
*An Analysis of Tennessee
Private, Non-Profit Colleges'
Economic Impact:
2009-2010*

June 2011

**Tennessee Independent Colleges
and Universities Association**

*A Major Partner in the
Economic Vitality of Tennessee*

EXECUTIVE SUMMARY

The Tennessee Independent Colleges and Universities Association (TICUA) commissioned this study to measure the direct or explicit economic impact of private, non-profit colleges and universities on the state of Tennessee. Twenty-eight of the 34 TICUA member institutions submitted data for the study. With an 82% response, the results are representative of the membership. The study measures the institutions' 2009-2010 economic impact on the State in terms of (1) business volume, (2) employment, and (3) individual income. Not included in the study is the more indirect or implicit impact of private, non-profit colleges and universities on the improved productivity and quality of life achieved through increased levels of education. The study is based on a standard model of economic impact modified for higher education. The model uses conservative income and employment multipliers to determine economic impact.

The study reveals that more than **\$4.7 billion** in revenues flowed into the 28 TICUA institutions during 2009-2010 as a result of their presence in Tennessee. These revenues included more than \$3.1 billion in local revenues (investments and endowment income; local/private gifts, grants, and contracts; sales and services; and auxiliary enterprises); \$925 million in student tuition and fees; \$446 million in federal grants and contracts; \$84 million in federal, State, and local student financial aid; and \$5 million in State grants and contracts. These revenues were then expended for staff salaries and benefits, operating expenses, capital improvements, and student financial aid.

The following economic impact resulted from institutional expenditures of these revenues:

1. Tennessee **business volume** generated by institutional expenditures during 2009-2010 was **\$4.2 billion**.
2. Tennessee **full-time-equivalent jobs** created and sustained during 2009-2010 as a result of the 28 institutions' presence totaled **301,092 jobs** (including the institutions' own 28,764 full-time jobs).
3. Tennessee **individual income** generated by institutional expenditures during 2009-2010 ranged from **\$3.9 billion**, using the more conservative Type I multiplier, to **\$4.6 billion**, using the more liberal Type II multiplier.

In summary, the combined 2009-2010 direct economic impact of the 28 private, non-profit colleges and universities on the State represents more than **\$8.1 billion**. This impact would largely not have occurred without the presence of these institutions in the State. This study clearly documents the significant positive force that the State's private, non-profit colleges and universities have become in the economic vitality of Tennessee.

INTRODUCTION

For over 200 years, private colleges have been serving the Volunteer State. In 1956, the precursor of the Tennessee Independent Colleges and Universities Association (TICUA) was established to promote better cooperation among private, non-profit higher education institutions throughout the state of Tennessee. TICUA engages Tennessee's private, non-profit colleges and universities to work collaboratively in areas of public policy, cost containment, and professional development to serve better the State and its citizens.

TICUA membership is limited to independent, non-profit, regionally-accredited colleges and universities in Tennessee. TICUA's 34 member colleges and universities educate over 75,000 students annually from across the State, country, and throughout the world.

TICUA commissioned a study of the economic impact of private, non-profit higher education in the State in 2007. This report, an update of the original study, represents a critical analysis of the responses from 28 of the 34 (82%) private, non-profit colleges and universities in the state of Tennessee based on data from the 2009-10 year. Data is included for the following institutions:

Aquinas College
Baptist Memorial College of Health Sciences
Belmont University
Bryan College
Carson-Newman College
Christian Brothers University
Cumberland University
Fisk University
Johnson University
King College
Lane College
Lee University
Martin Methodist College
Maryville College

Meharry Medical College
Memphis College of Art
Middle Tennessee School of Anesthesia
Milligan College
Rhodes College
Sewanee: The University of the South
Southern Adventist University
Southern College of Optometry
Tennessee Wesleyan College
Trevecca Nazarene University
Tusculum College
Union University
Vanderbilt University
Watkins College of Art, Design, and Film

This analysis measures the direct, explicit economic impact of private, non-profit colleges and universities on the state of Tennessee. It does not include the indirect, implicit economic impact that results from having a trained and educated work force available for local business/industry or from expansion and/or recruitment of business/industry because of the institutions' presence. The analysis is based on the Caffrey model of economic impact, originally developed in 1968 through the American Council on Education.

The model uses conservative income and employment multipliers to determine private, non-profit colleges and universities' economic impact on the following:

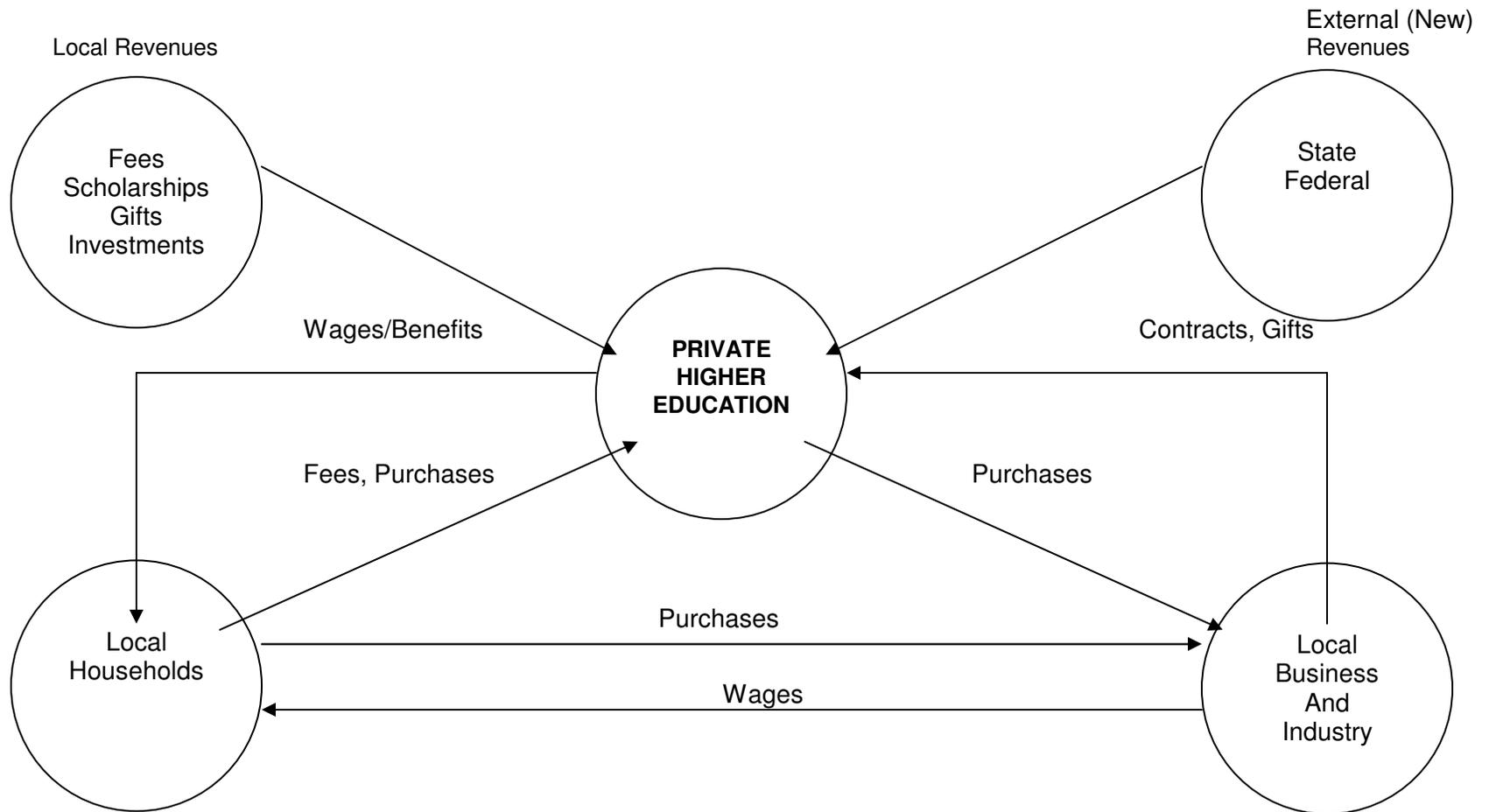
1. Business volume--the total amount of business volume generated in the State as a result of the institutions' direct and indirect expenditures.
2. Employment--the total number of full-time jobs generated and sustained in the State by the institutions' direct and indirect expenditures.
3. Individual income--the total amount of personal income earned by households in Tennessee as a result of the institutions' direct and indirect expenditures.

METHODOLOGY

The study employs a model based on a circular cash flow model as illustrated in Figure 1. The model treats the State as a semi-closed economic system, with money entering the system through the colleges and universities from both local and external sources.

Local sources of revenue include student tuition and fees, endowment/investment income, auxiliary enterprises revenue, private gifts/grants/contracts, private scholarships and fellowships, and other miscellaneous local revenue. External sources of revenue include federal and State grants/contracts, State lottery scholarships and other State student financial aid, and federal student financial aid.

Figure 1
Circular Cash Flow Model



Institutions circulate their revenues through the State’s economy via expenditures for employee salaries/benefits, facilities maintenance and construction, student financial aid, and local purchases of equipment and supplies. These expenditures then re-circulate through the State’s economy, thereby increasing in value and having a multiplier or secondary impact as Tennessee businesses and households that make their own expenditures and generate jobs. Figure 2 illustrates this multiplier principle.

The chart below shows the 2009-10 institutional revenues and expenditures.

REVENUES SOURCES	Fiscal Year
	2009-2010
GENERAL REVENUES	
STATE APPROPRIATION*	18,679,116
LOCAL PROPERTY TAX	0
ENROLLMENT FEES	925,230,523
TOTAL	943,909,639
FEDERAL	402,027,751
OTHER STATE	0
COUNTY	0
LOCAL	3,162,217,980
OTHER LOCAL	0
SPECIAL REVENUES	
FEDERAL	43,878,611
STATE	5,256,430
LOCAL	117,256,865
OTHER	0
STUDENT FINANCIAL AID	
FEDERAL	39,311,956
STATE	26,430,206
LOCAL	18,533,675
OTHER	0
TOTAL REVENUES	4,758,823,113

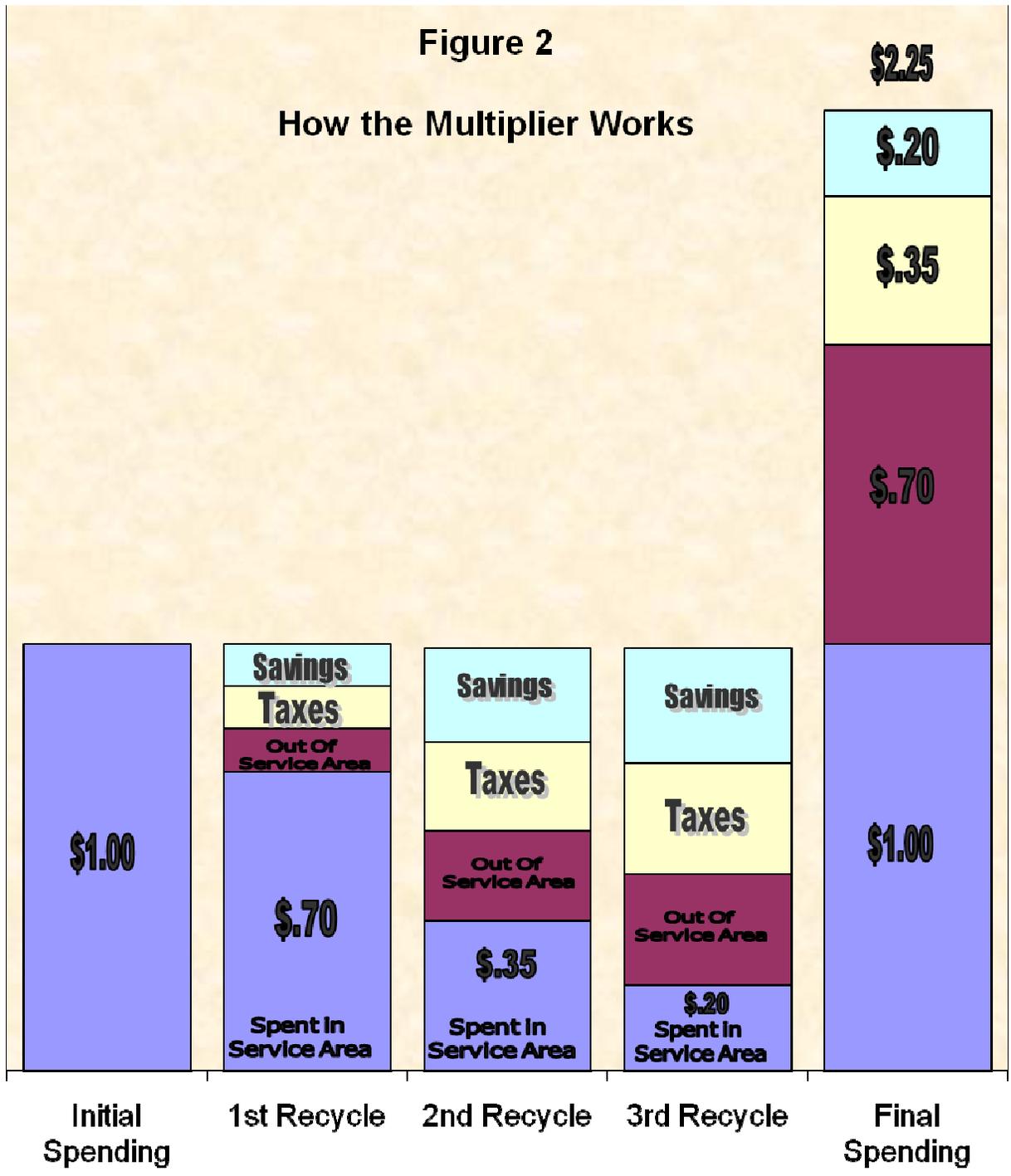
*This number does not include student aid.

During 2009-2010, more than \$4.7 billion in revenues flowed through the 28 institutions. (The figures include the heavily endowed Vanderbilt University.) Of the total revenues, \$4.2 billion are defined as “local” revenues and \$536 million defined as external or non-local revenues.

The model classifies all student tuition and fee revenues, as well as all scholarships and fellowships, as “local” revenues. In fact, many of those revenues actually enter the institutions

Figure 2

How the Multiplier Works



through external sources such as tuition and fees paid by students whose permanent domicile is outside Tennessee. Similarly, some scholarship and fellowship revenues come into the institutions from outside of Tennessee. Regardless of revenue classification, however, the following college and university expenditures in the State generate the economic impact of the private, non-profit colleges and universities.

EXPENDITURES	Fiscal Year
DATA	2009-2010
WAGES	2,313,017,739
NON-SALARY EXPENDITURES	1,580,165,583
CAPITAL EXPENDITURES	91,268,342
STUDENT FINANCIAL AID	204,665,882
NET WAGES IN STATE	1,734,763,304
NON-SALARY, IN STATE	1,027,107,629
CAPITAL, IN STATE	59,324,422
FTE COLLEGE/UNIVERSITY JOBS	28,764
TOTAL EXPENDITURES	4,189,117,546
EXPENDITURES IN STATE	3,025,861,238

Expenditures during 2009-2010 by the 28 institutions totaled \$4.2 billion, with an estimated \$3.0 billion (72%) spent in Tennessee. The author of this study estimates that, on average, institutions made approximately 72% of expenditures within the State’s borders.

RESULTS

Based on the analysis of the college and university expenditures, the author of this study estimates the following economic impact to have occurred.

Business Volume Impact

The chart below shows the business volume impact generated in Tennessee by the expenditures of the 28 private, non-profit colleges and universities.

Business Volume Impact

	2009-2010
BUSINESS VOLUME	\$4,236,205,733

The State’s businesses and industries benefitted greatly from the presence of the 28 private, non-profit institutions, with more than \$4.2 billion in economic impact generated during 2009-2010 alone. Figure 3 graphically illustrates the business volume generated by the institutions’ presence.

Employment Impact

The chart below shows the employment impact, in terms of full-time jobs created and sustained in Tennessee by private, non-profit higher education’s expenditures.

Employment Impact

	2009-2010
JOBS CREATED	301,092

While the 28 private, non-profit institutions’ own full-time-equivalent (FTE) jobs totaled 28,764 during 2009-2010, the State employment created and sustained by their expenditures totaled 301,092 FTE jobs. Figure 4 graphs the relationship between the institutional FTE jobs and FTE jobs generated in Tennessee by the presence of these private, non-profit colleges and universities.

Individual Income Impact

The impact of the 28 private, non-profit institutions’ expenditures on personal income in Tennessee is calculated using two different multipliers to produce a range of impact, shown below as Type I and Type II. The Type I multiplier is the more conservative measure.

Individual Income Impact

	2009-2010
TYPE I MULTIPLIER	3,943,505,091
TYPE II MULTIPLIER	4,603,547,833

Figure 3
Business Volume Impact

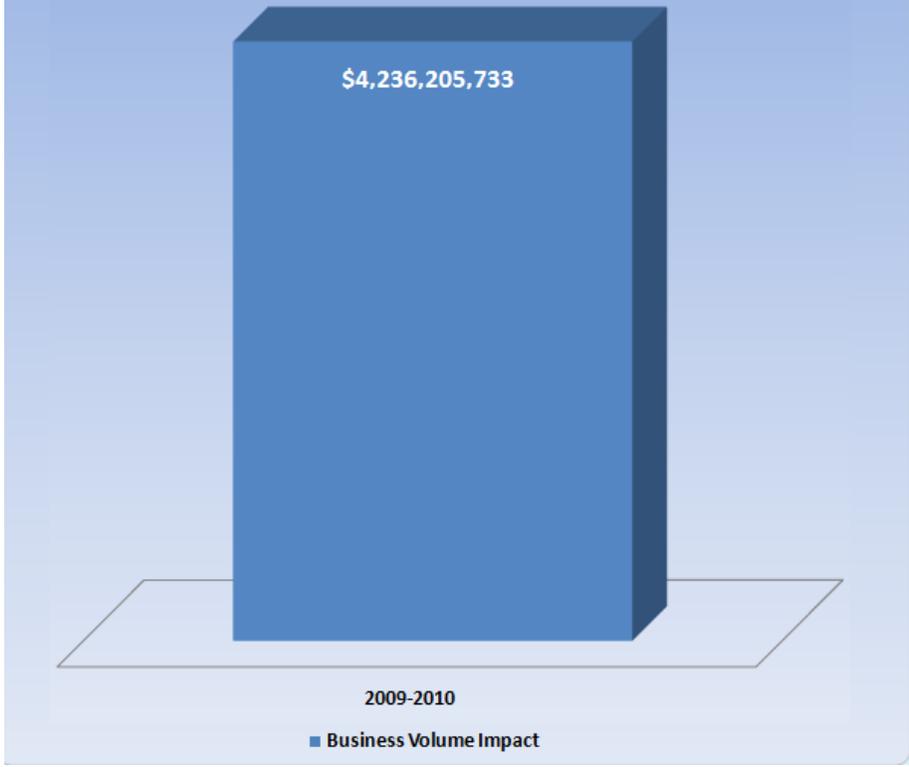
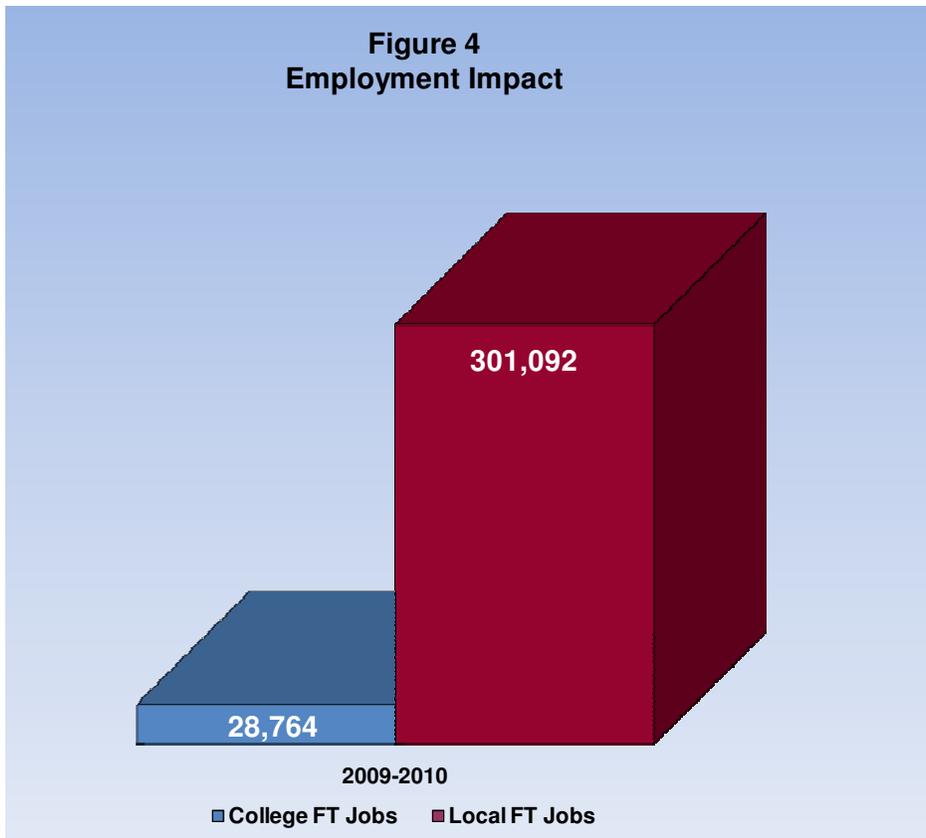
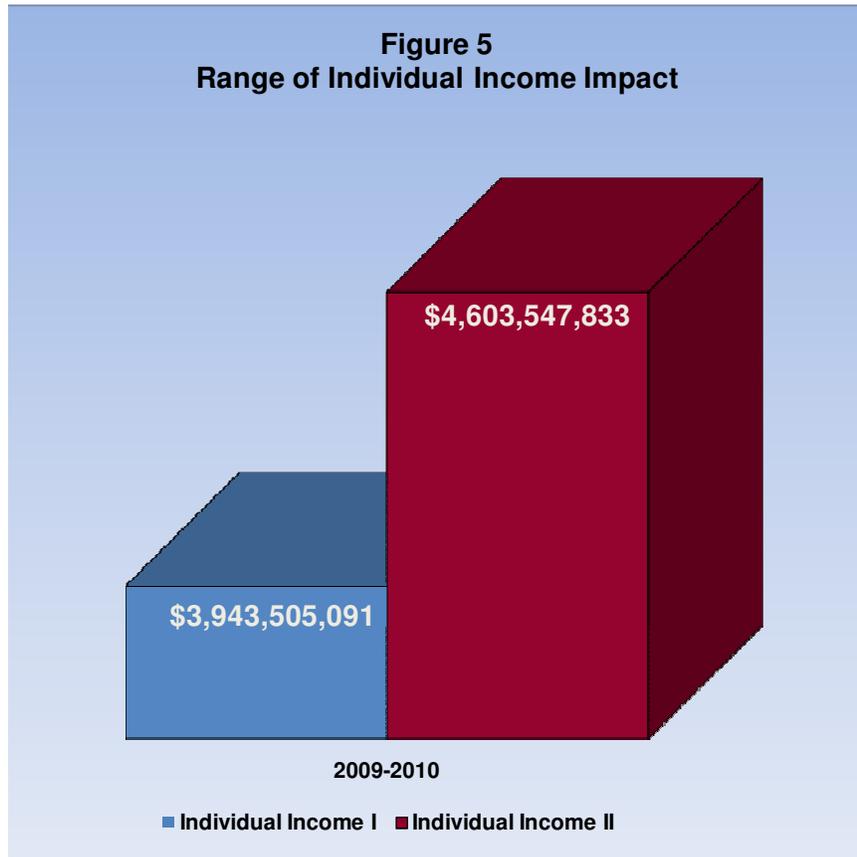


Figure 4
Employment Impact



The impact of the 28 private, non-profit college and university expenditures on personal income in the State ranged from \$3.94 billion to \$4.60 billion during 2009-2010. Figure 5 graphically illustrates the range of Tennessee personal income generated by these institutions' presence in the State.

In summary, the combined 2009-2010 economic impact of these 28 TICUA institutions on Tennessee represents \$8.18 billion. This impact likely would not have occurred without the presence of these 28 private, non-profit colleges and universities in the State.



CONCLUSION

The results of this economic impact study clearly demonstrate that private, non-profit colleges and universities are major contributors to the economic base of Tennessee. In addition to the more implicit impact of these institutions on the improved productivity and quality of life achieved through increased levels of education, their explicit economic impact is significant. This economic impact has been expressed here in terms of jobs created and sustained, business volume generated, and personal income earned within the State.

As these institutions continue to grow in enrollment and/or budget, their economic impact on Tennessee will increase. Private, not-profit higher education has clearly become a major partner and force in the economic vitality of Tennessee.