County Employment Of West Virginia Higher Education Graduates 2009

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By

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Executive Summary

Graduates from West Virginia public higher education institutions contribute to labor markets in **all** West Virginia regions and counties. However, graduates are not evenly distributed across the state. In particular, we note that employed graduates tend to concentrate in metropolitan counties, in contrast to micropolitan and nonmetropolitan counties. This is driven in part by the types of jobs that concentrate in metropolitan areas, as well as the presence of universities, among other factors.

This report tracks West Virginia public higher education graduate employment by county and region. The data covers graduates during the twelve years from 1996-1997 to 2007-2008 and identifies, where possible, the county of employment during calendar year 2009. We further disaggregate the results by summary degree, gender, work experience, and area of concentration.

Highlights of the study include:

Region, County, And Summary Degree

- In 2009, 38,834 out of 57,694 graduates, whose county of employment could be identified, were employed in metropolitan counties (67.3 percent). A much smaller share of graduates worked in the less populous micropolitan areas (9,887 or 17.1 percent), and a still smaller share worked in nonmetropolitan counties (8,973 or 15.6 percent).
- Within metropolitan areas, the largest share of graduates worked in the Charleston Metropolitan Statistical Area (MSA). For micropolitan areas, the largest share worked in the Clarksburg area. Among nonmetropolitan counties, Logan County posted the largest share.
- Among all counties, Kanawha County, Monongalia County, and Cabell County posted the largest shares of employed graduates in 2009.
- Annualized wages earned by graduates also varied significantly across regions, with metropolitan areas posting the highest wages, followed by micropolitan areas, and nonmetropolitan areas.
- The Charleston MSA posted the highest average wages of any metropolitan area in the state. Among micropolitan areas, Clarksburg posted the highest wages and Webster County registered the highest annual wage among nonmetropolitan counties.
- Counties differ in their employment of graduates by degree. For instance, the share of Bachelor's and Master's degree graduates working in Monongalia County each was roughly double the share of Associate's degree graduates. The share of Doctoral graduates working in Monongalia County was roughly six times the county share for Associate's degrees. In contrast, employment shares across degrees were more evenly distributed in Cabell County.

Gender, Experience, And Area Of Concentration

- Female graduates were more likely to work in the state than male graduates. Even so female graduates were a particularly large share of working graduates in Clay, Calhoun, and Hampshire counties (with female graduate employment shares at or above 75.0 percent).
- On average across counties, employed males earned $9,487 more than females. However, females earned more than males in five counties in 2009: Pendleton, Tucker, Fayette, Monroe, and Wirt.

- The share of employed graduates working in Kanawha County rose dramatically with experience. In contrast, the employment share in Monongalia County fell with experience, reflecting in part the concentration of student workers in the county.
- Cabell County posted a large increase in wages by years of experience ($33,196), as did Kanawha and Monongalia counties.
- Graduates in certain areas of concentration tended to cluster in specific regions of the state, while others were employed more evenly statewide. For instance, graduates in Legal Professions and Mechanic & Repair Technologies were especially concentrated in Kanawha and Harrison counties, respectively.
- In contrast, both Education graduates and Science Technologies graduates experienced a more even distribution across counties, with the highest shares of graduates (for disclosed counties) at 13.3 percent and 11.6 percent, respectively, in Kanawha County.
- Similar to the county variation in employment shares by area of concentration, wages also varied by county within individual areas of concentration. For instance, Engineering graduates experienced the largest differential in wages (across disclosed counties), with graduates employed in Boone County earning $86,176 and graduates employed in Fayette County earning $34,361, a difference of $51,815.

Results By Region, County, And Summary Degree

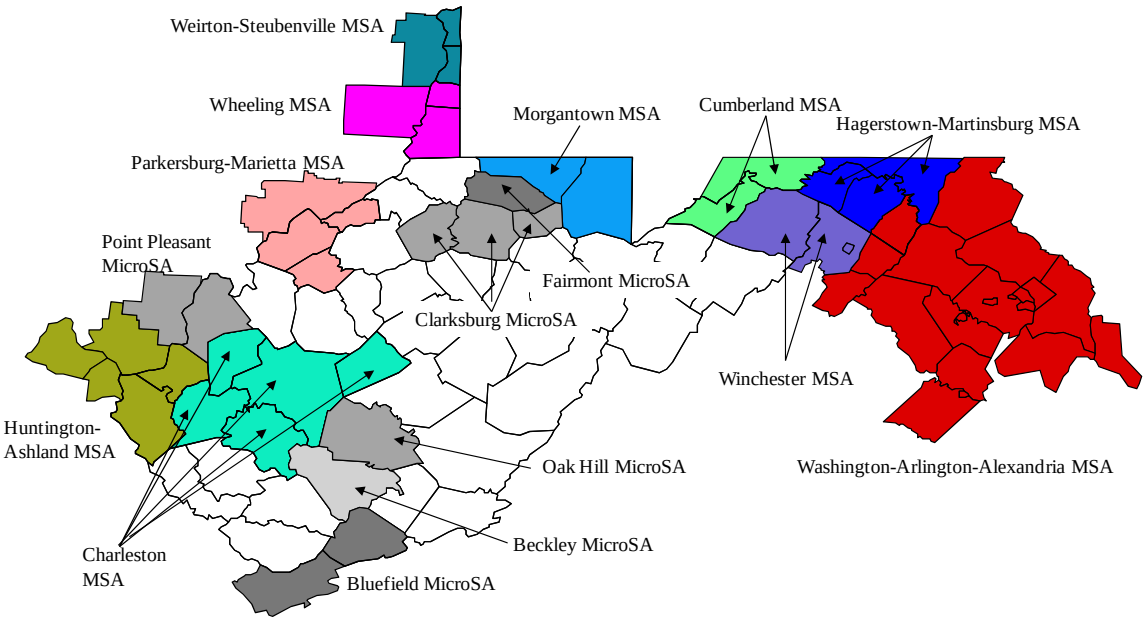
Region And County

This report tracks West Virginia public higher education graduate employment by county and region. The data covers graduates during the twelve years from 1996-1997 to 2007-2008 and identifies, where possible, county of employment during calendar year 2009.[1] Graduates working in more than one county during 2009 are counted as employed in each county. Graduates holding multiple jobs within a county are counted once.

Graduates from West Virginia public higher education institutions contribute to labor markets in all state regions and counties. However, employed graduates are not evenly distributed across the state. In particular, we note that graduates tend to concentrate in metropolitan counties. Before describing those results, however, a little background is in order.

A metropolitan statistical area (MSA) is defined around a densely populated city (or urban agglomeration) with 50,000 or more residents. Once the urbanized area is defined the county containing it becomes the core county of the MSA. Any adjacent counties with at least 25 percent of its labor force commuting to or from the core are included in the MSA designation. A Micropolitan Statistical Area is similar in spirit to an MSA, but is based around an urban agglomeration with at least 10,000 (but less than 50,000) residents. Metropolitan and micropolitan areas are designed to reflect local labor markets (which can and often do cross state lines). Counties that are not part of MSAs or micropolitan areas are classified as nonmetropolitan. Figure 1 depicts the MSAs and micropolitan areas with component counties in West Virginia.

Figure 1
West Virginia's Statistical Areas
Census 2000



[1] In 2009, there were approximately 13,000 graduates working in the state whose county of employment could not be identified.

As Table 1 shows, most graduates working in the state worked in counties that are part of MSAs. Indeed, in 2009, 38,834 out of 57,694 graduates whose county of employment could be identified were working in metropolitan counties (67.3 percent). A much smaller share of graduates worked in the less populous micropolitan areas (9,887 or 17.1 percent), and a still smaller share worked in nonmetropolitan counties (8,973 or 15.6 percent).

Within metropolitan areas, the largest share of graduates (25.9 percent) worked in the Charleston Metropolitan Statistical Area (MSA), followed by the Morgantown MSA (13.3 percent), and the West Virginia portion of the Huntington MSA (10.7 percent). Among micropolitan areas, Clarksburg posted the largest share of graduates employed (5.3 percent), followed by the Fairmont micropolitan area (3.8 percent), and the Beckley micropolitan area (3.2 percent).

Table 1
Employment Shares And Annualized Wages Of Graduates
By Region Of Employment In 2009
W.Va. Public Higher Education Graduates From 1996-1997 To 2007-2008

	Number Of Graduates Employed	Percentage Of All Graduate Workers	Average Annualized Wages	Percentage Of State Employment	Percentage Of State Population
Metropolitan Counties*	38,834	67.3%	$38,348	61.4%	55.7%
Charleston MSA	14,956	25.9%	$41,756	20.6%	16.7%
Cumberland MSA	352	0.6%	$25,837	1.1%	1.5%
Hagerstown-Martinsburg MSA	1,897	3.3%	$37,121	4.6%	6.6%
Huntington-Ashland MSA	6,168	10.7%	$37,435	9.0%	7.5%
Morgantown MSA	7,648	13.3%	$38,430	8.3%	6.6%
Parkersburg-Marietta MSA	2,561	4.4%	$37,129	6.3%	5.5%
Wash.-Arl.-Alex. MSA	1,013	1.8%	$35,373	2.1%	2.9%
Steubenville-Weirton MSA	903	1.6%	$33,255	2.8%	2.9%
Wheeling MSA	3,065	5.3%	$30,116	6.0%	4.2%
Winchester MSA	271	0.5%	$26,281	0.6%	1.2%
Micropolitan Counties*	9,887	17.1%	$35,208	19.1%	19.9%
Beckley MicroSA	1,856	3.2%	$35,058	4.6%	4.4%
Bluefield MicroSA	1,535	2.7%	$34,702	3.2%	3.4%
Clarksburg MicroSA	3,031	5.3%	$37,671	5.5%	5.1%
Fairmont MicroSA	2,202	3.8%	$34,115	3.0%	3.1%
Oak Hill MicroSA	805	1.4%	$29,779	1.8%	2.5%
Point Pleasant MicroSA	458	0.8%	$35,998	1.0%	1.4%
Nonmetropolitan Counties	8,973	15.6%	$33,440	19.5%	24.4%
Total (metropolitan, micropolitan, and nonmetropolitan)	**57,694**	**100.0%**	**$37,047**	**100.0%**	**100.0%**

*includes only West Virginia portion of metropolitan or micropolitan area.

It is likely that regions with more jobs, as indicated by a higher percentage of overall state employment, will attract more graduates and this is reflected in the data in Table 1. However, for several metropolitan areas, we find higher concentrations of graduates than we would expect, based solely on the share of jobs. This is particularly true for the Charleston and Morgantown MSAs, as well as the West Virginia portion of the Huntington MSA.

This highlights other factors that may contribute to the concentration of college graduates in a labor market. In particular, metropolitan labor markets also often have more diversified and varied job markets. Further, larger metropolitan labor markets also tend to become hubs of financial, government, health care, and professional consulting activities, which generate additional job openings for college graduates. The location of colleges and universities in a region (as is the case for the Morgantown MSA and the Huntington MSA) tends to attract college graduates as well.

Annualized wages also vary significantly across regions, with metropolitan areas posting the highest wages ($38,348), followed by micropolitan areas ($35,208), and nonmetropolitan areas ($33,440). The Charleston MSA posted the highest average wages of any region in the state, at $41,756, followed by the Morgantown MSA ($38,430), and the Clarksburg micropolitan area ($37,671).

Figure 2 shows the geography of graduates working in the state. This highlights again the relatively large concentrations of graduates in metropolitan counties (Kanawha, Monongalia, Cabell, Wood, and Ohio). It also emphasizes the concentration of graduates in the northcentral part of the state (Monongalia, Marion, and Harrison), which likely reflects the importance of government, business service, and higher education jobs in the region.

Relatively few graduates work in the most isolated and rural parts of the state, including the Potomac Highlands region (Pendleton, Hardy, Grant, Hampshire, and Mineral) and the southern counties dominated by coal production (Boone, Logan, Mingo, Wyoming, McDowell). In addition, the Eastern Panhandle counties (Berkeley, Jefferson, Morgan) employ small shares of graduates. Keep in mind, however, that larger numbers of graduates may live in the Eastern Panhandle, but commute to jobs in the greater Washington MSA. These individuals will not be counted in this dataset.

Table 2 also shows that graduates also tend not to be evenly distributed across the state, from the perspective of the county-level data. Here again, it is the metropolitan counties that posted the largest shares of graduates, with Kanawha County (21.9 percent), Monongalia County (12.4 percent), and Cabell County (9.5 percent) leading the list.

Figure 2
Share Of Higher Education Graduates Working In W.Va. By County

Graduates From 1996-1997 To 2007-2008 Working In W.Va. In 2009

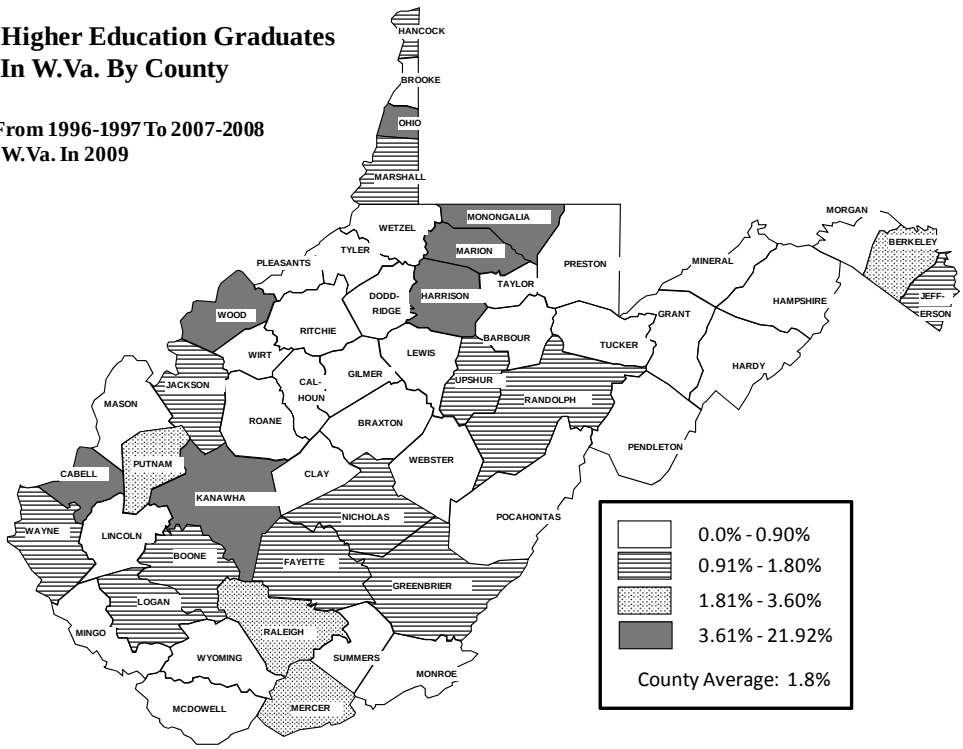


Table 2

Employment Shares And Annualized Wages Of Graduates By County Of Employment In 2009

W.Va. Public Higher Education Graduates From 1996-1997 To 2007-2008

County	Metropolitan/Micropolitan	Number Of Graduates Employed	Percentage Of All Graduate Workers	Average Annualized Wages	Percentage Of State Employment	Percentage Of State Population
Barbour	Nonmetropolitan	220	0.4%	$33,281	0.5%	0.9%
Berkeley	Hagerstown-Martinsburg MSA	1,741	3.0%	$37,032	4.2%	5.7%
Boone	Charleston MSA	596	1.0%	$45,661	1.3%	1.4%
Braxton	Nonmetropolitan	305	0.5%	$31,122	0.6%	0.8%
Brooke	Steubenville-Weirton MSA	269	0.5%	$31,602	1.1%	1.3%
Cabell	Hungington-Ashland MSA	5,455	9.5%	$38,130	7.6%	5.2%
Calhoun	Nonmetropolitan	169	0.3%	$33,028	0.2%	0.4%
Clay	Charleston MSA	167	0.3%	$40,938	0.3%	0.6%
Doddridge	Clarksburg MicroSA	94	0.2%	$34,551	0.2%	0.4%
Fayette	Oak Hill MicroSA	805	1.4%	$29,779	1.8%	2.5%
Gilmer	Nonmetropolitan	230	0.4%	$28,013	0.3%	0.4%
Grant	Nonmetropolitan	290	0.5%	$34,086	0.6%	0.7%
Greenbrier	Nonmetropolitan	813	1.4%	$35,896	1.9%	1.9%
Hampshire	Winchester	271	0.5%	$26,281	0.6%	1.2%
Hancock	Steubenville-Weirton MSA	634	1.1%	$33,957	1.7%	1.6%
Hardy	Nonmetropolitan	284	0.5%	$29,266	0.9%	0.7%
Harrison	Clarksburg MicroSA	2,727	4.7%	$38,068	5.0%	3.8%
Jackson	Nonmetropolitan	640	1.1%	$36,324	1.1%	1.5%
Jefferson	Washington MSA	1,013	1.8%	$35,373	2.1%	2.9%
Kanawha	Charleston MSA	12,647	21.9%	$41,919	15.7%	10.5%
Lewis	Nonmetropolitan	401	0.7%	$29,813	0.9%	1.0%
Lincoln	Charleston MSA	272	0.5%	$32,184	0.5%	1.2%
Logan	Nonmetropolitan	932	1.6%	$31,662	1.7%	2.0%
McDowell	Nonmetropolitan	320	0.6%	$37,299	0.8%	1.2%
Marion	Fairmont MicroSA	2,202	3.8%	$34,115	3.0%	3.1%
Marshall	Wheeling MSA	701	1.2%	$28,133	1.6%	1.8%
Mason	Point Pleasant MicroSA	458	0.8%	$35,998	1.0%	1.4%
Mercer	Bluefield MicroSA	1,535	2.7%	$34,702	3.2%	3.4%
Mineral	Cumberland MSA	352	0.6%	$25,837	1.1%	1.5%
Mingo	Nonmetropolitan	491	0.9%	$35,191	1.2%	1.5%
Monongalia	Morgantown MSA	7,182	12.4%	$38,851	7.3%	5.0%
Monroe	Nonmetropolitan	161	0.3%	$31,726	0.3%	0.8%
Morgan	Hagerstown-Martinsburg MSA	156	0.3%	$38,114	0.4%	0.9%
Nicholas	Nonmetropolitan	672	1.2%	$35,923	1.2%	1.4%
Ohio	Wheeling MSA	2,364	4.1%	$30,704	4.4%	2.4%
Pendleton	Nonmetropolitan	85	0.1%	$28,720	0.2%	0.4%
Pleasants	Parkersburg MSA	131	0.2%	$37,783	0.4%	0.4%
Pocahontas	Nonmetropolitan	163	0.3%	$28,711	0.5%	0.5%
Preston	Morgantown MSA	466	0.8%	$31,949	1.0%	1.7%
Putnam	Charleston MSA	1,274	2.2%	$40,465	2.9%	3.1%
Raleigh	Beckley MicroSA	1,856	3.2%	$35,058	4.6%	4.4%
Randolph	Nonmetropolitan	563	1.0%	$32,351	1.7%	1.6%
Ritchie	Nonmetropolitan	184	0.3%	$34,796	0.4%	0.6%
Roane	Nonmetropolitan	341	0.6%	$35,075	0.5%	0.8%
Summers	Nonmetropolitan	99	0.2%	$30,328	0.3%	0.7%
Taylor	Clarksburg MicroSA	210	0.4%	$33,909	0.4%	0.9%
Tucker	Nonmetropolitan	118	0.2%	$28,965	0.4%	0.4%
Tyler	Nonmetropolitan	185	0.3%	$38,127	0.3%	0.5%
Upshur	Nonmetropolitan	536	0.9%	$32,656	1.2%	1.3%
Wayne	Hungington-Ashland MSA	713	1.2%	$32,118	1.3%	2.3%
Webster	Nonmetropolitan	146	0.3%	$39,682	0.3%	0.5%
Wetzel	Nonmetropolitan	296	0.5%	$32,374	0.6%	0.9%
Wirt	Parkersburg MSA	98	0.2%	$29,724	0.1%	0.3%
Wood	Parkersburg MSA	2,332	4.0%	$37,403	5.8%	4.8%
Wyoming	Nonmetropolitan	329	0.6%	$32,261	0.7%	1.3%
Total		**57,694**	**100.0%**	**$37,047**	**100.0%**	**100.0%**

Table 2 also shows annualized wages in 2009 for graduates during the past 12 years. These average wage rates will reflect the local industry/occupation/education mix, as well as region type (metropolitan, micropolitan, and nonmetropolitan). The top five counties in 2009 were Boone ($45,661), Kanawha ($41,919), Clay ($40,938), Putnam ($40,465), and Webster ($39,862). Four out of the five top counties are part of the Charleston MSA. This likely also reflects the importance of (high wage) coal mining jobs in most of these counties. The bottom five counties, in 2009 annualized wages, were Mineral ($25,837), Hampshire ($26,281), Gilmer ($28,013), Marshall ($28,133), and Pocahontas ($28,711).

Summary Degree

Table 3 shows that there was also significant variation in graduate employment within counties by summary degree. For instance, 6.6 percent of Associate's degree graduates worked at establishments in Monongalia County in 2009. However, the share roughly doubles (to 13.2 percent) for Bachelor's degree graduates and graduates with Master's degrees (14.5 percent). Of the counties with disclosed data, Monongalia County posted by far the highest share of Doctoral graduates employed (40.4 percent), more than triple the next highest share (in Kanawha County). This is likely driven by the skill requirements of county employers, which includes West Virginia University, large hospitals, and a pharmaceutical manufacturer.

Kanawha County posted large shares of graduates for all summary degrees and big differences across degrees. For instance, employment shares for Kanawha County ranged from 12.4 percent of graduates with Doctoral degrees to 28.6 percent of graduates with First Professional degrees. The large share of graduates with First Professional degrees reflects in part the importance of health care and government activity in the county.

Cabell County also registered large shares of graduates for each summary degree, but the differences across degrees were smaller. These ranged from 8.5 percent of Master's graduates to 11.4 percent of Doctoral graduates.

Roughly half of the counties in the state posted Associate's degree shares that were above their Bachelor's degree shares. Mingo, Logan, Mineral, Wetzel, and Jackson counties posted particularly large shares of Associate's degree graduates, relative to their share of Bachelor's degree graduates. In contrast, Brooke, Gilmer, Monongalia, Jefferson, and Monroe counties posted unusually small shares of Associate's degree graduates, relative to their share Bachelor's degree graduates. In part, this will reflect the local industry/occupation mix as well as metropolitan/micropolitan/nonmetropolitan status.

Of counties with disclosed data, annualized wages in 2009 for the Associate's degree were highest for those graduates working in Boone, Kanawha, Cabell, Putnam, and Jefferson counties. All of these counties are part of MSAs. They were wages lowest in Wirt, Pendleton, Gilmer, Tucker, and Hampshire counties. Four of these five are nonmetropolitan counties, the exception being Hampshire County.

The results are qualitatively similar for Bachelor's and Master's degree graduates' salaries, with MSA counties (and counties that produce large amounts of coal) more likely to be near the top and nonmetropolitan counties more likely to be at the bottom of the distribution.

Table 3

Employment Shares And Annualized Wages Of Graduates By County Of Employment In 2009 And Summary Degree

W.Va. Public Higher Education Graduates From 1996-1997 To 2007-2008

	Associate's		Bachelor's		Master's		First Professional		Doctoral	
County	Percent of Workers	Average Annualized Wages	Percent of Workers	Average Annualized Wages	Percent of Workers	Average Annualized Wages	Percent of Workers	Average Annualized Wages	Percent of Workers	Average Annualized Wages
Barbour	0.3%	$19,144	0.3%	$23,419	0.7%	$41,078	n/d	n/d	n/d	n/d
Berkeley	2.4%	$30,770	3.3%	$33,385	3.1%	$45,593	1.9%	$86,904	n/d	n/d
Boone	1.4%	$35,487	1.0%	$41,805	1.0%	$65,681	n/d	n/d	n/a	n/a
Braxton	0.5%	$25,005	0.6%	$27,666	0.5%	$44,566	n/d	n/d	n/d	n/d
Brooke	0.2%	$18,253	0.6%	$26,533	0.5%	$44,077	n/d	n/d	n/d	n/d
Cabell	10.8%	$34,516	9.3%	$29,521	8.5%	$43,838	10.0%	$136,758	11.4%	$57,899
Calhoun	0.2%	$23,803	0.3%	$28,197	0.3%	$42,130	n/d	n/d	n/a	n/a
Clay	0.1%	$25,363	0.2%	$30,292	0.6%	$47,290	n/d	n/d	n/d	n/d
Doddridge	0.1%	$26,656	0.1%	$26,708	0.3%	$43,171	n/d	n/d	n/d	n/d
Fayette	1.6%	$22,714	1.3%	$26,432	1.4%	$39,382	1.2%	$60,517	n/d	n/d
Gilmer	0.2%	$17,125	0.5%	$24,675	0.4%	$41,136	n/d	n/d	n/d	n/d
Grant	0.7%	$27,090	0.4%	$35,101	0.5%	$40,169	n/d	n/d	n/a	n/a
Greenbrier	1.7%	$23,419	1.3%	$29,488	1.3%	$45,327	1.9%	$126,118	n/d	n/d
Hampshire	0.5%	$17,880	0.4%	$24,238	0.5%	$33,800	n/d	n/d	n/a	n/a
Hancock	1.5%	$30,161	1.0%	$26,458	0.9%	$52,097	0.9%	$93,823	n/d	n/d
Hardy	0.7%	$20,333	0.4%	$28,407	0.5%	$38,536	n/d	n/d	n/d	n/d
Harrison	4.7%	$32,829	4.5%	$31,494	5.0%	$40,302	7.1%	$107,663	2.2%	$58,201
Jackson	1.7%	$31,782	0.9%	$31,269	1.2%	$48,738	n/d	n/d	n/d	n/d
Jefferson	1.3%	$32,957	2.1%	$32,554	1.5%	$43,649	0.8%	$65,441	n/d	n/d
Kanawha	21.6%	$35,083	23.0%	$35,892	19.8%	$51,565	28.6%	$95,157	12.4%	$66,870
Lewis	0.8%	$24,289	0.7%	$26,449	0.6%	$39,399	0.5%	$76,089	n/a	n/a
Lincoln	0.3%	$21,842	0.5%	$27,027	0.6%	$44,255	n/d	n/d	n/a	n/a
Logan	3.5%	$27,837	1.0%	$31,478	1.3%	$41,487	0.6%	$70,875	n/d	n/d
McDowell	0.6%	$25,256	0.5%	$33,353	0.7%	$54,641	n/d	n/d	n/a	n/a
Marion	2.9%	$26,296	4.1%	$29,350	4.3%	$42,859	2.7%	$87,720	6.1%	$58,247
Marshall	1.4%	$24,177	1.2%	$22,187	1.1%	$43,555	0.8%	$72,403	n/d	n/d
Mason	0.9%	$25,995	0.8%	$30,276	0.9%	$44,460	0.6%	$143,389	n/d	n/d
Mercer	2.6%	$30,470	3.1%	$30,667	2.0%	$45,258	1.8%	$92,823	n/d	n/d
Mineral	1.1%	$18,662	0.5%	$25,749	0.6%	$37,261	n/d	n/d	n/a	n/a
Mingo	2.1%	$28,768	0.5%	$37,353	0.6%	$48,951	n/d	n/d	n/a	n/a
Monongalia	6.6%	$30,373	13.2%	$32,209	14.5%	$43,963	18.5%	$88,292	40.4%	$59,584
Monroe	0.2%	$22,937	0.3%	$25,080	0.3%	$45,663	n/d	n/d	n/d	n/d
Morgan	0.2%	$21,790	0.3%	$33,006	0.3%	$50,768	n/d	n/d	n/d	n/d
Nicholas	1.4%	$27,615	1.1%	$26,864	1.1%	$49,823	1.0%	$154,879	n/a	n/a
Ohio	4.9%	$27,075	4.2%	$26,692	2.8%	$38,685	3.5%	$94,656	4.3%	$50,587
Pendleton	0.2%	$13,581	0.1%	$21,887	0.2%	$46,020	n/d	n/d	n/d	n/d
Pleasants	0.2%	$25,022	0.2%	$35,140	0.3%	$49,757	n/d	n/d	n/d	n/d
Pocahontas	0.3%	$20,882	0.3%	$22,976	0.2%	$45,315	n/d	n/d	n/d	n/d
Preston	0.6%	$23,424	0.8%	$27,185	1.1%	$39,333	1.1%	$55,865	n/d	n/d
Putnam	2.1%	$33,454	2.2%	$36,262	2.7%	$47,200	1.7%	$89,430	n/d	n/d
Raleigh	3.2%	$29,527	3.3%	$30,315	3.3%	$40,541	2.5%	$111,102	3.2%	$59,860
Randolph	0.7%	$22,641	1.0%	$23,926	1.2%	$42,197	1.4%	$87,627	n/d	n/d
Ritchie	0.3%	$21,727	0.3%	$31,848	0.3%	$47,438	n/d	n/d	n/a	n/a
Roane	0.7%	$23,266	0.4%	$25,320	0.9%	$45,515	0.5%	$133,540	n/d	n/d
Summers	n/d	n/d	0.2%	$24,889	0.2%	$41,507	n/d	n/d	n/d	n/d
Taylor	0.3%	$24,803	0.3%	$25,361	0.6%	$41,330	n/d	n/d	n/d	n/d
Tucker	0.1%	$17,341	0.2%	$24,685	0.4%	$35,620	n/d	n/d	n/d	n/d
Tyler	0.4%	$31,893	0.3%	$36,700	0.3%	$46,611	n/d	n/d	n/a	n/a
Upshur	0.8%	$27,689	0.9%	$26,270	1.2%	$44,462	0.5%	$69,844	n/d	n/d
Wayne	0.9%	$23,889	1.3%	$28,296	1.7%	$41,477	n/d	n/d	n/d	n/d
Webster	0.2%	$22,956	0.2%	$29,333	0.4%	$49,855	n/d	n/d	n/a	n/a
Wetzel	0.8%	$26,879	0.4%	$27,131	0.5%	$49,394	n/d	n/d	n/a	n/a
Wirt	0.1%	$8,037	0.2%	$26,182	0.2%	$41,097	n/d	n/d	n/a	n/a
Wood	5.6%	$28,308	3.6%	$30,037	3.6%	$47,691	3.3%	$172,586	n/d	n/d
Wyoming	0.7%	$24,404	0.6%	$29,479	0.5%	$47,377	n/d	n/d	n/a	n/a
Total	**100.0%**	**$30,168**	**100.0%**	**$31,447**	**100.0%**	**$45,504**	**100.0%**	**$100,323**	**100.0%**	**$58,975**

n/a: no data available; n/d: data not disclosed

Figure 3 provides another look at the employment of graduates in West Virginia by degree. For each county, the figure shows the share of graduates by summary degree (except for Doctoral degrees, Undergraduate Certificates, and Post-Master's Certificates, which we exclude for simplicity). Further, we sort counties from left to right based on the share of graduates working in the county with a Bachelor's degree.

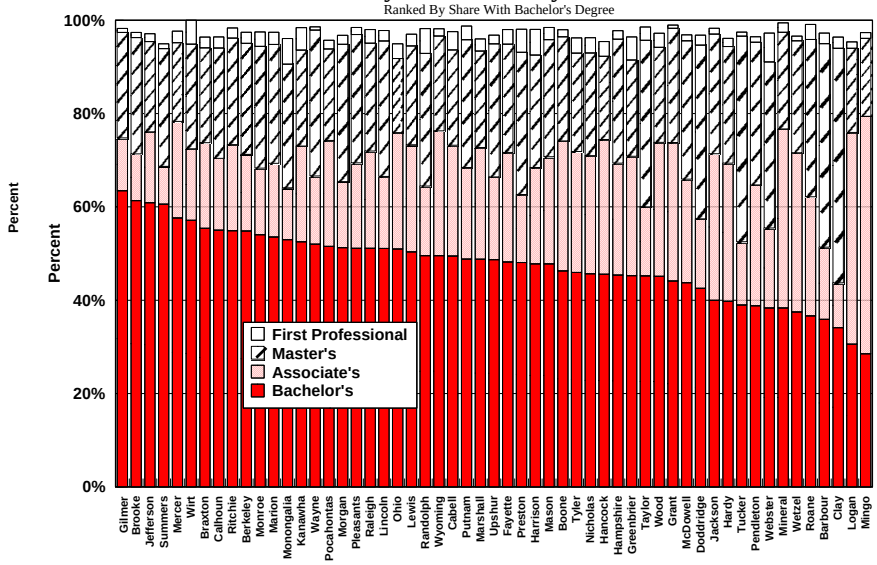
For example, of the graduates employed in Gilmer County in 2009, 63.4 percent were Bachelor's degree graduates. In contrast, 11.3 percent and 22.6 percent of graduates working in Gilmer County held Associate's and Master's degrees, respectively.

Thus, for each county, Figure 3 shows the relative importance of different levels of graduate educational attainment. As we have noted, most of the graduates working in Gilmer County in 2009 held a Bachelor's degree. However, the county registered a relatively small share of graduates with an Associate's degree, but the county was close to average in the share of graduates with a Master's degree (which was 26.7 percent).

Overall, there was significant variation in degree shares across counties, particularly for Bachelor's, Associate's, and Master's degrees. For instance, 28.5 percent of graduates working in Mingo County held a Bachelor's degree, which was lower than the statewide average of 47.7 percent, but 50.9 percent of graduates held an Associate's degree, which was far above the statewide average of 21.4 percent. The share of graduates with Master's degrees varied from a low of 15.9 percent (Ohio County) to a high of 50.3 percent (Clay County).

The variation in the degree mix across counties is heavily influenced by the local industry mix. Monongalia County illustrates this by posting the largest share of doctoral graduates in the state, which reflects the concentration of hospitals, higher education, and other research oriented jobs in the county.

Figure 3
Degree Share Of Employed Graduates
By W.Va. County 2009
Ranked By Share With Bachelor's Degree



Results By Gender, Experience, And Area Of Concentration

Gender

Female graduates were more likely to remain in the state to work after graduation than male graduates. Thus, for all but one county, we found that the female employment share exceeded the male employment share. The single exception in 2009 was Pleasants County, where 49.6 percent of graduates working in the county were female. Even so, there remained significant variation across counties, with female employment shares ranging from 75.4 percent in Clay County down to just below 50 percent for Pleasants County (Table 4).

Table 4 also summarizes annual wages by gender. For female graduates, wages ranged from a high in Clay County of $39,277 to a low of $24,053 in Gilmer County. Wages for male graduates were higher (by $9,487 on average), ranging from a high of $55,941 in Boone County to a low of $24,242 in Pendleton County.

The wage gap between male and female graduates also varied significantly across counties in the state, with males on average usually (but not always) earning more than females. Indeed, female graduates actually earned more than male graduates in Pendleton, Tucker, Fayette, Monroe, and Wirt counties. The size of the gap in these counties ranged from a high of $6,920 in Pendleton County to $210 in Wirt County. In contrast, Tyler, Roane, Webster, and Boone counties posted the largest wage gap in 2009, with male graduates earning an average of $20,468 more than females.

Figure 4 shows the geography of employment shares by gender in 2009. Counties with above average female employment shares (64.7 percent) were found in all regions of the state, but particularly in the Potomac Highlands and Eastern Panhandle, as well as the state's southern counties.

In contrast, we found the largest shares of male graduates (38.0 percent to 50.4 percent) in the Charleston MSA, particularly in Kanawha, Putnam, and Boone, as well as a portion of the western-central part of the state extending from Pleasants County to Gilmer County.

The geography of the wage gap between male and female graduates by county is shown in Figure 5. Many of the same counties that employed a high percentage of female graduates also experienced lower wage differentials between the sexes. The majority of the southern part of the state experienced relatively small wage differentials, particularly Fayette, Summers, and Monroe, as well as the counties located in the Eastern Panhandle.

Conversely, many of the counties that employed higher percentages of male graduates also experienced large wage differentials. These counties were concentrated once again around the Charleston MSA, with Putnam County and Boone County and the northwestern section of the state in Pleasants County and Tyler County. Both Kanawha County and Monongalia County were just slightly below the $9,488 state average wage differential, at $9,049 and $9,065 respectively.

These wage gaps arise from a variety of factors, including differences in summary degrees, work experience, hours worked, and industry of work across counties.

Table 4

Employment Shares And Annualized Wages Of Graduates By County And Gender

W.Va. Public Higher Education Graduates From 1996-1996 To 2007-2008

	Female		Male		County Totals	
County	Percentage of Workers	Average Annualized Wage	Percentage of Workers	Average Annualized Wage	Percentage of Workers	Average Annualized Wage
Barbour	74.1%	$31,945	25.9%	$37,101	**100.0%**	**$33,281**
Berkeley	69.1%	$36,884	30.9%	$37,363	**100.0%**	**$37,032**
Boone	53.5%	$36,734	46.5%	$55,941	**100.0%**	**$45,661**
Braxton	68.9%	$27,105	31.1%	$40,000	**100.0%**	**$31,122**
Brooke	67.7%	$29,726	32.3%	$35,526	**100.0%**	**$31,602**
Cabell	65.2%	$33,585	34.8%	$46,648	**100.0%**	**$38,130**
Calhoun	75.1%	$32,580	24.9%	$34,382	**100.0%**	**$33,028**
Clay	75.4%	$39,277	24.6%	$46,044	**100.0%**	**$40,938**
Doddridge	73.4%	$34,154	26.6%	$35,645	**100.0%**	**$34,551**
Fayette	64.7%	$30,153	35.3%	$29,093	**100.0%**	**$29,779**
Gilmer	59.1%	$24,053	40.9%	$33,742	**100.0%**	**$28,013**
Grant	67.6%	$30,642	32.4%	$41,267	**100.0%**	**$34,086**
Greenbrier	69.1%	$33,903	30.9%	$40,358	**100.0%**	**$35,896**
Hampshire	74.9%	$24,131	25.1%	$32,700	**100.0%**	**$26,281**
Hancock	72.1%	$33,916	27.9%	$34,064	**100.0%**	**$33,957**
Hardy	67.3%	$28,064	32.7%	$31,735	**100.0%**	**$29,266**
Harrison	64.7%	$32,158	35.3%	$48,912	**100.0%**	**$38,068**
Jackson	65.0%	$32,458	35.0%	$43,504	**100.0%**	**$36,324**
Jefferson	66.5%	$34,346	33.5%	$37,414	**100.0%**	**$35,373**
Kanawha	61.1%	$38,400	38.9%	$47,449	**100.0%**	**$41,919**
Lewis	68.3%	$29,755	31.7%	$29,937	**100.0%**	**$29,813**
Lincoln	67.3%	$28,155	32.7%	$40,470	**100.0%**	**$32,184**
Logan	72.2%	$30,577	27.8%	$34,482	**100.0%**	**$31,662**
McDowell	67.2%	$34,751	32.8%	$42,516	**100.0%**	**$37,299**
Marion	63.0%	$29,747	37.0%	$41,564	**100.0%**	**$34,115**
Marshall	61.9%	$27,127	38.1%	$29,768	**100.0%**	**$28,133**
Mason	70.1%	$33,023	29.9%	$42,970	**100.0%**	**$35,998**
Mercer	70.5%	$33,547	29.5%	$37,461	**100.0%**	**$34,702**
Mineral	66.5%	$24,551	33.5%	$28,386	**100.0%**	**$25,837**
Mingo	67.6%	$30,226	32.4%	$45,560	**100.0%**	**$35,191**
Monongalia	62.9%	$35,486	37.1%	$44,551	**100.0%**	**$38,851**
Monroe	73.9%	$31,917	26.1%	$31,186	**100.0%**	**$31,726**
Morgan	64.7%	$36,239	35.3%	$41,557	**100.0%**	**$38,114**
Nicholas	65.6%	$30,845	34.4%	$45,617	**100.0%**	**$35,923**
Ohio	67.3%	$28,802	32.7%	$34,621	**100.0%**	**$30,704**
Pendleton	64.7%	$31,162	35.3%	$24,242	**100.0%**	**$28,720**
Pleasants	49.6%	$28,738	50.4%	$46,691	**100.0%**	**$37,783**
Pocahontas	62.6%	$28,372	37.4%	$29,278	**100.0%**	**$28,711**
Preston	73.6%	$29,742	26.4%	$38,102	**100.0%**	**$31,949**
Putnam	60.4%	$34,297	39.6%	$49,889	**100.0%**	**$40,465**
Raleigh	64.5%	$32,002	35.5%	$40,623	**100.0%**	**$35,058**
Randolph	62.5%	$30,974	37.5%	$34,648	**100.0%**	**$32,351**
Ritchie	61.4%	$31,231	38.6%	$40,470	**100.0%**	**$34,796**
Roane	71.3%	$29,011	28.7%	$50,110	**100.0%**	**$35,075**
Summers	66.7%	$30,243	33.3%	$30,497	**100.0%**	**$30,328**
Taylor	71.0%	$31,581	29.0%	$39,598	**100.0%**	**$33,909**
Tucker	66.9%	$30,377	33.1%	$26,106	**100.0%**	**$28,965**
Tyler	63.2%	$30,257	36.8%	$51,669	**100.0%**	**$38,127**
Upshur	66.6%	$29,955	33.4%	$38,043	**100.0%**	**$32,656**
Wayne	66.9%	$31,101	33.1%	$34,174	**100.0%**	**$32,118**
Webster	71.2%	$33,884	28.8%	$54,040	**100.0%**	**$39,682**
Wetzel	70.9%	$28,485	29.1%	$41,872	**100.0%**	**$32,374**
Wirt	65.3%	$29,796	34.7%	$29,587	**100.0%**	**$29,724**
Wood	66.1%	$33,579	33.9%	$44,868	**100.0%**	**$37,403**
Wyoming	69.9%	$29,428	30.1%	$38,845	**100.0%**	**$32,261**
State Totals	**64.7%**	**$33,701**	**35.3%**	**$43,188**	--	--

Figure 4
Female Share Of Higher Education Graduates Working In W.Va. By County

Graduates From 1996-1997 To 2007-2008 Working In W.Va. In 2009

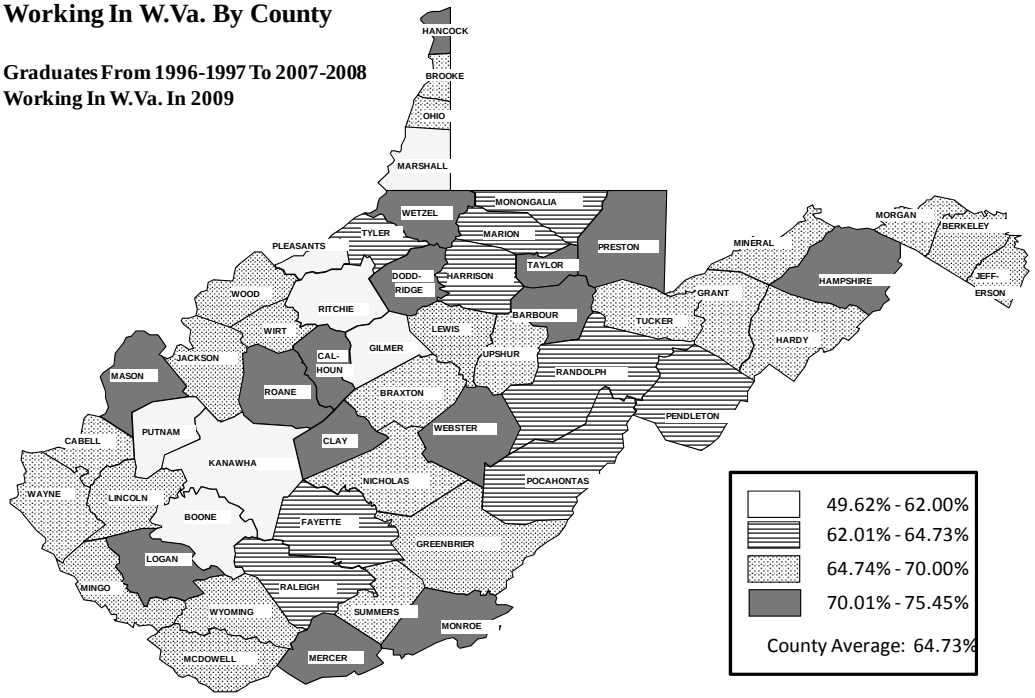
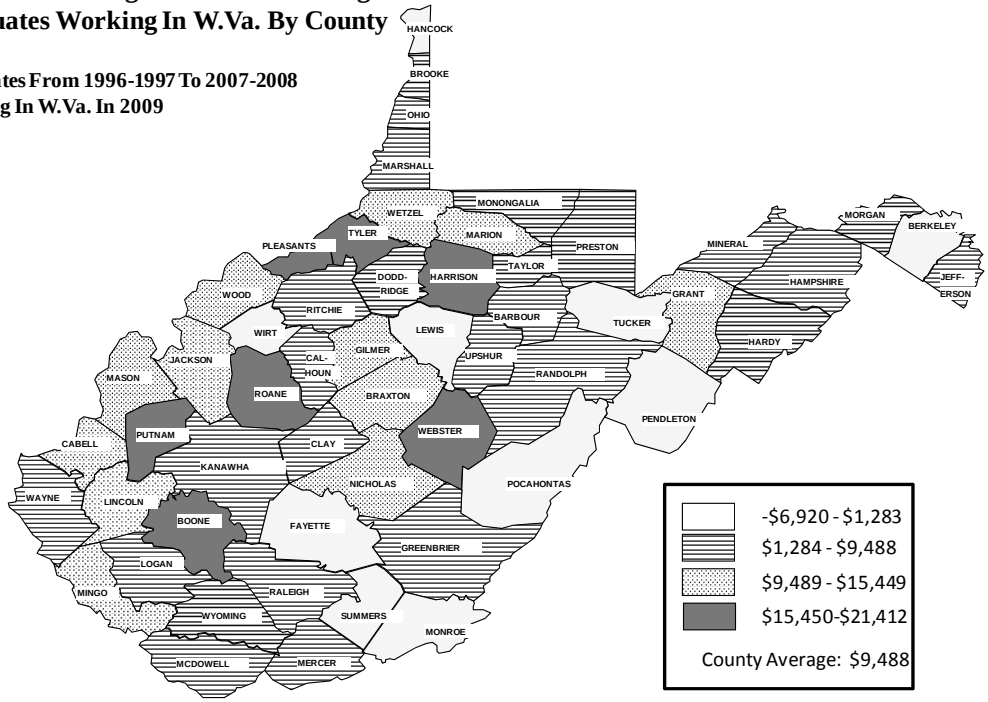


Figure 5
Male-Female Wage Differential Of Higher Education Graduates Working In W.Va. By County

Graduates From 1996-1997 To 2007-2008 Working In W.Va. In 2009



Experience

As graduates gain experience in the workforce, their value to employers grows. This increased value provides graduates with increased geographic mobility and flexibly in job choice, as well as higher wages. West Virginia counties vary significantly in their employment by experience, as illustrated in Table 5.

It is important to note that we use time since graduation as an indicator of experience. This will not be a perfect measure of workplace experience, because graduates may endure periods of unemployment or periods of no labor force participation in the years since graduation.

Of the counties with disclosed data, Kanawha County posted the greatest increase in employed graduates with additional experience. Kanawha County employed 24.7 percent of 1996-1997 graduates, which was 4.1 percentage points more than the employment share in 2007-2008.

Putnam County, likewise, registered an increase in employment share with experience. The employment share for graduates with 12 years experience was 1.2 percentage points higher than the share for the most recent graduates.

On the other hand, the employment share declined with experience in Monongalia County. The employment share in the county was 15.1 percent for the most recent graduates, but only 10.1 percent for graduates with 12 years experience. This is likely influenced by West Virginia University, because enrolled graduates (i.e. those continuing their education) are more likely to work in the state. Enrolled graduates are also likely to work in the county containing their higher education institution. Cabell County experienced a similar trend, with the employment share for the most recent graduates 2.3 percentage points above graduates with 12 years experience.

Wages generally increase with time since graduation, but this trend varies depending on the location of employment, as Table 6 shows. For instance, in Webster County graduates with 12 years experience earned $67,714 on average. In contrast, graduates with the same experience level in Hardy County earned $28,163. These differences reflect graduate characteristics, like the summary degree earned, and the local industry mix.

Of the three counties employing the most graduates, Cabell County posted the largest increase in wages by years of experience. Indeed, graduates with 12 years of experience earned $33,196 more than recent graduates. Monongalia and Kanawha counties also posted large increases in wages with experience, at $22,265 and $23,039, respectively.

Table 5

County Employment Shares Of Graduates By Year Of Graduation

W.Va. Public Higher Education Graduates Working In W.Va. In 2009

	Graduation Year											
County	**1996-1997**	**1997-1998**	**1998-1999**	**1999-2000**	**2000-2001**	**2001-2002**	**2002-2003**	**2003-2004**	**2004-2005**	**2005-2006**	**2006-2007**	**2007-2008**
Barbour	0.4%	0.3%	0.6%	0.4%	0.4%	0.4%	0.4%	0.3%	0.4%	0.4%	0.4%	0.2%
Berkeley	2.5%	2.7%	2.1%	2.7%	3.0%	2.6%	3.4%	2.9%	3.0%	3.4%	3.5%	3.4%
Boone	1.0%	1.1%	1.4%	1.4%	0.8%	1.2%	0.7%	1.1%	1.1%	1.1%	0.9%	0.9%
Braxton	0.7%	0.7%	0.6%	0.4%	0.6%	0.4%	0.6%	0.5%	0.5%	0.4%	0.5%	0.5%
Brooke	n/d	0.5%	0.5%	0.6%	0.3%	0.7%	0.6%	0.5%	0.3%	0.7%	0.5%	0.3%
Cabell	8.2%	9.4%	7.8%	8.9%	8.3%	9.2%	9.4%	9.5%	9.8%	9.6%	10.4%	10.5%
Calhoun	n/d	0.3%	0.3%	0.3%	n/d	0.3%	0.2%	0.3%	0.4%	0.3%	0.3%	0.3%
Clay	n/d	n/d	0.5%	n/d	n/d	n/d	1.0%	0.2%	0.2%	0.2%	0.2%	0.2%
Doddridge	n/d	n/d	n/d	n/d	0.3%	n/d	0.3%	0.2%	n/d	0.2%	0.1%	n/d
Fayette	1.4%	1.3%	1.5%	1.5%	1.4%	1.7%	1.6%	1.4%	1.3%	1.3%	1.3%	1.2%
Gilmer	n/d	0.3%	0.3%	n/d	0.6%	0.3%	0.4%	0.4%	0.4%	0.6%	0.3%	0.5%
Grant	0.5%	0.7%	0.5%	0.4%	0.5%	0.4%	0.5%	0.4%	0.7%	0.4%	0.7%	0.4%
Greenbrier	1.6%	1.4%	1.6%	1.5%	1.1%	1.1%	1.4%	1.9%	1.3%	1.4%	1.2%	1.5%
Hampshire	0.5%	0.4%	0.3%	0.4%	0.6%	0.5%	0.5%	0.4%	0.4%	0.5%	0.6%	0.5%
Hancock	1.4%	1.1%	0.7%	1.2%	1.3%	1.7%	1.1%	1.1%	1.3%	1.0%	1.0%	0.8%
Hardy	0.4%	0.4%	0.4%	0.3%	0.4%	0.4%	0.6%	0.3%	0.5%	0.7%	0.6%	0.5%
Harrison	4.3%	4.5%	4.3%	4.0%	4.9%	5.3%	4.8%	4.0%	4.8%	5.1%	4.6%	5.4%
Jackson	1.4%	1.2%	1.0%	1.3%	0.9%	1.3%	1.3%	1.1%	1.1%	1.3%	1.0%	0.8%
Jefferson	1.3%	1.5%	1.7%	1.5%	1.6%	1.3%	1.9%	1.9%	1.5%	2.0%	2.2%	1.9%
Kanawha	24.7%	24.1%	22.4%	22.2%	23.8%	22.2%	20.7%	21.7%	21.7%	21.3%	20.9%	20.6%
Lewis	0.8%	0.8%	0.7%	0.4%	0.5%	0.5%	0.6%	0.9%	0.8%	0.7%	0.7%	0.8%
Lincoln	0.5%	0.5%	0.7%	0.5%	0.5%	0.4%	0.4%	0.4%	0.4%	0.5%	0.4%	0.6%
Logan	2.2%	1.9%	1.9%	1.2%	1.8%	1.7%	1.6%	1.3%	1.4%	1.7%	1.7%	1.4%
McDowell	0.5%	0.4%	0.5%	1.2%	0.5%	0.6%	0.6%	0.4%	0.5%	0.6%	0.6%	0.4%
Marion	3.5%	3.2%	3.8%	3.3%	4.0%	3.9%	3.7%	3.8%	3.7%	3.9%	3.9%	4.3%
Marshall	1.3%	1.0%	1.1%	1.2%	1.6%	1.2%	1.4%	1.2%	1.0%	1.0%	1.2%	1.4%
Mason	0.7%	0.6%	1.0%	0.9%	0.7%	0.8%	0.9%	0.7%	1.0%	0.8%	0.9%	0.6%
Mercer	2.7%	2.4%	2.7%	2.3%	2.5%	2.3%	2.7%	3.9%	2.7%	2.4%	2.6%	2.5%
Mineral	0.9%	0.6%	0.5%	0.7%	0.5%	0.6%	0.8%	0.5%	0.6%	0.5%	0.6%	0.6%
Mingo	1.1%	0.8%	0.8%	1.1%	0.7%	1.1%	0.8%	0.8%	0.8%	0.9%	0.9%	0.7%
Monongalia	10.1%	9.7%	11.3%	10.6%	10.9%	12.1%	11.9%	12.1%	12.9%	13.3%	14.2%	15.1%
Monroe	n/d	n/d	n/d	0.4%	0.3%	0.3%	0.3%	0.4%	0.3%	n/d	0.3%	0.3%
Morgan	0.4%	n/d	0.3%	0.4%	0.4%	n/d	0.5%	0.2%	0.3%	0.2%	0.2%	0.2%
Nicholas	1.3%	1.4%	1.8%	1.4%	1.2%	1.2%	1.2%	1.2%	1.2%	0.9%	1.0%	0.9%
Ohio	4.6%	4.8%	4.1%	4.2%	4.6%	3.6%	4.2%	4.2%	3.7%	4.0%	3.6%	4.2%
Pendleton	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	0.2%	0.3%	0.2%	n/d
Pleasants	n/d	0.4%	0.3%	0.4%	n/d	0.3%	n/d	n/d	0.2%	0.2%	0.2%	0.2%
Pocahontas	n/d	0.4%	n/d	n/d	0.3%	0.3%	0.4%	0.3%	0.3%	0.2%	0.2%	0.3%
Preston	0.7%	1.0%	0.8%	0.9%	0.8%	0.7%	1.0%	0.8%	0.8%	0.8%	0.8%	0.8%
Putnam	2.8%	2.6%	2.8%	3.4%	2.4%	2.2%	2.1%	2.0%	2.2%	2.2%	1.7%	1.6%
Raleigh	3.6%	3.1%	3.1%	3.5%	3.1%	4.1%	3.2%	3.3%	3.4%	2.8%	3.4%	2.6%
Randolph	1.1%	1.0%	1.1%	1.1%	1.1%	1.0%	1.4%	1.2%	0.9%	0.7%	0.9%	0.7%
Ritchie	0.5%	0.5%	0.3%	0.3%	0.4%	0.2%	0.2%	0.3%	0.4%	0.3%	0.3%	0.2%
Roane	0.7%	1.0%	0.5%	0.6%	0.6%	0.7%	0.7%	0.4%	0.5%	0.7%	0.5%	0.5%
Summers	n/d	n/d	n/d	n/d	n/d	n/d	n/d	0.3%	0.2%	n/d	0.2%	n/d
Taylor	0.5%	0.5%	0.3%	0.4%	0.6%	0.4%	0.3%	0.5%	0.3%	0.2%	0.2%	0.3%
Tucker	n/d	n/d	0.3%	n/d	0.3%	0.3%	n/d	n/d	0.2%	0.3%	0.1%	0.2%
Tyler	0.5%	0.5%	n/d	0.3%	0.3%	n/d	0.3%	0.5%	0.2%	0.4%	0.2%	0.3%
Upshur	0.6%	0.8%	1.2%	1.1%	1.0%	0.8%	0.8%	1.1%	0.8%	1.2%	0.8%	0.9%
Wayne	1.0%	1.8%	1.3%	1.2%	1.1%	1.3%	1.4%	1.2%	1.3%	1.1%	1.0%	1.3%
Webster	0.3%	0.3%	n/d	n/d	0.6%	0.2%	n/d	0.3%	0.3%	0.2%	0.2%	0.2%
Wetzel	0.6%	0.7%	0.8%	0.5%	0.7%	0.4%	0.6%	0.4%	0.5%	0.4%	0.4%	0.4%
Wirt	n/d	n/d	n/d	n/d	n/d	n/d	n/d	0.2%	0.3%	n/d	n/d	0.2%
Wood	3.5%	3.8%	5.7%	5.3%	3.6%	3.9%	3.4%	4.1%	4.2%	3.6%	3.9%	4.0%
Wyoming	0.6%	0.5%	0.5%	1.1%	0.6%	0.5%	0.5%	0.5%	0.7%	0.6%	0.5%	0.4%
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

n/d: data not disclosed

Table 6

County Average Annualized Wages Of Graduates By Year Of Graduation

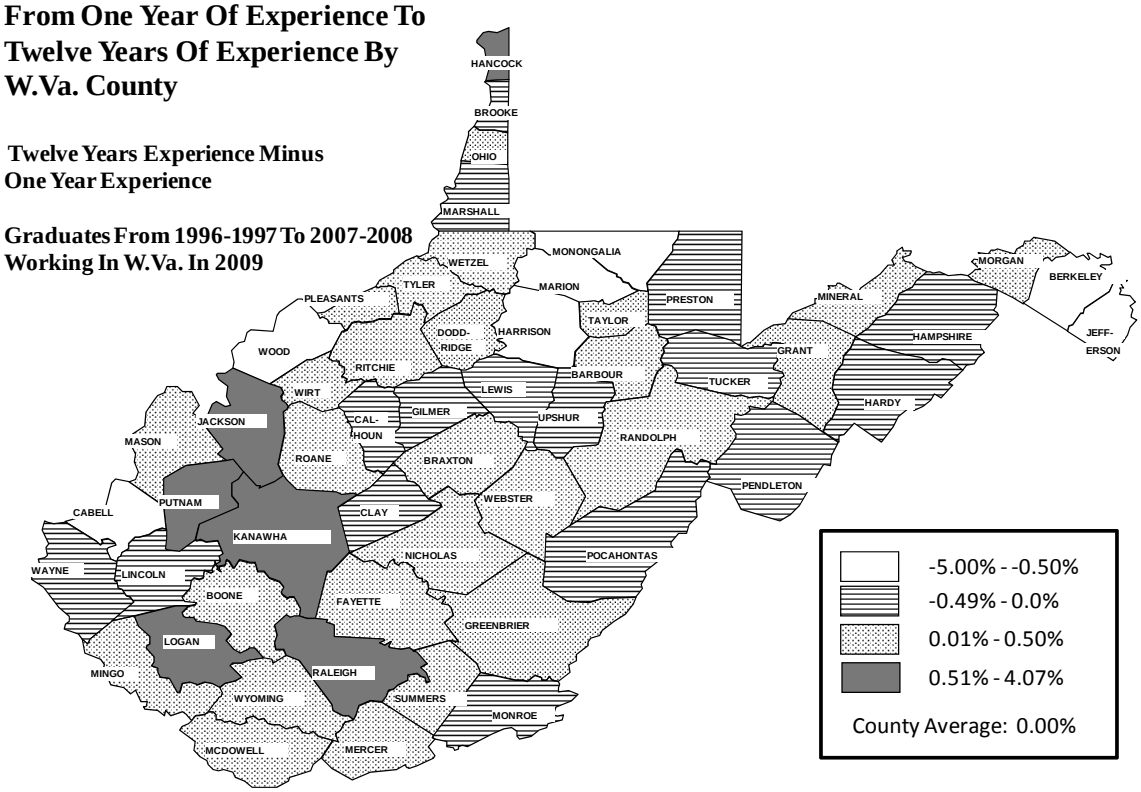
W.Va. Public Higher Education Graduates Working In W.Va. In 2009

	Graduation Year											
County	**1996-1997**	**1997-1998**	**1998-1999**	**1999-2000**	**2000-2001**	**2001-2002**	**2002-2003**	**2003-2004**	**2004-2005**	**2005-2006**	**2006-2007**	**2007-2008**
Barbour	$37,006	$35,343	$55,873	$30,633	$33,165	$29,349	$44,956	$31,303	$25,951	$34,997	$19,015	$25,578
Berkeley	$45,238	$46,914	$46,648	$41,203	$49,303	$41,327	$38,791	$39,104	$35,072	$32,329	$31,167	$27,625
Boone	$44,695	$47,366	$51,911	$49,940	$58,799	$45,916	$48,975	$62,550	$39,397	$36,251	$45,254	$32,355
Braxton	$33,759	$36,407	$46,865	$38,467	$26,443	$27,395	$28,102	$37,363	$32,225	$25,430	$25,430	$25,077
Brooke	n/d	$40,762	$32,771	$52,900	$36,364	$35,895	$41,310	$29,057	$20,144	$25,245	$21,964	$20,512
Cabell	$57,356	$55,566	$44,709	$46,212	$51,108	$39,311	$45,020	$39,060	$35,622	$31,233	$28,776	$24,160
Calhoun	n/d	$32,950	$36,561	$41,915	n/d	$55,542	$38,861	$27,739	$26,274	$25,194	$24,228	$23,318
Clay	n/d	n/d	$54,831	n/d	n/d	n/d	$46,236	$30,365	$33,507	$34,980	$40,335	$32,504
Doddridge	n/d	n/d	n/d	n/d	$39,372	n/d	$40,307	$31,722	n/d	$25,258	$32,449	n/d
Fayette	$38,209	$37,816	$34,901	$35,337	$33,904	$28,246	$30,298	$31,157	$28,512	$26,372	$24,811	$21,188
Gilmer	n/d	$34,752	$27,394	n/d	$33,285	$30,691	$24,152	$24,110	$33,725	$25,270	$26,981	$20,177
Grant	$46,716	$44,432	$52,985	$41,574	$35,406	$49,382	$38,119	$32,574	$27,430	$28,906	$22,563	$21,412
Greenbrier	$45,842	$60,280	$46,263	$42,778	$38,647	$40,768	$34,016	$37,026	$31,527	$29,190	$25,938	$25,025
Hampshire	$29,745	$28,416	$30,779	$28,034	$28,339	$23,087	$25,794	$34,270	$21,612	$22,047	$30,445	$19,616
Hancock	$44,632	$46,946	$35,888	$54,330	$34,538	$34,943	$30,430	$34,079	$29,347	$29,359	$26,060	$22,187
Hardy	$28,163	$31,379	$48,086	$31,842	$33,062	$26,714	$34,390	$23,173	$26,400	$32,337	$24,856	$23,032
Harrison	$47,361	$50,814	$47,029	$43,928	$52,176	$41,507	$39,531	$36,933	$36,665	$33,189	$29,842	$26,928
Jackson	$51,315	$45,926	$44,019	$39,172	$37,307	$35,955	$34,643	$36,616	$32,217	$34,051	$32,514	$24,249
Jefferson	$55,801	$44,862	$36,842	$39,593	$42,314	$33,997	$37,726	$33,833	$39,087	$31,552	$30,334	$26,944
Kanawha	$54,271	$52,363	$51,179	$47,816	$47,449	$44,304	$44,387	$40,514	$38,721	$36,146	$34,407	$31,232
Lewis	$37,657	$41,735	$32,611	$44,407	$32,701	$28,565	$32,550	$30,677	$33,505	$26,392	$21,314	$20,071
Lincoln	$53,020	$33,843	$33,203	$40,487	$36,536	$44,015	$36,043	$30,575	$31,885	$25,185	$22,982	$24,006
Logan	$38,691	$42,626	$32,198	$35,776	$30,297	$33,067	$34,101	$30,273	$28,427	$26,752	$27,504	$28,992
McDowell	$36,691	$28,144	$46,038	$51,677	$31,429	$36,344	$37,869	$42,527	$32,271	$32,657	$29,307	$37,236
Marion	$48,968	$44,233	$44,877	$36,373	$43,141	$39,938	$34,357	$36,646	$31,756	$27,633	$25,037	$25,239
Marshall	$33,677	$34,141	$34,694	$39,760	$38,825	$31,056	$30,666	$33,564	$25,883	$23,162	$20,705	$14,426
Mason	$49,034	$37,506	$57,867	$47,049	$44,597	$35,988	$39,642	$40,796	$31,495	$24,743	$22,887	$26,603
Mercer	$41,913	$47,689	$38,510	$35,532	$39,757	$33,135	$38,787	$32,861	$35,213	$29,490	$31,148	$27,642
Mineral	$35,710	$27,923	$32,323	$29,292	$32,660	$29,335	$27,162	$29,842	$26,617	$23,634	$21,258	$12,481
Mingo	$40,904	$43,962	$33,418	$33,642	$42,815	$42,585	$34,693	$39,164	$24,371	$35,359	$31,054	$30,210
Monongalia	$49,271	$51,761	$54,928	$48,237	$49,326	$42,500	$45,835	$42,440	$36,677	$33,504	$28,295	$27,007
Monroe	n/d	n/d	n/d	$42,435	$33,033	$27,507	$32,825	$24,349	$35,104	n/d	$32,589	$25,752
Morgan	$46,746	n/d	$53,846	$30,261	$37,300	n/d	$30,578	$39,081	$51,950	$31,569	$36,809	$27,830
Nicholas	$56,939	$48,547	$44,735	$33,343	$43,477	$39,233	$28,072	$40,067	$28,854	$34,345	$23,618	$22,648
Ohio	$41,902	$32,490	$38,518	$35,207	$40,636	$33,095	$30,193	$32,423	$28,295	$28,704	$24,387	$19,524
Pendleton	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$39,694	$34,846	$19,749	n/d
Pleasants	n/d	$43,803	$50,370	$38,311	n/d	$41,821	n/d	n/d	$37,354	$40,587	$22,248	$17,413
Pocahontas	n/d	$28,146	n/d	n/d	$35,884	$27,703	$29,924	$28,874	$40,244	$17,022	$26,280	$18,476
Preston	$32,369	$34,546	$33,072	$38,430	$34,305	$30,342	$39,031	$34,471	$30,410	$31,835	$27,685	$23,451
Putnam	$49,120	$61,153	$56,927	$47,050	$43,675	$40,977	$37,169	$34,405	$36,412	$33,328	$26,550	$28,158
Raleigh	$41,813	$42,265	$40,020	$38,384	$37,866	$36,286	$40,178	$33,890	$33,169	$31,768	$29,442	$28,129
Randolph	$35,480	$35,499	$32,726	$29,986	$45,913	$43,082	$35,606	$25,790	$31,437	$24,045	$34,585	$18,600
Ritchie	$31,910	$58,398	$56,729	$43,596	$28,553	$41,735	$28,549	$29,404	$27,962	$36,042	$30,480	$19,379
Roane	$37,312	$65,305	$57,897	$46,740	$35,782	$40,421	$31,146	$31,821	$21,272	$19,531	$24,333	$26,231
Summers	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$28,991	$34,068	n/d	$34,242	n/d
Taylor	$57,518	$36,610	$35,043	$46,896	$39,794	$30,894	$28,576	$35,539	$33,652	$28,953	$21,153	$19,270
Tucker	n/d	n/d	$37,898	n/d	$39,998	$30,277	n/d	n/d	$29,453	$20,768	$25,314	$22,916
Tyler	$46,931	$68,238	n/d	$37,465	$51,934	n/d	$40,609	$39,464	$32,378	$27,139	$21,566	$23,623
Upshur	$51,428	$45,855	$32,686	$33,469	$42,494	$44,531	$29,924	$33,255	$30,481	$31,343	$26,900	$19,703
Wayne	$41,454	$33,857	$37,840	$39,470	$38,172	$37,436	$36,115	$35,050	$26,797	$28,983	$26,767	$22,309
Webster	$67,714	$23,746	n/d	n/d	$45,874	$32,392	n/d	$32,462	$39,453	$53,672	$34,109	$18,103
Wetzel	$37,811	$37,016	$42,085	$29,495	$41,564	$32,588	$41,613	$29,931	$29,985	$31,265	$18,479	$20,811
Wirt	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$49,068	$22,610	n/d	n/d	$14,725
Wood	$49,605	$46,179	$50,904	$49,011	$35,945	$40,611	$44,668	$38,824	$35,106	$29,088	$25,521	$25,610
Wyoming	$32,487	$34,270	$42,423	$35,718	$39,889	$29,412	$35,622	$32,870	$28,324	$29,534	$27,699	$27,011
Total	**$48,103**	**$47,695**	**$46,322**	**$43,460**	**$44,072**	**$39,610**	**$39,808**	**$37,543**	**$34,554**	**$31,855**	**$29,204**	**$26,234**

n/d: data not disclosed

Figure 6 shows the difference in county employment shares by experience. The Charleston MSA (and nearby counties) employed relatively large shares of graduates with high levels of experience. The north-central region, as well as Wood, Cabell, Berkeley, and Jefferson counties employed a higher percentage of graduates will less experience. Part of this pattern is driven by the presence of universities.

Figure 6
Change In Employment Share Of Graduates From One Year Of Experience To Twelve Years Of Experience By W.Va. County

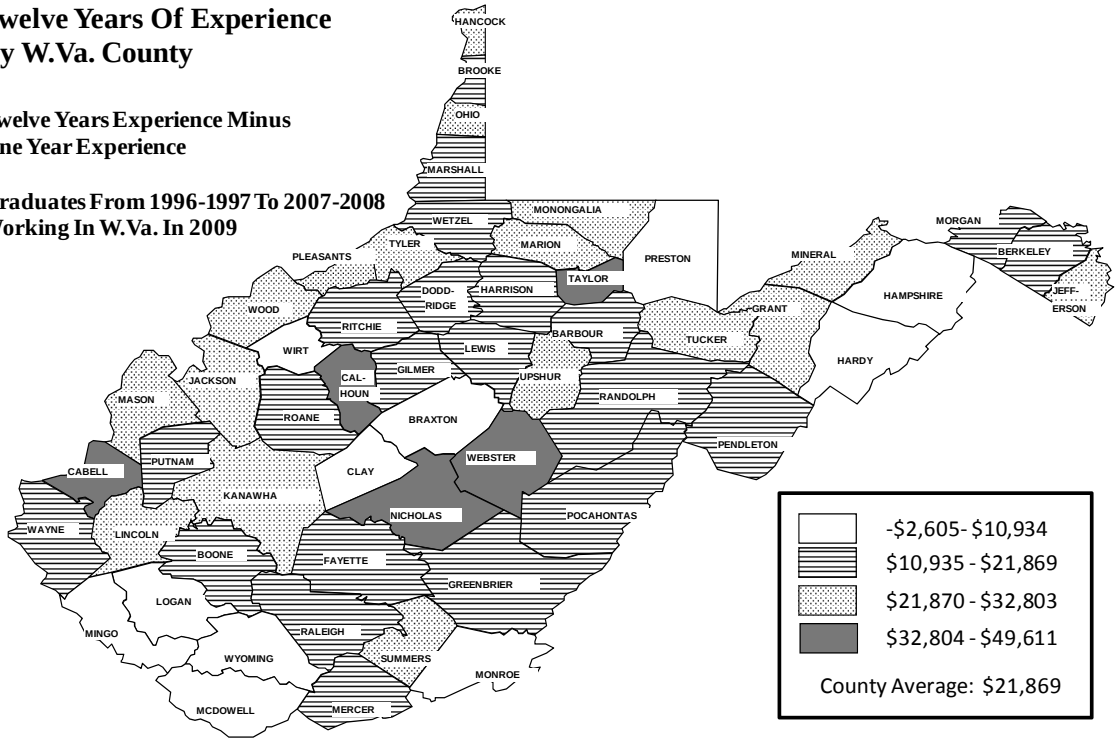


Annualized wage differences between graduates with 12 years of experience and the most recent graduates do not follow the same pattern, as Figure 7 shows. The central counties of the state registered some of the largest and smallest wage differences. Nicholas, Webster, and Calhoun counties had wage differences of at least $34,000, while Braxton County had a differential of only $8,682. Many counties in the southern part of the state experienced relatively small wage increases with experience.

Figure 7
Change In Average Annualized Wages From One Year Of Experience To Twelve Years Of Experience By W.Va. County

Twelve Years Experience Minus One Year Experience

Graduates From 1996-1997 To 2007-2008 Working In W.Va. In 2009



Area Of Concentration

The area of concentration in which a graduate's degree is earned will heavily influence the job opportunities available to the graduate, and consequently, play a role in determining where the graduate is employed in the state. In disaggregating these results by county, we find many instances in which work participation rates and wages cannot be published due to disclosure restrictions. Thus, for some areas of concentration we can only partially analyze the geography of graduates working in the state.

Graduates with certain areas of concentration tended to cluster in specific regions of the state, while others were employed more evenly statewide, as shown in Table 7. For instance, a majority of graduates with an area of concentration in Mechanic & Repair Technologies found employment in Harrison County, at 54.8 percent. Graduates with a concentration in Legal Professions, likewise, were extremely concentrated, with 44.9 percent of graduates employed in Kanawha County.

In contrast, both Education and Science Technologies graduates experienced a more even distribution across the state, with the highest shares of graduates (for disclosed counties) at 13.3 percent and 11.6 percent, respectively, in Kanawha County.

Counties, likewise, experienced varying demands for graduates with different concentrations. As noted, Harrison County employed 54.8 percent of Mechanic & Repair Technologies graduates, but the average percentage of graduates employed across all concentrations in Harrison County was 7.2 percent, resulting in a relatively large standard deviation (across disclosed areas of concentration) of 10.0 percentage points. Likewise, Kanawha and Monongalia counties experienced a large variation in the percentage of graduates employed across concentrations, both with standard deviations of 8.0 percentage points.

Most counties, however, had very little change in the percentage of graduates employed, regardless of area of concentration. For instance, Logan County registered a standard deviation across disclosed areas of concentration of 1.0 percentage point, and Mingo County posted a standard deviation of less than 1.0 percentage point.

Wages earned by graduates also vary by area of concentration and county, as shown in Table 8. Statewide, Engineering graduates averaged the highest annualized wage, at $61,650, followed by Legal Professions graduates, at $55,676. Personal & Culinary Services graduates and Foreign Language graduates averaged the lowest annualized wages, at $18,989 and $20,016, respectively.

Similar to the county variation in employment shares by area of concentration, wages also vary by county within individual areas of concentration. For instance, Engineering graduates experienced the largest differential in wages (across disclosed counties), with graduates employed in Boone County earning $86,176 and graduates employed in Fayette County earning $34,361, a difference of $51,815. Similarly, Legal Professions graduates experienced the second highest differential, with graduates employed in Wood county averaging $45,551 more than those employed in Mercer County.

Conversely, both Family & Consumer Sciences and Personal & Culinary Services experienced relatively small wage differentials across counties, with the maximum county difference at $8,522 and $9,781 respectively.

Not only do wages vary greatly across counties by area of concentration, but they fluctuate substantially within county across disclosed areas of concentration. The largest such difference is seen in Harrison County, where Engineering graduates, earning $69,994, averaged $54,416 more than Foreign Language graduates, who earned $15,578. Marion County had the second largest wage differential, with Engineering graduates averaging $53,242 more than History graduates. Ritchie and Wayne counties had small wage differentials, on the other hand, with a difference between the highest earning and lowest earning areas of concentration of $10,454 in Ritchie County and $13,281 in Wayne County.

Table 7

Employment Shares Of Graduates By County And Area Of Concentration (A-E)

W.Va. Public Higher Education Graduates Working In W.Va. In 2009

	Area Of Concentration									
County	Agriculture, Agriculture Operations	Biological and Biomedical Sciences	Bus., Mgmt., Mktg	Comm. & Journalism	Comm. Tech.	Computer & Info. Sciences	Education	Engineering	Engineering Tech.	English & Literature
Barbour	n/d	n/d	0.3%	n/d	n/d	n/d	0.8%	n/d	n/d	n/d
Berkeley	n/d	2.0%	2.1%	4.6%	n/d	3.5%	4.6%	1.3%	1.6%	2.2%
Boone	n/d	n/d	1.5%	n/d	n/d	n/d	1.5%	2.6%	2.1%	n/d
Braxton	n/d	n/d	0.5%	n/d	n/d	n/d	0.8%	n/d	n/d	n/d
Brooke	n/d	n/d	0.3%	n/d	n/d	n/d	1.1%	n/d	n/d	n/d
Cabell	n/d	12.7%	9.1%	6.5%	n/d	7.6%	8.0%	3.0%	10.5%	15.9%
Calhoun	n/d	n/d	0.2%	n/d	n/d	n/d	0.5%	n/d	n/d	n/d
Clay	n/d	n/d	n/d	0.7%	n/d	n/d	0.7%	n/d	n/d	n/d
Doddridge	n/d	n/d	n/d	0.8%	n/d	n/d	0.4%	n/d	n/d	n/d
Fayette	n/d	0.9%	1.5%	1.1%	8.9%	n/d	1.8%	1.4%	1.4%	n/d
Gilmer	n/d	n/d	0.6%	n/d	n/d	n/d	0.5%	n/d	n/d	n/d
Grant	2.4%	n/d	0.3%	n/d	n/d	n/d	0.6%	n/d	n/d	n/d
Greenbrier	3.7%	1.6%	1.8%	n/d	n/d	n/d	1.6%	n/d	n/d	n/d
Hampshire	n/d	n/d	0.4%	n/d	n/d	n/d	0.8%	n/d	n/d	n/d
Hancock	n/d	0.9%	1.3%	1.0%	n/d	1.4%	1.3%	n/d	n/d	n/d
Hardy	n/d	n/d	0.6%	n/d	n/d	n/d	0.7%	n/d	n/d	n/d
Harrison	4.6%	3.5%	4.6%	4.0%	n/d	2.7%	5.0%	5.4%	5.5%	4.6%
Jackson	n/d	n/d	1.0%	0.8%	n/d	n/d	1.6%	1.7%	2.0%	n/d
Jefferson	n/d	n/d	1.5%	2.6%	n/d	7.5%	2.2%	0.9%	n/d	1.8%
Kanawha	16.0%	21.6%	24.8%	29.3%	20.9%	19.5%	13.3%	27.7%	24.5%	19.1%
Lewis	n/d	n/d	0.6%	n/d	n/d	n/d	1.0%	n/d	n/d	n/d
Lincoln	n/d	n/d	0.3%	n/d	n/d	n/d	1.0%	n/d	n/d	n/d
Logan	n/d	1.6%	1.7%	0.6%	n/d	n/d	1.5%	n/d	1.0%	n/d
McDowell	n/d	n/d	0.4%	n/d	n/d	n/d	0.9%	n/d	1.1%	n/d
Marion	4.4%	2.5%	3.7%	2.4%	10.8%	10.9%	4.0%	11.0%	3.9%	5.2%
Marshall	n/d	n/d	1.1%	1.9%	n/d	n/d	1.6%	n/d	n/d	1.5%
Mason	n/d	n/d	0.7%	n/d	n/d	n/d	1.2%	n/d	n/d	n/d
Mercer	n/d	1.9%	2.6%	1.7%	n/d	3.5%	2.7%	1.0%	3.2%	3.5%
Mineral	n/d	n/d	0.7%	n/d	n/d	2.1%	0.7%	n/d	n/d	n/d
Mingo	n/d	n/d	1.0%	n/d	n/d	n/d	0.7%	n/d	0.9%	n/d
Monongalia	30.5%	25.4%	10.5%	17.1%	13.9%	15.4%	7.8%	20.2%	8.4%	15.9%
Monroe	n/d	n/d	0.2%	n/d	n/d	n/d	0.7%	n/d	n/d	n/d
Morgan	n/d	n/d	0.2%	n/d	n/d	n/d	0.6%	n/d	n/d	n/d
Nicholas	n/d	1.0%	1.2%	0.8%	n/d	n/d	1.3%	1.2%	1.5%	n/d
Ohio	3.7%	2.5%	5.5%	4.8%	n/d	5.2%	3.0%	1.3%	1.5%	4.0%
Pendleton	n/d	n/d	0.2%	n/d	n/d	n/d	0.3%	n/d	n/d	n/d
Pleasants	n/d	n/d	0.2%	n/d	n/d	n/d	0.4%	n/d	n/d	n/d
Pocahontas	n/d	n/d	0.3%	n/d	n/d	n/d	0.4%	n/d	n/d	n/d
Preston	n/d	n/d	0.8%	n/d	n/d	n/d	1.2%	n/d	n/d	n/d
Putnam	n/d	2.5%	2.2%	1.2%	n/d	1.6%	3.1%	4.6%	5.4%	2.5%
Raleigh	3.3%	4.1%	3.3%	2.4%	n/d	2.8%	3.6%	2.4%	5.5%	2.9%
Randolph	n/d	1.2%	0.9%	0.7%	n/d	n/d	1.1%	n/d	n/d	n/d
Ritchie	n/d	n/d	0.3%	n/d	n/d	n/d	0.5%	n/d	1.2%	n/d
Roane	n/d	n/d	0.6%	0.7%	n/d	n/d	1.0%	n/d	n/d	n/d
Summers	n/d	n/d	n/d	n/d	n/d	n/d	0.4%	n/d	n/d	n/d
Taylor	n/d	n/d	0.2%	n/d	n/d	n/d	0.8%	n/d	n/d	n/d
Tucker	n/d	n/d	0.1%	n/d	n/d	n/d	0.4%	n/d	n/d	n/d
Tyler	n/d	n/d	0.3%	n/d	n/d	n/d	0.4%	n/d	n/d	n/d
Upshur	n/d	n/d	0.9%	1.0%	n/d	n/d	1.3%	n/d	1.4%	n/d
Wayne	n/d	n/d	0.6%	n/d	n/d	n/d	2.6%	n/d	n/d	n/d
Webster	n/d	n/d	0.2%	n/d	n/d	n/d	0.5%	n/d	n/d	n/d
Wetzel	n/d	n/d	0.6%	n/d	n/d	n/d	0.8%	n/d	n/d	n/d
Wirt	n/d	n/d	0.2%	n/d	n/d	n/d	0.3%	n/d	n/d	n/d
Wood	2.9%	1.8%	4.8%	6.0%	n/d	4.2%	3.8%	1.9%	5.3%	2.8%
Wyoming	n/d	n/d	0.4%	n/d	n/d	n/d	0.9%	n/d	n/d	n/d
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

n/d: data not disclosed

Table 7 cont.

Employment Shares Of Graduates By County And Area Of Concentration (F-O)

W.Va. Public Higher Education Graduates Working In W.Va. In 2009

	Area Of Concentration									
County	Family & Consumer Sciences	Foreign Languages & Linguistics	Health Prof.	History	Legal Prof.	Liberal Arts & Humanities	Math & Statistics	Mechanic & Repair Tech.	Multi/ Interdisc. Studies	Natural Resources & Conservation
Barbour	n/d	n/d	0.4%	n/d	n/d	0.3%	n/d	n/d	n/d	n/d
Berkeley	3.6%	n/d	2.3%	3.2%	3.4%	3.7%	n/d	n/d	1.8%	n/d
Boone	n/d	n/d	0.7%	n/d	n/d	1.1%	n/d	n/d	n/d	n/d
Braxton	n/d	n/d	0.4%	n/d	n/d	0.4%	n/d	n/d	n/d	n/d
Brooke	n/d	n/d	0.3%	n/d	n/d	0.3%	n/d	n/d	n/d	n/d
Cabell	6.6%	7.9%	12.0%	10.3%	8.3%	10.4%	15.6%	n/d	15.6%	3.5%
Calhoun	n/d	n/d	0.2%	n/d	n/d	0.2%	n/d	n/d	n/d	n/d
Clay	n/d	n/d	0.3%	n/d	n/d	0.2%	n/d	n/d	n/d	n/d
Doddridge	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Fayette	n/d	n/d	1.5%	n/d	1.0%	1.2%	n/d	n/d	1.9%	n/d
Gilmer	n/d	n/d	n/d	n/d	n/d	0.4%	n/d	n/d	n/d	n/d
Grant	n/d	n/d	0.5%	n/d	n/d	0.8%	n/d	n/d	n/d	3.5%
Greenbrier	n/d	n/d	1.3%	n/d	n/d	1.6%	n/d	n/d	1.0%	n/d
Hampshire	n/d	n/d	0.1%	n/d	n/d	0.7%	n/d	n/d	n/d	n/d
Hancock	n/d	n/d	1.5%	n/d	n/d	1.1%	n/d	n/d	2.1%	n/d
Hardy	n/d	n/d	0.2%	n/d	n/d	0.8%	n/d	n/d	n/d	n/d
Harrison	6.4%	10.6%	4.9%	4.3%	8.3%	3.1%	n/d	54.8%	2.9%	n/d
Jackson	n/d	n/d	0.7%	n/d	n/d	1.8%	n/d	n/d	1.4%	n/d
Jefferson	n/d	n/d	0.7%	3.0%	1.7%	2.9%	n/d	n/d	1.2%	n/d
Kanawha	11.8%	8.5%	20.7%	24.0%	44.9%	23.6%	14.9%	n/d	21.2%	27.9%
Lewis	n/d	n/d	0.8%	n/d	n/d	0.5%	n/d	n/d	n/d	3.3%
Lincoln	n/d	n/d	0.3%	n/d	n/d	0.6%	n/d	n/d	n/d	n/d
Logan	n/d	n/d	2.8%	n/d	n/d	2.1%	n/d	n/d	n/d	n/d
McDowell	n/d	n/d	0.4%	n/d	n/d	0.5%	n/d	n/d	1.1%	n/d
Marion	12.8%	10.1%	3.3%	3.2%	2.2%	2.4%	n/d	n/d	2.3%	n/d
Marshall	n/d	n/d	1.2%	n/d	n/d	1.4%	n/d	n/d	n/d	n/d
Mason	n/d	n/d	0.8%	n/d	n/d	1.0%	n/d	n/d	n/d	n/d
Mercer	n/d	n/d	3.2%	n/d	2.0%	1.9%	n/d	n/d	4.4%	n/d
Mineral	n/d	n/d	0.2%	n/d	n/d	1.4%	n/d	n/d	n/d	n/d
Mingo	n/d	n/d	1.0%	n/d	n/d	1.7%	n/d	n/d	1.1%	n/d
Monongalia	26.3%	32.8%	15.1%	19.2%	6.6%	9.1%	22.7%	n/d	10.2%	13.1%
Monroe	n/d	n/d	0.1%	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Morgan	n/d	n/d	0.2%	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Nicholas	n/d	n/d	1.1%	n/d	n/d	1.0%	n/d	n/d	1.7%	6.2%
Ohio	2.6%	n/d	5.0%	2.3%	2.9%	4.1%	n/d	8.9%	3.6%	n/d
Pendleton	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Pleasants	n/d	n/d	0.1%	n/d	n/d	0.2%	n/d	n/d	n/d	n/d
Pocahontas	n/d	n/d	0.1%	n/d	n/d	0.2%	n/d	n/d	n/d	n/d
Preston	n/d	n/d	0.9%	n/d	n/d	0.5%	n/d	n/d	n/d	n/d
Putnam	n/d	n/d	1.7%	n/d	2.6%	1.8%	n/d	n/d	2.0%	n/d
Raleigh	2.3%	n/d	3.3%	3.7%	1.8%	2.8%	n/d	n/d	4.5%	n/d
Randolph	n/d	n/d	0.9%	n/d	1.1%	0.6%	n/d	n/d	1.2%	3.1%
Ritchie	n/d	n/d	0.1%	n/d	n/d	0.4%	n/d	n/d	n/d	n/d
Roane	n/d	n/d	0.5%	n/d	n/d	0.8%	n/d	n/d	n/d	n/d
Summers	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Taylor	n/d	n/d	0.4%	n/d	n/d	0.2%	n/d	n/d	n/d	n/d
Tucker	n/d	n/d	0.1%	n/d	n/d	0.2%	n/d	n/d	n/d	n/d
Tyler	n/d	n/d	0.3%	n/d	n/d	0.3%	n/d	n/d	n/d	n/d
Upshur	n/d	n/d	0.6%	n/d	n/d	0.5%	n/d	n/d	1.6%	5.0%
Wayne	n/d	n/d	0.7%	n/d	n/d	1.4%	n/d	n/d	1.8%	n/d
Webster	n/d	n/d	0.3%	n/d	n/d	0.2%	n/d	n/d	n/d	n/d
Wetzel	n/d	n/d	0.6%	n/d	n/d	0.6%	n/d	n/d	n/d	n/d
Wirt	n/d	n/d	0.1%	n/d	n/d	0.2%	n/d	n/d	n/d	n/d
Wood	n/d	n/d	4.5%	3.0%	1.5%	6.1%	n/d	n/d	3.1%	n/d
Wyoming	3.8%	n/d	0.3%	n/d	n/d	0.6%	n/d	n/d	n/d	n/d
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

n/d: data not disclosed

Table 7 cont.

Employment Shares Of Graduates By County And Area Of Concentration (P-Z)

W.Va. Public Higher Education Graduates Working In W.Va. In 2009

	Area Of Concentration									
County	Parks & Rec. and Fitness	Personal & Culinary Services	Physical Sciences	Precision Prod.	Psychology	Public Admin. & Social Service	Science Tech.	Security & Protective Services	Social Sciences	Visual & Performing Arts
Barbour	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Berkeley	8.2%	n/d	n/d	n/d	2.0%	3.4%	n/d	1.6%	2.6%	4.4%
Boone	n/d	n/d	n/d	n/d	n/d	n/d	2.7%	1.0%	0.7%	n/d
Braxton	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	1.5%	n/d
Brooke	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Cabell	9.4%	n/d	14.4%	n/d	14.8%	5.2%	9.4%	7.9%	6.9%	11.6%
Calhoun	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	1.0%	n/d
Clay	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Doddridge	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Fayette	2.4%	n/d	n/d	n/d	0.8%	0.7%	2.7%	1.0%	1.2%	n/d
Gilmer	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	1.3%	n/d
Grant	n/d	n/d	n/d	n/d	n/d	0.7%	n/d	n/d	n/d	n/d
Greenbrier	n/d	n/d	n/d	n/d	0.8%	0.7%	9.7%	1.1%	1.2%	1.2%
Hampshire	n/d	n/d	n/d	n/d	0.6%	n/d	n/d	n/d	n/d	n/d
Hancock	n/d	n/d	n/d	n/d	0.8%	n/d	n/d	0.8%	0.7%	n/d
Hardy	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Harrison	n/d	12.2%	2.4%	n/d	5.4%	3.4%	6.7%	4.4%	5.9%	3.2%
Jackson	n/d	n/d	n/d	18.4%	n/d	n/d	n/d	0.8%	0.7%	n/d
Jefferson	6.5%	n/d	2.4%	n/d	1.5%	0.9%	n/d	n/d	1.7%	6.0%
Kanawha	19.6%	n/d	23.1%	10.6%	26.4%	32.7%	11.6%	38.8%	28.4%	17.8%
Lewis	n/d	n/d	n/d	n/d	n/d	n/d	2.7%	0.6%	1.3%	n/d
Lincoln	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Logan	n/d	n/d	n/d	n/d	1.0%	0.9%	n/d	1.7%	n/d	n/d
McDowell	n/d	n/d	n/d	n/d	n/d	n/d	n/d	1.0%	n/d	n/d
Marion	2.2%	11.1%	n/d	n/d	4.7%	3.6%	n/d	3.7%	3.4%	4.7%
Marshall	n/d	n/d	n/d	n/d	0.7%	0.8%	n/d	1.5%	1.0%	n/d
Mason	n/d	n/d	n/d	n/d	n/d	n/d	n/d	0.9%	n/d	n/d
Mercer	n/d	n/d	n/d	n/d	2.0%	3.4%	5.6%	2.6%	4.5%	2.4%
Mineral	n/d	n/d	n/d	n/d	n/d	n/d	n/d	0.5%	n/d	n/d
Mingo	n/d	n/d	n/d	n/d	0.7%	n/d	n/d	1.3%	n/d	n/d
Monongalia	19.8%	18.9%	26.9%	7.1%	13.3%	18.3%	3.8%	7.2%	14.6%	21.1%
Monroe	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Morgan	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Nicholas	n/d	n/d	n/d	n/d	0.9%	n/d	5.9%	0.5%	1.8%	n/d
Ohio	6.0%	20.0%	2.4%	n/d	4.2%	6.0%	n/d	4.7%	2.3%	4.7%
Pendleton	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Pleasants	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Pocahontas	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Preston	n/d	n/d	n/d	n/d	n/d	1.0%	n/d	0.6%	n/d	2.0%
Putnam	2.2%	n/d	2.9%	n/d	2.2%	1.2%	n/d	1.5%	1.1%	1.7%
Raleigh	n/d	n/d	3.1%	n/d	3.6%	3.1%	5.6%	1.8%	3.4%	2.6%
Randolph	n/d	n/d	n/d	n/d	1.7%	n/d	n/d	1.3%	1.4%	1.5%
Ritchie	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Roane	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Summers	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Taylor	n/d	n/d	n/d	n/d	n/d	n/d	n/d	0.5%	n/d	n/d
Tucker	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Tyler	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Upshur	n/d	n/d	n/d	n/d	n/d	0.9%	n/d	0.8%	1.5%	n/d
Wayne	n/d	n/d	n/d	n/d	2.1%	1.4%	n/d	0.6%	n/d	2.5%
Webster	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Wetzel	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Wirt	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Wood	3.1%	n/d	n/d	27.0%	3.0%	2.6%	n/d	3.0%	1.9%	1.4%
Wyoming	n/d	n/d	n/d	n/d	n/d	1.1%	n/d	0.6%	0.8%	n/d
Total	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**	**100.0%**

n/d: data not disclosed

Table 8

Average Annualized Wages Of Graduates By County And Area Of Concentration (A-E)

W.Va. Public Higher Education Graduates Working In W.Va. In 2009

	Area Of Concentration									
County	Agriculture, Agriculture Operations	Biological and Biomedical Sciences	Bus., Mgmt., Mktg	Comm. & Journalism	Comm. Tech.	Computer & Info. Sciences	Education	Engineering	Engineering Tech.	English & Literature
Barbour	n/d	n/d	$26,813	n/d	n/d	n/d	$37,582	n/d	n/d	n/d
Berkeley	n/d	$36,125	$29,980	$36,119	n/d	$39,244	$40,447	$57,945	$30,033	$29,238
Boone	n/d	n/d	$49,617	n/d	n/d	n/d	$43,507	$86,176	$64,760	n/d
Braxton	n/d	n/d	$27,702	n/d	n/d	n/d	$34,081	n/d	n/d	n/d
Brooke	n/d	n/d	$26,830	n/d	n/d	n/d	$32,774	n/d	n/d	n/d
Cabell	n/d	$36,613	$32,901	$26,574	n/d	$38,853	$32,271	$60,566	$37,075	$21,403
Calhoun	n/d	n/d	$17,490	n/d	n/d	n/d	$36,006	n/d	n/d	n/d
Clay	n/d	n/d	n/d	$47,730	n/d	n/d	$42,432	n/d	n/d	n/d
Doddridge	n/d	n/d	n/d	$42,775	n/d	n/d	$38,070	n/d	n/d	n/d
Fayette	n/d	$18,398	$24,571	$39,787	$18,292	n/d	$37,655	$34,361	$34,120	n/d
Gilmer	n/d	n/d	$24,795	n/d	n/d	n/d	$31,348	n/d	n/d	n/d
Grant	$24,898	n/d	$34,789	n/d	n/d	n/d	$36,771	n/d	n/d	n/d
Greenbrier	$28,907	$18,007	$28,743	n/d	n/d	n/d	$37,810	n/d	n/d	n/d
Hampshire	n/d	n/d	$24,824	n/d	n/d	n/d	$29,277	n/d	n/d	n/d
Hancock	n/d	$24,257	$28,876	$26,787	n/d	$18,913	$37,192	n/d	n/d	n/d
Hardy	n/d	n/d	$33,004	n/d	n/d	n/d	$32,860	n/d	n/d	n/d
Harrison	$33,117	$36,296	$40,105	$33,922	n/d	$44,194	$29,829	$69,994	$51,070	$23,349
Jackson	n/d	n/d	$34,891	$43,028	n/d	n/d	$38,189	$55,272	$47,876	n/d
Jefferson	n/d	n/d	$44,633	$34,197	n/d	$50,656	$39,622	$37,185	n/d	$24,769
Kanawha	$32,117	$34,532	$41,240	$34,809	$27,894	$45,610	$39,089	$60,540	$45,369	$27,293
Lewis	n/d	n/d	$24,007	n/d	n/d	n/d	$31,291	n/d	n/d	n/d
Lincoln	n/d	n/d	$18,765	n/d	n/d	n/d	$38,006	n/d	n/d	n/d
Logan	n/d	$37,885	$27,341	$24,148	n/d	n/d	$37,275	n/d	$34,965	n/d
McDowell	n/d	n/d	$46,326	n/d	n/d	n/d	$44,671	n/d	$49,545	n/d
Marion	$36,784	$24,203	$34,547	$28,842	$16,198	$52,281	$31,688	$65,707	$34,213	$18,186
Marshall	n/d	n/d	$28,184	$29,564	n/d	n/d	$33,361	n/d	n/d	$10,402
Mason	n/d	n/d	$25,255	n/d	n/d	n/d	$37,184	n/d	n/d	n/d
Mercer	n/d	$41,222	$29,490	$30,541	n/d	$30,047	$36,741	$38,124	$40,566	$19,768
Mineral	n/d	n/d	$22,048	n/d	n/d	$38,429	$32,104	n/d	n/d	n/d
Mingo	n/d	n/d	$32,558	n/d	n/d	n/d	$40,871	n/d	$66,057	n/d
Monongalia	$32,355	$38,230	$44,225	$28,927	$26,860	$50,758	$31,750	$58,536	$41,674	$23,858
Monroe	n/d	n/d	$25,713	n/d	n/d	n/d	$37,240	n/d	n/d	n/d
Morgan	n/d	n/d	$38,707	n/d	n/d	n/d	$39,232	n/d	n/d	n/d
Nicholas	n/d	$39,486	$26,484	$38,362	n/d	n/d	$35,857	$50,549	$39,218	n/d
Ohio	$27,926	$28,874	$28,263	$28,192	n/d	$24,836	$28,766	$59,149	$39,655	$22,345
Pendleton	n/d	n/d	$18,786	n/d	n/d	n/d	$38,777	n/d	n/d	n/d
Pleasants	n/d	n/d	$34,773	n/d	n/d	n/d	$35,665	n/d	n/d	n/d
Pocahontas	n/d	n/d	$20,772	n/d	n/d	n/d	$39,129	n/d	n/d	n/d
Preston	n/d	n/d	$35,376	n/d	n/d	n/d	$32,462	n/d	n/d	n/d
Putnam	n/d	$30,125	$48,759	$33,504	n/d	$55,001	$38,444	$68,553	$49,173	$26,884
Raleigh	$32,114	$31,905	$31,553	$30,011	n/d	$29,762	$36,084	$67,579	$47,038	$21,837
Randolph	n/d	$28,457	$31,317	$31,890	n/d	n/d	$33,099	n/d	n/d	n/d
Ritchie	n/d	n/d	$38,032	n/d	n/d	n/d	$36,797	n/d	$28,664	n/d
Roane	n/d	n/d	$27,644	$37,274	n/d	n/d	$33,388	n/d	n/d	n/d
Summers	n/d	n/d	n/d	n/d	n/d	n/d	$38,011	n/d	n/d	n/d
Taylor	n/d	n/d	$32,085	n/d	n/d	n/d	$31,562	n/d	n/d	n/d
Tucker	n/d	n/d	$25,925	n/d	n/d	n/d	$34,974	n/d	n/d	n/d
Tyler	n/d	n/d	$37,228	n/d	n/d	n/d	$32,114	n/d	n/d	n/d
Upshur	n/d	n/d	$24,440	$34,591	n/d	n/d	$35,486	n/d	$64,533	n/d
Wayne	n/d	n/d	$32,999	n/d	n/d	n/d	$35,377	n/d	n/d	n/d
Webster	n/d	n/d	$43,829	n/d	n/d	n/d	$39,460	n/d	n/d	n/d
Wetzel	n/d	n/d	$30,965	n/d	n/d	n/d	$34,848	n/d	n/d	n/d
Wirt	n/d	n/d	$19,806	n/d	n/d	n/d	$35,456	n/d	n/d	n/d
Wood	$22,793	$27,746	$31,522	$32,514	n/d	$24,298	$35,476	$52,400	$34,552	$15,994
Wyoming	n/d	n/d	$31,135	n/d	n/d	n/d	$40,501	n/d	n/d	n/d
State Average	**$30,884**	**$34,633**	**$35,860**	**$32,452**	**$23,518**	**$41,546**	**$35,551**	**$61,650**	**$43,541**	**$22,445**

n/d: data not disclosed

Table 8 cont.

Average Annualized Wages Of Graduates By County And Area Of Concentration (F-O)

W.Va. Public Higher Education Graduates Working In W.Va. In 2009

	Area Of Concentration									
County	Family & Consumer Sciences	Foreign Languages & Linguistics	Health Prof.	History	Legal Prof.	Liberal Arts & Humanities	Math & Statistics	Mechanic & Repair Tech.	Multi/ Interdisc. Studies	Natural Resources & Conservation
Barbour	n/d	n/d	$43,689	n/d	n/d	$15,648	n/d	n/d	n/d	n/d
Berkeley	$19,280	n/d	$51,819	$29,397	$51,522	$26,997	n/d	n/d	$29,765	n/d
Boone	n/d	n/d	$36,998	n/d	n/d	$36,931	n/d	n/d	n/d	n/d
Braxton	n/d	n/d	$43,136	n/d	n/d	$24,344	n/d	n/d	n/d	n/d
Brooke	n/d	n/d	$39,752	n/d	n/d	$17,131	n/d	n/d	n/d	n/d
Cabell	$21,813	$11,030	$61,314	$22,985	$41,538	$28,174	$25,334	n/d	$32,911	$29,217
Calhoun	n/d	n/d	$63,161	n/d	n/d	$31,549	n/d	n/d	n/d	n/d
Clay	n/d	n/d	$50,854	n/d	n/d	$30,147	n/d	n/d	n/d	n/d
Doddridge	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Fayette	n/d	n/d	$35,880	n/d	$25,816	$20,825	n/d	n/d	$18,722	n/d
Gilmer	n/d	n/d	n/d	n/d	n/d	$22,500	n/d	n/d	n/d	n/d
Grant	n/d	n/d	$39,038	n/d	n/d	$23,819	n/d	n/d	n/d	$38,453
Greenbrier	n/d	n/d	$66,603	n/d	n/d	$22,854	n/d	n/d	$23,686	n/d
Hampshire	n/d	n/d	$53,782	n/d	n/d	$20,262	n/d	n/d	n/d	n/d
Hancock	n/d	n/d	$43,522	n/d	n/d	$22,721	n/d	n/d	$33,150	n/d
Hardy	n/d	n/d	$30,140	n/d	n/d	$20,946	n/d	n/d	n/d	n/d
Harrison	$21,463	$15,578	$51,155	$27,859	$62,278	$26,544	n/d	$48,704	$28,721	n/d
Jackson	n/d	n/d	$39,971	n/d	n/d	$25,534	n/d	n/d	$36,719	n/d
Jefferson	n/d	n/d	$30,778	$19,961	$61,971	$27,294	n/d	n/d	$27,415	n/d
Kanawha	$27,803	$14,761	$57,056	$30,141	$64,682	$34,107	$35,414	n/d	$34,015	$36,201
Lewis	n/d	n/d	$37,988	n/d	n/d	$26,080	n/d	n/d	n/d	$31,553
Lincoln	n/d	n/d	$30,792	n/d	n/d	$17,319	n/d	n/d	n/d	n/d
Logan	n/d	n/d	$35,795	n/d	n/d	$19,790	n/d	n/d	n/d	n/d
McDowell	n/d	n/d	$28,529	n/d	n/d	$29,591	n/d	n/d	$30,658	n/d
Marion	$19,869	$21,819	$41,633	$12,466	$38,771	$25,684	n/d	n/d	$26,370	n/d
Marshall	n/d	n/d	$33,958	n/d	n/d	$22,304	n/d	n/d	n/d	n/d
Mason	n/d	n/d	$58,391	n/d	n/d	$25,030	n/d	n/d	n/d	n/d
Mercer	n/d	n/d	$48,754	n/d	$22,339	$27,643	n/d	n/d	$31,076	n/d
Mineral	n/d	n/d	$35,470	n/d	n/d	$15,996	n/d	n/d	n/d	n/d
Mingo	n/d	n/d	$40,843	n/d	n/d	$26,384	n/d	n/d	$21,323	n/d
Monongalia	$24,387	$26,093	$53,472	$23,211	$58,240	$27,498	$42,183	n/d	$25,801	$35,716
Monroe	n/d	n/d	$41,948	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Morgan	n/d	n/d	$46,801	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Nicholas	n/d	n/d	$65,635	n/d	n/d	$22,454	n/d	n/d	$19,139	$37,660
Ohio	$20,661	n/d	$43,476	$28,953	$62,777	$21,182	n/d	$19,562	$22,263	n/d
Pendleton	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Pleasants	n/d	n/d	$33,012	n/d	n/d	$41,203	n/d	n/d	n/d	n/d
Pocahontas	n/d	n/d	$41,706	n/d	n/d	$17,222	n/d	n/d	n/d	n/d
Preston	n/d	n/d	$35,885	n/d	n/d	$19,062	n/d	n/d	n/d	n/d
Putnam	n/d	n/d	$40,101	n/d	$45,532	$36,088	n/d	n/d	$36,908	n/d
Raleigh	$21,929	n/d	$49,065	$20,881	$45,942	$23,066	n/d	n/d	$26,121	n/d
Randolph	n/d	n/d	$53,699	n/d	$41,124	$20,011	n/d	n/d	$24,095	$31,542
Ritchie	n/d	n/d	$39,117	n/d	n/d	$31,494	n/d	n/d	n/d	n/d
Roane	n/d	n/d	$61,630	n/d	n/d	$18,497	n/d	n/d	n/d	n/d
Summers	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Taylor	n/d	n/d	$48,732	n/d	n/d	$20,665	n/d	n/d	n/d	n/d
Tucker	n/d	n/d	$36,641	n/d	n/d	$25,329	n/d	n/d	n/d	n/d
Tyler	n/d	n/d	$41,994	n/d	n/d	$30,032	n/d	n/d	n/d	n/d
Upshur	n/d	n/d	$37,734	n/d	n/d	$20,769	n/d	n/d	$19,859	$40,459
Wayne	n/d	n/d	$33,507	n/d	n/d	$26,340	n/d	n/d	$23,095	n/d
Webster	n/d	n/d	$55,246	n/d	n/d	$23,243	n/d	n/d	n/d	n/d
Wetzel	n/d	n/d	$33,076	n/d	n/d	$22,955	n/d	n/d	n/d	n/d
Wirt	n/d	n/d	$49,035	n/d	n/d	$15,225	n/d	n/d	n/d	n/d
Wood	n/d	n/d	$60,502	$26,952	$67,889	$25,884	n/d	n/d	$33,330	n/d
Wyoming	$21,221	n/d	$32,979	n/d	n/d	$17,657	n/d	n/d	n/d	n/d
State Average	**$21,926**	**$20,016**	**$51,330**	**$23,775**	**$55,676**	**$27,429**	**$35,412**	**$37,775**	**$28,230**	**$33,395**

n/d: data not disclosed

Table 8 cont.

Average Annualized Wages Of Graduates By County And Area Of Concentration (P-Z)

W.Va. Public Higher Education Graduates Working In W.Va. In 2009

	Area Of Concentration									
County	**Parks & Rec. and Fitness**	**Personal & Culinary Services**	**Physical Sciences**	**Precision Prod.**	**Psychology**	**Public Admin. & Social Service**	**Science Tech.**	**Security & Protective Services**	**Social Sciences**	**Visual & Performing Arts**
Barbour	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Berkeley	$26,762	n/d	n/d	n/d	$28,354	$38,210	n/d	$23,768	$29,339	$20,967
Boone	n/d	n/d	n/d	n/d	n/d	n/d	$35,949	$47,261	$38,262	n/d
Braxton	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$14,348	n/d
Brooke	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Cabell	$28,266	n/d	$34,396	n/d	$24,003	$26,313	$33,041	$28,310	$26,040	$17,084
Calhoun	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$18,201	n/d
Clay	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Doddridge	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Fayette	$13,329	n/d	n/d	n/d	$28,264	$11,650	$16,633	$20,375	$23,972	n/d
Gilmer	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$19,982	n/d
Grant	n/d	n/d	n/d	n/d	n/d	$22,659	n/d	n/d	n/d	n/d
Greenbrier	n/d	n/d	n/d	n/d	$20,474	$37,348	$19,960	$25,817	$25,848	$24,728
Hampshire	n/d	n/d	n/d	n/d	$23,097	n/d	n/d	n/d	n/d	n/d
Hancock	n/d	n/d	n/d	n/d	$21,679	n/d	n/d	$24,815	$24,461	n/d
Hardy	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Harrison	n/d	$18,811	$38,662	n/d	$26,602	$33,325	$33,578	$26,079	$28,047	$17,755
Jackson	n/d	n/d	n/d	$46,483	n/d	n/d	n/d	$23,532	$30,818	n/d
Jefferson	$29,547	n/d	$24,200	n/d	$28,884	$25,180	n/d	n/d	$32,749	$23,478
Kanawha	$28,587	n/d	$42,566	$32,194	$28,748	$34,841	$30,411	$36,212	$30,336	$24,104
Lewis	n/d	n/d	n/d	n/d	n/d	n/d	$30,290	$13,980	$23,336	n/d
Lincoln	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Logan	n/d	n/d	n/d	n/d	$24,819	$21,515	n/d	$24,049	n/d	n/d
McDowell	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$23,743	n/d	n/d
Marion	$21,537	$14,753	n/d	n/d	$21,434	$32,821	n/d	$23,778	$28,617	$14,943
Marshall	n/d	n/d	n/d	n/d	$21,288	$18,779	n/d	$22,734	$11,887	n/d
Mason	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$23,937	n/d	n/d
Mercer	n/d	n/d	n/d	n/d	$20,502	$25,130	$25,334	$22,395	$20,579	$22,139
Mineral	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$26,262	n/d	n/d
Mingo	n/d	n/d	n/d	n/d	$19,408	n/d	n/d	$33,289	n/d	n/d
Monongalia	$27,110	$24,440	$51,928	$15,961	$21,919	$32,882	$20,316	$30,358	$24,727	$24,863
Monroe	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Morgan	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Nicholas	n/d	n/d	n/d	n/d	$28,833	n/d	$15,299	$22,143	$16,953	n/d
Ohio	$21,389	$14,659	$50,392	n/d	$24,818	$23,212	n/d	$20,990	$20,540	$18,638
Pendleton	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Pleasants	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Pocahontas	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Preston	n/d	n/d	n/d	n/d	n/d	$32,439	n/d	$21,967	n/d	$23,334
Putnam	$28,366	n/d	$43,212	n/d	$28,874	$26,895	n/d	$27,288	$24,983	$24,588
Raleigh	n/d	n/d	$23,536	n/d	$27,355	$21,508	$18,653	$25,419	$23,321	$17,772
Randolph	n/d	n/d	n/d	n/d	$27,332	n/d	n/d	$24,522	$17,880	$12,413
Ritchie	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Roane	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Summers	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Taylor	n/d	n/d	n/d	n/d	n/d	n/d	n/d	$24,838	n/d	n/d
Tucker	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Tyler	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Upshur	n/d	n/d	n/d	n/d	n/d	$37,799	n/d	$26,020	$15,631	n/d
Wayne	n/d	n/d	n/d	n/d	$22,095	$28,733	n/d	$25,637	n/d	$27,670
Webster	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Wetzel	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Wirt	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d	n/d
Wood	$29,344	n/d	n/d	$22,549	$30,968	$27,828	n/d	$28,571	$23,864	$9,963
Wyoming	n/d	n/d	n/d	n/d	n/d	$21,055	n/d	$17,673	$19,792	n/d
State Average	**$26,654**	**$18,989**	**$41,125**	**$32,465**	**$25,554**	**$30,646**	**$25,492**	**$29,823**	**$25,736**	**$21,414**

n/d: data not disclosed

Conclusion And Future Direction

This report shows that West Virginia public higher education graduates contribute to labor markets in **all counties and regions** of the state. However, graduates do tend to concentrate in metropolitan counties, with far smaller numbers of graduates working in the state's micropolitan and nonmetropolitan areas. In part, this reflects the nature of employment in metropolitan areas, which tend to contain high concentrations of high-human capital jobs.

Graduates also tend to concentrate in the Charleston MSA, the Morgantown MSA, the Huntington MSA, and the Clarksburg micropolitan area. Again, this reflects the concentration of high-human capital jobs in these regions, as well as the presence of universities.

The Eastern Panhandle region, in contrast, posted relatively low graduate employment shares, relative to its overall share of state jobs. That likely reflects an important characteristic of our data set, which measures employment by place of work. The Eastern Panhandle counties are closely tied to labor markets in the Washington area, which means that there is a large amount of commuting from the Eastern Panhandle into jobs in neighboring states. Thus, it is likely that more graduates live in the Eastern Panhandle than work there.

This suggests that acquiring a match of graduates with their place of residence would be a useful next step in assessing the contribution of higher education graduates to the state economy. Further, our data is limited to jobs (and wages) covered by unemployment insurance, which excludes sole proprietors. A match which included these individuals would also provide useful information on the contributions of graduates to the state economy.

The next report in the 2010 series will summarize the employment in 2009 of graduates by all socio-economic characteristics (year, residency, summary degree, area of concentration, gender, race, academic achievement, tuition assistance, and employment in nearby states). These results with reflect the impact of the Great Recession on the employment of public higher education graduates in West Virginia.

Appendix I: Detailed Description Of Employment Data

The West Virginia data analyzed in this study come from the matching of demographic information on graduates from West Virginia institutions of higher education (compiled by the HEPC[2]) with employment records maintained by Workforce West Virginia. Graduates reflect the highest degree earned at the time of measurement (during the 1996-1997 to 2007-2008 period).

The employment data used is gathered from West Virginia unemployment compensation records. This is a well-known dataset which measures employment by place of work. It covers jobs and wages reported by firms participating in the West Virginia Unemployment Compensation system. As a general rule, any firm which employs one or more workers for some part of a day in at least 20 different weeks of a calendar year is required to contribute to the state's unemployment insurance system. Major exceptions are railroad companies and the federal government, which contribute to separate systems. The self-employed, student workers, most church workers, and unpaid family workers are also generally not covered.

For this report, we do not include civilian federal government employment and wages due to recent administrative problems with the FEDES match. The U.S. Postal Service and the Office of Personnel Management have begun to vary their response quarter (and whether they respond at all). Based on recent matches to Federal employment data, there are roughly 2,000 graduates (during the past decade) that hold Federal jobs.

Also excluded in this study are results from a match of West Virginia graduates with covered employment (including federal employment) at establishments located in five nearby states (and the District of Columbia). These include Maryland, New Jersey, Ohio, Pennsylvania, Virginia, and the District of Columbia. These states participate in the Regional Wage Record Exchange Project (TRADE), but the data does not include geographic identifiers beyond state of employment.

Finally, in 2009, the county of employment could not be identified for roughly 13,000 employed graduates. This can occur due to the administrative nature of the data. For instance, for a firm with multiple establishments located in multiple states, the unemployment insurance contact information (and thus the geographic identifier) is sometimes only available for a centralized payroll processing center that happens to be located out of the state. Thus, for some graduates, we know they are employed in the state, but we cannot narrow the location down any further.

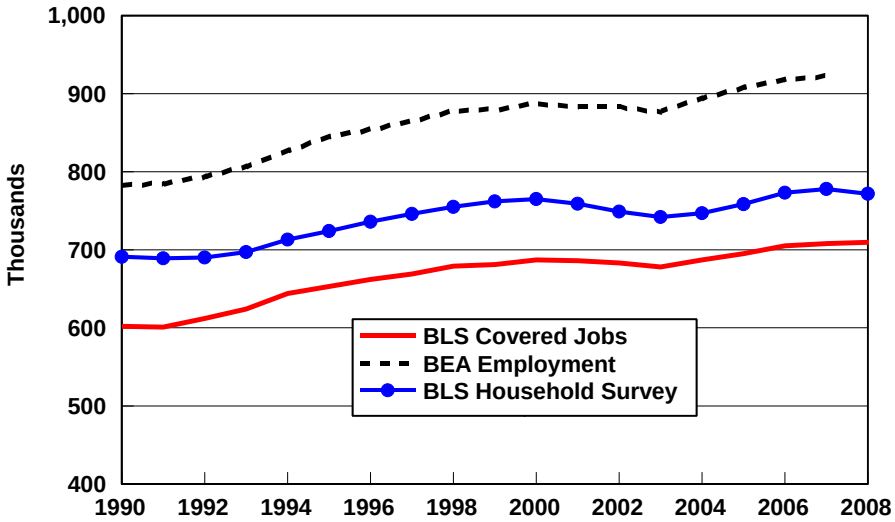
Covered employment counts 709,575 jobs at establishments in West Virginia in 2008.[3] As Figure 3 shows, this measure of employment is lower than two other major measures of employment: employment measured by the U.S. Bureau of Economic Analysis (BEA) and employment measured by the U.S. Bureau of Labor Statistics (BLS) household survey. Differences arise because of the treatment of the self-employed, who are excluded from covered jobs but are included in the BEA measure and in the BLS household survey, as well as the exclusion of student workers, most church workers, and unpaid family members from the measure of covered jobs. Further, BLS household employment is measured by place of residence, which includes state residents working out of state.

[2] We would like to thank Rob Anderson and Larry Ponder of the WVHEPC for providing the bulk of the data used in this study.

[3] Federal government jobs are added in separately for completeness.

Finally, the wages documented in the report are an important source of compensation, but they are not the only source. Data on wage income is readily available, well understood, and is useful in the evaluation of returns to work of state higher education graduates. However, wage data does not include fringe benefits provided by firms, particularly employer-paid pension and health insurance. This source of income has accounted for an increasing share of work compensation during the last 30 years. Indeed, the share of other labor income to gross earnings by place of work has risen from 6.3 percent in 1969 to 13.3 percent by 2007 for West Virginia.

Figure 8
Three Measures Of West Virginia Employment



Appendix II: List Of Institutions, Degrees, And Areas Of Concentration

Public Higher Education Institutions

Bluefield State College
Community and Technical College at WVU Tech
Community and Technical College of Shepherd
Concord University
Fairmont State University
Eastern West Virginia Community and Technical College
Fairmont State Community and Technical College
Glenville State College
Marshall Community and Technical College
Marshall University
New River Community and Technical College
Potomac State College of West Virginia University
Shepherd University
Southern West Virginia Community & Tech College
West Liberty State College
West Virginia Northern Community College
West Virginia School of Osteopathic Medicine
West Virginia State Community and Technical
West Virginia State University
West Virginia University
West Virginia University Institute of Technology
West Virginia University at Parkersburg

Degrees

Undergraduate Certificate
Associate's Degree
Bachelor's Degree
First Professional
Master's Degree
Post-Master's Certificate
Doctoral Degree

Areas Of Concentration And Majors

Agriculture, Agriculture Operations, and Related Sciences

- Agricultural Economics
- Agriculture, Agriculture Operations, and Related Sciences, Other.
- Agriculture, General
- Animal Sciences, General.
- Aquaculture
- Plant Sciences, Other.

Architecture and Related Services

- Landscape Architecture

Biological and Biomedical Sciences

Anatomy
Biochemistry
Biochemistry, Biophysics and Molecular Biology, Other
Biological and Biomedical Sciences, Other.
Biology/Biological Sciences, General
Botany/Plant Biology
Exercise Physiology
Genetics, General.
Medical Microbiology and Bacteriology
Microbiological Sciences and Immunology, Other.
Pharmacology and Toxicology
Physiology, General
Reproductive Biology
Zoology/Animal Biology

Business, Management, Marketing, and Related Support Services

Accounting
Accounting Technology/Technician and Bookkeeping
Administrative Assistant and Secretarial Science, General
Business Administration and Management, General
Business Administration, Management and Operations, Other
Business, Management, Marketing, and Related Support Services, Other
Business/Commerce, General
Business/Managerial Economics
Business/Office Automation/Technology/Data Entry
Entrepreneurship/Entrepreneurial Studies
Executive Assistant/Executive Secretary
Fashion Merchandising
Finance, General
Hospitality Administration/Management, General
Hospitality Administration/Management, Other
Hotel/Motel Administration/Management
Information Resources Management/CIO Training.
Labor and Industrial Relations
Management Information Systems, General
Marketing/Marketing Management, General
Office Management and Supervision
Operations Management and Supervision
Retailing and Retail Operations.
Sales, Distribution, and Marketing Operations, General
Tourism and Travel Services Marketing

Communication, Journalism, and Related Programs

Communication Studies/Speech Communication and Rhetoric.
Communication, Journalism, and Related Programs, Other.
Journalism

Communications Technologies/Technicians and Support Services

Graphic and Printing Equipment Operator, General Production.
Printing Press Operator.
Graphic Communications, Other.
Communications Technologies/Technicians and Support Services, Other

Computer and Information Sciences and Support

Computer and Information Sciences and Support Services, Other.
Computer and Information Sciences,
Computer and Information Sciences, General.
Computer Programming, Specific Applications.
Computer Programming/Programmer, General.
Computer Science.
Information Science/Studies.

Education

Adult and Continuing Education and Teaching
Agricultural Teacher Education.
Business Teacher Education
Counselor Education/School Counseling and Guidance Services.
Curriculum and Instruction.
Early Childhood Education and Teaching.
Education, General.
Educational Administration and Supervision, Other.
Educational Leadership and Administration, General.
Educational Psychology. (Moved, Report Under 42.18 series)
Educational/Instructional Media Design.
Elementary Education and Teaching
Junior High/Intermediate/Middle School Education and Teaching
Kindergarten/Preschool Education and Teaching
Physical Education Teaching and Coaching
Reading Teacher Education
Secondary Education and Teaching
Special Education and Teaching, General
Teacher Assistant/Aide.
Teacher Education and Professional Development, Specific Levels and Methods, Other
Technical Teacher Education.
Trade and Industrial Teacher Education

Engineering

Aerospace, Aeronautical and Astronautical Engineering

Chemical Engineering.
Civil Engineering, General
Computer Engineering, General.
Computer Software Engineering.
Electrical, Electronics and Communications Engineering
Engineering Physics
Engineering Science
Engineering, General.
Engineering, Other
Environmental/Environmental Health Engineering
Industrial Engineering.
Mechanical Engineering.
Mining and Mineral Engineering
Petroleum Engineering.
Systems Engineering.

Engineering Technologies/Technicians

Aeronautical/Aerospace Engineering Technology/Technician
Architectural Drafting and Architectural CAD/CADD
Architectural Engineering Technology/Technician
Automotive Engineering Technology/Technician
Civil Engineering Technology/Technician
Computer Engineering Technology/Technician
Computer Technology/Computer Systems Technology
Drafting and Design Technology/Technician, General
Electrical, Electronic and Communications Engineering Technology/Technician
Electromechanical Technology/Electromechanical Engineering Technology
Energy Management and Systems Technology/Technician
Engineering Technologies/Technicians, Other
Engineering/Industrial Management
Environmental Engineering Technology/Environmental Technology
Industrial Production Technologies/Technicians, Other
Industrial Technology/Technician
Manufacturing Technology/Technician
Mechanical Drafting and Mechanical Drafting CAD/CADD.
Mechanical Engineering Related Technologies/Technicians, Other
Mechanical Engineering/Mechanical Technology/Technician
Mining Technology/Technician.
Occupational Safety and Health Technology/Technician
Petroleum Technology/Technician
Surveying Technology/Surveying.

English Language and Literature/Letters

Creative Writing.
English Language and Literature, General.
Speech and Rhetorical Studies.

Family and Consumer Sciences/Human Sciences

Child Care and Support Services Management.
Family and Consumer Sciences/Human Sciences, General
Housing and Human Environments, Other.

Foreign Languages, Literatures, and Linguistics

Foreign Languages and Literatures, General
French Language and Literature.
Sign Language Interpretation and Translation.

Health Professions and Related Clinical Sciences

Athletic Training/Trainer
Audiology/Audiologist and Speech-Language Pathology/Pathologist.
Clinical Laboratory Science/Medical Technology/Technologist
Clinical/Medical Laboratory Science and Allied Professions, Other
Clinical/Medical Laboratory Technician
Community Health Services/Liaison/Counseling
Cytotechnology/Cytotechnologist
Dental Clinical Sciences, General
Dental Hygiene/Hygienist
Dental Laboratory Technology/Technician
Dentistry (DDS, DMD).
Dietetics/Dietitian (RD).
Emergency Medical Technology/Technician (EMT Paramedic).
Health Information/Medical Records Technology/Technician
Health Professions and Related Clinical Sciences, Other
Health/Health Care Administration/Management
Medical Administrative/Executive Assistant and Medical Secretary
Medical Radiologic Technology/Science – Radiation Therapist
Medical Transcription/Transcriptionist
Medical/Clinical Assistant
Medicine (MD).
Nuclear Medical Technology/Technologist
Nurse/Nursing Assistant/Aide and Patient Care Assistant
Nursing, Other
Nursing/Registered Nurse (RN, ASN, BSN, MSN)
Occupational Therapy/Therapist
Osteopathic Medicine/Osteopathy (DO).
Pharmaceutics and Drug Design.
Pharmacy (PharmD [USA], PharmD or BS/BPharm [Canada])

Pharmacy Technician/Assistant
Physical Therapist Assistant
Physical Therapy/Therapist
Psychiatric/Mental Health Services Technician
Public Health, General (MPH, DPH).
Respiratory Care Therapy/Therapist
Speech-Language Pathology/Pathologist
Surgical Technology/Technologist
Veterinary/Animal Health Technology/Technician and Veterinary Assistant
Vocational Rehabilitation Counseling/Counselor

History

History, General

Legal Professions and Studies

Law (LL.B., J.D.).
Legal Administrative Assistant/Secretary.
Legal Assistant/Paralegal.
Legal Professions and Studies, Other.

Liberal Arts and Sciences, General Studies and Humanities

General Studies
Humanities/Humanistic Studies.
Liberal Arts and Sciences, General Studies and Humanities, Other
Liberal Arts and Sciences/Liberal Studies

Library Science

Library Science/Librarianship

Mathematics and Statistics

Mathematics, General.
Statistics, General

Mechanic and Repair Technologies/Technicians

Avionics Maintenance Technology/Technician
Heating, Ventilation, AC and Refrigeration Maintenance Technology (HAC(R), HVAC(R)).
Heavy/Industrial Equipment Maintenance Technologies, Other
Mechanic and Repair Technologies/Technicians, Other

Multi/Interdisciplinary Studies

Biological and Physical Sciences
Gerontology
Multi-/Interdisciplinary Studies, Other
Science, Technology and Society
Systems Science and Theory

Natural Resources and Conservation

Environmental Studies.
Forest Management/Forest Resources Management.

Forest Sciences and Biology.
Forest Technology/Technician.
Forestry, General.
Natural Resource Economics.
Natural Resources Management and Policy, Other.
Wildlife and Wildlands Science and Management.
Wood Science and Wood Products/Pulp and Paper Technology.

Parks, Recreation, Leisure and Fitness Studies

Health and Physical Education, General
Kinesiology and Exercise Science
Parks, Recreation and Leisure Facilities Management
Parks, Recreation and Leisure Studies

Personal and Culinary Services

Culinary Arts/Chef Training.
Food Preparation/Professional Cooking/Kitchen Assistant.
Institutional Food Workers
Restaurant, Culinary, and Catering Management/Manager

Philosophy and Religious Studies

Philosophy

Physical Sciences

Chemistry, General.
Geology/Earth Science, General
Physical Sciences.
Physics, General.

Precision Production

Machine Shop Technology/Assistant
Welding Technology/Welder
Precision Metal Working, Other

Psychology

Counseling Psychology
Educational Psychology
Psychology, General
School Psychology

Public Administration and Social Service Prof

Community Organization and Advocacy
Public Administration
Social Work

Sciences Technologies/Technicians

Chemical Technology/Technician
Science Technologies/Technicians, Other

Security and Protective Services

Corrections
Criminal Justice/Police Science
Criminal Justice/Safety Studies
Criminalistics and Criminal Science
Fire Protection and Safety Technology/Technician
Forensic Science and Technology
Security and Protective Services, Other

Social Sciences

Economics, General
Geography
International Relations and Affairs
Political Science and Government, General.
Social Sciences, General.
Social Sciences, Other.
Sociology

Visual and Performing Arts

Art/Art Studies, General
Commercial and Advertising Art
Design and Visual Communications, General
Drama and Dramatics/Theatre Arts, General
Drawing
Graphic Design
Interior Design
Music, General
Visual and Performing Arts, General
Visual and Performing Arts, Other