



Analysis of Regions Not Currently Involved in WIRED Grants or RIGs: Charlottesville Area

October 2008

Charlottesville Area

- Albemarle County, Virginia
- Fluvanna County, Virginia
- Greene County, Virginia
- Louisa County, Virginia
- Nelson County, Virginia
- Charlottesville City, Virginia

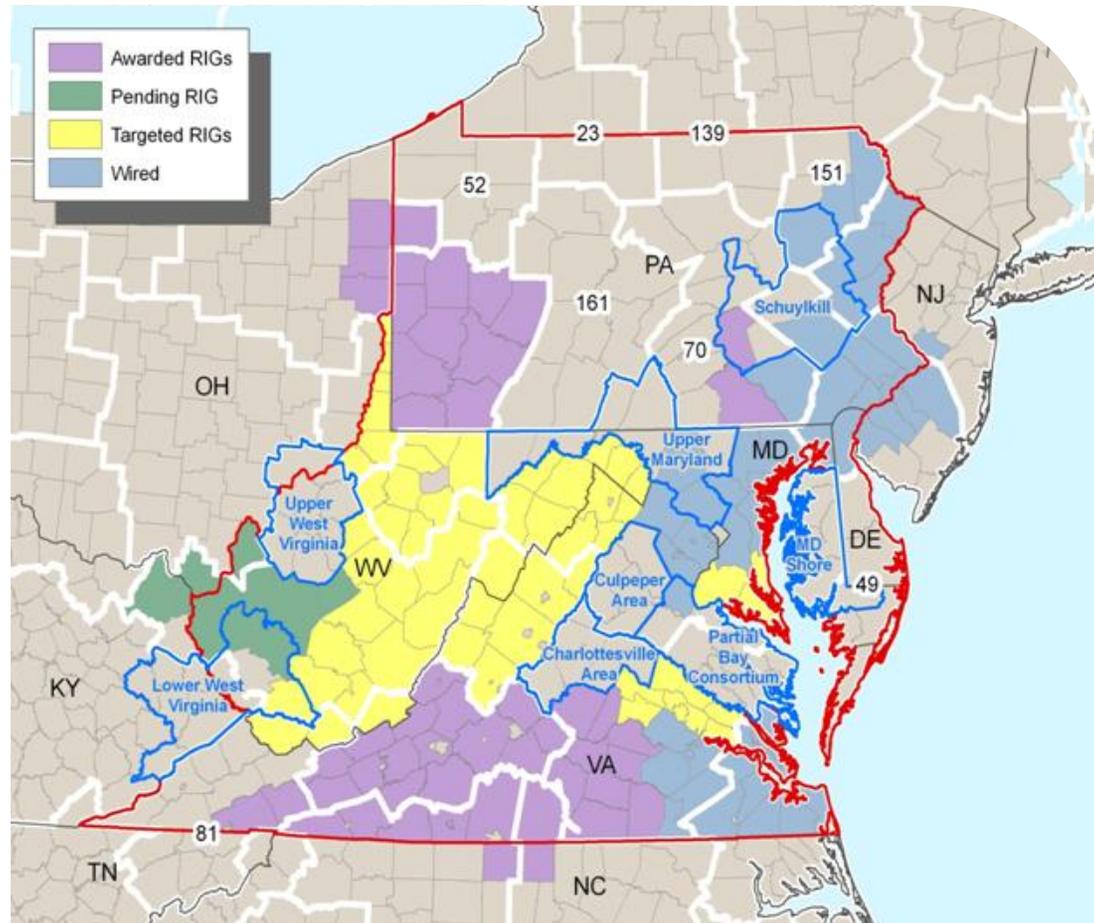




Table of Contents

About This Report	3
Frequently Asked Questions	3
Executive Summary	4
Industry and Occupation Clusters	5
Employment by Major Sector	7
Top 20 Employers by 3-Digit NAICS	8
Industries with Largest Employment Gains and Losses	9
Declining Occupations	11
Growing Occupations	13
Forecast Occupation Gaps	14
Forecast Skill Needs	16
Appendix: Clusters	17



About This Report

Chmura Economics & Analytics recognizes that accurate, timely data can be difficult to find. This regional report provides employment, wages, occupations, and skills data that can be used as background for an RIG application.

Frequently Asked Questions

What data sources were utilized in the creation of this report?

The data for this report come from a variety of sources. All data are checked, cleaned, combined, organized, and displayed in a way to maximize its usefulness. Yearly employment data in the below charts are based on four-quarter averages. Data for regions outside of Virginia and Ohio are imputed when not disclosed. A few of the sources of data which have been used in the creation of this report are:

- Quarterly Census of Employment and Wages (QCEW)
- Local Area Unemployment Statistics (LAUS)
- Occupation and Industry Forecasts
- Local Employment Dynamics (LED)
- O*Net
- National Center for Education Statistics
- Occupational Employment Statistics (OES)

Who is Chmura Economics & Analytics?

Chmura Economics & Analytics (Chmura) is a provider of applied economic consulting, quantitative research, and software solutions requiring the integration of advanced economic analysis. Chmura publishes *Virginia Economic Trends*, *Ohio Economic Trends*, electronic publications, and forecasts available via www.chmuraecon.com. Software products include JOBSeq®, WIBeq™, and OnStage.

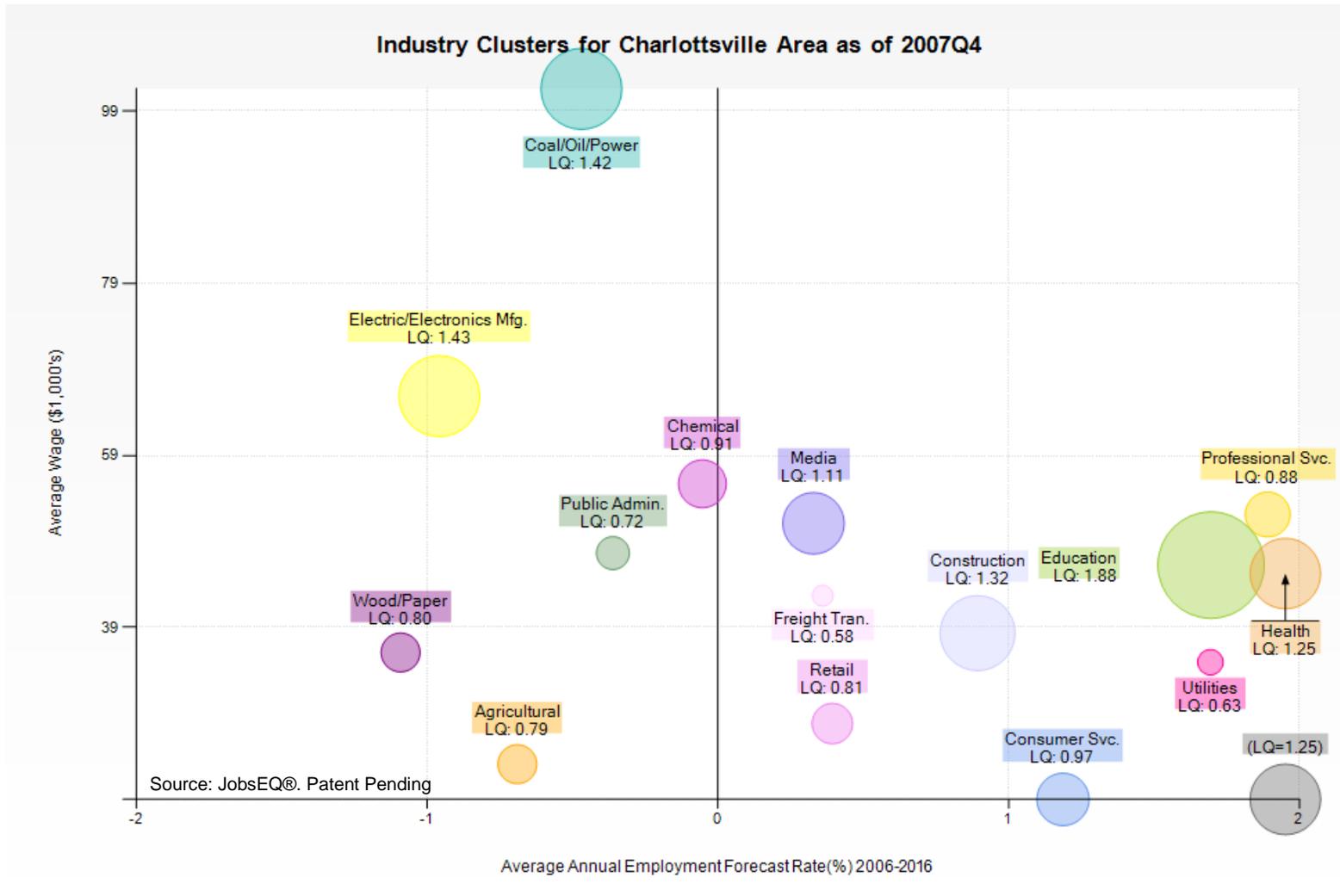
Chmura has headquarters in Richmond, Virginia and a branch office in Cleveland, Ohio. Chmura Economics & Analytics is committed to achieving 100% customer satisfaction in all project engagements. The Chmura philosophy is that when our customer succeeds, Chmura has been successful. To contact us, send an email to info@chmuraecon.com.



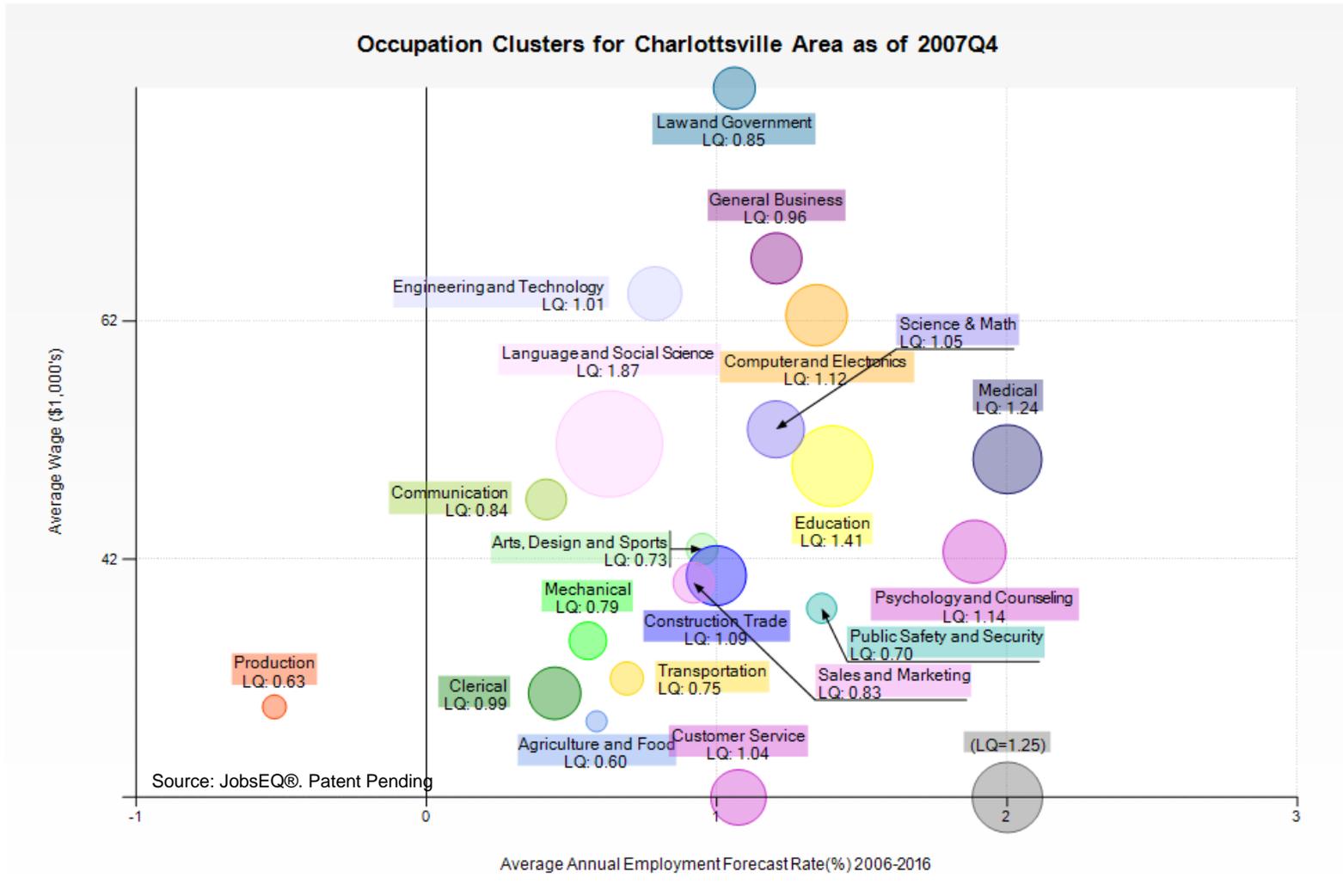
Executive Summary

The Charlottesville Region is well-positioned for additional growth in the high-tech sector due to its industry clusters in education and electronics manufacturing. In addition, occupation clusters include education, engineering and technology, and science and math. Unlike most regions, manufacturing employment in Charlottesville grew from 2005 through 2007, in part due to gains in beverage manufacturing and nonmetallic mineral product manufacturing. The largest occupation shortages in the region over the next seven years are expected to be in healthcare-related occupations.

Industry and Occupation Clusters



Note: See the appendix for an explanation of how to use industry and occupation cluster charts.



Employment by Major Sector

Charlottesville Area Employment by Major Sector

NAICS	Industry Description	Employment				Employment Change Since 2005		Annual Average Change Since 2002
		2007	2005	2002	Annual Average Wages 2007	Number	Annual Average	
0	Total	103,998	97,649	93,239	\$ 40,396	6,349	3.2%	2.2%
11	Agriculture, Forestry, Fishing and Hunting	795	874	779	\$ 23,665	(79)	-4.6%	0.4%
21	Mining, Quarrying, and Oil and Gas Extraction	nd	nd	nd	nd	nd	nd	nd
22	Utilities	nd	nd	nd	nd	nd	nd	nd
23	Construction	7,810	7,492	6,630	\$ 37,017	318	2.1%	3.3%
31	Manufacturing	6,072	5,878	7,135	\$ 48,391	194	1.6%	-3.2%
42	Wholesale Trade	1,783	1,568	1,525	\$ 47,864	215	6.6%	3.2%
44	Retail Trade	11,474	11,415	10,732	\$ 24,383	59	0.3%	1.3%
48	Transportation and Warehousing	1,984	1,888	2,015	\$ 39,167	95	2.5%	-0.3%
51	Information	2,431	2,285	2,662	\$ 54,545	147	3.2%	-1.8%
52	Finance and Insurance	2,168	2,288	2,147	\$ 70,494	(119)	-2.6%	0.2%
53	Real Estate and Rental and Leasing	1,529	1,546	1,484	\$ 35,144	(17)	-0.6%	0.6%
54	Professional, Scientific, and Technical Services	6,366	5,518	4,396	\$ 58,077	848	7.4%	7.7%
55	Management of Companies and Enterprises	1,895	1,736	1,402	\$ 65,229	159	4.5%	6.2%
56	Administrative and Support and Waste Management and Remediation Services	4,161	3,086	3,218	\$ 27,400	1,076	16.1%	5.3%
61	Educational Services	18,681	18,168	16,953	\$ 45,121	513	1.4%	2.0%
62	Health Care and Social Assistance	16,208	14,571	13,529	\$ 44,171	1,637	5.5%	3.7%
71	Arts, Entertainment, and Recreation	2,072	1,767	1,628	\$ 23,419	305	8.3%	4.9%
72	Accommodation and Food Services	9,856	8,977	8,531	\$ 15,299	879	4.8%	2.9%
81	Other Services (except Public Administration)	3,159	3,095	3,200	\$ 34,965	65	1.0%	-0.3%
92	Public Administration	3,981	3,939	3,812	\$ 47,010	42	0.5%	0.9%

Employment growth is the broadest and most timely indicator of the general health of an economy.

Information obtained from this table provides insight to questions such as:

- Which industries are posting the largest increases or decreases in employment? What are their average wages—will the trend lead to a decrease or increase in the region’s overall wealth?
- Are changes in employment levels cyclical or is a particularly industry in long-term decline? What is driving that trend?

Top 20 Employers by 3-Digit NAICS

Charlottesville Area Top 20 Employers by 3-Digit NAICS

NAICS	Industry Description	Employment				Annual Aver Wages 2007	Employment Change Since 2005		Annual Aver Change Since 2002
		2007	2005	2002	Number		Annual Average		
611	Educational Services	18,681	18,168	16,953	\$ 45,121	513	1.4%	2.0%	
622	Hospitals	7,830	7,175	6,745	\$ 47,421	655	4.5%	3.0%	
722	Food Services and Drinking Places	7,464	6,799	6,233	\$ 13,415	665	4.8%	3.7%	
541	Professional, Scientific, and Technical Services	6,366	5,518	4,396	\$ 58,077	848	7.4%	7.7%	
621	Ambulatory Health Care Services	4,436	3,873	3,590	\$ 53,937	562	7.0%	4.3%	
238	Specialty Trade Contractors	4,162	3,973	3,519	\$ 35,270	189	2.4%	3.4%	
561	Administrative and Support Services	3,991	2,935	3,116	\$ 27,195	1,056	16.6%	5.1%	
721	Accommodation	2,392	2,178	2,298	\$ 21,116	214	4.8%	0.8%	
445	Food and Beverage Stores	2,342	2,381	2,340	\$ 20,451	(39)	-0.8%	0.0%	
236	Construction of Buildings	2,210	2,183	1,857	\$ 38,851	27	0.6%	3.5%	
623	Nursing and Residential Care Facilities	2,066	1,948	1,757	\$ 27,553	118	3.0%	3.3%	
551	Management of Companies and Enterprises	1,895	1,736	1,402	\$ 65,229	159	4.5%	6.2%	
624	Social Assistance	1,876	1,574	1,436	\$ 25,950	301	9.2%	5.5%	
334	Computer and Electronic Product Manufacturing	1,774	1,793	3,111	\$ 65,556	(19)	-0.5%	-10.6%	
713	Amusement, Gambling, and Recreation Industries	1,580	1,369	1,244	\$ 17,555	212	7.5%	4.9%	
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations	1,514	1,393	1,502	\$ 44,030	121	4.2%	0.2%	
511	Publishing Industries (except Internet)	1,488	1,463	1,527	\$ 57,964	26	0.9%	-0.5%	
237	Heavy and Civil Engineering Construction	1,438	1,337	1,254	\$ 39,168	101	3.7%	2.8%	
441	Motor Vehicle and Parts Dealers	1,418	1,278	1,177	\$ 37,811	140	5.3%	3.8%	
221	Utilities	nd	nd	nd	nd	nd	nd	nd	

The **North American Industry Classification System** (NAICS) was developed cooperatively between the United States, Canada, and Mexico to provide data users with accurate information pertaining to the economy in the 21st century. The NAICS Code is composed of six digits. The first two digits define the top-level category. The three-digit industries shown above represent components of the major sectors.

Similar to the previous table, information obtained from this table provides insight to questions such as:

- Which industries are posting the largest increases or decreases in employment? What are their average wages—will the trend lead to a decrease or increase in the region’s overall wealth?
- Are changes in employment levels cyclical or is a particularly industry in long-term decline? What is driving that trend?

Industries with Largest Employment Gains and Losses

Charlottesville Area Top 20 Industries with Largest Employment Gain by 3-Digit NAICS

NAICS	Industry Description	Employment				Employment Change Since 2005		Annual Average Change Since 2002
		2007	2005	2002	Annual Average Wages 2007	Number	Percent	
722	Food Services and Drinking Places	7,464	6,799	6,233	\$ 13,415	665.33	4.8%	3.7%
621	Ambulatory Health Care Services	4,436	3,873	3,590	\$ 53,937	562.42	7.0%	4.3%
624	Social Assistance	1,876	1,574	1,436	\$ 25,950	301.33	9.2%	5.5%
721	Accommodation	2,392	2,178	2,298	\$ 21,116	213.83	4.8%	0.8%
713	Amusement, Gambling, and Recreation Industries	1,580	1,369	1,244	\$ 17,555	211.58	7.5%	4.9%
551	Management of Companies and Enterprises	1,895	1,736	1,402	\$ 65,229	158.75	4.5%	6.2%
441	Motor Vehicle and Parts Dealers	1,418	1,278	1,177	\$ 37,811	139.92	5.3%	3.8%
423	Merchant Wholesalers, Durable Goods	984	862	860	\$ 49,575	122.08	6.8%	2.7%
813	Religious, Grantmaking, Civic, Professional, and Similar Organizations	1,514	1,393	1,502	\$ 44,030	120.58	4.2%	0.2%
623	Nursing and Residential Care Facilities	2,066	1,948	1,757	\$ 27,553	118.42	3.0%	3.3%
454	Nonstore Retailers	730	618	542	\$ 41,407	112.83	8.8%	6.2%
237	Heavy and Civil Engineering Construction	1,438	1,337	1,254	\$ 39,168	101.42	3.7%	2.8%
492	Couriers and Messengers	371	294	287	\$ 35,570	76.92	12.3%	5.3%
515	Broadcasting (except Internet)	270	199	148	\$ 35,306	70.50	16.4%	12.7%
312	Beverage and Tobacco Product Manufacturing	350	280	223	\$ 29,846	69.83	11.8%	9.4%
711	Performing Arts, Spectator Sports, and Related Industries	184	119	99	\$ 69,911	65.25	24.4%	13.2%
424	Merchant Wholesalers, Nondurable Goods	643	588	555	\$ 38,261	54.92	4.6%	3.0%
448	Clothing and Clothing Accessories Stores	1,078	1,024	984	\$ 14,998	54.00	2.6%	1.9%
327	Nonmetallic Mineral Product Manufacturing	220	178	153	\$ 41,067	41.75	11.1%	7.5%
221	Utilities	nd	nd	nd	nd	nd	nd	nd

Information obtained from the table above identifies the industries that are adding the largest number of jobs which translates into those creating the greatest demand for new workers.

Charlottesville Area Top 20 Industries with Largest Employment Loss by 3-Digit NAICS

NAICS	Industry Description	Employment			Annual Aver Wages 2007	Employment Change Since 2005		Annual Aver Change Since 2002
		2007	2005	2002		Number	Annual Average	
524	Insurance Carriers and Related Activities	647	791	744	\$ 62,680	(144)	-9.5%	-2.7%
444	Building Material and Garden Equipment and Supplies Dealers	795	935	765	\$ 30,862	(139)	-7.8%	0.8%
447	Gasoline Stations	941	1,048	1,032	\$ 20,992	(107)	-5.2%	-1.8%
811	Repair and Maintenance	726	798	809	\$ 32,808	(72)	-4.6%	-2.1%
321	Wood Product Manufacturing	511	560	543	\$ 39,136	(48)	-4.4%	-1.2%
325	Chemical Manufacturing	126	172	117	\$ 36,117	(46)	-14.5%	1.5%
445	Food and Beverage Stores	2,342	2,381	2,340	\$ 20,451	(39)	-0.8%	0.0%
532	Rental and Leasing Services	434	473	461	\$ 31,036	(39)	-4.2%	-1.2%
212	Mining (except Oil and Gas)	133	154	146	\$ 44,103	(21)	-7.1%	-1.9%
484	Truck Transportation	337	352	315	\$ 28,729	(15)	-2.2%	1.4%
522	Credit Intermediation and Related Activities	1,085	1,097	1,046	\$ 51,838	(12)	-0.6%	0.7%
443	Electronics and Appliance Stores	408	420	348	\$ 27,563	(12)	-1.5%	3.2%
113	Forestry and Logging	117	127	127	\$ 29,611	(10)	-4.2%	-1.7%
922	Justice, Public Order, and Safety Activities	1,270	1,281	1,264	\$ 44,930	(10)	-0.4%	0.1%
451	Sporting Goods, Hobby, Book, and Music Stores	744	753	661	\$ 15,834	(10)	-0.6%	2.4%
533	Lessors of Nonfinancial Intangible Assets (except Copyrighted W	4	12	27	\$ 94,166	(7)	-39.1%	-30.6%
923	Administration of Human Resource Programs	250	257	240	\$ 43,396	(7)	-1.4%	0.8%
213	Support Activities for Mining	nd	nd	nd	nd	nd	nd	nd
322	Paper Manufacturing	nd	nd	nd	nd	nd	nd	nd
486	Pipeline Transportation	nd	nd	nd	nd	nd	nd	nd

Information obtained from the table above identifies the industries that are shedding the largest number of workers which translates into the number of people who are likely looking for jobs in the region or in need of retraining.

Declining Occupations

Charlottesville Area Top 20 Declining Occupations Based on Top 20 Declining Industries

Occupation Description	SOC	Employment			Annual Aver Wages 2007	Employment Change Since 2005		Annual Aver Change Since 2002
		2007	2005	2002		Number	Annual Average	
Cashiers	41-2011	1,657	1,749	1,691	\$ 17,923	(92)	-2.7%	-0.4%
Retail Salespersons	41-2031	788	847	725	\$ 22,870	(59)	-3.6%	1.7%
First-Line Supervisors/Mgrs of Retail Sales Workers	41-1011	414	441	412	\$ 36,058	(26)	-3.0%	0.1%
Customer Service Representatives	43-4051	347	369	351	\$ 27,352	(23)	-3.1%	-0.3%
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	184	204	186	\$ 21,965	(20)	-5.0%	-0.2%
Insurance Sales Agents	41-3021	159	177	164	\$ 59,722	(19)	-5.5%	-0.7%
Automotive Service Technicians and Mechanics	49-3023	206	223	209	\$ 33,115	(17)	-4.0%	-0.3%
Office Clerks, General	43-9061	241	259	243	\$ 24,837	(17)	-3.4%	-0.1%
Counter and Rental Clerks	41-2021	129	146	144	\$ 21,223	(17)	-5.8%	-2.2%
Insurance Claims and Policy Processing Clerks	43-9041	66	79	74	\$ 32,715	(14)	-9.1%	-2.5%
Sales Representatives, Services, All Other	41-3099	108	121	115	\$ 30,247	(13)	-5.6%	-1.2%
Industrial Truck and Tractor Operators	53-7051	107	120	108	\$ 25,561	(13)	-5.7%	-0.2%
Truck Drivers, Heavy and Tractor-Trailer	53-3032	207	220	197	\$ 35,690	(13)	-3.0%	1.0%
Claims Adjusters, Examiners, and Investigators	13-1031	44	57	54	\$ 51,485	(12)	-11.5%	-3.7%
Truck Drivers, Light or Delivery Services	53-3033	122	134	119	\$ 26,472	(12)	-4.7%	0.5%
Bookkeeping, Accounting, and Auditing Clerks	43-3031	158	171	160	\$ 29,498	(12)	-3.6%	-0.2%
General and Operations Mgrs	11-1021	162	174	162	\$ 83,264	(12)	-3.4%	0.0%
Insurance Underwriters	13-2053	37	47	45	\$ 58,116	(10)	-11.6%	-3.8%
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	168	176	173	\$ 18,911	(9)	-2.6%	-0.6%
Stock Clerks and Order Fillers	43-5081	424	433	421	\$ 21,402	(9)	-1.0%	0.1%

The **Standard Occupational Classification (SOC)** system is used by all Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data. All workers are classified into one of over 820 occupations according to their occupational definition. Each occupation group includes detailed occupation(s) requiring similar job duties, skills, education, or experience. This system is provided by the U.S. Department of Labor, Bureau of Labor Statistics.

The table above identifies the most prevalent occupations in the regional industries shedding the most workers over the past year. The occupations on this list identify those that are in need of retraining or transferring to other industries.

Charlottesville Area Top 20 Declining Occupations Based on All Industries

Occupation Description	SOC	Employment			Annual Aver Wages 2007 Q4	Employment		Annual Aver Change Since 2002 Q4
		2007 Q4	2006 Q4	2002 Q4		Number	Percent	
Mental Health Counselors	21-1014	97	131	113	\$ 39,264	(33)	-25.5%	-3.0%
Substance Abuse and Behavioral Disorder Counselors	21-1011	30	60	55	\$ 36,851	(30)	-49.6%	-11.4%
Retail Salespersons	41-2031	3,104	3,130	2,852	\$ 23,405	(25)	-0.8%	1.7%
Real Estate Sales Agents	41-9022	213	230	215	\$ 54,251	(16)	-7.1%	-0.2%
Insurance Claims and Policy Processing Clerks	43-9041	93	109	99	\$ 32,301	(16)	-14.5%	-1.2%
Claims Adjusters, Examiners, and Investigators	13-1031	68	82	74	\$ 51,282	(14)	-17.5%	-1.7%
Health Technologists and Technicians, All Other	29-2099	106	119	107	\$ 39,080	(13)	-11.0%	-0.1%
Insurance Underwriters	13-2053	40	53	48	\$ 57,970	(13)	-24.4%	-3.8%
Loan Officers	13-2072	148	161	142	\$ 61,294	(13)	-7.9%	0.8%
Counter and Rental Clerks	41-2021	335	348	331	\$ 22,881	(13)	-3.6%	0.3%
Automotive Service Technicians and Mechanics	49-3023	515	525	467	\$ 36,779	(10)	-2.0%	2.0%
Postal Service Mail Carriers	43-5052	233	243	249	\$ 43,750	(10)	-4.3%	-1.3%
Security Guards	33-9032	421	431	423	\$ 26,181	(10)	-2.3%	-0.1%
Insurance Sales Agents	41-3021	169	179	172	\$ 59,657	(10)	-5.4%	-0.3%
First-Line Supervisors/Mgrs of Retail Sales Workers	41-1011	920	930	864	\$ 38,641	(9)	-1.0%	1.3%
Dietitians and Nutritionists	29-1031	45	52	47	\$ 59,191	(8)	-14.5%	-1.0%
Healthcare Practitioners and Technical Workers, All Other	29-9099	66	74	62	\$ 46,103	(7)	-10.1%	1.4%
Postal Service Mail Sorters, Processors, and Processing Machine Operators	43-5053	158	165	169	\$ 41,080	(7)	-4.3%	-1.3%
Cabinetmakers and Bench Carpenters	51-7011	36	42	50	\$ 29,288	(7)	-15.8%	-6.7%
Loan Interviewers and Clerks	43-4131	94	101	91	\$ 32,448	(7)	-6.5%	0.7%

The table above identifies the most prevalent occupations that are declining from ALL industries in the region. The occupations on this list identify those that are in need of retraining or transferring to other industries.

Growing Occupations

Charlottesville Area Top 20 Growing Occupations Based on All Industries

Occupation Description	SOC	Employment			Annual Aver Wages 2007 Q4	Employment Change		Annual Aver Change Since 2002 Q4
		2007 Q4	2006 Q4	2002 Q4		Number	Percent	
Office Clerks, General	43-9061	3,016	2,860	2,633	\$ 25,247	156	5.4%	2.8%
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	1,077	961	1,084	\$ 22,804	116	12.1%	-0.1%
Receptionists and Information Clerks	43-4171	957	856	767	\$ 23,441	101	11.8%	4.5%
Billing and Posting Clerks and Machine Operators	43-3021	465	389	340	\$ 29,966	76	19.6%	6.5%
Medical Assistants	31-9092	358	289	249	\$ 26,804	68	23.6%	7.5%
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	1,634	1,566	1,410	\$ 16,702	67	4.3%	3.0%
Waiters and Waitresses	35-3031	2,425	2,363	2,081	\$ 17,432	62	2.6%	3.1%
Licensed Practical and Licensed Vocational Nurses	29-2061	915	854	737	\$ 36,668	61	7.2%	4.4%
Family and General Practitioners	29-1062	155	95	86	\$ 145,318	60	62.7%	12.5%
Team Assemblers	51-2092	617	569	652	\$ 25,616	49	8.6%	-1.1%
Packers and Packers, Hand	53-7064	443	397	487	\$ 18,512	46	11.7%	-1.8%
Secretaries, Except Legal, Medical, and Executive	43-6014	1,821	1,777	1,672	\$ 29,080	43	2.4%	1.7%
Registered Nurses	29-1111	3,082	3,043	2,647	\$ 60,210	38	1.3%	3.1%
Medical Secretaries	43-6013	248	212	182	\$ 29,661	36	16.8%	6.4%
Bookkeeping, Accounting, and Auditing Clerks	43-3031	1,249	1,216	1,095	\$ 31,781	34	2.8%	2.7%
First-Line Supervisors/Managers of Office and Administrative Support Workers	43-1011	934	901	837	\$ 46,320	33	3.7%	2.2%
General and Operations Managers	11-1021	1,320	1,287	1,193	\$ 96,916	33	2.6%	2.0%
Executive Secretaries and Administrative Assistants	43-6011	841	808	740	\$ 39,375	32	4.0%	2.6%
Data Entry Keyers	43-9021	260	229	204	\$ 25,388	31	13.7%	5.0%
Elementary School Teachers, Except Special Education	25-2021	1,525	1,494	1,397	\$ 48,703	31	2.1%	1.8%

The table above identifies the most prevalent occupations that are in demand for the industries in the region that are showing the largest employment growth.

Forecast Occupation Gaps

Charlottesville Area Gaps in Top 20 Occupations (Requiring 2-Year Degree or Greater) Over Next 7 Years

Occupation Description	SOC	Annual Occupation Gaps	Employment			Annual Average Wages 2007 Q4
			2007 Q4	2006 Q4	2002 Q4	
Registered Nurses	29-1111	28	3,082	3,043	2,647	\$ 60,212
Bookkeeping, Accounting, and Auditing Clerks	43-3031	14	1,249	1,216	1,095	\$ 31,790
Teacher Assistants	25-9041	13	1,284	1,256	1,201	\$ 22,741
Licensed Practical and Licensed Vocational Nurses	29-2061	12	915	854	737	\$ 36,826
Executive Secretaries and Admin Assistants	43-6011	10	841	808	740	\$ 39,312
Medical Assistants	31-9092	10	358	289	249	\$ 26,846
Sales Representatives, Services, All Other	41-3099	6	337	340	336	\$ 47,135
Automotive Service Technicians and Mechanics	49-3023	3	515	525	467	\$ 36,779
First-Line Supervisors/Mgrs of Housekeeping and Janitorial Workers	37-1011	3	262	259	234	\$ 33,849
First-Line Supervisors/Mgrs of Construction Trades and Extraction Workers	47-1011	3	710	696	602	\$ 56,935
Preschool Teachers, Ex Special Ed	25-2011	3	241	233	233	\$ 27,864
Medical Records and Health Information Technicians	29-2071	3	194	178	150	\$ 31,847
Network Systems and Data Communications Analysts	15-1081	3	148	145	150	\$ 65,666
Bill and Account Collectors	43-3011	2	234	234	222	\$ 31,450
Social and Human Service Assistants	21-1093	2	144	136	120	\$ 27,968
Fitness Trainers and Aerobics Instructors	39-9031	2	213	193	170	\$ 31,112
First-Line Supervisors/Mgrs of Mechanics, Installers, and Repairers	49-1011	2	376	371	356	\$ 55,987
Cost Estimators	13-1051	2	147	144	124	\$ 57,634
Correctional Officers and Jailers	33-3012	2	248	246	243	\$ 38,698
Hairdressers, Hairstylists, and Cosmetologists	39-5012	2	233	221	214	\$ 24,953

The **Gap** forecasts the average annual number of individuals needed in the occupation beyond the supply of new workers. It includes changes due to replacements. For example, consider the case in which a retail salesperson gets a degree, leaves their occupation, and becomes a financial analyst. This turnover dictates that a new retail salesperson is needed. Even though the total number of retail salespersons in the region is unchanged, the gap counts this situation as an increase of one in demand for retail salesperson. It also includes expected changes due to worker preferences and wages.

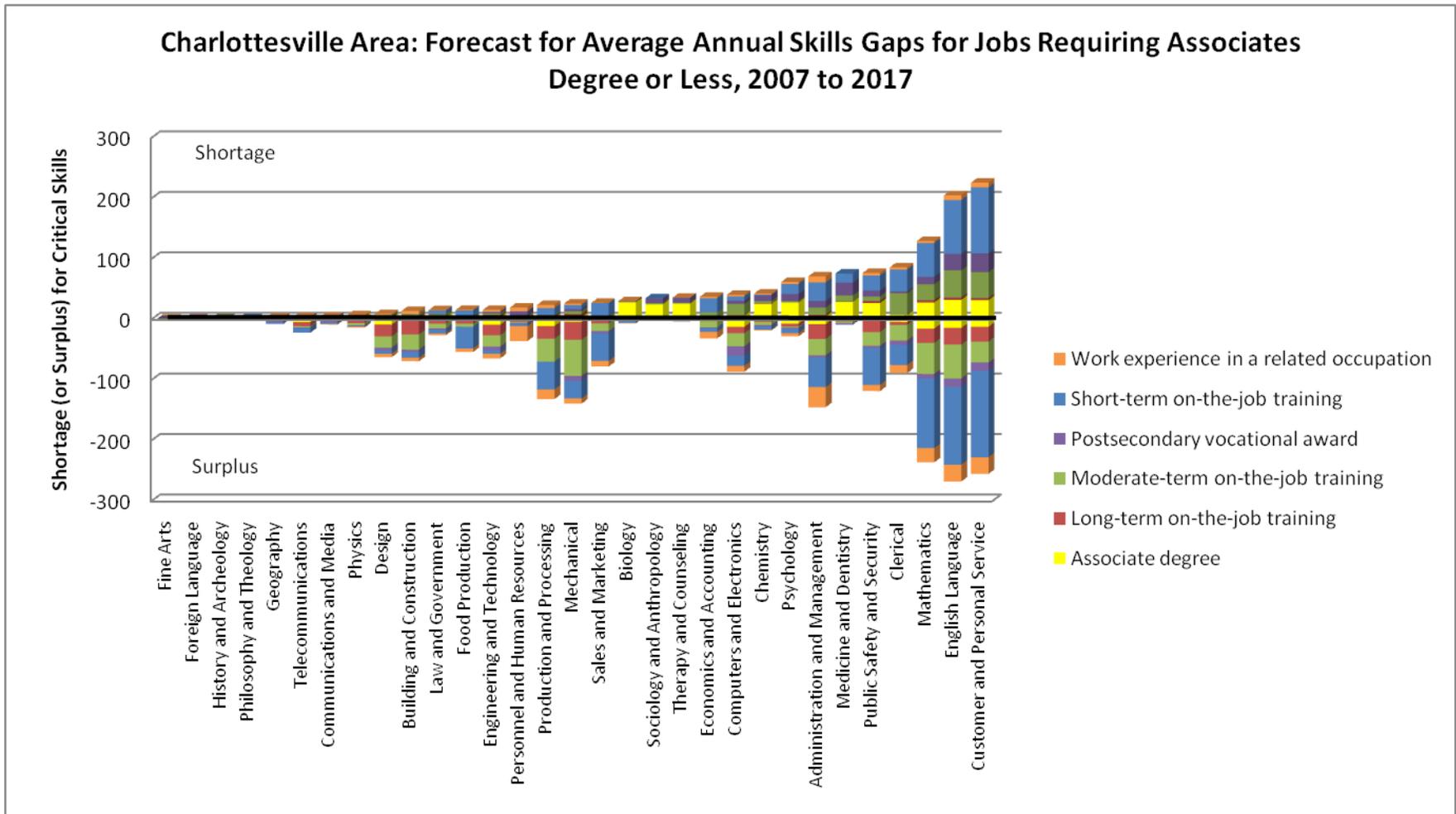
This table provides insight into the occupations that typically require a 2-year degree or greater that are expected to be in greatest demand.

Charlottesville Area Gaps in Top 20 Occupations (Requiring Less than 2-Year Degree) Over Next 7 Years

SOC	Occupation Description	Annual Occupation Gaps	Employment			Annual Aver Wages 2007 Q4
			2007 Q4	2006 Q4	2002 Q4	
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	40	2,142	2,113	1,912	\$ 22,428
43-9061	Office Clerks, General	31	3,016	2,860	2,633	\$ 25,247
39-9021	Personal and Home Care Aides	21	427	397	313	\$ 18,905
31-1011	Home Health Aides	20	479	453	357	\$ 20,157
31-1012	Nursing Aides, Orderlies, and Attendants	18	1,438	1,409	1,216	\$ 22,822
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	16	1,634	1,566	1,410	\$ 16,702
37-2012	Maids and Housekeeping Cleaners	15	1,168	1,145	1,027	\$ 19,022
41-2031	Retail Salespersons	14	3,104	3,130	2,852	\$ 23,490
43-4051	Customer Service Representatives	13	1,229	1,219	1,170	\$ 29,294
43-4171	Receptionists and Information Clerks	13	957	856	767	\$ 23,441
37-3011	Landscaping and Groundskeeping Workers	9	696	679	573	\$ 22,943
33-9032	Security Guards	8	421	431	423	\$ 26,278
53-3022	Bus Drivers, School	7	715	700	661	\$ 24,484
53-3032	Truck Drivers, Heavy and Tractor-Trailer	7	602	574	516	\$ 35,483
39-3091	Amusement and Recreation Attendants	6	272	243	212	\$ 17,362
53-3033	Truck Drivers, Light or Delivery Services	5	609	588	524	\$ 27,276
41-2021	Counter and Rental Clerks	4	335	348	331	\$ 22,925
43-6013	Medical Secretaries	3	248	212	182	\$ 29,661
29-2052	Pharmacy Technicians	3	181	175	153	\$ 44,553
31-9091	Dental Assistants	3	141	142	120	\$ 30,819

This table provides insight into the occupations that typically require less than a 2-year degree that are expected to be in greatest demand.

Forecast Skill Needs



The chart above identifies the skills needed for the gap occupations identified on the previous page that typically require less than a 2-year degree.



Appendix: Clusters

Cluster charts display a geographic concentration of interrelated industries or occupations.

- **Cluster**
 - Industry clusters can form and grow because of a region's competitive advantage—resources such as location, trained labor, and education systems.
 - Occupation clusters describe the specialization of a region's workforce.
- **Location Quotient - (LQ)** This value is shown by the size of the circle; the larger the circle, the larger the location quotient.
 - A location quotient greater than 1.0 indicates that the region has a higher concentration of employment in a particular industry or occupation than the nation; a location quotient less than 1 indicates the region has a lower concentration of employment in the cluster than the nation.
 - If a regional industry group has a location quotient of 1.25 or higher, it is considered to possess a *Competitive Advantage* in that industry.
 - Only industries or occupations with an LQ higher than .5 are shown in the clusters chart.
 - Nondisclosure - if cluster data are nondisclosable, a range will be given for the LQ.
- **Average Wages** - This value is shown on the vertical axis. The higher the circle is shown on the chart, the higher the average wages in that cluster.
- **Forecast Growth** - The forecast growth rate for a cluster is the annual average percentage change in employment expected over the given period. This value is shown along the horizontal axis. The further to the right a cluster's circle is shown, the greater the growth expected in that cluster. The expected growth is based upon a long-range national industry and occupation forecast and may not reflect short-term and regional fluctuations.