

VALDOSTA STATE UNIVERSITY
ECONOMIC IMPACT STUDY
Fiscal Year 2006



Dr. Cynthia Royal Tori
Associate Professor of Economics
Langdale College of Business Administration
Rea and Lillian Steele North Campus
Valdosta State University
Valdosta, Georgia

EXECUTIVE SUMMARY

This study measures the economic impacts associated with Valdosta State University activities on Valdosta-MSA output and employment.¹ The economic impacts on output and employment are a function of local spending by Valdosta State University and its employees, and local spending by Valdosta State University students.

For the fiscal year 2006, local expenditures by Valdosta State University and its employees totaled \$90.1 million. With every dollar spent leading to an additional .556 dollar impact on output, Valdosta State University and its employees generated a total output impact of \$140.4 million. Local expenditures by Valdosta State University students totaled \$139.4 million. With every dollar spent by students leading to an additional .374 dollar impact on output, Valdosta State University students generated a total output impact of \$191.3 million. Summing both together, the analysis concludes that the total economic impact of Valdosta State University related activities on Valdosta-MSA output was \$331.7 million for fiscal year 2006.

At fiscal year-end 2006, Valdosta State University employed 538 faculty members and 1,003 staff personnel either full-time or part-time. Within the Valdosta-MSA, spending by Valdosta State University and its employees created an additional 2,022 jobs, and Valdosta State University student spending created an additional 1,620 jobs. The analysis reveals that the total economic impact of Valdosta State University related activities on Valdosta-MSA employment was 5,183 jobs, or approximately 8% of the employed labor force in the Valdosta-MSA.

Introduction

Valdosta State University is celebrating its centennial anniversary. Established as an institution of higher education in 1906, South Georgia State Normal College began offering college preparation classes and classes toward a two-year degree to three college freshman and fifteen subfreshman female students on January 2, 1913. Over the next eighty years, the name of the institution changed several times as its mission expanded to a co-educational institution offering associate, bachelor, and graduate level degrees. The most recent change occurred in 1993 when the institution was renamed Valdosta State University and was designated the second regional university within the University System of Georgia. Today, the five colleges and the graduate school that comprise Valdosta State University offer thirteen undergraduate degrees with over fifty majors, and twelve graduate degrees with over forty majors. During 2005, Valdosta State University enrolled over 10,000 students and conferred 2,148 undergraduate and graduate degrees ranging from the associate to the doctorate.

Valdosta State University is situated on 168 acres located within the city limits of Valdosta, Georgia. The University has two campuses located less than one mile apart: an 85-acre Main Campus and the Rea and Lillian Steele North Campus. In addition to the campuses, support units are located at satellite buildings near one of the two campuses. Valdosta, located in the southwest region of Georgia along the Florida-Georgia border, is recognized as a metropolitan statistical area (Valdosta-MSA). The Valdosta-MSA includes Brooks, Echols, Lanier, and Lowndes counties, with Lowndes County the most

populous and affluent of the four counties. Valdosta State University is the third largest employer in the Valdosta-MSA.

This economic impact study uses an input-output analysis to measure the economic linkage between Valdosta State University and the Valdosta-MSA. The analysis uses a predictive model to measure changes in output and employment that are associated with local university-related activities. Changes in output and employment are a function of local spending by Valdosta State University and its employees, and the local spending by Valdosta State University students.

The remainder of the study is divided into three sections. The first section defines the components of an economic impact study and discusses the methodologies used to calculate the economic impacts. The second section reveals the output and employment impact results of this study. The final section discusses some limitations of the study.

Economic Impact Concepts and Methodology

When economists refer to economic impacts, they are considering how local expenditures associated with a development project, business enterprise or government institution affects output and employment in a region. With any activity, a portion of total expenditures is spent within the regional economy and a portion is spent outside the regional economy. For example, the University spends a portion of its revenue on faculty salaries and a portion of its revenues on library acquisitions. The amount of faculty salary expenditures impacts regional output and employment. This type of impact is referred to as direct economic impact. Since library acquisitions are expenditures outside the region, they are considered leakage and do not count toward the University's economic impact on the region.

When local businesses and workers receive payment for their goods and services, they too spend a portion of their funds in the regional economy. Using the University example, the faculty use a portion of their wages to buy gasoline, eat out at restaurants and pay for entertainment. These subsequent expenditures create more output and employment for the regional economy. The businesses and workers that receive the subsequent payments also spend a portion of their funds in the local economy which creates more output and employment. The additional output and employment generated from the subsequent spending are known as the multiplier effect.

The multiplier effect includes both the indirect and induced effects resulting from the initial spending. Indirect effects consist of the expenditure and employment changes that result from subsequent business production and expenditures. The induced effects are the changes in spending that capture all inter-institutional transfers, including subsequent household spending. The magnitude of the multiplier is a function of the resource flows among industries within a region and the marginal propensity of local consumers to spend their income. The heterogeneity of businesses and consumers leads to different multipliers for the various industries and regions across the United States. In general however, the more self-sufficient an industry or region, the larger is the multiplier.

The total economic impact of an activity is the sum of the direct, indirect and induced economic impacts. It assesses the total change in output and employment that results from the initial spending on a development project, business enterprise, or government institution. The total economic impacts of this study were calculated using multipliers derived through the regional input-output model with the IMPLAN Professional 2.0 Accounting & Impact Analysis Software. The model uses a regional

social account matrix (SAM) that includes both market and non-market economic transactions to calculate the multipliers.²

Output and Employment Impact Results

The economic impact of Valdosta State University is associated with two university-related local expenditures: spending by Valdosta State University and its employees, and spending by Valdosta State University students. The first part of this section discusses the economic impacts on Valdosta-MSA output. The second part of this section reports the economic impacts on Valdosta-MSA employment.

The Economic Impact on Output

Valdosta State University and its employees

Total expenditures by Valdosta State University during the fiscal year 2006 were \$121.5 million. To calculate the direct economic impact on the Valdosta-MSA, expenditures were reduced by the value of expenditures attributed to spending outside the region. These expenditures were benefits paid to faculty and staff (\$17.4 million), travel funds (\$1.3 million), and library collections (\$1.2 million). Total expenditures were also reduced by the amount of University scholarships and fellowships (\$8.9 million), graduate assistant and student salaries (\$2.4 million) and student financial aid from the VSU Foundation (\$0.2 million), since these funds will be accounted for under student expenditures. The remaining expenditures which total \$90.1 million reflect local expenditures and represent the direct economic impact of Valdosta State University and its employees. Under the heading of direct effects, Table 1 provides a breakdown of Valdosta State University local expenditures.

For each type of expenditure, the regional input-output model calculated the indirect and induced economic impacts. These impacts account for subsequent spending that result from the initial direct expenditures by Valdosta State University. During the fiscal year 2006, the indirect and induced economic impacts on Valdosta-MSA output totaled \$50.3 million. On average, for every one dollar of direct expenditures by Valdosta State University, output increased an additional .556 dollars in the Valdosta-MSA.

Table 1
University Economic Impact on Output
Fiscal year 2006
(in millions of dollars)

	Direct effects	Indirect and Induced effects ^a	Total impact on Output
Faculty salaries	29.4	11.9	41.3
Staff salaries	22.5	8.9	31.4
Operating expenses	29.6	22.9	52.5
Construction and Improvements	4.6	3.5	8.1
VSU Foundation	4.0	3.1	7.1
Total Output Impact	90.1	50.3	140.4

Source: Valdosta State University Financial Report for the Fiscal Year Ended June 30, 2006 (draft). ^a Impacts estimated using the IMPLAN's Professional 2.0 Social Accounting and Impact Analysis Software and IMPLAN's SAM type multipliers.

The total economic impact of Valdosta State University expenditures on the Valdosta-MSA was \$140.4 million. These impacts are the sum of the direct, indirect and induced economic impacts for the University and its employees. The output impact of \$140.4 million represents approximately 4.5% of the total personal income in the Valdosta-MSA.

Valdosta State University Students

Student expenditures represent an additional economic impact associated with Valdosta State University. Valdosta State University attracts students from 157 of the 159 Georgia counties, 44 U.S. states, and many countries.³ Approximately 79 percent of the students enrolled during 2005 were from outside the Valdosta-MSA. The expenditures by these students reflect a direct economic impact that would not have occurred in the absence of the University. The expenditures by students from the Valdosta-MSA were also considered, since the students would likely attend a college outside the Valdosta-MSA in the absence of Valdosta State University.

Since student spending information was not available, student expenditures were estimated using student enrollment numbers and consumer spending data as reported by the U.S. Bureau of Labor Statistics. Table 2, column 2 reports the student enrollment numbers for the three semesters included in the 2005-2006 academic year. Student enrollment averaged over 10,000 students during the fall and spring semesters, and was just over 4,900 students during the summer semester.⁴

Table 2
Student Enrollment and Expenditures
2005-2006 Academic Year

Semester	Enrollment numbers ^b	Average semester expenditures (\$)	Estimated Student Expenditures (\$ millions)
Summer 2005	4,937	2,732	13.5
Fall 2005	10,524	6,147	64.7
Spring 2006	9,950	6,147	61.2
Total Direct Impact on Output			139.4

^b Source: Valdosta State University Registrar, 2006.

Student expenditure values were estimated using data reported in Table 4 of *Consumer Expenditures in 2004*, published by the Bureau of Labor Statistics.⁵ Expenditure items from the Under 25 years of age column that reflect typical student expenditures were selected. These expenditures included retail spending, eating out, entertainment, household expenditures, utilities, rent, and miscellaneous items. Education, health care, and public transportation were not included since these services are provided by Valdosta State University and are already included in the University expenditures. Automobile purchases, insurance premiums, and pension payments were also excluded.

Summing the selected expenditure items leads to an average annual expenditure per student of \$16,390, or \$1,366 per month. Allowing for 4.5 months for the fall and spring semesters, and 2 months for the summer semester, average semester expenditures were calculated. The estimated average student expenditures were \$6,147 for the 2005 Fall and 2006 Spring semesters and \$2,732 for the 2005 Summer semester. Multiplying the average student expenditures by the number of students enrolled provided the estimated student expenditures by semester. These calculations are reported in column 4 of Table 2. Summing the estimated student expenditures for the three semesters provides the estimated total student expenditures for the 2005-2006 academic year. As recorded in Table 2, the \$139.4 million reflects the direct economic impact of Valdosta State University students on the Valdosta-MSA.

Student expenditures also lead to a multiplier effect on output. The model estimates the indirect and induced effects as \$51.9 million. For every one dollar spent by students in the Valdosta-MSA, output increased by an additional .374 dollars. The direct,

indirect, and induced student expenditures result in an estimated total economic impact of \$191.3 million.

Table 3
Student Economic Impact on Output
2005-2006 Academic Year
(in millions of dollars)

	Estimated Student Expenditures
Direct effects	139.4
Indirect and Induced effects	51.9
Total Output Impact	191.3

Total Economic Impact

As mentioned previously, the total economic impact of Valdosta State University on the Valdosta-MSA includes all university-related expenditures. This includes expenditures by Valdosta State University and its employees, and expenditures by Valdosta State University students. The regional input-output model calculated the economic impact of Valdosta State University and its employees as \$140.4 million and the economic impact of Valdosta State University student as \$191.3 million. Together, the total economic impact of University-related activities was \$331.7 million during the fiscal year 2006. Representing approximately 11% of total personal income, these results reflect the significant impact Valdosta State University has on the Valdosta-MSA.

The Economic Impact on Employment

An additional measure of economic impact is to calculate the impact an activity has on employment. The definitions of direct, indirect, and induced effects still apply,

Table 4
Total Economic Impact on Output
Fiscal Year 2006

Source of University-related Expenditures	Economic Impacts (in millions of dollars)
Valdosta State University and its employees	140.4
Valdosta State University Students	191.3
Total Economic Impact on Output	331.7

however now the focus is on job creation. At fiscal year-end 2006, Valdosta State University employed 538 faculty members and 1,003 staff personnel either full-time or part-time. Employees working for the Valdosta State University Foundation are included in the staff personnel total. As reported in Table 5, the total direct economic impact on employment was 1,541 jobs.

Table 5
Economic Impact on Employment
Fiscal year 2006
(number of jobs created)

	Direct effects	Indirect and Induced effects	Total impact on Employment
Faculty	538	386	924
Staff	1,003	308	1,311
Operating expenses		1,095	1,095
Construction and Improvements		84	84
VSU Foundation		149	149
VSU Students		1,620	1,620
Total Economic Impact on Employment	1,541	3,642	5,183

The number of indirect and induced jobs created as a result of Valdosta State University and Valdosta State University student expenditures is also reported in Table 5. Direct spending originating from consumer spending activities accounted for 64% of the indirect and induced jobs created. Within the Valdosta-MSA, faculty spending created an estimated 386 jobs, staff spending created an estimated 308 jobs and Valdosta State University student spending created an estimated 1,620 jobs. Valdosta State University Foundation, operating expenses, and construction costs collectively accounted for another 1,328 jobs created. The total economic impact on Valdosta-MSA employment was 5,183 jobs, or approximately 8% of the employed labor force in the Valdosta-MSA.

Limitations and Other Considerations

The \$331.7 million output impact and 5,183 employment impact are minimum estimates of the total economic impacts associated with Valdosta State University. All economic impact studies have limitations and despite efforts to capture the complete economic impact of Valdosta State University, this study also excludes some benefits to the Valdosta-MSA. The activities are not included because there is limited economic information or the activity is not quantifiable. Examples of benefits not included in this study are:

1. the value of the outreach programs sponsored by Valdosta State University, such as Students In Free Enterprise, summer reading programs offered by the College of Education, continuing education programs, international programs, the Peach State Summer Theatre, and various lecture series.
2. the additional expenditures in the community that is associated with the athletic and cultural events.
3. local access to a comprehensive University library.

4. the value of the diverse and educated Valdosta State University personnel living in the community.
5. the value of the retired university personnel and dependents locating in the Valdosta-MSA.
6. the potential economic impact to the nearby counties in the South Georgia and North Florida region that are not included in this study.

These benefits are not an exhaustive list, but are representative of the types of non-measurable benefits not included in the study.

¹ This study was funded by The South Georgia Institute, Langdale College of Business at Valdosta State University.

² The SAM multipliers use all social accounting matrix information to generate a model that captures the inter-institutional transfers. The model includes not only household spending, but also other institution spending as well. Examples of spending are tax payments and savings.

³ The Valdosta State University 2005 Factbook is the source of enrollment characteristics.

⁴ It is common and expected that summer school enrollment would be less than fall and spring enrollment.

⁵ Source: Consumer Expenditures in 2004, Bureau of Labor Statistics, U.S. Department of Labor, April 2006, Report number 992.