Tri-County Technical College

Office of Institutional Effectiveness

2015 Environmental Scan Report
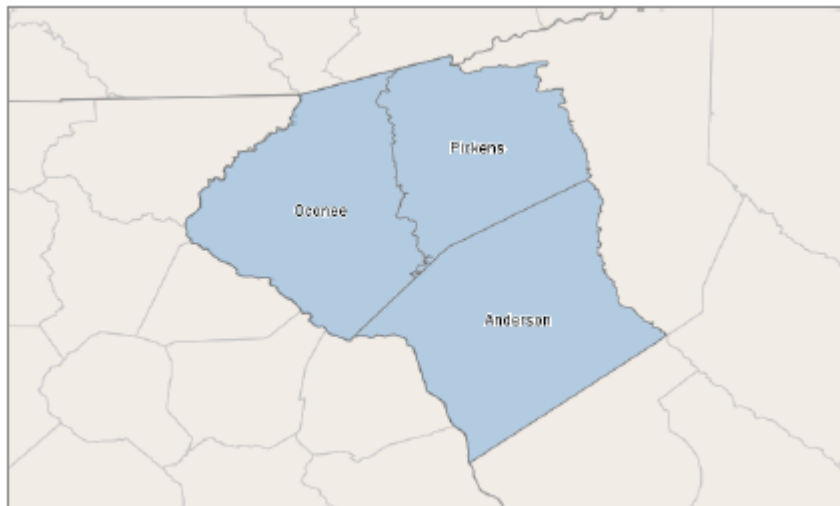
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2015 National Student Benchmarking Project - Tri-County Technical College

Form 1: Subscriber Information	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Service Area								
Service Area Total Population (Fall 2013)	389,684	62%	247	83,475	159,062	304,618	557,645	991,788
Service Area Unemployment Rate (Fall 2013)	6.30%	69%	244	4.09%	4.81%	5.70%	6.67%	8.10%
Service Area Median Household Income (Fall 2013)	$41,500	23%	243	$36,330	$42,017	$48,631	$55,776	$72,764
Enrollment Information								
IPEDS Enrollment (Fall 2013)	6,553	56%	248	1,989	3,627	5,984	10,146	17,629
Full-time Credit Headcount (Fall 2013)	3,681	73%	248	932	1,421	2,540	3,886	6,851
% of Full-time Students	56.17%	90%	248	30.26%	34.64%	40.30%	48.43%	56.24%
Part-time Credit Headcount (Fall 2013)	2,872	41%	248	983	1,965	3,358	6,302	10,315
% of Part-time Students	43.83%	10%	248	43.76%	51.57%	59.70%	65.36%	69.74%
% High School Student Concurrent Enrollment Headcount (Fall 2013)	9.30%	46%	239	1.80%	4.30%	10.20%	18.70%	27.50%
% Pell Grant Recipients (Fall 2013)	43.00%	53%	244	23.00%	31.00%	41.97%	52.60%	60.30%
Non-credit Headcount (Fall 2013)	3,257	74%	223	45	423	1,337	3,298	7,109
% Transfer Credit Hours (Fall 2013)	60.40%	59%	223	34.00%	44.87%	56.50%	66.00%	75.13%
% Technical/Career Credit Hours (Fall 2013)	34.80%	58%	221	13.99%	21.52%	31.00%	42.54%	50.96%
% Developmental Credit Hours (Fall 2013)	4.80%	6%	230	5.21%	7.25%	9.99%	12.92%	15.97%
% High School Student Concurrent Enrollment Credit Hours (Fall 2013)	4.50%	41%	217	0.90%	2.30%	6.00%	10.17%	17.02%
Credit Student Median Age (Fall 2013)	20	23%	242	20	21	22	24	26
% Female Credit Students (Fall 2013)	53.96%	18%	246	51.74%	54.89%	58.02%	61.00%	64.00%
First-generation Student (Fall 2013)	30.05%	34%	170	20.51%	26.00%	38.10%	52.15%	66.90%
Race/Ethnicity								
% Nonresident Alien (Fall 2013)		<1%	241	0.00%	0.00%	0.16%	1.00%	2.00%
% Hispanics of Any Race (Fall 2013)	3.48%	32%	248	1.38%	2.95%	5.00%	11.33%	28.39%
% American Indian or Alaskan Native (Fall 2013)	0.27%	29%	247	0.00%	0.21%	0.46%	1.00%	2.00%
% Asian (Fall 2013)	1.08%	43%	247	0.50%	0.90%	1.40%	2.93%	5.60%
% Black or African American (Fall 2013)	11.34%	69%	248	1.00%	3.00%	7.35%	14.45%	24.37%
% Nat. Hawaiian, Pacific Islander (Fall 2013)	0.00%	-	244	0.00%	0.00%	0.06%	0.20%	0.41%
% White (Fall 2013)	80.77%	74%	248	33.35%	54.59%	69.90%	81.15%	87.05%
% Two or more Races/Ethnicities (Fall 2013)	1.89%	44%	243	0.00%	1.00%	2.00%	2.80%	3.76%
% Race/Ethnicity Unknown (Fall 2013)	1.16%	24%	248	0.29%	1.21%	3.00%	5.77%	10.00%
Fiscal Information								

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Tuition and Fees per Credit Hour (Fall 2013)	$152	76%	240	$81	$98	$124	$152	$170
Unrestricted Operating Funds (FY 2014)	$19,626,362	36%	230	$6,210,951	$12,732,114	$27,821,672	$52,317,957	$90,918,984
Restricted Operating Revenue	$14,352,609	69%	183	$0	$1,516,436	$7,423,282	$16,377,000	$28,680,112
Operating Revenue Sources								
% Funds From Local Sources (FY 2014)	11.77%	44%	224	0.00%	3.70%	14.50%	30.00%	50.29%
% Funds From State (FY 2014)	31.11%	71%	235	3.81%	10.00%	22.06%	33.10%	53.53%
% Funds From Tuition and Fees (FY 2014)	49.65%	66%	235	18.96%	25.86%	41.00%	55.00%	71.85%
Form 2: Student Completion and Transfer	Reported Value	% Rank	N	10th	25th	50th	75th	90th
% Completed/Transferred in Two Years (Full-time)								
% Completed in Two Years (On-time) (Fall 2012 Cohort)	12.30%	50%	180	3.66%	6.02%	12.12%	19.17%	26.36%
% Transferred in Two Years (Fall 2012 Cohort)	21.52%	92%	170	3.79%	5.55%	8.71%	14.99%	20.69%
% Completed OR Transferred in Two Years (Fall 2012 Cohort)	33.82%	79%	170	9.92%	14.88%	22.78%	30.86%	44.78%
% Completed AND Transferred in Two Years (Fall 2012 Cohort)	7.29%	85%	180	0.00%	0.16%	1.20%	4.71%	9.02%
% Completed in Three Years								
Full-time, First-time (Fall 2011 Cohort)	21.04%	48%	232	10.68%	14.93%	21.37%	27.62%	34.05%
Part-time, First-time (Fall 2011 Cohort)	7.42%	62%	203	2.70%	3.96%	6.26%	9.17%	17.16%
% Transferred in Three Years								
Full-time, First-time (Fall 2011 Cohort)	26.10%	89%	222	7.54%	11.18%	15.78%	21.91%	26.63%
Part-time, First-time (Fall 2011 Cohort)	3.89%	10%	190	3.83%	7.08%	11.06%	15.69%	22.65%
% Completed OR Transferred in Three Years								
Full-time, First-time (Fall 2011 Cohort)	47.14%	78%	222	24.25%	31.46%	37.73%	46.33%	53.53%
Part-time, First-time (Fall 2011 Cohort)	11.31%	16%	188	10.11%	13.21%	18.11%	23.93%	33.87%
% Completed AND Transferred in Three Years								
Full-time, First-time (Fall 2011 Cohort)	10.37%	78%	232	0.00%	0.00%	4.84%	9.79%	13.97%
Part-time, First-time (Fall 2011 Cohort)	0.00%	-	203	0.00%	0.00%	0.56%	1.81%	3.25%
% Completed in Six Years								
Full-time, First-time (Fall 2008 Cohort)	18.55%	13%	207	16.65%	23.07%	30.56%	37.84%	45.13%
Part-time, First-time (Fall 2008 Cohort)	11.50%	23%	186	8.73%	11.97%	15.97%	22.06%	32.66%
% Transferred in Six Years								
Full-time, First-time (Fall 2008 Cohort)	37.65%	92%	198	10.68%	15.47%	20.99%	28.54%	34.75%
Part-time, First-time (Fall 2008 Cohort)	8.00%	14%	177	6.74%	11.05%	16.72%	24.45%	32.67%
% Completed OR Transferred in Six Years								

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Full-time, First-time (Fall 2008 Cohort)	56.20%	59%	196	37.96%	46.36%	52.43%	59.61%	70.90%
Part-time, First-time (Fall 2008 Cohort)	19.50%	9%	174	19.82%	27.48%	36.51%	45.40%	58.69%
% Completed AND Transferred in Six Years								
Full-time, First-time (Fall 2008 Cohort)	3.84%	24%	207	0.00%	4.16%	10.05%	16.27%	21.88%
Part-time, First-time (Fall 2008 Cohort)	2.00%	26%	186	0.00%	1.64%	3.80%	6.24%	8.68%

Form 3: Student Performance at Transfer Institutions (Most Recent AY)

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Cumulative First-year GPA		<1%	38	2.72	2.83	2.96	3.11	3.29
Average First-year Credit Hours		<1%	27	12.03	15.01	19.66	21.2	25.26
% Enrolled Next Year		<1%	45	63.89%	72.89%	76.50%	80.20%	84.00%

Form 4: Credit Student Enrollment (Fall 2013 Cohort)

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Fall-fall persistence Rate	48.48%	48%	239	41.21%	45.25%	48.78%	52.57%	56.26%
Next-term Persistence Rate	77.68%	88%	241	65.31%	68.56%	71.75%	74.98%	78.27%

Form 5: Student Satisfaction and Engagement (Most Recent Data)

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Ruffalo Noel Levitz Summary Items								
College experience met expectations	4.5	4%	89	4.6	4.7	4.9	5	5.1
Overall satisfaction with experience	5	6%	89	5.2	5.3	5.6	5.7	5.9
Would enroll here again	5.2	6%	89	5.4	5.6	5.7	6	6.2
Ruffalo Noel Levitz Satisfaction Scales								
Academic Advising/Counseling	5.1	18%	90	5	5.2	5.4	5.6	5.9
Academic Services	5.3	9%	66	5.3	5.4	5.7	5.9	6
Admissions & Financial Aid	4.9	7%	90	5	5.2	5.4	5.6	5.8
Campus Climate	5	7%	90	5.1	5.3	5.6	5.8	6
Campus Support Services	4.8	9%	90	4.8	5	5.4	5.6	5.9
Concern for the Individual	5	15%	67	5	5.2	5.4	5.6	5.8
Instructional Effectiveness	5	4%	90	5.2	5.4	5.6	5.7	5.9
Registrations Effectiveness	5.1	3%	90	5.3	5.5	5.6	5.8	5.9
Responsiveness to Diverse Populations	5.2	8%	66	5.2	5.4	5.7	5.8	6
Safety and Security	4.9	16%	90	4.7	5.2	5.4	5.7	5.9
Service Excellence	5	9%	66	5	5.2	5.5	5.6	5.8
Student Centeredness	5.1	7%	90	5.1	5.3	5.6	5.7	5.9

CCSSE Benchmarks								
Active & Collaborative Learning	51.7	76%	167	44.9	46.8	49	51.7	56
Student Effort	49.3	50%	167	45.5	47.1	49.3	51.3	54.6
Academic Challenge	48.8	43%	167	45.4	47.6	49.3	51.5	53.5
Student-Faculty Interaction	53.3	78%	167	46.5	48.8	50.6	52.9	55.3
Support for Learners	46.6	24%	167	45.1	46.7	49.8	52.5	55.8
ACT Student Opinion Survey								
Choose to attend this college		<1%	23	3.5	3.9	4	4.2	4.3
Overall impression of quality of education		<1%	23	3.4	3.6	3.8	3.9	4.2

Form 6: Student Goal Attainment (Most Recent Data)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
% Graduates and Completers		<1%	134	79.89%	87.10%	93.88%	97.30%	98.28%

Form 7: Credit College-level Retention, Success (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Retention Rate	90.64%	39%	244	86.42%	89.16%	91.36%	93.03%	94.62%
Enrollee Success Rate	73.86%	33%	244	70.32%	72.66%	76.24%	79.37%	83.13%
Completer Success Rate	81.48%	28%	244	78.07%	80.93%	83.91%	86.87%	89.51%

Form 8: Credit Developmental Retention, Success (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Math Retention Rate	86.41%	46%	244	77.80%	82.07%	87.10%	91.29%	94.93%
Writing Retention Rate	84.65%	26%	216	77.30%	84.36%	89.76%	93.58%	95.75%
Rdng/Writing Retention Rate		<1%	56	80.71%	85.15%	90.74%	94.27%	97.37%
Reading Retention Rate	87.83%	36%	205	75.98%	85.14%	90.55%	93.70%	96.62%
Math Enrollee Success Rate	57.14%	45%	244	47.43%	52.91%	58.56%	64.77%	70.87%
Writing Enrollee Success Rate	69.31%	63%	216	54.49%	59.58%	66.67%	71.78%	77.34%
Rdng/Writing Enrollee Success Rate		<1%	56	50.48%	61.23%	69.60%	78.25%	84.06%
Reading Enrollee Success Rate	78.71%	87%	205	54.86%	61.11%	67.75%	74.34%	80.56%
Math Completer Success Rate	66.13%	41%	244	55.92%	62.31%	67.74%	74.20%	81.44%
Writing Completer Success Rate	81.87%	78%	216	62.49%	69.38%	75.21%	81.46%	85.51%
Rdng/Writing Completer Success Rate		<1%	56	60.45%	70.36%	78.80%	84.73%	89.92%
Reading Completer Success Rate	89.61%	89%	205	62.89%	70.54%	77.38%	84.19%	90.45%

Form 9: Credit Developmental Retention, Success, First College-level (Fall 2012 Cohort)

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Math Retention Rate	92.91%	81%	229	77.40%	82.00%	87.56%	91.93%	95.08%
Writing Retention Rate	74.07%	5%	224	78.14%	85.26%	90.51%	94.10%	96.38%
Math Enrollee Success Rate	83.46%	95%	229	56.57%	60.36%	67.36%	73.91%	81.58%
Writing Enrollee Success Rate	51.85%	4%	224	56.98%	63.89%	70.43%	76.20%	83.33%
Math Completer Success Rate	89.83%	92%	229	67.77%	72.83%	78.01%	84.26%	88.15%
Writing Completer Success Rate	70.00%	14%	224	68.64%	73.69%	78.50%	84.31%	89.67%

Form 10: Career Program Completers (Most Recent Data)

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Employed in Related Field	68.86%	62%	188	37.44%	50.72%	63.75%	73.58%	81.26%
Pursuing Education	10.83%	21%	172	6.71%	11.29%	19.21%	33.03%	49.23%
Employers Satisfied with Preparation		<1%	61	81.69%	91.15%	94.85%	99.23%	100.00%

Form 11: Retention and Success Core Academic Skills (Fall 2013)

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Comp I Retention Rate	92.81%	70%	243	83.89%	87.14%	90.62%	93.40%	95.54%
Comp II Retention Rate	88.79%	62%	228	79.24%	83.49%	87.26%	91.23%	93.61%
Algebra Retention Rate	86.43%	54%	235	76.00%	79.66%	85.94%	90.98%	93.70%
Speech Retention Rate	93.04%	67%	238	85.08%	88.88%	91.24%	93.86%	95.97%
Comp I Enrollee Success Rate	80.23%	85%	244	60.84%	66.39%	71.83%	76.82%	80.91%
Comp II Enrollee Success Rate	72.41%	64%	228	60.87%	65.24%	70.26%	74.59%	79.41%
Algebra Enrollment Success Rate	54.29%	20%	236	49.30%	56.10%	63.41%	71.93%	79.08%
Speech Enrollee Success Rate	79.57%	53%	239	69.03%	73.68%	78.79%	83.18%	87.50%
Comp I Completer Success Rate	86.45%	85%	243	69.68%	75.09%	80.49%	84.38%	87.80%
Comp II Completer Success Rate	81.55%	57%	228	72.96%	77.56%	80.73%	84.30%	88.16%
Algebra Completer Success Rate	62.81%	11%	235	62.00%	68.22%	74.58%	82.52%	87.35%
Speech Completer Success Rate	85.51%	42%	238	78.15%	82.04%	86.83%	90.33%	93.85%

Form 12: Institution-wide Credit Grades (Fall 2013)

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
% Withdrawal	9.51%	59%	224	5.63%	6.99%	8.81%	11.21%	14.26%
% Completed	90.49%	41%	224	85.74%	88.79%	91.19%	93.01%	94.37%
% Completer Success	81.34%	35%	224	77.00%	80.19%	83.44%	86.02%	88.68%
% Enrollee Success	73.61%	37%	224	69.21%	71.60%	74.97%	78.38%	81.79%
% A & B Grades	55.86%	37%	224	51.28%	54.24%	57.86%	61.58%	66.07%

Form 13A: Minority Participation Rates (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
% Minority Credit Students	19.23%	36%	240	9.45%	14.90%	24.67%	40.23%	61.13%
% Minority Employees	13.26%	55%	224	2.94%	6.03%	11.61%	21.05%	36.63%
Minority Student/Population Ratio	1.05	23%	236	0.95	1.06	1.21	1.55	2.23
Minority Employee/Population Ratio	0.72	59%	221	0.29	0.49	0.63	0.86	1.16

Form 13B: High School Graduates (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
% Enrolling Public HS	24.92%	62%	154	9.00%	15.87%	22.69%	27.07%	33.47%
% Enrolling Private HS		<1%	85	2.86%	7.23%	13.33%	21.67%	36.93%
% Enrolling Total	24.92%	64%	173	9.64%	15.90%	22.67%	27.31%	33.19%

Form 14A: Market Penetration: Students (AY 2013-2014)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Credit Student Penetration Rate	2.23%	27%	237	1.51%	2.19%	3.05%	4.52%	6.25%
Non-credit Student Penetration Rate	1.82%	70%	222	0.12%	0.35%	1.01%	2.14%	4.87%

Form 14B: Market Penetration: Community (AY 2013-2014)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Cultural Activities		<1%	100	0.15%	0.96%	3.07%	10.81%	19.40%
Public Meetings		<1%	89	0.10%	1.12%	3.08%	9.34%	22.56%
Sporting Events		<1%	91	0.00%	0.12%	1.46%	5.33%	16.17%

Form 15: Non-Credit Workforce Training (FY 2014)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Duplicated Headcount	14,109	89%	166	342	1,126	2,552	6,195	16,094
Companies Served	95	68%	158	9	22	53	123	250
Total Costs	$2,133,172	82%	142	$92,261	$241,880	$606,250	$1,578,540	$2,904,274
Total Revenues	$2,200,257	82%	145	$112,210	$229,237	$650,944	$1,651,970	$3,232,707
Net Revenue	$67,085	65%	142	$-252,192	$-75,744	$21,059	$145,007	$613,574
Net Revenue as % of Total	3.05%	45%	142	-46.48%	-13.97%	5.58%	25.51%	47.36%

Form 16A: Average Credit Section Size (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Average Credit Section Size	20.06	72%	236	14.48	16.58	18.24	20.18	23.37

Form 16B: Credit Course Student/Faculty Ratio (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th

	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Student/Faculty Ratio	20.03	79%	230	11.64	14.09	17.32	19.51	22.19

Form 16C: Instructional Faculty Load (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
% Credit Hours by Full-time Faculty	50.50%	39%	219	38.63%	45.79%	53.71%	64.40%	75.99%
% Credit Hours by Part-time/Adjunct Faculty	49.50%	61%	219	24.01%	35.60%	46.29%	54.21%	61.37%
% Sections by Full-time Faculty	48.49%	39%	221	37.56%	43.60%	50.82%	61.91%	71.78%
% Sections by Part-time/Adjunct Faculty	51.51%	60%	221	28.22%	38.09%	49.18%	56.40%	62.44%

Form 17A: Distance Learning Credit Hours (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
DL % of Credit Hours	12.81%	38%	239	6.75%	10.58%	15.03%	21.56%	30.53%
DL % of Total Credit Sections	13.66%	52%	238	6.32%	9.52%	13.35%	20.05%	26.01%

Form 17B: Distance Learning Grades (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
% Withdrawal	15.07%	69%	221	7.00%	9.56%	11.96%	16.19%	19.86%
% Completed	84.93%	31%	221	80.14%	83.81%	88.04%	90.44%	93.00%
% Completer Success	78.74%	56%	221	69.16%	72.47%	77.69%	81.34%	84.41%
% Enrollee Success	66.88%	54%	221	59.27%	62.48%	66.34%	71.11%	75.89%
% A & B Grades	52.38%	53%	221	44.78%	47.68%	52.04%	57.02%	62.13%

Form 18: Student Services (Fall 2013)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Career Services	2,181.33	32%	176	1,088.70	1,844.00	3,222.83	5,107.00	7,207.00
Counseling and Advising	594.91	47%	197	323	448.82	612.09	855.55	1,302.85
Recruitment, Admissions, Registration	503.38	30%	195	283.38	466.8	685.8	1,032.00	1,441.02
Financial Aid	934.86	46%	192	496.94	689.53	987	1,433.16	2,069.99
Student Activities	6,544.00	94%	184	1,022.50	1,584.00	2,754.36	4,292.60	6,045.50
Testing & Assessment Services	3,272.00	66%	166	791.58	1,316.25	2,369.92	3,953.63	6,195.90

Form 19A: Retirements and Departures (AY 2013-2014)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Retirements Rate	2.69%	48%	189	1.22%	1.90%	2.72%	3.71%	5.00%
Departures Rate	6.89%	62%	190	2.71%	3.63%	6.08%	9.68%	13.09%

Form 19B: Grievances and Harassment Actions (AY 2013-2014)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Grievance Rate	0.0000%	-	160	0.0000%	0.0000%	0.1691%	0.4462%	0.9945%

Harassment Rate	0.1379%	51%	158	0.0000%	0.0000%	0.1338%	0.5022%	0.9103%

Form 20A: Instructional Cost (FY 2014)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Cost per Credit Hour	$94	3%	206	$111	$129	$158	$199	$285
Cost per FTE Student	$2,819	3%	206	$3,319	$3,855	$4,751	$5,961	$8,549

Form 20B: Development/Training Expenditures per FTE Employee (FY 2014)	Reported Value	% Rank	N	10th	25th	50th	75th	90th
Expenditures per FTE Employee	$327	50%	149	$47	$131	$319	$515	$852

2015 - Institutional Cost Report			Student Credit Hours Taught Per							
Tri-County Technical College			Full-Time FTE		Part-Time FTE		Other Full-Time		Student-Faculty Ratio	
CIP Code	Academic Discipline	Number of Disciplines Reported	Your Institution	National Means	Your Institution	National Means	Your Institution	National Means	Your Institution	National Means
09.07	Radio, Television, and Digital Communication	2	267.00		115.50		0.00		12.75	
09.0799	Radio, Television, and Digital Communication,	1	267.00		115.50		0.00		12.75	
11.01	Computer and Information Sciences, General	17	328.80	258.73	169.33	233.74	0.00	26.36	15.09	14.56
11.0101	Computer and Information Sciences, General	13	328.80	267.43	169.33	232.91	0.00	26.36	15.09	15.68
13.12	Teacher Education and Professional Development, Specific Levels and Methods	15	204.00	165.94	35.67	79.45	0.00	21.83	4.42	12.67
13.1210	Early Childhood Education and Teaching	10	204.00	205.57	35.67	88.22	0.00	21.83	4.42	12.24
14.01	Engineering, General	10	176.60	110.80	70.00	157.41	0.00	0.00	7.40	10.74
14.0101	Engineering, General	9	176.60	110.80	70.00	157.41	0.00	0.00	7.40	10.74
15.03	Electrical Engineering Technologies/Technicians	12	241.00	182.45	103.43	71.12	0.00	0.00	8.93	11.22
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	9	241.00	172.39	103.43	53.28	0.00	0.00	8.93	11.07
15.05	Environmental Control Technologies/Technicians	11	98.50	290.56	55.00	204.33	0.00	0.00	4.83	9.80
15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician	2	98.50		55.00		0.00		4.83	
15.13	Drafting/Design Engineering	19	82.75	85.87	52.57	66.04	0.00	0.00	4.24	8.58
15.1306	Mechanical Drafting and Mechanical Drafting	4	82.75		52.57		0.00		4.24	
23.01	English Language and Literature, General	16	283.11	244.23	168.22	237.75	0.00	17.57	14.38	19.00
23.0101	English Language and Literature, General	16	283.11	244.23	168.22	237.75	0.00	17.57	14.38	19.00
24.01	Liberal Arts and Sciences, General Studies and Humanities	17	305.64	213.19	212.30	233.50	0.00	0.00	15.85	22.60
24.0103	Humanities/Humanistic Studies	10	305.64	325.67	212.30	250.83	0.00	0.00	15.85	25.85
27.01	Mathematics	23	345.50	253.14	189.75	301.48	0.00	28.75	15.70	17.95
27.0101	Mathematics, General	22	345.50	250.94	189.75	300.56	0.00	28.75	15.70	17.58
43.01	Criminal Justice and Corrections	29	261.00	267.15	96.00	206.92	0.00	116.15	12.69	17.27
43.0104	Criminal Justice/Safety Studies	6	261.00	419.00	96.00	499.39	0.00	0.00	12.69	18.10
45.01	Social Sciences, General	11	159.21	240.12	285.53	388.91	0.00	0.00	15.23	19.83
45.0101	Social Sciences, General	11	159.21	240.12	285.53	388.91	0.00	0.00	15.23	19.83
47.03	Heavy/Industrial Equipment Maintenance	6	238.67	188.00	93.80	37.29	0.00	0.00	9.88	11.00
47.0303	Industrial Mechanics and Maintenance Technology	5	238.67	171.60	93.80	117.89	0.00	0.00	9.88	10.12
47.06	Vehicle Maintenance and Repair Technologies	48	0.00	214.38	85.25	147.43	0.00	0.00	5.68	16.38
47.0604	Automobile/Automotive Mechanics Technology/Technician	20	0.00	202.78	85.25	132.99	0.00	0.00	5.68	17.18
48.05	Precision Metal Working	31	125.20	205.28	87.83	110.48	0.00	0.00	6.41	12.20

Code	Program	Count								
48.0501	Machine Tool Technology/Machinist	8	181.00	215.85	71.00	109.94	0.00	0.00	9.62	11.92
48.0508	Welding Technology/Welder	20	88.00	203.06	91.20	93.87	0.00	0.00	5.33	12.88
51.06	Dental Support Services and Allied Professions	14	121.00	213.76	88.00	147.81	0.00	5.45	7.33	12.51
51.0601	Dental Assisting/Assistant	8	121.00	85.47	88.00	83.19	0.00	0.00	7.33	11.24
51.08	Allied Health and Medical Assisting Services	40	104.50	180.69	93.50	155.37	0.00	42.65	6.53	13.07
51.0808	Veterinary/Animal Health Technology/Technician and Veterinary Assistant	4	110.00		90.00		0.00			6.67	
51.0899	Allied Health and Medical Assisting Services, Other	7	88.00	373.13	97.00	300.39	0.00	0.00	6.32	15.51
51.09	Allied Health Diagnostic, Intervention, and Treatment Professions	53	195.00	182.48	0.00	193.13	0.00	60.93	6.50	12.84
51.0909	Surgical Technology/Technologist	11	195.00	168.79	0.00	99.42	0.00	0.00	6.50	13.59
51.10	Clinical/Medical Laboratory Science/Research and Allied Professions	12	167.00	268.92	48.00	66.75	0.00	10.01	6.60	18.58
51.1004	Clinical/Medical Laboratory Technician	6	167.00	276.72	48.00	58.43	0.00	10.01	6.60	10.62
51.16	Nursing	16	167.53	189.11	0.00	72.17	0.00	0.00	5.74	14.80
51.1601	Nursing/Registered Nurse (RN, ASN, BSN, MSN)	7	154.56	188.28	0.00	100.90	0.00	50.58	5.89	15.96
51.1613	Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl, AAS)	4	236.67		0.00		0.00		5.26	
52.02	Business Administration, Management and	29	265.50	178.33	156.19	198.95	0.00	78.36	11.22	15.74
52.0201	Business Administration and Management, General	19	265.50	171.48	156.19	253.85	0.00	78.36	11.22	17.91
52.03	Accounting and Related Services	23	376.50	338.28	95.25	259.30	0.00	0.00	12.60	18.99
52.0302	Accounting Technology/Technician and	9	376.50	305.56	95.25	187.06	0.00	0.00	12.60	14.91
52.04	Business Operations Support and Assistant Services	17	261.00	202.91	93.14	190.67	0.00	38.33	8.70	10.98
52.0401	Administrative Assistant and Secretarial Science, General	9	261.00	238.89	93.14	190.33	0.00	38.33	8.70	12.91

| 2015 - Institutional Cost Report | | Number of Disciplines Reported | Percent Student Credit Hours Taught by | | | | | |
| Tri-County Technical College | | | Full-Time Faculty | | Part-Time Faculty | | ther Full-Time Employe | |
CIP Code	Academic Discipline		Your Institution	National Means	Your Institution	National Means	Your Institution	National Means
09.07	Radio, Television, and Digital Communication	2	70.00%		30.00%		0.00%	
09.0799	Radio, Television, and Digital Communication, Other	1	70.00%		30.00%		0.00%	
11.01	Computer and Information Sciences, General	17	52.00%	50.00%	48.00%	50.00%	0.00%	0.00%
11.0101	Computer and Information Sciences, General	13	52.00%	50.00%	48.00%	50.00%	0.00%	0.00%
13.12	Teacher Education and Professional Development, Specific Levels and Methods	15	56.00%	65.00%	44.00%	35.00%	0.00%	0.00%
13.1210	Early Childhood Education and Teaching	10	56.00%	64.00%	44.00%	36.00%	0.00%	0.00%
14.01	Engineering, General	10	61.00%	53.00%	39.00%	47.00%	0.00%	0.00%
14.0101	Engineering, General	9	61.00%	53.00%	39.00%	47.00%	0.00%	0.00%
15.03	Electrical Engineering Technologies/Technicians	12	40.00%	74.00%	60.00%	26.00%	0.00%	0.00%
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	9	40.00%	78.00%	60.00%	22.00%	0.00%	0.00%
15.05	Environmental Control Technologies/Technicians	11	54.00%	64.00%	46.00%	36.00%	0.00%	0.00%
15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician	2	54.00%		46.00%		0.00%	
15.13	Drafting/Design Engineering Technologies/Technicians	19	47.00%	71.00%	53.00%	29.00%	0.00%	0.00%
15.1306	Mechanical Drafting and Mechanical Drafting CAD/CADD	4	47.00%		53.00%		0.00%	

23.01	English Language and Literature, General	16	54.00%	57.00%	46.00%	43.00%	0.00%	0.00%
23.0101	English Language and Literature, General	16	54.00%	57.00%	46.00%	43.00%	0.00%	0.00%
24.01	Liberal Arts and Sciences, General Studies and Humanities	17	44.00%	49.00%	56.00%	51.00%	0.00%	0.00%
24.0103	Humanities/Humanistic Studies	10	44.00%	45.00%	56.00%	55.00%	0.00%	0.00%
27.01	Mathematics	23	43.00%	62.00%	57.00%	38.00%	0.00%	0.00%
27.0101	Mathematics, General	22	43.00%	62.00%	57.00%	38.00%	0.00%	0.00%
43.01	Criminal Justice and Corrections	29	78.00%	54.00%	22.00%	45.00%	0.00%	1.00%
43.0104	Criminal Justice/Safety Studies	6	78.00%	54.00%	22.00%	46.00%	0.00%	0.00%
45.01	Social Sciences, General	11	31.00%	38.00%	69.00%	62.00%	0.00%	0.00%
45.0101	Social Sciences, General	11	31.00%	38.00%	69.00%	62.00%	0.00%	0.00%
47.03	Heavy/Industrial Equipment Maintenance Technologies	6	60.00%	90.00%	40.00%	10.00%	0.00%	0.00%
47.0303	Industrial Mechanics and Maintenance Technology	5	60.00%	63.00%	40.00%	37.00%	0.00%	0.00%
47.06	Vehicle Maintenance and Repair Technologies	48	0.00%	86.00%	100.00%	14.00%	0.00%	0.00%
47.0604	Automobile/Automotive Mechanics Technology/Technician	20	0.00%	83.00%	100.00%	17.00%	0.00%	0.00%
48.05	Precision Metal Working	31	54.00%	77.00%	46.00%	23.00%	0.00%	0.00%
48.0501	Machine Tool Technology/Machinist	8	84.00%	83.00%	16.00%	17.00%	0.00%	0.00%
48.0508	Welding Technology/Welder	20	37.00%	77.00%	63.00%	23.00%	0.00%	0.00%
51.06	Dental Support Services and Allied Professions	14	73.00%	83.00%	27.00%	17.00%	0.00%	0.00%
51.0601	Dental Assisting/Assistant	8	73.00%	74.00%	27.00%	26.00%	0.00%	0.00%
51.08	Allied Health and Medical Assisting Services	40	43.00%	65.00%	57.00%	34.00%	0.00%	2.00%
51.0808	Veterinary/Animal Health Technology/Technician and Veterinary Assistant	4	55.00%		45.00%		0.00%	
51.0899	Allied Health and Medical Assisting Services, Other	7	23.00%	40.00%	77.00%	60.00%	0.00%	0.00%

51.09	Allied Health Diagnostic, Intervention, and Treatment Professions	53	100.00%	67.00%	0.00%	32.00%	0.00%	1.00%
51.0909	Surgical Technology/Technologist	11	100.00%	91.00%	0.00%	9.00%	0.00%	0.00%
51.10	Clinical/Medical Laboratory Science/Research and Allied Professions	12	72.00%	65.00%	28.00%	35.00%	0.00%	0.00%
51.1004	Clinical/Medical Laboratory Technician	6	72.00%	88.00%	28.00%	12.00%	0.00%	0.00%
51.16	Nursing	16	100.00%	87.00%	0.00%	13.00%	0.00%	0.00%
51.1601	Nursing/Registered Nurse (RN, ASN, BSN, MSN)	7	100.00%	86.00%	0.00%	13.00%	0.00%	1.00%
51.1613	Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl, AAS)	4	100.00%		0.00%		0.00%	
52.02	Business Administration, Management and Operations	29	18.00%	53.00%	82.00%	46.00%	0.00%	1.00%
52.0201	Business Administration and Management, General	19	18.00%	47.00%	82.00%	52.00%	0.00%	1.00%
52.03	Accounting and Related Services	23	66.00%	60.00%	34.00%	40.00%	0.00%	0.00%
52.0302	Accounting Technology/Technician and Bookkeeping	9	66.00%	60.00%	34.00%	40.00%	0.00%	0.00%
52.04	Business Operations Support and Assistant Services	17	44.00%	57.00%	56.00%	43.00%	0.00%	1.00%
52.0401	Administrative Assistant and Secretarial Science, General	9	44.00%	54.00%	56.00%	45.00%	0.00%	1.00%

2015 - Institutional Cost Report			Instructional Costs Per Student	
Tri-County Technical College			**Credit Hour**	
CIP Code	Academic Discipline	Number of Disciplines Reported	Your Institution	National Means
09.07	Radio, Television, and Digital Communication	2	$114.69	
09.0799	Radio, Television, and Digital Communication, Other	1	$114.69	
11.01	Computer and Information Sciences, General	17	$88.02	$96.26
11.0101	Computer and Information Sciences, General	13	$88.02	$97.33
13.12	Teacher Education and Professional Development, Specific Levels and Methods	15	$94.28	$129.88
13.1210	Early Childhood Education and Teaching	10	$94.28	$127.36
14.01	Engineering, General	10	$103.51	$165.92
14.0101	Engineering, General	9	$103.51	$178.87
15.03	Electrical Engineering Technologies/Technicians	12	$106.24	$222.79
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	9	$106.24	$214.75
15.05	Environmental Control Technologies/Technicians	11	$278.21	$223.61
15.0501	Heating, Ventilation, Air Conditioning and Refrigeration Engineering Technology/Technician	2	$278.21	
15.13	Drafting/Design Engineering Technologies/Technicians	19	$107.87	$167.55
15.1306	Mechanical Drafting and Mechanical Drafting CAD/CADD	4	$107.87	
23.01	English Language and Literature, General	16	$70.67	$94.41
23.0101	English Language and Literature, General	16	$70.67	$94.41
24.01	Liberal Arts and Sciences, General Studies and Humanities	17	$58.48	$78.50
24.0103	Humanities/Humanistic Studies	10	$58.48	$81.93
27.01	Mathematics	23	$53.96	$90.91
27.0101	Mathematics, General	22	$53.96	$90.62
43.01	Criminal Justice and Corrections	29	$104.18	$95.56
43.0104	Criminal Justice/Safety Studies	6	$104.18	$111.18
45.01	Social Sciences, General	11	$62.05	$66.60
45.0101	Social Sciences, General	11	$62.05	$66.60
47.03	Heavy/Industrial Equipment Maintenance Technologies	6	$95.78	$145.62

47.0303	Industrial Mechanics and Maintenance Technology	5	$95.78	$186.46
47.06	Vehicle Maintenance and Repair Technologies	48	$98.90	$165.70
47.0604	Automobile/Automotive Mechanics Technology/Technician	20	$98.90	$154.33
48.05	Precision Metal Working	31	$215.24	$146.37
48.0501	Machine Tool Technology/Machinist	8	$187.20	$196.55
48.0508	Welding Technology/Welder	20	$229.64	$143.11
51.06	Dental Support Services and Allied Professions	14	$199.93	$311.82
51.0601	Dental Assisting/Assistant	8	$199.93	$226.41
51.08	Allied Health and Medical Assisting Services	40	$189.90	$188.95
51.0808	Veterinary/Animal Health Technology/Technician and Veterinary Assistant	4	$275.55	
51.0899	Allied Health and Medical Assisting Services, Other	7	$81.68	$98.52
51.09	Allied Health Diagnostic, Intervention, and Treatment Professions	53	$189.89	$255.11
51.0909	Surgical Technology/Technologist	11	$189.89	$235.42
51.10	Clinical/Medical Laboratory Science/Research and Allied Professions	12	$131.52	$188.82
51.1004	Clinical/Medical Laboratory Technician	6	$131.52	$214.32
51.16	Nursing	16	$233.82	$214.97
51.1601	Nursing/Registered Nurse (RN, ASN, BSN, MSN)	7	$249.55	$275.84
51.1613	Licensed Practical/Vocational Nurse Training (LPN, LVN, Cert., Dipl, AAS)	4	$186.53	
52.02	Business Administration, Management and Operations	29	$66.96	$85.73
52.0201	Business Administration and Management, General	19	$66.96	$91.53
52.03	Accounting and Related Services	23	$66.03	$89.63
52.0302	Accounting Technology/Technician and Bookkeeping	9	$66.03	$80.39
52.04	Business Operations Support and Assistant Services	17	$89.85	$150.02
52.0401	Administrative Assistant and Secretarial Science, General	9	$89.85	$106.93

ECONOMIC OVERVIEW & PROGRAM GAP ANALYSIS

CONTENTS

INTRODUCTION

Community and technical colleges face challenges in their effort to identify and quantify program needs for regional residents and businesses. They must account for the changing economic dynamics within their service region, such as industry and occupation growth and decline, as well as the changing quality of the service region's workforce. Furthermore, as technology progresses, a growing need to address increasingly complex and specialized occupational tasks requires additional customization to education and training. As a result, community and technical colleges are increasingly called upon to incorporate relevant workforce development programs, academic-based programs, and technical programs in order to meet the needs of students and businesses.

To gain better insight on regional economic dynamics, Tri-County Technical College (TCTC) partnered with Economic Modeling Specialists Intl. (EMSI) to conduct an economic overview and program gap analysis within the college's service region. The analysis takes into account the educational output from TCTC and other regional institutions, and analyzes how the output aligns with regional employer demands. The goal of this analysis is to assist TCTC in its research, planning, and evaluation efforts for current and future program needs. This report will serve as a key data-driven component as TCTC continues to develop its strategic plan and evaluate the college's role within the service region.

The report is broken into three chapters. Chapter 1 provides an economic overview with high-level information regarding industry and program groups. Chapter 2 contains

FIGURE 1: TCTC Service Region
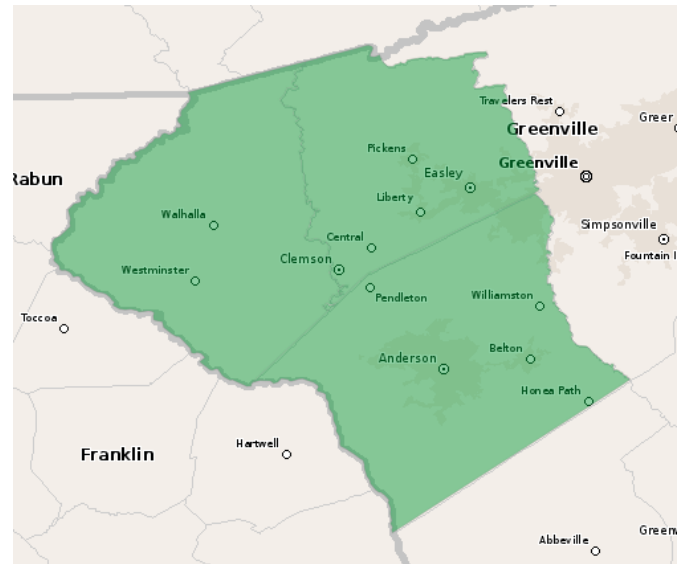
information related to the educational characteristics of the regional population according to gender and ethnicity. Chapter 3 summarizes the results of the program gap analysis and provides recommendations for possible future program needs. After a brief conclusion, detailed information and data are provided in the appendices.

The regional backdrop used in this report is defined by Anderson, Pickens, and Oconee Counties in upstate South Carolina (hereinafter referred to as the "TCTC Service Region"). Refer to Figure 1 for a map of the region. Note that the analysis presents economic data for industries and occupations by place of work, not by place of residence.[1]

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[1]   The workflow and commuting pattern analysis does, however, analyze commuting patterns to illustrate where residents travel to work.

ECONOMIC OVERVIEW

This chapter provides a high-level overview of economic performance within the TCTC Service Region. The goal of the chapter is to provide an understanding of the regional background and identify trends developing within the region. Such an overview is crucial in building awareness of regional economic strengths and the future direction of the economy. The chapter will examine regional trends through the following four overviews: industry, occupation, unemployment, and commuting patterns.

INDUSTRY OVERVIEW

Understanding the structure of a region's economy by evaluating the current and future employment size in each industry sector provides good context for the economic diversification within the college's service region. The two-digit codes represented in this section come from the North American Industry Classification System (NAICS) and represent the twenty top-level industries that the U.S. Census Bureau uses to classify earnings and workers in industrial categories. Figure 2 displays the industry sector overview for the TCTC Service Region in 2013, and further data is provided in Tables 1 and 2.

The regional economy is primarily driven by the Gov-

FIGURE 2: 2013 Jobs and 2013–2023 Job Change by Top-level Industry Sector
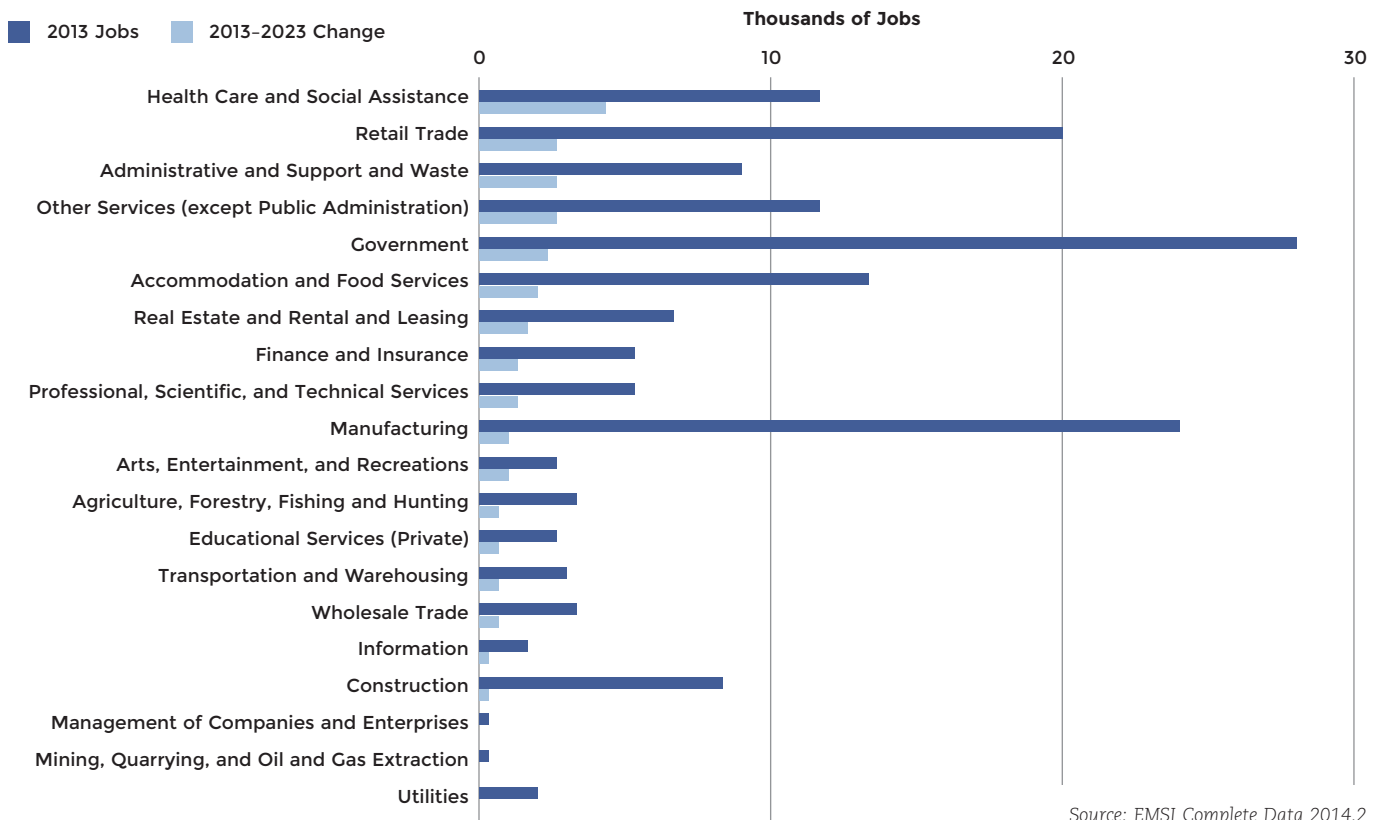
Source: EMSI Complete Data 2014.2

ernment, Manufacturing, and Retail Trade industry sectors. Government and Retail Trade sectors added new jobs between 2008 and 2013, while the Manufacturing sector contracted. All sectors in the service region are expected to grow through 2023. Healthcare & Social Assistance; Administrative & Support & Waste Management & Remediation Services; and Arts, Entertainment, & Recreation are all expected to grow by 30% or higher. Finance & Insurance; Educational Services (private); Information; Management of Companies & Enterprises; and Mining, Quarrying, & Oil and Gas Extraction are expected to grow by at least 26% through 2023.

The regional economy has long been reliant on the public sector and manufacturing, which has many mid to high-wage jobs. The larger projected increases in other industries, such as Finance & Insurance and Health Care & Social Assistance are diversifying the regional economy. While the Government and Manufacturing industries will likely continue to retain a significant presence, other emerging sectors are also offering career opportunities and family-sustaining wages.

INDUSTRY CONCENTRATION

Location quotient (LQ) variables provide perspective on regional comparative advantages in industry sectors. When evaluated jointly with the employment data, we gain a sense of which industry sectors can be leveraged for economic development and education alignment (i.e., the types of industries that TCTC may consider engaging in larger conversations about educational needs).

This analysis also gives a perspective on what economic

TABLE 1: TCTC Service Region Industry Overview

NAICS CODE	DESCRIPTION	2013 JOBS	2023 JOBS	2013-2023 CHANGE	2013-2023 % CHANGE
62	Health Care and Social Assistance	11,683	15,876	4,193	36%
44	Retail Trade	20,005	22,804	2,799	14%
56	Administrative and Support and Waste Management and Remediation Services	9,061	11,816	2,755	30%
81	Other Services (except Public Administration)	11,516	14,060	2,544	22%
90	Government	28,149	30,357	2,208	8%
72	Accommodation and Food Services	13,392	15,497	2,105	16%
53	Real Estate and Rental and Leasing	6,578	8,168	1,590	24%
52	Finance and Insurance	5,252	6,728	1,476	28%
54	Professional, Scientific, and Technical Services	5,260	6,469	1,209	23%
31	Manufacturing	23,908	24,977	1,069	4%
71	Arts, Entertainment, and Recreation	2,809	3,681	872	31%
11	Agriculture, Forestry, Fishing and Hunting	3,474	4,177	703	20%
61	Educational Services (Private)	2,600	3,290	690	27%
48	Transportation and Warehousing	2,901	3,576	675	23%
42	Wholesale Trade	3,494	4,088	594	17%
51	Information	1,675	2,132	457	27%
23	Construction	8,481	8,911	430	5%
55	Management of Companies and Enterprises	326	416	90	28%
21	Mining, Quarrying, and Oil and Gas Extraction	257	326	69	27%
22	Utilities	1,944	1,968	24	1%

Source: EMSI Complete Data 2014.2

TABLE 2: TCTC Service Region Industry Concentration

NAICS CODE	DESCRIPTION	2013 LOCATION QUOTIENT	2023 LOCATION QUOTIENT
22	Utilities	3.78	3.74
31	Manufacturing	2.12	2.14
90	Government	1.31	1.33
44	Retail Trade	1.24	1.28
81	Other Services (except Public Administration)	1.24	1.29
72	Accommodation and Food Services	1.15	1.13
11	Agriculture, Forestry, Fishing and Hunting	1.11	1.31
23	Construction	1.05	0.95
56	Administrative and Support and Waste Management and Remediation Services	0.90	0.93
53	Real Estate and Rental and Leasing	0.87	0.88
71	Arts, Entertainment, and Recreation	0.78	0.84
61	Educational Services (Private)	0.65	0.67
62	Health Care and Social Assistance	0.64	0.70
42	Wholesale Trade	0.62	0.63
52	Finance and Insurance	0.57	0.58
51	Information	0.57	0.67
48	Transportation and Warehousing	0.55	0.59
54	Professional, Scientific, and Technical Services	0.47	0.47
21	Mining, Quarrying, and Oil and Gas Extraction	0.20	0.18
55	Management of Companies and Enterprises	0.16	0.18

Source: EMSI Complete Data 2014.2

developers and workforce development consider in their decision-making. If TCTC is engaged in cross-organization collaboration, then understanding these components of the economy will help in facilitating meaningful conversations with other organizations.

Location quotients equal to 1 indicate that the region's industry concentration is equal to the national concentration of the same industries. Industries with a higher location quotient (usually greater than 1.2) indicate that a region has a comparative advantage or specialization in the production of that good or service, relative to the rest of the nation, or potentially other competing regions. Table 2 displays industry concentration for the main region in 2013 and projected to 2023. Please note that because LQ represents local employment relative to national employment, a decreasing LQ does not necessarily represent decreasing employment, and likewise an increasing LQ does not always correspond to increasing employment.

Within the TCTC Service Region, the following sectors have high levels of employment concentration: Utilities, Manufacturing, Government, Retail Trade, and Other Services (except public administration). These industries comprise over 85,000 jobs in the service region (about 63% of the total jobs). Construction is expected to move from more concentrated than the nation (1.05) to less concentrated (0.95). Some industry sectors, like Information and Arts, Entertainment, & Recreation are expected to increase in concentra-

tion over the next decade. Others concentrations with dependable wage rates, such as Health Care & Social Assistance and Professional, Scientific, & Technical, are expected to grow at a rate similar to the national average—thus making small gains in terms of LQ.

OCCUPATION OVERVIEW

While examining employment change by industry is an excellent way to measure the overall growth or decline of particular sectors, occupational data should also be analyzed to gain a deeper perspective of regional employment changes and needs. These data are particularly informative regarding occupational groups that are staffed frequently within several different industry sectors, such as computer and mathematical occupations, which are critical to Professional, Scientific & Technical Services, Information, and many other industry sectors. Furthermore, it is crucial to look at the breakdown of occupations as well as the projected number of available job openings for occupations.[2] EMSI's occupational data include not only new job growth,

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2   Specific occupation demand projections will be evaluated in the gap analysis portion of this report.

but also openings due to replacement jobs from worker turnover. Occupational data are classified at the federal level according to Standard Occupational Classification (SOC) codes. Figure 3 provides a look at the average annual job openings for positions that require a postsecondary certificate or above within the region by the high-level two-digit SOC, with additional employment, employment change, and earnings data available in Table 3.[3]

The regional economy is projected to experience the highest number of average annual job openings for postsecondary certificate holders and above within sales & related occupations, office & administrative support occupations, food preparation & serving related, and production. Note that individual occupations within each of those main groups can be lower-skilled, which means they could experience higher job turnover. It is notable that many of the higher-skilled occupational categories are projected to see rapid job growth, including healthcare practitioners & technical (25%), business & financial operations (25%), and computer & mathematical (26%).

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3   According to federal educational categories, such openings are bunched together with "some college, no degree," making it difficult to determine which openings in this range require college credentials and which do not.

FIGURE 3: 2013-2023 Average Annual Openings (Postsecondary Certificate and Above) in TCTC Service Region
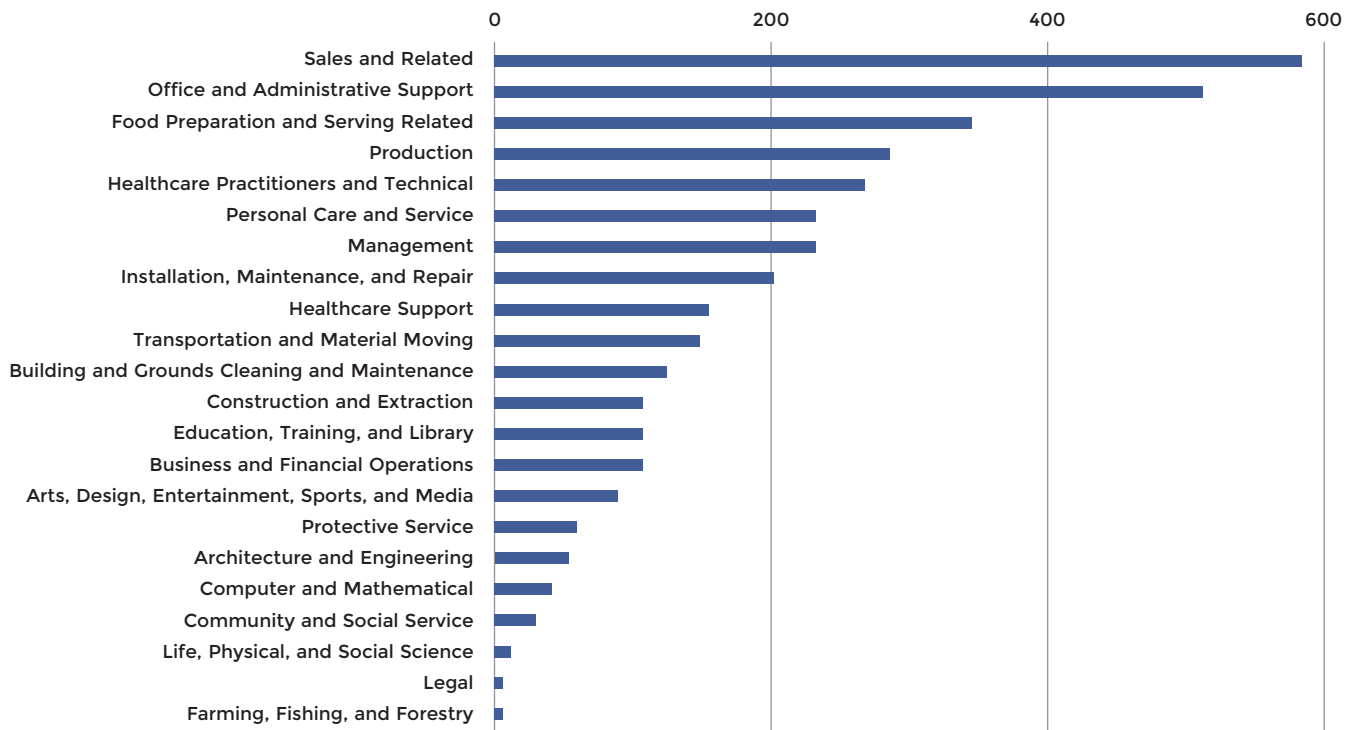
Source: EMSI Complete Data 2014.2

TABLE 3: TCTC Service Region Occupational Overview

SOC CODE	DESCRIPTION	2013 JOBS	2023 JOBS	CHANGE	% CHANGE	AVERAGE ANNUAL OPENINGS (CERTIFICATE LEVEL AND ABOVE)
41-0000	Sales and Related	22,275	25,987	3,712	17%	587
43-0000	Office and Administrative Support	19,153	21,703	2,550	13%	517
35-0000	Food Preparation and Serving Related	12,820	14,843	2,023	16%	347
51-0000	Production	17,449	18,448	999	6%	288
29-0000	Healthcare Practitioners and Technical	7,806	9,725	1,919	25%	268
39-0000	Personal Care and Service	6,945	9,069	2,124	31%	236
11-0000	Management	11,183	13,325	2,142	19%	233
49-0000	Installation, Maintenance, and Repair	6,951	8,100	1,149	17%	203
31-0000	Healthcare Support	3,625	4,797	1,172	32%	154
53-0000	Transportation and Material Moving	7,728	9,157	1,429	18%	149
37-0000	Building and Grounds Cleaning and Maintenance	7,381	9,129	1,748	24%	127
47-0000	Construction and Extraction	7,222	7,378	156	2%	108
25-0000	Education, Training, and Library	9,774	11,176	1,402	14%	106
13-0000	Business and Financial Operations	5,421	6,778	1,357	25%	105
27-0000	Arts, Design, Entertainment, Sports, and Media	3,598	4,468	870	24%	90
33-0000	Protective Service	1,888	2,078	190	10%	61
17-0000	Architecture and Engineering	2,877	3,117	240	8%	53
15-0000	Computer and Mathematical	1,782	2,254	472	26%	41
21-0000	Community and Social Service	2,135	2,497	362	17%	32
19-0000	Life, Physical, and Social Science	816	957	141	17%	12
23-0000	Legal	650	750	100	15%	7
45-0000	Farming, Fishing, and Forestry	465	461	(4)	(1%)	4
	Total	**159,944**	**186,197**	**26,253**	**16%**	**3,727**

Source: EMSI Complete Data 2014.2

EMPLOYMENT LOCATION AND WORKFORCE FLOWS

Based on U.S. Census longitudinal employment and housing dynamics (LEHD),[4] approximately 44% of region residents commute outside of the service region for work, indicating that there are strong economic links with surrounding communities. A significant number of the residents (25%) commute northeast to Greenville County for work.

Conversely, a smaller number of non-residents commute into the TCTC Service Region to fulfill the region's workforce needs. Of those, about 10% commute from Greenville County. Considering all three counties in the service region, 72% of those who work in the area also live in the area. These findings indicate that the TCTC Service Region is more heavily trafficked with outcommuters than with incommuters. However, adjacent counties outside the service region are still of interest due to the number of outcommuters to these areas—particularly Greenville and to a lesser degree, Spartanburg. Considering this, the dynamics of the workforce flows indicate that student residents who complete programs at TCTC will possibly not settle and work within the service region. There are a proportion of them that will continue to live in TCTC and work elsewhere, or they will live elsewhere and work in TCTC.

4   Longitudinal Employer-Household Dynamics (LEHD) is an innovative program within the U.S. Census Bureau. It uses modern statistical and computing techniques to combine federal and state administrative data on employers and employees with core Census Bureau censuses and surveys while protecting the confidentiality of people and firms that provide the data.

Figure 4 depicts concentrations of where residents in the service region commute to work. As the concentration of where residents work increases, the shaded areas become darker. Conversely, Figure 5 illustrates where workers within the service region live—i.e., where they commute from to work in the service region.

Table 4 lists the counties where service region residents commute as well as the estimated number of residents who commute to each county, while Table 5 lists the counties where service region workers live.

FIGURE 4: Commuting Patterns of TCTC Service Region Residents–Where Residents Commute to Work
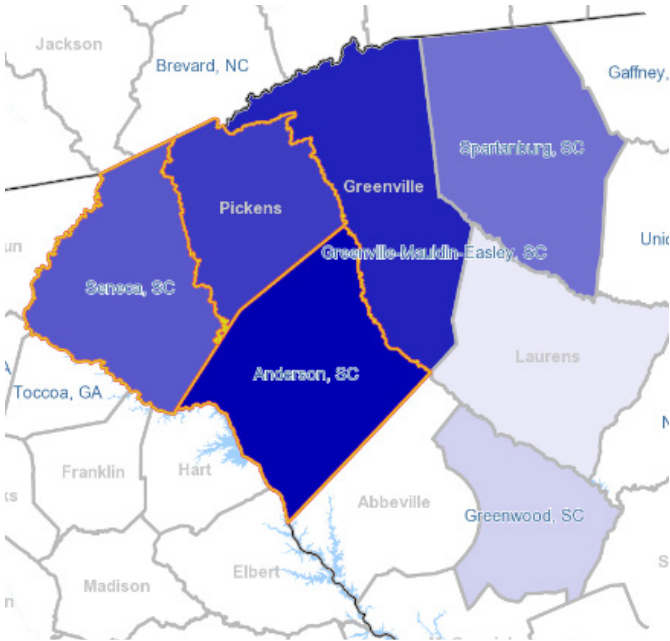
FIGURE 5: Commuting Patterns of TCTC Service Region Workers–Where Service Region Workers Live
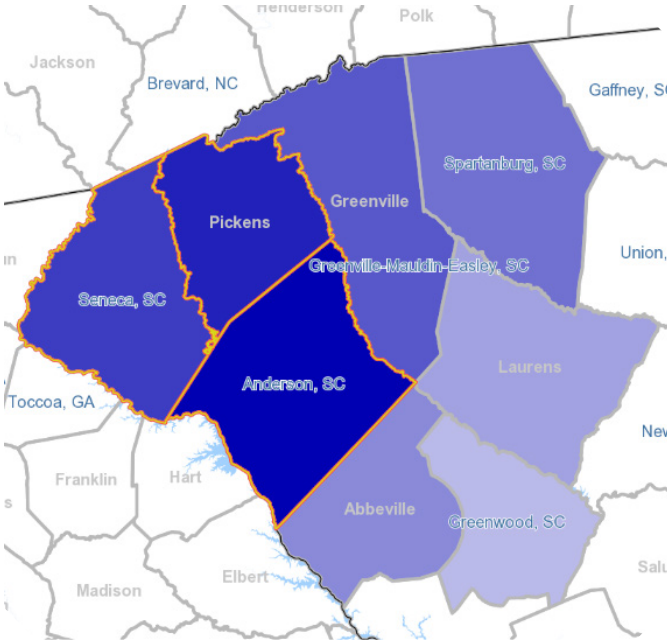
TABLE 4: Resident Places of Work (Primary Jobs)

PLACE	COUNT	COMMUTE SHARE
Anderson County, SC	38,835	27%
Greenville County, SC	35,715	25%
Pickens County, SC	23,811	17%
Oconee County, SC	16,534	12%
Spartanburg County, SC	5,042	4%
Richland County, SC	3,840	3%
Lexington County, SC	1,832	1%
Charleston County, SC	1,618	1%
Greenwood County, SC	1,527	1%
Laurens County, SC	1,031	1%
All Other Locations	12,850	9%

Source: Census LEHD

TABLE 5: Worker Places of Residence

PLACE	COUNT	COMMUTE SHARE
Anderson County, SC	39,573	36%
Pickens County, SC	22,051	20%
Oconee County, SC	17,556	16%
Greenville County, SC	11,564	10%
Spartanburg County, SC	2,664	2%
Abbeville County, SC	1,359	1%
Laurens County, SC	1,338	1%
Greenwood County, SC	1,114	1%
Richland County, SC	1,037	1%
Lexington County, SC	736	1%
All Other Locations	11,634	11%

Source: Census LEHD

UNEMPLOYMENT OVERVIEW

Evaluating unemployment within industries provides a key picture of where workforce talent is currently displaced within the service region. When combined with industry trends, the analysis can indicate where a skills mismatch may be occurring or provide further context to identify training programs for transitioning workers.

Figure 6 provides an overview of the number of people unemployed in the region according to the two-digit industry NAICS codes. Figure 7 provides a breakdown by two-digit SOC codes. Tables 6 and 7 include a breakdown of the unemployment number for February 2014, along with the percent of all unemployed. Please note that the number of unemployed shown in these tables is the same as the standard federal methodology, which measures the number of all workers recently employed in that category who are not currently employed. However, an unemployment rate by category is not provided because it is difficult to determine with accuracy the size of the labor force in a particular category on a monthly basis. Rather than an unemployment rate, the percent of all unemployed for the region and the nation are provided to display which categories are most concentrated with the unemployed.

The highest-ranking sector is Manufacturing (19% unemployed), likely reflecting the recent contraction in the

FIGURE 6: Industry Unemployment Overview in TCTC Service Region

Source: EMSI Total Unemployment (2/2014)
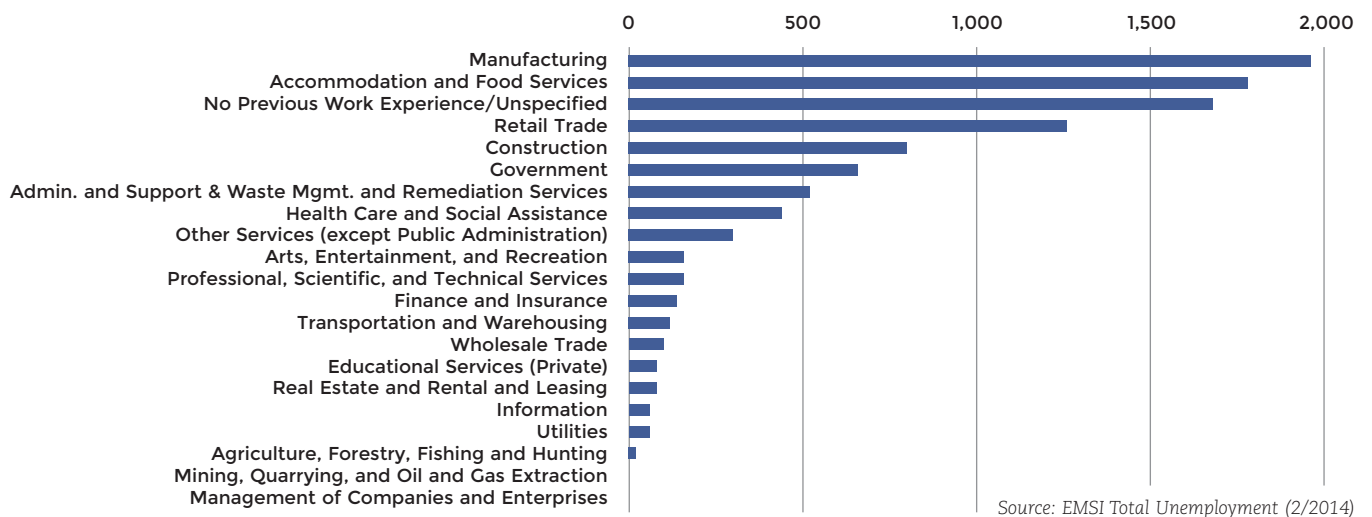
FIGURE 7: Occupation Unemployment Overview in TCTC Service Region

Source: EMSI Total Unemployment (2/2014)
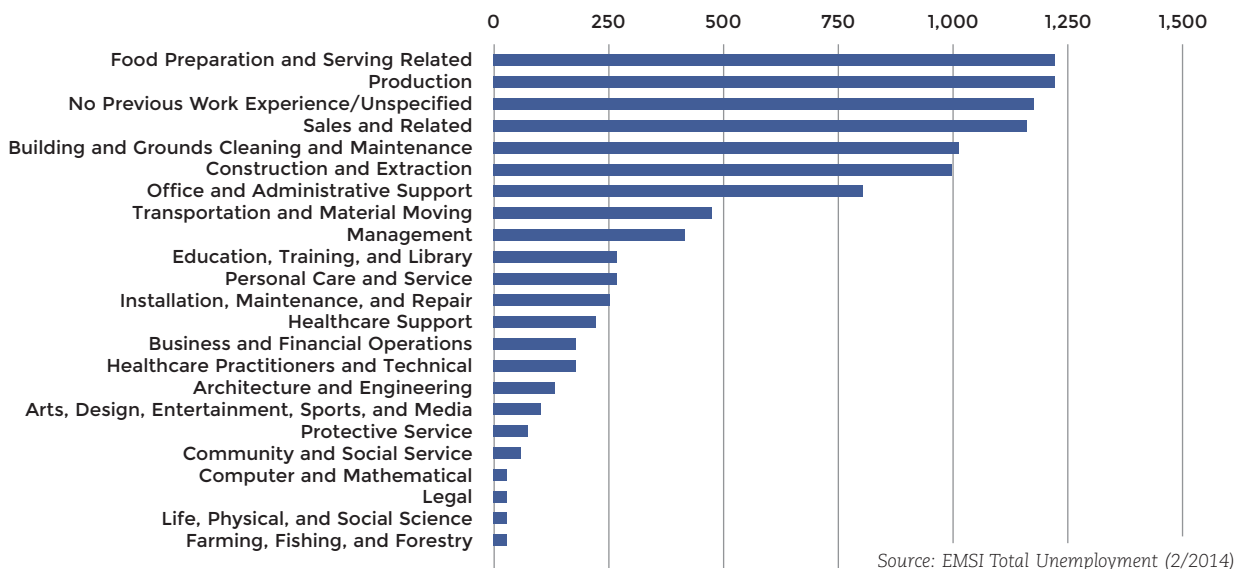
fabric mills. The Accommodation & Food Services sector contains roughly 17% of all unemployed, but due to the short-term duration of employment in these industries, this likely signals the prevalence of frictional unemployment, or unemployment caused by people moving from job to job. This is commonly the case with low-skill jobs and also explains the high numbers for the Retail Trade industry as well. Third is the no previous work experience/unspecified, indicating that good data are not available on these workers. The percentage of unemployed in the Construction sector is well below the national percentage.

As shown in Figure 7 and Table 7, occupational categories that contain high levels of unemployment include food preparation & serving related (1,235), production (1,224), no previous work experience/unspecified (1,183), sales & related (1,176), building & grounds cleaning & maintenance (1,020), construction, and extraction (1,003). Though several of these categories are also among the highest ranking in terms of annual openings (as shown in Figure 3) there are still a large number of relatively low-skilled and high turnover positions in these categories, which result in a high number of unemployed. For example, office and administrative support occupations include customer service representatives and office clerks, general. It is recommended that the college evaluate current programs offerings in these categories to ensure that graduates and completers are positioned competitively to find employment in the region.

Several high-skilled categories compose the same or a smaller portion of all unemployed than in the nation, including management and the two healthcare categories, healthcare practitioners and technical and healthcare support. High-level statistics, such as these, do not indicate whether the unemployed were trained at TCTC or at another institution, but these numbers do indicate these industries are performing at or above the average.

TABLE 6: TCTC Service Region Industry Unemployment Overview

NAICS CODE	DESCRIPTION	# UNEMPLOYED	% OF UNEMPLOYED	NATIONAL % OF UNEMPLOYED
31	Manufacturing	1,967	19%	9%
72	Accommodation and Food Services	1,771	17%	8%
99	No Previous Work Experience/Unspecified	1,689	16%	14%
44	Retail Trade	1,264	12%	10%
23	Construction	800	8%	13%
90	Government	663	6%	7%
56	Administrative and Support and Waste Management and Remediation Services	522	5%	8%
62	Health Care and Social Assistance	431	4%	6%
81	Other Services (except Public Administration)	308	3%	3%
71	Arts, Entertainment, and Recreation	162	2%	2%
54	Professional, Scientific, and Technical Services	160	2%	4%
52	Finance and Insurance	149	1%	3%
48	Transportation and Warehousing	113	1%	3%
42	Wholesale Trade	104	1%	2%
61	Educational Services (Private)	85	1%	2%
53	Real Estate and Rental and Leasing	81	1%	1%
51	Information	54	1%	2%
22	Utilities	51	0%	0%
11	Agriculture, Forestry, Fishing and Hunting	12	0%	2%
21	Mining, Quarrying, and Oil and Gas Extraction	9	0%	1%
55	Management of Companies and Enterprises	2	0%	0%

Source: EMSI Total Unemployment (2/2014)

TABLE 7: TCTC Service Region Occupation Unemployment Overview

SOC CODE	DESCRIPTION	# UNEMPLOYED	% OF UNEMPLOYED	NATIONAL % OF UNEMPLOYED
35-0000	Food Preparation and Serving Related Occupations	1,235	12%	6%
51-0000	Production Occupations	1,224	12%	7%
99-0000	No Previous Work Experience/Unspecified	1,183	11%	10%
41-0000	Sales and Related Occupations	1,176	11%	10%
37-0000	Building and Grounds Cleaning and Maintenance Occupations	1,020	10%	7%
47-0000	Construction and Extraction Occupations	1,003	10%	14%
43-0000	Office and Administrative Support Occupations	804	8%	11%
53-0000	Transportation and Material Moving Occupations	482	5%	8%
11-0000	Management Occupations	415	4%	5%
25-0000	Education, Training, and Library Occupations	271	3%	2%
39-0000	Personal Care and Service Occupations	271	3%	3%
49-0000	Installation, Maintenance, and Repair Occupations	250	2%	3%
31-0000	Healthcare Support Occupations	218	2%	2%
13-0000	Business and Financial Operations Occupations	184	2%	3%
29-0000	Healthcare Practitioners and Technical Occupations	175	2%	2%
17-0000	Architecture and Engineering Occupations	139	1%	1%
27-0000	Arts, Design, Entertainment, Sports, and Media Occupations	100	1%	2%
33-0000	Protective Service Occupations	82	1%	1%
21-0000	Community and Social Service Occupations	55	1%	1%
15-0000	Computer and Mathematical Occupations	35	0%	1%
23-0000	Legal Occupations	26	0%	0%
19-0000	Life, Physical, and Social Science Occupations	25	0%	0%
45-0000	Farming, Fishing, and Forestry Occupations	25	0%	2%

Source: EMSI Total Unemployment (2/2014)

EDUCATIONAL CHARACTERISTICS

This chapter characterizes and describes the educational attainment of the regional population for adults above the age of 25 years old. The educational attainment levels of the adult populations are analyzed according to gender and race in the TCTC Service Region.

This information is useful for identifying potential target markets and population segments that have significant education attainment deficiencies. Adult educational attainment is broken out by: 1) less than a high school degree, 2) high school degree, 3) some college,[5] 4) associate's degree, 5) bachelor's degree, and 6) graduate degree or higher.

OVERALL ADULT EDUCATIONAL ATTAINMENT BY REGION

Figure 8 displays the breakdown of adult educational attainment by region, with further detailed data available in Table 8. In the region, 51% of the population holds a high school diploma or less, while 29% hold an associate's degree or higher. In terms of adult education for the 25-plus population, the segment most likely to seek education and training from TCTC are those with less than an associate's degree—about 185,000 individuals and 71% of the cohort. In particular, the region has a higher proportion of adults with a high school diploma or less than the national average (51% in the region compared to 30% in the nation). Therefore, it can be anticipated that TCTC has a potentially large pool of prospective adult learners to draw from to boost the proportion of individuals with higher levels of education. Additionally, current higher proportions of less-than-high-school-diploma residents indicate a potential increased need for remedial and adult education for individuals seeking a high school equivalency or enhanced skill sets.

FIGURE 8: Overall Adult Educational Attainment

Analysis of historical trends indicates a small but relevant trend—the greatest proportional increase between 2008 and 2013 was in the less than high school diploma category. Between 2008 and 2013, the percent of all adults 25-plus with less than a high school diploma increased by 3.3 percentage points.[6] Those with just a high school

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5   The "some college" category includes individuals who attended college but did not successfully obtain a degree and individuals who have received a postsecondary vocational award or professional certification but did not receive an associate's or bachelor's degree.

6   Please note: the percentage point change column represents the change in proportional change, rather than percent change between 2008 and 2013. For example, if a category represents 20% of the whole in 2008 and 25% of the whole in 2013, it increased by 5 percentage points.

TABLE 8: Overall Adult Educational Attainment

ED LEVEL	2008 NUMBER	2013 NUMBER	CHANGE	PERCENTAGE POINT CHANGE
< HS Diploma	42,258	52,682	10,424	3.3%
High School Diploma	81,131	81,505	374	(1.2%)
Some College	49,821	50,338	517	(0.7%)
Associate's Degree	23,161	23,072	(89)	(0.4%)
Bachelor's Degree	32,003	31,526	(476)	(0.7%)
Graduate Degree and Higher	19,857	20,081	224	(0.3%)

Source: EMSI Complete Data 2014.2

diploma decreased by 1.2 percentage points. Meanwhile, those with some college and above all decreased marginally. There is a strong correlation between educational attainment shifts and demographic shifts; in particular, adult populations with Hispanic backgrounds typically have lower educational attainment rates. This represents an opportunity for TCTC to reach out to these population cohorts that are increasing and would benefit most from furthering their education.

ADULT EDUCATIONAL ATTAINMENT BY GENDER

Within the TCTC Service Region, the distribution of education attainment between males and females is fairly even. The key differences are that the female population is proportionally larger for associate's degree and some college (26% among males and 31% among females), while the male population is higher for bachelor's degree and above (21% among males and 18% among females) and less than high school diploma (22% among males and 19% among females).

Between 2008 and 2013, the overall education attainment differences between males and females have remained relatively unchanged. While both saw increases

FIGURE 9: Adult Educational Attainment by Gender, 2013
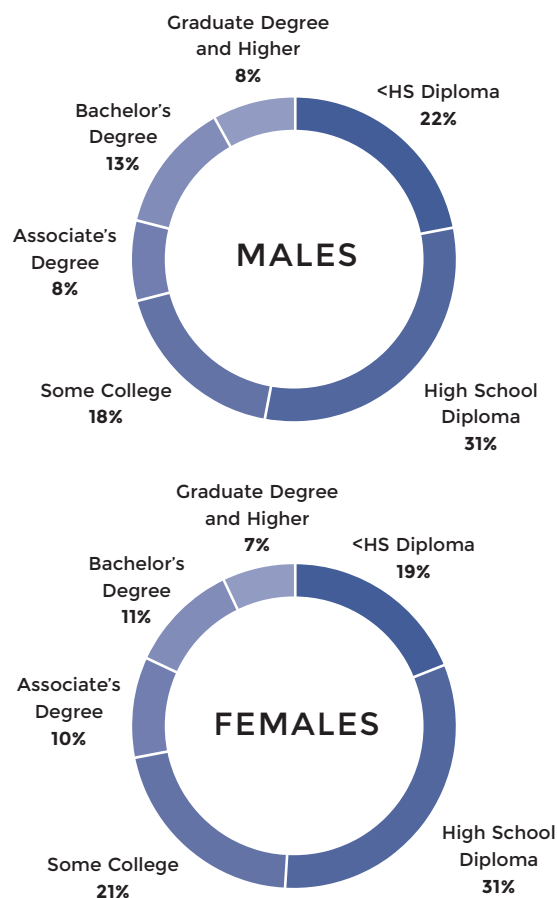
TABLE 9: Adult Educational Attainment by Gender, 2013

EDUCATIONAL LEVEL	MALES	PROPORTION	FEMALES	PROPORTION
< HS Diploma	26,725	22%	25,957	19%
High School Diploma	38,930	31%	42,575	31%
Some College	22,434	18%	27,904	21%
Associate's Degree	9,389	8%	13,683	10%
Bachelor's Degree	16,486	13%	15,041	11%
Graduate Degree and Higher	9,951	8%	10,130	7%

Source: EMSI Complete Data 2014.2

in the proportion with less than high school diploma, the male increase was higher. Both genders experienced decreases in high school diploma, some college, bachelor's degree, and graduate degree and higher. Males' proportion with an associate's degree decreased while females increased marginally.

ADULT EDUCATIONAL ATTAINMENT BY ETHNICITY

Figure 10 displays the breakdown in educational attainment by ethnicity within the region. "White, Non-Hispanic" is the largest ethnic group in the service region by a wide

FIGURE 10: Adult Educational Attainment by Ethnicity
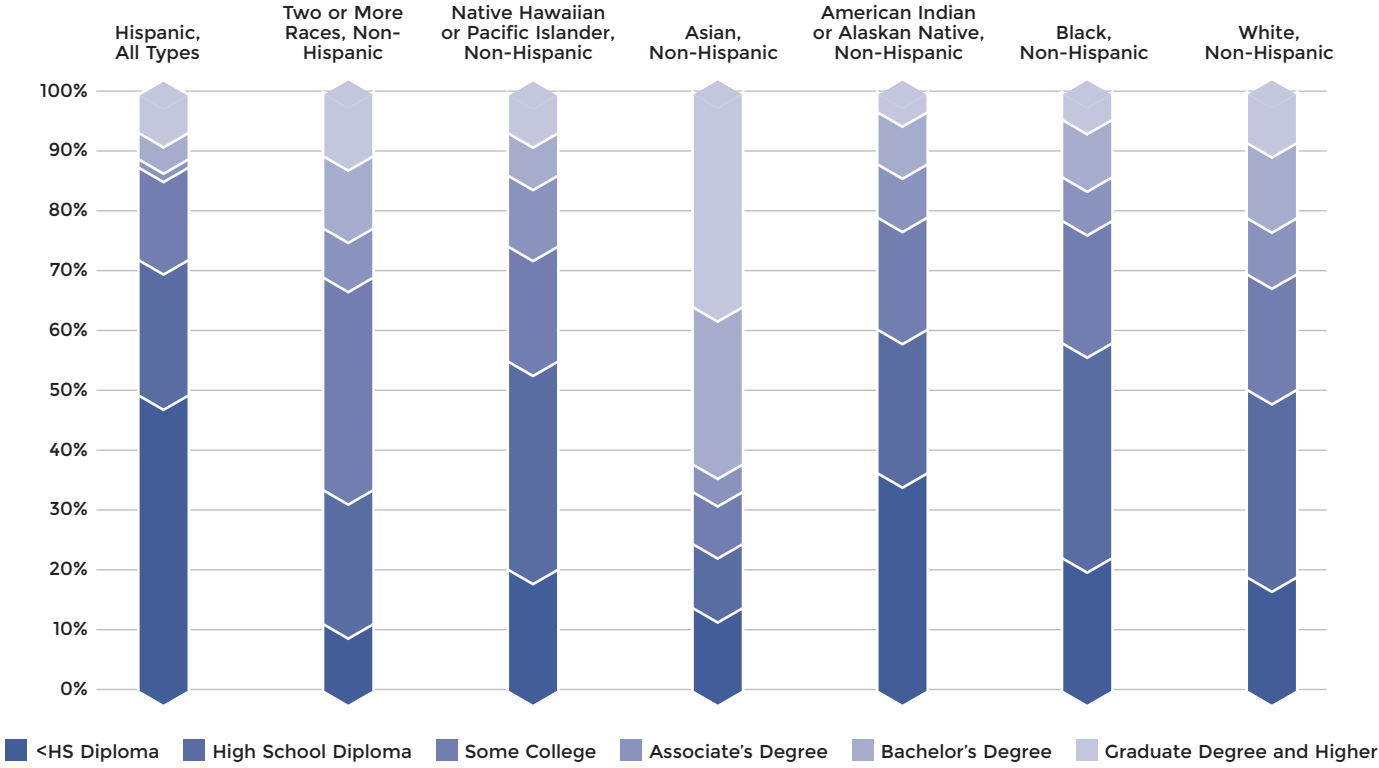
margin and will remain an important group to educate and train. The "Asian" ethnic group hold the largest percentage of graduate degrees and higher (36%), followed by "Two or More races, Non-Hispanic" with 32%. "Hispanic, All Types" have the lowest levels of education attainment—just 73% have a high school diploma or less. Additionally, "Native Hawaiian or Pacific Islander, Non-Hispanic", and "American Indian or Alaskan native, Non-Hispanic" while small, have relatively low educational attainments as well. With the additional numbers of some college and below in the other ethnic groups, there is a sizable pool of candidates for TCTC to draw upon. Table 10 provides these numbers in greater detail.

TABLE 10: Adult Educational Attainment by Ethnicity

		< HS DIPLOMA	HIGH SCHOOL DIPLOMA	SOME COLLEGE	ASSOCIATE'S DEGREE	BACHELOR'S DEGREE	GRADUATE DEGREE AND HIGHER
White, Non-Hispanic	COUNT	42,070	68,985	42,553	20,624	27,628	17,453
	PERCENT	19%	31%	19%	9%	13%	8%
Black, Non-Hispanic	COUNT	6,257	10,079	5,735	2,042	2,681	1,131
	PERCENT	22%	36%	21%	7%	10%	4%
American Indian or Alaskan Native, Non-Hispanic	COUNT	214	141	109	52	51	16
	PERCENT	37%	24%	19%	9%	9%	3%
Asian, Non-Hispanic	COUNT	341	260	210	112	641	864
	PERCENT	14%	11%	9%	5%	26%	36%
Native Hawaiian or Pacific Islander, Non-Hispanic	COUNT	11	18	10	6	4	3
	PERCENT	20%	35%	19%	12%	7%	6%
Two or More Races, Non-Hispanic	COUNT	188	376	596	137	201	171
	PERCENT	11%	23%	36%	8%	12%	10%
Hispanic, All Types	COUNT	3,602	1,645	1,124	99	321	443
	PERCENT	50%	23%	16%	1%	4%	6%

Source: EMSI Complete Data 2014.2

CHAPTER 3
PROGRAM GAP ANALYSIS

The results that appear in this chapter present a focused view of the program groups projected to have a regional gap or surplus. Programs are analyzed at two different levels: postsecondary certifications and associate's degrees, according to the training level offered at TCTC.

Each table includes the CIP code and title, the average annual openings associated with that program (which have been de-duplicated using the process outlined in Appendix 3), the average annual completers between 2010 and 2012, and finally the gap or surplus figure. If the numbers are positive, there is a shortage or "gap" of completers— i.e., there are more job openings in those occupations than there are graduates or completers. If the numbers are negative, then there is a "surplus" of completers for those program groups compared to annual job openings. If there is only one completer in a program over the three year period, the average annual completers value will be reflected as "<1."

INTERPRETING GAP/SURPLUS ANALYSIS RESULTS

The gap analysis is intended to serve as a point of departure for TCTC as the college discusses regional workforce needs. A surplus or deficit of workers in a particular category does not necessarily indicate a problem for the region and it is important that each occupation group be evaluated on a case-by-case basis. Evaluation of the program supply (surplus and gaps) will provide an understanding of the role skilled occupations play in economic sustainability and growth.

Other information should also be considered when evaluating these surpluses and gaps. For example, only the education supply pipeline is considered in this analysis because these numbers can be tracked at the county and school level. However, other sources of supply exist as well—unemployed workers, industry trained pipelines, in-migrators, and job changers from other occupational categories can also be a source of skilled occupations. These types of considerations are useful when evaluating specific types of occupations. Unfortunately, secondary data sources (e.g., regional, state, and federal data) do not account for this, and primary data collection methods (i.e., interviews and surveys) are among the only ways to obtain information on this type of supply pipeline.

Lastly, it is important to keep in mind that the labor market is not so simple and mechanical that one could expect supply and demand to be at perfect equilibrium for any extended period of time. As such, as a general rule of thumb, only programs with considerable gaps or surpluses should be considered long-term strategic issues worthy of closer examination. For a region of TCTC's size and characteristics, any gap or surplus within 10 jobs either above or below zero should be considered within the normal range of labor market fluctuations.

Once evaluated internally within the college, specific implications should be considered for programs with substantial surpluses or gaps. These implications include:

- Surplus: Oversupply of specific education completers may lead to higher attrition rates (i.e., brain drain). In other words, the region is educating a workforce that is leaving after program completion because of a lack of jobs. Note: In the TCTC analysis, where neighboring population density is very high, a surplus of completers may indicate the need for service region residents to commute outside of the service region to find job opportunities. The commuting pattern flows described in Chapter 1 suggest that this is possible.

- Gap: Undersupply of specific program completers may lead to missed opportunities for economic growth and put stress on local businesses to find necessary human capital elsewhere. In other words, the region's education institutions are not providing the necessary workforce for the region and thereby shifting the burden on the industries to find workers in other economies to fill the needed occupations. This translates into higher

human resources costs and decreased efficiencies in the economic system. This also provides an opportunity for institutions to develop new programs. Note: Given high population density in the area north and east of the service region, a completion gap may be filled by other institutions just outside the service region. This potential scenario will need to be taken into consideration from the leadership.

POSTSECONDARY CERTIFICATE LEVEL GAP ANALYSIS

Figure 11 provides a graphic illustration that summarizes the top ten gaps for TCTC postsecondary certificate level programs.

Table 11 lists supply and demand for all postsecondary certificate program types for which TCTC offers a training program. While other program groups in the region may face larger surpluses, TCTC did not offer any of the programs. With the limited number of educational opportunities in the service region for postsecondary certificates

and associate's degrees, the average annual completers are usually the same as the TCTC completers.

As shown in Table 11, General Sales, Distribution, & Marketing Operations faces the largest gap; there are 219 annual openings, compared to 1 completion from TCTC and no other completions from other regional institutions. A similar situation is also occurring with General Office Occupations & Clerical Services, wherein 23 completers are available for 180 projected job openings. The other programs with significant gaps are Industrial Mechanics & Maintenance Technology, Machine Tool Technology/Machinist, and General Business Administration & Management.

Programs that seem to be training for occupations with significant surpluses include Licensed Practical/Vocational Nurse Training, Pre-Nursing Studies, and Registered Nursing/Registered Nurse, among others. The large number of nursing related programs with surpluses suggests that completers are likely leaving the service region upon finishing their education or staying in the region but commuting to outside the area for work. There also exists the possibility for a substitution effect between programs if they are

FIGURE 11: Supply and Demand for TCTC Postsecondary Certificate Level Programs
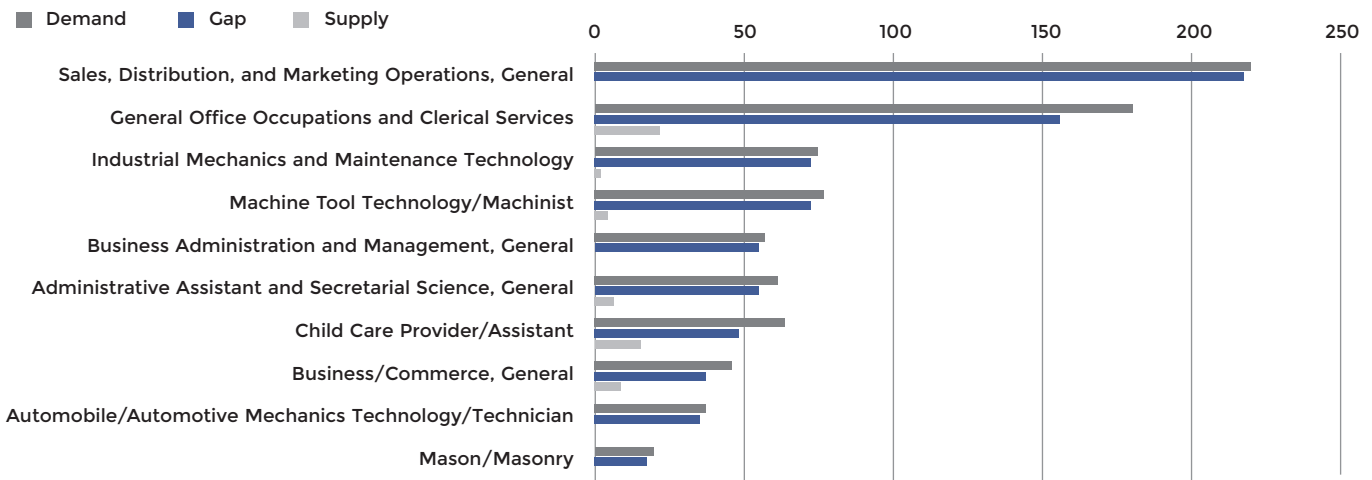
FIGURE 12: Supply and Demand for TCTC Associate's Degree Level Programs
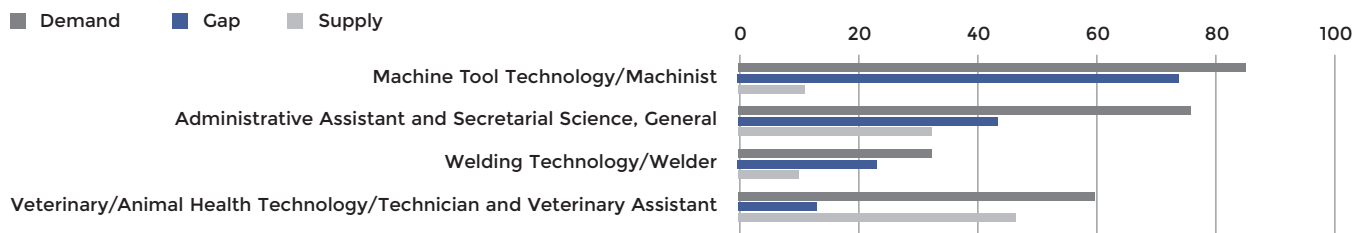
TABLE 11: Supply and Demand for TCTC Postsecondary Certificate Level Programs

CIP NUMBER	CIP TITLE	AVERAGE ANNUAL OPENINGS	AVERAGE ANNUAL COMPLETERS	TCTC COMPLETERS	TOTAL GAP OR SURPLUS
52.1801	Sales, Distribution, and Marketing Operations, General	219	1	1	218
52.0408	General Office Occupations and Clerical Services	180	23	23	157
47.0303	Industrial Mechanics and Maintenance Technology	75	1	1	74
48.0501	Machine Tool Technology/Machinist	77	4	4	73
52.0201	Business Administration and Management, General	57	1	1	56
52.0401	Administrative Assistant and Secretarial Science, General	62	7	7	55
19.0709	Child Care Provider/Assistant	63	16	16	48
52.0101	Business/Commerce, General	45	8	8	37
47.0604	Automobile/Automotive Mechanics Technology/Technician	37	<1	<1	36
46.0101	Mason/Masonry	17	1	1	16
15.0702	Quality Control Technology/Technician	19	5	5	14
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician	14	2	2	12
47.0105	Industrial Electronics Technology/Technician	14	2	2	12
48.0508	Welding Technology/Welder	30	26	26	5
52.0301	Accounting	7	3	3	4
23.1304	Rhetoric and Composition	2	<1	<1	2
50.0402	Commercial and Advertising Art	6	6	6	1
43.0104	Criminal Justice/Safety Studies	1	2	2	(0)
52.0701	Entrepreneurship/Entrepreneurial Studies	1	1	1	(1)
10.0202	Radio and Television Broadcasting Technology/Technician	1	2	2	(1)
15.0399	Electrical and Electronic Engineering Technologies/Technicians, Other	1	2	2	(2)
51.0601	Dental Assisting/Assistant	13	16	16	(2)
15.0699	Industrial Production Technologies/Technicians, Other	4	9	9	(5)
15.1001	Construction Engineering Technology/Technician	1	7	7	(6)
51.0801	Medical/Clinical Assistant	9	20	20	(11)
51.0909	Surgical Technology/Technologist	2	17	17	(15)
51.3801	Registered Nursing/Registered Nurse	7	27	27	(20)
51.1105	Pre-Nursing Studies	11	42	42	(31)
51.3901	Licensed Practical/Vocational Nurse Training	15	55	55	(41)

Source: EMSI Gap Analysis Model

closely related. None of the postsecondary certificate level programs appear to be experiencing this effect at this time.

ASSOCIATE'S LEVEL GAP ANALYSIS

Figure 12 provides a graphic illustration of the TCTC associate's degree level programs with significant gaps. The four programs associated with workforce gaps, greater than the required threshold of ten, are displayed here.

Similar to the previous table, Table 12 displays supply and demand for all associate's level programs for which TCTC provides training. Again, the table only includes program groups available at TCTC. Other program groups in the region may face larger gaps, but TCTC does not offer the program. Table 13 addresses programs that are not currently being offered but which would address considerable regional workforce gaps.

Machine Tool Technology/Machinist has the largest gap with 11 completers to fill 84 annual openings. General Administrative Assistant & Secretarial Science (gap of 43) and Welding Technology/Welder (gap of 23) are the next two largest gaps at the associate's degree level. The Veterinary/Animal Health Technology/Technician & Veterinary Assistant at TCTC is one of only two programs of its kind offered in the state. As such, completers for this program are analyzed at the state level.

On the opposite side of the spectrum, there are some programs preparing students for fields where they will compete with many other potential workers. These include Registered Nursing/Registered Nurse, Criminal Justice/Safety Studies, and Industrial Electronics Technology/Technician, among others.

TABLE 12: Supply and Demand for TCTC Associate's Degree Level Programs

CIP NUMBER	CIP TITLE	AVERAGE ANNUAL OPENINGS	AVERAGE ANNUAL COMPLETERS	TCTC COMPLETERS	TOTAL GAP OR SURPLUS
48.0501	Machine Tool Technology/Machinist	84	11	11	73
52.0401	Administrative Assistant and Secretarial Science, General	75	32	32	43
48.0508	Welding Technology/Welder	32	10	10	23
51.0808	Veterinary/Animal Health Technology/Technician and Veterinary Assistant	59	46	18	13
52.0201	Business Administration and Management, General	66	59	50	8
47.0201	Heating, Air Conditioning, Ventilation and Refrigeration Maintenance Technology/Technician	16	11	11	6
15	Engineering Technology, General	10	6	6	5
19.0708	Child Care and Support Services Management	7	5	5	2
15.0699	Industrial Production Technologies/Technicians, Other	5	6	6	(0)
15.0303	Electrical, Electronic and Communications Engineering Technology/Technician	0	1	1	(0)
52.0301	Accounting	12	15	15	(3)
15.1306	Mechanical Drafting and Mechanical Drafting CAD/CADD	2	10	10	(8)
51.1004	Clinical/Medical Laboratory Technician	3	12	12	(9)
15.0499	Electromechanical and Instrumentation and Maintenance Technologies/Technicians, Other	2	11	11	(9)
11.0301	Data Processing & Data Processing Technology/Technician	4	23	23	(18)
10.0202	Radio and Television Broadcasting Technology/Technician	1	22	22	(21)
47.0105	Industrial Electronics Technology/Technician	16	46	46	(31)
43.0104	Criminal Justice/Safety Studies	2	38	34	(36)
51.3801	Registered Nursing/Registered Nurse	46	136	136	(90)

Source: EMSI Gap Analysis Model

TRANSFER TRACK (LIBERAL ARTS) STUDENTS

A substantial number of students attend TCTC with the intention of transferring to a four-year school to receive a bachelor's degree. Though these students study any number of topics, a large number of them receive associate of arts degrees in liberal arts. Over the past three years, an average of 253 students have competed degrees that track to bachelor's degrees, which composes 26% of the college's annual production of certificates and degrees.

Once these students leave TCTC their educational and career track is difficult to predict. They could attend a four-year college in the region or outside the region, and they could study any number of different programs that will ultimately determine their future career. What can be shown is that over the next 10 years, jobs that require a bachelor's degree are projected to be in high demand. In any given year between 2013 and 2013, 1,385 jobs will require a bachelor's degree and 6,783 will require a bachelor's degree or less, availing these students of 91% of all regional job openings.

POTENTIAL NEW PROGRAMS

In addition to knowing how well TCTC's current educational programs are serving the local labor market, it is helpful to know the fields of opportunity where the college could create new program offerings. The programs shown in Table 13 contain a short list of programs that could fill gaps in the labor market by postsecondary certificates and associate's degree. These selected programs present unmet annual openings by completions within the region. TCTC will need to consider the level of training appropriate for each programmatic area. Please note that these tables highlight particular occupations, and in many cases a program can be designed to train for multiple occupations. Once these occupations are grouped with other similar occupations the actual workforce gap may be larger.

Heavy and tractor-trailer truck drivers top the list of opportunities with a gap of 54 and offers a median hourly wage of $15.05 Computer-controlled machine tool operators, metal and plastic has a significant gap (33) and pays $17.07 an hour in the service region. Skilled trades like carpenter ($12.61) and electrician ($16.73) are both areas of opportunity as well. Healthcare related occupations like emergency medical technicians and paramedics ($13.20) and pharmacy technicians ($11.91) also have potential. Also appearing in Table 13 are medical secretaries ($13.18).

CONCLUSION

Between both postsecondary certificate level and associate's degree, there are a total of 29 programs associated with demonstrable workforce gaps. Ten of these programs exhibit a significant gap in both award levels. The remaining 19 have a gap in one but not both levels. Industrial Electronics Technology/Technician shows a significant gap at one level but significant surplus at the other. While it will not always be the case, at times, there may be a substitution effect between completion levels. For instance, some of the 12 annual openings that make up the gap at the postsecondary certificate level for this program may be filled by associate's degree graduates where there is a surplus of 31.

At the postsecondary certificate level there are sig-

TABLE 13: Potential Programs

SOC	SOC TITLE	AVERAGE ANNUAL OPENINGS	AVERAGE ANNUAL COMPLETERS	GAP
53-3032	Heavy and Tractor-Trailer Truck Drivers	54	0	54
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	33	0	33
47-2031	Carpenters	32	0	32
29-2041	Emergency Medical Technicians and Paramedics	31	0	31
29-2052	Pharmacy Technicians	28	0	28
47-2111	Electricians	22	0	22
43-6013	Medical Secretaries	17	0	17

Source: EMSI Gap Analysis Model

nificant gaps in General Sales, Distribution, & Marketing Operations; General Office Occupations & Clerical Services; Industrial Mechanics & Maintenance Technology; Machine Tool Technology/Machinist; and General Business Administration & Management. There are surpluses in Licensed Practical/Vocational Nurse Training; Pre-Nursing Studies; and Registered Nursing/Registered Nurse; Surgical Technology/Technologist; and Medical/Clinical Assistant. When factoring in the lower unemployment in the healthcare industry, there is a likelihood for some of these completers to be seeking employment outside the service region.

Associate's degree level gaps exist in Machine Tool Technology/Machinist, General Administrative Assistant & Secretarial Science, and Welding Technology/Welder. The unique Veterinary/Animal Health Technology/Technician & Veterinary Assistant program has a gap when examined at the state-wide level. This completion level sees a surplus in Registered Nursing/Registered Nurse, Criminal Justice/Safety Studies, and Industrial Electronics Technology/Technician, Radio & Television Broadcasting Technology/Technician, and Data Processing & Data Processing Technology/Technician.

It is important to consider wages when considering programs to bolster or add. Childcare works exhibited a gap but were disregarded due to averaging a minimum hourly wage rate. These potential programs may be of interest at only the postsecondary certificate level if the wages are an improvement over that of untrained workers but not high enough to justify the investment of time and money into an associate's degree. Pharmacy technicians and carpenters make a median wage below $13 an hour in the service region. Electricians and computer-controlled machine tool operators earn around $17.

TCT has an opportunity for retraining of workers that were left unemployed by fabric mills exiting the local economy. The service region saw the number of jobs in manufacturing decrease by over 1100 since 2008. These former mill workers are a large potential pool to target for education and training.

CEDS Update 2014:

An Outstanding Year for Target Industries and Global Competitiveness

The photo above blends two of the region's most thriving target industries: Automotive and Advanced Materials.

Anderson Cherokee Greenville Oconee Pickens Spartanburg

Annual Update of the Comprehensive Economic Development Strategy
for the Appalachian Region of South Carolina

Produced by:
The South Carolina Appalachian Council of Governments
Submitted to:
The U.S. Economic Development Administration – September 2014

Serving Six Counties and Forty-Two Municipalities since 1965

Anderson • Cherokee • Greenville • Oconee • Pickens • Spartanburg

Planning Division
30 Century Circle
P.O. Box 6668
Greenville, SC 29606
(864) 242-9733

Table of Contents

Executive Summary

The following Comprehensive Economic Development Strategy <u>Update</u>:

- Is submitted to the U.S. Economic Development Administration (EDA) by the South Carolina Appalachian Council of Governments (SCACOG), which is the EDA *Economic Development District* for the Appalachian Region of South Carolina;

- Was prepared by SCACOG staff under the guidance of a special appointed CEDS Advisory Committee;

- Provides an updated economic profile for the region and each individual county;

- Identifies regional economic and workforce development challenges and opportunities based on interviews with local economic developers, workforce developers, and the private sector;

- Consults local, regional, and state economic and workforce plans and studies to gather valuable data and to ensure consistency of priorities between Region and State;

- Provides updates on the region's seven *Areas of Emphasis* for regional economic development: (1) Clusters, Target Industries and Innovation Capacities, (2) Workforce Development, (3) Infrastructure, (4) Available Sites and Buildings, (5) Entrepreneurship, (6) Access to Capital, and (7) Local Asset-Based Economic Development;

- Provides a strategic plan table for each area of emphasis, which includes *Goals, Objectives, Strategic Projects, Programs, and Activities*;

- Identifies *Vital Project* areas for on-going CEDS implementation and annual reporting;

- Is consistent with the SC Appalachian CEDS 2013-2017 *Plan of Action*, which:

  o Promotes economic development and opportunity;
  o Fosters effective transportation access;
  o Enhances and protects the environment;
  o Maximizes effective development and use of the workforce consistent with any applicable State or local workforce investment strategy;
  o Promotes the use of technology in economic development, including access to high-speed telecommunications;
  o Balances resources through sound management of physical development; and
  o Obtains and utilizes funds and other resources.

Section I: Introduction

Background and Purpose of the CEDS

The Comprehensive Economic Development Strategy (CEDS) is a program of the United States Department of Commerce *Economic Development Administration* (EDA). The Public Works and Economic Development Act of 1965 (PWEDA) requires federally designated "Economic Development Districts", such as the South Carolina Appalachian Council of Governments (SCACOG), to develop and maintain a CEDS in order to (1) establish a regional economic development strategy, and (2) maintain the region's eligibility for EDA grant competition and programs. The program requires annual updates of the CEDS as well as a full re-write of the CEDS at least every five years.

The following annual update demonstrates the progress made by the region over the past year in the execution of strategies called for in *CEDS 2013-2017: Building 21st Century Economic Development Capacity.* The update involved the work of committed individuals from both the private and public sector who desire to support the continued, positive growth of the SC Appalachian region. The region is made up of six counties and 42 municipalities (see table on the following page). As required by the CEDS program, this strategic plan "is designed to bring together the public and private sectors in the creation of an economic roadmap to diversify and strengthen the regional economy."[1]

About SCACOG

SCACOG is a voluntary organization of local governments in the Northwest corner of South Carolina, serving a region which includes the counties of Anderson, Cherokee, Greenville, Oconee, Pickens, and Spartanburg.

Since its formation in 1965, the Council has served the dual mission of tackling issues of regional significance and providing services to local governments. Economic and community development, transportation, infrastructure development, resource management, aging services, and workforce development are all issues of regional importance in which SCACOG takes an active role. At the local level, the agency's services include general administration, technical assistance, training, planning, grant writing & administration, and information & mapping services.

---

[1] U.S. Department of Commerce *CEDS Summary Requirements*

Counties and Municipalities of the South Carolina Appalachian Council of Governments	
Anderson County	City of Anderson (County Seat)
	City of Belton
	Town of Honea Path
	Town of Iva
	Town of Pelzer
	Town of Pendleton
	Town of Starr
	Town of West Pelzer
	Town of Williamston
Cherokee County	Town of Blacksburg
	City of Gaffney (County Seat)
Greenville County	City of Fountain Inn
	City of Greenville (County Seat)
	City of Greer
	City of Mauldin
	City of Simpsonville
	City of Travelers Rest
Oconee County	Town of Salem
	City of Seneca
	City of Walhalla (County Seat)
	City of Westminster
	Town of West Union
Pickens County	Town of Central
	City of Clemson
	City of Easley
	City of Liberty
	Town of Norris
	City of Pickens (County Seat)
	Town of Six Mile
Spartanburg County	Town of Campobello
	Town of Central Pacolet
	City of Chesnee
	Town of Cowpens
	Town of Duncan
	City of Inman
	City of Landrum
	Town of Lyman
	Town of Pacolet
	Town of Reidville
	City of Spartanburg (County Seat)
	City of Wellford
	City of Woodruff

CEDS Update Methodology

The SCACOG Board of Directors serves as the federal *Economic Development District* for the region. This Board appointed a *CEDS Advisory* Committee who helped develop both the 5-year CEDS and this twelve-month update.

Throughout the collaborative planning process, a robust amount of information was gathered to update CEDS 2013-2017. This information included:

- The varied insights of individuals representing government and business;
- Meetings with local economic and workforce developers from each county of the region in order to obtain ground level perspectives on challenges and opportunities;
- Findings from local, regional and state economic development plans and studies;
- GIS-based demographic data in order to reveal local and regional economic trends.

Upon completion, this CEDS Update was presented to the full SCACOG Board/EDD Organization for final critique and feedback. The document was also presented to each individual County Council at their monthly public meetings for additional input and recommendations. Upon completion of these steps, the SCACOG Board formally adopted the 2014 CEDS Update and recommended it for submission to the U.S. EDA.

The following tables display both the CEDS 2013-2017 Advisory Committee and the region's Economic Development District Organization:

CEDS Advisory Committee for the SC Appalachian Region		
Name	**County**	**Area of Expertise**
Francis Crowder	Anderson	Retired Manufacturing Executive
Rufus Foster, Jr.	Cherokee	Minority Business Owner
Don Godbey, Committee Chair	Greenville	Private Sector Professional Service Provider
Ernest Riley	Oconee	Retired Educator
Larry Bagwell	Pickens	Mayor/Retired Educator
Mike Forrester	Spartanburg	State Rep and Post Secondary Education Economic and Workforce Development V.P.
Jennifer Miller	Region Wide	Private Sector Economic Development Organization

Regional Economic Development District Organization		
Name	**County**	**General Purpose Elected Official**
William O'Dell	Anderson	Yes
Eddie Moore	Anderson	Yes
Francis Crowder	Anderson	Yes
Mack Durham	Anderson	Yes
Terence Roberts	Anderson	Yes
Rick Laughridge	Anderson	Yes
Dennis Claramunt	Anderson	No
Ted Mattison	Anderson	No
Dennis Moss	Cherokee	Yes
Rufus Foster, Jr.	Cherokee	Yes
Joe Ross	Cherokee	Yes
Ed Elliott	Cherokee	No
David Cauthen	Cherokee	No
Willis Meadows	Greenville	Yes
Butch Kirven	Greenville	Yes
Joe Dill	Greenville	Yes
Perry Eichor	Greenville	Yes
Lillian Brock Fleming	Greenville	Yes
Gaye Sprague	Greenville	Yes
Don Godbey	Greenville	No
Grady Butler	Greenville	No
Lottie Gibson	Greenville	No
Thomas Alexander	Oconee	Yes
Reg Dexter	Oconee	Yes
Bill Brockington	Oconee	Yes
Bob Winchester	Oconee	No
Bennie Cunningham	Oconee	No
G. Neil Smith	Pickens	Yes
Jeff Martin	Pickens	Yes
Larry Bagwell	Pickens	Yes
Margaret Thompson	Pickens	No
Mike Forrester	Spartanburg	Yes
Dale Culbreth	Spartanburg	Yes
O'Neal Mintz	Spartanburg	Yes
Jane Hall	Spartanburg	Yes
Junie White	Spartanburg	Yes
Jan Scalisi	Spartanburg	Yes
Charles Morris, Jr.	Spartanburg	No
Elbert S. Tillerson, Sr.	Spartanburg	No
Loretta Smith	Spartanburg	No
Jennifer Miller, *Ex Officio*	Upstate Alliance	No
Henry Jolley	Regional Member	Yes
Ernest Riley	Regional Member	No

Section II: 2014 Regional Economic Profile
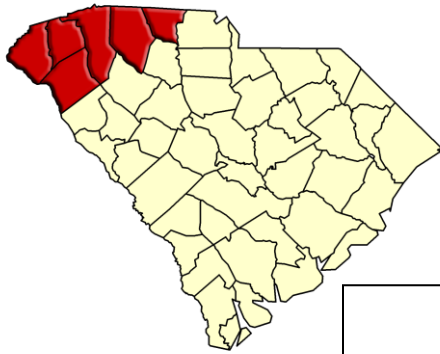
The Six County Region

Counties

Anderson

Cherokee

Greenville

Oconee

Pickens

Spartanburg
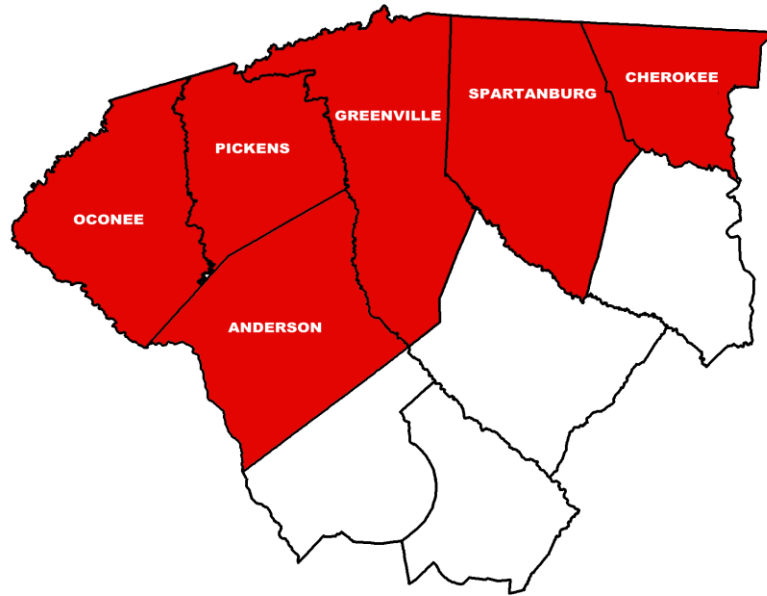
The historic development of the 6-county, 42-municipality *SC Appalachian Region* was largely based on agriculture until 1900, when textiles took over as the region's most rapidly growing industry. For the past 25 years, the region's economy has diversified tremendously, though technological advances have helped textiles to remain a significant presence. Catalytic investments from companies like *BMW*, which established its N. American HQ in Spartanburg County in 1992, and from *Michelin*, which named its Greenville County location as its North American HQ in 1988, have propelled regional economic development. Its location along the I-85 corridor, referred to by *Newsweek Magazine* as "The Boom Belt", places the region directly between the largest business centers of the southeast: Atlanta and Charlotte.   Its direct I-85 and I-26 access plus its proximity to major U.S. airports and seaports make the region attractive for regional, national and int'l firms.

Transportation Infrastructure	
Interstate Access	I-85, I-26, I-185, 1-385, 1-585
Nearest Commercial Airports	Greenville-Spartanburg Int'l
Nearest Civil Airports	Multiple
Port Access	Port of Charleston (approx. 200 miles); The Inland Port in Greer
Rail Providers	NSR, CSX, Carolina Piedmont

Population & Sales

SC Appalachian Region Total Population by Age as of 2012	
Metric	**6 County Region**
Total Population	1,195,664
Median Age	38.3 years
Age 14 & Under	19.4%
Age 15-19	6.9%
Age 20-54	46.4%
Age 55-64	12.8%
Age 65 & Up	14.3%
Source: U.S. Bureau of the Census, 2012 Estimates	

Gross Retail Sales (millions)	
FY 2006-2007	$31,354,065
FY 2007-2008	$31,802,317
FY 2008-2009	$30,132,413
FY 2009-2010	$29,043,112
FY 2010-2011	$31,435,880
FY 2011-2012	$35,206,923
FY 2012-2013	$37,959,546
Source: SC Department of Revenue and Taxation	

Workforce & Income

Comparative Per Capita Income, 2014 & 2019 Projection		
	2014	**2019**
6 County Region	$23,658	$26,071
South Carolina	$23,782	$26,314
USA	$27,871	$32,168
Source: U.S. Census Bureau, Census 2010 Data. Esri forecasts for 2014 and 2019.		

Where do people live and work?	
Live and work in Region	397,429
Commute into Region	95,359
Commute out of Region	78,517
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2011 (most recent available data).	

24-Month Average Unemployment Rate, Period Ending June 2014	
U.S.	**6 County Region**
7.27%	6.58%
Source: BLS labor compiled from STATSAmerica.org	

Where People Work in 2014: Employed Population by Industry, Age 16+	
Industry	
Employed Population, 16+	536,525
Agriculture/Mining	.5%
Construction	6.1%
Manufacturing	19.0%
Wholesale Trade	3.1%
Retail Trade	11.5%
Transportation/Utilities	4.1%
Information	1.3%
Finance/Insurance/Real Estate	4.9%
Services	46.8%
Public Administration	2.7%
Source: U.S. Census Bureau, Census 2010 Summary. ESRI forecasts for 2014 & 2019.	

Educational Attainment*, Age 25+

Less than 9th — 7%
9th to 12th — 11%
HS Grad — 30%
Some College — 20%
Associates — 9%
Bachelors — 16%
Grad/Pro — 9%

Federal Economic Development District
SC Appalachian Council of Governments
www.scacog.org
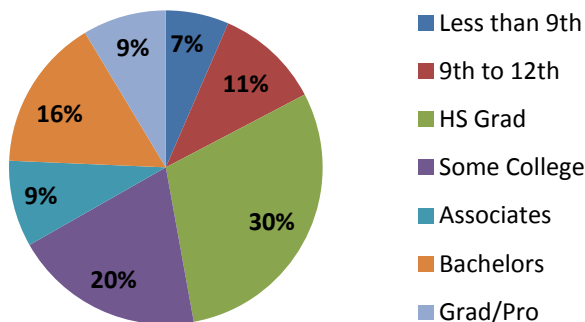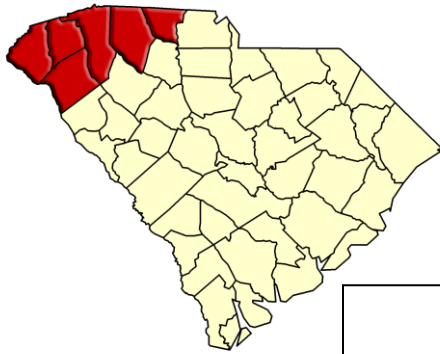
Source: American Community Survey, 2008-12 Averages, U.S. Census
*% of population having attained ONLY specified education level

Anderson County Economic Profile

Municipalities

Anderson (Co. Seat)

Belton

Honea Path

Iva

Pelzer

Pendleton

Starr

West Pelzer

Williamston
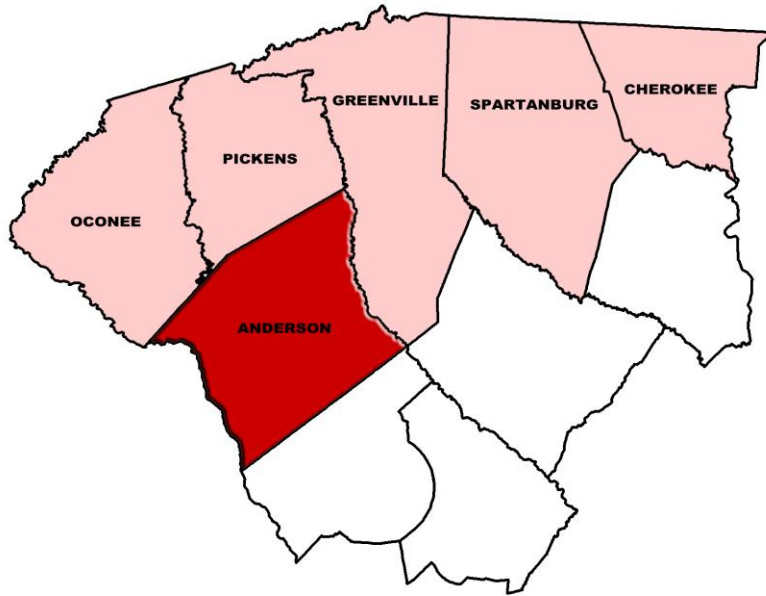
Named for Revolutionary War leader Robert Anderson, the county has a growing industrial, commercial and tourist-based economy. Home to the 56,000 acre Lake Hartwell and its 1,000 miles of shoreline, Anderson County boasts not only natural beauty as a tourist destination, but also industrial strength and diversity. Major local industries include automotive, metal products, industrial machinery, plastics, and textiles. Anderson County is also home to Anderson University, a private and selective institution offering both undergrad and graduate degree programs. Nearby Tri-County Tech and Clemson University are also major assets for the local workforce. There are fun, historic, and revitalized downtown areas in Anderson County – including downtown Anderson and Pendleton. Anderson County is found along the 240-mile South Carolina National Heritage Corridor, which ends only a few hours away at the Atlantic Ocean.

Transportation Infrastructure	
Interstate Access	I-85 (direct connection)
Nearest Commercial Airports	Greenville-Spartanburg Int'l (40 minutes)
Nearest Civil Airports	Anderson Regional Airport
Port Access	Port of Charleston (217 miles); "The Inland Port" in Greer (40 minutes)
Rail Providers	CSX, Norfolk Southern, Pickens Railway

Population & Sales

Anderson County Total Population by Age as of 2012	
Metric	**Anderson County**
Total Population	189,355
Median Age	40.3 years
Age 14 & Under	19.5%
Age 15-19	6.4%
Age 20-54	44.8%
Age 55-64	13.1%
Age 65 & Up	16.1%
Source: U.S. Bureau of the Census, 2012 Estimates	

Gross Retail Sales (millions)	
FY 2006-2007	$4,420,095
FY 2007-2008	$4,978,008
FY 2008-2009	$4,386,917
FY 2009-2010	$4,452,942
FY 2010-2011	$5,035,547
FY 2011-2012	$6,083,678
FY 2012-2013	$5,959,404
Source: SC Department of Revenue and Taxation	

Workforce & Income

Comparative Per Capita Income, 2014 & 2019 Projection		
	2014	**2019**
Anderson County	$21,553	$23,463
6 County Region	$23,658	$26,071
South Carolina	$23,782	$26,314
USA	$27,871	$32,168
Source: U.S. Census Bureau, Census 2010 Data. Esri forecasts for 2014 and 2019.		

Where do people live and work?	
Live and work in Anderson Co.	32,937
Commute into Anderson Co.	23,271
Commute out of Anderson Co.	40,524
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2011 (most recent available data).	

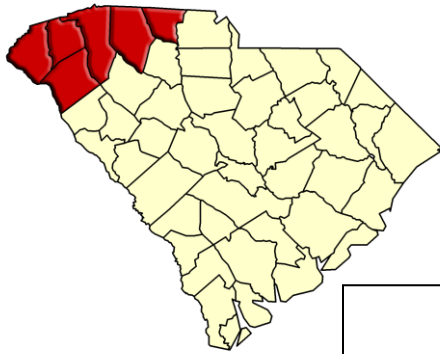| 24-Month Average Unemployment Rate*, Period Ending June 2014		
U.S.	**6 County Region**	**Anderson County**
7.27%	6.58%	6.61%
June 2014 Rate**		5.3%
Sources: *BLS labor compiled from STATSAmerica.org; **SC Department of Employment and Workforce		

Educational Attainment*, Age 25+

Where People Work in 2014: Employed Population by Industry, Age 16+	
Industry	
Employed Population, 16+	84,888
Agriculture/Mining	.5%
Construction	5.9%
Manufacturing	20.7%
Wholesale Trade	3.4%
Retail Trade	12.6%
Transportation/Utilities	3.7%
Information	1.0%
Finance/Insurance/Real Estate	4.5%
Services	44.5%
Public Administration	3.1%
Source: U.S. Census Bureau, Census 2010 Summary. ESRI forecasts for 2014 & 2019.	
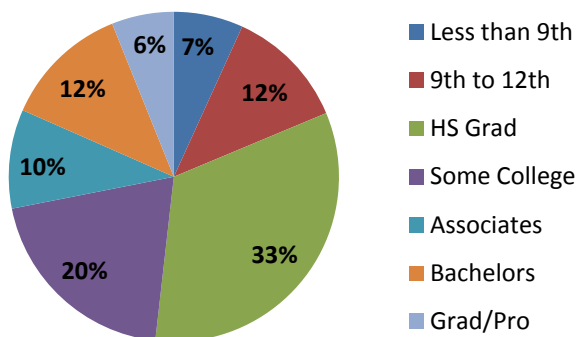
County-Wide E.D. Websites
County ED: www.advance2anderson.com
County Chamber: www.andersonscchamber.com
Innovate Anderson: wwwinnovateanderson.com
Anderson CVB: www.visitanderson.com

Source: American Community Survey, 2008-12 Averages, U.S. Census
*% of population having attained ONLY specified education level

Cherokee County Economic Profile

Municipalities

Gaffney (County Seat)

Blacksburg
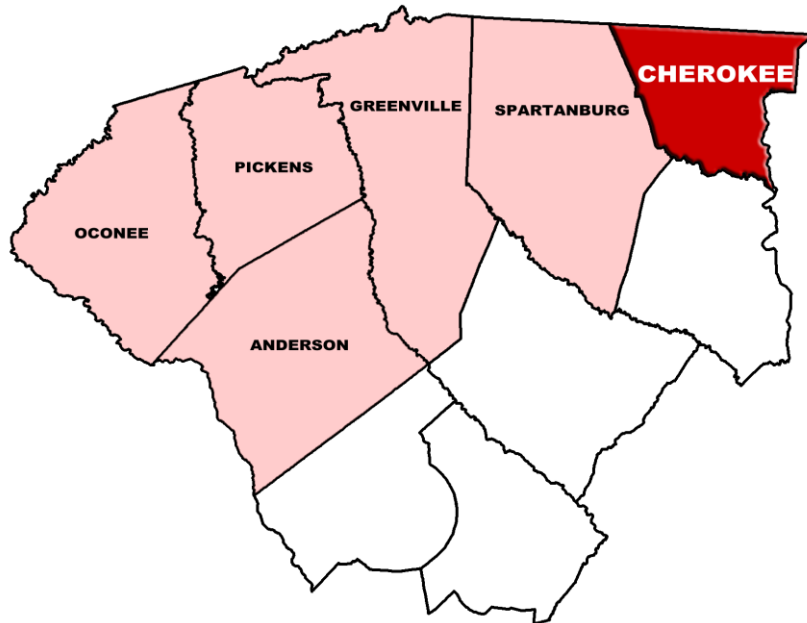
Named for its original Native American Cherokee population, the County was formed in 1897 with an economy based on iron ore and limestone. While the community grew around the textile industry during the 20th century, Cherokee County is now positioning itself for 21st century business. Strategically located along I-85 and between Greenville/Spartanburg (less than one hour south) and Charlotte (one hour north), the County benefits both from firms looking to minimize transport time along the I-85 "Boom Belt" and from travelers looking to stop and shop. The County is steeped in history, ranging from ancient Cherokee artifacts to two Revolutionary era battlefields – Cowpens and Kings Mountain. The County also has a rich agricultural tradition, particularly with peaches. Gaffney is home to the award-winning *South Carolina Peach Festival,* as well as a recently restored, historic U.S. Post Office now serving as the *Gaffney Visitors Center & Art Gallery*.

Transportation Infrastructure	
Interstate Access	I-85 (direct connection); I-26 (30 minutes)
Nearest Commercial Airports	Greenville-Spartanburg Int'l (40 minutes); Charlotte-Douglas Int'l (1 hr)
Nearest Civil Airports	Spartanburg Downtown Memorial (30 minutes); Shelby-Cleveland County Regional (30 minutes)
Port Access	Port of Charleston (206 miles); "The Inland Port" in Greer (30 minutes)
Rail Providers	Norfolk Southern

Population & Sales

Cherokee County Total Population by Age as of 2012	
Metric	**Cherokee County**
Total Population	55,662
Median Age	38.8 years
Age 14 & Under	20.1%
Age 15-19	6.5%
Age 20-54	47.8%
Age 55-64	12.9%
Age 65 & Up	14.5%
Source: U.S. Bureau of the Census, 2012 Estimates	

Gross Retail Sales (millions)	
FY 2006-2007	$1,142,921
FY 2007-2008	$1,134,964
FY 2008-2009	$1,118,482
FY 2009-2010	$1,062,377
FY 2010-2011	$1,198,106
FY 2011-2012	$1,237,291
FY 2012-2013	$1,307,897
Source: SC Department of Revenue and Taxation	

Workforce & Income

Comparative Per Capita Income, 2014 & 2019 Projection		
	2014	**2019**
Cherokee County	$17,756	$19,186
6 County Region	$23,658	$26,071
South Carolina	$23,782	$26,314
USA	$27,871	$32,168
Source: U.S. Census Bureau, Census 2010 Data. Esri forecasts for 2014 and 2019.		

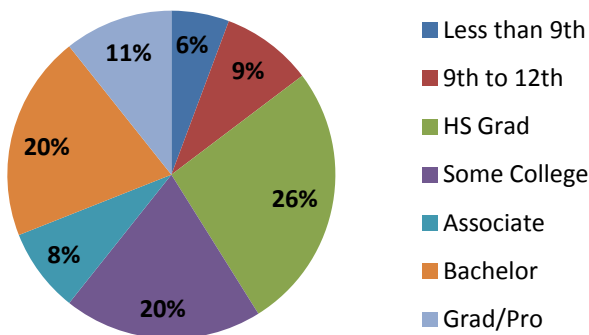| Where do people live and work?	
Live and work in Cherokee	9,391
Commute into Cherokee	8,836
Commute out of Cherokee	12,640
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2011 (most recent available data).	

24-Month Average Unemployment Rate*, Period Ending June 2013		
U.S.	**6 County Region**	**Cherokee County**
7.27%	6.58%	9.22%
June 2014 Rate**		6.6%
Sources: *BLS labor compiled from STATSAmerica.org; **SC Department of Employment and Workforce		

Where People Work in 2014: Employed Population by Industry, Age 16+	
Industry	
Employed Population, 16+	21,981
Agriculture/Mining	0.7%
Construction	5.7%
Manufacturing	25.5%
Wholesale Trade	3.3%
Retail Trade	14.7%
Transportation/Utilities	6.1%
Information	0.7%
Finance/Insurance/Real Estate	2.5%
Services	37.9%
Public Administration	2.8%
Source: U.S. Census Bureau, Census 2010 Summary. ESRI forecasts for 2014 & 2019.	

Educational Attainment*, Age 25+

Pie chart:
- Less than 9th: 10%
- 9th to 12th: 16%
- HS Grad: 37%
- Some College: 18%
- Associate: 7%
- Bachelor: 10%
- Grad/Pro: 3%

Source: American Community Survey, 2008-12 Averages, U.S. Census
*% of population having attained ONLY specified education level

County Economic Development Agency
Cherokee County Development Board
www.cherokeecountydevelopmentboard.com
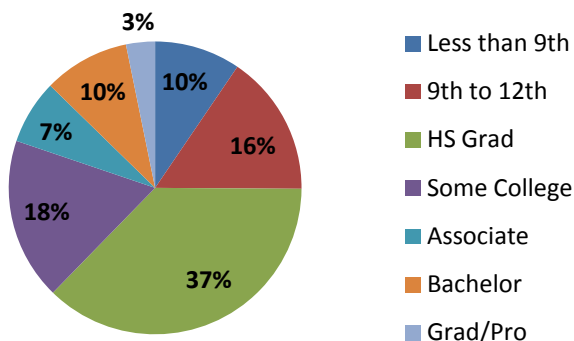
Greenville County Economic Profile

Municipalities

Fountain Inn

Greenville (County Seat)

Greer

Mauldin

Simpsonville

Travelers Rest
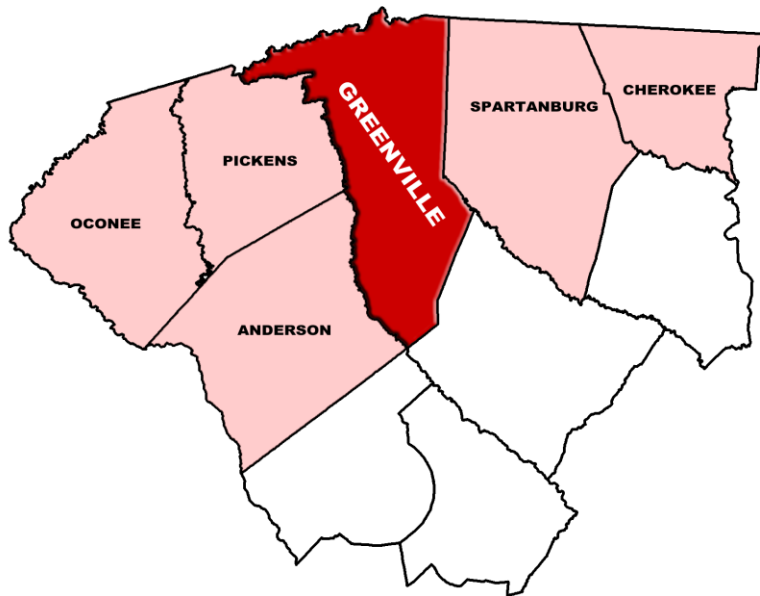
Formed as the "Greenville District" in 1786, Greenville is the most populous County in South Carolina with a growth rate driven by successful economic development recruiting. Home to dozens of major international companies and corporate headquarters, Greenville County possesses an exciting blend of industrial strength, recreational amenities, and cultural venues. Downtown Greenville continues to receive national attention as a model for downtown development, while surrounding towns offer aesthetic appeal and southern charm. Paris Mountain State Park is a tremendous asset for outdoor enthusiasts, while the County possesses some of the best arenas and performing arts centers in the Southeast. Home to prestigious Furman University, Bob Jones University (with its world-renowned art collection), the Greenville Symphony Orchestra, and a variety of other cultural jewels, Greenville County is poised for continued economic vibrancy.

Transportation Infrastructure	
Interstate Access	I-85 (direct connection)
Nearest Commercial Airports	Greenville-Spartanburg Int'l
Nearest Civil Airports	Greenville Downtown Airport, SC Technology and Aviation Center
Port Access	Port of Charleston (212 miles); "The Inland Port" in Greer (local)
Rail Providers	CSX, Norfolk Southern, Greenville Piedmont

Population & Sales

Greenville County Total Population by Age as of 2012	
Metric	**Greenville County**
Total Population	467,605
Median Age	37.4 years
Age 14 & Under	20.1%
Age 15-19	6.5%
Age 20-54	47.8%
Age 55-64	12.1%
Age 65 & Up	13.5%
Source: U.S. Bureau of the Census, 2012 Estimates	

Gross Retail Sales (millions)	
FY 2006-2007	$14,547,546
FY 2007-2008	$15,127,862
FY 2008-2009	$13,764,523
FY 2009-2010	$12,968,004
FY 2010-2011	$13,466,994
FY 2011-2012	$14,490,393
FY 2012-2013	$15,300,850
Source: SC Department of Revenue and Taxation	

Workforce & Income

Comparative Per Capita Income, 2014 & 2019 Projection		
	2014	**2019**
Greenville County	$26,507	$29,322
6 County Region	$23,658	$26,071
South Carolina	$23,782	$26,314
USA	$27,871	$32,168
Source: U.S. Census Bureau, Census 2010 Data. Esri forecasts for 2014 and 2019.		

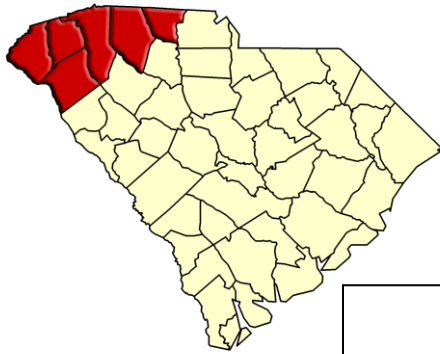| Where do people live and work?	
Live and work in Greenville Co.	124,686
Commute into Greenville Co.	101,637
Commute out of Greenville Co.	52,703
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2011 (most recent available data).	

24-Month Average Unemployment Rate*, Period Ending June 2013			
U.S.	**6 County Region**	**Greenville County**	
7.27%	6.58%	5.84%	
June 2014 Rate**		4.8%	
Sources: *BLS labor compiled from STATSAmerica.org; **SC Department of Employment and Workforce			

Educational Attainment*, Age 25+

■	Less than 9th — 6%
■	9th to 12th — 9%
■	HS Grad — 26%
■	Some College — 20%
■	Associate — 8%
■	Bachelor — 20%
■	Grad/Pro — 11%

Where People Work in 2014: Employed Population by Industry, Age 16+	
Industry	
Employed Population, 16+	215,213
Agriculture/Mining	0.3%
Construction	6.2%
Manufacturing	16.9%
Wholesale Trade	3.4%
Retail Trade	10.8%
Transportation/Utilities	3.6%
Information	1.6%
Finance/Insurance/Real Estate	5.8%
Services	48.7%
Public Administration	2.6%
Source: U.S. Census Bureau, Census 2010 Summary. ESRI forecasts for 2014 & 2019.	

County Economic Development Agency
Greenville Area Development Corporation
www.greenvilleeconomicdevelopment.com

Source: American Community Survey, 2008-12 Averages, U.S. Census
*% of population having attained ONLY specified education level
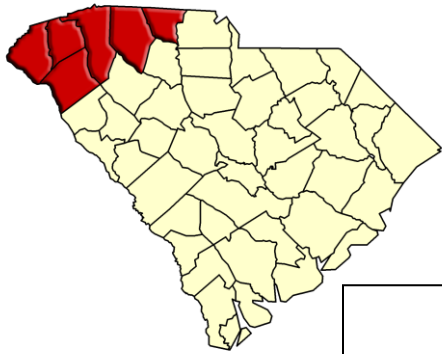
Oconee County Economic Profile

Municipalities

Salem

Seneca

Walhalla (County Seat)

Westminster

West Union
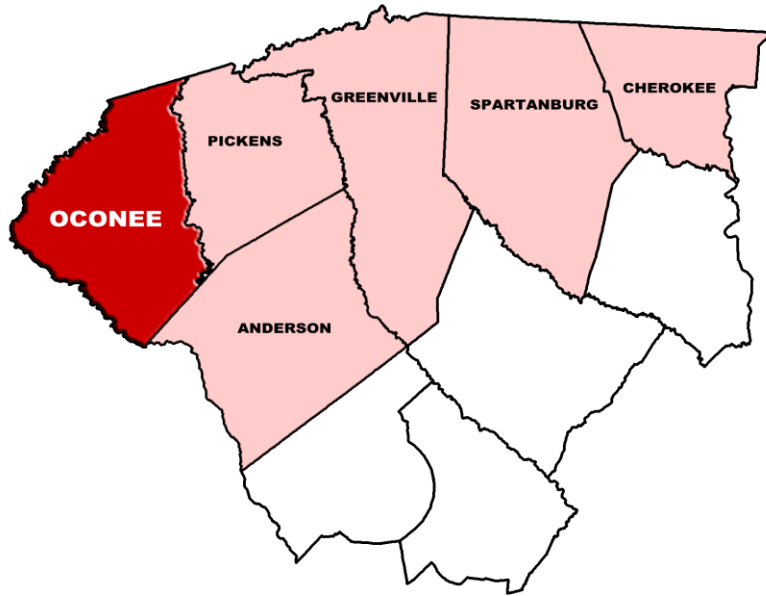
Known as South Carolina's "Golden Corner" and founded in 1868, Oconee County possesses an abundance of economic assets and natural resources.   Numerous Fortune 500 companies call Oconee home and for good reason: its combination of highway access, qualified workforce, and aesthetic beauty make it a desirable destination for business and tourism. Duke Energy is a long-time major employer and has been an economic development partner for many years. The community is in the foothills of the Blue Ridge Mountains and possesses breathtaking forests, farms, lakes, rivers, and waterfalls. Lakes Hartwell, Jocassee, and Keowee are all in Oconee, along with the Chattooga National Wild & Scenic River – a national destination for white water rafting. The County's inventory of available sites and buildings continues to grow, and an exciting new small business incubator has emerged in Walhalla – the *Tri-County Entrepreneurial Development Corporation*.

Transportation Infrastructure	
Interstate Access	I-85 (direct connection)
Nearest Commercial Airports	Greenville-Spartanburg Int'l (1 hour)
Nearest Civil Airports	Clemson-Oconee Airport
Port Access	Port of Charleston (246 miles); "The Inland Port" in Greer (1 hour)
Rail Providers	Norfolk Southern

Population & Sales

Oconee County Total Population by Age as of 2012	
Metric	**Oconee County**
Total Population	74,627
Median Age	44.1 years
Age 14 & Under	17.0%
Age 15-19	5.7%
Age 20-54	41.9%
Age 55-64	14.9%
Age 65 & Up	20.4%
Source: U.S. Bureau of the Census, 2012 Estimates	

Gross Retail Sales (millions)	
FY 2006-2007	$1,202,482
FY 2007-2008	$1,166,541
FY 2008-2009	$1,048,396
FY 2009-2010	$987,445
FY 2010-2011	$1,066,392
FY 2011-2012	$1,172,295
FY 2012-2013	$1,201,802
Source: SC Department of Revenue and Taxation	

Workforce & Income

Comparative Per Capita Income, 2014 & 2019 Projection		
	2014	**2019**
Oconee County	$23,795	$25,859
6 County Region	$23,658	$26,071
South Carolina	$23,782	$26,314
USA	$27,871	$32,168
Source: U.S. Census Bureau, Census 2010 Data. Esri forecasts for 2014 and 2019.		

Where do people live and work?	
Live and work in Oconee Co.	12,572
Commute into Oconee Co.	8,358
Commute out of Oconee Co.	17,940
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2011 (most recent available data).	

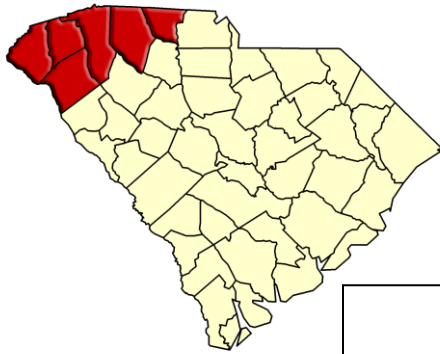| 24-Month Average Unemployment Rate*, Period Ending June 2013		
U.S.	**6 County Region**	**Oconee County**
7.27%	6.58%	7.71%
June 2014 Rate**		6.2%
Sources: *BLS labor compiled from STATSAmerica.org; **SC Department of Employment and Workforce		

Educational Attainment*, Age 25+

Less than 9th — 6%
9th to 12th — 12%
HS Grad — 33%
Some College — 19%
Associates — 9%
Bachelors — 13%
Grad/Pro — 9%

Where People Work in 2014: Employed Population by Industry, Age 16+	
Industry	
Employed Population, 16+	29,593
Agriculture/Mining	1.9%
Construction	4.7%
Manufacturing	20.5%
Wholesale Trade	1.9%
Retail Trade	10.5%
Transportation/Utilities	5.8%
Information	0.5%
Finance/Insurance/Real Estate	4.0%
Services	46.9%
Public Administration	3.3%
Source: U.S. Census Bureau, Census 2010 Summary. ESRI forecasts for 2014 & 2019.	

County Economic Development Agency
Oconee Economic Alliance
www.investoconeesc.com
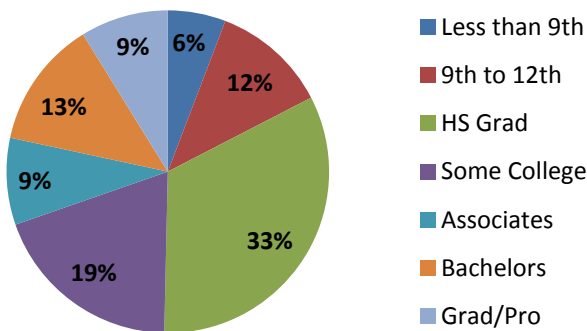
Source: American Community Survey, 2008-12 Averages, U.S. Census
*% of population having attained ONLY specified education level

Pickens County Economic Profile

Municipalities

Central

Clemson

Easley

Liberty

Norris

Pickens (County Seat)

Six Mile
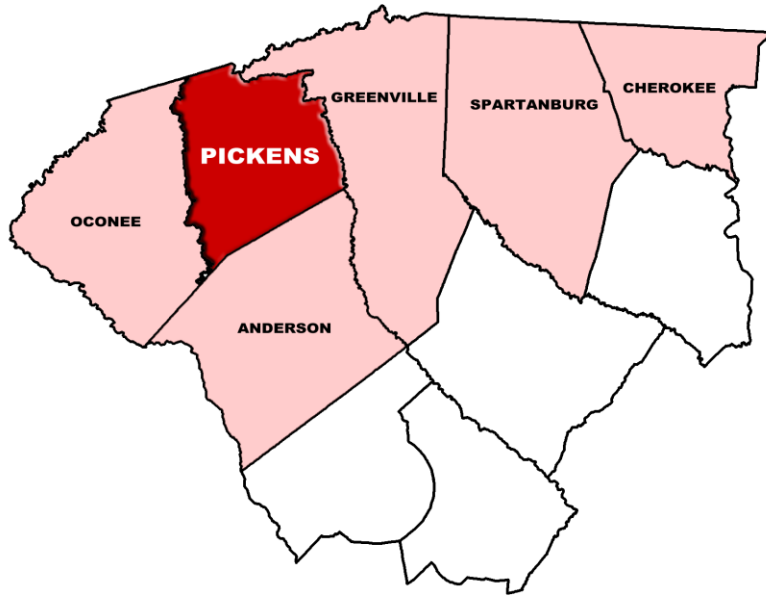
Steeped in Revolutionary era history and adorned with mountains and lakes, Pickens County offers both economic vitality and a high quality of life. Nationally reputed Clemson University is an irreplaceable presence in the community, as innovations spun out of that *Top 25 Public Research Institution* help drive several of the region's industrial clusters – including *Advanced Materials* and *Automotive*. Boasting one of the best County School systems in South Carolina, local Daniel High School was recently named by *U.S. News and World Report* as the #1 Traditional High School in the state. The acclaimed *Pickens County Career and Technical Center* (a consolidated tech program of the four County high schools) and Tri-County Technical College are preparing students for 21st century manufacturing jobs. Its strong industrial base, workforce development emphasis, and tourism assets position Pickens County for continued economic development success.

Transportation Infrastructure	
Interstate Access	I-85
Nearest Commercial Airports	Greenville-Spartanburg Int'l (45 minutes)
Nearest Civil Airports	Pickens County Airport, Clemson-Oconee Airport
Port Access	Port of Charleston (231 miles); "The Inland Port" in Greer (45 minutes)
Rail Providers	Norfolk Southern, CSX

Population & Sales

Pickens County Total Population by Age as of 2012	
Metric	**Pickens County**
Total Population	119,670
Median Age	35.1 years
Age 14 & Under	16.5%
Age 15-19	9.2%
Age 20-54	48.4%
Age 55-64	11.7%
Age 65 & Up	14.3%
Source: U.S. Bureau of the Census, 2012 Estimates	

Gross Retail Sales (millions)	
FY 2006-2007	$1,939,923
FY 2007-2008	$1,929,843
FY 2008-2009	$1,850,954
FY 2009-2010	$1,736,564
FY 2010-2011	$1,968,115
FY 2011-2012	$1,918,390
FY 2012-2013	$2,001,476
Source: SC Department of Revenue and Taxation	

Workforce & Income

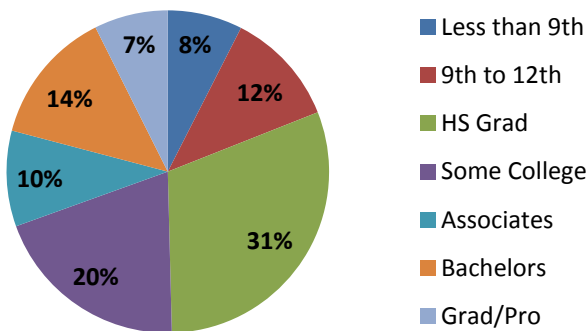| Comparative Per Capita Income, 2014 & 2019 Projection		
	2014	**2019**
Pickens County	$21,162	$23,466
6 County Region	$23,658	$26,071
South Carolina	$23,782	$26,314
USA	$27,871	$32,168
Source: U.S. Census Bureau, Census 2010 Data. Esri forecasts for 2014 and 2019.		

Where do people live and work?	
Live and work in Pickens Co.	16,117
Commute into Pickens Co.	17,371
Commute out of Pickens Co.	22,815
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2011 (most recent available data).	

24-Month Average Unemployment Rate, Period Ending June 2013		
U.S.	**6 County Region**	**Pickens County**
7.27%	6.58%	6.41%
June 2014 Rate		5.4%
Sources: *BLS labor compiled from STATSAmerica.org; **SC Department of Employment and Workforce		

Educational Attainment*, Age 25+

- 6% Less than 9th
- 12% 9th to 12th
- 31% HS Grad
- 19% Some College
- 9% Associates
- 14% Bachelors
- 10% Grad/Pro

Where People Work in 2014: Employed Population by Industry, Age 16+	
Industry	
Employed Population, 16+	53,236
Agriculture/Mining	0.5%
Construction	6.9%
Manufacturing	16.7%
Wholesale Trade	1.7%
Retail Trade	11.6%
Transportation/Utilities	4.2%
Information	1.1%
Finance/Insurance/Real Estate	4.2%
Services	50.3%
Public Administration	2.8%
Source: U.S. Census Bureau, Census 2010 Summary. ESRI forecasts for 2014 & 2019.	

Source: American Community Survey, 2008-12 Averages, U.S. Census

*% of population having attained ONLY specified education level

County Economic Development Agency
Alliance Pickens
www.alliancepickens.com
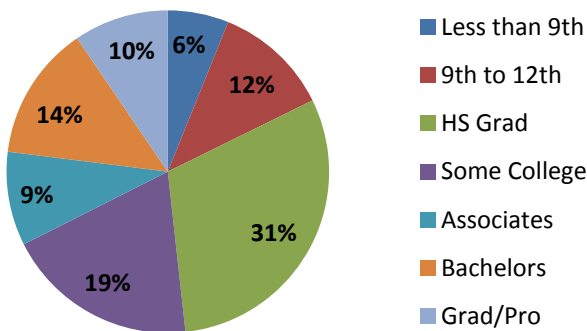
Spartanburg County Economic Profile

Municipalities

Campobello

Central Pacolet

Chesnee

Cowpens

Duncan

Inman

Landrum

Lyman

Pacolet

Reidville

Spartanburg (County Seat)

Wellford

Woodruff
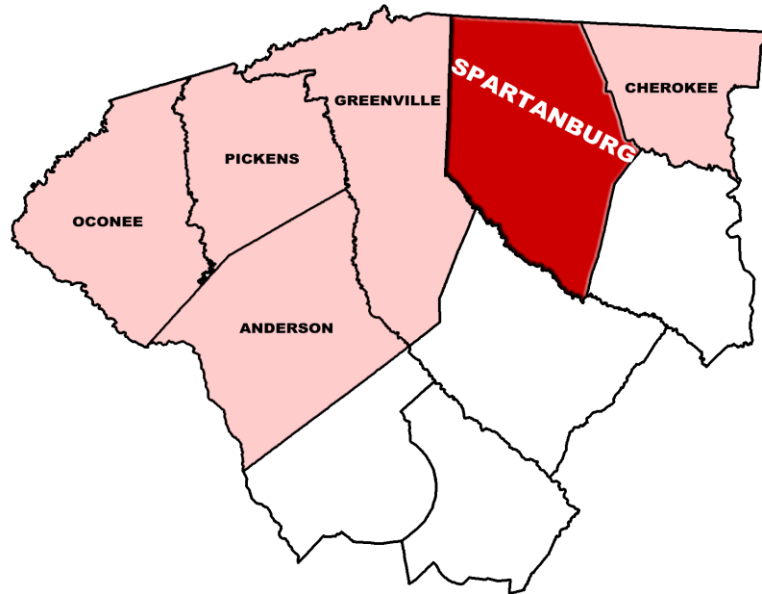
Spartanburg County was formed in 1785 and named after a local Revolutionary War militia called "The Spartan Regiment". Originally a frontier trading post, its economy progressed over the centuries into a major textile and international business center. Home to BMW's North American Headquarters, Spartanburg County boasts within its borders more than 100 international companies from 15 different countries. The *New York Times* recently cited that Spartanburg County had the highest per capita international investment in the country. Key to this success is the County's location at the crossroads of I-26 and I-85, the presence of the growing Greenville-Spartanburg International Airport, and the Port of Charleston—which is only three hours away. Spartanburg County also possesses a wealth of artistic, cultural, and sporting venues as well as several public and private colleges—all of which energize the local economy.

Transportation Infrastructure	
Interstate Access	I-85, I-26
Nearest Commercial Airports	Greenville-Spartanburg Int'l
Nearest Civil Airports	Spartanburg Downtown Memorial Airport
Port Access	Port of Charleston (204 miles); "The Inland Port" in Greer
Rail Providers	Norfolk Southern, CSX

Population & Sales

Spartanburg County Total Population by Age as of 2012	
Metric	**Spartanburg County**
Total Population	288,745
Median Age	38.3 years
Age 14 & Under	20.0%
Age 15-19	6.9%
Age 20-54	46.2%
Age 55-64	12.6%
Age 65 & Up	14.3%
Source: U.S. Bureau of the Census, 2012 Estimates	

Gross Retail Sales (millions)	
FY 2006-2007	$8,101,098
FY 2007-2008	$7,465,099
FY 2008-2009	$7,963,141
FY 2009-2010	$7,835,780
FY 2010-2011	$8,700,726
FY 2011-2012	$10,304,876
FY 2012-2013	$12,188,117
Source: SC Department of Revenue and Taxation	

Workforce & Income

Comparative Per Capita Income, 2014 & 2019 Projection		
	2014	**2019**
Spartanburg County	$22,533	$24,698
6 County Region	$23,658	$26,071
South Carolina	$23,782	$26,314
USA	$27,871	$32,168
Source: U.S. Census Bureau, Census 2010 Data. Esri forecasts for 2014 and 2019.		

Where do people live and work?	
Live and work in Spartanburg Co.	62,662
Commute into Spartanburg Co.	49,549
Commute out of Spartanburg Co.	46,482
OnTheMap Application and LEHD Origin-Destination Employment Statistics, 2011 (most recent available data).	

24-Month Average Unemployment Rate, Period Ending June 2013		
U.S.	**6 County Region**	**Spartanburg County**
7.27%	6.58%	7.10%
June 2014 Rate		5.7%
Sources: *BLS labor compiled from STATSAmerica.org; **SC Department of Employment and Workforce		

Educational Attainment*, Age 25+

- Less than 9th — 8%
- 9th to 12th — 12%
- HS Grad — 31%
- Some College — 20%
- Associates — 10%
- Bachelors — 14%
- Grad/Pro — 7%

Where People Work in 2014: Employed Population by Industry, Age 16+	
Industry	
Employed Population, 16+	131,614
Agriculture/Mining	0.5%
Construction	5.9%
Manufacturing	20.9%
Wholesale Trade	3.2%
Retail Trade	11.4%
Transportation/Utilities	4.3%
Information	1.5%
Finance/Insurance/Real Estate	4.7%
Services	45.2%
Public Administration	2.4%
Source: U.S. Census Bureau, Census 2010 Summary. ESRI forecasts for 2014 & 2019.	

County Economic Development Agency
Spartanburg Economic Futures Group
www.economicfuturesgroup.com

Source: American Community Survey, 2008-12 Averages, U.S. Census
*% of population having attained ONLY specified education level

Section III: Strategic Projects, Programs, and Activities

Clusters, Target Industries and Innovation Capacities

The following strategic plan is outlined in CEDS 2013-2017.

CEDS 2013-2017 Strategic Plan
Goals: • **Promote the growing regional industrial clusters and target industries of Advanced Materials, Automotive, Biosciences, Energy, and Aerospace.** • **Promote local clusters and target industries which are unique to individual counties and communities.**
Supportive Findings • Objective, scientific cluster analysis has revealed five growing, technologically promising industry clusters in the region: **Advanced Materials, Automotive, Biosciences, Energy and Aerospace.** • The Upstate Alliance is marketing these clusters as **target industries** for the region on a global level. • There are outstanding regional **foundations of innovation capacity and institutional partners** for each cluster/target industry. • In addition to the five region-wide clusters, individual counties have also analyzed their unique assets in order to form their own additional industry targets.
Objectives 1. Provide capacity-building technical assistance for the recruitment and enhancement of the region's **Advanced Materials** industrial cluster. 2. Provide capacity-building technical assistance for the recruitment and enhancement of the region's **Automotive** industrial cluster. 3. Provide capacity-building technical assistance for the recruitment and enhancement of the region's **Biosciences** industrial cluster. 4. Provide capacity-building technical assistance for the recruitment and enhancement of the region's **Energy** industrial cluster. 5. Provide capacity-building technical assistance for the recruitment and enhancement of the region's **Aerospace** industrial cluster. 6. Provide technical assistance to capacity-building and recruitment efforts for **local target industries** which are supported by a community's own unique assets. The Anderson County target industry of **Data Centers** is an example; the community has a unique set of local assets which make this industry a logical recruiting target.
Strategic Projects, Programs, and Activities For Objectives 1-6: • Provide GIS-based research, map making and location decision analysis for communities, universities, industries and other related partners to further strengthen regional cluster-based economic development; • Provide strategic economic development planning and grant-writing services to further expand the capacity of all regional clusters and target industries.
Strategic Partners: SCACOG; all County and City local economic developers throughout the region; the Upstate Alliance; the South Carolina Department of Commerce; the Appalachian Development Corporation. Note: please see the *Regional Innovation Capacity* tables in this chapter for the numerous institutional partners related to each individual regional cluster.
Time Line: 2013-2017

The past twelve months have been an exceptional time for *Clusters, Target Industries, and Innovation Capacities* in the SC Appalachian Region. As noted above in the Strategic Plan for this *CEDS Area of Emphasis,* the five regional target industries are *Advanced Materials, Aerospace, Automotive, Biosciences*, and *Energy*—plus community-specific target industries based on existing local assets, such as the *Data Centers* industry targeted by Anderson County. The table below displays outstanding capital investment and job creation figures in these areas over the past twelve months.

Performance of Target Industries/Clusters in SC Appalachian Region, 09-2013 – 08-2014

New Company Announcements

	Advanced Materials	Aerospace	Automotive	Biosciences	Energy	Other Industries
Announced	9	1	8	3	3	8
Investment	$558,700,000	500,000,000	$60,530,000	5,750,000	613,000,000	$90,300,000
New Jobs	504	250	467	150	41	904

Existing Company Expansions

	Advanced Materials	Aerospace	Automotive	Biosciences	Energy	Other Industries
Announced	22	3	16	5	5	10
Investment	$454,550,000	12,500,000	**$1,173,525,000**	$25,175,000	448,000,000	123,900,000
New Jobs	699	45	1,776	46	225	657

Total Accomplishments (New + Existing Companies)

	Advanced Materials	Aerospace	Automotive	Biosciences	Energy	Other Industries
Announced	31	4	24	8	8	18
Total $	$1,013,250,000	512,500,000	$1,234,055,000	$30,925,000	$1,061,000,000	214,200,000
Total Jobs	1,203	295	2,243	196	266	1,561

Totals
73 Announcements* (a 62% annual increase)
$4,065,930,000 Investment (a 528% annual increase)
5,764 Jobs (a 179% increase)

Source: The Upstate South Carolina Alliance (http://www.upstatescalliance.com)

Several companies are classified as being equally associated with more than one industry, such as advanced material manufacturers who produce parts for both the automotive and aerospace industries. In these instances, the number of jobs and dollars invested were equally divided (in the table above) among the target industries that these manufacturers serve. Example: 75 new jobs from a company could be split equally over advanced materials, automotive, and aerospace (25 jobs each).

The accomplishments recorded between 09/2013 and 08/2014 ("CEDS Year 2014") greatly exceed the results of the previous twelve months (09/2012 to 08/2013; "CEDS Year 2013").   Company announcements increased from 45 in CEDS year 2013 to 73 in CEDS year 2014 (a 62% increase). New jobs from industrial announcements increased from 2,067 in CEDS year 2013 to 5,764 in CEDS year 2014 (a 179% increase). Remarkably, total capital investment from industrial announcements increased from $646.6 million in CEDS year 2013 to $4,065,930,000 in CEDS year 2014 (a 528% increase). During this time period, there were two respective $1 billion company announcements—one from a newly located advanced materials/aerospace manufacturer that will create 500 jobs, and another from an existing automotive manufacturer in the region that will increase its staff by 800 positions. While these two announcements were by far the largest of the year, the total capital investment and new jobs represented in the remaining 70 announcements still more than double the accomplishments recorded in CEDS year 2013.

Key to continuing this success is to focus on the clusters, target industries, and public-private innovation capacities emphasized in CEDS 2013-2017. While an inventory of these innovation engines is detailed in the 5-year CEDS, this following table highlights some notable on-going initiatives:

Regional Innovation Capacities Getting Stronger
The Clemson University – International Center for Automotive Research (CU-ICAR) is **expanding** through construction of the new 75,000 s.f. *Research One* building which will bring a combination of specialized classroom and incubation space for **automotive** start-up companies. Design work began in late 2013 and construction of the estimated $9 million facility is expected to be completed in 2016.
The local South Carolina Technology and Aviation Center (SCTAC) has partnered with the CU-ICAR to develop a program to test wireless charging systems in electric vehicles. SCTAC and CU-ICAR have contracted with Oak Ridge National Laboratory to support this three year cutting edge **automotive** program, and the research is funded by the U.S. Department of Energy.
The Clemson University **Advanced Materials** Center continues to strengthen its innovation capacity in this target industry. Inside the 111,000 square foot facility boasts (1) the nation's best electron microscopy laboratories, (2) the most advanced optical fiber drawing capabilities among U.S. universities, (3) outstanding laser and chemical laboratories, and (4) Class 100 clean rooms and instrumentation facilities.
The Clemson University Biomedical Innovation Campus (CUBEInC) is one of the nation's leading research institutions in medical device technology. With a focus on developing high-impact medical technology and devices for disease management, CUBEInC has helped SC to receive a #6 ranking from *Business Facilities Magazine* in the category of emerging **bioscience** hubs.
Duke Energy continues to be an irreplaceable economic development partner for the SC Appalachian Region, fueling the region's industrial **energy** cluster. Recently announcing construction of a new $600 million natural gas-powered plant in Anderson County, Duke also supports positive community and economic development projects at the local level through its robust Duke Energy Foundation.
The welcome presence of Boeing in South Carolina has turbo-charged the region's **aerospace** cluster, with approximately 1/3 of the state's 160 aerospace-related firms being located locally. Technical and Specialty Education curriculums are becoming specialized, and research support is being offered by Clemson Vehicular Electronics Laboratory and the Composites Manufacturing Technology Center.

Note: Table is a set of examples and not intended to be a comprehensive list of every innovation asset.

In keeping with CEDS 2013-2017, the regional Economic Development District will continue to work with local, regional, state, and federal partners to continue strengthening these vital project areas of innovation and cluster-based development.

Infrastructure

The following strategic plan for infrastructure is outlined in CEDS 2013-2017:

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CEDS 2013-2017 Strategic Plan

Goal: Make the SCACOG region attractive for economic development by sustaining and enhancing physical infrastructure.
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Supportive Findings
- With 225 miles of interstate highway along I-85 and I-26, the region has a great foundation for transportation infrastructure. These interstates provide fast access to surrounding regions and to world class airports and seaports.
- Road and highway networks must continue to be upgraded in order alleviate congestion and to foster successful development in a growing region.
- Communities face great capital challenges for extending and upgrading their water and sewer services in order to facilitate new investment and job creation.
- Power, Natural Gas and Telecommunications play an increasingly important role in the region and must continue to be supported.
- While several major regional employers rely on rail service, there is potential to connect more sites to rail in order to attract major economic development prospects. The new, centrally located "Inland Port" rail terminal will have a transformational impact on the region's rail capacity and relieve highway truck traffic through increased intermodal product transport.
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Objectives
1. Promote effective transportation and land use planning throughout the region.
2. Support improving and increasing the economic development capacity of Greenville Spartanburg International Airport and all other regional airports.
3. Support increasing the capacity of the Port of Charleston, which is a great asset for international business development in the region.
4. Support increasing the capacity and connectivity of regional water, sewer, rail, power, natural gas, and telecommunications infrastructure.
5. Support the on-going design and development of the Inland Port rail facility and terminal.
6. Support the replacement and/or refurbishment of aged public infrastructure.
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Strategic Projects, Programs, and Activities
1. Conduct responsible transportation and land use planning which accounts for the region's growing population, increasing traffic challenges, and escalating need for jobs.
2. Provide strategic planning and grant writing to help increase the region's economic development capacity in air travel and freight transport.
3. Support the expansion of the Port of Charleston by writing formal letters of support and providing analysis on how impactful the Port is to the SC Appalachian Region.
4. Provide strategic planning and grant writing services to support increased capacity and connectivity to water, sewer, rail, power, natural gas, and telecommunications infrastructure.
5. Assist with any technical support needed in the development of the Inland Port, including GIS, strategic planning, and grant-writing services.
6. Support the replacement and/or refurbishment of aged infrastructure through grant-writing and strategic planning services.
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Strategic Partners: SCACOG; all County and City local economic developers and planners; the Upstate Alliance; the South Carolina Department of Commerce; the South Carolina Ports Authority; Greenville-Spartanburg International Airport and all other regional airports; all infrastructure grant providing agencies active in the region, including EDA, USDA, the Appalachian Regional Commission; U.S. Housing and Urban Development CDBG Program, SC DOT.
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Time Line: 2013-2017
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While a detailed inventory of assets is provided in the 5-Year CEDS, the most notable infrastructure development over the past 12 months has been construction of the **Inland Port in Greer** – which officially opened in the fall of 2013. This 100-acre Greer rail development, which is located directly off of I-85 and adjacent to GSP International Airport, is beginning to have major impact on international container movements between the **Port of Charleston** and the region. Referred to as "a port without water", it provides a place to transfer shipping containers between train and truck for shipments to and from the coast. The facility is improving the transport of freight on this 218-mile corridor by converting 50,000 all-truck container moves to more efficient multimodal moves. Adding to the impact of this development is the fact that nearly 2,600 acres of adjacent GSP International Airport property has been opened for economic development.

Clearly, the combined Inland Port and available GSP property will have a major impact on business logistics, capital investment, and job creation. The development combines the assets of interstate, airport, and rail in a way in a way that is unprecedented for the SC Appalachian Region. With this development, however, there will be significant infrastructure challenges. Conditions both on I-85 as well as all surrounding roads will face new traffic strains, and supporting utilities must also be updated responsibly. A major priority of CEDS 2013-2017 is to ensure that new development stemming from the Inland Port is planned responsibly in order (1) to minimize congestion, (2) to be environmentally responsible, and (3) to promote a high quality of life in the region. Extra effort and focus will be needed to guard against a potentially deleterious effect of the Inland Port drawing prospects and development away from the communities which are not as geographically close to this new rail infrastructure.

Another vital project area is to improve the regional network of Interstate Highways (I-85, I-26, I-185, I-385, and I-585). In June of 2013, the State Department of Transportation produced a list of its top seven **interstate improvement projects**, and three of them are found in the SC Appalachian Region. Construction in these sections of I-85 over the next several years will carry a major regional impact:

- **I-85/I-385 interchange in Greenville County**
- **I-85 widening in Greenville/Spartanburg counties (24.7 miles)**
- **I-85 widening in Spartanburg/Cherokee counties (28.36 miles)**

In addition to these notable SC DOT projects, **the widening of I-85 from two lanes in Anderson County** is an equally vital interstate project for regional economic development. Anderson County boasts the most interstate frontage acreage and sites in the region, making the widening of I-85 imperative. Covered in CEDS 2013-2017 are this project and general road/highway improvements throughout the region which face significant funding needs.

In February of 2014, a large group of local economic developers, planners, utilities, and elected officials assembled at the Appalachian Council of Governments office in Greenville to complete a *Strengths-Weaknesses-Opportunities-Threats* (S.W.O.T.) analysis on the current state of infrastructure and sites in the region. The following is summary of the analysis on the subject of infrastructure:

S.W.O.T. Analysis: Infrastructure	
Strengths – Infrastructure • Network and availability of Utilities (Power, Water, Sewer) • The Inland Port • High Connectivity via Interstates 85 and 26	**Weaknesses – Infrastructure** • Sewer (cost, access, and capacity) • Fiber Telecommunications (availability) • Public Transit options (not many, not much variety) • Roads & Bridges (condition, capacity, quality) • Power Grid (aging) • I-85 & I-26 interchanges and frontage roads (quality, condition) • Air quality standards – the federal clamp down has limited the region's permitting capacity for job creating projects.
Opportunities – Infrastructure • Enhance workforce development infrastructure and coordination (crossover with other section of IMCP) • Develop greater sewer treatment capacity/capability • Enhance transportation infrastructure for both freight and workers • High Speed Rail to enable more efficient inter-county worker commuting • Pro-active regional planning for growth through groups like Ten at the Top, three different COGs, Upstate Alliance, Upstate Forever, and utilities. • Redevelopment of old mfg buildings and sites – "in-fill development" to prevent sprawl.	**Threats – Infrastructure** • Poor planning of infrastructure investment • Low funding • Legislative disorganization with jurisdictional barriers impeding progress. • Aging physical infrastructure • Shortage of planning to address sprawl • Shortage of in-fill development planning • The challenge of maintaining considerable attractiveness of the region as it grows…to maintain cohesive charm and identity as other growing regions like greater Atlanta have not been able to do.

The narrative summary of the group's S.W.O.T. analysis is found below:

"The presence of many state and federal highways, including two major interstates, plus a variety of public and private utilities (power, gas, sewer, telecomm, etc.) represent a regional strength upon which there are opportunities to develop economically. Compared to more rural and isolated areas of the country, Upstate SC is a physically well-connected and well-integrated region that can compete with most metropolitan areas projects. While the presence of a robust infrastructure network is a strength, however, its condition, variety, and sustainability (from a planning perspective) could all be characterized as weaknesses which are increasingly becoming threats to the economic future of the region. Roadways, the power grid, and sewer facilities are aging and in particular need of both collaborative investment and

regional planning efforts. Public transit options are extremely limited and the presence of commuter rail transit across this large 10-county land mass is much-needed both economically and environmentally. Growth planning, in-fill development, jurisdictional coordination, and billions of dollars in capital investment will be needed to adequately address infrastructure weaknesses and threats over the coming 10-20 years."

Whether examining the Inland Port, notable interstate projects, or all other infrastructure areas covered in CEDS 2013-2017, the SC Appalachian Region shares the nation-wide challenge of addressing deteriorated infrastructure. A recent, major sewer extension to the Golden Corner Commerce Park in Oconee County offers a good example of a community being resourceful and working collaboratively to carry out a much-needed, large-scale infrastructure project that was once thought unlikely. There still remain numerous roads and bridges throughout the region in need of upgrades, including the US 29 Overpass that runs over I-85 in Anderson County (it needs to be heightened so that freight trucks do not get jammed under it). The same is true for public water, sewer, rail, and all other types of public infrastructure facilities that have been worn by age and weather. CEDS 2013-2017 supports not only expanding infrastructure capacity to help foster new economic development, but also maintaining a quality business environment through existing infrastructure replacement and restoration.

Available Sites and Buildings

The following strategic plan for available sites and buildings is outlined in CEDS 2013-2017:

CEDS 2013-2017 Strategic Plan
Goal: Improve regional economic development capacity by increasing the quality and quantity of shovel ready sites and suitable buildings for expanding and locating businesses.
Supportive Findings • A region with an outstanding inventory of available sites and buildings is better positioned to land projects. • In an increasingly competitive environment where companies desire to expand or relocate quickly, site consultants use specific criteria to *filter up* to shovel ready, high capacity locations. • Without an impressive inventory of sites and buildings, communities are often not considered by prospects or even by existing companies that wish to expand. *Availability of Product* keeps communities in the hunt and provides positive visibility.
Objectives 1. Help <u>market</u> existing and future sites throughout the region. 2. Help improve the <u>availability</u> of sites throughout the region. 3. Help improve the <u>connectivity</u> of sites throughout the region. 4. Help improve the <u>develop-ability</u> of sites throughout the region. 5. Help improve the <u>inventory</u> of suitable, available buildings throughout the region.
Strategic Projects, Programs, and Activities 1. Utilizing *Infomentum Online*, a state of the art program offered by SCACOG, provide GIS data and mapping services to help economic developers <u>market</u> available sites and buildings throughout the region. 2. When they are not publicly owned, improve the <u>availability</u> of sites by encouraging communities to enter mutually beneficial, long-term option agreements between property owners and local economic development agencies. This will improve the region's ability to negotiate on more sound footing with prospects. 3. Improve the <u>connectivity</u> of sites by (1) helping communities assess site utility connections, (2) providing grant-writing and planning support to improve site utility connections. 4. Improve the <u>develop-ability</u> of sites by offering grant-writing and planning assistance for due diligence associated with environmental assessments, mitigations, and right-of-way/easement analysis. 5. Help improve the inventory of suitable, available buildings for prospects by offering grant-writing and planning assistance for the redevelopment of existing facilities and the development of speculative shell buildings, when (i) the community deems it appropriate, and (ii) when local market conditions deem it necessary for attracting expansion and location projects.
Strategic Partners: SCACOG; all County and City local economic developers throughout the region; the Upstate Alliance; the Appalachian Development Corporation; the South Carolina Department of Commerce; utility providers throughout the region; real estate developers throughout the region.
Time Line: 2013-2017

The past twelve months has been a very interesting year in this *CEDS Area of Emphasis*. First, lack of available "product" (sites, certified sites, industrial buildings) is cited by the region's economic developers as one of their most difficult challenges. When State project managers and private site

location consultants submit a *Request for Information* concerning a company that is looking for a new location, it has become the norm for them to look for certified sites and/or habitable buildings.

While the private real estate market will always be the primary force behind meeting *product* demand for economic development prospects, there are vital project areas of public investment outlined in CEDS 2013-2017 which can support the process (see Strategic Plan table of previous page). The objectives are (1) to help increase the inventory of site and building product, (2) to help market that product, and (3) to improve product availability, connectivity, and develop-ability.

One topic that has received particular attention over the past twelve months is the need to invest in the region's *InfoMentum Suite of Services* – which is an award-winning, GIS-based support system that enables economic developers to produce fast, detailed radius reports and maps which help market their product. While InfoMentum remains strong, it is very difficult for any such system to keep up with rapid technological developments. With support from the U.S. EDA, the InfoMentum program has been able to develop a programming mechanism for sharing data with the State of South Carolina's "LocateSC" property database. This project represents a major improvement in efficiency for both the InfoMentum program as well as for local economic developers who upload their available property information to what has now become a single point of entry. The same grant award from U.S. EDA has also enabled the InfoMentum program to develop a mobile app which allows the region to showcase its available sites and buildings from any tablet or phone. This project represents a major asset for local economic developers who spend significant time discussing product with potential prospects while away from their offices.

In February of 2014, a large group of local economic developers, planners, utilities, and elected officials assembled at the Appalachian Council of Governments office in Greenville to complete a *Strengths-Weaknesses-Opportunities-Threats* (S.W.O.T.) analysis on the current state of infrastructure and sites in the region. The following is summary of the analysis on the subject of sites:

S.W.O.T. Analysis: Sites	
Strengths – Sites • High level of site readiness • Presence of certified sites (based on int'l standards) • Physical accessibility to sites is good • Duke Energy grant program for site preparation • InfoMentum Suite of GIS based economic development services at ACOG provides a good regional site/bldg database for marketing and analysis.	**Weaknesses – Sites** • Inflated land prices from property owners • Availability of pad ready and certified sites (this is a strength and a weakness – the region does have some, but not enough by comparison to peer regions) • Shortage of available buildings and spec buildings. • Site/Bldg Weaknesses might be summed up as "shortage of available product".
Opportunities – Sites • Target new site and spec building opportunities to address shortage • Collaborative investment in true multi-county industrial parks and mega sites (between adjacent counties)	**Threats – Sites** • Increasing environmental regulations create missed opportunities for potential projects to develop on sites. • Diminishing number of quality sites and buildings ("product") • Inflated value/perception of sites by landowners create missed opportunities for potential projects on their sites. • Diminishing workforce quality and availability • "Ozone plume" from Atlanta and TN reach into SC, thereby unfairly affecting the way our counties are regulated by the EPA

The narrative summary of the group's S.W.O.T. analysis is found below:

> **"The region possesses a number of pad-ready and technically "certified" sites which can compete with most U.S. regions for projects. There is organizational infrastructure in the region behind these sites, including the Upstate SC Alliance (which helps to market these sites on a global level), ACOG's *InfoMentum* 10-county industrial property database with GIS-based analytical tools, and utilities such as Duke Energy – which provide grant and tax credit programs for site and speculative building development. While the presence of such assets are considered strengths upon which opportunities can be derived, there is a fundamental shortage of available sites and buildings which present many missed economic development opportunities. Most available sites in the region being advertised for economic development are privately owned by citizens who often ask for prices significantly above market demand. This creates stagnation and missed opportunities for would-be industrial employers in the Upstate. While the quality companies being recruited to the Upstate are typically environmentally conscientious, occasional smog spillover from Atlanta and TN are**

> **distorting the way in which local jurisdictions are being monitored. This distortion can raise the financial cost of economic development and serve as a barrier.”**

The SC Appalachian Region continues to be a strong *manufacturing region*, as the number of firms and workers in this field represent a significantly higher percentage of the regional economy than that of manufacturing firms and workers as a percentage of the national economy. 19% of the region’s workforce is employed by manufacturing firms, whereas approximately 9% of U.S. workers are employed in this field. Manufacturing jobs typically provide solid paychecks and benefits to citizens of the region. As such, CEDS 2013-2017 supports bolstering a strong inventory of sites and buildings in order to attract the types of manufacturing employers who are helping to improve the overall wealth and quality of life of the region.

Workforce Development

CEDS 2013-2017 Strategic Plan
Goal: Cultivate an efficient and skilled 21st Century workforce through enhanced training and coordination of resources in the SC Appalachian Region.
Supportive Findings   • Regional graduation rates have improved at all scholastic levels and the region has a population of workers large enough to accommodate virtually any economic development project.   • The availability of **technologically skilled manufacturing labor** presents significant challenges in regional economic development, as available skilled labor is important to the region's vital industrial clusters.   • With regional manufacturers in need of Certified Production Technicians (CPT's), Certified Logistics Technicians (CLT's), Computer Numerical Control operators (CNC's), mechatronix specialists, and the like, the effective coordination of workers and training programs is as challenging as it is essential.   • The region shares the significant state-wide challenges associated with illiteracy and the need for early childhood intervention and education.   • There is a broad array of programs, initiatives and educational institutions that serve as assets to the region's workforce development efforts.   • The state-wide *South Carolina Chamber of Commerce* has developed an outstanding list of goals and strategies which are reflective of the workforce challenges and opportunities in the SC Appalachian Region.
Objectives   1. Support the region's three Workforce Investment Boards (WIBs) and all of the programs they oversee.   2. Support the SC Technical College System and other professional schools and workforce organizations that are training the regional workforce and connecting it with employers.   3. Promote the workforce development goals and strategies developed by the South Carolina Chamber of Commerce.
Strategic Projects, Programs, and Activities   1. Continue to partner with regional WIB's through coordination, strategic planning, and grant writing assistance.   2. Provide strategic planning and grant writing services to technical colleges and other professional workforce organizations.   3. Offer assistance with strategic planning, technical support, and grant-writing to all the SC programs and partners that are working to achieve the workforce goals and strategies outlined by the South Carolina Chamber of Commerce.
Strategic Partners: SCACOG, the Worklink WIB; the Greenville County WIB; the Upstate WIB; all local school systems, colleges and universities within the region; all County and City local economic developers throughout the region; the Upstate Alliance; the South Carolina Department of Commerce. Note: please see the *SC Workforce Development Programs* table of this chapter for all institutional program partners.
Timeline: 2013-2017

Along with the availability of sites and buildings for prospects, the ability to supply enough technically qualified workers for the high volume of advanced manufacturing prospects is the top challenge cited by

local economic developers. Not only is the SC Appalachian Region growing at a faster rate than the nation as a whole, but the technology of manufacturing is rapidly evolving. As cited in CEDS 2013-2017, "With regional manufacturers in need of Certified Production Technicians (CPT's), Certified Logistics Technicians (CLT's), Computer Numerical Control operators (CNC's), mechatronix specialists, and the like, the effective coordination of workers and training programs is as challenging as it is essential." This means that an increasing amount of resources should be devoted to strengthening the regional workforce.

Beyond the technical skills gap, however, more foundational challenges exist for too much of the regional workforce – such as achieving basic literacy and graduating from high school. Without establishing a basic foundation, more and more future workers will continue to find themselves unqualified to meet the demands of modern employers in any field. The objectives listed in *CEDS 2013-2017* call for supporting a large variety of state and federal programs that are making a positive difference in regional workforce development (see Strategic Plan table on previous page). As of this annual update, CEDS 2013-2017 continues to share the goals articulated by the South Carolina Chamber of Commerce, which include:

- Funding for the Manufacturing Skills Standards Council (MSSC) certificate program at all technical colleges to educate and prepare a portion of the workforce for entry-level positions in manufacturing.

- Continuing support for the Education and Economic Development Act (EEDA).

- Funding for Quick Jobs, a fast paced job training program provided by technical colleges.

- Addressing early childhood education, including third grade reading proficiency and four-year-old kindergarten.

- Funding for readySC to ensure companies considering locating or expanding in the state have access to a skilled workforce.

- Support for continued *WorkKeys* testing as a part of the Work Ready SC initiative in order to (1) assess individual skill levels, (2) match that skill level with the appropriate designation (Bronze, Silver, Gold, etc.), (3) help trainees improve their skill levels, and (4) match employers with accredited workers they need.

- Funding for SmartState – SC Centers for Economic Excellence.

Other initiatives that are gaining traction in regional workforce development include:

- Duke Energy's decision to fund the Clemson University Center for Workforce Development with a $4.11 million grant to manage educational, research and outreach activities in support of workforce development and Science-Technology-Engineering-Math (STEM) education. This funding will focus specifically on advanced manufacturing to support South Carolina's burgeoning manufacturing industry.

- The SC Department of Employment and Workforce has done a good job of coordinating the national "Jobs for America's Graduates" program in South Carolina (JAG-SC), boasting a 92.2% graduation rate for high school seniors participating in the program. The program also boasted a 95.5% extended graduation rate, which is measured after a one year follow-up period. These numbers exceeded the national average by more than 2%. The high school dropout rate is a concern for each of the six counties in the SC Appalachian region, thus increased awareness and support for the successful JAG-SC program is critical.

Other CEDS 2013-2017 priorities include support for the technical college and university training programs that are adapting their curriculums in order to address the region's technical skills gap, such as emerging "mechatronix" degree programs that are now being offered at places like Spartanburg Community College, Greenville Technical College, and Tri-County Technical College. Local, State, and Federal workforce development initiatives in the region are both varied and broad, but all are supported as strategic priorities in CEDS 2013-2017.

Entrepreneurship

CEDS 2013-2017 Strategic Plan
Goal: Make the SCACOG Region the most *entrepreneur friendly* region in South Carolina.
Supportive Findings • Most jobs are created by small to mid-size business. • Keeping a business alive is often more difficult than starting a business, thus a nourishing entrepreneurial environment is critically important. • Many exciting initiatives have developed over the last several years which have given great momentum to the subject of regional entrepreneurship.
Objectives 1. Help communities develop a supportive environment for entrepreneurship. 2. Increase the number of small business incubators, accelerators, and soft landing programs throughout the region. 3. Continue to provide analytical tools which support entrepreneurial activity.
Strategic Projects, Programs, and Activities 1. Develop a region-wide, voluntary *Entrepreneur Friendly* program which allows individual communities to assess and improve upon their small business environments through a set of measurable steps. While details of this program are still under development, it will involve a core set of entrepreneur friendly criteria based upon *best practices* as well as a peer-to-peer review component which will allow good ideas to be shared throughout the region. 2. Provide strategic planning and grant-writing services to support existing and future small business incubators, accelerators, and soft landing programs throughout the region. 3. Continue to promote and update the Plan-A-Biz tool in order to provide assistance in small business decision analysis.
Strategic Partners: SCACOG; all local economic developers, chambers of commerce, and other community business groups throughout the region; the Appalachian Development Corporation; the South Carolina Department of Commerce; the Clemson University Small Business Development Center (SBDC); the Service Corps of Retired Executives (SCORE). Note: please see the *Exciting Initiatives* table of this chapter for other strategic partners.
Time Line: 2013-2017

Recognizing that small business plays an irreplaceable role in the U.S. economy, CEDS 2013-2017 calls for the continued support of organizations and resources that are facilitating entrepreneurial growth in the region. These assets include not only organizations that support small business development, but also the incubators, accelerators, and "soft landings" facilities found throughout the region. While an inventory of these assets is provided in CEDS 2013-2017, the table below displays some exciting entrepreneurial developments that are underway:

Regional Entrepreneurial Assets *Getting Stronger*

Expansion of the Center for Business and Entrepreneurial Development (CBED) - with grant support from the Economic Development Administration and the Appalachian Regional Commission, Spartanburg Technical College is renovating 22,000 s.f. of dead space to greatly expand the capacity of CBED. This 363,000 square foot multi-use incubator and soft landings facility is an invaluable tool for entrepreneurs to start up a new venture, jump start an expansion or relocation, beta test a new product line, and train employees on new products or processes.

With $250,000 in support from the new SC Department of Commerce "Innovation Challenge" grant program, the well established Greenville NEXT Innovation Center (incubator) is undergoing an expansion. The **NEXT Ecosystem Expansion** project is comprised of a bundle of interconnected products that work together to accelerate the critical mass of target high-impact companies and the development of the supporting ecosystem in the Upstate area.

With $250,000 in support from the new SC Department of Commerce "Innovation Challenge" grant program, the public/private community development organization, Innovate Anderson, is developing a hybrid incubator-accelerator-workforce development model called **Innovate Electric City** that will allow the business community in Anderson and their partners to work with startup companies at various levels.

With $70,000 in support from the new SC Department of Commerce "Innovation Challenge" grant program, the Spartanburg Economic Futures Group (the County's economic development organization) is expanding the capacity of the **Spartanburg Entrepreneurial Resource Network (SERN).** SERN offers coordinated efforts of support across groups in order to assist and empower entrepreneurial efforts in Spartanburg. SERN provides mentorship, professional advice, financial assistance, introduction to contacts, research and short-term incubation facilities.
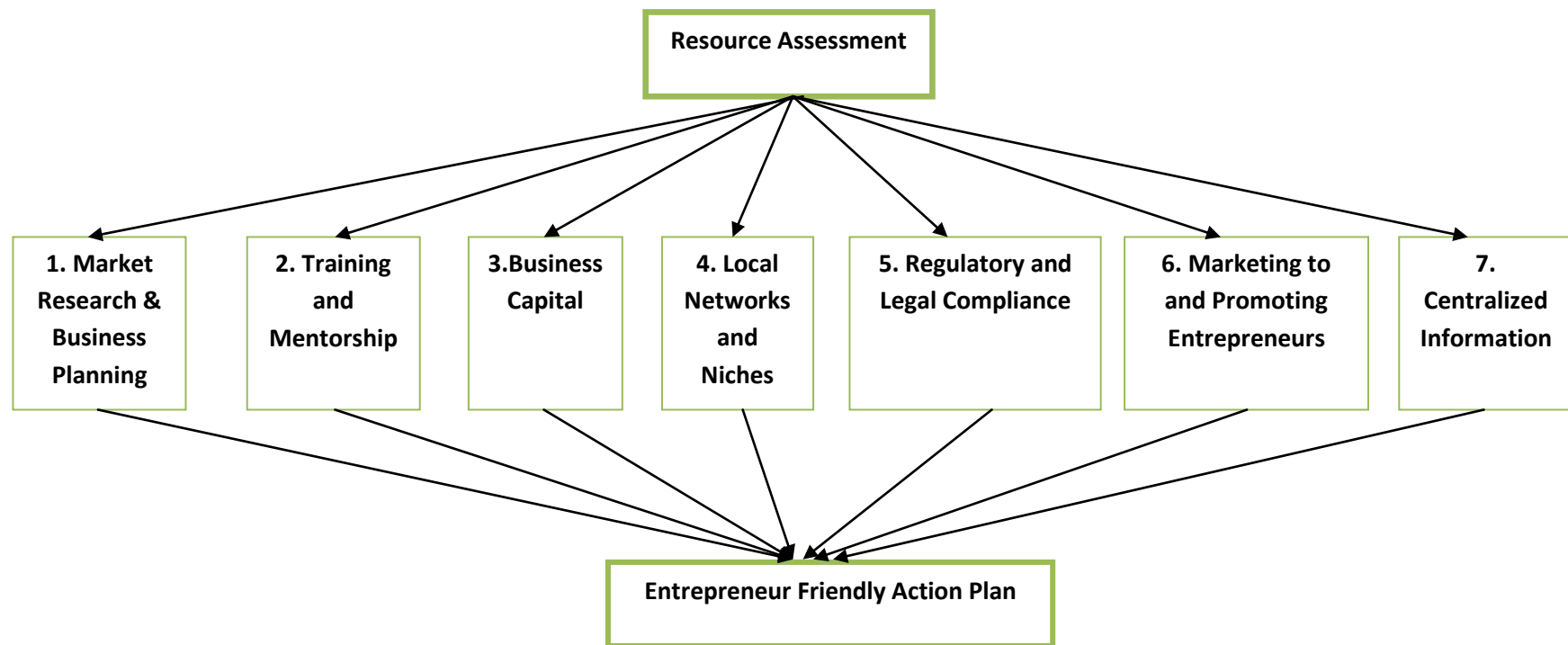
The Clemson University – International Center for Automotive Research (CU-ICAR) is expanding through construction of the new **Research One** building which will bring a combination of specialized classroom and incubation space for automotive start-up companies.

The **Iron Yard** continues to expand its impact in both Greenville and Spartanburg. The Iron Yard is a 13-week, mentorship-driven startup accelerator. It focuses on talented teams with a prototype that can be brought to a large market. Teams are selected after a highly competitive application process. Tenants receive space, design assistance, legal/accounting services, experienced entrepreneurial mentorship, and $20,000 in seed capital.

Note: Other entrepreneurial capacities exist throughout the region and this list is not intended to be comprehensive.

Another exciting entrepreneurial development over the past twelve months has been the on-going development of the on-line, interactive **Entrepreneur Friendly Toolkit.** The web tool, which will be completed in March 2015, focuses on helping communities to align resources and develop strategies for supporting and attracting entrepreneurs. By completing a set of seven interactive "steps", communities throughout the SC Appalachian Region will strategically plan, market to, and foster the growth of local entrepreneurship. After finishing the seven steps, the community will be able to save and print a custom "Entrepreneur Friendly Action Plan" (PDF) that will be populated mostly by the content/work they completed during the seven steps. Cited as a vital project in CEDS 2013-2017, the Toolkit will greatly increase entrepreneurial capacity in the region.

The 7-Step Outline of the *Entrepreneur Friendly Toolkit*

Access to Capital

CEDS 2013-2017 Strategic Plan
Goal: Support institutions and programs which provide much needed capital for job creating companies and projects in the SC Appalachian Region.
Supportive Findings   - Access to capital is a critical component of economic development.   - While most business lending is handled rightfully by the private sector, there are situations in which government gap financing programs, loan guarantee programs, and private sector angel or venture capital networks can partner with banks to make impactful loans and investments.   - There is an impressive network of economic development finance institutions working in the region.   - There are valuable grant and tax credit programs working in the region to help foster investment and job creation.
Objectives   - Support economic development finance institutions and programs which are making job-creating loans and investments.   - Secure economic development grant support in order to support investment and job creation.   - Support economic development tax credit programs which incentivize investment and job creation.
Strategic Projects, Programs, and Activities   - Promote economic development finance institutions for capital-seeking projects throughout the region.   - Continue to provide economic development grant writing services throughout the region.   - Promote economic development tax credit programs by conducting research and sharing information with communities throughout the region.
Strategic Partners: SCACOG; all County and City local economic developers throughout the region; the Appalachian Development Corporation and other economic development finance institutions and programs throughout the region; the Upstate Alliance; the South Carolina Department of Commerce; the South Carolina Department of Revenue.
Time Line: 2013-2017

The condition of the finance industry in both the SC Appalachian Region can be described as *slimmer, but more profitable* than it was prior to the 2007 global financial crisis. CEDS 2013-2017 calls for support of many financial resources that enable economic development, including the outstanding loan programs of the U.S. Small Business Administration (SBA). Of the 251 SBA loans that were administered in 2013 across South Carolina (most recently available data), 77 of them (31%) were in Greenville, Spartanburg, and Anderson Counties.[2]   That is a remarkable figure in light of the fact that these three counties make up only 6.5% of all South Carolina counties. Another notable fact about SBA lending in these three counties is that the amount of the loan funds was up by more than 25% from the previous year—from $27 million to $39 million. SBA loan data for the region's other three counties was not available, but it is notable that – in addition to traditional non-profit lenders like the *Appalachian Development Corporation* in Greenville – there are 14 private banks in the region that are certified SBA

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[2] Source: GSA Business *Market Facts 2014.*

lenders. While 10% of South Carolina lending institutions are currently unprofitable, that figure has trended down from 35% in 2010, 31% in 2011, 18% in 2012, and 14% in 2013.

Regional economic development grant activity is also strong, as demonstrated by the table below:

Some Exciting Federal E.D. Grant Projects in the Region			
Project Name	**Grant Source**	**Grant Amount**	**Total Project Cost**
City of Walhalla Downtown Streetscape Project	ARC	$500,000	$1,000,000
Oconee County - Golden Corner Commerce Park Pump Station Project	ARC EPA	$500,000 $485,000	$1,236,000
* Town of Pacolet - Main Street Sewer Project	ARC	$51,626	$103,312
* Town of Williamston - Farmers Market	ARC	$66,130	$132,261
Town of Blacksburg - Brugg Street Pump Station	ARC	$338,400	$423,000
Oconee Count - SC Hwy 11 Sewer Project	ARC	$500,000	$1,800,000
City of Pickens - Town Creek Park Project	ARC	$400,000	$810,000
Town of Pacolet - River Passage Gateway Project	ARC	$387,500	$775,000
Spartanburg Community College - Center for Business and Entrepreneurial Development	ARC and EDA	$1,340,000	$1,700,000
* SJWD Water District - Water Treatment Plant Upgrade	EDA	$2,000,000	$4,132,700
Development of a Mobile App and a LocateSC Data Replication Tool for InfoMentum	EDA	$50,000	$100,000
Development of the On-Line, Interactive "Entrepreneur Friendly Toolkit"	ARC	$55,000	$100,000

*Pending approval from federal agencies.

Note: List is a snap shot of some notable projects and not intended to be comprehensive.

In addition to economic development grants and loans, tax credit programs continue to play an important role in job creation and capital investment. Free Trade Zone 38 along I-85 continues to be a great incentive for industry, and the South Carolina four-tier Job Tax Credit continues to incentivize job creation. For year 2014, Greenville County is classified as "Tier I – Developed"; Anderson, Oconee, Pickens, and Spartanburg Counties are "Tier II – Moderately Developed"; Cherokee County is "Tier III – Least Developed". None of the region's counties are considered "Tier IV – Distressed" by the SC Department of Revenue, which is a positive economic sign for the region.

Whether discussing loans, grants, or tax credits, there are many positive developments taking place with regional capital sources. There are never enough resources, however, to accommodate all of the potential job-creating projects in the pipeline. Local, regional, state, and federal economic development partners must continue to work together to increase these resources and support more projects.

Local Asset-Based Economic Development

<table>
<tr><td colspan="1" align="center">CEDS 2013-2017 Strategic Plan
Goal: Strengthen the unique, local community assets which have a significant impact on regional economic development.</td></tr>
<tr><td>Supportive Findings

Each of the six counties and 42 municipalities within the SC Appalachian Region possess unique assets from which residents derive economic opportunity.
With attractive natural resources, historic places, arts & entertainment, and sporting venues, the SC Appalachian Region has a strong tourism industry.
There is great potential of downtown areas in the region to foster economic growth and job creation.
The region is in position to capitalize on emerging opportunities in the agricultural industry, including inputs for manufacturing, local/organic produce markets, and agri-tourism.
</td></tr>
<tr><td>Objectives

Make the SC Appalachian Region a globally recognized tourism destination.
Make the SC Appalachian Region known for its vibrant downtown areas.
Help communities reach the full economic potential of their rich agricultural resources.
Help communities further recognize, develop, and market their uniquely local economic development assets.
</td></tr>
<tr><td>Strategic Projects, Programs, and Activities
For Objectives 1-4:

Support tourism initiatives, downtown development, and agribusiness development throughout the region with strategic planning, marketing, and grant-writing efforts.
Conduct research and provide grant writing assistance in order to obtain formal marketing studies which aim to enhance local economic development assets.
</td></tr>
<tr><td>Strategic Partners: SCACOG; all Chambers of Commerce and Convention and Visitor Bureaus throughout the region; all County and City local economic developers throughout the region; the Upstate Alliance; Discover Upcountry South Carolina Association; The SC National Heritage Corridor; Clemson University Cooperative Extension Service; the South Carolina Department of Commerce; the South Carolina Department of Parks, Recreation and Tourism.</td></tr>
<tr><td>Time Line: 2013-2017</td></tr>
</table>

Each of the six counties and 42 municipalities within the SC Appalachian Region possess unique assets from which residents derive economic opportunity. Not all of these local assets make up "clusters" or lead to formal "target industries" for recruitment, but they are essential to the economic well being of individual communities and the region as a whole. While providing a detailed inventory of each community's local assets is not practical for the purpose of the 2013 CEDS update, there are three broad asset categories that CEDS 2013-2017 emphasizes: Agribusiness, Tourism, and Downtown Development.

In June of 2013, an outstanding study was conducted by the *South Carolina Coastal Conservation League* and numerous regional partners on the feasibility of **a "Food Hub" for the SC Appalachian Region.** Entitled, "Upstate Region Local Food Hub Feasibility Study", the document examines the potential for starting a regional food hub like the highly successful one found in Charleston, SC ("GrowFood

Carolina"). The study defines a regional food hub as, "a business or organization that actively manages the aggregation, distribution, and marketing of source-identified food products primarily from local and regional producers to strengthen their ability to satisfy wholesale, retail, and institutional demand." While a local host organization to lead the effort and manage the operation is needed, the study offers the following basic conclusion in support of creating a regional food hub:

> **"The majority of other necessary pieces needed to establish a local food hub are in place. Local food supply and demand data, food producer survey results, retailer and consumer survey and interview results, demographic research, and farm data all show that there is the potential to increase local food supply and satisfy ever-increasing demand."**

The concept of increasing opportunities for local farmers via farmers markets and shared public-private processing facilities is emphasized as a CEDS 2013-2017 *Area of Emphasis*. Numerous local initiatives have taken off, but the idea of a central food hub takes the concept to a new level of regionalism.

Downtown development initiatives have also increased over the past year, with three towns becoming certified "Main Street Communities" under the National Trust for Historic Preservation: The City Pickens (Pickens County), the City of Williamston (Anderson County), and the City of Woodruff (Spartanburg County). Other downtown areas continue to develop and thrive. Beautiful and bustling downtown Greenville serves a national benchmark for mid-size cities across America. Downtown Spartanburg has made extraordinary revitalization progress over the past 24 months. Downtown Greer has also become destination for classic downtown enthusiasts. These and other historic downtowns in the region are critical assets for historic preservation, for economic development, and for overall quality of life. CEDS 2013-2017 places further enhancement of these areas as a high priority.

Whether examining the exciting new "Main Street Challenge" in the City of Spartanburg, which is a competition for valuable space and incentives for up to three promising entrepreneurs to locate on Main Street, or the fact that the region continues to draw world class conferences, such as the *2014 UCI Para-Cycling Road World Championships,* the local asset-based economy is vital to the well being of the region. Support from local, regional, state, and federal partners is needed to foster the development in this vital project area.

A New CEDS Area of Emphasis: Global Competitiveness

In late 2013, the 10-county "Upstate" Region of SC was accepted through a competitive application process to the "Global Cities Exchange", a five-year joint project of the Brookings Institution and JPMorgan Chase. The 10-county Upstate region includes all six counties of the SC Appalachian region, plus four contiguous counties: Abbeville, Greenwood, Laurens, and Union Counties. The first phase of the initiative, the **development of a Regional Export Plan**, is expected to be completed during the fourth quarter of 2014. The effort is being led by the Upstate SC Alliance, a 10-county organization with the mission to market the Upstate for economic development on a global level. Over the course of this five-year planning process, a core team of regional stakeholders (including staff from the Economic Development District Organization, SCACOG) work alongside fellow Exchange regions from across the nation to move the Upstate forward in the areas of exports, innovation, leadership, and workforce. Specifically, the core team will (1) develop and implement regional strategies to boost global trade and investment, (2) forge partnerships between the U.S. and international areas, and (3) advocate for state and national policy changes. **The overarching goal is to increase the global competitiveness of the region.**

Over the past several decades, aggressive recruitment of industry has transitioned the Upstate economy from dependency on the textile industry by providing needed diversification and traded cluster strength. This foresight of Upstate leaders over the past several decades has positioned the region extremely well for prosperity in the future economy. Regional efforts (1) to build global relationships through trade and investment, (2) to tie innovation to advanced manufacturing needs, (3) to develop leaders with global awareness, and (4) to increase transportation/supply chain efficiency are all necessary for the Upstate to maintain its edge against growing competition. Building upon this success, the next evolution of regional economic development will focus on increasing exports and overall international business. The reasoning behind this effort is as follows:

Larger Customer Base = More Opportunity for Growth

- 95% of the world's consumers live outside the U.S.

- The US percentage of global middle class consumption is projected to drop to 4.5% by 2040.

- Only 4 percent of U.S. firms export, and 58% only sell to one foreign market.

Global Business = Stronger Business

- From 2005-2009, U.S. manufacturers that exported saw revenues grow by 37%, while non-exporters saw revenues fall by 7%.

- U.S. business services exporters have 100% higher sales, 70% higher employment, and 20% higher wages than non-exporters.

- For every $1 billion in exports, workers in that industry earn between 1-2% higher wages

- More than 20% of South Carolina jobs depend on international trade and investment.

In CEDS 2013-2017, seven "Areas of Emphasis" were presented as the key strategic focal points upon which future economic development in the region will be based. While these seven areas are documented in this report and while they remain as important as ever, increasing the region's global competitiveness through the Global Cities Exchange constitutes a new and equally important Area of Emphasis. As of the adoption of this CEDS Update by the Economic Development District Organization, there are now eight CEDS Areas of Emphasis in the SC Appalachian Region.

1. Clusters, Target Industries, and Innovation Capacities,
2. Infrastructure,
3. Available Sites and Buildings,
4. Workforce Development,
5. Entrepreneurship,
6. Access to Capital
7. Local Asset-Based Development
8. **Global Competitiveness (New)**

Section VI: Conclusion

An Outstanding Year for Target Industries and Global Competitiveness

The second year of CEDS 2013-2017 was a tremendous period in the SC Appalachian Region. Each of the strategy's original *Seven Areas of Emphasis* saw exciting developments and capacity expansion. A new and exciting Area of Emphasis was added to the CEDS, as the region's participation in the *Global Cities* Exchange is poised to increase the region's exports and overall global competitiveness. The cluster-based, target industry strategy is yielding outstanding results, with over $4 billion in capital investment (528% higher than last year) and over 5,700 new jobs (177% higher than last year) over 73 announcements since September 2013. The Inland Port, which opened less than a year ago, is only beginning to have its anticipated transformational impact on business logistics. Six months from now, thanks to federal economic development partners, the new *Entrepreneur Friendly Toolkit* will be complete—establishing a customized on-line planning tool for communities to attract and develop local entrepreneurs. The list of highlights could go on, but what is most important to remember is the fact that there is still a great deal of work to do in order for the region to reach economic parity with the nation. The process of maintaining CEDS 2013-2017 involves doing the important work of building upon each of the eight Areas of Emphasis, and the SC Appalachian Economic Development District Organization is committed to doing this with essential collaboration from State and Federal partners like U.S. EDA and the Appalachian Regional Commission.

Continued Plan of Action

SCACOG, serving as the federal Economic Development District Organization, will continue to work with the CEDS Steering Committee to support the vital projects which aim to create economic growth in the region. SCACOG will:

- Continuously evaluate the CEDS 2013-2017 *Goals and Objectives* in relation to qualitative and quantitative performance measures;
- Support the *Strategic Projects, Programs and Activities* outlined in CEDS 2013-2017;
- Help execute on-going and future *Vital Projects* of CEDS 2013-2017;
- Provide EDA with annual CEDS progress updates.

SCACOG will carry out CEDS 2013-2017 in a manner which:

- Promotes economic development and opportunity;
- Fosters effective transportation access;
- Enhances and protects the environment;
- Maximizes effective development and use of the workforce consistent with any applicable State or local workforce investment strategy;
- Promotes the use of technology in economic development, including access to high-speed telecommunications;
- Balances resources through sound management of physical development; and
- Obtains and utilizes funds and other resources

Appendix: County Endorsement Letters

SOC	OCCUPATION	2013 JOBS	2018 JOBS	CHANGE	PERCENT CHANGE	PROJECTED ANNUAL OPENINGS
49-9081	Wind Turbine Service Technicians	5	10	--	--	0
49-9098	Helpers--Installation, Maintenance, and Repair Workers	94	107	13	14%	6
49-9099	Installation, Maintenance, and Repair Workers, All Other	124	143	19	15%	7
51-2021	Coil Winders, Tapers, and Finishers	12	14	2	17%	1
51-2022	Electrical and Electronic Equipment Assemblers	577	574	(3)	(1%)	10
51-2023	Electromechanical Equipment Assemblers	35	40	5	14%	2
51-2031	Engine and Other Machine Assemblers	137	135	(2)	(1%)	3
51-4012	Computer Numerically Controlled Machine Tool Programmers, Metal and Plastic	25	32	7	28%	2
51-4021	Extruding and Drawing Machine Setters, Operators, and Tenders, Metal and Plastic	219	214	(5)	(2%)	6
51-4022	Forging Machine Setters, Operators, and Tenders, Metal and Plastic	42	43	1	2%	1
51-4023	Rolling Machine Setters, Operators, and Tenders, Metal and Plastic	31	32	1	3%	1
51-4031	Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and Plastic	277	280	3	1%	6
51-4032	Drilling and Boring Machine Tool Setters, Operators, and Tenders, Metal and Plastic	46	44	(2)	(4%)	1
51-4033	Grinding, Lapping, Polishing, and Buffing Machine Tool Setters, Operators, and Tenders, Metal and Plastic	349	337	(12)	(3%)	9
51-4034	Lathe and Turning Machine Tool Setters, Operators, and Tenders, Metal and Plastic	260	255	(5)	(2%)	6
51-4035	Milling and Planing Machine Setters, Operators, and Tenders, Metal and Plastic	20	22	2	10%	1
51-4041	Machinists	926	1,029	103	11%	44
51-4081	Multiple Machine Tool Setters, Operators, and Tenders, Metal and Plastic	273	266	(7)	(3%)	7
51-4121	Welders, Cutters, Solderers, and Brazers	547	603	56	10%	26
51-4122	Welding, Soldering, and Brazing Machine Setters, Operators, and Tenders	131	146	15	11%	7
51-4191	Heat Treating Equipment Setters, Operators, and Tenders, Metal and Plastic	76	76	0	0%	2
51-4192	Layout Workers, Metal and Plastic	14	18	4	29%	1
51-4193	Plating and Coating Machine Setters, Operators, and Tenders, Metal and Plastic	26	24	(2)	(8%)	1
51-4199	Metal Workers and Plastic Workers, All Other	15	17	2	13%	1
51-6062	Textile Cutting Machine Setters, Operators, and Tenders	121	69	(52)	(43%)	1
51-6063	Textile Knitting and Weaving Machine Setters, Operators, and Tenders	861	382	(479)	(56%)	9
51-6064	Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	250	164	(86)	(34%)	3
51-9061	Inspectors, Testers, Sorters, Samplers, and Weighers	786	784	(2)	0%	26
51-9141	Semiconductor Processors	15	10	(5)	(33%)	0

Source: EMSI Complete Data 2014.2

TABLE A5.2: Detailed Employment Projections Related to Potential Future Programs

SOC	TITLE	2013 JOBS	2018 JOBS	CHANGE	% CHANGE	PROJECTED ANNUAL OPENINGS
53-3032	Heavy and Tractor-Trailer Truck Drivers	1,458	1,584	126	9%	57
51-4011	Computer-Controlled Machine Tool Operators, Metal and Plastic	704	771	67	10%	35
47-2031	Carpenters	1,430	1,350	(80)	(6%)	35
29-2041	Emergency Medical Technicians and Paramedics	558	657	99	18%	37
29-2052	Pharmacy Technicians	550	687	137	25%	34
47-2111	Electricians	482	491	9	2%	24
43-6013	Medical Secretaries	459	531	72	16%	21

Community College Survey of Student Engagement

Tri-County Technical College

2014 Key Findings

Table of Contents

Key Findings: A Starting Point

The Key Findings report provides an entry point for reviewing results from your administration of the 2014 Community College Survey of Student Engagement (*CCSSE*). The report provides college-specific data in an easy-to-share format including benchmark comparisons between the college, top-performing colleges, and the *CCSSE* cohort. It also highlights aspects of highest and lowest student engagement at the college, as well as results from five of the *CCSSE* special-focus items on promising educational practices. Select faculty survey data are also highlighted.

Promising Practices for Student Success

In each annual administration, *CCSSE* has included special-focus items to allow participating colleges and national researchers to delve more deeply into areas of student experience and institutional performance of great interest to the field. The 2014 special-focus items are part of an ongoing national research project focused on community college students' participation in a defined collection of promising practices for which there is emerging evidence of effectiveness in strengthening student learning, persistence, and attainment. This work will link data from the *CCSSE* special-focus items; related items on the faculty survey (*CCFSSE*), which explore the extent of faculty members' use of the identified promising practices in their teaching; and institutional data collected from the Community College Institutional Survey (CCIS) that address questions about how these promising practices are implemented across varied institutions.

This data collection will provide empirical confirmation of promising educational practices in community colleges, quantification of the extent to which those practices are part of the current experience of our students, and information about whether participation in these types of practices varies across subgroups of students. Ongoing data analysis will provide new evidence of how student participation in these practices is related to overall student engagement, academic progress, and college completion.

Benchmark Overview by Enrollment Status

Figure 1 below represents your institution's *CCSSE* benchmark scores by students' enrollment status.

Figure 1

2
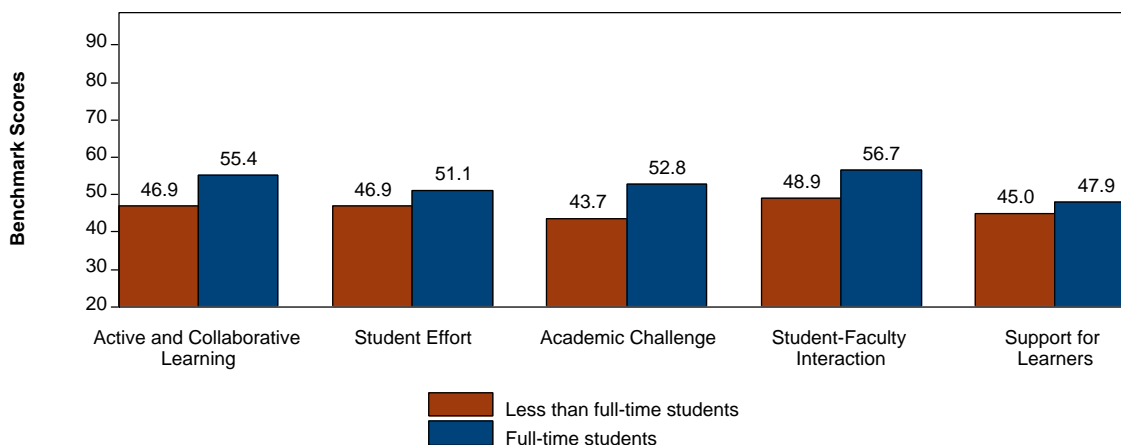
Benchmarks of Effective Educational Practice

The *CCSSE* benchmarks are groups of conceptually related survey items that address key areas of student engagement. The five benchmarks denote areas that educational research has shown to be important to students' college experiences and educational outcomes. Therefore, they provide colleges with a useful starting point for looking at institutional results and allow colleges to gauge and monitor their performance in areas that are central to their work. In addition, participating colleges have the opportunity to make appropriate and useful comparisons between their performance and that of groups of other colleges.

Performing as well as the national average or a peer-group average may be a reasonable initial aspiration, but it is important to recognize that these averages are sometimes unacceptably low. Aspiring to match and then exceed high-performance targets is the stronger strategy.

Community colleges can differ dramatically on such factors as size, location, resources, enrollment patterns, and student characteristics. It is important to take these differences into account when interpreting benchmark scores—especially when making institutional comparisons. The Center for Community College Student Engagement has adopted the policy "Responsible Uses of *CCSSE* and *SENSE* Data," available at **www.cccse.org**.

CCSSE uses a three-year cohort of participating colleges in all core survey analyses. The current cohort is referred to as the 2014 *CCSSE* Cohort (2012-2014) throughout all reports.

CCSSE Benchmarks

★ **Active and Collaborative Learning**

Students learn more when they are actively involved in their education and have opportunities to think about and apply what they are learning in different settings. Through collaborating with others to solve problems or master challenging content, students develop valuable skills that prepare them to deal with real-life situations and problems.

★ **Student Effort**

Students' own behaviors contribute significantly to their learning and the likelihood that they will successfully attain their educational goals.

★ **Academic Challenge**

Challenging intellectual and creative work is central to student learning and collegiate quality. These survey items address the nature and amount of assigned academic work, the complexity of cognitive tasks presented to students, and the rigor of examinations used to evaluate student performance.

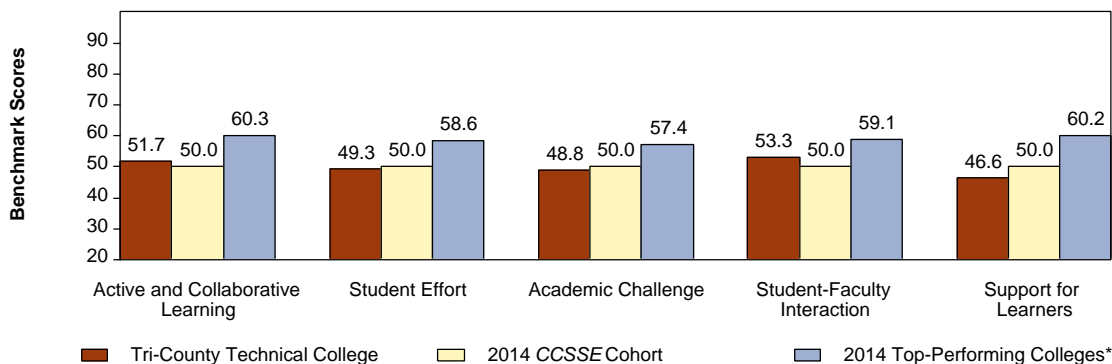★ **Student-Faculty Interaction**

In general, the more contact students have with their teachers, the more likely they are to learn effectively and to persist toward achievement of their educational goals. Through such interactions, faculty members become role models, mentors, and guides for continuous, lifelong learning.

★ **Support for Learners**

Students perform better and are more satisfied at colleges that provide important support services, cultivate positive relationships among groups on campus, and demonstrate commitment to their success.

For further information about *CCSSE* benchmarks, please visit **www.cccse.org**.

Figure 2

	Active and Collaborative Learning	Student Effort	Academic Challenge	Student-Faculty Interaction	Support for Learners
Tri-County Technical College	51.7	49.3	48.8	53.3	46.6
2014 *CCSSE* Cohort	50.0	50.0	50.0	50.0	50.0
2014 Top-Performing Colleges*	60.3	58.6	57.4	59.1	60.2

*Top-Performing colleges are those that scored in the top 10 percent of the cohort by benchmark.

Notes: Benchmark scores are standardized to have a mean of 50 and a standard deviation of 25 across all respondents. For further information about how benchmarks are computed, please visit **www.cccse.org**.

Aspects of Highest Student Engagement

Benchmark scores provide a manageable starting point for reviewing and understanding *CCSSE* data. One way to dig more deeply into the benchmark scores is to analyze those items that contribute to the overall benchmark score. This section features the five items across all benchmarks (excluding those for which means are not calculated) on which the college scored highest and the five items on which the college scored lowest relative to the 2014 *CCSSE* Cohort.

The items highlighted on pages 4 and 5 reflect the largest differences in mean scores between the institution and the the 2014 *CCSSE* Cohort. While examining these data, keep in mind that the selected items may not be those that are most closely aligned with the college's goals; thus, it is important to review all institutional reports on the *CCSSE* online reporting system at **www.cccse.org**.

Figure 3 displays the aggregated frequencies for the items on which the college performed most favorably relative to the 2014 *CCSSE* Cohort. For instance, 38.1% of Tri-County Technical College students, compared with 32.4% of other students in the cohort, responded *often* or *very often* on item 4b. It is important to note that some colleges' highest scores might be lower than the cohort mean.

Figure 3

	Tri-County Technical College	2014 *CCSSE* Cohort
4b Often or Very often	38.1%	32.4%
4d Often or Very often	72.2%	64.4%
4m Often or Very often	39.1%	29.7%
4n Often or Very often	23.5%	18.3%
13a1 Sometimes or Often	69.1%	60.5%
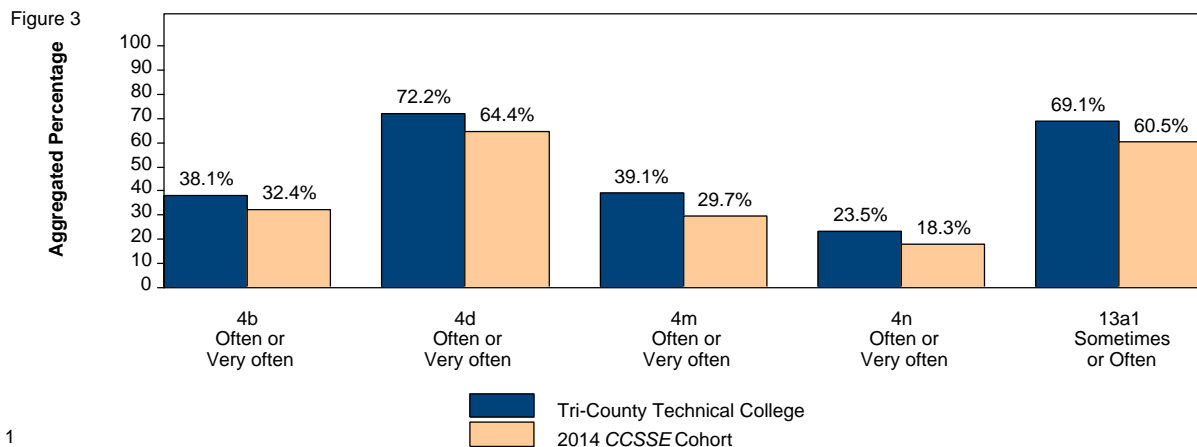
Table 1

Benchmark	Item Number	Item
Active and Collaborative Learning	4b	Made a class presentation
Student Effort	4d	Worked on a paper or project that required integrating ideas or information from various sources
Student-Faculty Interaction	4m	Talked about career plans with an instructor or advisor
Student-Faculty Interaction	4n	Discussed ideas from your readings or classes with instructors outside of class
Support For Learners	13a1	Frequency: Academic advising/planning

Notes:

For Item(s) 4 (except 4e), *often* and *very often* responses are combined.

For Item(s) 13, *sometimes* and *often* responses are combined.

Aspects of Lowest Student Engagement

Figure 4 displays the aggregated frequencies for the items on which the college performed least favorably relative to the 2014 *CCSSE* Cohort. For instance, 63.5% of Tri-County Technical College students, compared with 74.1% of other students in the cohort, responded *quite a bit* or *very much* on item 9b. It is important to note that some colleges' lowest scores might be higher than the cohort mean.
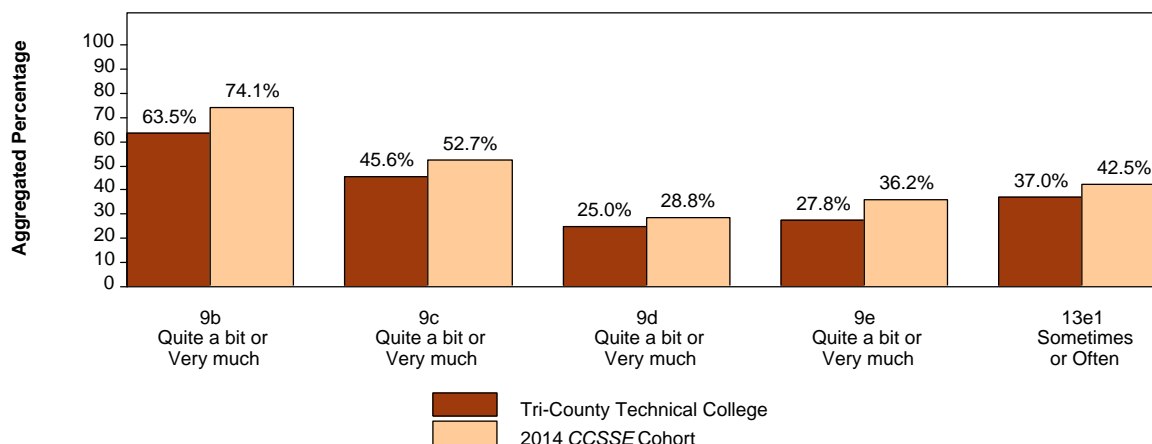
Figure 4

Legend:
- Tri-County Technical College
- 2014 *CCSSE* Cohort

Table 2

Benchmark	Item Number	Item
Support For Learners	9b	Providing the support you need to help you succeed at this college
Support For Learners	9c	Encouraging contact among students from different economic, social, and racial or ethnic backgrounds
Support For Learners	9d	Helping you cope with your non-academic responsibilities (work, family, etc.)
Support For Learners	9e	Providing the support you need to thrive socially
Student Effort	13e1	Frequency: Skill labs (writing, math, etc.)

Notes:

For Item(s) 9, *quite a bit* and *very much* responses are combined.

For Item(s) 13, *sometimes* and *often* responses are combined.

2014 *CCSSE* Special-Focus Items

The Center adds special-focus items to *CCSSE* each year to augment the core survey, helping participating colleges and the field at large to further explore fundamental areas of student engagement. The 2014 special-focus items continue to elicit new information about students' experiences associated with promising educational practices such as early registration, orientation, freshman seminars, organized learning communities, and student success courses. Frequency results from the first five promising practices items for your college and the *CCSSE* promising practices respondents are displayed across pages 6 and 7.

Figure 5: During the current term at this college, I completed registration before the first class sessions(s).

Legend:
- Tri-County Technical College (N=662)
- 2012-2014 Promising Practices Respondents (N=395,800)
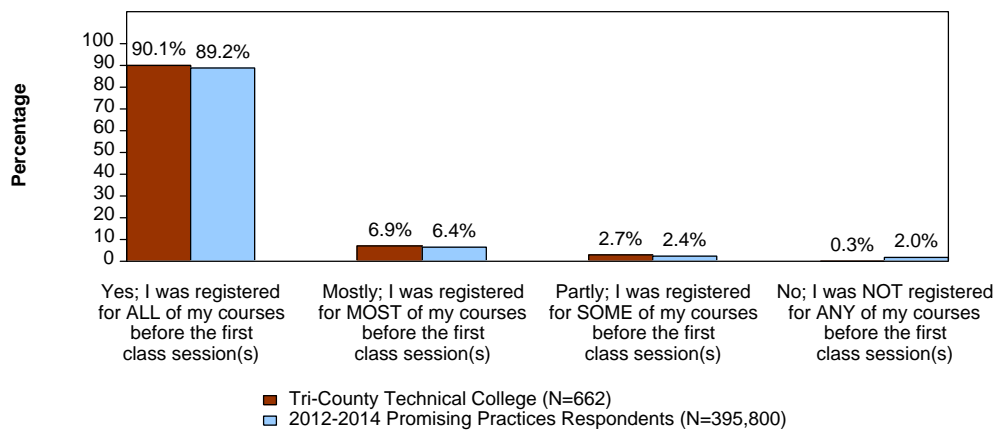
Figure 6: The ONE response that best describes my experience with orientation when I first came to this college is:

Legend:
- Tri-County Technical College (N=660)
- 2012-2014 Promising Practices Respondents (N=394,167)
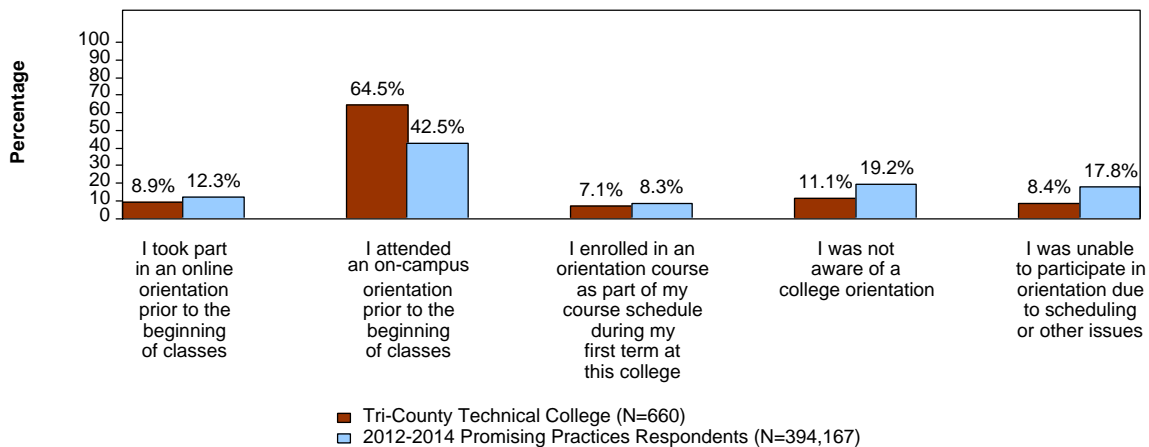
Figure 7: During my first term at this college, I participated in a structured experience for new students (sometimes called a "freshman seminar" or "first-year experience").

Tri-County Technical College (N=645)
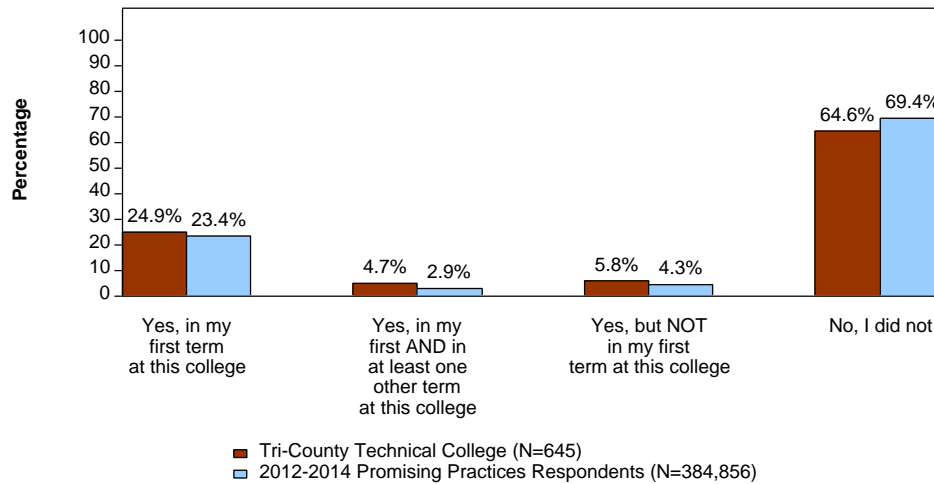**2012-2014 Promising Practices Respondents (N=384,856)**

Figure 8: During my first term at this college, I enrolled in an organized "learning community" (two or more courses that a group of students take together).
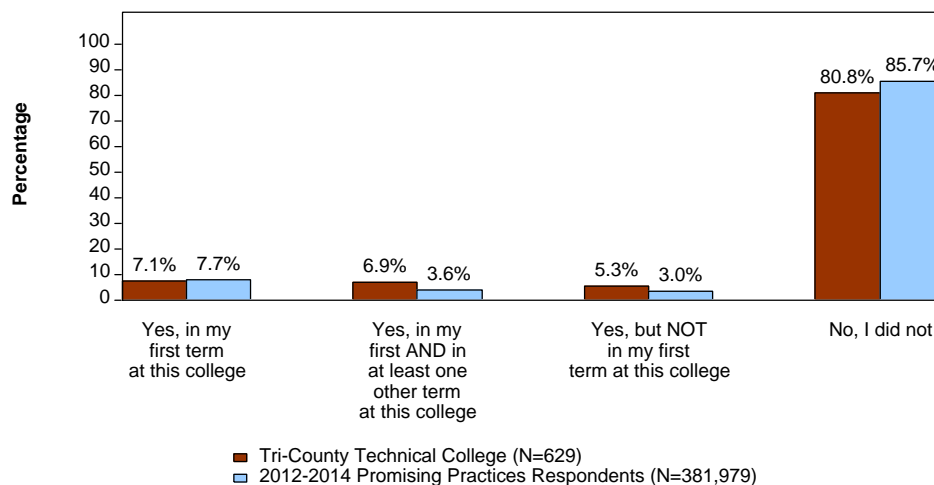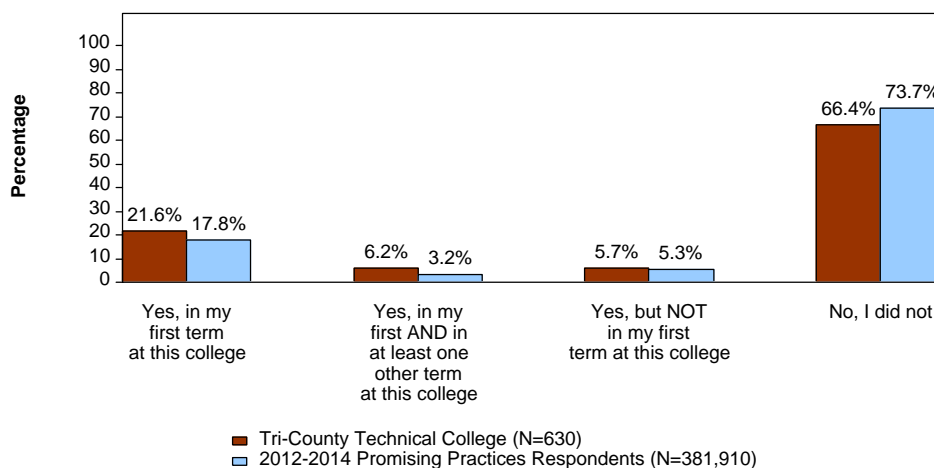

Tri-County Technical College (N=629)
2012-2014 Promising Practices Respondents (N=381,979)

Figure 9: During my first term at this college, I enrolled in a student success course (such as a student development, extended orientation, student life skills, or college success course).

Tri-County Technical College (N=630)
2012-2014 Promising Practices Respondents (N=381,910)

CCFSSE

The Community College Faculty Survey of Student Engagement (*CCFSSE*) results displayed below reveal the proportion of full- and part-time faculty members that are involved in teaching or facilitating organized 'learning communities' (two or more courses that a group of students take together), structured experiences for new students (sometimes called a 'freshman seminar' or 'first-year experience'), and student success courses (such as a student development, extended orientation, study skills, student life skills, or college success courses). Additionally, these results can be viewed alongside the corresponding *CCSSE* special-focus item results featured on page 7 to reveal a more complete picture of how students and faculty are participating in the same promising practices. For colleges that did not administer *CCFSSE*, cohort respondent data are provided.

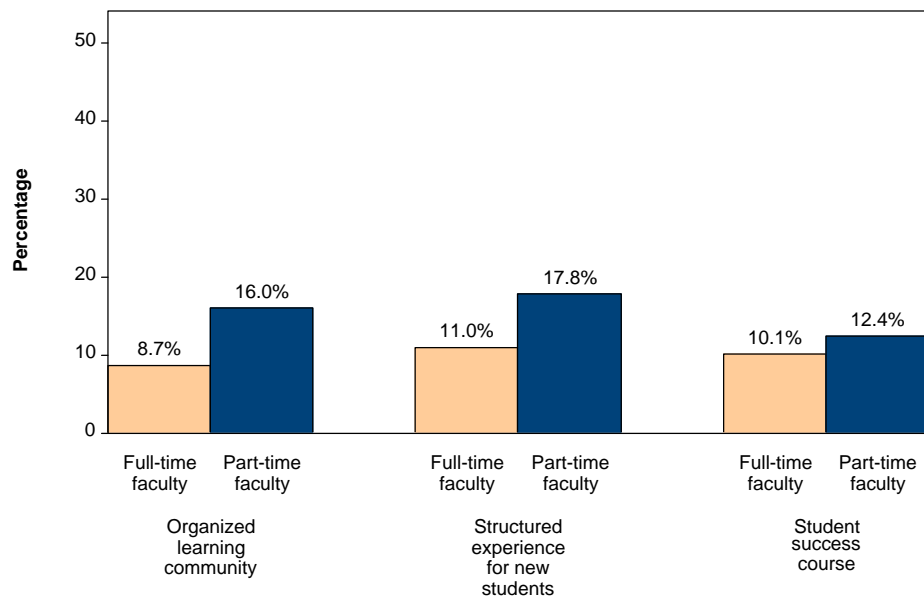Figure 10: During the current academic year at this college, have you been involved in teaching or facilitating a(n)

Table 3

Response	Organized learning community		Structured experience for new students		Student success course	
	Full-time faculty (N)	Part-time faculty (N)	Full-time faculty (N)	Part-time faculty (N)	Full-time faculty (N)	Part-time faculty (N)
Did teach or facilitate	2,722	1,357	3,019	1,722	2,097	1,589
Did not teach or facilitate	14,252	14,316	13,955	13,951	14,877	14,084
Total	16,974	15,673	16,974	15,673	16,974	15,673

A STRONGER

NATION

through higher education

In South Carolina, the ten-year time horizon
brings Goal 2025 into sharp focus

South Carolina

The need to increase higher education attainment — the percentage of the population that holds a two-year or four-year college degree or other high-quality postsecondary credential — is well understood in South Carolina. As in other states, the economy of South Carolina is increasingly reliant on skills and knowledge that can only be obtained through postsecondary education. More than ever, the state's residents need those college-level skills and knowledge to realize their own dreams and aspirations.

What can states do to increase postsecondary attainment by their residents? Lumina believes the first step is to set an explicit and quantifiable state goal to focus everyone's attention on the need to act to increase attainment. Goals allow states to develop stronger plans that ensure their policies and resources are aligned with state needs. Measuring and reporting progress toward goals helps assure that strong, accountable and consistent leadership can support a change agenda to improve outcomes for students.

In 31 states, the imperative to increase attainment has led to the development of official state goals. South Carolina is one of those states; in fact, it is among only 16 states that meet the criteria for a strong state attainment goal. Most notably, the state's goal addresses the critical need to close gaps in attainment for underrepresented students, such as minority students, low-income students and working adults.

South Carolina is making progress on increasing attainment. The most recent Census data (2013) show that 36.8 percent of the state's 2.5 million working-age adults (those between the ages of 25 and 64) hold a two- or four-year college degree. This is an increase from last year's rate of 36.1 percent. The state's rate of higher education attainment is below the national rate of 40 percent. While attainment is increasing, it is not increasing rapidly enough to meet the national goal of 60 percent. We are making progress, but we need to do much more.

A good leading indicator of where higher education attainment rates are heading is the rate among young adults, those between the ages of 25 and 34. In 2013, this rate in South Carolina was 36.9 percent, higher than that of the adult population as a whole but below the national rate of 41.6 percent.

The steps that South Carolina and other states can take to increase attainment are laid out in Lumina's state policy agenda. They are built around three priorities that states must pursue:
1. Improve the quality of student outcomes in terms of completion, learning and employment.
2. Align investments with state priorities and student needs.
3. Create smarter pathways for students.

The details of Lumina's state policy agenda can be found at http://strategylabs.luminafoundation.org/higher-education-state-policy-agenda/. This site also contains extensive information about the progress states are making on the attainment agenda as well as resources that states can draw on to reach their own attainment goals.

Many groups and individuals must work together to increase attainment. The imperative for South Carolina to increase attainment is clear, and many educators, policymakers, employers and community leaders are stepping up to take action. Most important, students and the public increasingly understand the need to improve the level of their own education to prepare themselves, their community, and their state for a future in which postsecondary knowledge and skills are the keys to success.

Tracking the trend

Percentage of the state's working-age population (25-64) with at least an associate degree

34.4%	34.9%	34.8%	34.2%	36.1%	36.8%
2008	2009	2010	2011	2012	2013
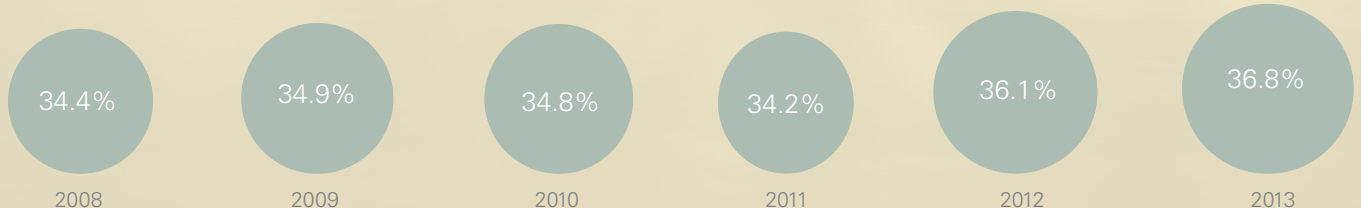
Levels of education for South Carolina residents, ages 25-64

TOTAL
2,473,709
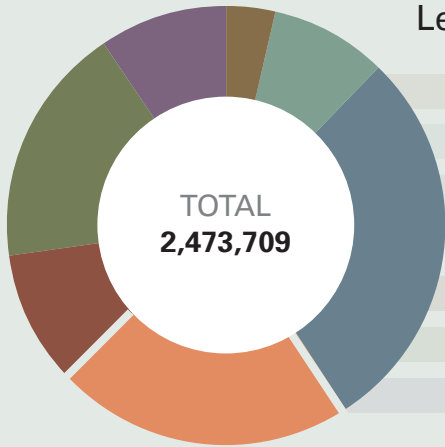
Less than ninth grade	92,296	**3.73%**
Ninth to 12th grade, no diploma	215,767	**8.72%**
High school graduate (including equivalency)	704,554	**28.48%**
Some college, no degree	551,154	**22.28%**
Associate degree	241,519	**9.76%**
Bachelor's degree	435,158	**17.59%**
Graduate or professional degree	233,261	**9.43%**

Degree-attainment rates among South Carolina residents (ages 25-64), by population group

White	**41.46%**
Black	**23.19%**
Hispanic	**19.92%**
Asian	**47.72%**
Native American	**20.43%**

41.46% 23.19% 19.92% 47.72% 20.43%
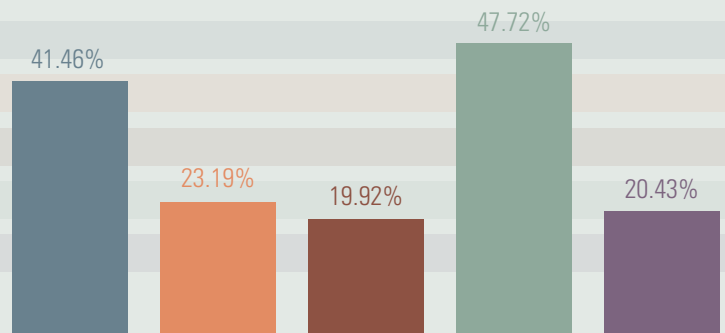
College enrollment among South Carolina residents, ages 18-53
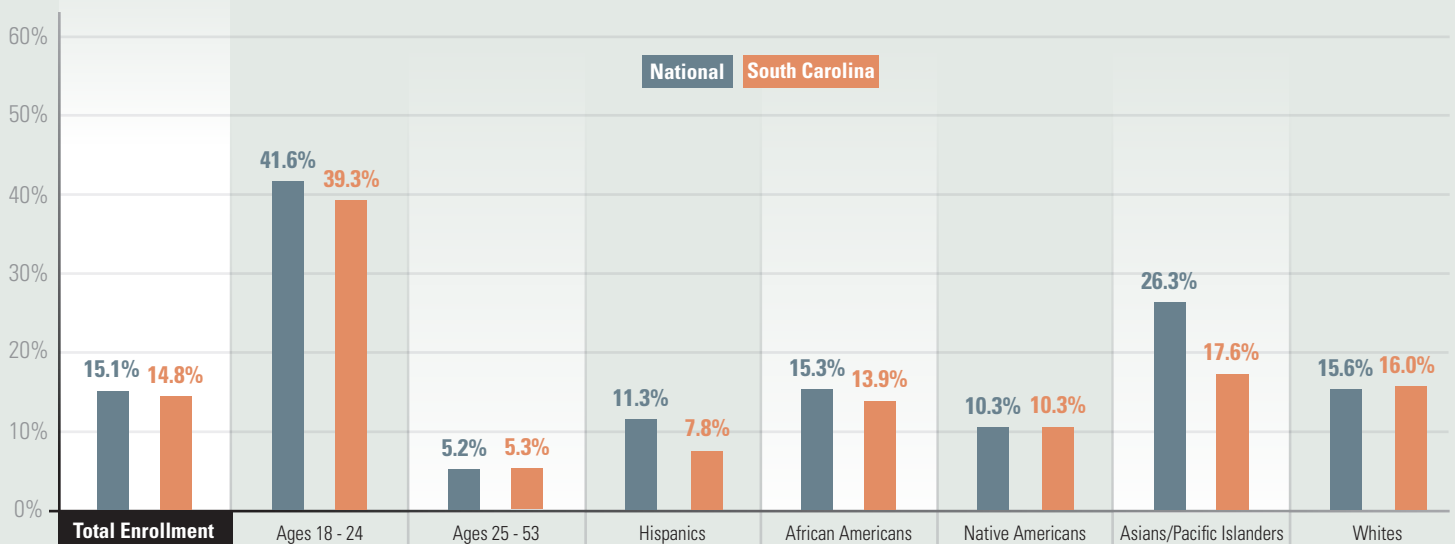
Legend: National | South Carolina

	National	South Carolina
Total Enrollment	15.1%	14.8%
Ages 18 - 24	41.6%	39.3%
Ages 25 - 53	5.2%	5.3%
Hispanics	11.3%	7.8%
African Americans	15.3%	13.9%
Native Americans	10.3%	10.3%
Asians/Pacific Islanders	26.3%	17.6%
Whites	15.6%	16.0%

Percentage of South Carolina residents (ages 25-64) with at least an associate degree, by county

County	%	County	%	County	%	County	%	County	%	County	%
Abbeville	25.49	Calhoun	27.82	Dillon	15.73	Hampton	20.24	McCormick	25.92	Saluda	22.35
Aiken	32.84	Charleston	49.52	Dorchester	36.22	Horry	34.01	Marion	21.39	Spartanburg	33.89
Allendale	21.29	Cherokee	23.90	Edgefield	24.69	Jasper	18.83	Marlboro	13.73	Sumter	30.10
Anderson	31.30	Chester	21.67	Fairfield	27.23	Kershaw	28.73	Newberry	30.69	Union	23.52
Bamberg	33.00	Chesterfield	21.22	Florence	31.38	Lancaster	28.59	Oconee	31.56	Williamsburg	22.28
Barnwell	21.97	Clarendon	22.05	Georgetown	31.02	Laurens	23.50	Orangeburg	28.85	York	41.05
Beaufort	42.56	Colleton	24.18	Greenville	42.12	Lee	16.53	Pickens	34.64		
Berkeley	32.34	Darlington	25.59	Greenwood	32.77	Lexington	40.33	Richland	46.48		

Source: *U.S. Census Bureau, 2009-13 American Community Survey 5-Year Estimates*