#### DOCUMENT RESUME

ED 432 353 JC 990 512

AUTHOR Krotseng, Marsha V.; Glenn, Darrell E.

TITLE Employment and Earnings Outcomes for Recent Graduates of

Public Higher Education Institutions in West Virginia, 1995.

Research Report 1997-2.

INSTITUTION West Virginia State Coll. and University Systems,

Charleston.

PUB DATE 1997-00-00

NOTE 11p.

PUB TYPE Reports - Research (143) EDRS PRICE MF01/PC01 Plus Postage.

DESCRIPTORS \*College Graduates; Compensation (Remuneration); Education

Work Relationship; \*Employment; Higher Education; \*Outcomes of Education; \*Public Education; Relevance (Education); \*Salaries; Salary Wage Differentials; State Colleges; State

Universities; Student Educational Objectives; \*Wages

IDENTIFIERS \*West Virginia

#### ABSTRACT

This report presents information on employment and earnings outcomes for recent graduates of West Virginia public higher education institutions. Data from the Central Office Student and Graduation files and the West Virginia Bureau of Employment Programs (WVBEP) wage and employment files were merged, creating a database that makes possible the determination of within-state employment outcomes for graduates. Degree recipients from the 1991-1992, 1992-1993, and 1993-1994 academic years are included, along with their West Virginia employment outcomes for all four quarters of 1995 and public higher education attendance data for calendar year 1995. Findings in the areas of employment, further education, earnings, and earnings growth include: (1) 75.8% of 1993-94 degree recipients who were residents at graduation remained in West Virginia to work or pursue further education, compared to 73% in 1992-93, and 67.5% in 1991-92; (2) three years after graduation, master's and first professional degree recipients earn over \$10,000 more than associate and bachelor's degree recipients; (3) when education and health majors are taken out of the analysis for 1992-93 graduates, the average earnings for bachelor's degree recipients exceed earnings for associate degree holders by 13.9%; and (4) while earnings growth is impressive for all degree recipients, it is largest for those who were 23 or younger at the time of graduation. (TGO)



# EMPLOYMENT AND EARNINGS OUTCOMES FOR RECENT GRADUATES OF PUBLIC HIGHER EDUCATION INSTITUTIONS IN WEST VIRGINIA, 1995

State College and University Systems Central Office Research and Information Systems Division

Research Report 1997-2

Dr. Marsha V. Krotseng, Director Dr. Darrell E. Glenn, Assistant Director

1018 Kanawha Boulevard East, Suite 700 Charleston, WV 25301

PERMISSION TO REPRODUCE AND DISSEMINATE THIS MATERIAL HAS BEEN GRANTED BY

D. E. Gleun

TO THE EDUCATIONAL RESOURCES ! INFORMATION CENTER (ERIC)

U.S. DEPARTMENT OF EDUCATION Office of Educational Research and Improvement EDUCATIONAL RESOURCES INFORMATION CENTER (ERIC)

 This document has been reproduced as received from the person or organization originating it.

Minor changes have been made to improve reproduction quality.

 Points of view or opinions stated in this document do not necessarily represent official OERI position or policy.



#### **Executive Summary**

#### Introduction

This report presents information on employment and earnings outcomes for recent graduates of West Virginia public higher education institutions. The assembled data offer a first-time opportunity in West Virginia to determine the percentage of graduates who remain in the state to work, and to examine their earnings outcomes by degree received, major field, and demographic characteristics.

Data from the Central Office Student and Graduation files and the West Virginia Bureau of Employment Programs (WVBEP) wage and employment files were merged, creating a database that makes possible the determination of within-state employment outcomes for graduates. Degree recipients from the 1991-92, 1992-93, and 1993-94 academic years are included, along with their West Virginia employment outcomes for all four quarters of 1995 and public higher education attendance data for calendar year 1995. By focusing on employment during 1995, graduates will have had a minimum of six months in which to obtain a position.

The wage and employment data include only those individuals whose employers submit Employer Contribution Reports to the WVBEP. Generally, self-employed individuals do not submit these reports for themselves and are excluded from the employment files. In addition, the data do not distinguish part-time from



full-time workers and only indicate the quarters in which wages and salaries were earned. Due to these limitations in the data, the employment figures underestimate the percentage of graduates working in West Virginia. Also, because a proportion of those working four quarters may have worked part-time or for less than 12 months, the earnings figures underestimate the earnings of full-time, full-year workers.

### **Employment and Further Education in West Virginia**

- ◆ 75.8% of 1993-94 degree recipients who were residents at the time of graduation remain in West Virginia to work or pursue further education. 71.2% worked at least one quarter in 1995, while an additional 4.6% did not work, but attended public higher education institutions for at least one semester.
- ♦ 73% of 1992-93 degree recipients remain in West Virginia to work or attend public higher education, with 69.5% working at least one quarter and an additional 3.5% attending public higher education institutions for at least one semester.
- ♦ 67.5% of 1991-92 degree recipients remain in West Virginia to work or attend public higher education, with 64.6% working at least one quarter and an additional 2.8% attending public higher education institutions for at least one semester.



#### **Earnings**

This report tabulates earnings only for those who worked all four quarters of 1995 and who were West Virginia residents at the time of graduation.

#### **Earnings Differences by Degree Received**

- ♦ Three years after graduation, Master's and First Professional degree recipients earn over \$10,000 more than Associate's and Bachelor's degree recipients.
- ◆ Two years after graduation, the earnings difference between Associate's degree recipients and Bachelor's degree recipients is about \$250. Three years after graduation, this difference rises to about \$1,150 or 4.7%.
- ♦ When Education and Health majors are taken out of the analysis for 1992-93 graduates, the average earnings for Bachelor's degree holders are 13.9% higher than for Associate's degree holders, compared to 1% higher when all majors are included. Of 1992-93 Associate's degree recipients, 36.5% were Health Professions majors, compared to only 10% of Bachelor's degree recipients. Education majors represented 19.3% of all Bachelor's degree graduates, while the percentage of Associate's degree graduates in Education was less than 1%. Since the Health Professions majors generally earned higher salaries than the Education majors, this narrows the earnings gap between Associate's and Bachelor's degree recipients.



Another way to examine the effect of major choices on earnings is to segment each graduating class by broad major area: Business, Education, Engineering, Health, Liberal Arts, Math/Science, Services, and Trade/Technical. Average earnings within each broad major area are considerably higher for Bachelor's degree recipients than for Associate's degree recipients, with the exception of Trade/Technical. For example, for 1992-93 graduates, Bachelor's degree recipients in Business earned 27.9% more than their Associate's degree counterparts. For these particular degree recipients, the earnings premiums to receiving a Bachelor's over an Associate's degree are 23.0% in Health, 8.8% in Math/Science, and 12.5% in Liberal Arts. However, in Trade/Technical fields, the 1992-93 Bachelor's degree recipients earn 6.1% less overall than Associate's degree recipients.

#### **Earnings Growth**

• Earnings growth for all degree recipients is impressive. The 1993-94 graduates had been out of school for roughly one year when the employment data were collected, while the 1992-93 and 1991-92 graduates had been out of school for two and three years respectively. Associate's degree recipients with three years of post-graduation experience earned 12.4% more than those with only one year of experience. This estimated return to two years of experience was 15.9% for Bachelor's recipients, 29.8% for First Professional recipients, and



9.9% for Master's degree recipients. Since the proportion of graduates across all major fields was relatively constant, the higher earnings of the 1991-92 graduates over those of the 1993-94 graduates are not due to different choices of major fields within the two graduating classes.

- ◆ As a point of comparison, real earnings per job for all West Virginia workers increased by only .5% from 1990 to 1994, according to Federal Bureau of Economic Analysis data.
- ◆ Earnings growth is largest for those who were younger at the time of graduation. For degree recipients who were 23 or younger at the time of graduation, those with three years of experience earned 20% more than those with one year of experience. This difference was 16.7% within the "24 to 30" age group, 7.1% within the "31 to 40" age group, and 9.1% within the "greater than 40" age group.

#### **Notes on Data**

◆ Degree counts from this report will not agree with degree counts published in the Statistical Profile of Higher Education in West Virginia, because a small percentage of graduates earn more than one degree in a single academic year. Graduates may earn degrees at different levels or degrees in the same level but in different fields. For the purposes of this report, it was essential that only one record exist for each graduate.



In the case of multiple degrees earned at different levels, the highest degree earned was assigned in this data file. In the case of multiple degrees earned in different fields at the same level, the major field appearing first in the original graduation file was assigned in this data file.

◆ In about 1.4% of the cases, it was not possible to identify the age or residency of graduates. This occurred because students sometimes obtain degrees a considerable time after completion of course work, and the age and residency information must be gathered from student files created while the student was in attendance.



#### A. Percentage of Graduates Employed In WV in 1995, by Residency at Graduation\*

	1993-94 Graduates		1992-93 Graduates		1991-92 Graduates	
Number of	WV	Non-	WV	Non-	WV	Non-
Quarters Worked	Residents	Residents	Residents	Residents	Residents	Residents
At Least One Quarter	71.2%	16.4%	69.5%	14.1%	64.6%	12.5%
All Four Quarters	52.7%	9.5%	54.9%	8.6%	52.8%	8.6%

#### B. Resident Graduates Employed in West Virginia or Attending College in 1995\*

	1993-94 Graduates		1992-93 Graduates		1991-92 Graduates	
	Number	Percent	Number	Percent	Number	Percent
Working in West Virginia and Not Attending College	4,636	52.9%	4,335	51.2%	4,200	50.7%
Working in West Virginia and Attending College	1,600	18.3%	1,544	18.2%	1,154	13.9%
Subtotal: Working in WV	6,236	71.2%	5,879	69.5%	5,354	64.6%
Attending College and Not Working in West Virginia	402	4.6%	296	3.5%	233	2.8%
Total	6,638	75.8%	6,175	73.0%	5,587	67.5%

<sup>\*</sup> Graduates are classified as working if they worked at least one quarter and as attending college if they attended at least one semester in a public higher education institution.



### C. Annual Earnings for Resident Graduates Working 4 Quarters in 1995\*

	1993-94 Graduates		1992-93 Graduates		1991-92 Graduates			
Degree	Number	Annual Earnings	Number	Annual Earnings	Number	Annual Earnings	Estimated % Gain From 2 Years Add'l Experience	
Associate's	1,094	\$20,280	1,106	\$22,456	991	\$22,792	12.4%	
Bachelor's	2,523	\$20,577	2,549	\$22,687	2,406	\$23,858	15.9%	
First Prof.	119	\$35,743	108	\$41,594	111	\$46,382	29.8%	
Master's	825	\$30,444	838	\$31,669	824	\$33,454	9.9%	
Total	4,561	\$22,686	4,601	\$24,711	4,332	\$26,017	14.7%	

<sup>\*</sup>Due to low numbers of recipients, Certificate, Post-Master's, and Ph.D. recipients have been omitted .

# D. Annual Earnings by Age at Graduation and Degree Received, Resident Graduates Working 4 Quarters in 1995\*

	1993-94 Graduates		1992-93 (	1992-93 Graduates		Graduates	Estimated
18 to 23	Number	Annual Earnings	Number	Annual Earnings	Number	Annual Earnings	% Gain From 2 Years Add'l Experience
Associate's Bachelor's	450 1,018	\$16,398 \$18,861	405 1,035	\$18,769 \$20,836	407 1,032	\$19,251 \$22,708	17.4% 20.4%
All	1,468	\$18,106	1,440	\$20,255	1,439	\$21,730	20.0%
24 to 30							
Associate's Bachelor's Master's	235 988 290	\$19,803 \$20,012 \$26,340	305 890 294	\$22,840 \$21,768 \$27,890	233 839 264	\$23,494 \$23,527 \$29,649	18.6% 17.6% 12.6%
All	1,513	\$21,192	1,489	\$23,196	1,336	\$24,731	16.7%
31 to 40							
Associate's Bachelor's Master's	259 325 307	\$25,090 \$23,853 \$32,245	263 366 277	\$25,595 \$26,198 \$33,477	245 359 306	\$26,533 \$26,040 \$34,497	5.8% 9.2% 7.0%
Ail	891	\$27,104	906	\$28,248	910	\$29,017	7.1%
Greater than 40							
Associate's Bachelor's Master's	150 192 223	\$24,366 \$27,036 \$33,404	133 258 266	\$26,593 \$28,302 \$34,015	106 176 251	\$26,200 \$27,734 \$36,308	7.5% 2.6% 8.7%
All	565	\$28,841	657	\$30,269	533	\$31,467	9.1%

<sup>\*</sup>Due to low numbers of recipients, Certificate, Post-Master's, First Professional, and Ph.D. recipients have been omitted .



#### E. Earnings by Major Field Resident Graduates Working 4 Quarters in 1995

#### 1991-92 Graduates

Associat	e's	Bachelo	r's	
A 15 1 5 1			<b>-</b>	% Earnings Difference
Annual Earnings	Graduates	Annual Earnings	Graduates	Bachelor's-Associate's
\$22,792	991	\$23,858	2,406	4.7%
\$18,149	298	\$22,847	643	25.9%
*	*	\$19,330	521	*
*	*		107	*
\$28,293	301		240	25.2%
	180		599	9.5%
	24			29.2%
*	*			*
\$24,107	183	\$22,185	135	-8.0%
		1992-93 Gradu	ıates	
Associate				
Annual Earnings	Graduates	Annual Earnings	Graduates	% Earnings Difference Bachelor's-Associate's
\$22,456	1,106	\$22,687	2,549	1.0%
\$16,638	280	\$21,277	608	27.9%
*	*		492	*
*	*		100	*
\$27,076	404			23.0%
	138			12.5%
	_			8.8%
*	*			*
\$23,000	260	\$21,589	144	<b>-</b> 6.1%
		1993-94 Gradu	ates	
Associate	e's	Bachelor	's	
Annual Earnings	Graduates	Annual Earnings	Graduates	% Earnings Difference Bachelor's-Associate's
\$20,280	1,094	\$20,577	2,523	1.5%
<b>\$16.012</b>	204	¢10 140	E E 7	40.50/
φιο <sub>ι</sub> σι3 *	204 *			19.5%
*	*			
\$25,200	420	\$29,233	118	20.00/
	Annual Earnings \$22,792 \$18,149  * \$28,293 \$20,479 \$20,921 * \$24,107  Associate Annual Earnings \$22,456 \$16,638  * * \$27,076 \$20,282 \$21,024 * \$23,000  Associate Annual Earnings \$20,280 \$16,013 * * *	\$22,792 991 \$18,149 298	## Annual Earnings   Graduates   Annual Earnings	Section   Sec

\$25,200

\$16,171

\$18,601

\$19,014



Health

Liberal Arts

Services

Math/Science

Trade/Technical

\$32,512

\$19,592

\$20,505

\$15,873

\$19,400

298

743

111

53

191

29.0%

21.2%

10.2%

2.0%

429

134

24

221

<sup>\*</sup>Major groups with less than five graduates are omitted.



#### U.S. Department of Education



Office of Educational Research and Improvement (OERI)
National Library of Education (NLE)
Educational Resources Information Center (ERIC)

# **NOTICE**

## **REPRODUCTION BASIS**



This document is covered by a signed "Reproduction Release (Blanket) form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

This document is Federally-funded, or carries its own permission to
reproduce, or is otherwise in the public domain and, therefore, may
be reproduced by ERIC without a signed Reproduction Release form
(either "Specific Document" or "Blanket").

ERIC

Full Text Provided by ERIC

EFF-089 (9/97)