professional Schools	11,858	2.93	2.70	2.55
3115	Dairy Product Manufacturing	855	3.31	2.58	2.16
4542	Vending Machine Operators	487	1.15	2.55	4.67
3345	Navig. Measuring, Elec. & Control Inst. Man.	2,656	1.93	2.54	2.10
6112	Junior Colleges	449	0.59	2.32	3.03
3222	Converted Paper Product Manufacturing	1,553	1.88	2.18	1.64
5629	Other Waste Management Services	730	2.27	2.10	2.01
4859	Other Transit & Ground Passenger Transportation	575	1.63	2.01	1.92
1153	Support Activities for Forestry	180	1.06	2.00	2.58
3359	Other Electrical Equipment & Component Man.	592	2.28	1.91	1.46
5241	Insurance Carriers	5,648	2.13	1.88	1.64
8112	Elec. and Precision Equip. Repair & Maintenance	715	1.28	1.87	2.11
4248	Alcoholic Beverage Merchant Wholesalers	811	1.42	1.87	2.31
3256	Soap, Cleaning Compound, Manufacturing	495	1.23	1.83	2.70
4244	Grocery and Related Product Wholesalers	3,316	1.90	1.75	1.73
6242	Food & Housing, Emergency Relief Services	733	1.75	1.74	1.54
4854	School and Employee Bus Transportation	847	1.87	1.71	1.52
1133	Logging	487	1.61	1.67	1.83

Source: EMSI Complete Employment - 2011.3

## Occupational Analysis

In addition to looking at employment by industry, Camoin Associates analyzed employment by occupation. Occupations refer not to the product or service being provided, but by the defined set of tasks of the employee in question. Occupations are classified using the Standard Occupational Classification (SOC) system. This is the system used by Federal statistical agencies to classify workers into one of 840 occupational categories. For more detail on occupations and the “Standard Occupational Classification” system (SOC), we refer the reader to <http://www.bls.gov/soc/>.

All occupation data for this report was collected from EMSI Complete Employment.

Occupational data is helpful in evaluating how the skills, education, and certifications of a particular community’s residents match up with the area’s occupational needs of the future. The report identifies the top occupations and fastest-growing occupations within each community.

## Largest Occupations - All Occupations

The first occupational dataset shows the top twenty occupations at the 5-digit SOC code level ranked by the number of jobs in 2011. The 5-digit level includes such occupations as teacher’s assistants, registered nurses, military occupations, and truck drivers.

The 2011 median earnings for each occupation are also provided, calculated by the median hourly earnings (from EMSI) multiplied by 2,080 hours. These figures are used to identify the wage ranges of the largest occupational categories to determine if the employment base of a community is composed primarily of high-, medium, or low-wage jobs.

Teaching is also an important occupational group in Jefferson County; however, the SOC classifies these occupations in such detail that they do not make the Top 25 at the 5-digit level. In total, the education, training, and library occupations category at the 2-digit SOC level includes over 3,220 jobs (the 5<sup>th</sup> largest group at the 2-digit level). The top five occupations at the 5-digit level include teachers’ assistants (621 jobs); elementary school teachers, except special education (522 jobs); teachers and instructors - all other (438 jobs); secondary school teachers, except special education and vocational education (394 jobs); and postsecondary teachers (383 jobs).

Top 25 Occupations in Jefferson County				
SOC	Description	Jobs 2011	Median Earnings	% of Total Workforce
55-9999	Military Occupations	17,074	\$45,178	23.90%
41-2031	Retail salespersons	1,834	\$19,157	2.57%
41-2011	Cashiers, except gaming	1,609	\$17,410	2.25%
39-9011	Child care workers	1,146	\$15,350	1.60%
37-2011	Janitors and cleaners	869	\$22,027	1.22%
29-1111	Registered nurses	859	\$53,373	1.20%
35-3021	Combined food preparation and serving workers	846	\$15,579	1.18%
43-5081	Stock clerks and order fillers	832	\$18,366	1.16%
41-1011	First-line supervisors/managers of retail sales workers	825	\$25,501	1.16%
43-6014	Secretaries, except legal, medical, and executive	796	\$28,725	1.11%
47-2031	Carpenters	759	\$34,986	1.06%
11-9012	Farmers and ranchers	755	\$15,080	1.06%
43-4051	Customer service representatives	750	\$19,490	1.05%
43-3031	Bookkeeping, accounting, and auditing clerks	738	\$29,994	1.03%
35-3031	Waiters and waitresses	737	\$18,574	1.03%
43-9061	Office clerks, general	712	\$23,067	1.00%
41-9022	Real estate sales agents	685	\$16,494	0.96%
33-3012	Correctional officers and jailers	676	\$52,666	0.95%
31-1011	Home health aides	648	\$21,694	0.91%
25-9041	Teacher assistants	621	\$25,792	0.87%
53-3032	Truck drivers, heavy and tractor-trailer	595	\$30,472	0.83%
35-2021	Food preparation workers	562	\$17,410	0.79%
49-9042	Maintenance and repair workers, general	561	\$31,803	0.79%
11-9199	Managers, all other	550	\$28,163	0.77%
53-7062	Laborers & freight, stock, and material movers, hand	528	\$26,666	0.74%

Source: EMSI Complete Employment - 2011.3

Note: Median earnings derived from median hourly earnings times 2080 hours.

Top 25 Occupations in Economic Region				
SOC	Description	Jobs 2011	Median Earnings	% of Total Workforce
55-9999	Military Occupations	18,212	\$44,158	4.22%
41-2011	Cashiers, except gaming	9,847	\$17,243	2.28%
41-2031	Retail salespersons	9,075	\$19,781	2.10%
37-2011	Janitors and cleaners	7,780	\$22,090	1.80%
29-1111	Registered nurses	7,249	\$55,744	1.68%
43-9061	Office clerks, general	6,848	\$24,710	1.59%
43-6014	Secretaries, except legal, medical, and executive	6,681	\$29,453	1.55%
25-1099	Postsecondary teachers	6,657	\$86,445	1.54%
43-3031	Bookkeeping, accounting, and auditing clerks	6,215	\$32,115	1.44%
43-4051	Customer service representatives	6,177	\$29,203	1.43%
35-3021	Combined food prep & serving workers, inc. fast food	6,054	\$16,723	1.40%
43-5081	Stock clerks and order fillers	5,953	\$18,970	1.38%
25-9041	Teacher assistants	5,929	\$28,621	1.37%
39-9011	Child care workers	5,846	\$16,328	1.36%
53-3032	Truck drivers, heavy and tractor-trailer	5,036	\$35,610	1.17%
35-3031	Waiters and waitresses	4,598	\$18,866	1.07%
41-4012	Sales reps. wholesale & manu, ex. tech & sci.	4,550	\$49,483	1.05%
41-1011	First-line supervisors/managers of retail sales workers	4,485	\$26,707	1.04%
41-9022	Real estate sales agents	4,203	\$16,848	0.97%
31-1012	Nursing aides, orderlies, and attendants	4,201	\$23,109	0.97%
53-7062	Laborers & freight, stock, & material movers, hand	4,196	\$24,565	0.97%
43-1011	First-line supervisors of office support workers	4,015	\$46,530	0.93%
25-2021	Elementary school teachers, ex. special education	4,009	\$68,744	0.93%
43-6011	Executive secretaries and administrative assistants	3,966	\$40,310	0.92%
31-1011	Home health aides	3,855	\$22,110	0.89%

Source: EMSI Complete Employment - 2011.3

Note: Median earnings derived from median hourly earnings times 2080 hours.

## Historic Growth - All Occupations

To determine which occupations are experiencing the highest growth rate, the past and anticipated change in employment (i.e. increase in the number of jobs) is provided by EMSI for 2001 to 2011 and 2011 to 2021. This information is provided at the 5-digit SOC code level.

Top 25 Fastest Growing Occupations in Jefferson County 2001-2011					
SOC	Description	Jobs 2001	Jobs 2011	Change	% Change
55-9999	Military Occupations	11,252	17,074	5,822	52%
41-2031	Retail salespersons	1,487	1,834	347	23%
41-9022	Real estate sales agents	348	685	337	97%
31-1011	Home health aides	325	648	323	99%
43-4051	Customer service representatives	451	750	299	66%
39-9011	Child care workers	900	1,146	246	27%
11-9141	Property, real estate managers	212	411	199	94%
47-2031	Carpenters	565	759	194	34%
35-3021	Combined food preparation and serving workers	658	846	188	29%
41-9041	Telemarketers	34	221	187	550%
39-9021	Personal and home care aides	235	412	177	75%
41-2011	Cashiers, except gaming	1,458	1,609	151	10%
13-1041	Compliance officers, except agriculture, construction	302	436	134	44%
53-3022	Bus drivers, school	282	408	126	45%
35-3031	Waiters and waitresses	622	737	115	18%
37-3011	Landscaping and groundskeeping workers	241	352	111	46%
41-9021	Real estate brokers	108	215	107	99%
47-2061	Construction laborers	357	459	102	29%
13-2052	Personal financial advisors	162	262	100	62%
11-9199	Managers, all other	455	550	95	21%
41-3021	Insurance sales agents	208	294	86	41%
43-5081	Stock clerks and order fillers	747	832	85	11%
33-9032	Security guards	133	216	83	62%
41-3031	Securities, commodities, sales agents	114	196	82	72%
41-1012	First-line supervisors of non-retail sales workers	235	305	70	30%

Source: EMSI Complete Employment - 2011.3

Top 30 Fastest Growing Occupations in Economic Region 2001-2011					
SOC	Description	Jobs 2001	Jobs 2011	Change	% Change
55-9999	Military Occupations	12,708	18,212	5,504	43%
31-1011	Home health aides	2,427	3,855	1,428	59%
13-2052	Personal financial advisors	1,477	2,861	1,384	94%
41-9022	Real estate sales agents	2,893	4,203	1,310	45%
39-9011	Child care workers	4,562	5,846	1,284	28%
35-3021	Combined food preparation and serving workers, includ	4,842	6,054	1,212	25%
39-9021	Personal and home care aides	1,946	2,962	1,016	52%
41-3031	Securities, commodities, & financial services sales	1,287	2,264	977	76%
11-9141	Property, real estate, and community association man	1,735	2,550	815	47%
29-1111	Registered nurses	6,552	7,249	697	11%
11-9199	Managers, all other	2,976	3,640	664	22%
31-1012	Nursing aides, orderlies, and attendants	3,616	4,201	585	16%
13-1111	Management analysts	1,637	2,094	457	28%
25-3099	Teachers and instructors, all other	3,098	3,516	418	13%
41-9021	Real estate brokers	890	1,298	408	46%
29-1069	Physicians and surgeons	2,093	2,458	365	17%
41-1012	First-line supervisors of non-retail sales workers	2,027	2,362	335	17%
43-4051	Customer service representatives	5,855	6,177	322	5%
29-2061	Licensed practical and licensed vocational nurses	2,694	3,013	319	12%
39-9031	Fitness trainers and aerobics instructors	456	770	314	69%
25-2021	Elementary school teachers, except special education	3,716	4,009	293	8%
13-2051	Financial analysts	774	1,063	289	37%
39-5012	Hairdressers, hairstylists, and cosmetologists	1,230	1,518	288	23%
27-4021	Photographers	1,755	2,023	268	15%
25-1099	Postsecondary teachers	6,401	6,657	256	4%

Source: EMSI Complete Employment - 2011.3

## Projected Growth - All Occupations

Camoin Associates also used EMSI data to look at projections from 2011 to 2021.

Top 25 Fastest Growing Occupations in Jefferson County 2011-2021					
SOC	Description	Jobs 2011	Jobs 2021	Change	% Change
31-1011	Home health aides	648	961	313	48%
39-9011	Child care workers	1,146	1,405	259	23%
41-9022	Real estate sales agents	685	913	228	33%
13-1041	Compliance officers, except agriculture, construction	436	617	181	42%
43-4051	Customer service representatives	750	910	160	21%
39-9021	Personal and home care aides	412	555	143	35%
11-9141	Real estate, and community association managers	411	549	138	34%
35-3021	Food preparation & serving workers, including fast food	846	981	135	16%
47-2031	Carpenters	759	894	135	18%
13-2052	Personal financial advisors	262	397	135	52%
11-9199	Managers, all other	550	663	113	21%
47-2061	Construction laborers	459	562	103	22%
37-3011	Landscaping and groundskeeping workers	352	453	101	29%
41-3031	Securities, commodities, services sales agents	196	293	97	49%
39-6011	Baggage porters and bellhops	157	247	90	57%
29-1111	Registered nurses	859	940	81	9%
41-9021	Real estate brokers	215	287	72	33%
31-9091	Dental assistants	150	221	71	47%
41-1012	First-line supervisors of non-retail sales workers	305	371	66	22%
41-3021	Insurance sales agents	294	360	66	22%
29-1069	Physicians and surgeons	351	415	64	18%
21-1093	Social and human service assistants	213	276	63	30%
25-3099	Teachers and instructors, all other	438	500	62	14%
47-1011	First-line supervisors of construction trades	305	365	60	20%
51-9023	Mixing machine setters, operators, & tenders	123	180	57	46%

Source: EMSI Complete Employment - 2011.3

Top 25 Fastest Growing Occupations in Economic Region 2011-2021					
SOC	Description	Jobs 2011	Jobs 2021	Change	% Change
31-1011	Home health aides	3,855	5,263	1,408	37%
13-2052	Personal financial advisors	2,861	4,098	1,237	43%
39-9011	Child care workers	5,846	7,045	1,199	21%
35-3021	Combined food prep. and serving workers, inc. fast food	6,054	7,177	1,123	19%
39-9021	Personal and home care aides	2,962	3,978	1,016	34%
29-1111	Registered nurses	7,249	8,217	968	13%
41-3031	Securities, commodities, & financial serv. sales agents	2,264	3,112	848	37%
41-9022	Real estate sales agents	4,203	5,050	847	20%
31-1012	Nursing aides, orderlies, and attendants	4,201	4,929	728	17%
25-1099	Postsecondary teachers	6,657	7,292	635	10%
11-9199	Managers, all other	3,640	4,254	614	17%
11-9141	Property & community association managers	2,550	3,088	538	21%
43-4051	Customer service representatives	6,177	6,691	514	8%
29-1069	Physicians and surgeons	2,458	2,957	499	20%
29-2061	Licensed practical and licensed vocational nurses	3,013	3,480	467	15%
25-2021	Elementary school teachers, except special education	4,009	4,391	382	10%
41-1012	First-line supervisors of non-retail sales workers	2,362	2,743	381	16%
13-1111	Management analysts	2,094	2,463	369	18%
39-9031	Fitness trainers and aerobics instructors	770	1,137	367	48%
25-9041	Teacher assistants	5,929	6,251	322	5%
39-5012	Hairdressers, hairstylists, and cosmetologists	1,518	1,837	319	21%
13-1041	Compliance officers, ex: ag. const. H&S, and trans.	1,051	1,366	315	30%
37-3011	Landscaping and groundskeeping workers	2,439	2,745	306	13%
13-2051	Financial analysts	1,063	1,345	282	27%
31-9091	Dental assistants	755	1,021	266	35%

Source: EMSI Complete Employment - 2011.3

## Key Industry Identification & Occupation Analysis

The next step in the analysis is to identify key industries in Jefferson County to research in greater detail with respect to associated occupational trends and requirements. Key industries are defined as those that were highlighted in the interviews with key stakeholders (interview summaries included later in this Supplement); have positive trends as shown in the industry data analysis above; are well-aligned with the greater economic regions; are primarily export-based industries; and/or play a key role in supporting other important industry sectors (see table below).

Top Performing Industry Matrix								
NAICS	Industry	Interviews	Large	Growing	LQ	Regional Alignment	Export Industry	Support Industry
11	Agriculture, Forestry, Fishing and Hunting	X	X		X	X		
31-33	Manufacturing	X	X		X	X	X	
44-45	Retail Trade		X	X		X	X	
48	Transportation		X	X	X	X	X	X
51	Information						X	X
52-53	Finance & Insurance/Real Estate Rental & Leasing		X	X		X	X	
54	Professional, Scientific, and Technical Services							X
56142	Telephone Call Centers		X	X	X	X	X	X
62	Health Care and Social Assistance	X	X	X	X	X	X	
72	Accommodation and Food Services	X	X	X		X		

Source: Camoin Associates

### Agriculture, Forestry, Fishing and Hunting (NAICS 11)

Several of the stakeholders interviewed for the CEDS identified the agricultural industry as having significant potential opportunities for growth and expansion. The following tables contain top occupations associated with agriculture, forestry, fishing, and hunting industry (NAICS code 11).

Top occupations by number of current jobs in this industry include farmers; miscellaneous agricultural workers; and farm, ranch, and other agricultural managers. The number of jobs in each of these three industries is projected to decline over the next ten years both within the agriculture industry and overall in the County.

Other occupations important to the agriculture, forestry, fishing, and hunting industry include bookkeeping, accounting, and auditing clerks; nonfarm animal caretakers; and truck drivers. Each of these occupations has around 15 jobs in the agriculture industry; however, they have from 30 to 100 jobs in the County overall throughout all industries. Of the top occupations in the agriculture industry, these occupations are projected to add the most jobs in the County and remain at a relatively stable level of employment in the industry (in other words, jobs in these occupations are being added in other industries in the County, but are not being added to the agriculture industry).

Jefferson County's soils and climate are conducive to dairy farming and the County has a niche in the production and manufacturing of dairy products. Other potential opportunities identified during the interviews include grape, hops, beef, organic farming, and commodity crops (soybeans, wheat, corn, etc.). Many of these opportunities are driven by the increasing demand for locally grown and raised products.

Agriculture, Forestry, Fishing and Hunting Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
11-9012	Farmers and ranchers	725	732	99.0%
45-209A	Miscellaneous agricultural workers	264	271	97.4%
11-9011	Farm, ranch, and other agricultural managers	156	157	99.4%
45-3011	Fishers and related fishing workers	51	53	96.2%
39-2011	Animal trainers	26	42	61.9%
45-1099	Supervisors, farming, fishing, and forestry workers	24	26	92.3%
45-4022	Logging equipment operators	22	23	95.7%
39-2021	Nonfarm animal caretakers	17	110	15.5%
43-3031	Bookkeeping, accounting, and auditing clerks	15	745	2.0%
53-3032	Truck drivers, heavy and tractor-trailer	11	593	1.9%
45-4021	Fallers	10	11	90.9%

Source: EMSI

Agriculture, Forestry, Fishing and Hunting Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
43-3031	Bookkeeping, accounting, and auditing clerks	15	14	-1	745	778	33	113
39-2021	Nonfarm animal caretakers	17	17	0	110	118	8	30
53-3032	Truck drivers, heavy and tractor-trailer	11	12	1	593	597	4	103
45-4022	Logging equipment operators	22	25	3	23	26	3	8
39-2011	Animal trainers	51	52	1	42	44	2	10
45-1099	Supervisors, farming, fishing, and forestry workers	24	26	2	26	28	2	8
45-3011	Fishers and related fishing workers	26	26	0	53	55	2	14
45-4021	Fallers	10	11	1	11	12	1	4
11-9011	Farm, ranch, and other agricultural managers	156	149	-7	157	150	-7	29
45-209A	Miscellaneous agricultural workers	264	248	-16	271	256	-15	67
11-9012	Farmers and ranchers	725	631	-94	732	639	-93	42

Source: EMSI

Agriculture, Forestry, Fishing and Hunting Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC Completions	Educational Level
11-9011	Farm, ranch, and other agricultural managers	\$13.46	\$18.73	3	7	Degree plus work experience
11-9012	Farmers and ranchers	\$7.25	\$8.39	5	7	Long-term on-the-job training
39-2011	Animal trainers	\$8.20	\$11.93	1	0	Moderate-term on-the-job training
39-2021	Nonfarm animal caretakers	\$9.71	\$13.64	3	0	Short-term on-the-job training
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	13	10	Moderate-term on-the-job training
45-1099	Supervisors, farming, fishing, and forestry workers	\$13.26	\$17.51	1	7	Work experience in a related field
45-209A	Miscellaneous agricultural workers	\$13.01	\$9.25	7	7	Short-term on-the-job training
45-3011	Fishers and related fishing workers	\$7.26	\$8.90	2	0	Moderate-term on-the-job training
45-4021	Fallers	--	\$15.80	0	0	Moderate-term on-the-job training
45-4022	Logging equipment operators	\$8.16	\$16.58	1	0	Moderate-term on-the-job training
53-3032	Truck drivers, heavy and tractor-trailer	\$14.65	\$18.66	11	0	Short-term on-the-job training

Source: EMSI

### Manufacturing (NAICS 31-33)

Although manufacturing is not one of the largest industry sectors by employment, it is the second largest export industry in the County, making it a vital component of the County's economic base.

The top occupation by size in the manufacturing industry is team assemblers, which has 163 jobs in the manufacturing industry and 194 jobs in the County as a whole. The overall number of team assemblers is expected to remain relatively constant over the next ten years; however, it is expected that there will be approximately fifty openings<sup>4</sup> during this time period. Team assemblers in Jefferson County earn approximately \$10.68 an hour, which is slightly less than their national counterparts who receive around \$12.00 an hour. For reference, the average wage in Jefferson County as a whole is \$16.02 an hour. The second-largest occupation by size is mixing and blending machine setters, operators, and tenders, which has 120 jobs in the manufacturing industry and 127 jobs in the County all together. This occupation is the third fastest-growing occupation, expected to add over 50 jobs through 2012 with 72 openings overall.

Other top occupations in the manufacturing industry include first line supervisors; inspectors, testers, sorters, samplers, and weighers; packing and filling machine operators; and paper goods machine setters. With the exception of paper goods machine setters, which is expected to lose almost 40 jobs by 2021, the total number of jobs in these occupations is expected to stay constant with about 20 openings over the next ten years.

Education requirements for most of the top manufacturing occupations in Jefferson County require varying degrees of on-the-job training. Management level positions typically also require work experience in a related field.

<sup>4</sup> "ppenings" refers to the sum of new and replacement jobs in the occupation.

One manufacturing businesses that is just getting started in Jefferson County and is not yet represented in the data is Florelle Tissue Corp. This paper company just began hiring in early 2012 and is expected to employ at least 50 employees by the end of the year and 75 people by 2014.

Examples of employers for the manufacturing industry include: New York Air Brake Corp, Car-Freshener, Knowlton Technologies, Climax Manufacturing Co, and Fibermark.

Manufacturing Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
51-2092	Team assemblers	163	194	84.0%
51-9023	Mixing and blending machine setters, operators, and tenders	120	127	94.5%
51-1011	First-line supervisors/managers of production and operating workers	84	132	63.6%
53-3032	Truck drivers, heavy and tractor-trailer	80	593	13.5%
49-9042	Maintenance and repair workers, general	77	568	13.6%
51-9061	Inspectors, testers, sorters, samplers, and weighers	69	105	65.7%
51-9111	Packaging and filling machine operators and tenders	67	79	84.8%
51-9196	Paper goods machine setters, operators, and tenders	63	64	98.4%
53-7062	Laborers and freight, stock, and material movers, hand	63	531	11.9%
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	54	326	16.6%
51-9081	Dental laboratory technicians	53	58	91.4%
43-5071	Shipping, receiving, and traffic clerks	49	228	21.5%
49-9041	Industrial machinery mechanics	48	88	54.5%
51-9198	Helpers--Production workers	46	56	82.1%
53-7064	Packers and packagers, hand	46	158	29.1%
51-6031	Sewing machine operators	44	54	81.5%
51-4121	Welders, cutters, solderers, and brazers	41	74	55.4%
51-2022	Electrical and electronic equipment assemblers	40	43	93.0%
53-7051	Industrial truck and tractor operators	40	106	37.7%
51-4041	Machinists	39	57	68.4%
11-9199	Managers, all other	38	570	6.7%
43-3031	Bookkeeping, accounting, and auditing clerks	37	745	5.0%
51-9121	Coating, painting, and spraying machine setters, operators, and tenders	36	39	92.3%
43-5081	Stock clerks and order fillers	30	833	3.6%
11-1021	General and operations managers	29	414	7.0%
51-3092	Food batchmakers	29	34	85.3%
51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	28	30	93.3%
43-4051	Customer service representatives	28	781	3.6%
49-3043	Rail car repairers	26	28	92.9%
43-9061	Office clerks, general	26	721	3.6%

Source: EMSI

Manufacturing Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
43-4051	Customer service representatives	28	35	7	781	910	129	341
11-9199	Managers, all other	38	38	0	570	663	93	221
51-9023	Mixing and blending machine setters, operators, and tenders	120	172	52	127	180	53	72
43-9061	Office clerks, general	26	28	2	721	761	40	127
49-9042	Maintenance and repair workers, general	77	75	-2	568	605	37	116
43-3031	Bookkeeping, accounting, and auditing clerks	37	41	4	745	778	33	113
51-9111	Packaging and filling machine operators and tenders	67	80	13	79	92	13	25
49-9041	Industrial machinery mechanics	48	51	3	88	100	12	23
51-3092	Food batchmakers	29	36	7	34	42	8	15
51-2092	Team assemblers	163	171	8	194	201	7	47
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	54	62	8	326	333	7	74
51-6031	Sewing machine operators	44	53	9	54	61	7	10
51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	28	33	5	30	36	6	8
53-3032	Truck drivers, heavy and tractor-trailer	80	103	23	593	597	4	103
51-1011	First-line supervisors/managers of production and operating workers	84	85	1	132	135	3	20
51-9061	Inspectors, testers, sorters, samplers, and weighers	69	67	-2	105	106	1	17
53-7051	Industrial truck and tractor operators	40	40	0	106	107	1	29
51-9121	Coating, painting, and spraying machine setters, operators, and tenders	36	35	-1	39	39	0	10
51-9198	Helpers--Production workers	46	43	-3	56	53	-3	9
51-4041	Machinists	39	34	-5	57	54	-3	7
51-9081	Dental laboratory technicians	53	48	-5	58	54	-4	10
51-4121	Welders, cutters, solderers, and brazers	41	32	-9	74	69	-5	21
53-7064	Packers and packagers, hand	46	51	5	158	152	-6	24
49-3043	Rail car repairers	26	16	-10	28	18	-10	5
53-7062	Laborers and freight, stock, and material movers, hand	63	62	-1	531	520	-11	154
11-1021	General and operations managers	29	29	0	414	401	-13	108
51-2022	Electrical and electronic equipment assemblers	40	26	-14	43	29	-14	7
43-5071	Shipping, receiving, and traffic clerks	49	49	0	228	210	-18	51
43-5081	Stock clerks and order fillers	30	31	1	833	803	-30	172
51-9196	Paper goods machine setters, operators, and tenders	63	24	-39	64	25	-39	14

Source: EMSI

Manufacturing Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC Completions	Educational Level
11-9199	Managers, all other	\$13.54	\$21.04	25	56	Work experience in a related field
11-1021	General and operations managers	\$35.02	\$42.63	12	56	Degree plus work experience
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	\$19.77	\$24.52	8	0	Work experience in a related field
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	13	10	Moderate-term on-the-job training
43-4051	Customer service representatives	\$9.37	\$14.52	38	0	Moderate-term on-the-job training
43-5071	Shipping, receiving, and traffic clerks	\$11.45	\$13.57	6	1	Short-term on-the-job training
43-5081	Stock clerks and order fillers	\$8.83	\$10.09	19	0	Short-term on-the-job training
43-9061	Office clerks, general	\$11.09	\$12.42	14	1	Short-term on-the-job training
49-3043	Rail car repairers	\$14.88	\$22.25	1	0	Long-term on-the-job training
49-9041	Industrial machinery mechanics	\$17.85	\$21.48	3	0	Long-term on-the-job training
49-9042	Maintenance and repair workers, general	\$15.29	\$16.00	13	0	Moderate-term on-the-job training
51-1011	First-line supervisors/managers of production and operating workers	\$22.19	\$24.65	2	0	Work experience in a related field
51-2022	Electrical and electronic equipment assemblers	\$10.18	\$13.76	1	0	Short-term on-the-job training
51-2092	Team assemblers	\$10.68	\$12.96	5	0	Moderate-term on-the-job training
51-3092	Food batchmakers	\$9.04	\$11.77	2	0	Short-term on-the-job training
51-4041	Machinists	\$15.67	\$18.06	1	0	Long-term on-the-job training
51-4121	Welders, cutters, solderers, and brazers	\$14.92	\$17.31	2	0	Postsecondary vocational award
51-6031	Sewing machine operators	\$7.73	\$9.90	1	0	Moderate-term on-the-job training
51-9012	Separating, filtering, clarifying, precipitating, and still machine setters, operators, and tenders	\$13.29	\$18.07	1	0	Moderate-term on-the-job training
51-9023	Mixing and blending machine setters, operators, and tenders	\$13.88	\$15.43	8	0	Moderate-term on-the-job training
51-9061	Inspectors, testers, sorters, samplers, and weighers	\$13.98	\$15.82	2	0	Moderate-term on-the-job training
51-9081	Dental laboratory technicians	\$14.54	\$17.16	1	0	Moderate-term on-the-job training
51-9111	Packaging and filling machine operators and tenders	\$9.93	\$12.08	3	0	Short-term on-the-job training
51-9121	Coating, painting, and spraying machine setters, operators, and tenders	\$13.63	\$13.93	1	0	Moderate-term on-the-job training
51-9196	Paper goods machine setters, operators, and tenders	\$13.68	\$16.36	2	0	Moderate-term on-the-job training
51-9198	Helpers--Production workers	\$10.53	\$10.76	1	0	Short-term on-the-job training
53-3032	Truck drivers, heavy and tractor-trailer	\$14.65	\$18.66	11	0	Short-term on-the-job training
53-7051	Industrial truck and tractor operators	\$13.41	\$14.21	3	0	Short-term on-the-job training
53-7062	Laborers and freight, stock, and material movers, hand	\$12.82	\$11.06	17	0	Short-term on-the-job training
53-7064	Packers and packagers, hand	\$12.36	\$9.36	3	0	Short-term on-the-job training

Source: EMSI

### Information (NAICS 51)

The information industry is an important supporter of some of the other top industries in the County. For example the health care industry is benefiting from a significant investment in the regional fiber network to expand the use of IT in healthcare. The information industry is also an important supporter to the telephone call center industry.

The top five largest occupations in the information industry are a mix of installers and media-related announcers and correspondents (the focus here is on the technical portion of the industry). The occupation expected to grow the fastest in the industry include telecommunications line installers (expected to add 16 jobs with over 30 openings).

Wages in almost every occupation are below their national counterparts. For the most part, JCC does not currently offer programs that directly relate to the more specific/highly technical information technology occupations.

Examples of regional businesses in the information technology industry include: Westelcom, Verizon Wireless, and TDS Telecom.

Information Technology Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
49-9052	Telecommunications line installers and repairers	82	105	78.1%
27-3011	Radio and television announcers	71	79	89.9%
41-3011	Advertising sales agents	53	61	86.9%
27-3022	Reporters and correspondents	47	51	92.2%
43-4051	Customer service representatives	37	781	4.7%
49-2022	Telecommunications equipment installers and repairers, except line installers	26	36	72.2%
41-9091	Door-to-door sales workers, news and street vendors, and related workers	24	407	5.9%
27-3041	Editors	23	34	67.6%
51-5023	Printing machine operators	23	63	36.5%
27-4012	Broadcast technicians	18	20	90.0%
43-9061	Office clerks, general	15	721	2.1%
15-1081	Network systems and data communications analysts	14	56	25.0%
11-9199	Managers, all other	14	570	2.5%
27-1024	Graphic designers	14	65	21.5%
43-3031	Bookkeeping, accounting, and auditing clerks	12	745	1.6%
41-3099	Sales representatives, services, all other	11	71	15.5%
27-4021	Photographers	10	216	4.6%
11-1021	General and operations managers	10	414	2.4%
27-3043	Writers and authors	10	79	12.7%

Source: EMSI

Information Technology Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
43-4051	Customer service representatives	37	48	11	781	910	129	341
11-9199	Managers, all other	14	16	2	570	663	93	221
43-9061	Office clerks, general	15	17	2	721	761	40	127
43-3031	Bookkeeping, accounting, and auditing clerks	12	14	2	745	778	33	113
27-4021	Photographers	10	<10	-	216	234	18	56
49-9052	Telecommunications line installers and repairers	82	98	16	105	122	17	31
27-3011	Radio and television announcers	71	87	16	79	96	17	36
15-1081	Network systems and data communications analysts	14	20	6	56	70	14	23
51-5023	Printing machine operators	23	25	2	63	74	11	23
27-1024	Graphic designers	14	16	2	65	76	11	28
41-3011	Advertising sales agents	53	60	7	61	70	9	20
49-2022	Telecommunications equipment installers and repairers, except line installers	26	32	6	36	43	7	13
41-3099	Sales representatives, services, all other	11	13	2	71	78	7	23
27-3043	Writers and authors	10	10	0	79	84	5	19
27-3022	Reporters and correspondents	47	50	3	51	54	3	17
27-3041	Editors	23	25	2	34	37	3	11
27-4012	Broadcast technicians	18	17	-1	20	20	0	6
11-1021	General and operations managers	10	<10	-	414	401	-13	108
41-9091	Door-to-door sales workers, news and street vendors, and related workers	24	37	13	407	390	-17	67

Source: EMSI

Top Information Technology Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC Completions	Educational Level
11-9199	Managers, all other	\$13.54	\$21.04	25	56	Work experience in a related field
11-1021	General and operations managers	\$35.02	\$42.63	12	56	Degree plus work experience
15-1081	Network systems and data communications analysts	\$20.42	\$27.99	3	2	Bachelor's degree
27-	Graphic designers	\$12.67	\$17.89	3	0	Bachelor's degree
27-3011	Radio and television announcers	\$9.86	\$11.60	4	0	Long-term on-the-job training
27-3022	Reporters and correspondents	\$14.46	\$13.46	2	0	Bachelor's degree
27-	Editors	\$17.92	\$19.44	1	0	Bachelor's degree
27-	Writers and authors	\$8.84	\$9.23	2	0	Bachelor's degree
27-	Broadcast technicians	\$13.73	\$16.76	1	0	Associate's degree
27-4021	Photographers	\$8.56	\$14.87	6	0	Long-term on-the-job training
41-3011	Advertising sales agents	\$16.79	\$20.84	2	0	Moderate-term on-the-job training
41-3099	Sales representatives, services, all other	\$14.77	\$21.87	3	0	Work experience in a related field
41-9091	Door-to-door sales workers, news and street vendors, and related workers	\$7.25	\$7.28	7	0	Short-term on-the-job training
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	13	10	Moderate-term on-the-job training
43-4051	Customer service representatives	\$9.37	\$14.52	38	0	Moderate-term on-the-job training
43-9061	Office clerks, general	\$11.09	\$12.42	14	1	Short-term on-the-job training
49-2022	Telecommunications equipment installers and repairers, except line installers	\$16.63	\$24.41	1	0	Postsecondary vocational award
49-9052	Telecommunications line installers and repairers	\$30.37	\$22.16	3	0	Long-term on-the-job training
51-5023	Printing machine operators	\$15.21	\$15.68	3	0	Moderate-term on-the-job training

Source: EMSI

### Retail Trade (NAICS 44-45)

Jefferson County's retail industry is one of its largest industries by employment and it has experienced very positive growth in the last ten years. It is also the fourth-largest export industry in the County.

The top three occupations in this industry include retail sales persons; cashiers; and first line supervisors/managers of retail sales workers. The total number of jobs in each of these occupations is expected to decline over the next ten years; however, due to the high turnover rate of these positions, there is expected to be over 160 openings for retail managers, over 460 openings for retail salespersons, and over 650 openings for cashiers in the County. Most positions in the retail industry require on-the-job training.

Examples of employers in this industry include: Wal-mart, Price Chopper, Target, and Sears.

Retail Trade Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
41-2031	Retail salespersons	1,774	1,845	96.2%
41-2011	Cashiers, except gaming	1,403	1,617	86.8%
41-1011	First-line supervisors/managers of retail sales workers	785	829	94.7%
43-5081	Stock clerks and order fillers	656	833	78.8%
41-9091	Door-to-door sales workers, news and street vendors, and related workers	377	407	92.6%
49-3023	Automotive service technicians and mechanics	233	465	50.1%
53-7062	Laborers and freight, stock, and material movers, hand	143	531	26.9%
43-3031	Bookkeeping, accounting, and auditing clerks	117	745	15.7%
53-3033	Truck drivers, light or delivery services	96	306	31.4%
43-4051	Customer service representatives	92	781	11.8%
35-2021	Food preparation workers	92	566	16.3%
43-5071	Shipping, receiving, and traffic clerks	82	228	36.0%
43-1011	First-line supervisors/managers of office and administrative support workers	79	434	18.2%
41-2022	Parts salespersons	78	95	82.1%
43-9061	Office clerks, general	76	721	10.5%
11-1021	General and operations managers	75	414	18.1%
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	73	871	8.4%
29-2052	Pharmacy technicians	68	89	76.4%
29-1051	Pharmacists	68	99	68.7%
53-7064	Packers and packagers, hand	63	158	39.9%
35-3021	Combined food preparation and serving workers, including fast food	56	868	6.5%
53-3032	Truck drivers, heavy and tractor-trailer	45	593	7.6%
43-6014	Secretaries, except legal, medical, and executive	44	803	5.5%
27-1023	Floral designers	42	44	95.5%
49-3093	Tire repairers and changers	41	47	87.2%
53-7061	Cleaners of vehicles and equipment	36	161	22.4%
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	35	189	18.5%
51-3011	Bakers	33	71	46.5%
31-9095	Pharmacy aides	31	34	91.2%
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	31	326	9.5%

Source: EMSI

Retail Trade Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
43-4051	Customer service representatives	92	95	3	781	910	129	341
35-3021	Combined food preparation and serving workers, including fast food	56	56	0	868	981	113	275
43-9061	Office clerks, general	76	69	-7	721	761	40	127
43-3031	Bookkeeping, accounting, and auditing clerks	117	109	-8	745	778	33	113
27-1023	Floral designers	42	72	30	44	74	30	42
43-1011	First-line supervisors/managers of office and administrative support workers	79	71	-8	434	454	20	107
35-2021	Food preparation workers	92	94	2	566	576	10	191
29-2052	Pharmacy technicians	68	75	7	89	99	10	30
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	35	30	-5	189	197	8	52
43-6014	Secretaries, except legal, medical, and executive	44	36	-8	803	810	7	106
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	31	29	-2	326	333	7	74
29-1051	Pharmacists	68	71	3	99	104	5	24
53-3032	Truck drivers, heavy and tractor-trailer	45	41	-4	593	597	4	103
51-3011	Bakers	33	33	0	71	73	2	19
53-3033	Truck drivers, light or delivery services	96	97	1	306	307	1	51
53-7061	Cleaners of vehicles and equipment	36	29	-7	161	162	1	53
49-3093	Tire repairers and changers	41	38	-3	47	45	-2	9
53-7064	Packers and packagers, hand	63	55	-8	158	152	-6	24
31-9095	Pharmacy aides	31	27	-4	34	28	-6	3
53-7062	Laborers and freight, stock, and material movers, hand	143	125	-18	531	520	-11	154
41-2022	Parts salespersons	78	68	-10	95	84	-11	31
11-1021	General and operations managers	75	63	-12	414	401	-13	108
41-9091	Door-to-door sales workers, news and street vendors, and related workers	377	348	-29	407	390	-17	67
43-5071	Shipping, receiving, and traffic clerks	82	69	-13	228	210	-18	51
41-1011	First-line supervisors/managers of retail sales workers	785	764	-21	829	809	-20	162
49-3023	Automotive service technicians and mechanics	233	193	-40	465	443	-22	80
43-5081	Stock clerks and order fillers	656	619	-37	833	803	-30	172
41-2011	Cashiers, except gaming	1,403	1,362	-41	1,617	1,577	-40	655
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	73	62	-11	871	831	-40	148
41-2031	Retail salespersons	1,774	1,709	-65	1,845	1,786	-59	465

Source: EMSI

Top Retail Trade Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC Completion	Educational Level
11-1021	General and operations managers	\$35.02	\$42.63	12	56	Degree plus work experience
27-1023	Floral designers	\$10.43	\$9.56	5	0	Short-term on-the-job training
29-1051	Pharmacists	\$54.10	\$52.30	3	0	First professional degree
29-2052	Pharmacy technicians	\$14.04	\$13.50	3	0	Moderate-term on-the-job training
31-9095	Pharmacy aides	\$8.61	\$9.97	0	0	Short-term on-the-job training
35-2021	Food preparation workers	\$8.37	\$9.17	21	0	Short-term on-the-job training
35-3021	Combined food preparation and serving workers, including fast food	\$7.49	\$8.42	31	0	Short-term on-the-job training
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	\$10.59	\$10.22	16	0	Short-term on-the-job training
41-1011	First-line supervisors/managers of retail sales workers	\$12.26	\$14.49	18	0	Work experience in a related field
41-2011	Cashiers, except gaming	\$8.37	\$8.88	73	0	Short-term on-the-job training
41-2022	Parts salespersons	\$13.02	\$13.77	3	0	Moderate-term on-the-job training
41-2031	Retail salespersons	\$9.21	\$9.63	52	0	Short-term on-the-job training
41-4012	Sales representatives, wholesale and manufacturing, except technical and scientific products	\$19.77	\$24.52	8	0	Work experience in a related field
41-9091	Door-to-door sales workers, news and street vendors, and related workers	\$7.25	\$7.28	7	0	Short-term on-the-job training
43-1011	First-line supervisors/managers of office and administrative support workers	\$19.88	\$21.86	12	0	Work experience in a related field
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	13	10	Moderate-term on-the-job training
43-4051	Customer service representatives	\$9.37	\$14.52	38	0	Moderate-term on-the-job training
43-5071	Shipping, receiving, and traffic clerks	\$11.45	\$13.57	6	1	Short-term on-the-job training
43-5081	Stock clerks and order fillers	\$8.83	\$10.09	19	0	Short-term on-the-job training
43-6014	Secretaries, except legal, medical, and executive	\$13.81	\$14.04	12	13	Moderate-term on-the-job training
43-9061	Office clerks, general	\$11.09	\$12.42	14	1	Short-term on-the-job training
49-1011	First-line supervisors/ managers of mechanics, installers, and repairers	\$24.42	\$27.72	6	0	Work experience in a related field
49-3023	Automotive service technicians and mechanics	\$13.33	\$18.17	9	0	Postsecondary vocational award
49-3093	Tire repairers and changers	\$11.14	\$11.80	1	0	Short-term on-the-job training
51-3011	Bakers	\$10.30	\$11.70	2	0	Long-term on-the-job training
53-3032	Truck drivers, heavy and tractor-trailer	\$14.65	\$18.66	11	0	Short-term on-the-job training
53-3033	Truck drivers, light or delivery services	\$11.39	\$13.96	6	0	Short-term on-the-job training
53-7061	Cleaners of vehicles and equipment	\$10.41	\$10.28	6	0	Short-term on-the-job training
53-7062	Laborers and freight, stock, and material movers, hand	\$12.82	\$11.06	17	0	Short-term on-the-job training
53-7064	Packers and packagers, hand	\$12.36	\$9.36	3	0	Short-term on-the-job training

Source: EMSI

### Support Activities for Transportation (NAICS 488)

Based on some feedback received during the interviews with key stakeholders and findings from the industry data analysis, there may be some potential to grow the transportation industry as it relates to support activities. To research this possibility further, occupations in this industry have been identified and shown in the tables below.

The top occupation with over 50 jobs in this industry is laborers and freight, stock, and material movers. Cargo and freight agents are the second largest occupation with 48 jobs. Aircraft mechanics and service technicians, transportation inspectors, and reservation and transportation ticket agents and clerks round out the top five occupations (each have over 20 jobs in the industry). Most of the occupations in this industry require on-the-job training or a postsecondary vocational award.

Local economic development officials suggest that the County is well-positioned to grow in these industries due to proximity to Canada and access to the I-81 corridor and regional transportation systems.

Support Activities for Transportation Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
53-7062	Laborers and freight, stock, and material movers, hand	54	531	10.2%
43-5011	Cargo and freight agents	48	55	87.3%
49-3011	Aircraft mechanics and service technicians	39	53	73.6%
53-6051	Transportation inspectors	36	115	31.3%
43-4181	Reservation and transportation ticket agents and travel clerks	22	36	61.1%
43-4051	Customer service representatives	21	781	2.7%
49-9042	Maintenance and repair workers, general	19	568	3.3%
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	16	871	1.8%
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	16	189	8.5%
39-6032	Transportation attendants, except flight attendants and baggage porters	15	19	78.9%
53-7061	Cleaners of vehicles and equipment	12	161	7.5%
43-3031	Bookkeeping, accounting, and auditing clerks	11	745	1.5%
33-9032	Security guards	<10	224	-
49-9043	Maintenance workers, machinery	<10	24	-
43-9061	Office clerks, general	<10	721	-
11-1021	General and operations managers	<10	414	-
53-2012	Commercial pilots	<10	19	-
43-1011	First-line supervisors/managers of office and administrative support workers	<10	434	-
49-2091	Avionics technicians	<10	12	-
49-3023	Automotive service technicians and mechanics	<10	465	-
43-5071	Shipping, receiving, and traffic clerks	<10	228	-
53-3032	Truck drivers, heavy and tractor-trailer	<10	593	-
43-5081	Stock clerks and order fillers	<10	833	-
43-6014	Secretaries, except legal, medical, and executive	<10	803	-
53-6099	Transportation workers, all other	<10	8	-

Source: EMSI

Support Activities for Transportation Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
43-4051	Customer service representatives	21	32	11	781	910	129	341
43-9061	Office clerks, general	<10	13	-	721	761	40	127
53-6051	Transportation inspectors	36	57	21	115	153	38	61
49-9042	Maintenance and repair workers, general	19	28	9	568	605	37	116
33-9032	Security guards	<10	14	-	224	258	34	74
43-3031	Bookkeeping, accounting, and auditing clerks	11	15	4	745	778	33	113
43-1011	First-line supervisors/managers of office and administrative support workers	<10	12	-	434	454	20	107
43-5011	Cargo and freight agents	48	62	14	55	69	14	25
49-3011	Aircraft mechanics and service technicians	39	51	12	53	67	14	23
43-4181	Reservation and transportation ticket agents and travel clerks	22	33	11	36	48	12	19
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	16	23	7	189	197	8	52
39-6032	Transportation attendants, except flight attendants and baggage porters	15	22	7	19	26	7	11
43-6014	Secretaries, except legal, medical, and executive	<10	<10	-	803	810	7	106
49-9043	Maintenance workers, machinery	<10	15	-	24	30	6	10
53-6099	Transportation workers, all other	<10	11	-	8	14	6	--
53-2012	Commercial pilots	<10	14	-	19	23	4	10
49-2091	Avionics technicians	<10	14	-	12	16	4	7
53-3032	Truck drivers, heavy and tractor-trailer	<10	<10	-	593	597	4	103
53-7061	Cleaners of vehicles and equipment	12	17	5	161	162	1	53
53-7062	Laborers and freight, stock, and material movers, hand	54	70	16	531	520	-11	154
11-1021	General and operations managers	<10	11	-	414	401	-13	108
43-5071	Shipping, receiving, and traffic clerks	<10	<10	-	228	210	-18	51
49-3023	Automotive service technicians and mechanics	<10	12	-	465	443	-22	80
43-5081	Stock clerks and order fillers	<10	11	-	833	803	-30	172
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	16	22	6	871	831	-40	148

Source: EMSI

Support Activities for Transportation Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC Completions	Educational Level
11-1021	General and operations managers	\$35.02	\$42.63	12	56	Degree plus work experience
33-9032	Security guards	\$15.25	\$11.21	8	0	Short-term on-the-job training
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	\$10.59	\$10.22	16	0	Short-term on-the-job training
39-6032	Transportation attendants, except flight attendants and baggage porters	--	\$10.13	1	0	Short-term on-the-job training
43-1011	First-line supervisors/managers of office and administrative support workers	\$19.88	\$21.86	12	0	Work experience in a related field
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	13	10	Moderate-term on-the-job training
43-4051	Customer service representatives	\$9.37	\$14.52	38	0	Moderate-term on-the-job training
43-4181	Reservation and transportation ticket agents and travel clerks	\$14.54	\$14.77	2	17	Short-term on-the-job training
43-5011	Cargo and freight agents	\$19.56	\$17.78	3	1	Moderate-term on-the-job training
43-5071	Shipping, receiving, and traffic clerks	\$11.45	\$13.57	6	1	Short-term on-the-job training
43-5081	Stock clerks and order fillers	\$8.83	\$10.09	19	0	Short-term on-the-job training
43-6014	Secretaries, except legal, medical, and executive	\$13.81	\$14.04	12	13	Moderate-term on-the-job training
43-9061	Office clerks, general	\$11.09	\$12.42	14	1	Short-term on-the-job training
49-1011	First-line supervisors/managers of mechanics, installers, and repairers	\$24.42	\$27.72	6	0	Work experience in a related field
49-2091	Avionics technicians	--	\$24.31	1	0	Postsecondary vocational award
49-3011	Aircraft mechanics and service technicians	\$14.76	\$25.38	3	0	Postsecondary vocational award
49-3023	Automotive service technicians and mechanics	\$13.33	\$18.17	9	0	Postsecondary vocational award
49-9042	Maintenance and repair workers, general	\$15.29	\$16.00	13	0	Moderate-term on-the-job training
49-9043	Maintenance workers, machinery	\$17.31	\$18.48	1	0	Moderate-term on-the-job training
53-2012	Commercial pilots	\$40.17	\$30.84	1	0	Postsecondary vocational award
53-3032	Truck drivers, heavy and tractor-trailer	\$14.65	\$18.66	11	0	Short-term on-the-job training
53-6051	Transportation inspectors	\$25.45	\$26.67	7	0	Work experience in a related field
53-6099	Transportation workers, all other	--	\$15.34	--	0	Short-term on-the-job training
53-7061	Cleaners of vehicles and equipment	\$10.41	\$10.28	6	0	Short-term on-the-job training
53-7062	Laborers and freight, stock, and material movers, hand	\$12.82	\$11.06	17	0	Short-term on-the-job training

Source: EMSI

### **Finance & Insurance/Real Estate Rental & Leasing (NAICS 52-53)**

The finance and insurance/real estate rental and leasing industry is one of the largest industries in the County and it has experienced some growth in many of the industry subsectors over the past few years.

Real estate agent is the top occupation, which EMSI suggests has over 700 jobs currently and is expected to grow by 185 jobs by 2021. There is high turnover in this occupation, with approximately 285 job openings annually. Educational requirements for real estate agents typically include a post-secondary vocational award. The second largest occupation in this industry - property, real estate, and community association managers - is expected to be the third fastest growing. There are currently over 400 people with jobs in this occupation in the County and it expected to add over 100 in the next ten years (with 50 openings annually). This occupation typically requires a Bachelor's degree.

The third and fourth largest occupations include insurance sales agents and personal financial advisors. They each have around 300 jobs in the County as a whole. It is expected that there will be a need for an additional 55 insurance sales agents and over 100 personal financial advisors by 2012. Another occupation that is projected to add a significant number of jobs is the securities, commodities, and financial services sales agents. This occupation is projected to grow by 80 jobs and have over 130 openings in the next ten years.

Examples of businesses in this industry group include: Fort Drum Mountain Community Homes, Northern Federal Credit Union, and Watertown Savings Bank.

Finance & Insurance/Real Estate Rental & Leasing Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
41-9022	Real estate sales agents	718	728	98.6%
11-9141	Property, real estate, and community association managers	419	437	95.9%
41-3021	Insurance sales agents	304	305	99.7%
13-2052	Personal financial advisors	278	285	97.5%
41-9021	Real estate brokers	228	229	99.6%
41-3031	Securities, commodities, and financial services sales agents	211	213	99.1%
43-3071	Tellers	205	208	98.6%
41-1012	First-line supervisors/managers of non-retail sales workers	151	318	47.5%
49-9042	Maintenance and repair workers, general	112	568	19.7%
43-4051	Customer service representatives	102	781	13.1%
13-2021	Appraisers and assessors of real estate	89	131	67.9%
11-3031	Financial managers	71	159	44.7%
13-2051	Financial analysts	68	89	76.4%
43-3031	Bookkeeping, accounting, and auditing clerks	67	745	9.0%
11-9199	Managers, all other	57	570	10.0%
43-9061	Office clerks, general	56	721	7.8%
43-6014	Secretaries, except legal, medical, and executive	55	803	6.8%
43-1011	First-line supervisors/managers of office and administrative support workers	48	434	11.1%
43-4141	New accounts clerks	46	47	97.9%
41-2021	Counter and rental clerks	43	80	53.8%
13-2072	Loan officers	42	51	82.4%
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	40	871	4.6%
13-2011	Accountants and auditors	39	333	11.7%
43-6011	Executive secretaries and administrative assistants	35	322	10.9%
11-1011	Chief executives	33	173	19.1%

Source: EMSI

Finance & Insurance/Real Estate Rental & Leasing Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
41-9022	Real estate sales agents	718	900	225	728	913	185	285
43-4051	Customer service representatives	102	105	4	781	910	129	341
11-9141	Property, real estate, and community association managers	419	526	132	437	549	112	175
13-2052	Personal financial advisors	278	389	134	285	397	112	137
11-9199	Managers, all other	57	72	18	570	663	93	221
41-3031	Securities, commodities, and financial services sales agents	211	292	98	213	293	80	134
41-9021	Real estate brokers	228	286	71	229	287	58	90
41-3021	Insurance sales agents	304	359	67	305	360	55	116
41-1012	First-line supervisors/managers of non-retail sales workers	151	196	55	318	371	53	110
43-9061	Office clerks, general	56	59	4	721	761	40	127
49-9042	Maintenance and repair workers, general	112	115	5	568	605	37	116
43-3031	Bookkeeping, accounting, and auditing clerks	67	72	6	745	778	33	113
13-2011	Accountants and auditors	39	48	11	333	358	25	75
13-2021	Appraisers and assessors of real estate	89	108	24	131	155	24	44
11-3031	Financial managers	71	91	25	159	183	24	49
13-2051	Financial analysts	68	92	29	89	113	24	38
43-6011	Executive secretaries and administrative assistants	35	37	3	322	345	23	61
43-1011	First-line supervisors/managers of office and administrative support workers	48	47	0	434	454	20	107
11-1011	Chief executives	33	41	10	173	184	11	55
43-6014	Secretaries, except legal, medical, and executive	55	52	-3	803	810	7	106
13-2072	Loan officers	42	48	7	51	58	7	12
41-2021	Counter and rental clerks	43	42	-1	80	77	-3	19
43-4141	New accounts clerks	46	39	-8	47	41	-6	12
43-3071	Tellers	205	186	-21	208	188	-20	78
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	40	36	-4	871	831	-40	148

Source: EMSI

Finance & Insurance/Real Estate Rental & Leasing Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC	Educational Level
11-3031	Financial managers	\$25.53	\$37.61	49	0	Degree plus work experience
11-9141	Property, real estate, and community association managers	\$7.71	\$9.49	175	0	Bachelor's degree
11-9199	Managers, all other	\$13.54	\$21.04	221	56	Work experience in a related field
11-1011	Chief executives	\$30.35	\$44.72	55	56	Degree plus work experience
13-2011	Accountants and auditors	\$21.62	\$24.42	75	0	Bachelor's degree
13-2021	Appraisers and assessors of real estate	\$13.88	\$10.88	44	0	Associate's degree
13-2051	Financial analysts	\$17.30	\$26.19	38	0	Bachelor's degree
13-2052	Personal financial advisors	\$10.61	\$18.61	137	0	Bachelor's degree
13-2072	Loan officers	\$19.75	\$25.03	12	0	Moderate-term on-the-job training
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	\$10.59	\$10.22	148	0	Short-term on-the-job training
41-1012	First-line supervisors/managers of non-retail sales workers	\$14.65	\$23.26	110	0	Work experience in a related field
41-2021	Counter and rental clerks	\$12.23	\$10.65	19	0	Short-term on-the-job training
41-3021	Insurance sales agents	\$14.44	\$16.52	116	0	Postsecondary vocational award
41-3031	Securities, commodities, and financial services sales agents	\$11.18	\$20.61	134	0	Bachelor's degree
41-9021	Real estate brokers	\$8.18	\$8.38	90	0	Work experience in a related field
41-9022	Real estate sales agents	\$7.93	\$7.94	285	0	Postsecondary vocational award
43-1011	First-line supervisors/managers of office and administrative support workers	\$19.88	\$21.86	107	0	Work experience in a related field
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	113	10	Moderate-term on-the-job training
43-3071	Tellers	\$10.77	\$11.56	78	0	Short-term on-the-job training
43-4051	Customer service representatives	\$9.37	\$14.52	341	0	Moderate-term on-the-job training
43-4141	New accounts clerks	\$13.70	\$14.74	12	0	Work experience in a related field
43-6011	Executive secretaries and administrative assistants	\$18.96	\$19.30	61	13	Work experience in a related field
43-6014	Secretaries, except legal, medical, and executive	\$13.81	\$14.04	106	13	Moderate-term on-the-job training
43-9061	Office clerks, general	\$11.09	\$12.42	127	1	Short-term on-the-job training
49-9042	Maintenance and repair workers, general	\$15.29	\$16.00	116	0	Moderate-term on-the-job training

Source: EMSI

### **Professional, Scientific, and Technical Services (NAICS 54)**

The professional, scientific, and technical services industry supports some of the other top industries in the County, predominately the manufacturing industry. Businesses in the professional, scientific and technical services industry are often innovative businesses that are vital to emerging opportunities. This industry also offers higher-paying engineering and technical jobs, often referred to “STEM” jobs (science, technology, engineering, and mathematics).

The top three occupations in this industry include photographers (185 industry jobs), management analysts (110 industry jobs), and accountants and auditors (108 industry jobs). Management analysts are also among the fastest growing occupation in the industry, projected to add 24 jobs in the industry over the next 10 years and 34 jobs overall. The openings rate for this occupation is about 7 a year; there are about 56 completions annually (degree plus work experience required).

Examples of businesses in the professional, scientific, and technical services industry include: Bernier Carr Group, United Communications Corp., Conboy McKay Bachman Kendall, and GYMO Architecture Engineering.

Professional, Scientific, and Technical Services Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
27-4021	Photographers	185	216	85.6%
13-1111	Management analysts	110	185	59.5%
13-2011	Accountants and auditors	108	333	32.4%
23-1011	Lawyers	80	146	54.8%
43-3031	Bookkeeping, accounting, and auditing clerks	66	745	8.9%
11-9199	Managers, all other	64	570	11.2%
17-1011	Architects, except landscape and naval	48	51	94.1%
43-6012	Legal secretaries	47	68	69.1%
43-6014	Secretaries, except legal, medical, and executive	36	803	4.5%
27-3091	Interpreters and translators	32	47	68.1%
43-9061	Office clerks, general	28	721	3.9%
17-3011	Architectural and civil drafters	26	29	89.7%
43-4171	Receptionists and information clerks	25	392	6.4%
13-2082	Tax preparers	24	25	96.0%
27-1024	Graphic designers	24	65	36.9%
29-2056	Veterinary technologists and technicians	23	26	88.5%
43-6011	Executive secretaries and administrative assistants	23	322	7.1%
15-1021	Computer programmers	22	54	40.7%
15-1031	Computer software engineers, applications	20	41	48.8%
15-1041	Computer support specialists	20	116	17.2%
15-1081	Network systems and data communications analysts	18	56	32.1%
31-9096	Veterinary assistants and laboratory animal caretakers	17	20	85.0%
11-1021	General and operations managers	17	414	4.1%
29-1131	Veterinarians	16	20	80.0%
19-3021	Market research analysts	15	40	37.5%
37-3011	Landscaping and groundskeeping workers	15	368	4.1%
17-2051	Civil engineers	15	63	23.8%
43-1011	First-line supervisors/managers of office and administrative support workers	15	434	3.5%
15-1051	Computer systems analysts	15	38	39.5%
27-1025	Interior designers	14	21	66.7%

Source: EMSI

Professional, Scientific, and Technical Services Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
11-9199	Managers, all other	64	72	8	570	663	93	221
37-3011	Landscaping and groundskeeping workers	15	22	7	368	453	85	123
43-9061	Office clerks, general	28	30	2	721	761	40	127
13-1111	Management analysts	110	134	24	185	219	34	61
43-3031	Bookkeeping, accounting, and auditing clerks	66	65	-1	745	778	33	113
13-2011	Accountants and auditors	108	107	-1	333	358	25	75
43-4171	Receptionists and information clerks	25	25	0	392	416	24	118
43-6011	Executive secretaries and administrative assistants	23	27	4	322	345	23	61
43-1011	First-line supervisors/managers of office and administrative support workers	15	15	0	434	454	20	107
27-4021	Photographers	185	204	19	216	234	18	56
17-1011	Architects, except landscape and naval	48	65	17	51	69	18	25
23-1011	Lawyers	80	84	4	146	160	14	38
15-1081	Network systems and data communications analysts	18	21	3	56	70	14	23
27-1024	Graphic designers	24	27	3	65	76	11	28
15-1031	Computer software engineers, applications	20	28	8	41	50	9	13
17-3011	Architectural and civil drafters	26	34	8	29	37	8	13
43-6014	Secretaries, except legal, medical, and executive	36	35	-1	803	810	7	106
19-3021	Market research analysts	15	18	3	40	47	7	17
17-2051	Civil engineers	15	17	2	63	70	7	17
27-3091	Interpreters and translators	32	36	4	47	53	6	15
15-1041	Computer support specialists	20	26	6	116	121	5	34
27-1025	Interior designers	14	19	5	21	26	5	10
15-1051	Computer systems analysts	15	16	1	38	42	4	11
29-2056	Veterinary technologists and technicians	23	23	0	26	27	1	7
29-1131	Veterinarians	16	16	0	20	21	1	4
13-2082	Tax preparers	24	22	-2	25	23	-2	4
31-9096	Veterinary assistants and laboratory animal caretakers	17	16	-1	20	18	-2	2
15-1021	Computer programmers	22	23	1	54	51	-3	9
11-1021	General and operations managers	17	18	1	414	401	-13	108
43-6012	Legal secretaries	47	27	-20	68	46	-22	9

Source: EMSI

Top Professional, Scientific, and Technical Services Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC	Educational Level
11-9199	Managers, all other	\$13.54	\$21.04	25	56	Work experience in a related field
11-1021	General and operations managers	\$35.02	\$42.63	12	56	Degree plus work experience
13-1111	Management analysts	\$17.31	\$26.50	7	56	Degree plus work experience
13-2011	Accountants and auditors	\$21.62	\$24.42	8	0	Bachelor's degree
13-2082	Tax preparers	\$8.36	\$10.30	0	10	Moderate-term on-the-job training
15-1021	Computer programmers	\$22.93	\$31.27	1	0	Bachelor's degree
15-1031	Computer software engineers, applications	\$33.54	\$39.92	1	0	Bachelor's degree
15-1041	Computer support specialists	\$13.69	\$20.98	4	0	Associate's degree
15-1051	Computer systems analysts	\$22.91	\$34.08	1	2	Bachelor's degree
15-1081	Network systems and data communications analysts	\$20.42	\$27.99	3	2	Bachelor's degree
17-1011	Architects, except landscape and naval	\$29.95	\$28.69	3	0	Bachelor's degree
17-2051	Civil engineers	\$31.59	\$34.97	2	0	Bachelor's degree
17-3011	Architectural and civil drafters	\$19.84	\$21.83	1	0	Postsecondary vocational award
19-3021	Market research analysts	\$19.59	\$26.79	2	0	Bachelor's degree
23-1011	Lawyers	\$29.92	\$44.09	4	0	First professional degree
27-1024	Graphic designers	\$12.67	\$17.89	3	0	Bachelor's degree
27-1025	Interior designers	\$16.90	\$18.68	1	0	Associate's degree
27-3091	Interpreters and translators	\$11.91	\$18.47	2	0	Long-term on-the-job training
27-4021	Photographers	\$8.56	\$14.87	6	0	Long-term on-the-job training
29-1131	Veterinarians	\$32.39	\$35.94	0	0	First professional degree
29-2056	Veterinary technologists and technicians	\$15.49	\$14.08	1	0	Associate's degree
31-9096	Veterinary assistants and laboratory animal caretakers	\$10.15	\$11.35	0	0	Short-term on-the-job training
37-3011	Landscaping and groundskeeping workers	\$10.25	\$10.32	14	0	Short-term on-the-job training
43-1011	First-line supervisors/managers of office and administrative support workers	\$19.88	\$21.86	12	0	Work experience in a related field
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	13	10	Moderate-term on-the-job training
43-4171	Receptionists and information clerks	\$12.70	\$12.00	13	1	Short-term on-the-job training
43-6011	Executive secretaries and administrative assistants	\$18.96	\$19.30	7	13	Work experience in a related field
43-6012	Legal secretaries	\$16.78	\$19.87	1	0	Associate's degree
43-6014	Secretaries, except legal, medical, and executive	\$13.81	\$14.04	12	13	Moderate-term on-the-job training
43-9061	Office clerks, general	\$11.09	\$12.42	14	1	Short-term on-the-job training

Source: EMSI

### Telephone Call Centers (NAICS 56142)

One of the largest businesses to locate in Jefferson County in the last 20 years was the Stream call center. Telephone call centers and associated occupations fit well with the workforce of Jefferson County and provide job opportunities for those without secondary education and young professionals just starting out, as on-the-job training is often provided by the employer.

The top two occupations in this industry are customer service representatives and telemarketers, which employ 332 and 209 workers respectively. Customer service representatives occupations are expected to grow by 80 in the industry and 129 jobs in the County as a whole. There is high turnover in this occupation with 341 openings expected by 2021. An Associate’s degree is required for some of the more technical customer service representative occupations. Telemarketer occupations are expected to decline by about 30 jobs in the next ten years; however, there will be about 30 openings for this occupation (showing stability but not growth), which requires short-term on-the-job training.

Examples of businesses in the telephone call center industry include: Stream, Telephone Answering Service, and A Better Answer.

Telephone Call Center Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
43-4051	Customer service representatives	332	781	42.5%
41-9041	Telemarketers	209	229	91.3%
43-2011	Switchboard operators, including answering service	37	76	48.7%
43-1011	First-line supervisors/managers of office and administrative support workers	27	434	6.2%
41-1012	First-line supervisors/managers of non-retail sales workers	16	318	5.0%
15-1041	Computer support specialists	14	116	12.1%

Source: EMSI

Telephone Call Center Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
43-4051	Customer service representatives	332	412	80	781	910	129	341
41-1012	First-line supervisors/managers of non-retail sales workers	16	17	1	318	371	53	110
43-1011	First-line supervisors/managers of office and administrative support workers	27	31	4	434	454	20	107
15-1041	Computer support specialists	14	15	1	116	121	5	34
43-2011	Switchboard operators, including answering service	37	34	-3	76	66	-10	14
41-9041	Telemarketers	209	182	-27	229	200	-29	55

Source: EMSI

Top Telephone Call Center Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC Completions	Educational Level
15-1041	Computer support specialists	\$13.69	\$20.98	4	0	Associate's degree
41-1012	First-line supervisors/managers of non-retail sales workers	\$14.65	\$23.26	12	0	Work experience in a related field
41-9041	Telemarketers	\$7.25	\$10.35	6	0	Short-term on-the-job training
43-1011	First-line supervisors/managers of office and administrative support workers	\$19.88	\$21.86	12	0	Work experience in a related field
43-2011	Switchboard operators, including answering service	\$9.17	\$11.82	2	0	Short-term on-the-job training
43-4051	Customer service representatives	\$9.37	\$14.52	38	0	Moderate-term on-the-job training

Source: EMSI

### Health Care and Social Assistance (NAICS 62)

As the third largest industry by employment and the third largest export industry in the County, the health care and social assistance industry is considered one of the top-performing industries in Jefferson County.

With over 900 jobs, the child care workers occupation is the largest occupation in the health care industry. Home health aide occupations have about 665 jobs in the industry and 692 jobs overall in the County. Rounding out the top five largest occupations in the industry are registered nurses; nursing aides, orderlies, and attendants; and personal and home care aides.

Child care worker occupations are the fastest growing within the industry and the second fastest growing overall in the County (expected to add 173 jobs in the industry and 214 jobs overall). There are about 57 job openings for this occupation annually, which requires on-the-job training. Home health aide occupations are expected to be the fastest growing with 269 new jobs by 2021 and 327 openings. This occupation also requires short-term on-the-job training.

There is expected to be demand for a total of 67 additional registered nurses by 2021, an average of 22 new positions a year. There were about 29 completions of an Associate's degree for registered nurses from JCC in 2010, suggesting that the opening rate is just slightly below the completion rate. There is also expected to be demand for physicians and surgeons. There are currently almost 300 jobs in this occupation in the County and by 2021 it is anticipated that there will be over 50 new jobs available with over 100 openings (average of about 12 openings annually).

Of note, almost every occupation in the health care industry is expected to add jobs in the next ten years.

Examples of employers in the health care and social assistance industry include: Samaritan Medical Center, Samaritan Keep Home, YMCA, and River Hospital, Inc.

Health Care and Social Assistance Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
39-9011	Child care workers	903	1,191	75.8%
31-1011	Home health aides	665	692	96.1%
29-1111	Registered nurses	636	873	72.9%
31-1012	Nursing aides, orderlies, and attendants	437	504	86.7%
39-9021	Personal and home care aides	367	435	84.4%
29-1069	Physicians and surgeons	296	361	82.0%
29-2061	Licensed practical and licensed vocational nurses	290	370	78.4%
43-4171	Receptionists and information clerks	188	392	48.0%
21-1093	Social and human service assistants	157	223	70.4%
31-9091	Dental assistants	148	159	93.1%
43-6014	Secretaries, except legal, medical, and executive	133	803	16.6%
43-9061	Office clerks, general	115	721	16.0%
21-1015	Rehabilitation counselors	101	122	82.8%
31-9092	Medical assistants	96	103	93.2%
19-3031	Clinical, counseling, and school psychologists	94	126	74.6%
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	89	871	10.2%
11-9111	Medical and health services managers	89	120	74.2%
43-1011	First-line supervisors/managers of office and administrative support workers	83	434	19.1%
43-3021	Billing and posting clerks and machine operators	82	166	49.4%
37-2012	Maids and housekeeping cleaners	78	418	18.7%
25-2011	Preschool teachers, except special education	77	103	74.8%
25-9041	Teacher assistants	76	631	12.0%
35-2021	Food preparation workers	72	566	12.7%
29-1071	Physician assistants	71	88	80.7%
43-3031	Bookkeeping, accounting, and auditing clerks	68	745	9.1%

Source: EMSI

Health Care and Social Assistance Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
31-1011	Home health aides	665	932	267	692	961	269	327
39-9011	Child care workers	903	1,076	173	1,191	1,405	214	516
39-9021	Personal and home care aides	367	479	112	435	555	120	166
29-1111	Registered nurses	636	675	39	873	940	67	202
31-9091	Dental assistants	148	208	60	159	221	62	87
29-1069	Physicians and surgeons	296	342	46	361	415	54	109
21-1093	Social and human service assistants	157	204	47	223	276	53	94
31-1012	Nursing aides, orderlies, and attendants	437	481	44	504	550	46	91
43-9061	Office clerks, general	115	132	17	721	761	40	127
29-2061	Licensed practical and licensed vocational nurses	290	317	27	370	404	34	136
43-3031	Bookkeeping, accounting, and auditing clerks	68	78	10	745	778	33	113
25-9041	Teacher assistants	76	90	14	631	660	29	147
43-4171	Receptionists and information clerks	188	205	17	392	416	24	118
31-9092	Medical assistants	96	119	23	103	126	23	33
29-1071	Physician assistants	71	90	19	88	110	22	36
21-1015	Rehabilitation counselors	101	120	19	122	143	21	42
25-2011	Preschool teachers, except special education	77	97	20	103	124	21	39
43-1011	First-line supervisors/managers of office and administrative support workers	83	96	13	434	454	20	107
19-3031	Clinical, counseling, and school psychologists	94	112	18	126	144	18	50
11-9111	Medical and health services managers	89	97	8	120	130	10	30
35-2021	Food preparation workers	72	71	-1	566	576	10	191
43-6014	Secretaries, except legal, medical, and executive	133	162	29	803	810	7	106
43-3021	Billing and posting clerks and machine operators	82	90	8	166	173	7	31
37-2012	Maids and housekeeping cleaners	78	66	-12	418	424	6	73
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	89	85	-4	871	831	-40	148

Source: EMSI

Top Health Care and Social Assistance Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC Completions	Educational Level
11-9111	Medical and health services managers	\$33.44	\$35.93	3	0	Degree plus work experience
19-3031	Clinical, counseling, and school psychologists	\$19.05	\$23.81	6	0	Doctoral degree
21-1015	Rehabilitation counselors	\$11.65	\$13.98	5	0	Master's degree
21-1093	Social and human service assistants	\$14.75	\$13.15	10	0	Moderate-term on-the-job training
25-2011	Preschool teachers, except special education	\$10.28	\$10.84	4	9	Postsecondary vocational award
25-9041	Teacher assistants	\$12.40	\$13.99	16	2	Short-term on-the-job training
29-1069	Physicians and surgeons	\$63.69	\$72.98	12	0	First professional degree
29-1071	Physician assistants	\$39.34	\$40.53	4	0	Master's degree
29-1111	Registered nurses	\$25.66	\$30.39	22	29	Associate's degree
29-2061	Licensed practical and licensed vocational nurses	\$16.17	\$18.97	15	0	Postsecondary vocational award
31-1011	Home health aides	\$10.43	\$9.81	36	0	Short-term on-the-job training
31-1012	Nursing aides, orderlies, and attendants	\$9.99	\$11.68	10	0	Postsecondary vocational award
31-9091	Dental assistants	\$16.53	\$15.97	10	0	Moderate-term on-the-job training
31-9092	Medical assistants	\$15.16	\$14.23	4	0	Moderate-term on-the-job training
35-2021	Food preparation workers	\$8.37	\$9.17	21	0	Short-term on-the-job training
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	\$10.59	\$10.22	16	0	Short-term on-the-job training
37-2012	Maids and housekeeping cleaners	\$8.40	\$8.56	8	0	Short-term on-the-job training
39-9011	Child care workers	\$7.38	\$7.96	57	0	Short-term on-the-job training
39-9021	Personal and home care aides	\$9.57	\$8.81	18	0	Short-term on-the-job training
43-1011	First-line supervisors/managers of office and administrative support workers	\$19.88	\$21.86	12	0	Work experience in a related field
43-3021	Billing and posting clerks and machine operators	\$13.90	\$15.25	3	10	Short-term on-the-job training
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	13	10	Moderate-term on-the-job training
43-4171	Receptionists and information clerks	\$12.70	\$12.00	13	1	Short-term on-the-job training
43-6014	Secretaries, except legal, medical, and executive	\$13.81	\$14.04	12	13	Moderate-term on-the-job training
43-9061	Office clerks, general	\$11.09	\$12.42	14	1	Short-term on-the-job training

Source: EMSI

### Accommodation and Food Services (NAICS 72)

Accommodations and food services is the fourth largest industry in the County and it has experienced a large amount of growth over the past few years. This industry was also one that was frequently mentioned during the stakeholder interviews as it relates to potential opportunities for tourism.

The top six occupations in the accommodation and food services industry are a combination of food preparation and serving/waiting occupations. Together, there are over 3,000 of these jobs in the County. Each of these occupations are projected to grow. There is also a high turnover rate for these occupations; when considered together, the number of openings is roughly five times the number of jobs added.

Education for accommodation and food service workers is typically short-term on-the-job training or work experience in a related field (often management level occupations).

Examples of businesses in Jefferson County for this industry include: Hilton Garden Inn, Texas Roadhouse, Olive Garden, Ruby Tuesday, Buffalo Wild Wings, and Cracker Barrel.

Accommodation and Food Services Occupations: Largest in 2012				
SOC	Occupation	Jobs in Industry	Total Jobs	Industry % of Total Jobs
35-3021	Combined food preparation and serving workers, including fast food	713	868	82.1%
35-3031	Waiters and waitresses	703	745	94.4%
35-2021	Food preparation workers	327	566	57.8%
35-2011	Cooks, fast food	284	297	95.6%
35-1012	First-line supervisors/managers of food preparation and serving workers	274	336	81.5%
35-2014	Cooks, restaurant	214	223	96.0%
35-9021	Dishwashers	193	214	90.2%
35-3011	Bartenders	183	240	76.3%
35-3022	Counter attendants, cafeteria, food concession, and coffee shop	160	230	69.6%
11-9051	Food service managers	144	154	93.5%
37-2012	Maids and housekeeping cleaners	123	418	29.4%
41-2011	Cashiers, except gaming	111	1,617	6.9%
35-9011	Dining room and cafeteria attendants and bartender helpers	101	117	86.3%
35-2015	Cooks, short order	97	122	79.5%
11-9081	Lodging managers	90	93	96.8%
43-4081	Hotel, motel, and resort desk clerks	76	78	97.4%
35-9031	Hosts and hostesses, restaurant, lounge, and coffee shop	72	74	97.3%
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	41	871	4.7%
49-9042	Maintenance and repair workers, general	36	568	6.3%
53-3031	Driver/sales workers	35	117	29.9%
39-6011	Baggage porters and bellhops	28	168	16.7%
43-3031	Bookkeeping, accounting, and auditing clerks	22	745	3.0%
11-1021	General and operations managers	22	414	5.3%
35-1011	Chefs and head cooks	21	27	77.8%
51-3011	Bakers	17	71	23.9%

Source: EMSI

Accommodation and Food Services Occupations: Ranked by Total Projected Growth								
SOC	Occupation	Industry Jobs 2012	Industry Jobs 2021	Industry Change	Total Jobs 2012	Total Jobs 2021	Total Change	Total Openings 2012-2021
35-3021	Combined food preparation and serving workers, including fast food	713	813	100	868	981	113	275
39-6011	Baggage porters and bellhops	28	28	0	168	247	79	116
35-3031	Waiters and waitresses	703	737	34	745	786	41	406
49-9042	Maintenance and repair workers, general	36	38	2	568	605	37	116
43-3031	Bookkeeping, accounting, and auditing clerks	22	23	1	745	778	33	113
35-9021	Dishwashers	193	215	22	214	238	24	102
11-9051	Food service managers	144	167	23	154	178	24	49
35-2011	Cooks, fast food	284	306	22	297	320	23	89
35-1012	First-line supervisors/managers of food preparation and serving workers	274	287	13	336	351	15	43
35-2014	Cooks, restaurant	214	227	13	223	238	15	66
35-3022	Counter attendants, cafeteria, food concession, and coffee shop	160	174	14	230	244	14	163
35-2021	Food preparation workers	327	336	9	566	576	10	191
35-3011	Bartenders	183	173	-10	240	248	8	85
11-9081	Lodging managers	90	97	7	93	101	8	26
43-4081	Hotel, motel, and resort desk clerks	76	83	7	78	86	8	31
37-2012	Maids and housekeeping cleaners	123	124	1	418	424	6	73
35-9031	Hosts and hostesses, restaurant, lounge, and coffee shop	72	76	4	74	79	5	50
35-9011	Dining room and cafeteria attendants and bartender helpers	101	104	3	117	121	4	49
53-3031	Driver/sales workers	35	36	1	117	121	4	22
51-3011	Bakers	17	16	-1	71	73	2	19
35-1011	Chefs and head cooks	21	22	1	27	28	1	4
35-2015	Cooks, short order	97	93	-4	122	120	-2	28
11-1021	General and operations managers	22	21	-1	414	401	-13	108
41-2011	Cashiers, except gaming	111	113	2	1,617	1,577	-40	655
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	41	40	-1	871	831	-40	148

Source: EMSI

Accommodation and Food Services Occupations: Opportunity Overview						
SOC	Occupation	Median Wage	National Wage	Annual Openings	2010 JCC	Educational Level
11-9051	Food service managers	\$11.56	\$15.21	5	0	Work experience in a related field
11-9081	Lodging managers	\$9.26	\$15.93	3	0	Work experience in a related field
11-1021	General and operations managers	\$35.02	\$42.63	12	56	Degree plus work experience
35-1011	Chefs and head cooks	\$22.03	\$17.78	0	0	Work experience in a related field
35-1012	First-line supervisors/managers of food preparation and serving workers	\$10.17	\$14.00	5	0	Work experience in a related field
35-2011	Cooks, fast food	\$8.68	\$8.71	10	0	Short-term on-the-job training
35-2014	Cooks, restaurant	\$11.25	\$10.71	7	0	Long-term on-the-job training
35-2015	Cooks, short order	\$8.45	\$9.50	3	0	Short-term on-the-job training
35-2021	Food preparation workers	\$8.37	\$9.17	21	0	Short-term on-the-job training
35-3011	Bartenders	\$8.28	\$8.96	9	0	Short-term on-the-job training
35-3021	Combined food preparation and serving workers, including fast food	\$7.49	\$8.42	31	0	Short-term on-the-job training
35-3022	Counter attendants, cafeteria, food concession, and coffee shop	\$7.87	\$8.76	18	0	Short-term on-the-job training
35-3031	Waiters and waitresses	\$8.93	\$8.60	45	0	Short-term on-the-job training
35-9011	Dining room and cafeteria attendants and bartender helpers	\$8.32	\$8.52	5	0	Short-term on-the-job training
35-9021	Dishwashers	\$7.87	\$8.53	11	0	Short-term on-the-job training
35-9031	Hosts and hostesses, restaurant, lounge, and coffee shop	\$8.48	\$8.72	6	0	Short-term on-the-job training
37-2011	Janitors and cleaners, except maids and housekeeping cleaners	\$10.59	\$10.22	16	0	Short-term on-the-job training
37-2012	Maids and housekeeping cleaners	\$8.40	\$8.56	8	0	Short-term on-the-job training
39-6011	Baggage porters and bellhops	\$13.00	\$9.77	13	0	Short-term on-the-job training
41-2011	Cashiers, except gaming	\$8.37	\$8.88	73	0	Short-term on-the-job training
43-3031	Bookkeeping, accounting, and auditing clerks	\$14.42	\$15.77	13	10	Moderate-term on-the-job training
43-4081	Hotel, motel, and resort desk clerks	\$9.08	\$9.64	3	0	Short-term on-the-job training
49-9042	Maintenance and repair workers, general	\$15.29	\$16.00	13	0	Moderate-term on-the-job training
51-3011	Bakers	\$10.30	\$11.70	2	0	Long-term on-the-job training
53-3031	Driver/sales workers	\$8.68	\$11.80	2	0	Short-term on-the-job training

Source: EMSI

## Educational Attainment

Camoin Associates also reviewed data related to educational attainment for the County. Compared to the regional economy, a higher portion of Jefferson County residents hold only a high school diploma or just some college while slightly higher portions of the population in the Economic Region hold Bachelor's, Associate's, and Graduate Degrees or higher.

Educational Attainment		
Education Level	Jefferson County	Economic Region*
Less than 9th Grade	5.5%	6.1%
9th Grade to 12th Grade	7.7%	6.9%
High School Diploma	35.7%	32.6%
Some College	19.3%	18.6%
Associate's Degree	11.3%	11.1%
Bachelor's Degree	11.9%	14.3%
Graduate Degree & Higher	8.7%	10.2%

Source: EMSI Complete Employment - 2011.3

\*Note: Educational Attainment data is not available at the zip code scale; therefore, the above data covers St. Lawrence, Jefferson, Oswego, Oneida, and Onondaga Counties.

## Labor Market Demand for Postsecondary Programs

One method of assessing the labor market demand for various postsecondary programs is to compare regional program completions (the number of students graduating from a particular postsecondary program) to regional job openings. In Jefferson County, there is only one postsecondary institution, Jefferson Community College (JCC). As such, the following completion data is specific to JCC.

Community colleges tend to be the best institutions to respond to fluctuations in local workforce needs. According to the 2009 report Thriving in Challenging Times: Connecting Education to Economic Development through Career Pathways ...the institutions that are ideally positioned to provide the postsecondary education and training needed for most jobs are the country's almost 1,200 community and technical colleges.<sup>5</sup> Additionally, with JCC located within the County's borders, local businesses and other economic development stakeholders have a direct connection with the school, more-so than other regional institutions.

Before getting into the specifics of the data, please note that "openings" refers to the sum of **new and replacement jobs** in the occupation. Additional information detailing the difference between the total jobs in a region and the number of openings is provided at the end of this report in the "Additional Information & References" section.

The two programs in Jefferson County with the greatest number of completions include programs in liberal arts (126 completions) and humanities (125 completions). In 2011, there were only 14 job openings that required a liberal arts degree; however, it is important to note that many students that obtain this 2-year degree from JCC then transfer to another college or university to obtain a more advanced degree.

Business administration and management has the greatest number of openings in the County (102 openings) and only 56 completions. Similarly, general office occupations had 71 openings and only one completion. The demand for these two programs is not currently being met by the existing completion rates and there may be an opportunity to meet this demand. Other highly desired programs include administrative assistant and secretarial science, teacher assistant/aid, and accounting technology/bookkeeping.

<sup>5</sup> [http://www.ncpn.info/downloads/Thriving\\_in\\_Challenging\\_Times.pdf](http://www.ncpn.info/downloads/Thriving_in_Challenging_Times.pdf)

Regional Programs: Jefferson County						
Program	Comp. 2010	Openings 2011	Med. Hourly Wage 2011	Jobs 2011	Jobs 2021	Growth 2011-2021
Business Administration and Management	56	102	\$21.18	2,084	2,357	13%
General Office Occupations and Clerical Services	1	71	\$13.77	2,288	2,303	1%
Registered Nursing/Registered Nurse	29	29	\$25.66	859	940	9%
Administrative Assistant & Secretarial Science	13	26	\$15.28	1,114	1,154	4%
Teacher Assistant/Aide	2	24	\$12.40	621	660	6%
Accounting Technology/Technician and Bookkeeping	10	22	\$14.28	984	1,025	4%
Animal/Livestock Husbandry and Production	7	17	\$9.56	1,237	1,092	(12%)
Licensed Practical/Vocational Nurse Training	61	16	\$16.17	365	404	11%
Liberal Arts and Sciences/Liberal Studies	126	14	\$38.75	383	419	9%
Community Organization and Advocacy	13	8	\$20.23	163	190	16%
Computer & Information Sciences, General	2	8	\$23.67	174	207	19%
Child Care & Support Services Management	9	6	\$10.28	99	124	25%
Information Science/Studies	6	4	\$26.20	92	109	18%
Criminal Justice/Law Enforcement Administration	43	3	\$29.52	50	54	9%
Tourism Promotion Operations	17	3	\$14.54	34	48	40%
Legal Assistant/Paralegal	6	2	\$20.05	84	89	6%
Fire Services Administration	2	2	\$29.91	30	32	5%
EMT Paramedic	11	1	\$12.36	65	50	(23%)
Engineering, General	7	1	\$28.97	23	27	15%
Humanities/Humanistic Studies	125	0	\$0.00	0	0	0%
General Studies	5	0	\$0.00	0	0	0%

Source: EMSI

As noted previously, many students obtain a 2-year degree from JCC before moving on to a 4-year degree from a larger college. The majority of students that take this path transfer to one of the colleges in the North Country region of New York. Therefore, instead of showing completion data for the economic region, college program information is provided for the North Country Region, which includes Clinton, Essex, Franklin, Hamilton, Jefferson, Lewis, and St. Lawrence Counties. It is important to note that the opening figures are for the North Country Region as a whole and are not specific to Jefferson County.

Regional Programs: North Country Region						
Program	Comp. 2010	Openings 2011	Med. Hourly Wage 2011	Jobs 2011	Jobs 2021	Growth 2011-2021
Retailing and Retail Operations	5	620	\$9.26	17,869	17,607	(1%)
Business Administration and Management, General	313	364	\$20.59	8,354	9,211	10%
Business, Management, Marketing, and Related Support Services, Other	28	333	\$14.91	8,725	9,331	7%
Business/Commerce, General	58	317	\$22.07	7,198	7,919	10%
Education, General	13	278	\$32.78	8,781	9,124	4%
Cooking and Related Culinary Arts, General	2	222	\$10.16	6,408	6,860	7%
Entrepreneurship/Entrepreneurial Studies	25	217	\$23.65	4,695	5,105	9%
General Office Occupations and Clerical Services	1	210	\$13.33	8,253	8,032	(3%)
Business Administration, Management and Operations, Other	4	177	\$12.94	3,402	3,940	16%
Crisis/Emergency/Disaster Management	4	141	\$15.11	2,458	2,867	17%
Entrepreneurial and Small Business Operations, Other	12	131	\$13.80	2,247	2,648	18%
Physical Education Teaching and Coaching	12	128	\$27.28	3,546	3,722	5%
Finance, General	43	127	\$18.43	2,294	2,856	25%
Registered Nursing/Registered Nurse	232	113	\$25.90	3,304	3,615	9%
Technology Teacher Education/Industrial Arts Teacher Education	1	102	\$31.54	3,040	3,063	1%
Animal/Livestock Husbandry and Production	7	95	\$9.37	5,948	5,693	(4%)
English/Language Arts Teacher Education	13	92	\$31.55	2,728	2,754	1%
Mathematics Teacher Education	12	92	\$31.55	2,728	2,754	1%
Music Teacher Education	73	92	\$31.55	2,728	2,754	1%
Reading Teacher Education	98	92	\$31.55	2,728	2,754	1%
Science Teacher Education/General Science Teacher Education	15	92	\$31.55	2,728	2,754	1%
Social Studies Teacher Education	29	92	\$31.55	2,728	2,754	1%

Regional Programs: North Country Region						
Program	Comp. 2010	Openings 2011	Med. Hourly Wage 2011	Jobs 2011	Jobs 2021	Growth 2011-2021
Foods, Nutrition, and Wellness Studies, General	9	90	\$10.42	1,994	2,376	19%
Elementary Education and Teaching	118	87	\$31.57	2,607	2,739	5%
Accounting and Finance	21	87	\$21.60	2,202	2,503	14%
Teacher Assistant/Aide	2	82	\$12.63	2,955	2,993	1%
Accounting Technology/Technician and Bookkeeping	25	77	\$13.65	3,635	3,749	3%
Administrative Assistant and Secretarial Science, General	27	76	\$15.22	4,447	4,393	(1%)
Education, Other	135	75	\$12.91	2,477	2,681	8%
Latin American Studies	2	73	\$38.29	2,727	2,843	4%
Area Studies, Other	1	73	\$38.29	2,727	2,843	4%
Women's Studies	11	73	\$38.29	2,727	2,843	4%
English Language and Literature, General	167	73	\$38.29	2,727	2,843	4%
Rhetoric and Composition	21	73	\$38.29	2,727	2,843	4%
Liberal Arts and Sciences/Liberal Studies	251	73	\$38.29	2,727	2,843	4%
Philosophy	13	73	\$38.29	2,727	2,843	4%
Religion/Religious Studies	2	73	\$38.29	2,727	2,843	4%
Music History, Literature, and Theory	1	73	\$38.29	2,727	2,843	4%
International Business/Trade/Commerce	16	73	\$33.43	2,160	2,135	(1%)
Secondary Education and Teaching	24	66	\$32.13	1,950	1,937	(1%)
Agricultural Teacher Education	33	66	\$32.13	1,950	1,937	(1%)
Biology Teacher Education	1	66	\$32.13	1,950	1,937	(1%)
French Language Teacher Education	3	66	\$32.13	1,950	1,937	(1%)
Physics Teacher Education	2	66	\$32.13	1,950	1,937	(1%)
Spanish Language Teacher Education	4	66	\$32.13	1,950	1,937	(1%)
Building/Property Maintenance	9	62	\$16.95	1,841	2,020	10%
Licensed Practical/Vocational Nurse Training	194	56	\$16.03	1,305	1,398	7%
Accounting	36	53	\$20.96	1,516	1,682	11%
Special Education and Teaching, General	72	48	\$33.50	1,262	1,346	7%
Social Work	22	46	\$22.22	1,075	1,187	10%
Hotel/Motel Administration/Management	59	46	\$10.65	1,173	1,295	10%
Visual and Performing Arts, General	13	45	\$9.64	1,102	1,221	11%
Hospitality Administration/Management, General	39	43	\$10.67	1,115	1,231	10%
Art/Art Studies, General	128	42	\$9.73	1,039	1,152	11%
Construction Engineering Technology/Technician	26	41	\$15.19	1,244	1,388	12%
Criminal Justice/Police Science	103	41	\$22.73	1,124	1,199	7%
Education/Teaching of Individuals with Specific Learning Disabilities	3	32	\$34.01	794	857	8%
Psychology, General	252	32	\$18.87	643	718	12%

Regional Programs: North Country Region						
Program	Comp. 2010	Openings 2011	Med. Hourly Wage 2011	Jobs 2011	Jobs 2021	Growth 2011-2021
Automobile/Automotive Mechanics Technology/Technician	28	31	\$12.53	1,462	1,416	(3%)
Counseling Psychology	6	30	\$19.13	597	665	11%
Computer and Information Sciences, General	30	29	\$22.48	730	835	14%
Speech Communication and Rhetoric	46	28	\$11.25	649	736	13%
Forest Resources Production and Management	3	27	\$11.98	638	692	9%
Mass Communication/Media Studies	5	27	\$10.92	671	747	11%
Journalism	26	27	\$10.93	682	757	11%
Information Technology	5	27	\$22.78	659	777	18%
Early Childhood Education and Teaching	81	26	\$20.88	719	789	10%
Substance Abuse/Addiction Counseling	11	25	\$17.64	446	551	23%
Culinary Arts/Chef Training	60	24	\$12.03	807	821	2%
Educational Leadership and Administration, General	14	23	\$38.92	614	629	2%
Educational, Instructional, and Curriculum Supervision	23	23	\$38.92	614	629	2%
Counselor Education/School Counseling and Guidance Services	38	23	\$21.35	720	761	6%
Community Organization and Advocacy	41	23	\$21.57	586	640	9%
Music Performance, General	23	23	\$8.76	610	666	9%
Parks, Recreation and Leisure Studies	27	22	\$10.39	625	695	11%
Parks, Recreation and Leisure Facilities Management, General	4	22	\$10.30	603	670	11%

Source: EMSI

## Career Clusters & Pathways

The labor force market demand is also examined by evaluating career clusters, which are groups of related occupations that involve similar tasks and require similar skills. Career clusters are collections of standard occupation codes (SOC) organized by pathways, which define routes of career advancement within the career cluster.<sup>6</sup>

The table below contains the career clusters in Jefferson County and identifies the top five largest and fastest growing clusters that are examined in greater detail below. Please note that though the government career cluster is identified as one of the top clusters in the region, career pathways are not available for military occupations and career pathways cannot be analyzed.

Career Clusters in Jefferson County						
Cluster Code	Cluster Name	2012 Jobs	2021 Jobs	Change	Top 5 Largest	Top 5 Fastest Growing
1	Agriculture, Food & Natural Resources	5,641	5,833	192		
2	Architecture & Construction	4,105	4,555	450		
3	Arts, A/V Technology & Communications	2,197	2,346	149		
4	Business, Management & Administration	13,291	14,223	932	x	x
5	Education & Training	5,130	5,670	540		
6	Finance	3,638	4,287	649		x
7	Government & Public Administration	19,988	20,498	510	x	
8	Health Science	7,787	9,003	1,216		x
9	Hospitality & Tourism	9,192	9,766	574	x	
10	Human Services	7,790	9,094	1,304	x	x
11	Information Technology	596	661	65		
12	Law, Public Safety, Corrections & Security	2,873	3,149	276		
13	Manufacturing	2,178	2,357	179		
14	Marketing, Sales & Service	9,637	10,119	482	x	
15	Science, Technology, Engineering & Mathematics	1,842	1,975	133		
16	Transportation, Distribution, & Logistics	8,002	8,620	618	x	x

Source: EMSI Complete Employment - 2011.3

Note: Some occupations occur in multiple clusters and not all occupations are encompassed by career clusters.

The following tables contain career pathway information for the seven occupation clusters identified above. The top career pathways for each cluster is shown, followed by a summary of educational attainment requirements for each. This information will be used to identify which industries could be offering internships and what new programs could be offered by JCC to move workers along the career pathway into occupations in demand.

<sup>6</sup> Additional information on career clusters can be found on the Nationwide, Career Technical Education (CTE) website. <http://www.careertech.org/>

Business, Management & Administration Career Cluster: Top Pathways				
	2012 Jobs	2021 Jobs	Change	Openings
<b>Business, Management &amp; Administration</b>	<b>13,291</b>	<b>14,223</b>	<b>932</b>	<b>3,920</b>
Marketing and Communications Pathway	7,069	7,553	484	2,308
Bachelor's degree	713	866	153	277
Degree plus work experience	553	550	-3	146
Long-term on-the-job training	48	44	-4	11
Moderate-term on-the-job training	885	1,021	136	372
Postsecondary vocational award	1,034	1,273	239	401
Short-term on-the-job training	3,260	3,158	-102	931
Work experience in a related field	577	642	65	169
Administrative & Information Support Pathway	3,763	3,884	121	992
Associate's degree	102	82	-20	13
Moderate-term on-the-job training	1,216	1,349	133	413
Postsecondary vocational award	63	66	3	10
Short-term on-the-job training	1,626	1,588	-38	388
Work experience in a related field	756	798	42	168
Bus. Financial Man. and Accounting Pathway	3,083	3,376	293	868
Bachelor's degree	350	378	28	81
Degree plus work experience	517	586	69	164
Long-term on-the-job training	50	60	10	22
Moderate-term on-the-job training	1,568	1,724	156	463
Short-term on-the-job training	166	173	7	31
Work experience in a related field	434	454	20	107
Human Resources Pathway	1,362	1,641	279	528
Bachelor's degree	194	219	25	68
Degree plus work experience	28	28	0	6
Long-term on-the-job training	504	670	166	217
Master's degree	0	0	0	0
Short-term on-the-job training	65	61	-4	17
Work experience in a related field	570	663	93	221

Source: EMSI

Finance Career Cluster: Top Pathways				
	2012 Jobs	2021 Jobs	Change	Openings
<b>Finance</b>	<b>3,638</b>	<b>4,287</b>	<b>649</b>	<b>1,394</b>
Banking and Related Services Pathway	2,849	3,317	468	1,040
Associate's degree	116	121	5	34
Bachelor's degree	879	1,049	170	287
Degree plus work experience	159	183	24	49
Long-term on-the-job training	457	617	160	202
Moderate-term on-the-job training	942	1,068	126	369
Short-term on-the-job training	297	279	-18	99
Insurance Services Pathway	1,193	1,391	198	494
Bachelor's degree	13	12	-1	4
Degree plus work experience	18	20	2	6
Long-term on-the-job training	50	60	10	22
Moderate-term on-the-job training	806	937	131	346
Postsecondary vocational award	306	361	55	116

Source: EMSI

Health Science Career Cluster: Top Pathways				
	2012 Jobs	2021 Jobs	Change	Openings
<b>Health Science</b>	<b>7,787</b>	<b>9,003</b>	<b>1,216</b>	<b>2,596</b>
Therapeutic Services Pathway	4,644	5,484	840	1,539
Associate's degree	979	1,057	78	230
Bachelor's degree	79	87	8	27
Doctoral degree	126	144	18	50
First professional degree	571	648	77	178
Long-term on-the-job training	457	617	160	202
Master's degree	301	353	52	97
Moderate-term on-the-job training	432	521	89	164
Postsecondary vocational award	982	1,065	83	257
Short-term on-the-job training	717	991	274	335
Health Informatics Pathway	2,538	2,896	358	906
Associate's degree	59	64	5	16
Bachelor's degree	282	317	35	95
Degree plus work experience	305	348	43	91
Master's degree	120	133	13	44
Moderate-term on-the-job training	904	1,059	155	380
Postsecondary vocational award	53	55	2	8
Short-term on-the-job training	246	256	10	52
Work experience in a related field	570	663	93	221

Source: EMSI

Hospitality and Tourism Career Cluster: Top Pathways				
	2012 Jobs	2021 Jobs	Change	Openings
<b>Hospitality &amp; Tourism</b>	<b>9,192</b>	<b>9,766</b>	<b>574</b>	<b>2,710</b>
Lodging Pathway	4,688	4,868	180	1,065
Degree plus work experience	682	686	4	187
Moderate-term on-the-job training	1,392	1,465	73	243
Short-term on-the-job training	1,751	1,796	45	425
Work experience in a related field	863	920	57	211
Recreation, Amusements & Attractions Pathway	2,398	2,582	184	655
Bachelor's degree	466	520	54	118
Degree plus work experience	466	457	-9	121
Long-term on-the-job training	181	190	9	50
Master's degree	6	6	0	2
Moderate-term on-the-job training	664	709	45	142
Postsecondary vocational award	91	105	14	30
Short-term on-the-job training	204	227	23	87
Work experience in a related field	320	369	49	105
Restaurants & Food & Beverage Services	2,876	3,009	133	1,113
Degree plus work experience	587	585	-2	162
Long-term on-the-job training	294	312	18	85
Moderate-term on-the-job training	30	36	6	8
Short-term on-the-job training	1,449	1,520	71	762
Work experience in a related field	517	556	39	96
Travel and Tourism Pathway	1,413	1,583	170	453
Bachelor's degree	82	93	11	28
Degree plus work experience	272	291	19	82
Long-term on-the-job training	47	53	6	15
Moderate-term on-the-job training	52	54	2	16
Postsecondary vocational award	12	10	-2	1
Short-term on-the-job training	56	74	18	29
Work experience in a related field	892	1,008	116	282

Source: EMSI

Human Services Career Cluster: Top Pathways				
	2012 Jobs	2021 Jobs	Change	Openings
<b>Human Services</b>	<b>7,790</b>	<b>9,094</b>	<b>1,304</b>	<b>2,897</b>
Consumer Services Career Pathway	3,500	4,147	647	1,368
Associate's degree	59	64	5	16
Bachelor's degree	999	1,312	313	471
Degree plus work experience	227	255	28	66
Long-term on-the-job training	48	44	-4	11
Moderate-term on-the-job training	801	933	132	347
Postsecondary vocational award	305	360	55	116
Short-term on-the-job training	142	160	18	41
Work experience in a related field	918	1,019	101	300
Early Childhood Development Career Pathway	2,180	2,479	299	789
Bachelor's degree	168	186	18	56
Degree plus work experience	18	21	3	8
Postsecondary vocational award	103	124	21	39
Short-term on-the-job training	1,822	2,065	243	662
Work experience in a related field	70	83	13	23

Source: EMSI

Marketing, Sales & Service Career Cluster: Top Pathways				
	2012 Jobs	2021 Jobs	Change	Openings
<b>Marketing, Sales &amp; Service</b>	<b>9,637</b>	<b>10,119</b>	<b>482</b>	<b>3,015</b>
Buying and Merchandising Pathway	4,157	4,253	96	1,358
Moderate-term on-the-job training	844	979	135	365
Short-term on-the-job training	3,313	3,274	-39	994
Professional Sales and Marketing Pathway	3,545	3,800	255	1,074
Associate's degree	159	188	29	57
Bachelor's degree	9	10	1	4
Long-term on-the-job training	48	44	-4	11
Moderate-term on-the-job training	135	143	8	40
Postsecondary vocational award	728	913	185	285
Short-term on-the-job training	1,889	1,860	-29	508
Work experience in a related field	577	642	65	169
Management and Entrepreneurship Pathway	713	843	130	258
Bachelor's degree	437	549	112	175
Degree plus work experience	276	294	18	82

Source: EMSI

Transportation, Distribution, and Logistics Career Cluster: Top Pathways				
	2012 Jobs	2021 Jobs	Change	Openings
<b>Transportation, Distribution, &amp; Logistics</b>	<b>8,002</b>	<b>8,620</b>	<b>618</b>	<b>2,273</b>
Health, Safety and Environmental Pathway	1,064	1,321	257	434
Associate's degree	1	1	0	0
Bachelor's degree	21	23	2	6
Long-term on-the-job training	457	617	160	202
Master's degree	15	17	2	5
Work experience in a related field	570	663	93	221
Transportation Planning, Management, & Regulation	939	1,170	231	377
Associate's degree	57	59	2	12
Bachelor's degree	63	70	7	17
Degree plus work experience	173	184	11	55
Long-term on-the-job training	497	666	169	223
Master's degree	9	11	2	3
Moderate-term on-the-job training	19	21	2	4
Short-term on-the-job training	6	6	0	2
Work experience in a related field	115	153	38	61
Facility and Mobile Equipment Maintenance Pathway	2,042	2,162	120	481
Associate's degree	33	33	0	7
Degree plus work experience	48	51	3	12
Long-term on-the-job training	1,217	1,337	120	307
Moderate-term on-the-job training	12	13	1	3
Postsecondary vocational award	683	682	-1	143
Short-term on-the-job training	47	45	-2	9

Source: EMSI

## INTERVIEW SUMMARIES

### Introduction

In order to best assess Jefferson County's economic strengths and opportunities, the socioeconomic and industry trends data is combined with knowledge gained through interviews and conversations with industry and economic development stakeholders. Interviews help to reveal strengths of the relationships between firms, service providers, and other stakeholders involved in the local and regional economy and the potential for further private and public investment. New information is gleaned beyond what is stated by the data and provides real time information about struggles and successes of local business owners and professionals.

On March 20<sup>th</sup> and 21<sup>st</sup>, 2012 Camoin Associates conducted a site visit to the County to interview key stakeholders. Camoin worked with the Jefferson County Comprehensive Economic Development Strategy Committee ("Committee") to develop and refine an interview contact list. Camoin Associates conducted most of the interviews in-person with area professionals, industry leaders, and business leaders. These interviews provide both internal and external perspectives of the County's strengths, weaknesses, opportunities, and threats, and were also used to solicit information for various components of the plan.

The interviews also serve as a tool for Camoin Associates and the Committee to better understand the County in the terms that a site selector or a CEO may consider when determining their next location or investment decision. While the interviews offer invaluable information to the CEDS they can only offer a snapshot in time of the situation in the County and will be used as one of many information sources. The following document summarizes the major themes and findings of the stakeholder interviews. A list of the individuals interviewed can be found at the end.

### Agriculture

Agriculture has been important to Jefferson County for generations and there is a strength (historical and current) in the dairy industry throughout Upstate New York. Camoin Associates heard from many interviewees about the importance of agriculture and the need for more value-added processing in order to increase sales and profitability for farmers. The historic strength of agriculture means that there are support services throughout the County to serve the local farmers (farm equipment stores, private agricultural consultants, agriculture agencies, large animal veterinarians, Cornell Cooperative Extension, etc.), but the interviews helped to identify where additional support is needed and what opportunities exist. The following is a summary of the interview themes related to agriculture.

- The national pricing system for milk makes it difficult for dairy farmers to be profitable.
- There is a lack of support for agriculture as an economic development tool from the State level.
  - Lack of funding or marketing support
  - Very highly regulated
- The potential for an anaerobic digester has not been fully realized for energy production.
- Farmers like selling locally and regionally to reduce transportation costs of selling out of the state or region.
- Transportation infrastructure is important to dairy farmers.
  - Access to a deep water port would be beneficial to distribution systems (only one is in Clayton)
  - Access to rail spurs is important and beneficial for farmers looking to transport grains and other end products
- Food manufacturing and other value added production processes is projected to be a growth industry (in the region and nationally).

- The lack of meat processing operations in the Region presents an opportunity. The closest USDA processor is two hours away.
- Most food manufacturers choose to be located in close proximity to both the raw products and the market making Jefferson County a prime location because of its easy access to both the farms and within a day's drive of the largest markets in the United States.
- Upstate New York has seen recent successes in greek yogurt manufacturing, signaling the beginning of a dairy product manufacturing industry cluster. Governor Cuomo has been a big driver behind the success of Chobani and others in the Fingers Lakes Region of New York.
- Many local dairy product manufacturing facilities including Great Lakes Cheese and Crowley. Supply of milk for dairy product manufacturing is sufficient.
- Food manufacturing facilities provide stability for regional suppliers.
- With the high-quality soil, weather, and water access there is an opportunity to focus on commodity crops such as soybeans, wheat and corn. Transportation to get these items to New Jersey ports and out of the country could bring money to the area.
- There is an opportunity for agri-tourism to combine tourism and agriculture through farm tours and tastings.
  - New wineries and distilleries are opening in the area, which combine not only value added processing but also tourism through the development of wine tours.
  - The Seaway Wine Trail attracts tourists for wine tasting and other agriculture products.
    - 87 mile long wine trail with 80 different wineries
    - Need to differentiate Jefferson County wine region from the Finger Lakes and Long Island
  - Thousand Islands Agriculture Tour brings wine tourists into the more remote areas of the County.
  - Two new hops farms have opened recently in the County, which could lead to a brewery and potential for brewery tours and visitors

### Business Environment

Beyond the available work force, educational programs, and infrastructure aspects of a community, the perception and reality of how business-friendly a place is can be a major concern for businesses when considering a major investment. While leaders in New York State have been working to improve the reputation of the State, NY has a lingering poor reputation when it comes to being business friendly; high taxes, confusing regulations and a lack of incentive programs makes it difficult for new businesses to move in or for existing businesses to expand. Economic development professionals in Jefferson County have made a very good impression on many of those interviewed. The following is a summary of the comments regarding the operational and business environment in Jefferson County:

- Jefferson County economic development organizations are welcoming and willing to help new businesses locate or existing businesses expand.
- Local economic development organizations should continue to help make the process easier for new businesses by acting as a liaison to the NYS government for funding, regulations, permitting, etc. to reduce need for businesses to deal with NYS on their own.
- A few interviewees noted how impressed they were by the industrial parks and how the lease rates made it possible for them to expand into the larger site and increase employment.
- Few people locate in Jefferson County without some connection to the area. Economic development professionals should work on building new businesses from within, focus on small

businesses and entrepreneurs who are already in Jefferson County and have a reason to stay. It is more difficult to attract a new business than to help support an existing one.

- It is difficult for a Canadian business to open a location in Jefferson County due to different regulations, requirements, permitting, etc.
  - Particularly hard for a business to come from Canada and locate in U.S. (and vice versa). Need a central clearinghouse to deal with inquiries, regulations, restrictions, paperwork, incentives, etc.
- Many businesses find it hard to be profitable because they are always trying to offset the advantages that their competition has in other parts of the United States and around the world (labor costs, operating costs, energy costs, taxes, etc.).
  - Challenges to being in New York State and Jefferson County include high cost of utilities, high transportation costs (long travel distances to major markets), high costs related to workers compensation, strict environmental regulations, and high taxes.

### Health Care

The comments on health care reinforced what the economic data illustrated, including that the health care industry in Jefferson County is strong and is expected to continue that way. In particular, it was mentioned what a positive impact Fort Drum has on the local health care services industry. There are no inpatient services provided on base to soldiers and their families; therefore, they need to use local providers (this setup is unique to Fort Drum and Jefferson County since most operational bases have a full-service hospital on-site). One area of concern was the difficulty attracting qualified people in order to expand needed health care coverage. The following is a summary of some of the main points brought up during the interviews regarding health care:

- Health care industry is growing and growth is expected to continue.
- Jefferson County is facing a shortage of nurses, certified nursing assistants, x-ray technicians, and other core health care professionals.
- The relationship with Fort Drum and local service providers is positive for the community. The integration of military families into the community increases demand for hospital workers, nurses, doctors, and other health care providers.
- Jefferson Community College notes that it has a program for nursing certification but that it is very expensive to run. JCC would like to offer more courses, programs, and units but find it difficult to do with existing financial constraints.
- There is a lack of nurse educators as educators are lured away from education because can make more money in a clinical setting, which leads to a lack of nurses and other trained professionals.
- There is a need for increased service providers in specialty fields such as mental health (psychiatrists, psychologists, social workers, etc.) and physical therapy, which is directly related to the healthcare needs of the Fort Drum community.
- Retention and attraction of health care employees has been a problem, which is common in rural areas.
  - Physicians are reluctant to move to rural areas due to concerns about their spouse's ability to find jobs.

- You can achieve a 2-, 4- or 6-year degree in the health care industry within Jefferson County. Education programs include:
  - Bachelors of social work
  - Masters of social work
  - Medical technology
  - Pharmacy technology
  - Phlebotomy technology
- There have been recent upgrades in fiberoptics to connect physicians and integrate them with a regional health care service delivery sub. Other government mandates are requiring major system changes that will increase the demand for professionals with both IT and medical knowledge. This presents an opportunity for future growth of an IT center with a focus on health care.
  - Telemedicine has been a way to manage some of the challenges of not having enough doctors and specialists in rural areas
  - Infrastructure exists but not all regional providers are hooking into it because they are unable to devote the resources necessary to fully integrate.
  - “Last mile” infrastructure does not exist for all of the smaller practices causing disconnect in the system.
  - The Health/Information Technology (HIT) field is changing so rapidly that students going through the current programs do not have the most up to date skills needed and therefore they are not being hired.
    - Skill set that is needed is similar to a process engineer. Knowing what the tool is looking to do and knowing how to optimize the work flow and ease of use.

### Housing/ Cost of Living Concerns

The issue of housing affordability came up a number of times during the interviews, both for rental and owner occupied units. There was a recent building boom surrounding the increased stationing at Fort Drum but that has since leveled off. Cost and quality of living is a concern for local economic development because having access to a job is only one aspect of what makes a person decide to move to or remain in an area. To be able to build on the workforce and retain quality people, good quality housing at affordable rates is necessary to achieve economic growth goals.

With so many soldiers based at Fort Drum, it is important that the cost of living and cost/quality of housing is adequate to meet their family’s needs so that they stay even after they are out of the military. Retaining families after they are no longer affiliated with Fort Drum is difficult because the cost of living is significantly higher in NYS/Jefferson County than other parts of the country and once they are out of the military they find it difficult to find a civilian job in Jefferson County that offers salaries comparable to what they were paid at their military positions. These two factors are driving the decision of many former soldiers to choose to move elsewhere. Some of the key concerns surrounding housing include:

- High cost of housing due to high demand.
  - The military provides a higher stipend for the soldiers to find housing, which is driving up the cost.
  - The demand created by Fort Drum for rental and owner-occupied units makes it difficult for those non-military families looking to live in the area.

- The overall housing stock is limited and there is very high demand for housing (i.e. low vacancy rates), which is driving up the costs of even very low quality housing throughout the region.
- Quality throughout the housing market, particularly the rental market, is also being driven by the demand for housing.
  - Because of the high demand for rental units and the ability of the Fort Drum market to pay a high living allowance, property owners are under little pressure to re-invest or even properly maintain their properties to make them more competitive. These trends are allowing many rental units to deteriorate while rental prices remain the same.
- The cost of living and housing is too high for those working in manufacturing/production occupations. The wages/salary provided to military personnel is higher than low- to medium-income jobs for civilians, which is placing increased financial stressors on families.
  - Wages and salary have stagnated in Jefferson County relative to other areas. The “living wage” figure for Jefferson County is higher than many production occupations will pay.
- High levels of construction and construction employment is tied to the expansion at Fort Drum and the subsequent demand for new housing. With the numbers of those stationed at Fort Drum leveling off there is likely to be a decrease in demand for new construction, which could put employers in a position to have to reduce their workforce. In addition, construction leads to other economic impacts throughout the area (services, equipment, and material purchases, etc.) which could be negatively impacted if the levels of construction activity stabilize or decline.

## Tourism

The development of the tourism industry is important to Jefferson County as a way to bring new dollars into the local economy and showcase all the positive aspects of the County including the Thousand Islands, downtown Watertown, and all of the rural landscapes throughout the Region. The following is a summary of the main points of the interviews with respect to the tourism industry:

- Demand for hotels in Watertown is primarily driven by the National Reserve and Fort Drum activity in Watertown.
- Tourism industry is focused on the summer season.
- The tourism industry is primarily directed and marketed towards the Thousand Islands Region
  - More of a centralized approach and region-wide marketing is important to be able to bring tourism to the whole area.
  - Need to establish activities for all four seasons throughout the County to reduce the reliance on the Thousand Islands region and the boater market.
- Increased interest in agri-tourism (wineries, distilleries, farm tours, etc.) could boost local activity and build on existing assets.
- Improved trail and recreational resources could help expand tourism industry in Jefferson County.
- State tourism development efforts tend to drive people to the Buffalo area and not the Thousand Islands/Jefferson County region.

## Transportation/Infrastructure

Site selectors who are working on behalf of new companies are always considering access and proximity to major transportation routes as well as the existence of high quality and reliable infrastructure (water, sewer, high speed internet, cell phone coverage, etc.) when looking to help their clients with a new

investment or location decision. As part of the interviews, Camoin Associates discussed the quality of the existing infrastructure in Jefferson County to identify if there are any weaknesses that can be addressed to better position the County for economic growth. The following are some of the common responses by economic development professionals and business owners regarding infrastructure in Jefferson County:

- Transportation access via road/interstate is adequate.
- I-81 corridor connecting through to Canada is adequate and highly utilized.
- CSX operates a railroad that travels from Montreal to Syracuse through Watertown, which is very important for distribution and logistics. Railroad infrastructure should be maintained, protected, and marketed to companies as they try to reduce their use of over-road transportation.
  - There is a need to maintain rail spurs to connect industrial parks to the larger rail system.
  - The rail spurs are currently used for both agriculture and manufacturing industries.
- It was noted that the Thousand Islands Bridge that connects Canada to the United States is adequate and provides for quick border crossing, which is good for businesses.
  - Ease of access to Ottawa and Toronto.
- The expansion of the Watertown International Airport has been a benefit for the area.
- The midwest is a better location for many of the manufacturing firms that are distributing nationwide. Manufacturing firms are in Watertown for other reasons besides ease of transportation access.
- High utility cost was mentioned as a challenge by a few manufacturers. Opportunities for alternative energy exist including:
  - Biomass feedstock could be grown in the County
  - Hydro from the Black River (note that significant regulation of hydropower could make this challenging)
  - Biogas or Anaerobic Digester

## Workforce Concerns

Workforce qualifications are also one of the major items that are reviewed by site selectors when considering different locations for a business location project; a community with a weak workforce would be immediately disregarded in a search for a new business location or expansion project. Camoin Associates asked the interviewees (business owners, economic development professionals, and others) about their experience with the workforce in Jefferson County and whether there were any skill areas where they were lacking or if there were areas in need of improvement. Unfortunately, some interviewees brought up their concern about how the weak skills and poor attitude of the existing workforce is hindering the potential for economic development and growth. It is important to note that while these are concerns for the Jefferson County area and this CEDS plan outline action items to improve the skills of the local workforce, these are issues that are being faced all over the United States. This issue of workforce came into conversation in a few different ways, which are summarized below.

- One reason for the lack of qualified/trained labor available for manufacturing in the area is because very few high school students consider going into a production occupation.
  - Manufacturers are having trouble filling vacant positions for low and mid range jobs.

- Firms that have operations in other parts of the country that, based on their experience, this lack of interest in manufacturing careers was unique to the Northeast/Jefferson County.
- Firms that also operate in the Midwest note that there are more BOCES programs, high school programs, and vocational training programs that prepare and guide students into the manufacturing occupations. Support for these programs are lacking in Jefferson County.
- Manufacturing occupations are respected and encouraged in other parts of the country, which is different than the attitude in Jefferson County and throughout the Northeast.
- The downturn in the economy has forced more people into manufacturing/production occupations who may not have considered it before. One interviewee noted that they are receiving applicants to their apprentice program that are higher-qualified than they had seen before.
- Some of those interviewed expressed concern about the poor work ethic and lack of desire found in much of the younger generation in the County<sup>7</sup>. Business owners described scenarios where applicants expect to receive higher wages than is reasonable for the positions, applicants do not expect to have to start at the “bottom”, and often do not have the social or technical skills necessary to do the job.
- Small businesses are facing similar issues regarding workforce concerns. There are applicants for the positions but some employers are finding basic social skills lacking, which is unacceptable for most customer service positions.
- Some firms are also finding it difficult to find applicants for managerial and creative type occupations such as graphic designers.
  - One local firm reported the inability to fill a vacant marketing position for over a year as they could not find a qualified candidate.
  - A possible explanation for this could be that the candidates that would be qualified for these positions are looking for a different quality of life in terms of more arts and cultural offerings and other amenities that Jefferson County does not currently provide.
- There is a regional workforce strength in the quality of engineers being trained a regional colleges including Clarkson and Canton.
- In an effort to attract and retain workers, thereby reducing turnover rates, some companies are deliberately seeking employees who are attracted to a rural lifestyle and who are thus more likely to remain in the area.

### General Observations

The following is a brief summary of some other points made during the interviews, which are considered important to understanding the multiple layers of the Jefferson County economy:

- Many of the manufacturing companies in Jefferson County are what can be referred to as “legacy companies” meaning that they have been in the County for many years.
  - Legacy companies are in the County for historical or personal reasons that have little to do with any strategic geographic advantage the County has to offer today.
  - These companies employ a significant portion of the overall workforce and losing just one of these companies would be a significant blow to the County’s economy.

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<sup>7</sup> Lack of discipline and work ethic has been identified as a nationwide concern.

- Most of these companies are competing in the global market; the local economic situation has less of an impact on the success of these companies and they do very little business with Fort Drum (if any at all).
- There are a few local trends in the land development industry/process that make Jefferson County less attractive to Developers.
  - Frequent deployments of soldiers from Fort Drum causes market fluctuations, which - through the eyes of a developer - is viewed as high risk.
  - It is common for local municipalities to force developers to pay for infrastructure improvements. This drives up the cost of development and, because this is a common perception among developers about the county, makes the region as a whole less competitive.

Thank you to each of the stakeholders interviewed for this project:

Cheryl Mayforth  
Kevin Jordan  
Eric Constance  
Al Calligaris  
Don Dimonda  
James W. Wright  
Steve Pierce  
Donald C. Alexander  
Carl McLaughlin  
John Chatterton  
Jay Matteson  
Denise Young  
Thomas Carman

George Anderson  
Lisa A. Weber  
Gary Beasley  
Jody LaLone  
Robert Nelson  
Dr. Carole A. McCoy  
Jill Pippin  
Mick Allen  
Don Rutherford  
Robert F. Hagemann III  
Robert G. Horr III  
W. Howard Kelly  
Gary DeYoung

Mark Rayman  
Vincent Mottola  
Michael Hill  
Peter J. Whitmore  
David Zembic  
Don Canfield  
Laura Cerow  
Paul Barton  
Audrey Sargent  
Dennis Affinati  
Corey Zeigler  
Tracey Leonard

## ACTION PLAN NARRATIVE

The Action Plan Matrix included in Section VII of the CEDS provides the outline for the specific goals and action items and what follows is a narrative of the Action Plan that includes more detailed descriptions of the actions and capital projects. The following narrative also includes performance measures to be used by the County to quantify the impact of the Action Plan.

### Goal: Develop the local workforce to meet 21st century challenges

#### *A.1: Coordinate efforts between all educational providers to align workforce development with targeted industries*

It is vitally important that the existing education systems are teaching the skills necessary for students to be able to succeed in the 21<sup>st</sup> century job market. Using the Career Pathways approach (a system devised to analyze the skills and training necessary for various occupation/industry choices), the County's schools can develop curricula based on the skills needed for the targeted industries. Having a local population with the skills needed to meet the demands of key industries will make Jefferson County increasingly attractive and will promote economic development. Continue ongoing efforts to coordinate between high schools, JCC, and regional four year colleges and universities to promote lifelong learning and job skill development.

*Lead Agency/Partnership: High schools, BOCES, and JCC*

*Priority Level: High*

*Timeframe: Ongoing*

*Performance Measure: Complete educational plan for each targeted sector; Development of curricula/programs and implement*

#### *A.2: Create a task force to regularly bring together educators and employers to jointly address emerging workforce needs*

Create a task force that includes guidance counselors, teachers, principals, and employers in the effort to address workforce needs by providing them with job, career, and education pathway information for targeted industries. The task force could be used to address technical and academic skill areas that need additional attention as well as soft skills for employees. The task force should be charged with solving the disconnect between the available jobs and workforce skills so that employers are able to fill positions and employees are able to find jobs that meet their interests and skills. An important aspect of the task force is to include a wide variety of educators and employers and bring them together on a regular basis to discuss changes, trends, needs, and concerns before workforce issues become too large.

*Lead Agency/Partnership: WIB, JCC, BOCES, and High schools*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Attendance at task force meeting; Satisfaction rating by participants*

#### *A.3: Encourage internship and apprenticeship partner programs*

One way to increase the pool of skilled and experienced labor is to increase the internship and apprenticeship programs that are available and to coordinate between job applicants and employers. This type of program would help to attract employees from regional colleges and could potentially create lifelong county residents. Local companies should be encouraged to participate in these types of programs and should be informed of the benefits of participation. Available internships should be

marketed to regional college department heads so that they can circulate the information to interested students.

*Lead Agency/Partnership: JCC, WIB and Regional College Partners*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Number of companies participating; Number of internships/apprenticeships provided; Job placement from participation*

#### *A.4: Support Science, Technology, Engineering and Math (STEM) training programs*

Support for STEM industries and training programs increases the amount and degree of innovation occurring within an economy, which results in increased economic development and wealth creation. Residents with skills that lead to innovation can create unique new products, improve upon existing processes and increase productivity. Jefferson County organizations should continue to support existing STEM training efforts and increase availability wherever possible. JCC should consider applying for financial assistance through the National Science Foundation, which offers grants to community colleges and other institutions of higher learning to increase their ability to deliver STEM education programs and career training.

*Lead Agency/Partnership: JCC, North Country STEM Hub, WIB, and BOCES*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Amount of money received through application; Number of students through program*

#### *A.5: Continue the Jefferson Express Workshops*

The Jefferson Express Workshops offered by JCC provide job training, skill building, and mobile technical assistance to rural parts of the County. This program has assisted with resume writing, computer skills, and interview practice for many residents who do not have access to training. The program is in need of additional financial assistance to continue to operate and serve the rural residents of Jefferson County.

*Lead Agency/Partnership: JCC*

*Priority Level: High*

*Timeframe: Ongoing*

*Performance Measure: Amount of money raised to continue the Workshops; Number of residents assisted*

#### *A.6: Create new and promote existing programs to assist in the transition from military to civilian life for retired military personnel*

Jefferson County has a wealth of talent and skill in the retired military personnel who are retiring from service at Fort Drum. Working to help make the transition to civilian life easier will benefit the veterans and the County through increased economic activity and improved quality of life for all. The County should focus on assistance to veterans including how to transition into targeted industries, how to acquire the skills necessary for the current economy and how to start a business. These programs require financial resources to run and the County and transition assistance organizations should pursue additional Federal funds and programs to train and place veterans.

*Lead Agency/Partnership: JCIDA, JCC, WIB, and FDRLO*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Number of people going through program; Amount of additional funds received*

*A.7: Develop employee training programs for small employers and new start-ups*

BOCES and JCC should work together to provide training to a group of employees from various employers. The ability to group the employees from different employers together will make the program more sustainable and allow for a more wide reaching program. Training programs should include both technical skills, and various managerial and business skills.

*Lead Agency/Partnership: BOCES and JCC*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of persons completing training; Satisfaction level of employers*

*A.8: Develop and promote adequate community support services required for a strong workforce*

In order to develop a strong workforce, some communities find it necessary to provide support for employees such as child care, elder care, and transportation alternatives. Support services should be marketed where available and expanded where not.

*Lead Agency/Partnership: Transit Providers and Community Action Planning Council*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Overall satisfaction of workers and businesses with community support services; Specific items completed*

*A.9: Establish a connection with Canadian universities to advertise jobs*

Increasing the labor pool for hard to fill positions to include applicants from Eastern Ontario could improve capacity at local businesses. Identify universities and colleges that offer programs that relate to the skills needed for Jefferson County's targeted industries and reach out to those entities with career opportunity information for positions that local employers have difficulty filling.

*Lead Agency/Partnership: JCIDA*

*Priority Level: Medium*

*Timeframe: Short*

*Performance Measure: Connections made; Persons hired*

*A.10: Increase awareness of available higher education offerings and continue to increase program offerings*

Jefferson County has a wide variety of education programs crossing many different disciplines and educational attainment levels. To improve the local workforce and encourage continued learning, the County should continue to market a "lifelong learning" strategy whereby residents are aware of the many available programs (Certificate programs, Associate's degrees, Bachelor's degrees and beyond) through JCC and its higher education partner institutions. County educational providers should recognize and encourage the various ways that residents can attain advanced degrees.

*Lead Agency/Partnership: JCC*

*Priority Level: Medium*  
*Timeframe: Mid*  
*Performance Measure: Number of people receiving advanced degrees*

## Goal: Cultivate a culture of entrepreneurship

### *B.1: Expand on existing support networks for entrepreneurs and new businesses, designed to help them grow and compete successfully*

Many entrepreneurs and small business owners need business-to-business networking to be able to get their business off the ground and expand. The County should support this kind of networking by recruiting successful entrepreneurs from the community and encouraging them to start an informal network, developed and led by the entrepreneurs (primarily driven by the private sector with support from the public sector). The entrepreneurs could host network events that bring together those with technical skills and those with business ideas to help encourage partnerships and business opportunities. Through this network, a mentoring program can be developed to provide hands-on experiences for budding and existing entrepreneurs. Bringing participants in from regional universities, such as Clarkson, could be the catalyst for significant innovation. Finally, this network can be used by the public sector to identify the skills and assets they need to succeed and how the County can support them.

*Lead Agency/Partnership: Chamber of Commerce and SBDC*  
*Priority Level: High*  
*Timeframe: Mid*  
*Performance Measure: Development of network and number of participants; New business start-ups; Venture and angel funding; Patents and intellectual property; Small Business Innovation Research and Small Business Technology Transfer funds received*

### *B.2: Continue to build on existing youth entrepreneurship programs*

Encouraging entrepreneurship from a young age is one of the best ways to eventually increase the amount of new businesses and start-ups. The County should continue to expand on entrepreneurship opportunities such as the annual E-Day (Entrepreneur Day) competition, which involves both high school and JCC students, and the Junior Leadership Institute.

*Lead Agency/Partnership: Area School Districts and JCC*  
*Priority Level: Medium*  
*Timeframe: Mid*  
*Performance Measure: Number of participants; Level of satisfaction*

### *B.3: Study the feasibility of establishing an entrepreneur incubator space*

Incubators have long been a way to bring together start-up businesses and entrepreneurs and offer low cost space and shared support services. In this modern era where much work can be done digitally, existence of the physical incubator is not as important as the support services and networking opportunities afforded by an incubator. Fort Drum, JCC, and SBDC should consider the feasibility of establishing an incubator that is focused on offering services and technical assistance for entrepreneurs looking to start a new business and shared space, if desired. The incubator should be a place to make connections and that offers courses, "lunch and learn" events and other networking opportunities to help support entrepreneurs. The feasibility study should consider the number of interested participants,

need for and cost of space, funding opportunities, and other factors that would impact the success of the incubator.

*Lead Agency/Partnership: JCC, JCIDA, and SBDC*  
*Priority Level: Medium*  
*Timeframe: Mid*  
*Performance Measure: Completion of feasibility study*

*B.4: Promote existing sources of capital and work to find new sources for entrepreneurs*

In order to assist new businesses, it is necessary that the County continue to advertise existing sources of funds as well as establish and identify sources of a venture capital fund, angel investment, crowd-sourced funding, or other sources of equity investment available to local entrepreneurs. These may include public or private funds. The County should plan the recapitalization of their microenterprise RLF.

*Lead Agency/Partnership: JCIDA*  
*Priority Level: Medium*  
*Timeframe: Short*  
*Performance Measure: Venture and angel capital; SBIR and STTR funding; Grants and loans received; Debt and equity raised*

*B.5: Establish a more intensive mentoring program and improve regional partnerships*

There is additional need for mentoring small businesses (beyond the start-up stage) in their effort to expand their markets and continue to innovate. This mentoring program should focus primarily on production industries and helping business owners expand markets and find growth potential. This type of program would likely work better as a regional effort with surrounding counties and population centers as that will increase available resources and bring more entrepreneurs and mentors together.

*Lead Agency/Partnership: SBDC, JCIDA, and JCC*  
*Priority Level: Medium*  
*Timeframe: Long*  
*Performance Measure: Number of mentors; Number of mentees; Level of satisfaction with the program*

*B.6: Support existing small business assistance programs and transitional classes aimed at Fort Drum retirees and soldiers separating from service*

Retired military personnel and their families are often potential entrepreneurs that could have a positive impact on the County with some targeted business support services to help them focus their ideas and use their unique skill set. This will increase the probability that they will remain in the area and will also increase the potential for their business to be a success.

*Lead Agency/Partnership: WIB and SBDC*  
*Priority Level: Medium*  
*Timeframe: Ongoing*  
*Performance Measure: Number of participants; Number of persons getting work or starting a business*

*B.7: Continue training opportunities through the Small Business Development Center*

The Small Business Development Corporation offers counseling and training as a core service to budding entrepreneurs and it has had a great impact on many start-up businesses. The SBDC should continue to help with business planning, financial management and human resource issues. The SBDC should also train business owners using a curriculum developed by the State Manufacturing Extension Partnerships based on "innovation engineering" as a way to increase internal innovation and product development.

*Lead Agency/Partnership: SBDC and CITEC*

*Priority Level: Medium*

*Timeframe: Short*

*Performance Measure: Number of participants; Level of satisfaction*

*B.8: Connect with seasonal homeowners looking to start their own business*

The recent Thousand Island International Tourism Council survey of seasonal residents indicated 4.5% were interested in owning and/or operating a local business. These seasonal homeowners should be encouraged to look into starting their own business. Local business opportunities and services should be promoted as ways to assist them in achieving their goals.

*Lead Agency/Partnership: JCIDA, SBDC, and TIITC*

*Priority Level: Medium*

*Timeframe: Long*

*Performance Measure: Number of persons served; Number considering starting a business*

## Goal: Develop first-class amenities to support growth (infrastructure, facilities, and alternative energy)

*C.1: Complete the Watertown International Airport development plan, addressing both future aviation and corporate park needs*

Following the expansion of the County's Foreign Trade Zone and considering its strategic location along the Ottawa-Washington corridor, the demand for corporate park space is expected to increase throughout the region in the coming years. The JCIDA is beginning to examine the feasibility of developing a new corporate park at the Watertown International Airport (WIA). This work should continue and include planning for infrastructure and buildings to enable development of a capital and financing budget as well as marketing.

*Lead Agency/Partnership: JCIDA and Jefferson County*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Completion of Plan*

*C.2: Analyze adaptive re-use opportunities for the Mercy Care Center health complex in downtown Watertown*

The anticipated closure of Mercy Care nursing home on Stone Street will leave approximately 420,000 square feet of vacant space in downtown Watertown. The City and the Watertown LDC have been proactive about beginning to market this soon-to-be-vacant health care complex by having preliminary discussions with potential developers about redevelopment options. To enhance these efforts, commence a thorough market analysis and feasibility study to identify specific re-use opportunities for

the site such as multi-family housing. As part of this analysis, development costs should be estimated and funding sources identified. Utilize findings from the study to market the site to potential developers.

*Lead Agency/Partnership: City of Watertown and Watertown LDC*  
*Priority Level: High*  
*Timeframe: Short*  
*Performance Measure: Completion of evaluation*

### *C.3: Consider expansion of broadband access and "last mile" infrastructure*

Leverage utilization of the Development Authority of the North Country's (DANC's) Open Area Telecomm Network (OATN) to expand service capability and redundancy improvements through regional connections. Implement affordable "last mile" technology to ensure high speed broadband connectivity from business locations to main transmission lines.

*Lead Agency/Partnership: DANC and FDRHPO*  
*Priority Level: High*  
*Timeframe: Short*  
*Performance Measure: Number of businesses that have broadband access; Access speeds; Number of providers or presence of providers*

### *C.4: Support biomass utilization and development*

Jefferson County's abundant farm and forest lands have the potential to provide alternative energy to the region. The biomass cogeneration project at Fort Drum, ReEnergy Inc., presents an opportunity for the region as it will serve as a catalyst for smaller projects by providing the critical mass demand for fuel. Continue to support the ReEnergy Black River project and explore the greater potential for biomass in the region.

*Lead Agency/Partnership: JCIDA*  
*Priority Level: High*  
*Timeframe: Mid*  
*Performance Measure: Number of new biomass projects; Funding received*

### *C.5: Participate in planning for long term upgrades to County's electrical distribution and transmission infrastructure*

Similar to other communities throughout New York State and the nation, the County's electrical grid infrastructure is dated and is limiting economic growth. Some local energy sources are not able to be transmitted through the existing infrastructure. Additionally, 3-phase power is not available in some of the rural parts of the County, meaning that some farmers are using more expensive power to operate their equipment. The County should have a dialogue with National Grid and state officials to identify areas most in-need of improvements to the electrical grid.

*Lead Agency/Partnership: National Grid, State, and Federal Government*  
*Priority Level: High*  
*Timeframe: Long*  
*Performance Measure: Regional and local equipment updates completed*

*C.6: Feasibility study on anaerobic digester*

Tightening environmental regulations regarding methane management and the increasing cost of energy are major concerns for farmers. A centrally located anaerobic digester system that ultimately converts the methane into energy could help to mitigate both of these threats, thus reducing the cost of doing business for farmers. Initiate a study to examine the benefits and barriers to the implementation of centralized or regionalized anaerobic digestion in Jefferson County.

*Lead Agency/Partnership: JCIDA*  
*Priority Level: Medium*  
*Timeframe: Long*  
*Performance Measure: Completion of study*

*C.7: Participate in the North Country Regional Economic Development Council's Cleaner, Greener, Communities Sustainability Plan*

Support Essex County in the development of a comprehensive energy sustainability plan for the North Country Region. Completion of this plan will provide the region with access to future energy efficiency and project development funds for local businesses and organizations.

*Lead Agency/Partnership: Jefferson County*  
*Priority Level: Medium*  
*Timeframe: Short*  
*Performance Measure: Completion of sustainability plan; Number of meetings attended; Funds received*

*C.8: Support the development of appropriate alternative energy production facilities utilizing hydro, wind, or solar power.*

As part of the County's efforts to improve sustainability as well as quality of life in the region, continue to monitor advancements in alternative energy technology and identify opportunities to implement use of these technologies. Advancements in run-of-river technologies may provide opportunities to further tap local hydropower potential. Local wind resources create the potential for on-site and commercial wind projects, where appropriate. Photovoltaic advances offer greater solar potential for public and private facilities.

*Lead Agency/Partnership: JCIDA*  
*Priority Level: Medium*  
*Timeframe: Ongoing*  
*Performance Measure: Alternative energy projects*

*C.9: Capital Project: Proceed with implementation of Watertown International Airport Master Plan for aviation improvements.*

The addition of American Airlines/American Eagle flights to Chicago from the Watertown International Airport has had a very positive reception from local residents and has benefited the business and military community. Continue incremental aviation infrastructure and equipment improvements to support and leverage additional commercial passenger and private aviation services.

*Lead Agency/Partnership: Jefferson County*  
*Priority Level: High*  
*Timeframe: Long*

*Performance Measure: Master Plan project implementation*

*C.10: Capital Project: Develop and market Watertown International Airport corporate park*

Establish a corporate park adjacent to the Watertown International Airport and ensure the site is “shovel-ready” by developing necessary infrastructure. Market the availability of the shovel-ready sites on local economic development websites, such as Drum Country Business as well as regional site selector websites.

*Lead Agency/Partnership: Jefferson County and JCIDA*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Completion of project, Number of tenants*

## Goal: Improve business development, communications, marketing, and networking to enhance the economic climate

*D.1: Enhance existing business retention and expansion efforts*

A more formal evaluation of Jefferson County businesses is needed to support business retention and expansion efforts by ensuring that workforce, financial, space, etc. needs are being met. Expand the Visitation & Outreach Program to increase the number of businesses visited on an annual basis - possibly recruit additional JCIDA staff or staff from partner organizations to assist with this effort. Ensure that legacy businesses are visited regularly and results of each visitation should be systematically tracked for follow up efforts.

*Lead Agency/Partnership: JCIDA*

*Priority Level: High*

*Timeframe: Ongoing*

*Performance Measure: Number of businesses visited; Positive ratings of retention efforts by businesses visited; Employment growth by existing businesses; Investment by existing businesses; Number of referrals made*

*D.2: Continue participation in the "Drum Country Business" regional marketing effort*

This partnership markets the collective assets of Jefferson, Lewis, and St. Lawrence County around their shared connection to Fort Drum and the economic opportunities related to post operations, post-related growth, and associated workforce. Targeted industries include light manufacturing, food processing, renewable energy, and back office/call center operations.

Drum Country Business has a very attractive website with relevant information; however, it needs to appear higher in web-searches. “Drum Country” is not a widely recognized term outside the region. Increase the website’s ranking in search results by reviewing and expanding its keywords. Primary keywords should include: economic development, business, incentives, commercial, industrial, workforce, land for sale, starting a business, demographics, targeted industries, wages, map, etc. Regional modifiers should include: New York State, Upstate New York, Central New York, Northern New York, North Country, Jefferson County, Fort Drum, Tug Hill, Northeast, etc.

*Lead Agency/Partnership: JCIDA and partners*

*Priority Level: High*

*Timeframe: Ongoing*

*Performance Measure: Number of partnership activities; New Businesses, employment, and investment resulting from effort; Number of website referrals to County websites from Drum Country website*

#### *D.3: Public official economic development training*

A 2012 workshop for public officials on economic development practices and the nature of the site selection process was well attended and well received. Many participants requested additional training on this and related topics. Conduct additional workshops and training sessions to continue learning opportunities on economic development-related issues.

*Lead Agency/Partnership: JCIDA and partners*

*Priority Level: High*

*Timeframe: Ongoing*

*Performance Measure: Number of officials trained; Rating of training; Indication that training improved understanding*

#### *D.4: Finalize Canadian Version of JCIDA Website*

Jefferson County is well positioned to capitalize on its proximity to Ontario, Canada through business attraction and expansion efforts. Finalize the Canadian version of the JCIDA website and hold a virtual event to launch the website. Once the website has been launched, update it on a monthly basis to maximize search optimization and ensure information is accurate, fresh, and relevant. To drive even more users consider running a low-budget Google Adwords campaign targeted to Ontario, Canada.

*Lead Agency/Partnership: JCIDA*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Page visits; Information downloaded; Inquiries coming in from website; Length of page visits*

#### *D.5: Develop updated marketing materials (including brochure) promoting Jefferson County as a desirable business location*

Create an updated brochure that is consistent with JCIDA's newly revamped website, reflecting its color theme, and overall message. Provide meaningful information of interest to site selectors and business executives; profile targeted industries and provide information on the availability of Foreign Trade Zone benefits. Develop fact sheets for each targeted sector and make them available on the website with links to information on workforce and regional assets. Utilize a QR Code to direct people to the JCIDA website; consider developing a mobile-friendly landing page for this QR code.

Hard-copy materials become out of date quickly. For this action to be meaningful, the brochure and fact sheets must contain current, relevant information. Design the materials in a manner so that text and figures are easily updated. Only print enough hard-copies needed for 6 months at a time and update the information every 6 months.

*Lead Agency/Partnership: JCIDA*

*Priority Level: Medium*

*Timeframe: Short*

*Performance Measure: Number of brochures requested or downloaded; Number of contacts/inquiries made*

*D.6: Analyze feasibility of a web-based Jefferson County Project Development Portal*

To streamline business and property development in the County, analyze the feasibility of a web-based project development portal containing information about community, county, state, permitting and project review processes; financial assistance available; and other information resources.

*Lead Agency/Partnership: JCIDA, County, and Municipalities*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Completion of analysis*

*D.7: Increase efforts to attract Canadian firms to the County*

Continue to attend Canadian business events to identify and develop relationships with firms that may want/need to be in the US. Continue to be an active member of the Interactive Manufacturing Innovation Network (iMiN). Investigate opportunities to work cooperatively with the other North Country region counties to address common interests in Canadian business recruitment.

Another tool to increase attraction efforts is to make sure the process is as seamless as possible by designating a Canadian liaison who is familiar with all U.S. and State regulations and will assist Canadian businesses with all tax and environmental requirements. On the Canadian version of the JCIDA website, profile the Canadian liaison on the home page.

*Lead Agency/Partnership: JCIDA, Thousand Islands International Tourism Council, and Capital Corridor*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of connections; Number of inquiries; Number of business and employment from Canada investing in County; Dollar amount of Canadian investment; Number of promotion efforts; Number participants/consumers; Rating of helpfulness by users*

*D.8: Facilitate cross-border business-to-business opportunities*

Develop partnerships with the Canadian economic development professionals and organizations to create cross-border networking opportunities for U.S. and Canadian businesses. Consider reaching out to the manufacturing industry and identifying possible expansion projects that would benefit from having a U.S. presence and being in Jefferson County. The JCIDA can do this by continuing to network through the iMiN, host and attend trade shows, and build relationships with business professionals and advocates throughout the region.

*Lead Agency/Partnership: JCIDA, Thousand Island International Tourism Council, and Capital Corridor*

*Priority Level: Medium*

*Timeframe: Ongoing*

*Performance Measure: Connections made; Number of business in network*

*D.9: Continue implementation of growth management principles to maintain military and community land use compatibility*

Use the FDRLO growth management plan recommendations to share information about development patterns and post activities to prevent encroachment concerns. Continue promotion of maps and planning guides to elevate awareness of potential encroachment conflicts.

*Lead Agency/Partnership: County Planning Departments, FDRLO, Municipalities, and NYS Tug Hill Commission*  
*Priority Level: Medium*  
*Timeframe: Ongoing*  
*Performance Measure: Satisfaction ratings with partnership and understanding between Fort Drum and Community; Number of acres involved in encroachment proposals*

*D.10: Continue to promote the use of Watertown International Airport for passenger service*

Following the introduction of American Eagle commercial jet service in late 2011, the number of passengers utilizing the airport has increased significantly. There continues to be opportunity for further local and regional promotion of the airport that could transition into additional flights and destinations at the airport. Consider potential for expanding Canadian market capture rate.

*Lead Agency/Partnership: Chamber of Commerce, Jefferson County, and Thousand Islands International Tourism Council*  
*Priority Level: Medium*  
*Timeframe: Long*  
*Performance Measure: Number of annual enplanements; Number of service providers*

## Goal: Enhance quality of life advantages of the County to support local residents, the workforce, and to facilitate business investment

*E. 1: Continue to support 'Buy Local' campaigns and farmers markets*

Continue to support the establishment of farmers markets in the County and encourage customers to buy local. Inexpensive support could include assisting farmers with signage, promotion, and identifying new markets. Communication with County residents is important to make sure the farmers markets are meeting their needs and the importance of their support is recognized.

*Lead Agency/Partnership: JCIDA, Chambers of Commerce, and Cooperative Extension*  
*Priority Level: High*  
*Timeframe: Short*  
*Performance Measure: Number of farmers markets; Number of customers*

*E.2: Continually evolve County housing strategy to facilitate response to new unit demand and rehabilitation needs*

Housing is a major concern in the County in terms of quality and affordability. The State, region, and County should continue to pursue available financial tools, grants, and housing resources to assist development of new units to meet the County's unique housing demands. County housing organizations should conduct periodic gap analyses to estimate unit shortfalls as the basis for local housing decision-making and continue leveraging rehabilitation funding to further improve the viability of the County's existing housing stock.

*Lead Agency/Partnership: DANC, FDRLO, County, and Local Municipalities*  
*Priority Level: High*  
*Timeframe: Medium*  
*Performance Measure: Number of units rehabbed; New housing starts; Housing affordability index (cost relative to income)*

*E.3: Continue reinvesting in downtowns, community centers and areas with infrastructure*

In addition to the City of Watertown, Jefferson County has many smaller downtowns that have experienced decades of disinvestment and are in need of revitalization to improve their viability. Municipalities should undertake pre-development planning and apply for grants that will assist with downtown revitalization efforts. Sources should include the New York Main Street program, Community Development Block Grant program, United States Department of Agriculture Rural Business Enterprise Grants, and NYS CFA opportunities.

*Lead Agency/Partnership: Municipalities, with assistance from County Planning Department, regional agencies, and downtown development organizations*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Establishment, employment, and population growth in downtown areas; Property value growth in downtowns*

*E.4: Increase year round arts and cultural offerings*

Increasing the number of arts and cultural offerings will benefit residents and also visitors who may want to extend their stay if there were more things to do. Working with a wide variety of arts and cultural organizations throughout the County, expand promotion of calendars of events throughout the year. Particular attention should be given to increasing options in the "shoulder" seasons and family events.

*Lead Agency/Partnership: North Country Arts Council and area chambers of commerce*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of events and participants*

*E.5: Maintain regular communication between Fort Drum and the community*

It is crucially important to continue open and regular communication through the FDRLO for partnering on military and community needs, opportunities, and challenges. This communication is the foundation for leveraging new economic development opportunities associated with the Post.

*Lead Agency/Partnership: FDRLO, AUSA and FDRLO member organizations*

*Priority Level: Medium*

*Timeframe: Ongoing*

*Performance Measure: Ratings of level of satisfaction and understanding between County and Fort Drum Community; Number of collaborative projects*

*E.6: Implement recommendations from Fort Drum Regional Transit Needs Assessment*

The recently completed Regional Transit Needs Assessment identified a number of recommendations for increased coordination to improve mobility and public transit alternatives to meet workforce commuting needs. All involved organizations and current transit providers should implement these recommendations as a way to improve the quality of life and economic opportunities for residents.

*Lead Agency/Partnership: Transit Providers, City of Watertown, and FDRLO Transit Group*

*Priority Level: Medium*

*Timeframe: Long*

*Performance Measure: Needs Assessment recommendations implemented*

*E.7: Improve government service delivery in key areas that affect business sustainability and growth prospects*

Throughout New York State, many communities are looking for ways to reduce their tax burden through local government efficiency studies and dissolution/merger feasibility analyses. Communities in Jefferson County should continue to look to the Department of State Local Government Efficiency program for funds to evaluate means to reduce the cost of local government operations.

*Lead Agency/Partnership: Municipalities and School Boards*

*Priority Level: Medium*

*Timeframe: Ongoing*

*Performance Measure: Completion of studies; Implementation of recommendations*

*Capital Project E.8: Upgrade Emergency Public Safety Radio System*

The County's Emergency Public Safety Radio System is in need of upgrades to improve aging technology and to develop a multi-jurisdictional shared radio system.

*Lead Agency/Partnership: Jefferson County*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Implementation of shared radio system*

## Goal: Retain, attract, and grow the County's target industries

### **Target Industry: Manufacturing**

*F.1: Expand manufacturing collaboration initiatives*

Manufacturing collaboratives are typically led by existing manufacturers within a region to leverage the resources and networks to support and grow the sector. Jefferson County's public/private manufacturing collaborative should advocate for and attempt to address the workforce issues and other issues related to their ability to expand and be successful. It is important that the collaborative include county economic development professionals, but should be primarily driven through a private effort to increase the information that is coming directly from those in the field and with the intimate knowledge of the industry needs. The County should build on the success and momentum of the Manufacturers Summit and continue to support similar events.

*Lead Agency/Partnership: JCIDA and WIB*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Presence of new collaborative*

*F.2: Develop appropriate youth workforce development programs*

Work with local manufacturing firms to determine their workforce needs and develop the appropriate school-based programs to address those needs. Educate students, parents, teachers and guidance counselors on the opportunities in production-related careers. Find creative ways to connect students and educators with local businesses, such as bringing a student or two on business visitations and allow them to see the production facilities. Support funding for BOCES classes that provide the skills needed in manufacturing positions and encourage full enrollment to keep the classes going. Reach out to regional employers for financial assistance or partnerships.

*Lead Agency/Partnership: BOCES, WIB, and schools districts*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Number of students, counselors, parents participating; Number of students going into manufacturing programs*

### *F.3: Develop appropriate adult workforce development programs*

Develop adult-oriented training and certification programs to help address the existing skills gap and challenge posed by an aging workforce. Use information from the industry to necessary skills and make sure the programs are marketed and scheduled to be available to a wide variety of residents.

*Lead Agency/Partnership: BOCES, WIB, and schools districts*

*Priority Level: High*

*Timeframe: Mid*

*Performance Measure: Number participating; Number hired by manufacturing firms*

### *F.4: Focus on targeted manufacturing supply industries*

Targeting supply chains for the regional manufacturing industry will not only increase job opportunities for County residents but will benefit existing manufacturers by reducing costs. Hold a supplier conference to offer target industry suppliers a more in-depth look at County opportunities and assets for their business development. The County should focus on the full production chain and identify areas where the County could be successful at attracting supporting industries.

*Lead Agency/Partnership: JCIDA*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of suppliers at conference; Number of connections made*

### *F.5: Attract dairy product manufacturing firms*

Jefferson County has a wealth of dairy farms and dairy manufacturing firms that benefit from being located close to their suppliers. Since Jefferson County is a reliable source of raw materials needed for dairy manufacturing, there is an opportunity to grow the dairy manufacturing industry in Jefferson County. Identify firms that are either considering another location in NYS or firms from other parts of the country looking to relocate/expand. The marketing strategy to these firms should focus on Jefferson County's ability to meet the raw material demand of its manufacturers.

*Lead Agency/Partnership: JCIDA*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of firms attracted*

### *F.6: Support business location and expansion efforts through financial assistance and incentives*

Assist new and expanding businesses in accessing the appropriate local, regional, and state programs to facilitate project completion and success.

*Lead Agency/Partnership: JCIDA*

*Priority Level: Medium*

*Timeframe: Ongoing*

*Performance Measure: Number of expansions and attractions*

*F.7: Capital Project: Improve and expand rail infrastructure and rail siding availability*

Rail infrastructure is an important locational factor for existing and new industries. The rail infrastructure exists in Jefferson County but additional rail sidings are needed to make the sites more attractive. Identify strategic locations/businesses in the County that would benefit from rail sidings and begin planning for installation of sidings in these locations. Monitor state and federal resources to identify funding opportunities for such projects.

*Lead Agency/Partnership: JCIDA*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of additional rail sidings*

***Target Industry: Tourism, Accommodation, Food Services, and Retail Trade***

*G.1: Continue to develop, enhance, and market recreational opportunities*

Jefferson County has a wide range of high quality recreational resources such as trails, state parks, water access, beaches, and many more. These resources are wonderful assets for the County and communities should continue to pursue grant opportunities for public recreation resource development, such as trails, park lands, and waterfront access. The County should continue to support and develop recreational opportunities and resources.

There are many ways to disseminate tourism and recreation information. Technology and new media should continue to be utilized in addition to traditional hard-copy marketing materials. Consider mobile apps that inform visitors of nearby attractions.

*Lead Agency/Partnership: Municipalities, area Chambers of Commerce, trail organizations, and Thousand Islands International Tourism Council*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Increase in trail mileage; Number of venues; Number of events; Number of visitors to recreation areas; Money spent on recreation; Length of average overnight stays*

*G.2: Continually enhance promotion of the Thousand Islands-Seaway Wine Trail and Thousand Islands Agricultural Tour*

The Thousand Island-Seaway Wine Trail and the Thousand Islands Agricultural Tour have been attracting visitors to the region to experience the unique wine and value added products that come from local farms and vineyards. The organizations should continue marketing projects focused on agri-tourism and develop a forum for cooperative marketing that integrates agriculture and local foods into the County's tourism industry.

*Lead Agency/Partnership: Thousand Island International Tourism Council and Thousand Island Seaway Trail Association and JCIDA*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Number of visitors; Amount of money spent by visitors*

*G.3: Continue to market the Greater Watertown area as an international retail destination*

The Watertown area has become known as a major regional retail destination for consumers which has led to the development of a significant amount of retail and service sector businesses. Local tourism promoters and chambers of commerce should continue to reach out to regional and international consumer markets within driving distance to attract consumers to the Greater Watertown area.

*Lead Agency/Partnership: Thousand Islands International Tourism Council and Chamber of Commerce*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Number of visitors to Watertown; Sales tax revenue*

*G.4: Consider a retail recruitment strategy*

The County should work to identify other retailers that might want to locate a new store in the Watertown area and target them for attraction. Retail recruitment efforts include targeting retailers that would appeal to a local and international consumer. Increasing the amount and variety of offerings will support other retail in the area and make the City and County an even larger service center.

*Lead Agency/Partnership: Chamber of Commerce*

*Priority Level: Low*

*Timeframe: Long*

*Performance Measure: Number of connections made; Number of new businesses established*

*G.5: Facilitate and encourage investment in public and private tourism infrastructure to achieve standards comparable to competing destinations*

Public and private investment in tourism infrastructure is necessary to continue to attract new visitors, increase visitor stays and improve on visitor return rates. Upgrades for planned resort and hotel projects and re-developments should be encouraged. Improvements to municipal infrastructure to increase viability of private resort\hotel investments are also needed. Particular focus should be placed on specific tourism hub communities where the highest potential interest exists for additional tourism development.

*Lead Agency/Partnership: Municipalities and TIITC*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Public and private money invested in new infrastructure*

*G.6: Continue development of hospitably sector workforce needs*

With such a large retail and food service industry, Jefferson County industry should work to differentiate itself from other retail and hospitality destinations by providing impeccable customer service. Customer service skills can be improved through certificate programs and community college courses that target the hospitality sector and related skills. Improvements in these areas will increase the length of visitor stays, improve quality of life for residents and increase sales at local businesses and restaurants.

*Lead Agency/Partnership: JCC and BOCES*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Customer service satisfaction levels; Number of students completing program*

*G.7: Commission Jefferson County Multi-Use Facility feasibility study*

Conduct a feasibility study to analyze the development of a multi-use facility for large community events, concerts, and other large functions. This type of facility would add a new venue to host art and cultural events. The findings of the feasibility study should be considered and funds sought for implementation if feasible. See also goal/action I.5.

*Lead Agency/Partnership: JCC Foundation and others*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Completion of feasibility study*

*G.8: Pursue continuing implementation of recommendations of recently completed Local Waterfront Revitalization Plans and the Black River Blueway Trail Plan*

A major recreational resource for the County is its myriad of waterfronts. Planning and marketing efforts should continue to maximize recreational utilization of the Black River, Lake Ontario, St. Lawrence River, and Indian River Lakes. Maximizing the recreational use of these resources by implementing the findings of the plans will improve local quality of life and increase visitation to the area.

*Lead Agency/Partnership: Municipalities*

*Priority Level: Low*

*Timeframe: Long*

*Performance Measure: Specific plan items completed*

**Target Industry: Agriculture**

*Action H.1: Develop and market local value-added products*

Value added agricultural products can generate higher profits. County organizations can assist farmers with making this transition and help with marketing and promotion of Jefferson County products. Key to success will be finding ways to differentiate Jefferson County and North Country products from other regions. Successful marketing will require high levels of visibility, accessing major and minor food markets, and developing unique but highly accessible products that the public wants. Tourists and residents alike are putting more emphasis on local products and are willing to pay a premium for such products.

*Lead Agency/Partnership: JCIDA and CCE*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Production output; Value/sales of production; Export volume*

*H.2: Improve production capacity of commodity and specialty crops and assist farms with diversification and new business startups*

Jefferson County has additional potential to increase commodity and specialty crop production such as corn, soybeans, grapes, hops, vegetables, maple syrup, and honey. Any effort to help farms increase their production of these crops will be beneficial to the local economy and will help farmers diversify their production. Assistance can come in the form of cooperative training programs, equipment sharing

and workforce training assistance to help farmers increase their specialty crop production and increase their profits.

*Lead Agency/Partnership: JCIDA and CCE*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Amount of commodity and specialty crop production*

### *H.3: Investigate the potential for biomass feedstock crop production*

Biomass as an alternative energy source has the potential to grow in Jefferson County. The production of these crops could encourage the utilization of marginal farmlands to meet the anticipated demand for biomass fuel while providing an additional source of revenue to landowners.

*Lead Agency/Partnership: JCIDA and CCE*

*Priority Level: High*

*Timeframe: Mid*

*Performance Measure: Completion of assessments/feasibility analysis; Amount and value of biomass crop growth*

### *H.4: Address needs of the dairy industry*

Jefferson County has a history and strength in the dairy industry that should be supported and encouraged to grow. There are unique needs and opportunities within the dairy industry that when addressed will allow for greater profitability and improved economic impact on local communities. The regional cluster of dairy product producers has been growing and Jefferson County is well positioned to capitalize on this cluster. The JCIDA's agriculture division can continue to assist with marketing, promotion, and technical assistance as farmers move into more value added product manufacturing. Keeping an open dialogue with the farmers will be necessary and important moving forward so that JCIDA and support organizations can help address future opportunities.

*Lead Agency/Partnership: JCIDA, CCE, SWCD, and USDA*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Number of dairy farms; Dairy farm sales*

### *H.5: Maintain and expand agricultural economic development efforts*

In addition to the dairy sector, the broader agriculture industry is important to the County's identity and economic climate. The County's agricultural representatives should work to maintain and expand efforts to assist in the retention, growth, and promotion of Jefferson County's entire agricultural industry and to increase the profitability of farming in the County.

The County should work with existing and new agricultural businesses to identify and address issues that impede success. Hearing from the agriculture industry could help to identify cooperative solutions that could address larger issues surrounding the need for expensive farm equipment, need for processing facilities and how to handle environmental regulations. Working together will help to strengthen the agriculture industry community and will facilitate practical solutions.

*Lead Agency/Partnership: JCIDA, CCE, and Farm Bureau*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of clients served by JCIDA; Level of client satisfaction*

*H.6: Update the County's Agricultural and Farmland Protection Plan*

The County's Agriculture and Farmland Protection Plan will be eligible for a State-assisted update in 2013. The update will allow the County to re-examine pressures on its agriculture land resource base and refine measures to maintain and improve the viability of local agricultural production.

*Lead Agency/Partnership: JCIDA, AFPB, and County*  
*Priority Level: Medium*  
*Timeframe: Short*  
*Performance Measure: Completion of updated plan*

*H.7: Develop appropriate agriculture workforce development programs*

Cornell Cooperative Extension is a great partner to the Jefferson County agriculture community. They offer training classes to farm employees to help create a workforce that can meet the needs of a changing and advancing agricultural industry. This type of training program (and ones offered through other avenues) will be necessary to help farms change with the times and continue to be successful. Consulting with the farmers and those in the industry about what type of training is necessary will be important so that the programs are effective and efficient.

*Lead Agency/Partnership: JCIDA, CCE, and WIB*  
*Priority Level: Medium*  
*Timeframe: Mid*  
*Performance Measure: Employment growth; Opinion of businesses on workforce availability and quality of workers; Length of time to fill openings*

*H.8: Promote existing sources of capital and work to find new sources to assist with the capital project needs of agriculture*

Agriculture is a capital intensive industry and the farmers do not always have the funds necessary to make needed upgrades. From dairy farms to vegetable growers, there is a need for financial and technical assistance for these producers interested in growing their production capability. The County should explore funding opportunities on behalf of the farmers to find ways to increase the amount of capital that is available for upgrades and expansion projects in the agriculture industry.

*Lead Agency/Partnership: JCIDA*  
*Priority Level: Medium*  
*Timeframe: Long*  
*Performance Measure: Number of farms assisted*

*H.9: Capital Project: Expand rail siding infrastructure*

An additional agriculture rail siding facility will support the transport of commodity crops to outside markets and expand the production capacity of the entire region.

*Lead Agency/Partnership: JCIDA*  
*Priority Level: High*  
*Timeframe: Medium*  
*Performance Measure: Number of rail siding developed*

**Target Industry: Health Care and Social Assistance**

*1.1: Develop a training cost sharing model to increase the pool of needed health care workers*

Nursing and health care programs are very expensive to run due to the high cost of equipment necessary for these types of classes. Recruit assistance from regional medical care providers and other sources to help pay for the cost of nursing and health care programs at JCC. Cost of supplies, cost of teachers, and other costs related to training could potentially be covered by regional sponsors who would benefit by having a larger pool of well-trained labor. The involvement of regional medical care providers will result in a better trained workforce that will possess the specific skills desired.

*Lead Agency/Partnership: JCC, FDRHPO, and WIB*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Completion of model, dollars spent for training, number of persons trained, number of persons hired following training*

*1.2: Offer tuition repayment or other incentives attract and retain top nursing educators*

It is difficult to attract and retain nursing educators because of the potential for higher pay in an urban clinic setting. Identify possible incentives for nursing educators to stay in Jefferson County, such as tuition repayment or tuition remission for family members.

*Lead Agency/Partnership: JCC and FDRHPO*

*Priority Level: Medium*

*Timeframe: Long*

*Performance Measure: Number of persons receiving subsidy and being retained or attracted*

*1.3: Hold an annual health care industry summit*

Each year, bring together health care providers from all aspects of the profession to gather information on their training needs, workforce issues, and opinions on directions of the industry. This summit should be targeted to health care providers in Jefferson County and throughout the Upstate New York region. Empower health care employees at all levels to get involved, including students of health care disciplines.

*Lead Agency/Partnership: FDRHPO, JPO, and RHA*

*Priority Level: Medium*

*Timeframe: Short*

*Performance Measure: Completion of summit, satisfaction scores of summit participants, number of participants*

*1.4: Continue youth shadowing internships*

FDRHPO provides paid internships for local youth interested in the health professions. Such experiences help to encourage the pursuit of healthcare related careers as well as educate the students on the opportunities available in the community. The students that participate in these programs are more likely to return to the area after their education, thereby aiding long-term recruitment of health care providers to the area.

*Lead Agency/Partnership: FDRHPO and RHA*

*Priority Level: Medium*

*Timeframe: Ongoing*

*Performance Measure: Number of participants*

*I.5: Conduct a feasibility study for Coffeen Street Higher Education Multi Use Complex*

There is a demand for additional health care classes at JCC. However, without adequate lab space, JCC is precluded from offering different sessions and more programs. Explore the potential for the Coffeen Street Higher Education Multi Use Complex to include lab space that would allow JCC and regional partners to expand their nursing program. See also multi-purpose facility, Goal/Action G.7.

*Lead Agency/Partnership: JCC, City, and County*

*Priority Level: High*

*Timeframe: Mid*

*Performance Measure: Completion of feasibility study; Implementation of project; Number of tenants*

**Target Industry: Information Technology**

*J.1: Develop a technology training and internship program to promote and support the use of new technologies in local businesses*

A technology training and internship program should be developed to assist small businesses with incorporating innovative uses of information technology to further their business. Local students (high school or college interns) could work with business owners to help them adapt to the changing technology and marketing climate. Training topics that local businesses can benefit from include creating a business website, internet advertising, and the use of social media. It is vitally important for instructors to keep the training material current and relevant.

*Lead Agency/Partnership: JCC and BOCES*

*Priority Level: High*

*Timeframe: Short*

*Performance Measure: Participants in program; Satisfaction with program; Skill improvement of participant*

*J.2: Pursue funding for Health Care Information Management/Technology Certificate*

In Jefferson County, there is a growing need for workers with both healthcare and IT skills. Work to develop on-the-job training or internship programs to ensure adequate supply of labor skilled in both health care and information technology. This type of certificate program will produce a workforce with the skills to support the growing health care industry through continual advancements in technology and the full utilization of the available systems throughout the region's health care centers.

*Lead Agency/Partnership: JCC and FDRHPO*

*Priority Level: High*

*Timeframe: Mid*

*Performance Measure: Number of participants; Number of participants hired after trained*

*J.3: Start an information technology peer group*

As noted above, information technology is constantly in flux. As such, this is an area where learning from other practitioners is highly useful. Recruit one or two people in the industry who would be interested in establishing a group to share information, offer workshops to teach each other skills, self direct

conversation, industry advocacy, collaborate and encourage innovation. After establishment, this group should be run by industry practitioners, not by economic development organizations.

*Lead Agency/Partnership: JCIDA*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of participants; Level of satisfaction; Connections made*

#### *J.4: Identify and develop IT skills needed in non-IT industries*

Most IT occupations are in fields other than traditional information technology industries. These industries, such as health care and manufacturing, have needs for individuals with IT skills. Include non-IT industries in the review of skills and workforce needs and develop training programs to develop the specific skills needed in these industries.

*Lead Agency/Partnership: WIB, BOCES, and JCC*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Number of participants in program; Satisfaction with program; Skill improvement of participants*

#### **Target Industry: Call Centers, Back Office Support Industries (Finance, Insurance, Real Estate)**

#### *K.1: Market the community's advanced telecommunications infrastructure and available labor force to attract back office operations*

Strategically identify business sectors and classifications that would benefit from the configuration and characteristics of Open Access Network (OAN). Market the reliability of the OAN system, including the very low-potential for natural hazards in Jefferson County that could disrupt the system. This is also a target industry in the regional Drum Country Business marketing effort.

*Lead Agency/Partnership: JCIDA and Drum Country Business*

*Priority Level: High*

*Timeframe: Mid*

*Performance Measure: Number of business connections; Number of businesses attracted*

#### *K.2: Begin a targeted marketing strategy for call center operations based on targeted industries and workforce capacity*

Meet with existing call center operators to discuss current needs, possible expansions, incentive programs, and other possible collaborations that would allow them to expand their current operations.

*Lead Agency/Partnership: JCIDA and Drum Country Business*

*Priority Level: Medium*

*Timeframe: Mid*

*Performance Measure: Level of satisfaction of existing call center operators; Number of new operators attracted*

## ADDITIONAL INFORMATION & REFERENCES

### Future Jobs - Projections vs. Predictions

It is important to understand the difference between projections and predictions. Projections provided in the previous sections are informed guesses based on past and current trends. EMSI creates long-term, 10-year industry projections starting from the current year (2012 for this particular report). Industry projections are based on a combination of:

- Recent trends in all industries for local geographies
- National industry projections produced by the Bureau of Labor Statistics (BLS)
- Regional projections produced by states (i.e. the New York State Department of Labor)

Most industries are projected by tracking recent county-level trends using a linear regression function based on data from 15, 10, and 5 years prior to the base year. Once this is done, state and local government industries are projected considering expected growth/decline of the local economy (rather than regression). It is also important to point out that federal government industries, including the military, are projected through linear regression at the national level. Once these initial projections are completed, EMSI performs a number of controls and adjustments based on other data sources including BLS and any state-level data that is available. While EMSI has one of the leading economic models available, no one can predict the future state of the economy.

### Converting Jobs by Industry to Jobs by Occupation

EMSI converts jobs by industry to jobs by occupation using a regionalized staffing pattern model, specific to each sub-state Occupational Employment Statistics (OES) region. Staffing patterns demonstrate the kinds and percentages of occupations employed within a particular industry. For example, a retail trade industry could be made up of all sorts of occupations from regional store managers to sales clerks to maintenance workers.

EMSI starts with ratios derived from the National Occupation Matrix (a national staffing pattern published by the Bureau of Labor Statistics) and inputs regional jobs by industry data into the matrix (based on actual survey data). The matrix converts jobs by industry into jobs by occupation based on the national matrix. Ratios in the matrix are adjusted so that jobs by occupation generated by the matrix equal occupation totals for the region. In some cases, EMSI's county level occupation numbers, especially in government, might be influenced by industry occupation patterns of the larger OES region. An example may be if there is a prison in the region, staffing patterns for the industry "state government" may be influenced in a neighboring county that does not have a prison. This occurs because state government employment is not available in more detail (e.g. state prison vs. state university employment).

### Total Jobs vs. Openings, Why look at both?

While "jobs" refers to the total number of positions in a region, "openings" represents the sum of **new and replacement jobs** in the position. Replacement jobs are estimated based on average turnover rates for particular an occupation (e.g. workers switching occupations, retiring, receiving promotions, etc.). Certain occupations have much higher turnover rates than others. For example, a good portion of wait-staff and retail cashier occupations are often filled by high school or college students who may only work in the position for a summer or semester, which drives the openings number up. It is important to consider new and replacement jobs for an occupation rather than just change in total jobs because there can be instances when there is occupational demand while at the same time the pool of total jobs is shrinking.

## A Deeper Look into NAICS 55: Management of Companies & Enterprises

From 2001 to 2012, the management of companies and enterprises industry lost over 700 jobs in Jefferson County. During an initial review of this EMSI data, members of the CEDS Steering Committee were unable to pinpoint the source of this significant job loss. To understand what the EMSI data is showing, Camoin Associates conducted additional research and data verifications. The results are summarized below.

EMSI industry data at the 6-digit NAICS level shows that almost all of the job loss during this time period occurred within NAICS 551114: corporate, subsidiary, and regional managing offices (referred to as the “managing offices industry”).

Industry Breakdown of Historic Change in NAICS 55				
Jefferson County				
NAICS	Industry	2001 Jobs	2012 Jobs	2001-2012
<b>55</b>	<b>Management of Companies and Enterprises</b>	<b>920</b>	<b>160</b>	<b>-760</b>
551111	Offices of Bank Holding Companies	0	0	0
551112	Offices of Other Holding Companies	72	<10	-70
551114	Corporate, Subsidiary, and Regional Managing Offices	848	160	-689
Economic Region				
NAICS	Industry	2001 Jobs	2012 Jobs	2001-2012
<b>55</b>	<b>Management of Companies and Enterprises</b>	<b>4,188</b>	<b>2,988</b>	<b>-1,200</b>
551111	Offices of Bank Holding Companies	0	<10	<10
551112	Offices of Other Holding Companies	211	230	19
551114	Corporate, Subsidiary, and Regional Managing Offices	3,976	2,751	-1,225

Source: EMSI

The NAICS definition of the managing offices subsector is:

*This U.S. industry comprises establishments (except government establishments) primarily engaged in administering, overseeing, and managing other establishments of the company or enterprise. These establishments normally undertake the strategic or organizational planning and decision-making role of the company or enterprise. Establishments in this industry may hold the securities of the company or enterprise.<sup>8</sup>*

Corresponding index entries for this industry include:

- Centralized administrative offices
- Corporate offices
- District and regional offices
- Head offices
- Holding companies that manage
- Subsidiary management offices

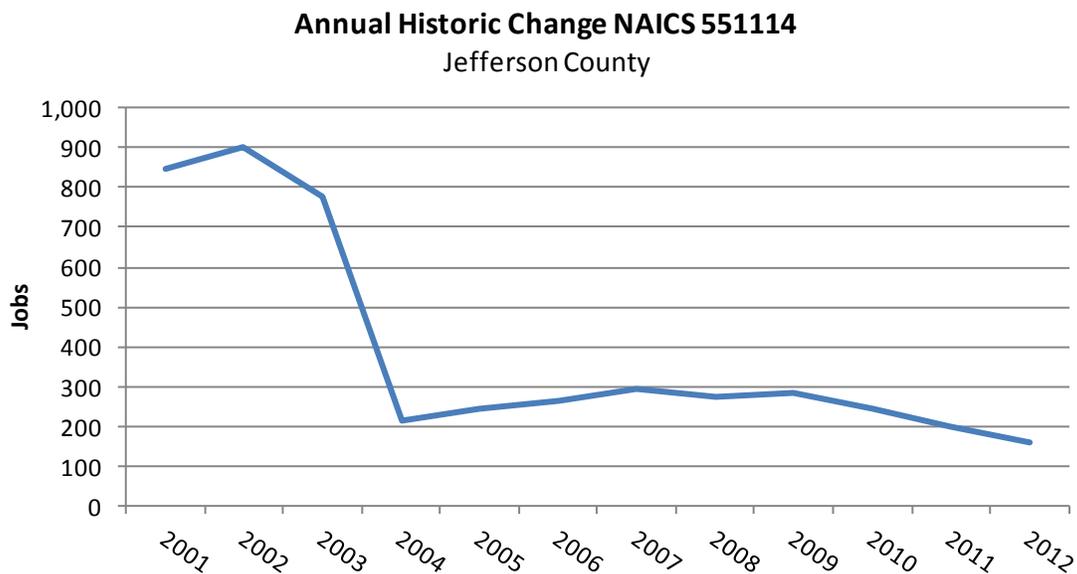
<sup>8</sup> NAICS Association <http://www.naics.com/censusfiles/ND551114.HTM>.

According to EMSI data from 2001-2012, the significant change in the management offices industry was not a gradual change; it dropped off between 2003 and 2004 when the industry went from 779 jobs to 214 jobs.

Annual Historic Change in NAICS 551114 Jefferson County	
Year	Jobs
2001	848
2002	900
2003	779
2004	214
2005	244
2006	266
2007	292
2008	274
2009	283
2010	245
2011	198
2012	159
<b>Change 2001-2012</b>	<b>-689</b>

Source: EMSI

NAICS 551114: Corporate, Subsidiary,  
 and Regional Managing Offices



Industry data from the New York State Department of Labor (DOL) one of the primary data sources EMSI uses to develop its industry data shows a similar decline occurring between the fourth quarter of 2003 and the first quarter of 2004. The DOL data also provides the number of reporting units or number of establishments reporting for the industry. As shown, the number of reporting units went from 37 in the third quarter of 2003 to 11 in the fourth quarter (change shown in the yellow in the table below). An

analyst at the DOL suggested that the change in reporting units may be a result of some businesses being reclassified under a different NAICS code, which would explain the 'drop' in employment.

DOL Data on Historic Trends for NAICS 551114 in Jefferson County				
Year	Quarter	Reporting Units*	Average Employment	
2010	Annual	15	220	
2010	1	14	212	
2010	2	14	222	
2010	3	15	226	
2010	4	15	220	
2009	Annual	15	257	
2009	1	14	241	
2009	2	15	258	
2009	3	15	265	
2009	4	15	265	
2008	Annual	14	249	
2008	1	14	252	
2008	2	14	249	
2008	3	14	250	
2008	4	14	245	
2007	Annual	15	266	
2007	1	15	257	
2007	2	15	265	
2007	3	15	269	
2007	4	15	272	
2006	Annual	15	245	
2006	1	15	243	
2006	2	15	246	
2006	3	15	251	
2006	4	15	241	
2005	Annual	12	224	
2005	1	12	211	
2005	2	12	221	
2005	3	12	231	
2005	4	12	232	
2004	Annual	11	197	
2004	1	9	188	
2004	2	11	176	
2004	3	12	215	
2004	4	12	210	
2003	Annual	24	724	
2003	1	11	745	
2003	2	11	757	
2003	3	37	714	
2003	4	36	680	

Source: NYS Department of Labor, Quarterly Census of Employment and Wages (QCEW) <http://www.labor.ny.gov/stats/ins.asp>.

\* Reporting Units - Term used by DOL for number of establishments.