

THE ECONOMIC IMPACT OF WEST VIRGINIA INDEPENDENT COLLEGES AND UNIVERSITIES FISCAL YEAR 2004

BY

CHRISTIADI

AND

DR. TOM S. WITT

BUREAU OF BUSINESS AND ECONOMIC RESEARCH

COLLEGE OF BUSINESS AND ECONOMICS

WEST VIRGINIA UNIVERSITY

JULY 2005

© 2005 West Virginia University Research Corporation

This report is provided under a contract between the West Virginia Independent Colleges & Universities, Inc. and the West Virginia University Research Corporation. The opinions contained herein reflect those of the authors and do not necessarily represent those of the West Virginia University Research Corporation or the West Virginia University Board of Governors.

OVERVIEW

West Virginia Independent Colleges & Universities, Inc. consists of 9 private institutions within the states. These institutions (with founding date in parentheses) include the following:

Alderson-Broaddus College (1871)
Appalachian Bible College (1950)
Bethany College (1840)
Davis & Elkins College (1904)
Mountain State University (1933)
Ohio Valley University (1958)
University of Charleston (1888)
West Virginia Wesleyan College (1890)
Wheeling Jesuit University (1954)

These institutions collectively enrolled over 11,500 students during the academic year 2004-2005 with nearly 60 percent of the students from West Virginia. Over ninety percent of the students receive some form of financial aid. Academic programs range from two year programs through baccalaureate and masters programs.

This report documents the economic contributions of the member institutions of the West Virginia Independent Colleges & Universities, Inc. to the West Virginia economy. Companion publications document the economic impacts of each institution within its regional economy.

Using audited financial information from fiscal year 2004 (July 1, 2003-June 30, 2004) provided from each member institution and the IMPLAN® economic impact modeling system¹, economic impact models were estimated for West Virginia and for nine regional economies within the state. These models were used to quantify the economic contributions these institutions collectively make to the state and to their respective regional economies. Among the economic impacts estimated are employment, employee compensation, output, value added, business volume and assorted state taxes.

This report summarizes the overall economic impacts of these institutions on the West Virginia economy for fiscal year 2004. The report also indicates some of the additional non-quantifiable economic contributions attributed to these institutions as well.

ECONOMIC IMPACT METHODOLOGY

The economic impacts were estimated using the IMPLAN® economic impact modeling system. This is a standard methodology used in numerous national and regional economic impact studies. IMPLAN® methodology has been used by the Bureau of Business and Economic Research (BBER), West Virginia University, to estimate the economic impacts of the following West Virginia businesses or industries: West Virginia travel and tourism, The Greenbrier Resort, West Virginia wood products industry, new Georgia Pacific plant, West Virginia High Technology Consortium and related Federal facilities, West Virginia University, arts industry in Monongalia County, and West Virginia historic preservation and heritage based tourism, among others.

¹ The IMPLAN® economic impact modeling system is a product of Minnesota IMPLAN Group, Inc. (www.implan.com).

The IMPLAN® methodology quantifies the economic impact of the industry or organization on a regional economy. In the case of this study, the initial economic impact is based upon the audit financial information provided by each institution. This information is reconciled to insure compatibility both across institutions and with the requirement of the IMPLAN® economic impact modeling system. Additional information on the patterns of expenditures both within and outside the state and regions are incorporated into the analysis. While the focus is on the annual operating expenditures by the institutions, allowance is also made for major capital expenditures as well. For example, several institutions were building new facilities on campus. Since many of these construction projects were multi-year, a three year average of the construction expenditures at each campus was added to the institutional operating expenditures during the 2005 fiscal year.

THE ECONOMIC IMPACTS

Direct, indirect and *induced* economic impacts of the member institutions are measured in this study. Expenditures by these institutions such as operating expenses (payroll, fringe benefits, rent, utilities, maintenance, construction, supplies, etc.) capital expenses and student spending represent the *direct* economic impact. *Indirect* economic impacts are the economic activities (e.g. sales, wages, etc.) that result from purchases from suppliers of these institutions. For example, a college may purchase supplies from an office supply store. The office supply store, in turn, purchases manufactured goods, utility services, and pays employee wages, among other expenditures. The continued backward linkages from organizations buying from their suppliers, and suppliers purchases from their suppliers, etc., results in a continued re-spending of these funds. The *induced* economic impact of the institutions represents the expenditures by households of the income they received associated with the direct and indirect impacts. For example, the individuals employed in an institution earn wages and salaries, a portion of which they spend locally on the consumption of goods and services. The economic multipliers associated with the *indirect* and *induced* economic impacts are a clear indication of the strong economic linkage between these private colleges and universities and the rest of the West Virginia economy. The sum of the *direct, indirect* and *induced* economic impacts is the *total* economic impact of the member institutions.

Table 1 presents the direct, indirect and induced, and total economic impacts associated with the audited financial information and associated institutional spending during fiscal year 2005. The table also presents estimates of miscellaneous state tax receipts associated with the total economic impacts. Appendix A lists the definitions of these terms.

During the 2005 fiscal year the West Virginia Independent Colleges and Universities Inc. generated a significant economic impact on the West Virginia economy. The following are the total economic impacts by major categories:

- Output of over \$308 million dollars
- Employment of 6,258 jobs
- Employee compensation of nearly \$121 million dollars
- Value added of nearly \$158 million dollars
- Business volume of nearly \$345 million dollars

- State tax revenue of nearly \$7 million dollars

It should be noted that the economic impacts only include student spending ‘captured’ within each institution. For example, many students pay tuition, room and board to the institution. They also purchase text books and other supplies associated with their education. This revenue and supporting expenditures are reflected in the economic impact estimates. In addition, a conservative estimate of the expenses associated with student visitors (i.e. parents and guardians) is also included. On the other hand, some student spending occurs outside the institution. Some students live off campus in apartments or with parents. Others are employed full-time and are only part-time students. Some students have automobiles used for commuting purposes. Off-campus students have expenditures for food, restaurants, entertainment, utilities, etc. which are not captured in this analysis. Some member institutions student bodies are almost entirely full-time students while other institutions have a large number of part-time students. The average annual spending for student living off campus reported by the member institutions ranged from \$3,935 to \$13,158 per student; however, these off-campus expenditures are not included in the economic impact estimates.

Table 1

**Economic Impact of West Virginia Independent
College & Universities Inc. 2005 Fiscal Year**

Type of Impact	Direct	Indirect and Induced	Total
Output (thousands \$)	\$197,844	\$110,217	\$308,062
Employment (jobs)	4,661	1,598	6,258
Employee Compensation (thousands \$)	\$89,542	\$31,200	\$120,742
Value Added (thousands \$)	\$94,828	\$63,064	\$157,892
Business Volume (thousands \$)	\$197,844	\$146,990	\$344,835
Assorted State Taxes (thousands \$)	NA	NA	\$6,809

Note: Numbers may not sum due to rounding. Jobs include both full- and part-time employment. State taxes include consumer sales, personal income, corporate net income, and business franchise taxes.

NON-QUANTIFIABLE ECONOMIC BENEFITS TO THE WEST VIRGINIA ECONOMY

The economic impacts reported in Table 1 are viewed as conservative. While they include the indirect and induced impacts from the expenditures by the various institutions, they exclude many non-quantifiable impacts including the following:

1. The presence of a college or university in a community may be a ‘draw’ to other types of businesses, which do not supply goods and services directly or indirectly to the educational institution. These businesses use student interns and employees with specialized skills such as science, computer programming, business or health care. Often these businesses employ student full-time upon graduation.
2. Faculty, staff and students often start businesses outside the institution. These entrepreneurial startups may often generate significant employment and payrolls as well as making significant contributions to the local economy.
3. Each institution provides a wide variety of athletic, cultural and social activities during the year. These programs undoubtedly enhance the quality of life in the local economies as well as attracting visitors during the course of the year. Additional visitors come to visit faculty, staff and students. This visitor spending supports hotels, motels, bread and breakfasts, restaurants, theaters, camp grounds, taverns, gift shops, and other local businesses. The study does not include the economic impacts of these visitors.
4. Faculty, staff and students deposit funds in local financial institutions, which are subsequently re-invested into the local community through business and consumer loans and mortgages. These funds bolster the regional and state economies.
5. Alumni of higher education institutions return to their institutions for alumni reunions and to take advantage of educational programs, such as Elderhostel. In some cases after a return visit they decide to relocate to the area. Faculty and staff retirees from the various institutions often continue residing in these communities. This study doesn’t consider the economic contributions associated with alumni relocating to these communities nor the impacts of retirees from the communities.
6. Faculty, staff and students serve as volunteers in community-based and faith-based organizations. In many instances they play a major leadership role within these institutions. Students also engage in service-learning experiences including tutoring in public schools, business plan development, recreational program leadership and staffing, among others. The economic value of the hours spent in these endeavors is not included in this study.
7. The estimated taxes associated with the total economic impact excludes workers and unemployment compensation payments from the institutions as well as real and personal property taxes paid to localities by businesses and employees. Consequently, the total estimated taxes paid are an underestimate of the actual taxes remitted at the state and local levels.
8. Most of the institutions have health care benefits and insurance for faculty, staff, and, in some cases students. These insurance plans help bolster the local health care community by providing financial support for services received as well as reducing the amount of uncompensated care provided by the health care institutions.

9. The most important long-term economic benefit not reflected in this report, however, is the increased human capital provided by private colleges and universities. The College Board's recently released publication, *Education Pays 2004*, documents the benefits associated with college education². Graduates of these institutions enter the job market, receiving earnings well above those of high school graduates. Nationally, individuals holding bachelor's degrees will earn 1.73 times the lifetime earnings of high school graduates. Even higher returns accrue to those with a masters, doctorate and professional degrees. These higher earnings are reflected in higher taxes paid to state and local governmental units. Furthermore, unemployment and poverty rates are lower for college graduates compared to graduates with a high school degree or less. College graduates make fewer claims on public social services, report better health and have lower incarceration rates than those with less education.

In the final analysis, the economic contributions of West Virginia's private colleges and universities in fiscal year 2005 undoubtedly exceed the amounts reported in this report.

² The publication is available from the College Board website www.collegeboard.org.

APPENDIX A IMPACT DEFINITIONS

Assorted State Taxes:	West Virginia state revenues from consumer sales tax, personal income tax, corporate net income tax, and business franchise tax.
Business Volume:	Sales plus net increase in finished inventories and the value of intra-corporate shipments. Equals output (see below) plus the cost of goods sold in retail and wholesale trade.
Employment:	The number of jobs in a business, industry, or region. Also the number of jobs attributable to an impact (see below). This is a measure of the number of full-time and part-time positions, not necessarily the number of employed persons. Annual average by place of work unless otherwise stated.
Employee Compensation:	Wages and salaries plus employers' contribution for social insurance (social security, unemployment insurance, workers compensation, etc.) and other labor income (pension contributions, health benefits, etc.). By place of work unless otherwise stated.
Impacts:	The results of the recirculation of funds throughout a regional economy due to the activity of a business, industry, or institution. Estimated by tracing back the flow of money through the initial businesses' employees and suppliers, the businesses selling to the employees and suppliers, and so on. Thus, they are a way to examine the distribution of industries and resources covered in the costs of the initial activity.
Output:	For most sectors, measured as sales plus net inventories and the value of intra-corporate shipments. For retail and wholesale trade, measured as gross margins (i.e. mark-ups on goods sold).
Value Added:	A measure of the value created by a business or industry, or attributable to an impact (see above). Equal to value of production minus the cost of purchased goods and services. Also equal to employee compensation plus capital income (profits, interest paid, depreciation charges) and indirect business taxes (e.g. severance, excise). Corresponds to the aggregate concepts of gross domestic product (GDP) and gross state product (GSP).