

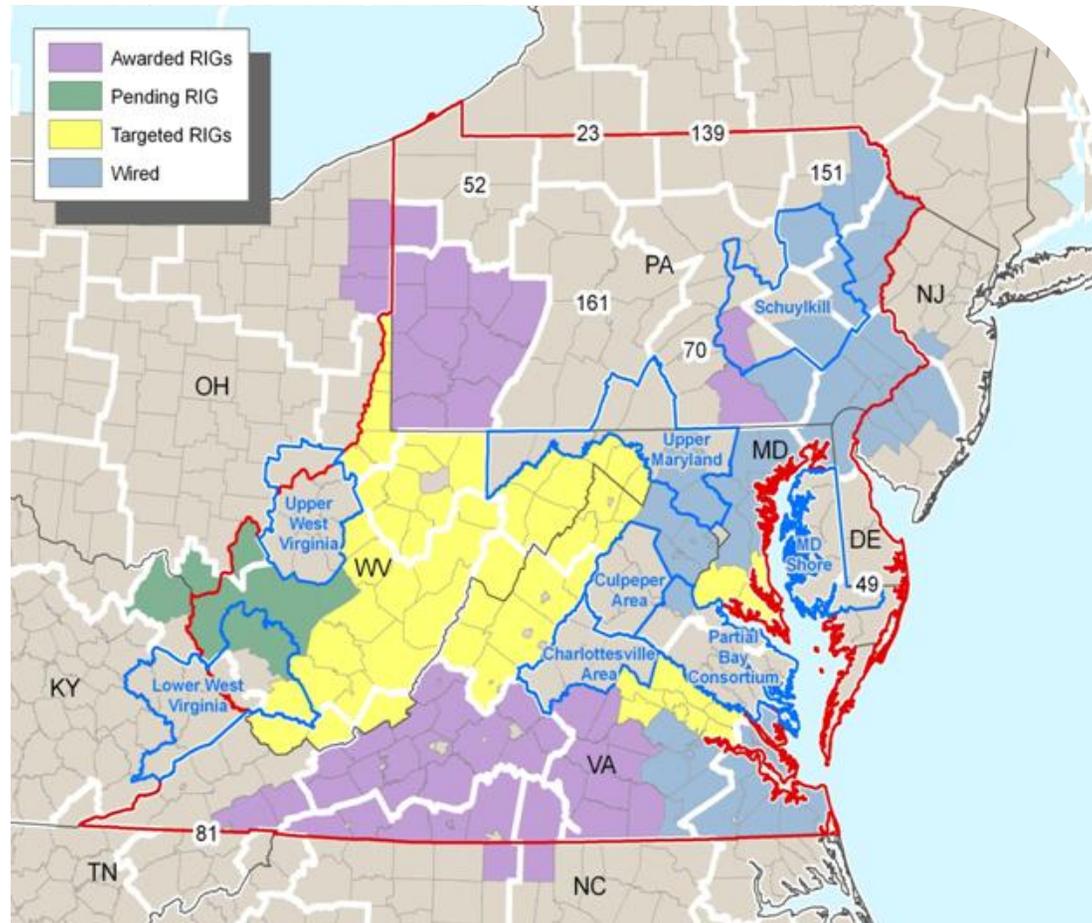


# Analysis of Regions Not Currently Involved in WIRED Grants or RIGs: BEA Region 151

October 2008

## BEA Region 151

- Lackawanna County, Pennsylvania
- Luzerne County, Pennsylvania
- Susquehanna County, Pennsylvania
- Wayne County, Pennsylvania
- Wyoming County, Pennsylvania





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# 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](http://www.chmuraecon.com). Software products include JOBSeq®, WIBeq™, and OnStage.

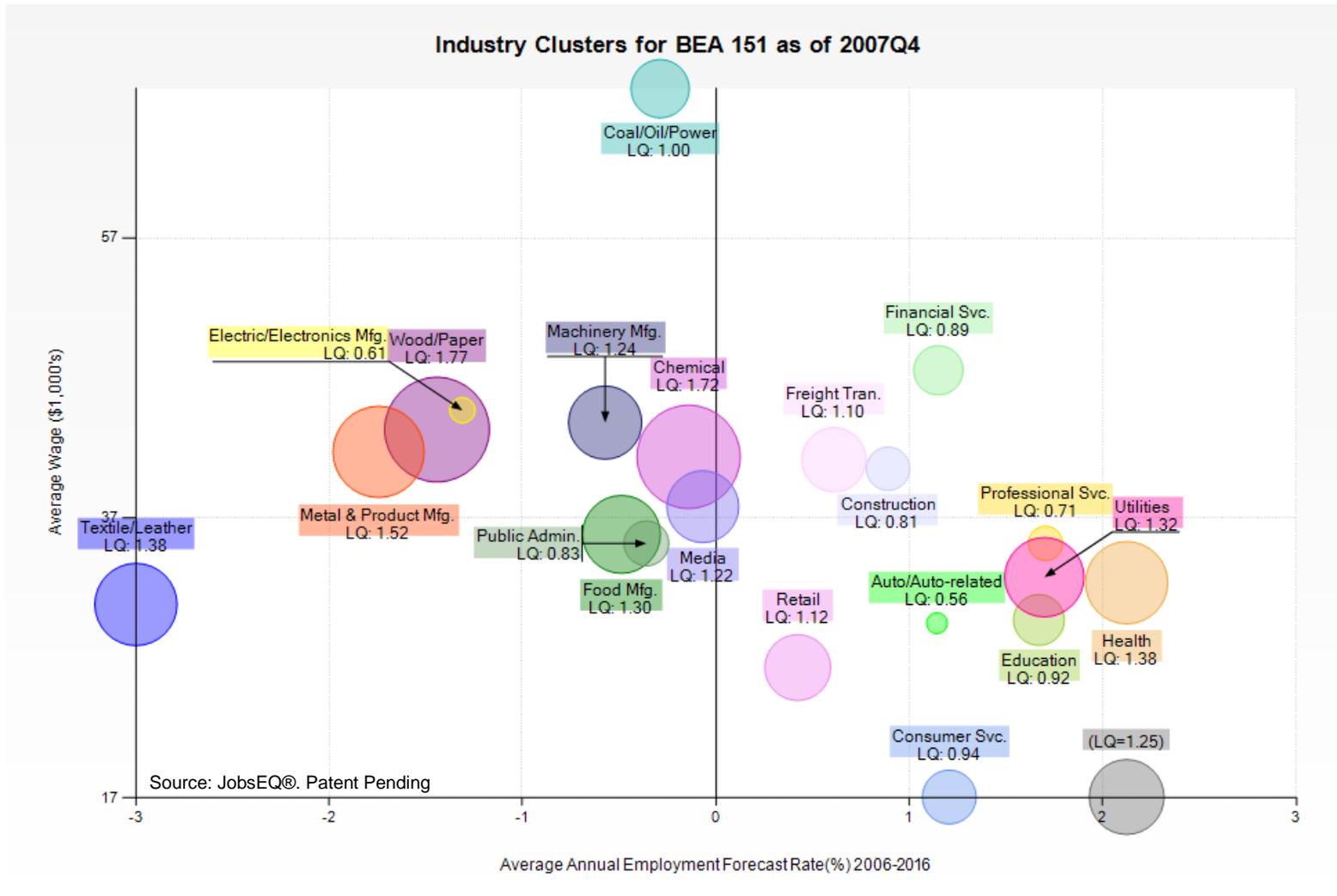
Chmura has headquarters in Richmond, Virginia and a branch office in Cleveland, Ohio. Chmura Economics & Analytics is committed to achieving 100% customer satisfaction in all project engagements. The Chmura philosophy is that when our customer succeeds, Chmura has been successful. To contact us, send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



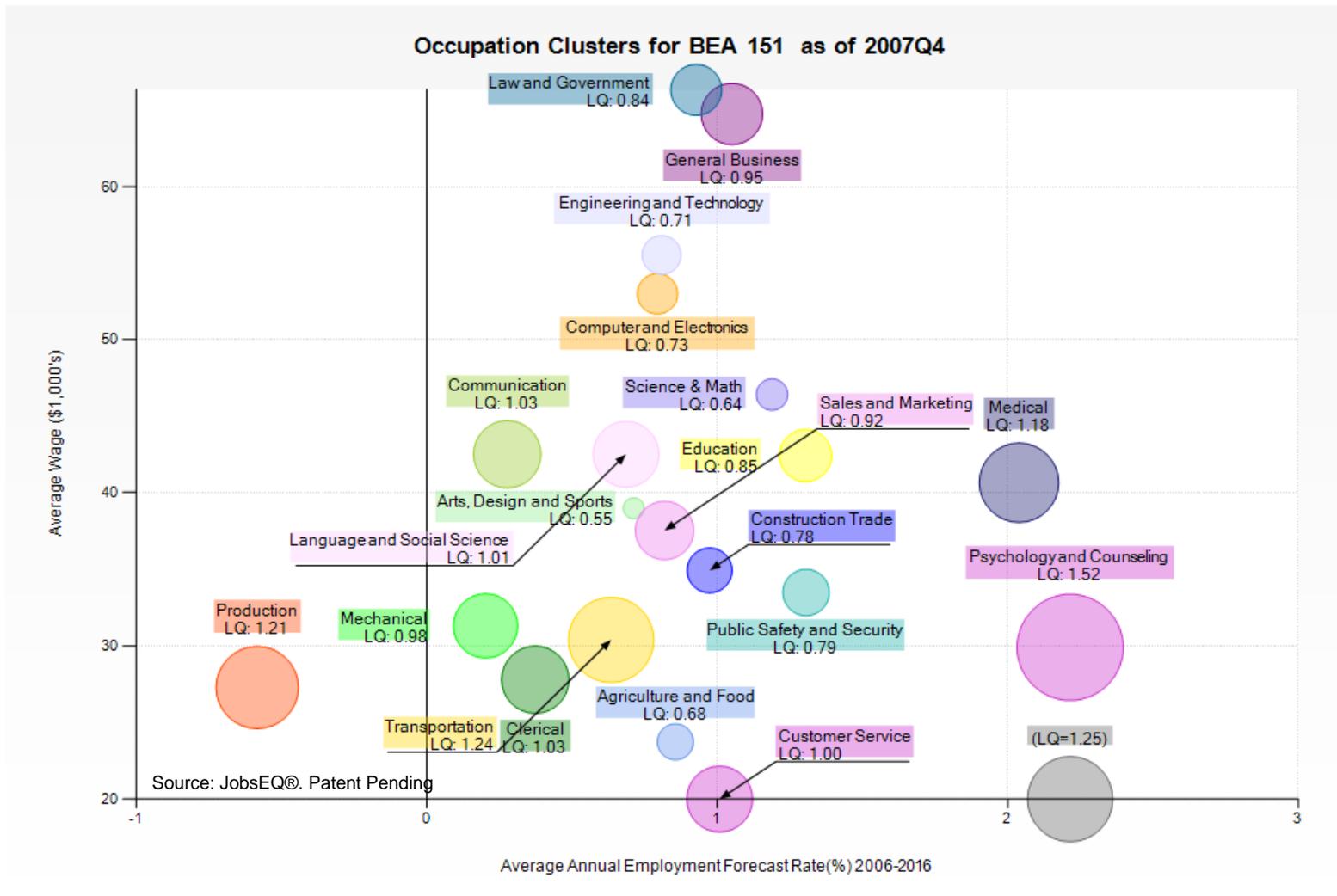
## **Executive Summary**

BEA Region 151 in Pennsylvania overlaps with a WIRED region where the counties of Susquehanna and Wyoming were excluded. Region 151 is dominated by the following traditional manufacturing clusters that are expected to shed jobs over the next decade: wood/paper, chemical, metal and products, food, textile/leather, and machinery. Associated occupations in production and mechanical will likely need retraining for demand occupations. The media cluster and communication occupations stand out as potentially emerging. Over the next seven years, the greatest deficits 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

Bureau of Economic Analysis Region 151 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	278,497	275,305	268,334	\$ 33,235	3,191	0.6%	0.7%
11	Agriculture, Forestry, Fishing and Hunting	516	503	456	\$ 26,834	14	1.3%	2.5%
21	Mining, Quarrying, and Oil and Gas Extraction	1,050	945	933	\$ 36,025	104	5.4%	2.4%
22	Utilities	2,369	2,297	3,388	\$ 73,069	72	1.6%	-6.9%
23	Construction	12,400	11,655	11,526	\$ 39,900	745	3.1%	1.5%
31	Manufacturing	34,378	36,102	40,943	\$ 41,141	(1,724)	-2.4%	-3.4%
42	Wholesale Trade	11,791	10,947	9,716	\$ 41,596	843	3.8%	3.9%
44	Retail Trade	37,619	37,651	37,064	\$ 21,572	(32)	0.0%	0.3%
48	Transportation and Warehousing	15,170	13,623	12,535	\$ 33,827	1,547	5.5%	3.9%
51	Information	7,603	6,691	6,874	\$ 43,628	912	6.6%	2.0%
52	Finance and Insurance	11,044	12,124	11,519	\$ 47,050	(1,080)	-4.6%	-0.8%
53	Real Estate and Rental and Leasing	2,076	2,119	2,600	\$ 28,303	(43)	-1.0%	-4.4%
54	Professional, Scientific, and Technical Services	8,197	7,672	7,435	\$ 43,639	525	3.4%	2.0%
55	Management of Companies and Enterprises	2,470	2,157	1,561	\$ 60,608	312	7.0%	9.6%
56	Administrative and Support and Waste Management and Remediation Services	14,469	13,960	11,669	\$ 22,339	509	1.8%	4.4%
61	Educational Services	22,567	22,852	22,389	\$ 31,341	(285)	-0.6%	0.2%
62	Health Care and Social Assistance	48,154	46,910	43,066	\$ 32,141	1,244	1.3%	2.3%
71	Arts, Entertainment, and Recreation	3,274	2,619	2,498	\$ 18,211	655	11.8%	5.6%
72	Accommodation and Food Services	22,234	22,330	20,508	\$ 12,984	(96)	-0.2%	1.6%
81	Other Services (except Public Administration)	8,693	9,014	8,746	\$ 20,657	(321)	-1.8%	-0.1%
92	Public Administration	12,413	13,085	12,472	\$ 35,048	(673)	-2.6%	-0.1%

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

Bureau of Economic Analysis Region 151 Top 20 Employers 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	Annual Average	
611	Educational Services	22,567	22,852	22,389	\$ 31,341	(285)	-0.6%	0.2%
722	Food Services and Drinking Places	18,956	18,948	16,957	\$ 11,975	8	0.0%	2.3%
621	Ambulatory Health Care Services	14,490	14,392	12,826	\$ 39,252	98	0.3%	2.5%
561	Administrative and Support Services	13,428	13,081	10,536	\$ 21,370	346	1.3%	5.0%
622	Hospitals	13,310	13,317	13,671	\$ 34,637	(7)	0.0%	-0.5%
623	Nursing and Residential Care Facilities	13,199	12,986	10,996	\$ 27,608	214	0.8%	3.7%
445	Food and Beverage Stores	8,705	9,122	9,278	\$ 16,288	(417)	-2.3%	-1.3%
921	Executive, Legislative, and Other General Government Support	8,478	8,166	8,060	\$ 30,003	312	1.9%	1.0%
541	Professional, Scientific, and Technical Services	8,197	7,672	7,435	\$ 43,639	525	3.4%	2.0%
238	Specialty Trade Contractors	7,453	6,789	6,506	\$ 38,612	664	4.8%	2.8%
624	Social Assistance	7,156	6,215	5,578	\$ 21,329	940	7.3%	5.1%
452	General Merchandise Stores	6,823	6,969	7,155	\$ 17,088	(146)	-1.1%	-0.9%
423	Merchant Wholesalers, Durable Goods	6,437	5,886	5,136	\$ 41,222	551	4.6%	4.6%
522	Credit Intermediation and Related Activities	5,998	6,275	6,513	\$ 40,351	(276)	-2.2%	-1.6%
493	Warehousing and Storage	5,507	3,556	1,973	\$ 26,443	1,951	24.4%	22.8%
332	Fabricated Metal Product Manufacturing	5,068	5,238	4,998	\$ 42,995	(169)	-1.6%	0.3%
441	Motor Vehicle and Parts Dealers	4,496	4,681	4,217	\$ 33,844	(185)	-2.0%	1.3%
484	Truck Transportation	4,108	4,672	5,276	\$ 40,187	(564)	-6.2%	-4.9%
524	Insurance Carriers and Related Activities	4,073	4,777	4,048	\$ 53,250	(704)	-7.7%	0.1%
424	Merchant Wholesalers, Nondurable Goods	4,009	3,647	3,271	\$ 39,813	361	4.8%	4.2%

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

Bureau of Economic Analysis Region 151 Top 20 Industries with Largest Employment Gain 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	
493	Warehousing and Storage	5,507	3,556	1,973	\$ 26,443	1,950.61	24.4%	22.8%
624	Social Assistance	7,156	6,215	5,578	\$ 21,329	940.44	7.3%	5.1%
454	Nonstore Retailers	1,637	971	1,075	\$ 32,296	665.33	29.8%	8.8%
711	Performing Arts, Spectator Sports, and Related Industries	907	253	468	\$ 19,321	654.14	89.4%	14.1%
423	Merchant Wholesalers, Durable Goods	6,437	5,886	5,136	\$ 41,222	550.83	4.6%	4.6%
448	Clothing and Clothing Accessories Stores	3,045	2,668	2,235	\$ 16,411	377.00	6.8%	6.4%
424	Merchant Wholesalers, Nondurable Goods	4,009	3,647	3,271	\$ 39,813	361.27	4.8%	4.2%
551	Management of Companies and Enterprises	2,470	2,157	1,561	\$ 60,608	312.39	7.0%	9.6%
921	Executive, Legislative, and Other General Government Support	8,478	8,166	8,060	\$ 30,003	312.11	1.9%	1.0%
922	Justice, Public Order, and Safety Activities	2,386	2,089	1,894	\$ 46,528	297.46	6.9%	4.7%
331	Primary Metal Manufacturing	882	619	684	\$ 41,067	263.02	19.4%	5.2%
488	Support Activities for Transportation	776	555	360	\$ 26,438	220.92	18.2%	16.6%
623	Nursing and Residential Care Facilities	13,199	12,986	10,996	\$ 27,608	213.74	0.8%	3.7%
812	Personal and Laundry Services	2,920	2,747	2,559	\$ 19,041	172.66	3.1%	2.7%
562	Waste Management and Remediation Services	1,041	878	1,133	\$ 34,888	162.44	8.9%	-1.7%
512	Motion Picture and Sound Recording Industries	380	282	342	\$ 11,973	98.61	16.2%	2.1%
621	Ambulatory Health Care Services	14,490	14,392	12,826	\$ 39,252	97.69	0.3%	2.5%
237	Heavy and Civil Engineering Construction	1,909	1,817	2,132	\$ 49,700	92.14	2.5%	-2.2%
492	Couriers and Messengers	994	905	949	\$ 38,327	89.70	4.8%	0.9%
212	Mining (except Oil and Gas)	981	899	856	\$ 35,191	82.00	4.5%	2.8%

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.

## Bureau of Economic Analysis Region 151 Top 20 Industries with Largest Employment Loss by 3-Digit NAICS

NAICS	Industry Description	Employment			Annual Aver Wages 2007	Employment Change Since 2005		
		2007	2005	2002		Number	Annual Average	Annual Aver Change Since 2002
923	Administration of Human Resource Programs	187	1,413	1,318	\$ 51,154	(1,226)	-63.7%	-32.4%
313	Textile Mills	530	1,249	1,659	\$ 31,953	(719)	-34.9%	-20.4%
524	Insurance Carriers and Related Activities	4,073	4,777	4,048	\$ 53,250	(704)	-7.7%	0.1%
311	Food Manufacturing	3,534	4,210	3,830	\$ 33,979	(676)	-8.4%	-1.6%
484	Truck Transportation	4,108	4,672	5,276	\$ 40,187	(564)	-6.2%	-4.9%
445	Food and Beverage Stores	8,705	9,122	9,278	\$ 16,288	(417)	-2.3%	-1.3%
814	Private Households	113	410	426	\$ 19,400	(298)	-47.6%	-23.4%
522	Credit Intermediation and Related Activities	5,998	6,275	6,513	\$ 40,351	(276)	-2.2%	-1.6%
322	Paper Manufacturing	3,507	3,701	2,738	\$ 49,401	(194)	-2.7%	5.1%
441	Motor Vehicle and Parts Dealers	4,496	4,681	4,217	\$ 33,844	(185)	-2.0%	1.3%
332	Fabricated Metal Product Manufacturing	5,068	5,238	4,998	\$ 42,995	(169)	-1.6%	0.3%
323	Printing and Related Support Activities	2,539	2,691	3,390	\$ 39,734	(152)	-2.9%	-5.6%
452	General Merchandise Stores	6,823	6,969	7,155	\$ 17,088	(146)	-1.1%	-0.9%
523	Securities, Commodity Contracts, and Other Financial Investmer	922	1,057	1,338	\$ 59,887	(136)	-6.6%	-7.2%
312	Beverage and Tobacco Product Manufacturing	571	684	847	\$ 47,029	(113)	-8.6%	-7.6%
485	Transit and Ground Passenger Transportation	1,758	1,866	2,026	\$ 24,991	(108)	-2.9%	-2.8%
721	Accommodation	3,277	3,382	3,551	\$ 18,814	(105)	-1.6%	-1.6%
447	Gasoline Stations	2,475	2,579	2,566	\$ 15,912	(104)	-2.0%	-0.7%
813	Religious, Grantmaking, Civic, Professional, and Similar Organiza	3,195	3,295	3,129	\$ 16,461	(100)	-1.5%	0.4%
811	Repair and Maintenance	2,466	2,562	2,632	\$ 28,065	(96)	-1.9%	-1.3%

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

Bureau of Economic Analysis Region 151 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	
Truck Drivers, Heavy and Tractor-Trailer	53-3032	2,472	2,811	3,110	\$ 35,791	(338)	-6.2%	-4.5%
Cashiers	41-2011	5,678	5,895	5,858	\$ 17,520	(217)	-1.9%	-0.6%
Meat, Poultry, and Fish Cutters and Trimmers	51-3022	284	470	350	\$ 19,926	(186)	-22.2%	-4.1%
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	964	1,101	1,121	\$ 23,930	(137)	-6.4%	-3.0%
Customer Service Representatives	43-4051	1,459	1,588	1,562	\$ 28,319	(129)	-4.1%	-1.3%
Office Clerks, General	43-9061	1,215	1,339	1,337	\$ 23,249	(125)	-4.8%	-1.9%
Retail Salespersons	41-2031	3,675	3,793	3,951	\$ 23,807	(118)	-1.6%	-1.4%
Secretaries, Ex Legal, Medical, and Executive	43-6014	806	917	886	\$ 26,427	(111)	-6.2%	-1.9%
Tellers	43-3071	1,257	1,363	1,372	\$ 21,437	(106)	-4.0%	-1.7%
General and Operations Mgrs	11-1021	1,316	1,418	1,427	\$ 89,229	(102)	-3.7%	-1.6%
Police and Sheriff's Patrol Officers	33-3051	15	117	109	\$ 46,320	(101)	-63.7%	-32.4%
Textile Knitting and Weaving Machine Setters, Operators, and Tenders	51-6063	60	159	224	\$ 24,467	(100)	-38.8%	-23.3%
Insurance Sales Agents	41-3021	527	624	522	\$ 55,035	(96)	-8.0%	0.2%
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tender	51-6064	119	211	224	\$ 23,356	(92)	-25.0%	-11.9%
Stock Clerks and Order Fillers	43-5081	2,578	2,670	2,706	\$ 20,426	(92)	-1.7%	-1.0%
First-Line Supervisors/Mgrs of Office and Administrative Support Workers	43-1011	970	1,060	1,060	\$ 41,025	(90)	-4.3%	-1.8%
Slaughterers and Meat Packers	51-3023	110	198	139	\$ 21,225	(88)	-25.4%	-4.6%
Personal and Home Care Aides	39-9021	34	113	119	\$ 16,602	(79)	-45.2%	-22.1%
Automotive Service Technicians and Mechanics	49-3023	1,527	1,606	1,596	\$ 34,028	(79)	-2.5%	-0.9%
First-Line Supervisors/Mgrs of Production and Operating Workers	51-1011	582	659	639	\$ 47,521	(77)	-6.0%	-1.9%

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.

## Bureau of Economic Analysis Region 151 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	
Meat, Poultry, and Fish Cutters and Trimmers	51-3022	312	480	375	\$ 20,492	(168)	-34.9%	-3.6%
Waiters and Waitresses	35-3031	5,383	5,466	4,802	\$ 15,994	(83)	-1.5%	2.3%
Slaughterers and Meat Packers	51-3023	118	199	145	\$ 21,222	(81)	-40.8%	-4.1%
Child Care Workers	39-9011	1,175	1,254	946	\$ 18,323	(78)	-6.3%	4.4%
Customer Service Representatives	43-4051	3,920	3,984	3,835	\$ 28,718	(64)	-1.6%	0.4%
Mental Health Counselors	21-1014	643	699	452	\$ 32,492	(55)	-7.9%	7.3%
Team Assemblers	51-2092	2,105	2,161	2,336	\$ 24,611	(55)	-2.6%	-2.1%
Butchers and Meat Cutters	51-3021	361	406	387	\$ 27,053	(45)	-11.1%	-1.4%
First-Line Supervisors/Mgrs of Production and Operating Workers	51-1011	1,557	1,600	1,727	\$ 47,060	(42)	-2.6%	-2.0%
Bartenders	35-3011	1,282	1,324	1,349	\$ 17,048	(42)	-3.2%	-1.0%
Telecommunications Line Installers and Repairers	49-9052	324	361	388	\$ 43,559	(38)	-10.4%	-3.6%
Helpers--Production Workers	51-9198	1,210	1,247	1,291	\$ 21,908	(37)	-2.9%	-1.3%
Computer Programmers	15-1021	768	802	667	\$ 65,602	(34)	-4.2%	2.9%
Cooks, Restaurant	35-2014	1,570	1,601	1,422	\$ 20,274	(31)	-2.0%	2.0%
Packaging and Filling Machine Operators and Tenders	51-9111	907	937	920	\$ 24,865	(30)	-3.2%	-0.3%
Network Systems and Data Communications Analysts	15-1081	171	202	167	\$ 62,557	(30)	-15.0%	0.5%
Textile Winding, Twisting, and Drawing Out Machine Setters, Operators, and Tenders	51-6064	148	178	248	\$ 23,667	(30)	-16.9%	-9.8%
Registered Nurses	29-1111	6,487	6,516	6,293	\$ 53,677	(29)	-0.4%	0.6%
Carpenters	47-2031	1,605	1,633	1,560	\$ 37,923	(28)	-1.7%	0.6%
Insurance Sales Agents	41-3021	542	569	532	\$ 54,932	(27)	-4.8%	0.4%

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

Bureau of Economic Analysis Region 151 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	
Retail Salespersons	41-2031	9,105	8,897	8,938	\$ 22,823	208	2.3%	0.4%
Truck Drivers, Heavy and Tractor-Trailer	53-3032	4,634	4,429	4,912	\$ 34,913	206	4.6%	-1.2%
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	5,134	5,034	4,415	\$ 23,113	100	2.0%	3.1%
Cashiers	41-2011	9,196	9,107	9,122	\$ 17,423	90	1.0%	0.2%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37-2011	4,448	4,360	4,118	\$ 20,803	88	2.0%	1.6%
Industrial Truck and Tractor Operators	53-7051	2,574	2,486	1,889	\$ 27,785	87	3.5%	6.4%
Security Guards	33-9032	1,641	1,558	1,436	\$ 22,102	83	5.3%	2.7%
Electricians	47-2111	1,121	1,049	1,051	\$ 44,571	72	6.8%	1.3%
Stock Clerks and Order Fillers	43-5081	4,212	4,143	4,121	\$ 21,661	69	1.7%	0.4%
Office Clerks, General	43-9061	5,808	5,742	5,376	\$ 23,820	66	1.1%	1.6%
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	3,879	3,830	3,613	\$ 15,799	50	1.3%	1.4%
First-Line Supervisors/Managers of Retail Sales Workers	41-1011	2,676	2,628	2,619	\$ 37,159	48	1.8%	0.4%
Plumbers, Pipefitters, and Steamfitters	47-2152	841	794	792	\$ 43,809	48	6.0%	1.2%
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scien	41-4012	3,005	2,958	2,703	\$ 52,735	48	1.6%	2.1%
Truck Drivers, Light or Delivery Services	53-3033	2,740	2,694	2,574	\$ 25,171	46	1.7%	1.3%
Home Health Aides	31-1011	1,651	1,610	1,323	\$ 18,854	41	2.5%	4.5%
Ushers, Lobby Attendants, and Ticket Takers	39-3031	196	161	122	\$ 16,427	35	21.6%	9.9%
Landscaping and Groundskeeping Workers	37-3011	1,350	1,316	1,202	\$ 21,826	34	2.6%	2.4%
Heating, Air Conditioning, and Refrigeration Mechanics and Installers	49-9021	552	518	502	\$ 38,254	33	6.4%	1.9%
Library Assistants, Clerical	43-4121	265	234	224	\$ 21,482	31	13.1%	3.3%

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

Bureau of Economic Analysis Region 151 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	118	6,487	6,516	6,293	\$ 53,677
Elementary School Teachers, Except Special Education	25-2021	39	2,999	3,008	3,155	\$ 45,617
Licensed Practical and Licensed Vocational Nurses	29-2061	31	2,140	2,147	2,050	\$ 35,021
Executive Secretaries and Administrative Assistants	43-6011	27	2,758	2,755	2,622	\$ 36,029
Bookkeeping, Accounting, and Auditing Clerks	43-3031	25	3,091	3,072	2,926	\$ 29,474
Medical Assistants	31-9092	24	911	905	847	\$ 25,334
Social and Human Service Assistants	21-1093	23	957	946	767	\$ 24,122
Accountants and Auditors	13-2011	18	1,508	1,505	1,452	\$ 55,828
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific	41-4012	18	3,005	2,958	2,703	\$ 52,735
Teacher Assistants	25-9041	18	1,981	1,977	1,987	\$ 20,276
Mental Health Counselors	21-1014	17	643	699	452	\$ 32,492
Business Operations Specialists, All Other	13-1199	16	1,763	1,748	1,567	\$ 55,332
Child, Family, and School Social Workers	21-1021	15	969	978	738	\$ 34,330
First-Line Supervisors/Managers of Office and Administrative Support Workers	43-1011	14	3,016	3,002	2,888	\$ 43,029
Preschool Teachers, Except Special Education	25-2011	13	713	705	639	\$ 23,302
Middle School Teachers, Except Special and Vocational Education	25-2022	12	1,067	1,069	1,125	\$ 46,516
Mental Health and Substance Abuse Social Workers	21-1023	11	436	441	371	\$ 35,791
Sales Representatives, Services, All Other	41-3099	10	584	586	545	\$ 46,391
Administrative Services Managers	11-3011	10	725	725	667	\$ 62,850
Substance Abuse and Behavioral Disorder Counselors	21-1011	8	267	264	204	\$ 32,998

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.

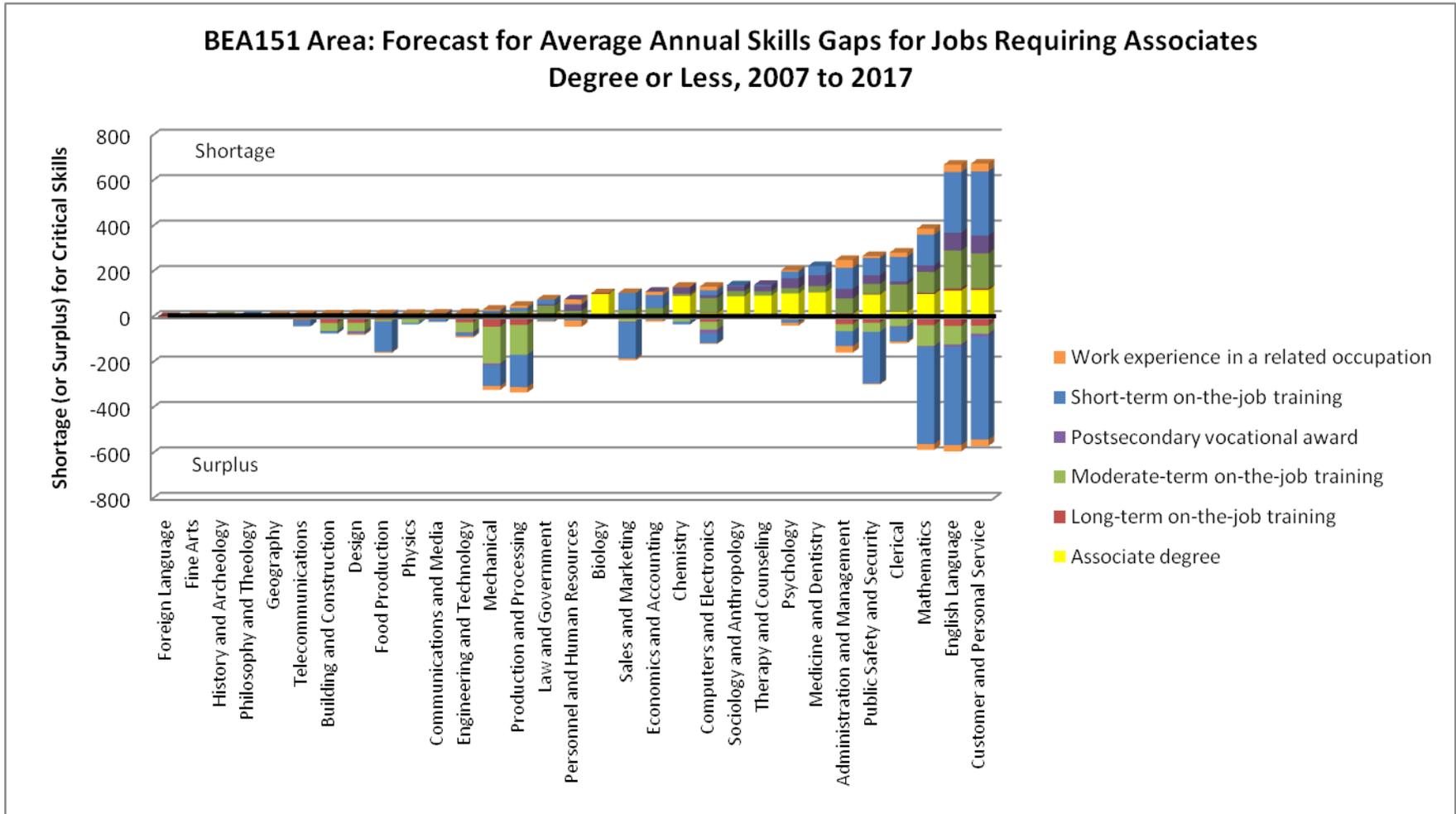
This table provides insight into the occupations that typically require a 2-year degree or greater that are expected to be in greatest demand.

## Bureau of Economic Analysis Region 151 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	
43-9061	Office Clerks, General	64	5,808	5,742	5,376	\$ 23,820
41-2031	Retail Salespersons	61	9,105	8,897	8,938	\$ 22,823
39-9021	Personal and Home Care Aides	60	1,439	1,414	1,184	\$ 18,006
31-1011	Home Health Aides	54	1,651	1,610	1,323	\$ 18,854
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	43	4,448	4,360	4,118	\$ 20,803
43-4051	Customer Service Representatives	37	3,920	3,984	3,835	\$ 28,718
43-4171	Receptionists and Information Clerks	27	2,383	2,365	2,175	\$ 22,868
31-1012	Nursing Aides, Orderlies, and Attendants	25	4,118	4,121	3,913	\$ 21,459
33-9032	Security Guards	24	1,641	1,558	1,436	\$ 22,102
53-3032	Truck Drivers, Heavy and Tractor-Trailer	20	4,634	4,429	4,912	\$ 34,913
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	17	3,879	3,830	3,613	\$ 15,799
37-2012	Maids and Housekeeping Cleaners	13	1,700	1,719	1,645	\$ 17,987
53-3033	Truck Drivers, Light or Delivery Services	12	2,740	2,694	2,574	\$ 25,171
41-2021	Counter and Rental Clerks	11	999	989	1,073	\$ 21,990
43-6013	Medical Secretaries	9	701	700	674	\$ 27,587
37-3011	Landscaping and Groundskeeping Workers	8	1,350	1,316	1,202	\$ 21,826
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	8	2,676	2,628	2,619	\$ 37,159
29-2052	Pharmacy Technicians	7	611	617	602	\$ 24,623
31-9091	Dental Assistants	6	432	426	413	\$ 28,685
41-9011	Demonstrators and Product Promoters	5	190	185	172	\$ 26,549

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.