

THE ECONOMIC IMPACT OF WEST VIRGINIA UNIVERSITY ON NORTH CENTRAL WEST VIRGINIA

THE ECONOMIC IMPACT OF WEST VIRGINIA UNIVERSITY ON NORTH CENTRAL WEST VIRGINIA

Published by:

Bureau of Business & Economic Research
West Virginia University
College of Business and Economics
Nancy McIntyre, Ph.D., Interim Dean

P.O. Box 6527, Morgantown, WV 26506-6527
(304) 293-7831 | bebureau@mail.wvu.edu
be.wvu.edu/bber

Written by:

John Deskins, Ph.D.
Director, BBER

Eric Bowen
Research Associate, BBER

Executive Summary

Founded in 1867 as the state's public land-grant institution of higher education, West Virginia University is a pillar of the economy of North-Central West Virginia. The university's primary mission is to provide high-quality education at the undergraduate, graduate, and professional levels, enhancing the stock of human capital in the state and improving worker productivity. However, WVU is also a major economic driver in the region, contributing to the local economy not only through its own direct spending, but also through the spending of its nearly 16 thousand faculty, staff, and medical personnel and more than 29 thousand students.

This report examines the economic impact of WVU on five counties—Harrison, Marion, Monongalia, Preston, and Taylor—where the university is an important driver of the economy. We examine the economic impact of the operations of the university's main campus, the spending of its out-of-state students, and its affiliated medical organizations. All estimates are based on the 2014 fiscal year.

Overall, for the five-county region we estimate that the annual economic activity associated with WVU's main campus, out-of-state students, and medical organizations supports:

- more than 26,000 jobs. This figure represents approximately 22 percent of the total workforce in the five-county region.
- more than \$3.6 billion in economic activity.
- more than \$1.6 billion in total employee compensation. This figure represents more than 15 percent of the total employee compensation in the region.
- \$66 million in tax revenue to the State of West Virginia.

WVU's main campus accounts for 42 percent of the total estimated economic impact of \$3.6 billion. WVU's medical facilities constitute 53 percent of the total impact. Spending by the approximately 15 thousand out-of-state students at the university represent 5 percent of the total economic impact.

We caution the readers that these economic impact estimates only relate to the very narrowly defined short-run economic footprint of the university's annual activities. Most importantly, we do not consider the benefit of the enhanced job skills that result from an education at WVU. Other economic impacts that we do not consider include the following: the likelihood that the presence of WVU in the community draws other research-oriented organi-

FIGURE 1: Total Economic Impact

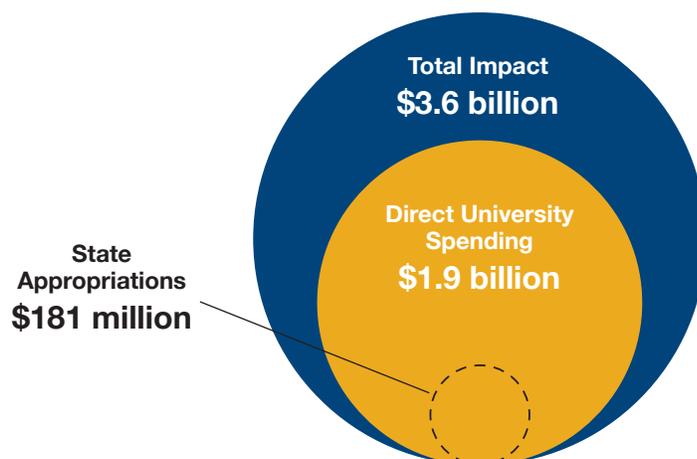


TABLE 1: Economic Impact of WVU Summary

	Direct Impact	Indirect & Induced Impact	Total Economic Impact
Business Volume (\$, millions)	1,870.6	1,753.6	3,624.2
Employment (jobs)	15,821	10,455	26,276
Employee Compensation (\$, millions)	1,217.5	425.6	1,643.1
Total Taxes (\$, millions)*	47.4	18.6	66.0

* Includes revenues from personal income, sales, and corporation net income taxes

zations to the region; tourism associated with WVU; impacts of WVU construction; and impacts of intellectual property generated by WVU research.

The State of West Virginia provides the foundation of the university's budget. The state's appropriations to WVU in fiscal year 2014 were approximately \$181 million, representing 14 percent of the total budget for the university's main campus. As depicted in Figure 1, when state appropriations combine with tuition, gifts, medical revenue, and out-of-state student spending, the total economic impact generated amounts to approximately 20 times the state appropriations. While this economic impact cannot be interpreted as a marginal return on investment for the state (for instance, an additional \$100 million in state funding would not result in an additional \$2 billion in economic activity), it does indicate that state funding for WVU forms the foundation for an institution that provides a large benefit to the regional economy.

Introduction

Founded in 1867 as West Virginia's public land-grant institution of higher education, West Virginia University (WVU) is a pillar of North-Central West Virginia's economy. The university's primary mission is to provide high-quality education at the undergraduate, graduate, and professional levels, enhancing the stock of human capital in the state and improving worker productivity. However, WVU is also a major economic driver in the region, contributing to the local economy not only through its own direct spending, but also through the spending of its nearly 16 thousand faculty, staff, and medical personnel and more than 29 thousand students.

In this report we estimate the annual economic impact of WVU on five West Virginia counties—Harrison, Marion, Monongalia, Preston, and Taylor—which were chosen due to their close ties to the university based on proximity and residential commuting patterns.¹ We estimate the economic impact of primary university operations as well as operations of several affiliated organizations. The specific organizations considered in this report are:

- West Virginia University main campus² (including out-of-state student spending)
- WVU Hospitals
- WVU United Hospital Center in Bridgeport
- WVU Medical Corporation

We estimate the broad economic impact of WVU's expenditures in fiscal year 2014 in terms of business volume, employment, employee compensation, and

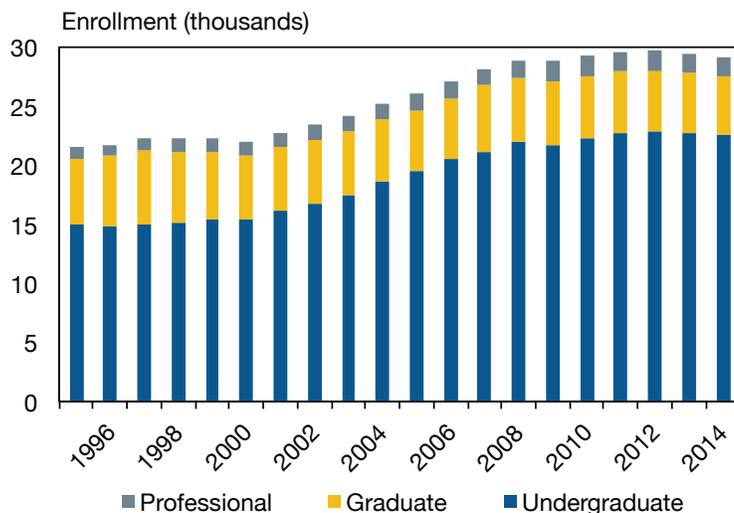
select state tax revenue. We find that total WVU expenditures amount to approximately \$1.9 billion annually, of which \$181 million are derived from state appropriations. These direct expenditures ultimately generate an overall impact of approximately \$3.6 billion in the region, after accounting for the ways in which these dollars are re-spent in the region by WVU employees and businesses that provide goods and services to WVU.

West Virginia University Profile

Total enrollment at WVU's main campus and the Health Sciences Center grew rapidly between the years 2000 through 2008—rising from approximately 22 thousand in 2000 to over 29 thousand in 2008—and has since remained mostly stable (Figure 2). Total enrollment in the fall 2014 head-count was 29,175 students, down 1 percent from the previous year.

Undergraduates compose the largest share of enrollment in 2014 at 22,563 students, representing 77 percent of the total student body. Graduate students represent approximately 17 percent of the total at approximately 5 thousand students; and the remaining 1,611 professional students represent approximately 6 percent of the student body. Of the total student count, approximately 26 thousand were enrolled at WVU's main campus, which was about 89 percent of the total student body. The remaining 3,600 students were enrolled at the Health Sciences Center campus, representing 11 percent of the total student body.

FIGURE 2: West Virginia University Student Enrollment



In Table 2 we detail WVU tuition and students fees for the 2013-2014 school year. In-state regular undergraduate students paid \$6,456 in tuition and fees per year, compared to \$19,632 per year for out-of-state students. As illustrated, figures can be substantially higher for graduate and professional students.

According to the WVU Common Data Set,³ students who lived on campus in 2013 spent \$9,338 for room and board in 2013, plus an estimated

1. US Census Bureau. "Commuting (Journey to Work) County-to-County Commuting Flows: 2006-2010." US Census Bureau, <http://www.census.gov/hhes/commuting/data/commuting.html>.

2. Includes WVU Foundation, the independent fundraising arm of the University.

3. "WVU Common Data Set 2013-2014." WVU Office of the Vice President for Administration and Finance, http://planning.wvu.edu/institutional_research/institutional_reports/wvu_cds.

\$1,100 for books and supplies, and \$1,971 for other expenses, Students living off campus were estimated to spend \$7,083 for room and board, and \$2,529 for other expenses.

Table 3 details employment at the five specific WVU entities we consider. On the main campus, WVU employed almost 6,800 faculty and staff in 2014, including 6,621 employees on the main campus and another 143 at the WVU Foundation. These numbers do not include employees at WVU Potomac State College or WVU Institute of Technology. Approximately 83 percent of these employees are employed full-time.

WVU also employed more than 9 thousand employees in its medical facilities within the region. These include WVU Hospitals, which comprises Ruby Memorial and other institutions on the hospital campus; WVU United Health Center in Bridgeport; and University Medical Corporation, which is the entity that directly employs the physicians who work at WVU's medical facilities.

Economic Impact

Estimating the economic impact of an institution as large and diverse as West Virginia University is often complex. WVU is highly integrated into the economy of the Morgantown region, and it is difficult to disentangle the university from its surrounding community and accurately estimate the state of the local economy if the university did not exist. Instead, we have taken an approach to assess the university's contributions to the local economy by measuring total expenditures the university produces each year. This has become known in the economic impact literature as "economic footprint analysis." Specifically we examine the economic impact of the following expenditure categories:

- Direct university expenditures, including supplies and services, utilities, and other operating expenses.
- University payroll, which include wages and benefits to the university's employees.
- Out-of-state student expenditures in the local economy.

Some have argued that economic impact studies of universities sometimes overstate institutional impacts. One of Siegfried et al.'s (2007) primary criticisms is that most studies do not explicitly attempt to define a counterfactual condition.⁴ In

other words, studies fail to define the economic gain generated by the university to local residents who would be living in the region if the university weren't located there. With this criticism in mind, we implicitly assume a counterfactual scenario where the university is eliminated from the local economy and that the remainder of the economy does not respond to the loss of the university. This approach has also been taken in several other recent university economic impact studies.⁵

A second criticism is that the authors of university economic impact studies often begin naively with total expenditures listed in university accounting records, without a consideration of the degree to

TABLE 2: West Virginia University Tuition and Fees

	Resident	Non-Resident
Undergraduate		
Regular	\$6,456	\$19,632
Health Professions	\$7,968	\$23,952
Graduate		
Regular	\$7,218	\$20,286
Medical	\$26,604	\$53,028
Dental	\$17,460	\$43,218
Law	\$17,658	\$33,714
Pharmacy	\$11,160	\$28,098

Source: West Virginia University

TABLE 3: Main Campus and Medical Affiliate Employment

	Main Campus	Medical		
		WVU Hospitals	United Health Center*	Medical Corp.
Full-Time	5,929	5,008		620
Part-Time	834	1,279		151
Total	6,763	6,287	2,000	771

* Full- and part-time numbers unavailable for United Health Center
Source: West Virginia University

4. Siegfried, John J., Allen R. Sanderson, and Peter McHenry. "The Economic Impact of Colleges and Universities." *Economics of Education Review* 26, no. 5 (2007): 546-58.

5. For example, "Indiana University Impact Study, 2008." Indiana Business Research Center at Indiana University's Kelley School of Business, http://www.ibrc.indiana.edu/studies/IUimpact/IU_impact_systemwide_final.pdf; NorthStar Economics, Inc. "The University of Wisconsin-Madison's \$12.4 Billion Impact on the Wisconsin Economy." http://www.news.wisc.edu/news/docs/UW-Madison_Economic_Impact_Study.pdf.

which specific items within the accounting records are related to an economic impact. In response, we have made every effort to adjust university accounting records to avoid considering recorded expenditure amounts that have the potential to be double counted or do not impact the local economy. In particular, in arriving at WVU's expenditures, we exclude the following from WVU's financial statements:

- Scholarship expenditures: These expenditures return to the university in the form of tuition and fees, they are not considered as part of the local economic impact.
- Transfers from the WVU Foundation to other parts of the university: These transfers become revenue to other university entities, and thus are captured in their expenditures.
- Depreciation expenses: Even though depreciation is appropriately counted as an expense in accounting records, it does not actually represent an expenditure in the local economy.

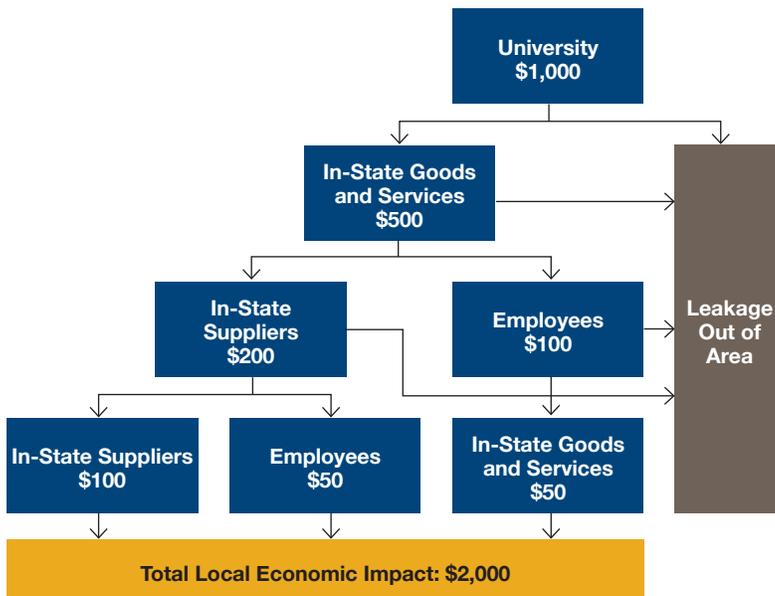
In addition, we do not consider expenditures of in-state students. These expenditures are essentially a transfer of economic activity from one part of the state to the North-Central region of the state. If these outlays were not spent in Morgantown, they would likely be made somewhere else in the state, and thus do not represent additional economic impact to the state. We instead limit the student impact to those students who moved to Morgantown from outside of West Virginia, which do represent new spending to the state.

METHODOLOGY

To estimate the economic impact of WVU, we use a sophisticated model of the West Virginia economy.⁶ The economic impact of WVU starts with an estimate of the university's annual spending in the local economy, as described above. This is called the direct impact of the economic enterprise. However, the total impact is not limited to the direct impact, but also includes the secondary economic impact accrued as those expenditures are re-spent through the rest of the economy.

For example, as depicted in Figure 3, each year the university purchases a variety of goods and services, such as office supplies, electricity, landscaping services, etc. As the suppliers of these inputs increase production, their subsequent suppliers will increase production, and so on. Also, the university employs thousands of workers, part of whose income will be spent in the local economy, generating more output, income, and employment impact. Lastly, out-of-state students who move to West Virginia to attend college at WVU import money from outside the state to be spent in the local economy, which also raises the income of local businesses. These secondary impacts together form what is known as the "multiplier effect." The original stimulus to the economy from WVU's expenditures is re-spent multiple times through the rest of the economy. At each state some of the expenditures "leak" out of the region as they are spent at companies outside the state. The combined direct impact and secondary impacts together constitute the total economic impact of the university's operations.

FIGURE 3: Economic Impact Flow



ECONOMIC IMPACT OF WVU'S MAIN CAMPUS

West Virginia University's main campus houses the university's educational and research facilities, and the WVU Foundation, the university's fundraising arm. Between these two institutions, WVU has a budget of nearly \$1 billion, and employs more than 6,600 men and women. Morgantown is also home to more than 29 thousand students who live and work in the local community, of which almost 15 thousand are out-of-state residents. This section addresses all three of these impacts of WVU's main campus.

The university's impact is also felt well beyond Morgantown's border. Commuting patterns indicate

⁶ This study was conducted using the IMPLAN 3.1 modeling software, an industry-standard input-output model of the economy. More information about IMPLAN can be found at <http://www.implan.com>.

that Monongalia County draws employees from several nearby counties, with Preston, Marion, Harrison, and Taylor counties comprising the majority of commuters.⁷ Thus the reach of WVU's economic impact is spread across a wide area in the north-central part of the state.

In estimating the economic impact of WVU, we begin with the \$919.6 million operating budget in the 2014 fiscal year as reported on the WVU financial statement. However, to estimate the direct impact of the university, we exclude approximately \$117 million of that amount for reasons discussed above relating to depreciation, scholarships, and inter-university transfers. This leaves approximately \$803 million in direct impact. Of that total, approximately \$576 million, or 72 percent, is spent as wages and benefits for the university's employees, reflective of the highly labor-intensive nature of higher education.

The WVU Foundation's primary role is to support fundraising and manage the university's endowment. Of the Foundation's entire operating budget of \$72 million, approximately \$47 million is transferred to the budget of the main campus, and is therefore already accounted for in the \$803 figure discussed above. However, the remaining \$25 million of the WVU Foundation operating budget is related to economic impact, and is therefore added to the \$803 million figure discussed above as direct impact of the main campus.

In Table 4 we detail the economic impact of WVU's main campus. The initial expenditure of \$828 million leads to more than 1.5 billion in total economic impact in the five-county region. This spending supports almost 11 thousand jobs, of which more than 4 thousand come as a result of secondary impacts in the local economy.

As a state agency, the university does not pay state or local taxes directly. However, spending by the university does generate approximately \$30 million in selected state tax revenue. This revenue comes in the form of personal income taxes from its employees, sales taxes paid by workers in local businesses, and corporation net income taxes paid by companies who receive income from the university's direct spending.

STUDENT SPENDING

As mentioned above, WVU had more than 29 thousand students in the 2013-2014 academic year. Of those, approximately 15 thousand were from

outside of West Virginia, representing the cohort of students that are bringing in income from outside the region.

To calculate the direct economic impact of the student population, we used estimates of student spending from the WVU Common Data Set, which is produced by the WVU Institutional Research office. The office estimates expected student spending in several categories, including room and board, books and supplies, transportation, and other expenditures. Expenditures for tuition, and room and board for students living on campus, were excluded from the calculation, as these expenditures are returned to the university as revenue. For off-campus students we allocated room and board expenditures according to national averages for housing and food expenditures based on percentages estimated in the US Bureau of Labor Statistics Consumer Expenditure Survey.⁸ Books and supplies were allocated to bookstores and other retail businesses. And the remainder of the expenditures were allocated according to standard spending patterns for local residents. We then multiplied these average expenditures by the number of out of state students to get the total household spending in the economy.⁹

In Table 5 we provide details of the economic impact of the student population. Because these expenditures are from households in the community,

TABLE 4: Economic Impact of WVU's Main Campus

	Direct Impact	Indirect & Induced Impact	Total Economic Impact
Business Volume (\$, millions)	827.7	695.1	1,522.8
Employment (jobs)	6,763	4,125	10,888
Employee Compensation (\$, millions)	591.0	167.2	758.2
Total Taxes (\$, millions) *	23.0	7.3	30.4

* Includes revenues from personal incomes taxes, sales taxes, and Corporation Net Income taxes

7. US Census Bureau. "Commuting (Journey to Work) County-to-County Commuting Flows: 2006-2010." US Census Bureau, <http://www.census.gov/hhes/commuting/data/commuting.html>.

8. US Bureau of Labor Statistics. "Consumer Expenditure Survey." US Bureau of Labor Statistics, <http://www.bls.gov/cex/>.

9. Students also may also be employed by the university, which could lead to a small amount of double-counting of the impact for these students.

TABLE 5: Economic Impact of Out-of-State WVU Student Population

	Direct Impact	Indirect & Induced Impact	Total Economic Impact
Business Volume (\$, millions)	n/a	183.9	183.9
Employment (jobs)	n/a	982	982
Employee Compensation (\$, millions)	n/a	33.9	33.9
Total Taxes (\$, millions)	n/a	1.5	1.5

TABLE 6: Direct Impact of WVU Medical Facilities

	WVUH (Ruby)	United Hospital Center (Bridgeport)	University Medical Corporation	Total
Total Direct Impact (\$, millions)	621.8	204.5	216.7	1,043.0
Total Compensation (\$, millions)	334.1	121.1	171.3	626.5

TABLE 7: Total Economic Impact of WVU Medical Facilities

	Direct Impact	Indirect & Induced Impact	Total Economic Impact
Business Volume (\$, millions)	1,043.0	874.5	1917.4
Employment (jobs)	9,058	5,349	14,407
Employee Compensation (\$, millions)	626.5	224.4	850.9
Total Taxes (\$, millions)	24.4	9.7	34.2

TABLE 8: Economic Impact of WVU Summary

	Direct Impact	Indirect & Induced Impact	Total Economic Impact
Business Volume (\$, millions)	1,870.6	1,753.6	3,624.2
Employment (jobs)	15,821	10,455	26,276
Employee Compensation (\$, millions)	1,217.5	425.6	1,643.1
Total Taxes (\$, millions)	47.4	18.6	66.0

they technically are all secondary impacts, which is why there are no reported direct economic impacts. We estimate that the total impact on the local economy of these expenditures is approximately \$184 million in business volume. This spending supports nearly 1 thousand jobs with employee compensation of about \$34 million. Students also pay \$1.5 million in various state taxes.

ECONOMIC IMPACT OF WVU'S MEDICAL FACILITIES

West Virginia University's medical facilities are a centerpiece of health care in North-Central West Virginia. Aside from providing medical services, the medical institutions provide a substantial economic impact to the region. This section examines the expenditures of WVU's medical facilities in the local economy. We consider the expenditures of the West Virginia University Hospital System that fall within the local area, including West Virginia University Hospital (Ruby Memorial and surrounding institutions), United Hospital Center in Clarksburg, and the University Medical Corporation.

In Table 6, we provide details on the direct impact of the WVU medical facilities. WVU Hospital had approximately \$622 million of direct expenditures in the five-county region's economy.¹⁰ United Hospital Center in Bridgeport spent \$205 million in the Harrison County economy. And the University Medical Corporation, which is the umbrella organization for the university's doctor practices, spent almost \$217 million in the local economy. In sum, these three entities contributed more than \$1 billion in economic activity to the local economy, and paid workers approximately \$627 million in compensation.

The direct spending outlined above resulted in a total economic impact of more than \$1.9 billion in the five-county study region (Table 7). The spending supported more than 14 thousand jobs with \$851 million in total compensation. The workers and business impacted by this spending also paid approximately \$34 million in selected state taxes, including income, sales, and corporate net income taxes.

TOTAL ECONOMIC IMPACT SUMMARY

Combining the annual economic impact of WVU's main campus, the medical facilities, and out-of-state student expenditures, we estimate that

¹⁰ The direct impact totals for WVU Hospital, United Hospital Center, and University Medical Corp. exclude depreciation and interest expenses that are accounted for in the university's financial statements.

the total annual economic impact of WVU on the local economy is more than \$3.6 billion (Table 8). More than 26 thousand workers are either directly employed by the university or supported by the economic activity generated by the university.

Other Impacts and Conclusions

This analysis considers the annual impact attributable to West Virginia University through the operating expenditures of the main campus and medical facilities. However, it should be noted that we do not consider all of the likely benefits to the economy related to higher education. In this section we identify other potential impacts of WVU in the economy.

ALUMNI

The primary impact of WVU is the development of an educated workforce. The university produces thousands of new graduates each year, whose education allows them a more productive career and a higher quality of life than if they had not received higher education. However this impact can be difficult to quantify.

In this study we did not estimate the long-run impact of WVU's graduates on the economy as our focus was on the University's much narrower and shorter-run economic impact in the region. However, Bowen, et al. (2014) estimated the long-run economic impact associated with receiving a higher-education degree for the 2009-2010 graduating class from West Virginia's public colleges and universities.¹¹

Overall the authors found that graduates from this graduating class were expected to contribute more than \$6 billion to the state's economy over a 20-year work life. This impact represents the economic gain from additional wages these graduates received that were above and beyond what they would have earned with only a high school diploma, as well as the increased productivity these workers bring to their employers.

In Figure 4, taken from Bowen, et al., we summarize the overall economic impact to the state from this graduating class. The yellow area represents the study's estimate of the resources devoted to educating the 2009-2010 graduating class, which amounts to \$1.4 billion.¹² Of this, \$400 million is derived from direct state appropriations, which are

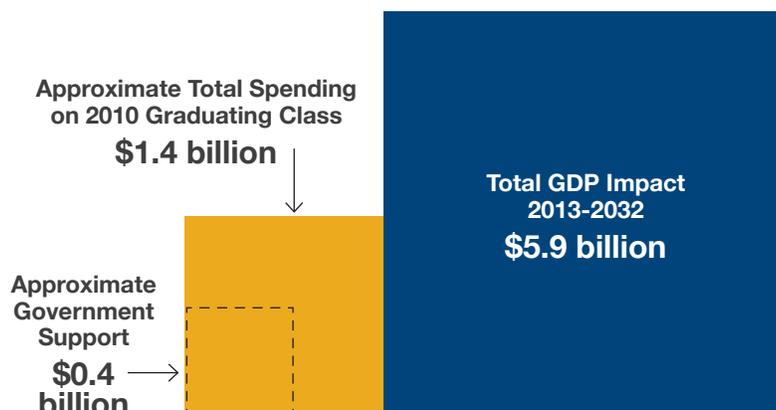
funded by taxpayer dollars, whereas the remainder is derived from college and university tuition, gifts to higher education institutions, etc. The blue portion of the figure represents the estimated impact to Gross State Product of the sample of graduates over their 20-year working career, which, as stated above, amounts to \$5.9 billion. Overall, the authors estimated that the economic benefits of the sample of graduates amounts to 4.3 times that of the resources devoted to educating these men and women beyond high school. Bowen et al. did not differentiate the impact of graduates from WVU compared to graduates of other public colleges and universities in West Virginia. However, graduates of WVU represented approximately 37 percent of the graduates in the class studied.

ADDITIONAL ECONOMIC IMPACTS

In addition to the economic impact created through the higher productivity of alumni, there are several additional impacts that we did not attempt to quantify and as such, our economic impact estimates are conservative. These additional considerations are outlined as follows:

- The presence of WVU in the community likely draws other types of businesses that rely on an educated workforce, but do not supply goods and services directly to the university. For instance, several federal research facilities, such as the US National Institute of Occupational Safety and Health, and NASA's Independent Verification and

FIGURE 4: Estimated 20-year GDP Impact versus Cost of Higher Education



¹¹ Eric Bowen, Christiadi, John Deskins, Patrick Manzi, "How Much Do West Virginia College Graduates Add to the State's Economy?" WVU Bureau of Business and Economic Research (October 2014).

¹² For this figure we started simply with total public higher education spending in the state for one year (\$1.6 billion for 2011). We then subtract from that figure our estimate of spending that occurs at the state's larger institutions that is easily identifiable as being related to research activities, leaving a total of \$1.4 billion.

Validation Facility, are located in the area. These research institutions have close ties with WVU and may employ students upon graduation who have specialized skills.

- WVU can also be a source of tourism. Visitors may be attracted to the area to attend athletic events, cultural activities, and other programs. Also students, faculty, and staff are likely to have visitors throughout the year. The omission of the economic contributions of these visitors means that the estimated impacts underestimate the economic contributions of the institution to West Virginia.
- Construction expenditures also provide significant economic impacts in the region, but these are quite variable. A recent examination by the WVU Bureau of Business and Economic Research (BBER) of the construction program at WVU found that the university's \$661 million construction budget would generate an estimated \$990 million in economic impact over five years.¹³ This impact is not considered in this report.
- The estimated state assorted taxes associated with the total economic impact of each institution exclude unemployment compensation payments from the institutions. Real and personal property taxes paid to localities by businesses and employees are also not estimated within this study. Thus, the total assorted state taxes are an underestimate of the actual taxes remitted at the state and local levels.

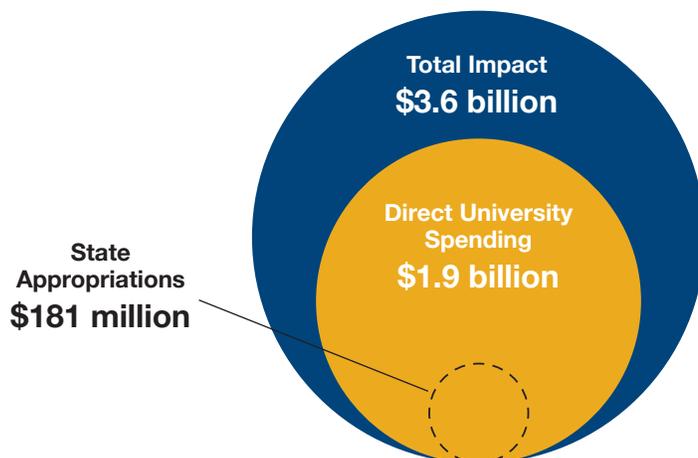
- Many economic contributions of a higher education organization are only realized after the year in which the expenditures are made. In cases where academic research leads to intellectual property that transferred to private businesses in West Virginia, the impacts are realized in a future year and may well continue or expand over time. Services provided by the institutions that enhance the productivity of existing business and lead to the retention of jobs which would otherwise be lost are also not captured within this research methodology.

CONCLUSIONS

WVU provides a significant economic foundation for North-Central West Virginia's economy. Not only is WVU the largest employer in the five-county region, but when secondary impacts are considered, the university supports more than 22 percent of the region's employment base of 119 thousand jobs. The overall compensation generated as a result of WVU's activity amounts to approximately 15 percent of the \$10.8 billion in personal income in the five-county region.

The State of West Virginia provides a substantial foundation for the university's budget. The State's direct appropriation to WVU in fiscal year 2014 was approximately \$181 million, representing 14 percent of the total budget for the university's main campus. When combined with tuition and other sources of revenue, the economic impact of the main campus was more than 8 times the state's appropriation. As depicted in Figure 5, when the medical facilities and student spending are added, the economic impact was approximately 20 times the state's appropriation.

FIGURE 5: Total Economic Impact



This economic impact cannot be interpreted as a marginal return on investment for the state. For instance, an additional \$100 million in state funding would not result in an additional \$2 billion in economic activity. However, it does indicate that state funding for higher education does form the foundation for an institution that provides a wide range of benefits to the regional economy.

13. WVU Today. "WVU Construction Projects Pump \$1 Billion, 7,100 Jobs into Regional Economy." <http://wvutoday.wvu.edu/n/2013/06/26/wvu-construction-projects-pump-1-billion-7-100-jobs-into-regional-economy>.

ABOUT THE BUREAU OF BUSINESS AND ECONOMIC RESEARCH

Since the 1940s, the BBER's mission has been to serve the people of West Virginia by providing the state's business and policymaking communities with reliable data and rigorous applied economic research and analysis that enables the state's leaders to design better business practices and public policies. BBER research is disseminated through policy reports and briefs, through public forums, and through traditional academic outlets. BBER researchers are widely quoted for their insightful research in state and regional news media. The BBER's research and education/outreach efforts to public- and private-sector leaders are typically sponsored by various government and private-sector organizations.

The BBER has research expertise in the areas of public policy, health economics, energy economics, economic development, economic impact analysis, economic forecasting, tourism and leisure economics, and education policy, among others. The BBER has a full-time staff of three PhD economists, and three master's-level economists. This staff is augmented by graduate student research assistants. The BBER also collaborates with affiliated faculty from within the College of Business and Economics as well as from other parts of WVU.

To learn more about our research, please visit our website at be.wvu.edu/bber.



Bureau of Business and Economic Research
PO Box 6527
Morgantown, WV 26506

(304) 293-7831 | bber.wvu.edu