

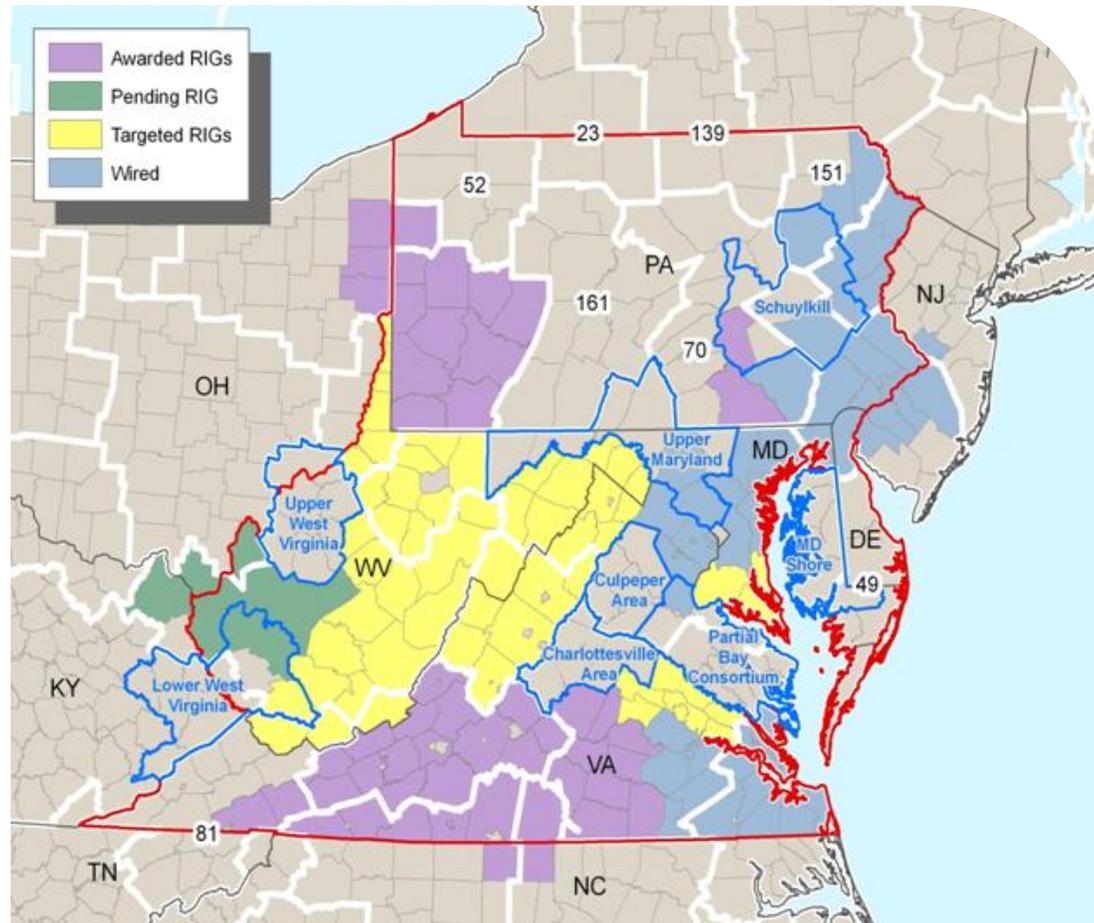


# Analysis of Regions Not Currently Involved in WIRED Grants or RIGs: BEA Region 70

October 2008

## BEA Region 70

- Adams County, Pennsylvania
- Clinton County, Pennsylvania
- Columbia County, Pennsylvania
- Cumberland County, Pennsylvania
- Dauphin County, Pennsylvania
- Juniata County, Pennsylvania
- Lancaster County, Pennsylvania
- Lebanon County, Pennsylvania
- Lycoming County, Pennsylvania
- Montour County, Pennsylvania
- Northumberland County, Pennsylvania
- Perry County, Pennsylvania
- Snyder County, Pennsylvania
- Union County, Pennsylvania
- York County, Pennsylvania





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

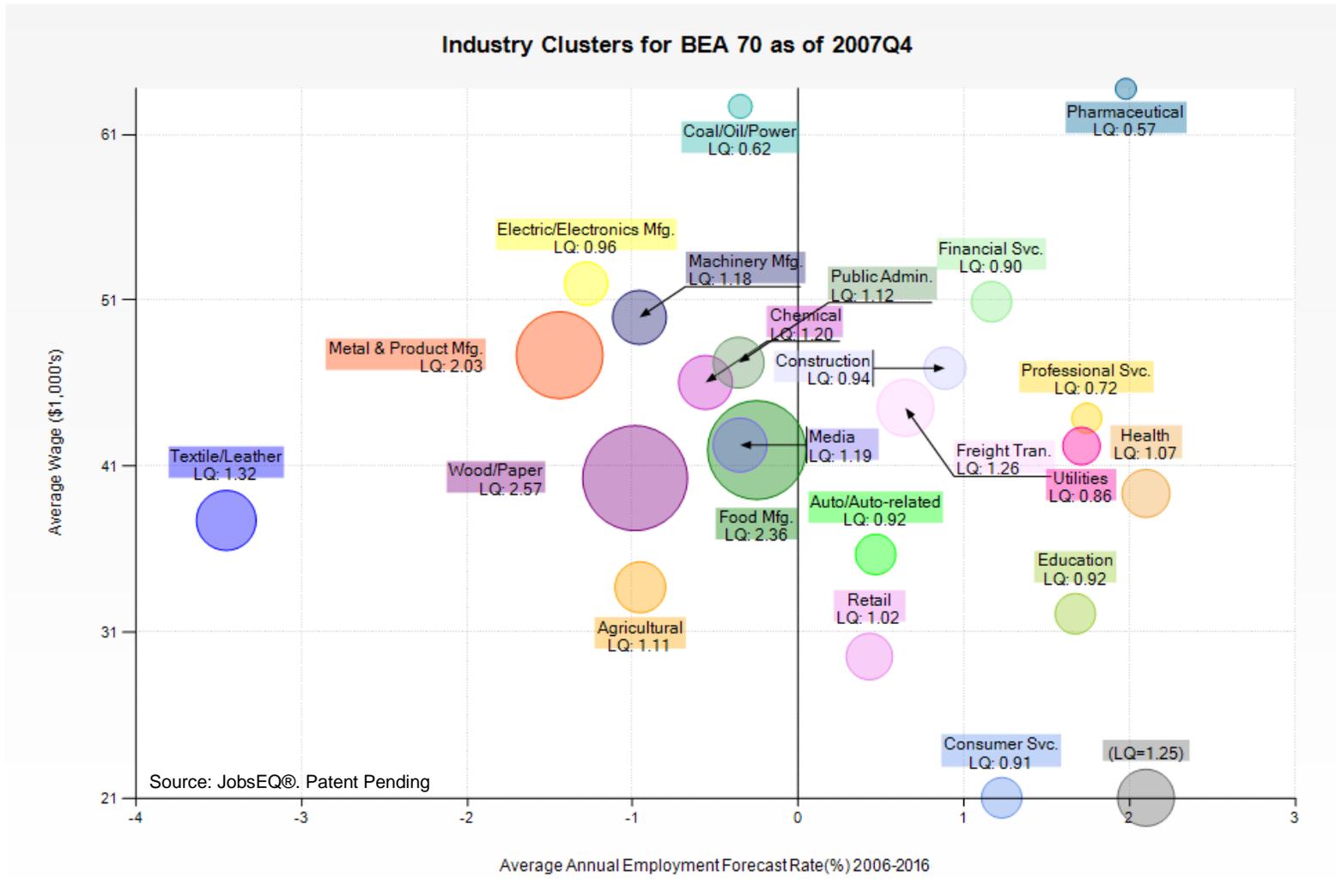
Chmura has headquarters in Richmond, Virginia and a branch office in Cleveland, Ohio. Chmura Economics & Analytics is committed to achieving 100% customer satisfaction in all project engagements. The Chmura philosophy is that when our customer succeeds, Chmura has been successful. To contact us, send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



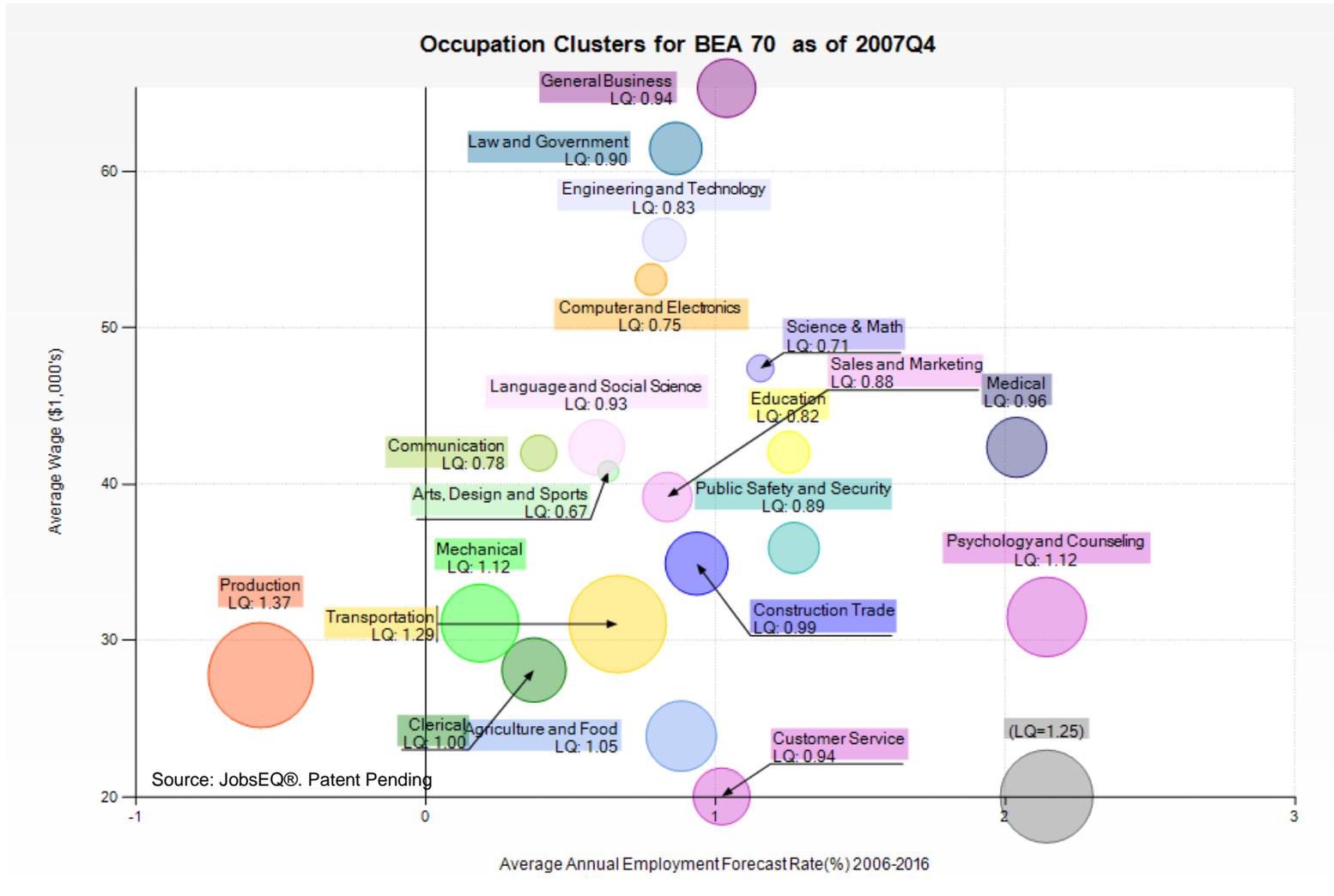
## Executive Summary

BEA Region 70 in Pennsylvania is characterized by traditional manufacturing that is generally expected to shed jobs over the next decade. The largest clusters in Region 70 are all manufacturers and are expected to reduce employment: food, wood/paper, textile/leather, machinery, and metal. Consequently, the associated occupation clusters of production and mechanical will likely decline over the next decade and individuals with those skills will need to be retrained for skills needed in growing industries. The southern portion of the region contains a relatively high percentage of modeling and simulation occupations which may be able to support an initiative to boost the technology base in logistics that is concentrated in the region based on the cluster of transportation 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 70 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	979,416	962,473	936,925	\$ 37,205	16,943	0.9%	0.9%
11	Agriculture, Forestry, Fishing and Hunting	6,465	7,445	7,190	\$ 25,544	(980)	-6.8%	-2.1%
21	Mining, Quarrying, and Oil and Gas Extraction	2,085	1,994	1,786	\$ 41,536	90	2.2%	3.1%
22	Utilities	4,391	3,688	6,437	\$ 73,299	703	9.1%	-7.4%
23	Construction	51,242	49,568	46,087	\$ 45,799	1,674	1.7%	2.1%
31	Manufacturing	158,323	164,253	178,486	\$ 44,368	(5,930)	-1.8%	-2.4%
42	Wholesale Trade	41,475	40,093	37,049	\$ 44,237	1,382	1.7%	2.3%
44	Retail Trade	117,248	116,295	116,559	\$ 23,910	953	0.4%	0.1%
48	Transportation and Warehousing	55,026	52,011	49,811	\$ 41,611	3,015	2.9%	2.0%
51	Information	15,959	15,406	17,844	\$ 49,032	553	1.8%	-2.2%
52	Finance and Insurance	39,133	38,178	39,068	\$ 49,442	955	1.2%	0.0%
53	Real Estate and Rental and Leasing	9,149	9,249	9,760	\$ 33,666	(101)	-0.5%	-1.3%
54	Professional, Scientific, and Technical Services	34,920	32,772	30,175	\$ 50,239	2,148	3.2%	3.0%
55	Management of Companies and Enterprises	17,154	15,656	11,555	\$ 72,222	1,498	4.7%	8.2%
56	Administrative and Support and Waste Management and Remediation Services	41,109	39,879	32,160	\$ 25,440	1,230	1.5%	5.0%
61	Educational Services	75,429	71,902	65,449	\$ 33,792	3,528	2.4%	2.9%
62	Health Care and Social Assistance	131,762	125,987	114,691	\$ 39,156	5,774	2.3%	2.8%
71	Arts, Entertainment, and Recreation	14,258	13,416	13,650	\$ 21,419	842	3.1%	0.9%
72	Accommodation and Food Services	73,768	71,361	67,249	\$ 13,734	2,407	1.7%	1.9%
81	Other Services (except Public Administration)	30,616	31,325	28,910	\$ 25,474	(709)	-1.1%	1.2%
92	Public Administration	59,875	61,960	62,791	\$ 45,660	(2,085)	-1.7%	-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

Bureau of Economic Analysis Region 70 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	75,429	71,902	65,449	\$ 33,792	3,528	2.4%	2.9%	
722	Food Services and Drinking Places	62,364	60,743	56,649	\$ 12,962	1,621	1.3%	1.9%	
622	Hospitals	40,850	40,662	37,152	\$ 41,001	188	0.2%	1.9%	
561	Administrative and Support Services	38,591	37,970	30,386	\$ 24,700	620	0.8%	4.9%	
621	Ambulatory Health Care Services	36,955	34,315	29,971	\$ 46,318	2,640	3.8%	4.3%	
541	Professional, Scientific, and Technical Services	34,920	32,772	30,175	\$ 50,239	2,148	3.2%	3.0%	
623	Nursing and Residential Care Facilities	34,466	33,878	32,159	\$ 27,781	587	0.9%	1.4%	
238	Specialty Trade Contractors	32,590	31,048	29,772	\$ 42,803	1,542	2.5%	1.8%	
311	Food Manufacturing	29,436	30,389	32,097	\$ 41,594	(952)	-1.6%	-1.7%	
921	Executive, Legislative, and Other General Government Support	29,032	29,683	30,465	\$ 39,330	(652)	-1.1%	-1.0%	
445	Food and Beverage Stores	27,055	26,328	27,333	\$ 23,458	727	1.4%	-0.2%	
423	Merchant Wholesalers, Durable Goods	24,119	23,119	21,966	\$ 43,490	1,000	2.1%	1.9%	
524	Insurance Carriers and Related Activities	21,718	22,056	21,530	\$ 52,982	(338)	-0.8%	0.2%	
452	General Merchandise Stores	19,826	19,644	20,127	\$ 17,969	182	0.5%	-0.3%	
624	Social Assistance	19,491	17,133	15,462	\$ 41,978	2,359	6.7%	4.7%	
484	Truck Transportation	19,280	17,944	17,987	\$ 45,531	1,336	3.7%	1.4%	
332	Fabricated Metal Product Manufacturing	18,900	19,697	20,539	\$ 43,859	(796)	-2.0%	-1.6%	
551	Management of Companies and Enterprises	17,154	15,656	11,555	\$ 72,222	1,498	4.7%	8.2%	
493	Warehousing and Storage	15,711	13,452	10,425	\$ 39,685	2,260	8.1%	8.6%	
522	Credit Intermediation and Related Activities	15,377	13,913	14,530	\$ 39,170	1,464	5.1%	1.1%	

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 70 Top 20 Industries with Largest Employment Gain 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
621	Ambulatory Health Care Services	36,955	34,315	29,971	\$ 46,318	2,639.97	3.8%	4.3%
624	Social Assistance	19,491	17,133	15,462	\$ 41,978	2,358.66	6.7%	4.7%
493	Warehousing and Storage	15,711	13,452	10,425	\$ 39,685	2,259.56	8.1%	8.6%
722	Food Services and Drinking Places	62,364	60,743	56,649	\$ 12,962	1,620.60	1.3%	1.9%
551	Management of Companies and Enterprises	17,154	15,656	11,555	\$ 72,222	1,497.75	4.7%	8.2%
522	Credit Intermediation and Related Activities	15,377	13,913	14,530	\$ 39,170	1,463.82	5.1%	1.1%
484	Truck Transportation	19,280	17,944	17,987	\$ 45,531	1,335.51	3.7%	1.4%
423	Merchant Wholesalers, Durable Goods	24,119	23,119	21,966	\$ 43,490	999.58	2.1%	1.9%
721	Accommodation	11,403	10,618	10,601	\$ 17,979	785.65	3.6%	1.5%
445	Food and Beverage Stores	27,055	26,328	27,333	\$ 23,458	727.07	1.4%	-0.2%
221	Utilities	4,391	3,688	6,437	\$ 73,299	703.32	9.1%	-7.4%
448	Clothing and Clothing Accessories Stores	9,032	8,345	7,284	\$ 14,699	686.55	4.0%	4.4%
922	Justice, Public Order, and Safety Activities	9,698	9,082	9,165	\$ 47,448	615.90	3.3%	1.1%
562	Waste Management and Remediation Services	2,518	1,908	1,775	\$ 36,685	610.16	14.9%	7.2%
322	Paper Manufacturing	7,777	7,187	7,976	\$ 51,843	589.74	4.0%	-0.5%
623	Nursing and Residential Care Facilities	34,466	33,878	32,159	\$ 27,781	587.45	0.9%	1.4%
424	Merchant Wholesalers, Nondurable Goods	12,978	12,433	11,467	\$ 42,948	544.27	2.2%	2.5%
713	Amusement, Gambling, and Recreation Industries	10,650	10,249	10,601	\$ 20,216	401.07	1.9%	0.1%
444	Building Material and Garden Equipment and Supplies Dealers	9,561	9,208	7,929	\$ 29,334	353.55	1.9%	3.8%
812	Personal and Laundry Services	8,063	7,719	7,573	\$ 21,492	343.98	2.2%	1.3%

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 70 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	
923	Administration of Human Resource Programs	3,662	5,600	5,216	\$ 51,557	(1,937)	-19.1%	-6.8%
321	Wood Product Manufacturing	9,594	10,933	10,095	\$ 34,724	(1,339)	-6.3%	-1.0%
311	Food Manufacturing	29,436	30,389	32,097	\$ 41,594	(952)	-1.6%	-1.7%
332	Fabricated Metal Product Manufacturing	18,900	19,697	20,539	\$ 43,859	(796)	-2.0%	-1.6%
814	Private Households	587	1,358	1,217	\$ 17,211	(770)	-34.2%	-13.6%
454	Nonstore Retailers	5,225	5,983	7,070	\$ 32,571	(758)	-6.5%	-5.9%
921	Executive, Legislative, and Other General Government Support	29,032	29,683	30,465	\$ 39,330	(652)	-1.1%	-1.0%
323	Printing and Related Support Activities	12,411	13,054	14,520	\$ 43,134	(643)	-2.5%	-3.1%
327	Nonmetallic Mineral Product Manufacturing	4,740	5,291	5,968	\$ 48,547	(551)	-5.4%	-4.5%
485	Transit and Ground Passenger Transportation	6,586	7,018	7,186	\$ 34,398	(432)	-3.1%	-1.7%
524	Insurance Carriers and Related Activities	21,718	22,056	21,530	\$ 52,982	(338)	-0.8%	0.2%
451	Sporting Goods, Hobby, Book, and Music Stores	4,378	4,715	4,513	\$ 15,972	(337)	-3.6%	-0.6%
488	Support Activities for Transportation	2,104	2,394	2,654	\$ 32,455	(290)	-6.3%	-4.5%
312	Beverage and Tobacco Product Manufacturing	628	897	1,537	\$ 52,451	(269)	-16.3%	-16.4%
441	Motor Vehicle and Parts Dealers	14,899	15,152	14,272	\$ 35,678	(253)	-0.8%	0.9%
523	Securities, Commodity Contracts, and Other Financial Investmer	1,818	2,068	2,681	\$ 91,916	(249)	-6.2%	-7.5%
115	Support Activities for Agriculture and Forestry	1,150	1,372	1,251	\$ 28,409	(223)	-8.5%	-1.7%
925	Administration of Housing Programs, Urban Planning, and Comr	723	939	918	\$ 47,743	(216)	-12.3%	-4.7%
813	Religious, Grantmaking, Civic, Professional, and Similar Organiza	12,111	12,312	11,232	\$ 23,581	(201)	-0.8%	1.5%
313	Textile Mills	1,279	1,465	2,233	\$ 31,751	(186)	-6.6%	-10.5%

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 70 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	
Team Assemblers	51-2092	2,595	2,845	2,936	\$ 24,134	(250)	-4.5%	-2.4%
Retail Salespersons	41-2031	5,330	5,571	5,391	\$ 30,526	(241)	-2.2%	-0.2%
Police and Sheriff's Patrol Officers	33-3051	2,760	2,992	3,023	\$ 46,014	(232)	-4.0%	-1.8%
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	3,415	3,636	3,748	\$ 22,352	(221)	-3.1%	-1.8%
Truck Drivers, Heavy and Tractor-Trailer	53-3032	2,942	3,154	3,521	\$ 31,786	(212)	-3.4%	-3.5%
Packers and Packagers, Hand	53-7064	3,054	3,260	3,514	\$ 21,159	(206)	-3.2%	-2.8%
Office Clerks, General	43-9061	4,063	4,267	4,276	\$ 23,737	(203)	-2.4%	-1.0%
General and Operations Mgrs	11-1021	3,748	3,951	3,980	\$ 94,708	(203)	-2.6%	-1.2%
Personal and Home Care Aides	39-9021	185	387	348	\$ 16,614	(202)	-30.8%	-11.8%
Cashiers	41-2011	2,231	2,417	2,428	\$ 18,915	(186)	-3.9%	-1.7%
Maintenance and Repair Workers, General	49-9042	2,431	2,608	2,745	\$ 33,296	(177)	-3.5%	-2.4%
Helpers--Production Workers	51-9198	2,853	3,028	3,216	\$ 21,945	(175)	-2.9%	-2.4%
Packaging and Filling Machine Operators and Tenders	51-9111	2,942	3,116	3,479	\$ 25,435	(174)	-2.8%	-3.3%
Secretaries, Ex Legal, Medical, and Executive	43-6014	3,396	3,567	3,501	\$ 28,167	(171)	-2.4%	-0.6%
Carpenters	47-2031	1,013	1,166	1,104	\$ 29,464	(153)	-6.8%	-1.7%
Customer Service Representatives	43-4051	3,618	3,770	3,897	\$ 30,016	(153)	-2.0%	-1.5%
First-Line Supervisors/Mgrs of Production and Operating Workers	51-1011	2,686	2,838	3,006	\$ 45,734	(152)	-2.7%	-2.2%
Industrial Truck and Tractor Operators	53-7051	1,862	2,003	2,120	\$ 26,697	(141)	-3.6%	-2.6%
Business Operations Specialists, All Other	13-1199	2,226	2,362	2,381	\$ 52,648	(136)	-2.9%	-1.3%
Correctional Officers and Jailers	33-3012	1,584	1,717	1,735	\$ 36,167	(133)	-4.0%	-1.8%

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 70 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	
Team Assemblers	51-2092	10,395	10,808	11,346	\$ 25,217	(414)	-3.8%	-1.7%
Sewing Machine Operators	51-6031	1,623	1,846	2,741	\$ 19,372	(222)	-12.0%	-9.9%
Cabinetmakers and Bench Carpenters	51-7011	2,275	2,479	2,459	\$ 25,969	(204)	-8.2%	-1.5%
Woodworking Machine Setters, Operators, and Tenders, Except Sawing	51-7042	1,629	1,786	1,735	\$ 23,000	(157)	-8.8%	-1.3%
Carpenters	47-2031	7,701	7,828	7,389	\$ 37,170	(127)	-1.6%	0.8%
Telecommunications Line Installers and Repairers	49-9052	662	754	932	\$ 41,966	(93)	-12.3%	-6.6%
First-Line Supervisors/Mgrs of Production and Operating Workers	51-1011	6,918	7,008	7,478	\$ 46,180	(90)	-1.3%	-1.5%
Construction Laborers	47-2061	6,506	6,582	5,810	\$ 28,975	(77)	-1.2%	2.3%
Assemblers and Fabricators, All Other	51-2099	2,487	2,557	2,495	\$ 24,110	(71)	-2.8%	-0.1%
Inspectors, Testers, Sorters, Samplers, and Weighers	51-9061	4,167	4,234	4,581	\$ 30,407	(67)	-1.6%	-1.9%
Business Operations Specialists, All Other	13-1199	5,999	6,066	6,107	\$ 54,991	(66)	-1.1%	-0.4%
Helpers--Production Workers	51-9198	5,513	5,574	5,858	\$ 21,630	(62)	-1.1%	-1.2%
Cutting, Punching, and Press Machine Setters, Operators, and Tenders, Metal and	51-4031	2,161	2,221	2,389	\$ 26,588	(60)	-2.7%	-2.0%
Production Workers, All Other	51-9199	3,928	3,986	4,008	\$ 26,522	(58)	-1.5%	-0.4%
Molding, Coremaking, and Casting Machine Setters, Operators, and Tenders, Metal and	51-4072	1,439	1,495	1,622	\$ 26,219	(55)	-3.7%	-2.4%
Woodworkers, All Other	51-7099	542	594	573	\$ 22,147	(52)	-8.8%	-1.1%
Sawing Machine Setters, Operators, and Tenders, Wood	51-7041	617	669	629	\$ 23,030	(52)	-7.8%	-0.4%
Loan Officers	13-2072	976	1,026	813	\$ 55,963	(50)	-4.9%	3.7%
Managers, All Other	11-9199	4,470	4,518	4,339	\$ 76,247	(48)	-1.1%	0.6%
Network Systems and Data Communications Analysts	15-1081	600	646	634	\$ 62,533	(46)	-7.1%	-1.1%

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 70 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	
Truck Drivers, Heavy and Tractor-Trailer	53-3032	19,200	18,648	18,096	\$ 34,625	552	3.0%	1.2%
Cashiers	41-2011	29,042	28,602	27,975	\$ 17,336	440	1.5%	0.8%
Janitors and Cleaners, Except Maids and Housekeeping Cleaners	37-2011	15,459	15,163	13,824	\$ 20,764	297	2.0%	2.3%
Industrial Truck and Tractor Operators	53-7051	9,109	8,834	8,036	\$ 27,644	275	3.1%	2.5%
Retail Salespersons	41-2031	29,331	29,083	28,848	\$ 22,995	248	0.9%	0.3%
Waiters and Waitresses	35-3031	18,220	17,978	16,521	\$ 15,765	242	1.3%	2.0%
Laborers and Freight, Stock, and Material Movers, Hand	53-7062	18,708	18,469	17,108	\$ 22,915	239	1.3%	1.8%
Telecommunications Equipment Installers and Repairers, Except Line Installers	49-2022	1,143	930	1,146	\$ 47,471	213	22.9%	-0.1%
Elementary School Teachers, Except Special Education	25-2021	11,072	10,875	9,090	\$ 45,239	197	1.8%	4.0%
Stock Clerks and Order Fillers	43-5081	13,499	13,312	13,155	\$ 21,718	188	1.4%	0.5%
Registered Nurses	29-1111	19,230	19,046	17,138	\$ 53,416	185	1.0%	2.3%
Office Clerks, General	43-9061	20,232	20,061	18,850	\$ 23,624	171	0.9%	1.4%
Secondary School Teachers, Except Special and Vocational Education	25-2031	9,290	9,126	7,633	\$ 47,990	164	1.8%	4.0%
Maids and Housekeeping Cleaners	37-2012	5,837	5,692	5,292	\$ 17,783	145	2.6%	2.0%
Combined Food Preparation and Serving Workers, Including Fast Food	35-3021	13,720	13,579	12,675	\$ 15,482	141	1.0%	1.6%
Teacher Assistants	25-9041	7,000	6,861	5,822	\$ 20,082	139	2.0%	3.8%
Bus Drivers, School	53-3022	5,005	4,868	4,043	\$ 24,405	137	2.8%	4.4%
Gaming Dealers	39-3011	194	61	100	\$ 17,569	132	215.8%	14.1%
Accountants and Auditors	13-2011	5,940	5,810	5,499	\$ 55,703	130	2.2%	1.6%
Receptionists and Information Clerks	43-4171	7,966	7,845	7,164	\$ 22,679	121	1.5%	2.1%

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 70 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	391	19,230	19,046	17,138	\$ 53,416
Bookkeeping, Accounting, and Auditing Clerks	43-3031	142	11,127	11,087	10,462	\$ 29,316
Executive Secretaries and Administrative Assistants	43-6011	138	9,443	9,401	8,735	\$ 35,979
Licensed Practical and Licensed Vocational Nurses	29-2061	125	6,241	6,185	5,888	\$ 34,562
Medical Assistants	31-9092	89	2,828	2,747	2,320	\$ 25,170
Elementary School Teachers, Except Special Education	25-2021	87	11,072	10,875	9,090	\$ 45,239
Teacher Assistants	25-9041	80	7,000	6,861	5,822	\$ 20,082
Social and Human Service Assistants	21-1093	64	2,471	2,408	2,106	\$ 24,485
First-Line Supervisors/Managers of Office and Administrative Support Workers	43-1011	57	10,278	10,197	9,789	\$ 43,144
Business Operations Specialists, All Other	13-1199	56	5,999	6,066	6,107	\$ 54,991
Accountants and Auditors	13-2011	50	5,940	5,810	5,499	\$ 55,703
Sales Representatives, Wholesale and Manufacturing, Except Technical and Scientific	41-4012	47	10,785	10,725	10,161	\$ 52,622
Preschool Teachers, Except Special Education	25-2011	46	2,331	2,266	1,950	\$ 23,096
Child, Family, and School Social Workers	21-1021	38	2,871	2,828	2,432	\$ 35,013
Mental Health Counselors	21-1014	34	1,166	1,165	1,015	\$ 33,953
Middle School Teachers, Except Special and Vocational Education	25-2022	32	3,958	3,887	3,248	\$ 46,090
Correctional Officers and Jailers	33-3012	31	2,864	2,883	2,997	\$ 36,072
Administrative Services Managers	11-3011	31	2,453	2,441	2,259	\$ 63,859
Insurance Sales Agents	41-3021	31	2,777	2,810	2,584	\$ 54,564
Sales Representatives, Services, All Other	41-3099	29	1,700	1,585	1,539	\$ 44,803

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.

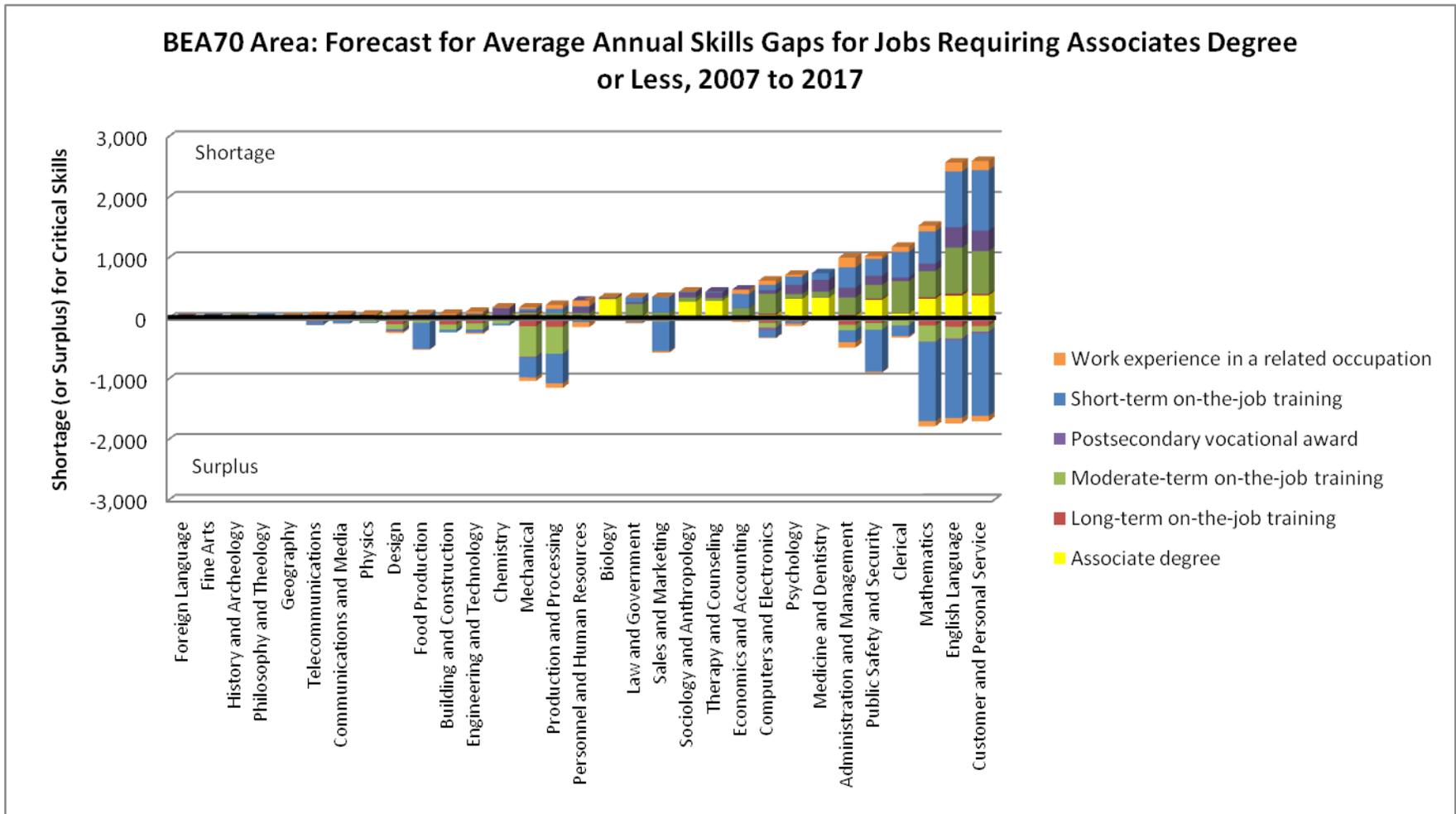
This table provides insight into the occupations that typically require a 2-year degree or greater that are expected to be in greatest demand.

## Bureau of Economic Analysis Region 70 Gaps in Top 20 Occupations (Requiring Less than 2-Year Degree) Over Next 7 Years

SOC	Occupation Description	Annual Occupation Gaps	Employment			Annual Average Wages 2007 Q4
			2007 Q4	2006 Q4	2002 Q4	
43-9061	Office Clerks, General	278	20,232	20,061	18,850	\$ 23,624
41-2031	Retail Salespersons	200	29,331	29,083	28,848	\$ 22,995
37-2011	Janitors and Cleaners, Except Maids and Housekeeping Cleaners	197	15,459	15,163	13,824	\$ 20,764
39-9021	Personal and Home Care Aides	184	4,099	4,035	3,377	\$ 17,872
53-3032	Truck Drivers, Heavy and Tractor-Trailer	153	19,200	18,648	18,096	\$ 34,625
31-1011	Home Health Aides	141	3,938	3,869	3,133	\$ 18,665
31-1012	Nursing Aides, Orderlies, and Attendants	136	12,180	12,078	11,938	\$ 21,399
43-4051	Customer Service Representatives	129	12,249	12,235	12,104	\$ 28,756
43-4171	Receptionists and Information Clerks	103	7,966	7,845	7,164	\$ 22,679
33-9032	Security Guards	88	4,774	4,779	4,441	\$ 22,214
53-3033	Truck Drivers, Light or Delivery Services	75	9,788	9,713	9,163	\$ 25,616
35-3021	Combined Food Preparation and Serving Workers, Including Fast Food	74	13,720	13,579	12,675	\$ 15,482
43-6014	Secretaries, Except Legal, Medical, and Executive	70	16,641	16,560	15,394	\$ 26,743
37-2012	Maids and Housekeeping Cleaners	61	5,837	5,692	5,292	\$ 17,783
53-3022	Bus Drivers, School	42	5,005	4,868	4,043	\$ 24,405
43-6013	Medical Secretaries	39	2,237	2,181	1,899	\$ 27,386
37-3011	Landscaping and Groundskeeping Workers	35	4,748	4,687	4,290	\$ 21,762
41-2021	Counter and Rental Clerks	34	3,271	3,185	3,278	\$ 21,985
41-1011	First-Line Supervisors/Managers of Retail Sales Workers	32	8,558	8,460	8,250	\$ 37,373
29-2052	Pharmacy Technicians	24	1,630	1,608	1,555	\$ 25,200

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.