From Higher Education To Work In West Virginia 2007

Summary Results For Work Participation And Wages With Analysis By Residency Status, Degree, Area of Concentration, Gender, And Race

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By

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Executive Summary

Public universities and colleges are a crucial component of the system by which nations, states, and local areas generate human capital. Research in economics has shown that human capital accumulation (frequently measured by educational attainment) generates benefits both for individuals, through higher earnings, and for local economies, through faster average income growth, as well as other socio-economic benefits. Thus, the location decisions of college graduates become a critical concern for state and local policymakers. In particular, it is important to know the extent to which higher education graduates remain in the state to work and the wages they earn.

This report summarizes West Virginia labor market experiences of graduates from West Virginia public institutions of higher education during the last decade. We analyze data which matches graduates with employment and wage data for calendar year 2007 and track trends in work participation and wages since 2003. This report provides summary and detailed information on the work participation and wages of graduates by selected degrees, residency for fee purposes, area of concentration (major), gender, and race.

Highlights of the study include:

Work Participation In 2007

- In 2007, 48.6 percent of graduates from public higher education institutions during the past decade were on the payrolls of establishments located in the state. That translates into 52,186 higher education graduates working in the state, out of the 107,455 graduates during the past decade.
- For recent graduates (2005-2006 academic year), work participation rates are higher, averaging 58.1 percent in 2007. Work participation rates fall to 40.5 percent for graduates during the 1996-1997 period.
- The work participation rate in 2006 was 46.4 percent, excluding federal government employees. Comparable data for 2007 indicates that the work participation rate rose to 47.1 percent (again excluding federal government employees).
- Work participation tends to be higher for in-state graduates than for out-of-state graduates. Indeed, of the graduates working in the state in 2007, 93.9 percent were in-state for fee purposes.
- Graduates with Associate's degrees were most likely to work in the state (66.5 percent), followed by Master's (51.1 percent), First Professional (Physicians, lawyers, at 46.2 percent), Bachelor's (43.4 percent), and Doctoral (24.6 percent).
- Areas of concentration with high work participation rates and large numbers of graduates include interdisciplinary studies (60.7 percent), legal professions (59.2 percent), security and protective services (58.3 percent), health professions (58.3 percent), education (58.0 percent), and engineering technologies (54.6 percent).
- Areas of concentration with low work participation rates and large numbers of graduates include parks and recreation (25.5 percent), visual and performing arts (29.2 percent), engineering (29.7 percent), family and consumer sciences (32.0 percent), physical sciences (33.7 percent), and biological sciences (35.6 percent).
- Work participation rates for women exceeded those for men in 2007. Indeed, 52.7 percent of female graduates during the past decade were working in the state in 2007, compared to 43.1 percent for men.

- West Virginia work participation rates were highest for Caucasian graduates (50.7 percent) in 2007, followed by American Indian (49.4 percent), African American (34.0 percent), Hispanic (25.2 percent), and Asian (12.5 percent).

Wages In 2007

- Public higher education graduates that worked in the state in 2007 earned $2.0 billion in gross wages, not including fringe benefits.
- That translates into an average annualized wage of $39,317 in 2007, after adjusting for part-year work.
- Annualized wages rise with experience. Indeed, graduates during the 2005-2006 academic year earned $28,634, while graduates during the 1996-1997 academic year (those with 10 years of experience) earned $49,786.
- Annualized wages were $36,954 in 2006, excluding federal employees. Comparable data for 2007 indicates that annualized wages were $38,607, again excluding federal employees. That translates into an increase of 4.5 percent in 2007.
- Graduates that were in-state for fee purposes initially earned higher annualized wages than out-of-state graduates. However, by the sixth year after graduation out-of-state graduates earned more.
- Graduates with First Professional degrees earned the highest wages in 2007, at $96,653, followed by Doctoral ($63,502), Master's ($48,703), Bachelor's ($34,539), and Associate's ($32,071).
- Graduates with Associate's and Bachelor's degrees earned similar wages through the first five years after graduation. Thereafter, a Bachelor's degree premium emerges and reaches $6,251 by the tenth year after graduation.
- Areas of concentration with the highest wages (and more than 1,000 graduates during the decade) in 2007 were engineering ($61,409), health professions ($53,867), legal professions ($51,799), engineering technologies ($46,353), and computer and information sciences ($44,267).
- Areas of concentration with the lowest wages (and more than 1,000 graduates during the decade) in 2007 were family and consumer sciences ($22,821), visual and performing arts ($22,982), english ($25,688), history ($25,704), and psychology ($27,507).
- Annualized wages for men averaged $46,146 in 2007, which was well above the $35,083 average annual wage for women. These wage differences arise from a variety of factors, including differences in degrees and majors across men and women, as well as differences in work participation decisions.
- Asian graduates posted the highest annualized wages in 2007, at $48,352, followed by Caucasian ($39,557), American Indian ($35,035), Hispanic ($34,812), and African American ($29,936).

The Data

The data analyzed in this study come from the matching of demographic information on graduates from West Virginia public institutions of higher education with employment records maintained by Workforce West Virginia and the federal government. The bulk of this data is compiled by the West Virginia Higher Education Policy Commission (HEPC). Graduates reflect the highest degree earned during the 1996-1997 to 2005-2006 period. The self-employed, student workers, most church workers, and unpaid family workers are generally not covered by this data.

Employment Data Description

The 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[1]) with employment records maintained by Workforce West Virginia and the federal government. Graduates reflect the highest degree earned at the time of measurement (during the 1996-1997 to 2005-2006 period).

The bulk of 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.

We include civilian federal government employment and wages through the Federal Employment Data Exchange System at the Jacob France Institute at the University of Baltimore. The Jacob France Institute facilitates the matching of graduates with civilian government employment.

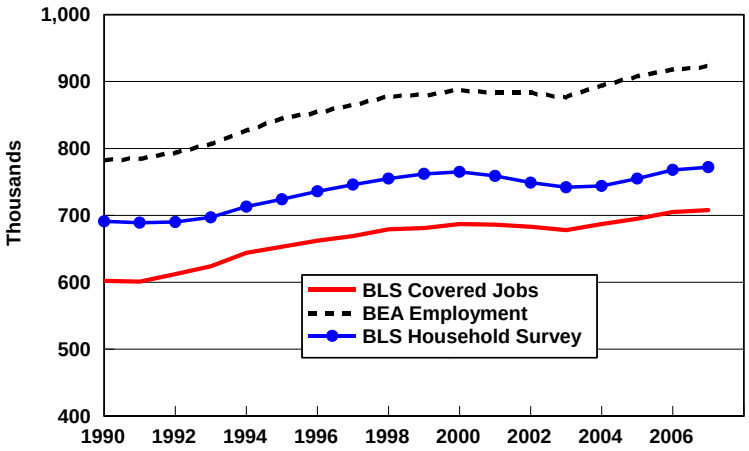
Covered employment counts 708,313 jobs at establishments in West Virginia in 2007.[2] As Figure 1 shows, this measure of employment is lower than two other major measures of employment: employment measured by the U.S. Bureau of Economic Analysis and employment measured by the U.S. Bureau of Labor Statistics 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.

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.

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

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

Figure 1
Three Measures Of West Virginia Employment



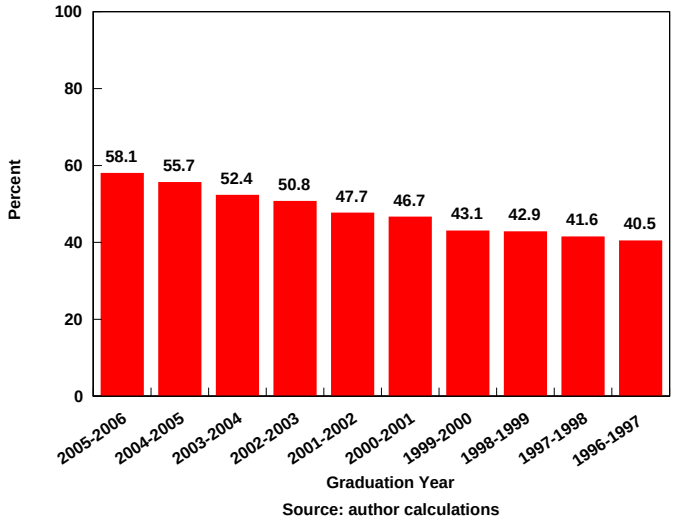
Work Participation And Wages Of Public Higher Education Graduates By Year, Residency, And Summary Degree

Work Participation By Year, Residency, And Summary Degree

In 2007, 48.6 percent of the graduates from West Virginia public higher education institutions during the 1996-1997 to 2005-2006 period earned wages from establishments in the state. Thus, of the 107,455 graduates from West Virginia public higher education institutions during the ten year period, 52,186 of them worked in the state in 2007.

Although West Virginia work participation reaches near 60 percent during the graduates' first year in the job market, it falls substantially as the time from graduation increases. In fact, as Figure 2 shows, while 58.1 percent of the state's most recent graduates were employed in West Virginia for at least one quarter in 2007, work participation of graduates during the 1996-1997 academic year was 17.6 percentage points lower at 40.5 percent.

Figure 2
Percent Of Graduates From W.Va.
Public Higher Education Institutions Working In The
State In 2007



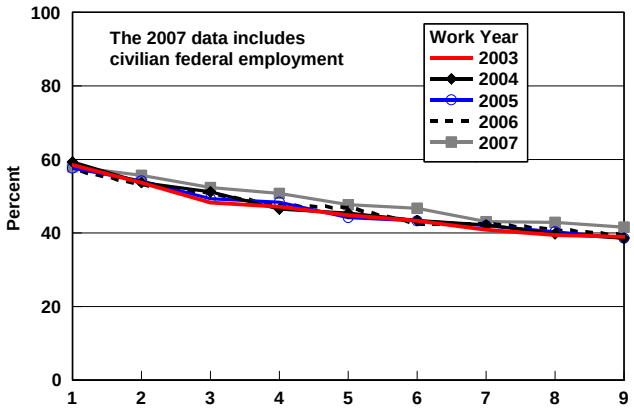
Source: author calculations

However, there are a variety of reasons why graduates may not be counted as working in the state. Some may be continuing their education, some may be working in other states, some may not be working at all (stay-at-home spouses), others may be self-employed (and thus not counted in our data), and a few may be working in an industry not covered by the unemployment compensation system, such as railroad employees.

Nonetheless, the data for 2007 does show that 48.6 percent of the states' public higher education graduates over the last decade worked in West Virginia for some part of a day in at least 20 different weeks of the 2007 calendar year. Using data for the past four calendar years, we observe that work participation trends of West Virginia higher education graduates are very similar to the one described above. As Figure 3 shows, West Virginia work participation of graduates from West Virginia public higher education institutions decreases as the number of years after graduation increases.

Note that the data for 2003-2006 excludes federal government employment, while data for 2007 includes civilian federal workers. Our data show that 1,996 graduates during the past decade worked for federal government employers in 2007. Including federal employees boosts West Virginia work participation rates. Indeed, if we again exclude federal government employment, the 2007 work participation rates are similar to those observed during 2003-2006.

Figure 3
Percent Of Graduates From W.Va.
Public Higher Education Institutions
Working In The State 2003-2007



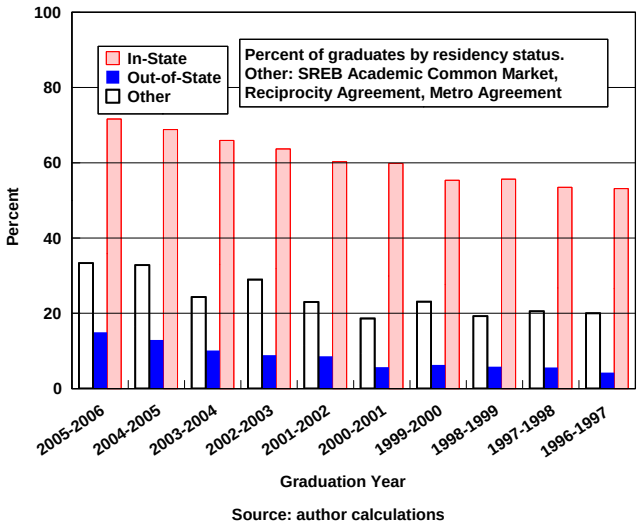
Source: author calculations

Family connections are likely to have an important influence on West Virginia work participation rates. That suggests that in-state graduates may be more likely to remain in the state to work. For this reason, we disaggregate the data by residency for fee purposes.

In 2007, of the 52,186 state higher education graduates working in West Virginia, 49,026 (93.9 percent) were categorized as in-state for fee purposes. On the other hand, only 1,988 (3.8 percent) were recorded as West Virginia graduates from out-of state. Overall, the data show that in-state graduates have stronger preferences to work in the state than those from out-of-state.

Figure 4 compares the work participation trends of in-state and out-of-state graduates in 2007. As the figure shows, work participation trends of both in-state and out-of-state graduates mirrors the overall trend observed above. However, Figure 4 also highlights a significant difference between the two. In 2007, work participation of in-state graduates during the 2005-2006 academic year was 56.7 percentage points higher than their out-of-state counterparts. As time from graduation increases, this difference falls to 48.9 percentage points for graduates during the 1996-1997 academic year. These results suggest that even though work participation of in-state graduates is consistently higher, it falls faster than that of out-of-state graduates as they gain experience.

Figure 4
Percent Of State Public Higher Education Graduates
Working In W.Va. In 2007
By Residency For Fee Purposes



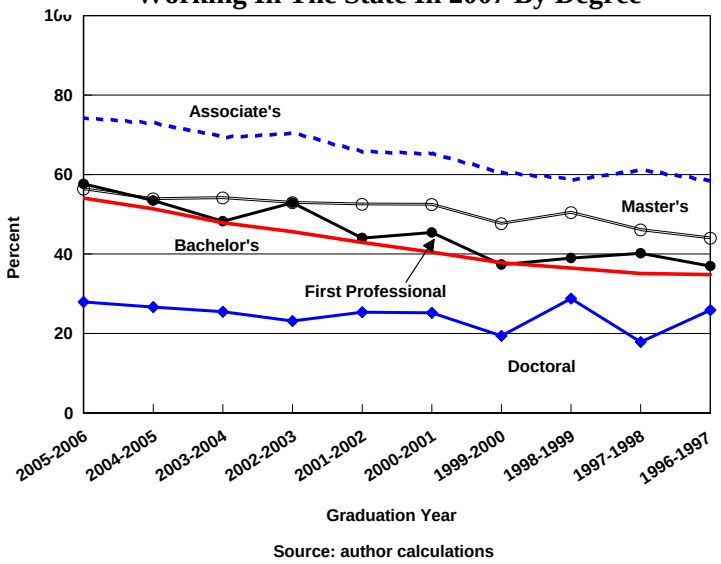
Source: author calculations

The degree a graduate earns also influences West Virginia work participation. The data show that graduates with Associate's degrees had the highest work participation rate in 2007 at 66.5 percent. In contrast, graduates with Doctoral degrees are the least likely to work in West Virginia, with 24.6 percent of the graduates on the payrolls of state establishments and federal agencies operating in the state in 2007. Graduates with Master's, First Professional, and Bachelor's degrees recorded work participation rates between 43.4 and 51.1 percent during the same year, with Bachelor's being the second lowest and Master's graduates the second highest.

Overall, this ranking tends to persist after breaking down the data by graduation year. As Figure 5 shows, graduates with Associate's degrees post the highest work participation rates. Similarly, graduates with Doctoral degrees remain at the bottom, while Master's, First Professionals, and Bachelor's stay in between for all graduation years. As the figure also shows, we observe the usual decline in state work participation as the time from graduation increases. Work participation of graduates with Associate's degrees falls from 74.1 percent for graduates during 2005-2006 to 58.3 percent for graduates during the 1996-1997 academic year. This represents a 15.8 percentage-point difference between recent graduates and those with Associate's degrees obtained a decade before.

However, this difference is larger for graduates with Bachelor's degrees. In 2007, Bachelor's degree graduates during the 1996-1997 academic year experienced a work participation rate 19.3 percentage points lower than those that graduated during the 2005-2006 academic year with the same degree. While First Professionals experience a similar work participation decline as graduates with Bachelor's degrees (20.7 percentage points), the effect of time after graduation on work participation rates is less severe for graduates with Master's (12.4 percentage points) and Doctoral (2.1 percentage points) degrees.

Figure 5
Shares Of State Public Higher Education Graduates Working In The State In 2007 By Degree



Source: author calculations

Wages By Year, Residency, And Summary Degree

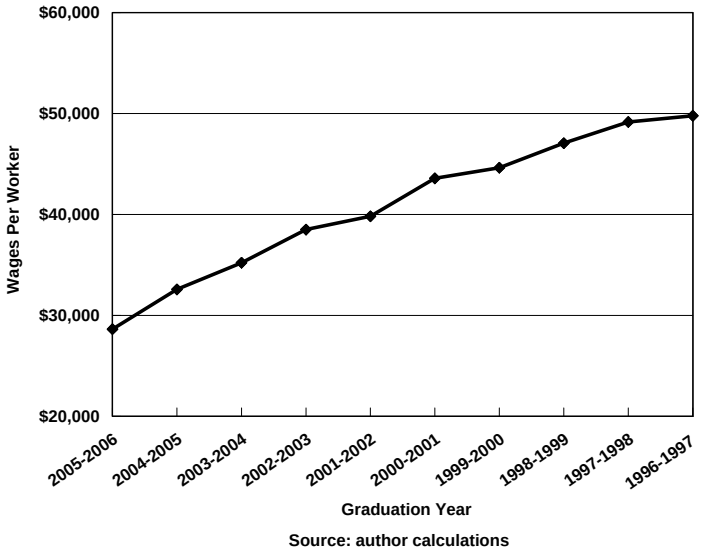
After adjusting for part-year work, wages of state graduates during the past decade averaged $39,317 per graduate in 2007. [3] Compared to wages averaged across all workers, state graduates' wages were $5,317 higher than the West Virginia average wages per worker, but $5,141 lower the nation's average wage per worker.[4] In other words, on average, annualized wages of West Virginia state graduates in 2007 were between the state and national average, though slightly closer to the nation's average.

As Figure 6 shows, average annualized wages increase as the workers' graduation date becomes more distant. In 2007, those who graduated from state public higher education institutions during the 1996-1997 academic year averaged annualized wages equal to $49,786, which is $9,964 higher than the average annualized wages of graduates during the 2001-2002 academic year, and $21,153 higher than the wages of the most recent graduates.

[3] The adjustment is to divide a worker's total wages for the year by the number of quarters worked. The resulting quarterly wage is then 'annualized' by multiplying by four. Thus, a worker with total wages of $33,000 for the year, with three quarters worked, will have an average annualized wage of $44,000 (=($33,000/3)*4).

[4] According to estimates from Workforce WV and the Bureau of Labor Statistics, average wages per worker in 2007 were $34,000 in West Virginia and $44,458 for the United States.

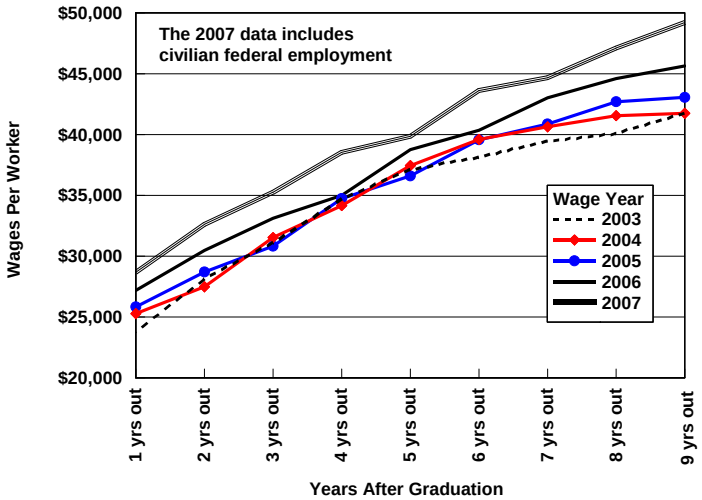
Figure 6
Quarterly Annualized Wages Of Graduates From W.Va. Public Higher Education Institutions In 2007



Source: author calculations

As Figure 7 illustrates, annualized wages of West Virginia graduates show similar trends over the past 5 years. While it is clear that wages increase steadily with experience, the figure also shows that average wages tend to rise every year. The upward shift of average wages can be partly explained by inflation, but also partly reflects productivity gains.

Figure 7
Annualized Wages Of Graduates From W.Va. Public Higher Education Institutions

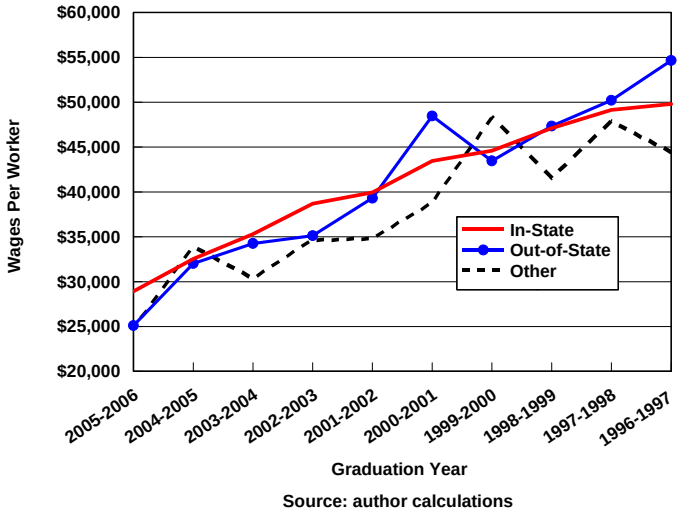


Source: author calculations

In addition, note that the data for 2007 show an unusually large increase over previous years. In part, this reflects the inclusion of civilian federal government workers, who tend to have higher-than-average wages. Indeed, the inclusion of the federal government workers boosts the average for all graduates from $38,607 to $39,317.

Like work participation, average annualized wages vary by residency status. As Figure 8 shows, on average, in-state graduates earned higher annualized wages during the first five years after graduation. However, as work experience increases wages for out-of-state graduates start rising and even exceeding the wages of in-state graduates. Indeed, in 2007, out-of-state graduates during the 2001-2002 to 2005-2006 academic years earned average annualized wages of $31,741, $2,702 lower than resident graduates during the same period. In contrast, annualized wages of out-of-state graduates during the 1996-1997 to 2000-2001 period averaged $48,366 in 2007, while those of in-state graduates during the same period averaged $46,686.

Figure 8
Annualized Wages Of Graduates From W.Va. Public Higher Education Institutions In 2007 By Residency

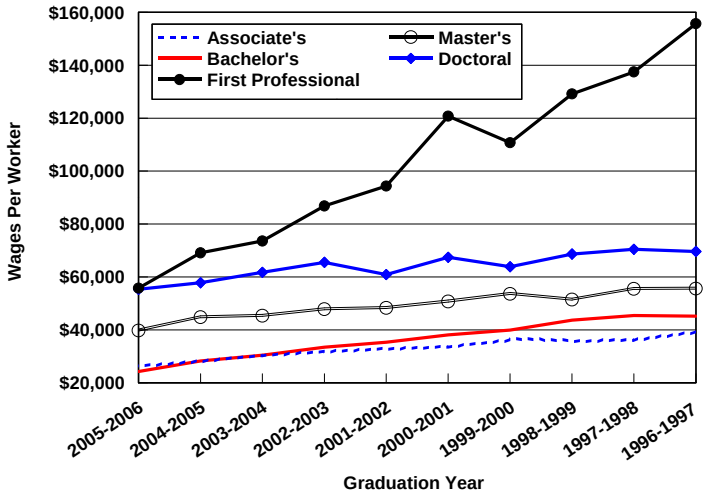


Source: author calculations

Similarly, annualized wages vary significantly among degrees. Indeed, First Professionals that graduated during the past decade from public colleges and universities in West Virginia and received wages in the state in 2007 averaged annualized wages equal to $96,653. On the other hand, annualized wages of graduates with Associate's degrees from a state higher education institution during the same years averaged $32,071 in 2007. Annualized wages of graduates with Bachelor's, Master's, and Doctoral degrees range in between with $34,539, $48,703, and $63,502 respectively.

As Figure 9 illustrates, experience brings different results to different degree holders. While workers with Associate's, Master's, or Doctoral degrees do not observe huge wage increases due to experience, First Professional degree earners increase their annual incomes very rapidly. In 2007, annualized wages of the most recent state graduates with Associate's degrees were $12,653 less than those of graduates during the 1996-1997 academic year with the same degree. Also, the difference in annualized wages between graduates from 1996-1997 and 2005-2006 academic years was $14,315 for earners with doctoral degrees, $15,839 for those with Master's degrees, and $20,939 for graduates with Bachelor's degrees. First Professionals, however, observe a wage differential of $99,982 between recent and most distant graduates for which data are available.

Figure 9
Annualized Wages Of W.Va. Public Higher Education Graduates By Degree In 2007



Source: author calculations

Figure 9 also highlights some of the wage differences given by experience between specific types of degrees. In West Virginia, Doctoral and First Professional graduates earn approximately the same average annualized wages during the first year of employment. However, as First Professionals degrees start accumulating years of experience, they also start earning much higher annualized wages than Doctoral degree earners. This pattern is similar for graduates with Associate's and Bachelor's degrees, with the exception that in this case the graduates with Bachelor's degrees start up with lower wages during the first year, but end up earning more after 4 or 5 years.

Work Participation And Wages Of West Virginia Graduates By Area Of Concentration

Work participation rates and annualized wages of graduates from West Virginia public colleges and universities vary by area of study. According to the data, we find that some areas of concentration appear to be more appealing to a large number of West Virginia students. Using the Classification of Instructional Programs (CIP) system provided by the U.S. Department of Education, which summarizes degree and area of concentration data at the eight-digit level, we find that almost half (46.9 percent) of the graduates during the last decade obtained degrees in Education; Business, Management, and Marketing; or Health Related fields.

The Classification of Instructional Programs codes are decomposed as follows: the first two digits from the left indicate the degree level. The following two digits represent the area of concentration (i.e. social science), and the last four digits record the individual major of study. For instance, CIP 24450601 indicates a Bachelor's degree (CIP 24) in Social Sciences (CIP 45), general economics (CIP 0601). As Table 1 shows, the data provided by the HEPC for 2007 contains information on 34 different areas of concentration.

Table 1
Graduates By Area Of Concentration From West Virginia Public Higher Education Institutions During 1996-1997 To 2005-2006

Area of Concentration	Total Number of Graduates From 1996-1997 to 2005-2006	Degree			
		Number of Graduates with Associate's	Number of Graduates with Bachelor's	Number of Graduates with Master's	Number of Graduates with Doctoral
Agriculture, Agriculture Operations	1,053	55	748	220	30
Architecture and Related Services	255	n/a	255	n/a	n/a
Biological and Biomedical Sciences	2,890	n/a	2,302	381	207
Business, Management, Marketing, and Related	17,863	3,264	11,710	2,662	49
Communication, Journalism, and Related Programs	4,354	89	3,220	1,045	n/a
Communications Technologies	320	160	160	n/a	n/a
Computer and Information Sciences	1,675	388	867	394	18
Education	16,965	103	8,066	8,209	448
Engineering	4,774	28	3,084	1,447	215
Engineering Technologies/Technicians	2,709	1,227	1,049	421	n/a
English Language and Literature/Letters	1,540	n/a	1,169	344	27
Family and Consumer Sciences/Human Sciences	1,450	152	1,192	106	n/a
Foreign Languages, Literatures, and Linguistics	637	64	245	316	n/a
Health Professions and Related Clinical Sciences	15,624	5,590	4,410	2,456	44
History	1,180	n/a	1,011	125	44
Legal Professions and Studies	1,625	342	n/a	19	n/a
Liberal Arts and Sci., Gen. Std., and Humanities	9,657	2,292	7,287	60	n/a
Library Science	n/d	n/a	n/a	n/d	n/a
Mathematics and Statistics	534	n/a	304	202	28
Mechanic and Repair Technologies/Technicians	195	186	n/a	n/a	n/a
Multi/Interdisciplinary Studies	1,575	731	708	134	n/a
Natural Resources and Conservation	1,081	142	686	191	62
Parks, Recreation, Leisure and Fitness Studies	1,666	n/a	1,501	165	n/a
Personal and Culinary Services	171	163	n/a	n/a	n/a
Philosophy and Religious Studies	67	n/a	67	n/a	n/a
Physical Sciences	1,230	n/d	909	222	96
Precision Production	199	169	n/a	n/a	n/a
Psychology	3,577	n/a	2,822	474	182
Public Administration and Social Service Prof	2,431	185	1,017	1,221	n/a
Science Technologies/Technicians	356	208	n/a	n/a	n/a
Security and Protective Services	3,401	877	2,276	226	n/a
Social Sciences	4,017	n/a	3,604	377	36
Transportation and Materials Moving	n/d	n/d	n/a	n/a	n/a
Visual and Performing Arts	2,376	87	1,882	366	41
Total	**107,455**	**16,511**	**62,551**	**21,784**	**1,527**

n/a: no data available for this area of concentration
n/d: data not disclosed

Table 1 shows the total number of graduates from West Virginia public higher institutions during the last ten years by area of concentration. As the table shows, of the 107,455 graduates, 58.2 percent have Bachelor's degrees as their highest degree earned. Again, large parts of the total graduates with Bachelor's degrees are concentrated in areas such as business related majors (11,710 graduates), education (8,066 graduates), liberal arts (7,287 graduates), and health related fields (4,410 graduates).

Additionally, during the 1996-1997 to 2005-2006 academic years there were 3,946 First Professionals (lawyers, physicians, dentists, and pharmacists), 900 graduates with Undergraduate Certificates, and 236 graduates with Master's Certificates.

Table 2 displays the areas of concentration with the highest and lowest work participation rates in West Virginia in 2007. Having graduates at the Master's level only, library science graduates show the highest participation rates in 2007 (these data are not disclosed due to the small number of graduates). Precision production (80.4 percent), science technologies (80.3 percent), and

mechanic technologies (65.6 percent) are among the five highest work participation rates. Table 2 also shows that education and health professions are not only among the most preferred areas for West Virginia students, but they are also among the top ten areas in which a high percentage of graduates stay in the state to work.

Table 2
Graduates From W.Va. Public Higher Education Institutions
By Degree And Area Of Concentration In 2007
Ranked By Work Participation In 2007

	All Degrees		Degree			
Area Of Concentration	Work Participation	Annualized Wages Per Worker	Associate's	Bachelor's	Master's	Doctoral
Top Ten						
Library Science	n/d	n/d	n/a	n/a	n/d	n/a
Precision Production	80.4%	$43,760	81.7%	n/a	n/a	n/a
Science Technologies/Technicians	80.3%	$30,779	78.4%	n/a	n/a	n/a
Mechanic and Repair Technologies/Technicians	65.6%	$44,677	66.7%	n/a	n/a	n/a
Multi/Interdisciplinary Studies	60.7%	$32,832	71.0%	49.6%	62.7%	n/a
Legal Professions and Studies	59.2%	$51,799	64.6%	n/a	63.2%	n/a
Security and Protective Services	58.3%	$31,283	71.4%	55.8%	31.9%	n/a
Health Professions and Related Clinical Sciences	58.3%	$53,867	68.7%	57.2%	55.5%	n/d
Education	58.0%	$36,573	58.3%	52.6%	63.8%	45.3%
Engineering Technologies/Technicians	54.6%	$46,353	67.7%	47.5%	34.0%	n/a
Bottom Ten						
Architecture and Related Services	9.8%	$37,294	n/a	9.8%	n/a	n/a
Transportation and Materials Moving	n/d	n/d	n/d	n/a	n/a	n/a
Parks, Recreation, Leisure and Fitness Studies	25.5%	$31,874	n/a	24.5%	34.5%	n/a
Foreign Languages, Literatures, and Linguistics	25.9%	$20,646	71.9%	26.5%	14.6%	n/a
Mathematics and Statistics	26.8%	$38,070	n/a	32.6%	19.8%	n/d
Visual and Performing Arts	29.2%	$22,982	41.4%	28.7%	30.6%	n/d
Engineering	29.7%	$61,409	57.1%	33.0%	24.0%	17.2%
Family and Consumer Sciences/Human Sciences	32.0%	$22,821	67.1%	26.4%	44.3%	n/a
Physical Sciences	33.7%	$42,498	n/d	37.1%	28.4%	14.6%
Biological and Biomedical Sciences	35.6%	$36,966	n/a	37.6%	33.6%	17.4%

n/a: no data available for this area of concentration.
n/d: data not disclosed.

As Table 2 shows, most of the architects coming out of state colleges and universities tend to find employment outside the state, become self-employed, or simply decide not to work for private or federal employers in West Virginia. Similarly, the areas of concentration with the lowest in-state work participation include mathematics and statistics (26.8 percent), foreign languages (25.9 percent), and engineering (29.7 percent).

Table 3 summarizes the top and bottom ten areas of concentration based on average annualized wages in 2007. The area of concentration with the highest average annualized wages was engineering with $61,409. As the table shows, health and legal professionals are amongst the best remunerated areas of concentration in West Virginia. As noted, health professionals rank second with annualized wages of $53,867, and legal professionals third with $51,799. The table also shows how Precision Production graduates, an area of concentration at the Associate's degree level only, not only ranks at the top of the work participation rates, but it is also one with high returns at $43,760 per graduate per year.

Table 3
Graduates From W.Va. Public Higher Education Institutions
By Degree And Area Of Concentration In 2007
Ranked By Annualized Wages In 2007

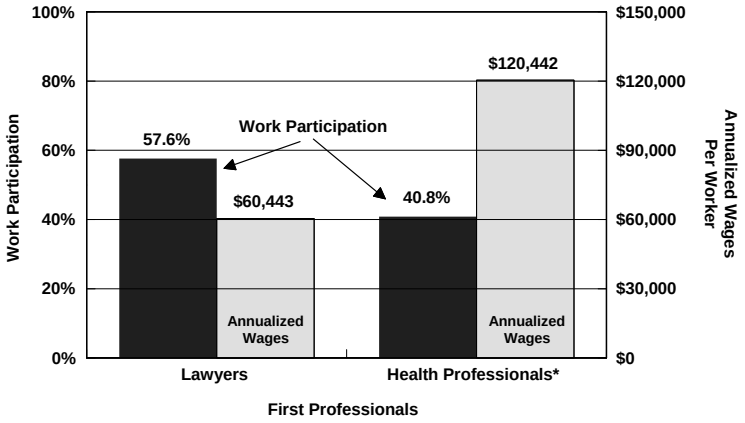
	All Degrees		Degree			
Area Of Concentration	Work Participation	Annualized Wages Per Worker	Associate's	Bachelor's	Master's	Doctoral
Top Ten						
Engineering	29.7%	$61,409	$22,923	$58,197	$70,817	$78,126
Health Professions and Related Clinical Sciences	58.3%	$53,867	$39,122	$47,139	$60,649	n/d
Legal Professions and Studies	59.2%	$51,799	$25,254	n/a	$42,898	n/a
Engineering Technologies/Technicians	54.6%	$46,353	$40,086	$51,836	$63,628	n/a
Mechanic and Repair Technologies/Technicians	65.6%	$44,677	$45,566	n/a	n/a	n/a
Computer and Information Sciences	45.2%	$44,267	$28,141	$47,533	$64,910	n/d
Precision Production	80.4%	$43,760	$45,381	n/a	n/a	n/a
Physical Sciences	33.7%	$42,498	n/d	$39,724	$54,983	$55,363
Business, Management, Marketing, and Related	48.8%	$39,099	$25,531	$37,924	$69,852	n/d
Mathematics and Statistics	26.8%	$38,070	n/a	$34,924	$43,341	n/d
Bottom Ten						
Transportation and Materials Moving	n/d	n/d	n/d	n/a	n/a	n/a
Philosophy and Religious Studies	35.8%	$20,373	n/a	$20,373	n/a	n/a
Foreign Languages, Literatures, and Linguistics	25.9%	$20,646	$19,275	$20,952	$23,623	n/a
Personal and Culinary Services	53.8%	$22,546	$22,219	n/a	n/a	n/a
Family and Consumer Sciences/Human Sciences	32.0%	$22,821	$16,262	$22,987	$35,943	n/a
Visual and Performing Arts	29.2%	$22,982	$18,328	$21,483	$30,728	n/d
English Language and Literature/Letters	36.0%	$25,688	n/a	$22,833	$34,698	n/d
History	36.3%	$25,704	n/a	$24,935	$28,839	$34,647
Communications Technologies	52.2%	$26,155	$22,674	$31,351	n/a	n/a
Psychology	43.6%	$27,507	n/a	$24,704	$35,452	$64,607

n/a: no data available for this area of concentration.
n/d: data not disclosed.

Table 3 also shows the bottom ten areas of concentration sorted by annualized wages in 2007. Transportation and materials moving had the lowest returns with annualized wages below $20,373 per graduate. Foreign languages, culinary services, and visual arts were also at the bottom with average annualized wages of $20,646, $22,546, and $22,982 respectively.

Figure 10 shows work participation and annualized wages of First Professionals. Following up on the results displayed in Table 3, we note much higher returns to education in the health sector than in the legal professions. On average lawyers earn $17,545 more than the graduates with Master's degrees in legal professions. On the other hand, the wage difference between health professionals and health practitioners with Master's degrees averages as much as $59,793. Figure 10 also shows work participation of lawyers versus that of health professionals. As the figure shows, work participation of graduates with law degrees is 16.8 percentage points higher than health professionals.

Figure 10
Work Participation and Average Annualized Wages Of First Professionals From W.Va. Public Higher Education Institutions Working In The State In 2007



*Health Professionals Include: Physicians, Osteopathic Physicians, Dentists, and Pharmacists

Source: Author Calculations

Finally, Table 4 shows in-state work participation rates and annualized wages of graduates from West Virginia public colleges and universities during the past decade, organized by area of concentration and degree. As expected, among the four summary degrees listed, graduates with Doctoral degrees generally average higher annualized wages. While annualized wages of Doctoral graduates working in the state ranged from $34,647 for historians and $78,126 for engineers in 2007, those of graduates with Associate's degrees varied between $15,354 (education) and $45,566 (mechanics and repairs). As it has been noted before, the table confirms that in most of the areas of concentration described by the data there exist significant returns to higher levels education.

On the other hand, note that most of the results on Table 4 suggest that increases in the levels of education of West Virginia graduates result in decreases of in-state work participation rates. However, note that this is not necessarily true for all areas of concentration. For instance, Table 4 shows that 63.8 percent of the graduates with Master's degrees in education from West Virginia public institutions earned wages in the state in 2007. This is 5.5 percentage points higher than graduates with Associate's degree in education, and 11.2 percentage points higher than those with Bachelor's. Similarly, work participation rates for communications and liberal arts are higher for graduates with Master's degrees than those with either Associate's or Bachelor's degrees.

Table 4
Work Participation And Wages Of Graduates From West Virginia Public Higher Education Institutions By Degree And Area Of Concentration*

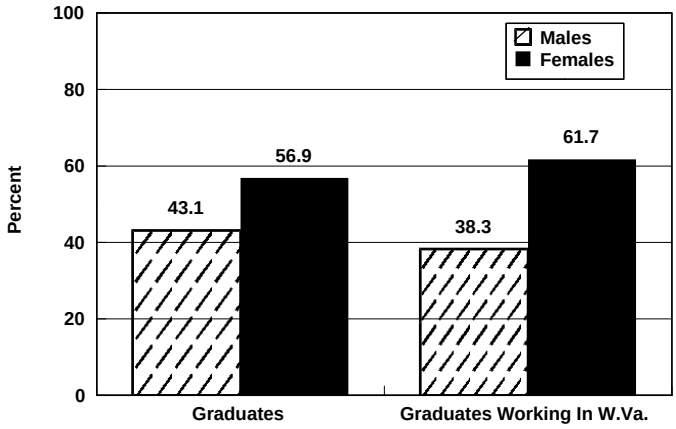
	Degree							
	Associate's		Bachelor's		Master's		Doctoral	
Area of Concentration	Work Participation	Annualized Wages Per Worker	Work Participation	Annualized Wages Per Worker	Work Participation	Annualized Wages Per Worker	Work Participation	Annualized Wages Per Worker
Academic And Occupationally-Specific Programs								
Agriculture, Agriculture Operations	61.8%	$21,318	35.2%	$35,415	35.9%	$40,483	n/d	n/d
Architecture and Related Services	n/a	n/a	9.8%	$37,294	n/a	n/a	n/a	n/a
Biological and Biomedical Sciences	n/a	n/a	37.6%	$33,152	33.6%	$54,945	17.4%	$64,791
Business, Management, Marketing, and Related	66.3%	$25,531	44.5%	$37,924	46.1%	$69,852	n/d	n/d
Communication, Journalism, and Related Programs	57.3%	$19,383	30.3%	$27,002	61.6%	$46,685	n/a	n/a
Communications Technologies	62.5%	$22,674	41.9%	$31,351	n/a	n/a	n/a	n/a
Computer and Information Sciences	61.1%	$28,141	43.4%	$47,533	33.8%	$64,910	n/d	n/d
Education	58.3%	$15,354	52.6%	$28,707	63.8%	$41,737	45.3%	$64,115
Engineering	57.1%	$22,923	33.0%	$58,197	24.0%	$70,817	17.2%	$78,126
Engineering Technologies/Technicians	67.7%	$40,086	47.5%	$51,836	34.0%	$63,628	n/a	n/a
English Language and Literature/Letters	n/a	n/a	36.4%	$22,833	35.8%	$34,698	n/d	n/d
Family and Consumer Sciences/Human Sciences	67.1%	$16,262	26.4%	$22,987	44.3%	$35,943	n/a	n/a
Foreign Languages, Literatures, and Linguistics	71.9%	$19,275	26.5%	$20,952	14.6%	$23,623	n/a	n/a
Health Professions and Related Clinical Sciences	68.7%	$39,122	57.2%	$47,139	55.5%	$60,649	n/d	n/d
History	n/a	n/a	35.9%	$24,935	41.6%	$28,839	29.5%	$34,647
Legal Professions and Studies	64.6%	$25,254	n/a	n/a	63.2%	$42,898	n/a	n/a
Liberal Arts and Sci., Gen. Std., and Humanities	59.3%	$24,011	48.0%	$34,201	66.7%	$40,709	n/a	n/a
Library Science	n/a	n/a	n/a	n/a	n/d	n/d	n/a	n/a
Mathematics and Statistics	n/a	n/a	32.6%	$34,924	19.8%	$43,341	n/d	n/d
Mechanic and Repair Technologies/Technicians	66.7%	$45,566	n/a	n/a	n/a	n/a	n/a	n/a
Multi/Interdisciplinary Studies	71.0%	$31,178	49.6%	$30,176	62.7%	$54,235	n/a	n/a
Natural Resources and Conservation	81.7%	$33,803	40.2%	$33,887	37.7%	$53,756	21.0%	$72,648
Parks, Recreation, Leisure and Fitness Studies	n/a	n/a	24.5%	$29,583	34.5%	$46,627	n/a	n/a
Personal and Culinary Services	53.4%	$22,219	n/a	n/a	n/a	n/a	n/a	n/a
Philosophy and Religious Studies	n/a	n/a	35.8%	$20,373	n/a	n/a	n/a	n/a
Physical Sciences	n/d	n/d	37.1%	$39,724	28.4%	$54,983	14.6%	$55,363
Precision Production	81.7%	$45,381	n/a	n/a	n/a	n/a	n/a	n/a
Psychology	n/a	n/a	43.4%	$24,704	58.9%	$35,452	8.8%	$64,607
Public Administration and Social Service Prof	53.5%	$16,534	51.9%	$27,096	49.5%	$40,231	n/a	n/a
Science Technologies/Technicians	78.4%	$38,154	n/a	n/a	n/a	n/a	n/a	n/a
Security and Protective Services	71.4%	$28,551	55.8%	$32,021	31.9%	$42,013	n/a	n/a
Social Sciences	n/a	n/a	38.1%	$26,329	36.6%	$39,822	30.6%	$56,595
Transportation and Materials Moving	n/d	n/d	n/a	n/a	n/a	n/a	n/a	n/a
Visual and Performing Arts	41.4%	$18,328	28.7%	$21,483	30.6%	$30,728	n/d	n/d
Total	**66.5%**	**$32,071**	**43.4%**	**$34,539**	**51.1%**	**$48,703**	**24.6%**	**$63,502**

*Including only the areas of concentration for which there is data available.
n/a: no data available for this area of concentration
n/d: data not disclosed

Work Participation And Wages By Gender

According to the data provided by the HEPC, during the last ten years West Virginia public higher education institutions graduated approximately 1.3 times as many women as men. Figure 11 shows that not only more women graduated from state colleges and universities during the 1996-2006 period, but also a higher share of them were in the West Virginia payrolls in 2007. Of the 52,186 graduates from state institutions during the last decade receiving wages in the state in 2007, 32,215 were women and 19,971 were men. As the figure shows, that translates into 61.7 percent females and 38.3 percent males.

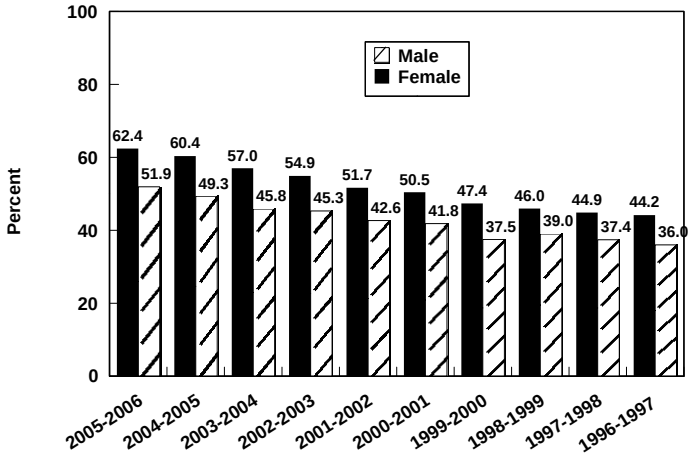
Figure 11
Shares Of Graduates During The Past Decade And Shares Of Graduates Working In West Virginia In 2007 By Gender



Source: Author Calculations

Figures 12 and 13 show the changes in work participation rates and annualized wages of males and females as the time from graduation increases. As Figure 12 shows, we find that work participation rates of both males and females follow the same falling trend observed for the general case. Additionally, the figure shows that work participation rates for women are consistently higher that men's. For instance, in 2007, work participation of the most recent female graduates was 10.5 percentage points higher than the work participation of recent male graduates. Work participation of graduates from the 1996-1997 academic year is higher for females (44.2 percent) than males (36.0 percent).

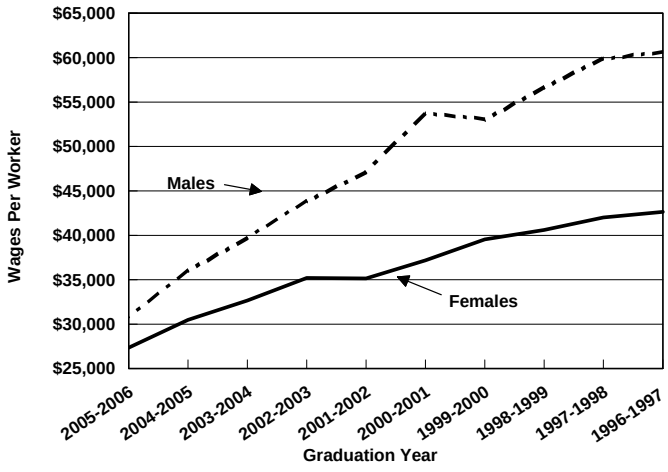
Figure 12
Work Participation Of Graduates From W.Va. Public Higher Education Institutions In 2007 By Gender



Source: Author Calculations

As Figure 13 shows, annualized wages of female graduates rise at a lower rate than the annualized wages of male graduates. Additionally, the figure shows that annualized wages of male graduates were consistently higher for all graduation years. In 2007, male graduates from the 2005-2006 academic year earned average annualized wages of $30,818, $3,478 more than their female counterparts. Yet, this wage gap widens as the time from graduation increases. For example, the average annualized wages of male graduates was $11,960 higher than annual wages of female graduates during the 2000-2001 academic year, and $17,981 for the 1996-1997 year graduates.

Figure 13
Annualized Wages Of Graduates From W.Va. Public Higher Education Institutions In 2007 By Gender



Source: Author Calculations

Work Participation And Wages By Gender, Degree, And Area of Concentration

The level of education and the area of study are major determinants of work participation and wages of male and female graduates.

As Table 5 shows, higher levels of education have a higher negative impact on work participation rates of male graduates. Work participation rates of graduates with Associate's degrees are almost identical for men and women, at 66.4 percent and 66.5 percent respectively. As both groups increase their levels of education, from Associate's to Bachelor's, Bachelor's to Master's, and Master's to Doctoral, male graduates experience greater declines in work participation. Overall, we find that the work participation of male graduates falls from 66.4 percent at the Associate's level, to 20.9 percent at the Ph.D. level. Instead, work participation of female graduates goes from 66.5 percent to 29.6 percent.

Table 5
Work Participation And Average Annualized Wages Of Graduates From W.Va. Public Higher Education Institutions In 2007 By Degree And Gender

	Males		Females		Total	
Degree	Work Participation	Average Annualized Wages	Work Participation	Average Annualized Wages	Work Participation	Average Annualized Wages
Associate's	66.4%	$38,195	66.5%	$29,134	66.5%	$32,071
Bachelor's	39.5%	$39,504	46.9%	$30,803	43.4%	$34,539
Master's	42.1%	$58,351	56.6%	$44,374	51.1%	$48,703
First Professional	45.7%	$108,639	46.7%	$82,500	46.1%	$96,653
Doctoral	20.9%	$64,339	29.6%	$62,709	24.6%	$63,502

Similarly, the wage gap between male and female graduates varies by degree. For the whole sample, male graduates earn higher annualized wages. As Table 5 shows, the smallest wage difference is observed at the Doctoral level, where women earn $1,630 less than men. This was not the case for First Professionals where men earned annualized wages as much as $26,139 higher than women. The second largest wage gap between male and female graduates is in Master's degrees ($13,977), followed by Associate's ($9,061), and Bachelor's ($8,701).

We now focus on the results for work participation and wages of male and female graduates by area of concentration. As mentioned before, areas of concentration are aggregations of specific majors. We use the 8-digit CIP codes (described above) and we calculate the work participation rates and the average annualized wages of West Virginia male and female graduates during the past ten years, according to their area of study.

Table 6 summarizes the work participation, annual wages, and number of total male and female graduates by area of concentration. While the area of concentration with the largest number of male graduates during the last decade was business, marketing, and management, health related fields represented the top area (in terms of number of graduates) for women. Yet, in terms of work participation, the areas with the largest percentage of people working in West Virginia in 2007 were precision production for men (81.0 percent) and science technologies for women (82.0 percent).

As Table 6 also shows, in 2007, health professions provided the highest returns for male graduates working in West Virginia ($84,989), followed by engineering ($62,182), and legal

professions ($60,578). The lowest returns for men were in the philosophy and religious studies with average annual wages per graduate $20,671.

Table 6
Work Participation And Annualized Wages By Gender For Graduates From W.Va. Public Higher Education Institutions Working In The State In 2007

	Males			Females		
Area of Concentration	Total Graduates From 1996-1997 To 2005-2006	Work Participation	Annualized Wages Per Worker	Total Graduates From 1996-1997 To 2005-2006	Work Participation	Annualized Wages Per Worker
Academic And Occupationally-Specific Programs						
Agriculture, Agriculture Operations	562	40.2%	$40,527	491	31.8%	$27,933
Architecture and Related Services	202	7.9%	$42,616	53	n/d	n/d
Biological and Biomedical Sciences	1,335	35.1%	$43,141	1,555	36.1%	$31,804
Business, Management, Marketing, and Related	8,734	43.3%	$46,664	9,129	54.1%	$33,315
Communication, Journalism, and Related Programs	1,728	33.7%	$34,193	2,626	41.5%	$34,435
Communications Technologies	182	52.7%	$30,916	138	51.4%	$19,717
Computer and Information Sciences	1,275	46.0%	$45,842	400	42.5%	$38,832
Education	4,906	49.4%	$40,018	12,059	61.6%	$35,449
Engineering	4,001	30.5%	$62,182	773	25.4%	$56,593
Engineering Technologies/Technicians	2,348	55.5%	$47,997	361	48.8%	$34,180
English Language and Literature/Letters	530	35.3%	$27,052	1,010	36.3%	$24,993
Family and Consumer Sciences/Human Sciences	77	31.2%	$37,225	1,373	32.0%	$22,036
Foreign Languages, Literatures, and Linguistics	175	21.1%	$27,499	462	27.7%	$18,665
Health Professions and Related Clinical Sciences	3,480	51.2%	$84,989	12,144	60.3%	$46,286
History	789	34.6%	$27,779	391	39.6%	$22,050
Legal Professions and Studies	715	57.3%	$60,578	910	60.7%	$45,278
Liberal Arts and Sci., Gen. Std., and Humanities	4,406	45.9%	$36,852	5,251	55.1%	$27,589
Library Science	n/a	n/a	n/a	n/d	n/d	n/d
Mathematics and Statistics	292	26.7%	$42,878	242	26.9%	$32,299
Mechanic and Repair Technologies/Technicians	187	64.7%	$44,153	n/d	n/d	n/d
Multi/Interdisciplinary Studies	698	55.2%	$44,346	877	65.1%	$25,069
Natural Resources and Conservation	868	46.7%	$38,774	213	33.8%	$33,130
Parks, Recreation, Leisure and Fitness Studies	1,050	23.4%	$34,355	616	28.9%	$28,445
Personal and Culinary Services	79	51.9%	$23,854	92	55.4%	$21,495
Philosophy and Religious Studies	49	34.7%	$20,671	18	n/d	n/d
Physical Sciences	793	31.0%	$43,212	437	38.7%	$41,459
Precision Production	195	81.0%	$44,118	n/d	n/d	n/d
Psychology	953	41.3%	$29,429	2,624	44.4%	$26,857
Public Administration and Social Service Prof	446	47.3%	$39,474	1,985	51.7%	$31,205
Science Technologies/Technicians	139	77.7%	$45,827	217	82.0%	$21,649
Security and Protective Services	1,927	58.6%	$36,204	1,474	57.8%	$24,757
Social Sciences	2,158	32.6%	$31,733	1,859	44.0%	$24,362
Transportation and Materials Moving	n/d	n/d	n/d	n/a	n/a	n/a
Visual and Performing Arts	1,051	27.5%	$26,278	1,325	30.6%	$20,630
Total	**46,336**	**43.1%**	**$46,146**	**61,119**	**52.7%**	**$35,083**

n/d: data not disclosed
n/a: no data available for this area of concentration

For females, the highest annualized wages in 2007 were in engineering ($56,593), followed by health related degrees ($46,286), legal professions ($45,278), and physical sciences ($41,459). Female graduates with degrees in foreign languages and literature had the lowest annual returns with average annualized wages equal to $18,665.

Work Participation and Wages By Race

Overall, we find that the work participation rates of West Virginia graduates are primarily driven by the results for white graduates. Indeed, the vast majority of the student population in West Virginia is of Caucasian origin. As Table 7 shows, 98,471 (91.6 percent) of the total number of graduates from public colleges and universities during the last ten years were identified as Caucasian. The other 8.4 percent is composed of African-Americans (3.7 percent), Hispanics (0.9 percent), Asian-Pacific or Islander (3.2 percent), American-Indians (0.3 percent), and other graduates (0.3 percent).

Table 7
Work Participation And Average Annualized Wages Of Graduates From West Virginia Public Higher Education Institutions In 2007 By Race

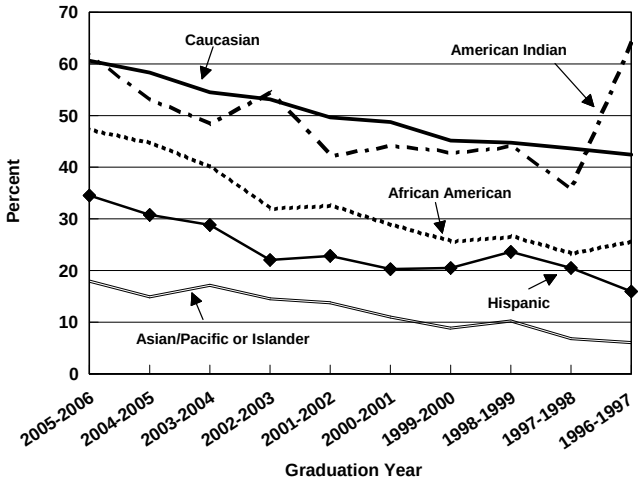
Race	Graduates from 1996-1997 to 2005-2006	Work Participation	Average Annualized Wages
Caucasian	98,471	50.7%	$39,557
African-American	3,956	34.0%	$29,936
Hispanic	981	25.2%	$34,812
Asian-Pacific or Islander	3,445	12.5%	$48,352
American-Indian or Alaskan Native	314	49.4%	$35,035
Other	288	32.6%	$23,455
Total	**107,455**	**48.6%**	**$39,317**

Table 7 also shows the work participation rates and annualized wages of graduates in 2007 by race. Note that with the exception of American-Indians and Alaskan Natives, minorities had work participation rates below the overall average rate. With 12.5 percent Asian-Pacific graduates had the lowest percent of graduates working in West Virginia in 2007. Work participation of Hispanic graduates was twice as high as Asians with 25.2 percent, while African-Americans had a work participation rate of 34.0 percent. Caucasians, on the other hand, had the highest in-state work participation rate in 2007 with 50.7 percent of the graduates during the last decade working in West Virginia.

In contrast, Asian-Pacific graduates had the highest annualized wages ($48,352). On average, African-American graduates earned annualized wages of $29,936, the lowest among the ethnic groups identified in the sample. Annualized wages of Caucasian graduates lie close to the middle at $39,557 per graduate. These differences in wages –as well as in work participation- can be explained by a variety of reasons such as gender, degree, or residency, as we will see later.

Figure 14 shows how graduates from the same race vary their work participation in the state, according to their experience. As Figure 14 shows, work participation of Caucasian graduates reflects the overall trend depicted from the beginning. Note how work participation of Caucasian graduates falls from 60.6 percent for the most recent graduates to 42.4 percent for the 1996-1997 academic year graduates.

Figure 14
Work Participation Of Graduates From W.Va. Public Higher Education Institutions In 2007 By Race



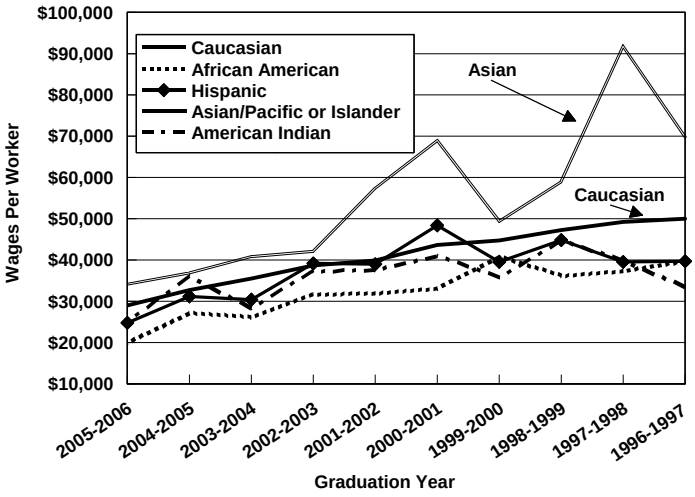
Source: Author Calculations

When accounting for experience, African-Americans see the sharpest decline in work participation rates. The difference in work participation rates between the least experienced African-Americans and those who graduated ten years before is 21.5 percentage points, followed by Hispanics and Caucasians with 18.6 and 18.2 percentage-point differences respectively, and lastly Asians (11.9 percentage points). Although American-Indians had an increase in the work participation rates over the ten year period (2.7 percentage points), their work participation varies significantly by year of graduation with a tendency to fall overtime.

Figure 15 shows how annualized wages of Asian-Pacific or Islander graduates are consistently higher at all levels of experience. In addition, annualized wages of both Asian and African-American graduates tend to increase faster with experience. As Figure 15 implies, average annual wages of African-American graduates from the 1996-1997 academic year are 99.5 percent higher than the average annualized wages of the most recent graduates ($19,915). Asian graduates had an even higher wage growth with annualized wages rising 104.6 percent over the 10 year period. The figure shows slower gains for Caucasians (72.4 percent), Hispanics (60.2 percent), and American-Indians (34.1 percent).

However, note that in cases such as that of Asians, Hispanics, and African-Americans, one additional year does not necessarily mean higher wages. For instance, in 2007, average annualized wages of Asian-Pacific graduates from the 1999-2000 academic year were $19,551 lower than the annualized wages of Asians that graduated one year later. In contrast, we observe that wages of Caucasian graduates rise more steadily as every year of experience translates into higher annualized wages.

Figure 15
Annualized Wages Of Graduates From W.Va. Public Higher Education Institutions In 2007 By Race



Source: Author Calculations

Work Participation And Wages By Race, Degree, and Area of Concentration

Table 8 provides information on work participation and returns to education by degree and race. Except for the graduates at the Associate's level, in 2007, Caucasian graduates from West Virginia public higher education institutions have the highest work participation rates across all other degrees. Unlike the other races, Caucasian graduates also showed work participation rates above the overall average of all summary degrees.

As Table 8 shows, work participation rates of African Americans, Hispanics, and Asian Pacific or Islanders were significantly below their degree averages. African Americans, for instance, had work participation rates between 3.4 (Doctoral) and 22.9 (First Professional) percent lower than average. Work participation rates of Hispanic graduates ranged between 9.7 (First Professional) and 29.0 (Master's) percent below their corresponding average, while those of Asian-Pacific ranged between 16.1 percent below the average for Doctoral graduates and 48.1 percent below the average for graduates with Associate's degrees.

Table 8
Work Participation And Average Annualized Wages Of Graduates From West Virginia Public Higher Education Institutions In 2007 By Degree and Race

	Degree									
	Associate's		Bachelor's		Master's		First Professional		Doctoral	
Race	Work Participation	Average Annualized Wages	Work Participation	Average Annualized Wages	Work Participation	Average Annualized Wages	Work Participation	Average Annualized Wages	Work Participation	Average Annualized Wages
Caucasian	67.3%	$32,325	44.8%	$34,879	55.6%	$48,805	48.2%	$97,042	29.8%	$63,998
African-American	54.4%	$23,728	30.5%	$26,988	34.0%	$44,243	23.2%	$59,667	21.2%	$63,205
Hispanic	48.0%	$27,281	22.9%	$28,916	22.1%	$45,164	36.4%	$53,200	n/d	n/d
Asian-Pacific or Islander	18.4%	$26,949	15.4%	$30,437	8.7%	$51,919	22.7%	$110,578	8.5%	$58,858
American-Indian or Alaskan Native	74.1%	$31,986	39.4%	$30,026	52.6%	$39,284	n/d	n/d	n/d	n/d
Other	57.7%	$17,405	36.3%	$20,442	18.8%	$46,799	n/d	n/d	n/d	n/d
Total	**66.5%**	**$32,071**	**43.4%**	**$34,539**	**51.1%**	**$48,703**	**46.1%**	**$96,653**	**24.6%**	**$63,502**

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

Table 8 also shows the average annualized wages of graduates during the last decade, accounting for degree and race. We find that, for most races, additional levels of education translate into

higher wages. However, we find that on average American-Indian graduates do not experience higher returns to education until they go beyond the Bachelor's degree. In fact, in 2007, American Indian graduates with Bachelor's degrees earned lower annualized wages ($30,026) than those with Associate's degree only ($31,986). Once American-Indians earn Master's degrees, their annualized wages rise to $39,284 (up 30.8 percent).

Table 9 summarizes work participation and annualized wages for Caucasian graduates by area of concentration. Graduates with degrees in science technologies had the highest work participation rates among Caucasians. Of the 334 graduates with degrees in science technologies during the last ten years, 81.1 percent were on the state payrolls in 2007. Health related fields and education (two of the three fields with the largest number of graduates) ranked seventh and eighth in work participation with rates of 59.5 percent and 59.3 percent respectively. The lowest work participation rate belonged to graduates with degrees in architecture and related fields (10.0 percent).

Annual wages for Caucasian graduates in 2007 were highest in engineering ($61,685), followed by health professions ($53,735), legal professions ($52,583), and engineering technologies ($46,705). Graduates in philosophy and religious studies had the lowest annualized wages among Caucasians with $20,580. Foreign languages placed just above them with $20,709 per graduate.

Table 9
Work Participation And Annualized Wages Of Caucasian Graduates From W.Va. Public Higher Education Institutions Working In The State In 2007

Area of Concentration	Total Graduates From 1996-1997 To 2005-2006	Work Participation	Annualized Wages Per Worker
Academic And Occupationally-Specific Programs			
Agriculture, Agriculture Operations	978	37.6%	$35,658
Architecture and Related Services	250	10.0%	$37,294
Biological and Biomedical Sciences	2,611	36.8%	$37,577
Business, Management, Marketing, and Related	16,351	51.1%	$39,313
Communication, Journalism, and Related Programs	3,970	39.7%	$34,766
Communications Technologies	295	54.2%	$26,040
Computer and Information Sciences	1,356	52.4%	$44,133
Education	16,122	59.3%	$36,630
Engineering	3,691	36.6%	$61,685
Engineering Technologies/Technicians	2,581	55.8%	$46,705
English Language and Literature/Letters	1,440	36.4%	$25,248
Family and Consumer Sciences/Human Sciences	1,346	32.4%	$22,882
Foreign Languages, Literatures, and Linguistics	486	29.4%	$20,709
Health Professions and Related Clinical Sciences	14,856	59.5%	$53,735
History	1,099	37.2%	$25,782
Legal Professions and Studies	1,529	60.4%	$52,583
Liberal Arts and Sci., Gen. Std., and Humanities	8,705	52.5%	$31,782
Library Science	n/d	n/d	n/d
Mathematics and Statistics	353	33.1%	$37,638
Mechanic and Repair Technologies/Technicians	195	65.6%	$44,677
Multi/Interdisciplinary Studies	1,446	62.6%	$33,119
Natural Resources and Conservation	1,034	44.7%	$37,896
Parks, Recreation, Leisure and Fitness Studies	1,527	26.7%	$32,053
Personal and Culinary Services	165	52.7%	$22,778
Philosophy and Religious Studies	59	39.0%	$20,580
Physical Sciences	1,083	35.8%	$43,032
Precision Production	196	80.6%	$43,958
Psychology	3,321	44.7%	$27,681
Public Administration and Social Service Prof	2,210	52.3%	$32,836
Science Technologies/Technicians	334	81.1%	$31,151
Security and Protective Services	3,136	60.0%	$31,629
Social Sciences	3,587	40.1%	$28,184
Transportation and Materials Moving	n/d	n/d	n/d
Visual and Performing Arts	2,151	30.6%	$22,927
Total	**98,471**	**50.7%**	**$39,557**

n/d: data not disclosed
n/a: no data available for this area of concentration

Table 10 reports work participation and annualized wages by area of concentration for African-American graduates during the last ten years. The highest work participation rates belonged to science technologies (70.0 percent), multi/interdisciplinary studies (45.5 percent), and health professions (42.5 percent). Similar to the results for Caucasian graduates, engineering and health professions had the highest average annualized wages in 2007 ($47,295 and $44,197 respectively). Family and consumer sciences posted the lowest annualized wages with $20,363, translating into an average annualized wage $9,573 below the average annual wages for all African-American graduates in 2007.

Table 10
Work Participation And Annualized Wages Of African-American Graduates From W.Va. Public Higher Education Institutions Working In The State In 2007

Area of Concentration	Total Graduates From 1996-1997 To 2005-2006	Work Participation	Annualized Wages Per Worker
Academic And Occupationally-Specific Programs			
Agriculture, Agriculture Operations	21	n/d	n/d
Architecture and Related Services	n/d	n/a	n/a
Biological and Biomedical Sciences	81	28.4%	$25,873
Business, Management, Marketing, and Related	719	33.1%	$29,699
Communication, Journalism, and Related Programs	228	30.3%	$26,701
Communications Technologies	12	n/d	n/d
Computer and Information Sciences	53	37.7%	$37,625
Education	531	36.3%	$35,538
Engineering	105	13.3%	$47,295
Engineering Technologies/Technicians	77	28.6%	$32,293
English Language and Literature/Letters	42	35.7%	$27,768
Family and Consumer Sciences/Human Sciences	46	32.6%	$20,363
Foreign Languages, Literatures, and Linguistics	17	n/d	n/d
Health Professions and Related Clinical Sciences	252	42.5%	$44,197
History	42	n/d	n/d
Legal Professions and Studies	57	36.8%	$28,451
Liberal Arts and Sci., Gen. Std., and Humanities	629	39.1%	$26,920
Library Science	n/a	n/a	n/a
Mathematics and Statistics	21	n/d	n/d
Mechanic and Repair Technologies/Technicians	n/a	n/a	n/a
Multi/Interdisciplinary Studies	88	45.5%	$27,460
Natural Resources and Conservation	13	n/d	n/d
Parks, Recreation, Leisure and Fitness Studies	84	13.1%	$29,762
Personal and Culinary Services	n/d	n/d	n/d
Philosophy and Religious Studies	n/d	n/a	n/a
Physical Sciences	25	n/d	n/d
Precision Production	n/a	n/a	n/a
Psychology	143	36.4%	$25,444
Public Administration and Social Service Prof	153	35.9%	$26,948
Science Technologies/Technicians	20	70.0%	$24,517
Security and Protective Services	206	37.9%	$23,098
Social Sciences	218	24.3%	$20,589
Transportation and Materials Moving	n/a	n/a	n/a
Visual and Performing Arts	63	20.6%	$23,573
Total	**3,956**	**34.0%**	**$29,936**

n/d: data not disclosed
n/a: no data available for this area of concentration

As Table 11 shows, Hispanic graduates from West Virginia state colleges and universities have a strong preference for areas such as business, liberal arts, education, and engineering. Among those, education (39.8 percent) has the highest Hispanic work participation rates, and is followed by liberal arts with 36.5 percent. Note that work participation and wages of most of the areas of concentration cannot be disclosed due to the small number of Hispanic graduates working and earning wages in West Virginia. Nonetheless, we observe that among the Hispanic graduates in the state, health professions provided the highest returns to education with annual wages equal to$52,299 per graduate.

Table 11
Work Participation And Annualized Wages Of Hispanic Graduates From W.Va. Public Higher Education Institutions Working In The State In 2007

Area of Concentration	Total Graduates From 1996-1997 To 2005-2006	Work Participation	Annualized Wages Per Worker
Academic And Occupationally-Specific Programs			
Agriculture, Agriculture Operations	n/d	n/d	n/d
Architecture and Related Services	n/d	n/a	n/a
Biological and Biomedical Sciences	28	n/d	n/d
Business, Management, Marketing, and Related	152	26.3%	$41,519
Communication, Journalism, and Related Programs	61	n/d	n/d
Communications Technologies	n/d	n/a	n/a
Computer and Information Sciences	13	n/d	n/d
Education	88	39.8%	$36,256
Engineering	80	n/d	n/d
Engineering Technologies/Technicians	14	n/d	n/d
English Language and Literature/Letters	15	n/d	n/d
Family and Consumer Sciences/Human Sciences	15	n/d	n/d
Foreign Languages, Literatures, and Linguistics	78	14.1%	$27,693
Health Professions and Related Clinical Sciences	81	33.3%	$52,299
History	12	n/d	n/d
Legal Professions and Studies	16	n/d	n/d
Liberal Arts and Sci., Gen. Std., and Humanities	96	36.5%	$25,808
Library Science	n/a	n/a	n/a
Mathematics and Statistics	n/d	n/d	n/d
Mechanic and Repair Technologies/Technicians	n/a	n/a	n/a
Multi/Interdisciplinary Studies	n/d	n/d	n/d
Natural Resources and Conservation	n/d	n/a	n/a
Parks, Recreation, Leisure and Fitness Studies	24	n/d	n/d
Personal and Culinary Services	n/d	n/a	n/a
Philosophy and Religious Studies	n/d	n/d	n/d
Physical Sciences	12	n/d	n/d
Precision Production	n/d	n/a	n/a
Psychology	36	27.8%	$20,312
Public Administration and Social Service Prof	19	n/d	n/d
Science Technologies/Technicians	n/a	n/a	n/a
Security and Protective Services	23	n/d	n/d
Social Sciences	52	25.0%	$20,092
Transportation and Materials Moving	n/a	n/a	n/a
Visual and Performing Arts	28	n/d	n/d
Total	**981**	**25.2%**	**$34,812**

n/d: data not disclosed
n/a: no data available for this area of concentration

Table 12 shows work participation and annualized wages for Asian-Pacific or Islander graduates in 2007. Although engineering has had the largest number of Asian graduates during the last ten years, only 5.5 percent of them collected wages in West Virginia in 2007. In fact, the highest work participation rates among Asian graduates are in health professions (23.8 percent) and education (23.7 percent).

Average annualized wages for Asian graduates are highest in the health related fields with $81,330, 68.2 percent higher than the average wages across all Asian graduates. In contrast, Asian graduates with visual arts degrees experienced the lowest average annual wages at $21,434 per graduate.

Table 12
Work Participation And Annualized Wages Of Asian-Pacific or Islander Graduates From W.Va. Public Higher Education Institutions Working In The State In 2007

Area of Concentration	Total Graduates From 1996-1997 To 2005-2006	Work Participation	Annualized Wages Per Worker
Academic And Occupationally-Specific Programs			
Agriculture, Agriculture Operations	39	n/d	n/d
Architecture and Related Services	n/d	n/a	n/a
Biological and Biomedical Sciences	156	21.2%	$32,890
Business, Management, Marketing, and Related	568	10.7%	$48,213
Communication, Journalism, and Related Programs	70	15.7%	$29,719
Communications Technologies	n/d	n/a	n/a
Computer and Information Sciences	230	7.4%	$58,449
Education	156	23.7%	$34,815
Engineering	839	5.5%	$57,966
Engineering Technologies/Technicians	21	n/d	n/d
English Language and Literature/Letters	30	n/d	n/d
Family and Consumer Sciences/Human Sciences	36	n/d	n/d
Foreign Languages, Literatures, and Linguistics	46	n/d	n/d
Health Professions and Related Clinical Sciences	370	23.8%	$81,330
History	18	n/d	n/d
Legal Professions and Studies	20	n/d	n/d
Liberal Arts and Sci., Gen. Std., and Humanities	166	18.7%	$28,954
Library Science	n/a	n/a	n/a
Mathematics and Statistics	148	12.2%	$42,790
Mechanic and Repair Technologies/Technicians	n/a	n/a	n/a
Multi/Interdisciplinary Studies	25	n/d	n/d
Natural Resources and Conservation	21	n/d	n/d
Parks, Recreation, Leisure and Fitness Studies	24	n/a	n/a
Personal and Culinary Services	n/a	n/a	n/a
Philosophy and Religious Studies	n/d	n/a	n/a
Physical Sciences	97	12.4%	$37,703
Precision Production	n/a	n/a	n/a
Psychology	63	n/d	n/d
Public Administration and Social Service Prof	33	n/d	n/d
Science Technologies/Technicians	n/d	n/a	n/a
Security and Protective Services	12	n/d	n/d
Social Sciences	124	n/d	n/d
Transportation and Materials Moving	n/a	n/a	n/a
Visual and Performing Arts	122	9.0%	$21,434
Total	**3,445**	**12.5%**	**$48,352**

n/d: data not disclosed
n/a: no data available for this area of concentration

Finally, Table 13 shows the average annualized wages and in-state work participation of American-Indian graduates from West Virginia public higher education institutions. Of the 41 graduates with degrees in health related fields, 65.9 percent earned wages in the state in 2007. Salaries for those graduates in the health sector averaged $50,501 per worker. Work participation of American-Indian graduates with business, management, and marketing degrees in 2007 was 42.0 percent, with average annualized wages of $33,395.

Table 13
Work Participation And Annualized Wages Of American-Indian Graduates From W.Va. Public Higher Education Institutions Working In The State In 2007

Area of Concentration	Total Graduates From 1996-1997 To 2005-2006	Work Participation	Annualized Wages Per Worker
Academic And Occupationally-Specific Programs			
Agriculture, Agriculture Operations	n/d	n/d	n/d
Architecture and Related Services	n/a	n/a	n/a
Biological and Biomedical Sciences	n/d	n/d	n/d
Business, Management, Marketing, and Related	50	42.0%	$33,395
Communication, Journalism, and Related Programs	15	n/d	n/d
Communications Technologies	n/d	n/d	n/d
Computer and Information Sciences	n/d	n/d	n/d
Education	30	46.7%	$35,032
Engineering	12	n/d	n/d
Engineering Technologies/Technicians	n/d	n/d	n/d
English Language and Literature/Letters	11	n/d	n/d
Family and Consumer Sciences/Human Sciences	n/d	n/a	n/a
Foreign Languages, Literatures, and Linguistics	n/d	n/a	n/a
Health Professions and Related Clinical Sciences	41	65.9%	$50,501
History	n/d	n/d	n/d
Legal Professions and Studies	n/d	n/d	n/d
Liberal Arts and Sci., Gen. Std., and Humanities	41	58.5%	$21,189
Library Science	n/a	n/a	n/a
Mathematics and Statistics	n/d	n/d	n/d
Mechanic and Repair Technologies/Technicians	n/a	n/a	n/a
Multi/Interdisciplinary Studies	n/d	n/d	n/d
Natural Resources and Conservation	n/d	n/d	n/d
Parks, Recreation, Leisure and Fitness Studies	n/d	n/d	n/d
Personal and Culinary Services	n/a	n/a	n/a
Philosophy and Religious Studies	n/a	n/a	n/a
Physical Sciences	n/d	n/d	n/d
Precision Production	n/d	n/d	n/d
Psychology	n/d	n/d	n/d
Public Administration and Social Service Prof	11	n/d	n/d
Science Technologies/Technicians	n/d	n/d	n/d
Security and Protective Services	11	n/d	n/d
Social Sciences	19	n/d	n/d
Transportation and Materials Moving	n/a	n/a	n/a
Visual and Performing Arts	n/d	n/d	n/d
Total	**314**	**49.4%**	**$35,035**

n/d: data not disclosed
n/a: no data available for this area of concentration

Appendix: 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