



**THE ECONOMIC IMPACT OF DALTON STATE
COLLEGE ON THE LOCAL ECONOMY OF NORTH
WEST GEORGIA**

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December 2004

The conclusion of the study are those of the authors and do not necessarily reflect the views of the senior administrators of Dalton State College. This review was made only for internal uses and any reuse of the contents must be accorded with the permission of the authors.

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EXECUTIVE SUMMARY

This study is an attempt to provide a conservative estimate of the economic impact of DSC on the local Northwest Georgia economy. It employs an economic multiplier appropriate for the Northwest region and uses the methodology provided by the Selig Center for Economic Growth at the University of Georgia which allows institutions within the University System to estimate the economic impact of their institutions on their regional economies. The study is based on the assumption that DSC expects future growth in its student enrollment and would want an estimate on the expected economic impact of this student growth on the local economy. It is thus an attempt by College administrators to provide predicted economic impact of DSC in the Northwest Georgia region under three different student enrollment growth scenarios of 4,200, 5,000, and 7,500 students. The following is a summary of the DSC economic impact study using the three growth scenarios.

Scenario 1 (4,200 students)

- The total economic impact on the local economy due to spending by DSC (including capital projects, salaries and fringe benefits, operating expenditures, and other budgeted expenditures) and spending by students who attend DSC is **\$71.9 million**.
- The employment impact on the local economy is **926** additional jobs.

Scenario 2 (5,000 students)

- The total economic impact on the local economy due to spending by DSC (including capital projects, salaries and fringe benefits, operating expenditures, and other budgeted expenditures) and spending by students who attend DSC is **\$88.5 million**.
- The employment impact on the local economy is **1,153** additional jobs.

Scenario 3 (7,500 students)

- The total economic impact on the local economy due to spending by DSC (including capital projects, salaries and fringe benefits, operating expenditures, and other budgeted expenditures) and spending by students who attend DSC is **\$132.5 million**.
- The employment impact on the local economy is **1,699** additional jobs.

Figure 1
Total Economic Impact

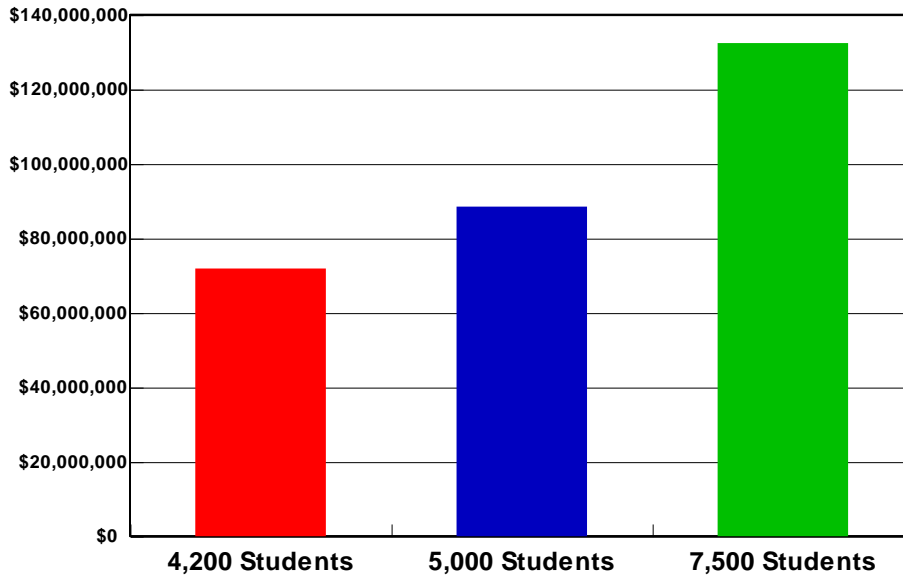
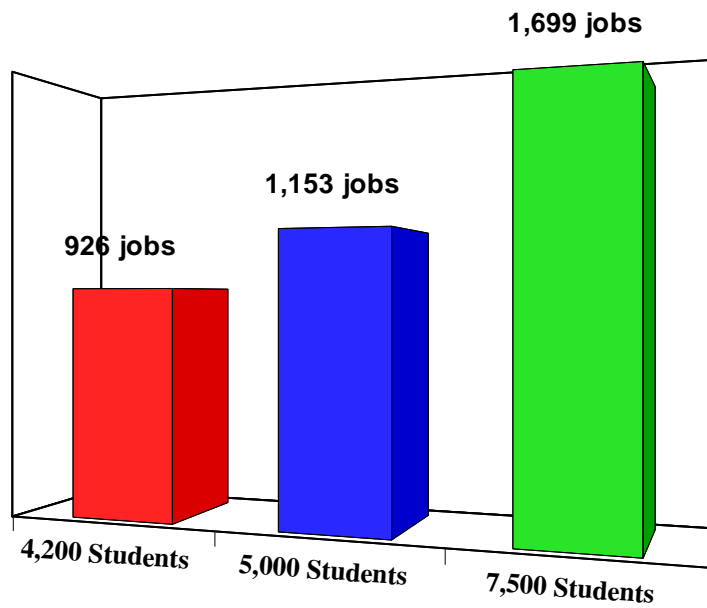


Figure 2
Employment Impact



Introduction

Dalton State College (DSC) is located in Whitfield County in the northwestern part of the State of Georgia. Whitfield County covers 290 square miles, with an average of 288 people per square mile. Dalton, located in Whitfield County, is the major city and the “Carpet Capital of the World.” The population of Whitfield County in 2000 was 83,525 - a 15.3 percent increase from 1990. In 2000, only 5.3 percent of the population is Hispanic, lower than the nation average of 11.5 percent. But in Whitfield County, 22.1 percent of the population in 2000 is Hispanic; this is almost double the national rate. The carpet industry in Whitfield County has drawn many Hispanic immigrants to Georgia and Whitfield County. This trend is likely to continue in the years and decades ahead.

In the same token, DSC has grown steadily over the past 34 years. The College was established in 1967 as a Junior College with only 524 students and five buildings; these buildings have had additions added over the years as well as new ones. The student body has grown and continues to grow - reaching its highest enrollment peak in the Fall of 2004 with 4,252 students. The institution’s primary service area consists of Whitfield County and surrounding county areas in Northwest Georgia and includes: Catoosa, Chattooga, Dade, Fannin, Gilmer, Gordon, Murray, Pickens, Walker counties. Dalton State College is a state-funded educational institution with a highly qualified faculty helping students achieve baccalaureate degrees, prepare for transfer to universities, and attain careers in business, health, service, technical, and vocational fields through a variety of technical programs. In addition, DSC provides off-campus courses at other branch locations and it draws students from neighboring localities beyond its service area, such as Bartow County and also in neighboring Tennessee counties.

Background and Methodology to Study

Northwest Georgia receives many benefits from DSC through its direct expenditures. Dalton State College affects the local economy in three ways:

- operating expenditures,
- payroll and personnel expenditures, and
- student expenditures.

These three categories combine to produce a direct economic impact on the local economy. These spending yet fuel another round of spending when it is first circulated in the economy and the process of re-spending will repeat itself and create even greater economic impact. This study will measure the degree of economic impact of DSC on the local economy of Northwest Georgia by following the methodology provided by the University System of Georgia that is based on the input-output analysis. The model for the study is the March 2002 study, *The Economic Impact of University System of Georgia Institutions on Their Regional Economies – A Needs' Assessment Study Commissioned by Georgia's Intellectual Capital Partnership Program (ICAPP)*. The analysis, based on the methodology of the Selig Center for Economic Growth at the University of Georgia, looks at the determinants of the local economic impacts of higher education under two broad categories: the expenditure and knowledge impacts (Jones, 2000). The expenditure impact of a college is the number of jobs and the amounts of sales and of payroll that it generates over and above what is required to meet purely local demand. The expenditures of a college have immediate short-term effects and lead to increases in the Gross Regional Product (GRP). The annual compounded GRP growth leads to continued regional income growth in the long term. The knowledge impacts result from the

transmission of ideas to the community and the increased human capital translates into higher productivity and greater earnings for themselves with multiplied financial impacts on the community. The increases in knowledge also have greater benefits to the general society as well. As well, the expenditure impacts will typically be greater than knowledge impacts during an academic year.

The economic impact of an institution or any organization is thus based in part on what is called the *multiplier effect*. This means that an increase in expenditures by an entity such as DSC brings about an even larger increase in the income of the region. The ratio of the increased income to the increased spending is the multiplier. The magnitude of the college's local economic impact is related to the size of the region in which it is located and to its range of influence. Any multiplier effects of direct new expenditures at the college will be greater if the local market is large and diversified. Also, the local knowledge impacts of a college are greatest when many degree programs are offered and most students stay in the local labor market.

Apart from that, the economic impacts of institutions on their local economies are also affected by several other variables such as the location of the college (metropolitan and non-metropolitan areas); whether the college is a teaching or research institute; and the size of the college. There are four major techniques that have been utilized to estimate college economic impacts: income expenditure analysis; economic base analysis; and ACE analysis developed by the American Council of Education (Caffrey-Issacs, 1971). The fourth technique, input-output analysis (I-O) was developed by Leontief (1936) and can be used to derive the multiplier of an additive injection to the economy. Several economic impact analysis of higher education have used the I-O

model (Blake and McDowell 1967; Bonner 1968; Lilles and Tonkovich 1976; Goodman and Weiler 1992; Goldstein 1990).

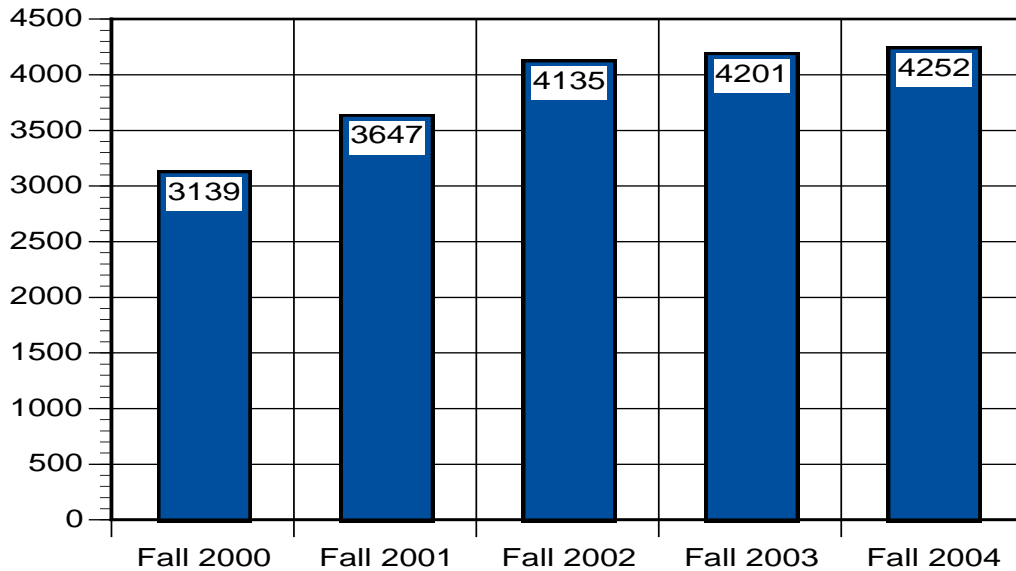
Purpose of Study

In the midst of increasing student enrollments (see Table 1/Figure 3 below), DSC is taking the necessary steps to secure its future growth and prosperity.

Table 1

FIVE YEAR ENROLLMENT HISTORY FALL 2000 – FALL 2004					
<i>Fall 2000</i>	<i>Fall 2001</i>	<i>Fall 2002</i>	<i>Fall 2003</i>	<i>Fall 2004</i>	<i>% Change Fall 2000-2004</i>
3,139	3,647	4,135	4,201	4,252	35.5

Figure 3



Indeed, the College must be prepared to accommodate 5,000 to 7,500 students within the next five-to-ten years. This poses both a challenge and an opportunity, given the lack of space available for greater expansion. On one front, the College is currently at work to

update its Physical Master Plan to help overcome the capacity limitations with which it is currently grappling. The physical master planning process is strategically important to DSC because the Regents will not consider new buildings or property acquisitions unless they are reflected in a current plan. All that said one thing is certain for the College's overall institutional health: something must be done to accommodate continued growth in programs and student enrollment. On the other front, the College must engage the College community and work together to find the necessary financial resources that will supplement state appropriations to help with its growth. The College Foundation is working hard in that regard and will need studies and reports to make the case to the community that DSC is in fact an engine of economic growth in Whitfield County and beyond, and that it is in the interest of the community to assist the College in its growth and expansion. To this end, this report calculates the economic benefits that DSC bring to the Dalton-Whitfield region and community using three student growth enrollment scenarios. The first scenario uses Fiscal Year 2004 as the financial base with a 4,200 student body. Extrapolating from the FY2004 financial base, the second and third scenarios envision a DSC student body of 5,000 and 7,500 students respectively. In other words, what will be the economic impact on the local economy and community in the years ahead with a DSC student population of 5,000 and 7,500 students?

Limitations of Study

To keep this study in some perspective, several limitations need to be noted. These shortcomings are important as they may affect the derivation of an accurate DSC impact on the regional economy. First, the study makes its projections utilizing the template

multipliers for DSC that was provided by the University System of Georgia and based on FY 2002. There have been no updated multipliers for the subsequent years and one would expect these multipliers to be much greater because of the economic growth that the region has experienced since 2002. Hence, the FY 2002 base will undoubtedly produce a lower economic impact of DSC's direct spending on the local economy. It is very likely that the DSC economic impact would be much higher than reported in this study if updated multipliers (since FY 2004) had been available. And second, the study utilizes a very conservative estimate of operating expenditures, especially in the area of capital projects (i.e., construction). When one combines this with the modest growth projections in student enrollment under Scenarios 2 (5,000 students) and 3 (7,500 students), it leads to lower direct economic impacts by DSC's initial spending and ultimately the impact on the regional economy. Thus, the results and financial estimates presented in this study show very low estimates of DSC's economic impact on the region. It is hoped that when updated and more accurate multipliers become available, a revised study may well produce a sound DSC economic impact study which would have much greater benefits on the regional economy of Northwest Georgia than this current study suggests.

Data Sources and Definitions

The following data sources and definitions were used for the study. These follow the methodology employed by the Selig Center for Economic Growth, Terry College of Business, University of Georgia, February 1, 2000.

Data Sources:

1. Initial spending, i.e. DSC's annual operating expenditures data was provided by the Office of Institutional Research and the Office of the Vice President for Fiscal Affairs.
2. Data for spending for Capital Projects Funded were obtained from DSC Financial Data and the Vice President for Fiscal Affairs.
3. Students Personal Expenditures were estimated by the authors based on data obtained from DSC's Office of Institutional Research, the Bureau of Labor Statistics' 1999-2000 Consumer Expenditure Survey, and Personal Consumption Expenditures issued by the Bureau of Economic Analysis.

Definitions:

1. *Output* refers to the value of total production, including domestic and foreign trade.
2. *Value Added* includes employee compensation (including fringe benefits), proprietary income, other property type income (e.g. rents, royalties, dividends), and indirect business taxes (e.g. excise taxes, property taxes, fees, licenses, and sales taxes paid by businesses).
3. *Labor income* included both the total payroll costs (including fringe benefits) of workers who are paid by employers and payments received by self-employed individuals.
4. *Employment* includes both full-time and part-time jobs.

DSC ECONOMIC IMPACT STUDY: SCENARIO 1 (4200 STUDENTS)

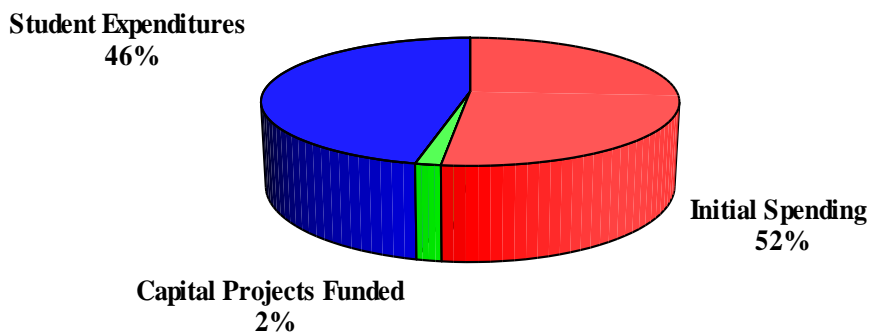
DSC’s Initial Spending

The total initial spending by DSC in FY 2004 was **\$52,885,575**. As an engine of economic growth in the region, this spending becomes income for households as well as other rounds of spending and re-spending in the local economy. This figure includes \$27,450,598 in initial spending for total operating expenditures (also known as Budget Unit “A” and “B”); \$908,987 in capital expenditures; and \$24,525,990 in student personal expenditures. DSC’s total initial spending is presented in Table 2 and depicted graphically in Figure 4.

Table 2
Total Initial Spending by DSC (FY 2004)
Scenario 1 – Student Population = 4,200

<i>Category</i>	<i>Initial Spending (Current Dollars)</i>
Initial Spending (Total Operating Expenditures)	\$27,450,598
Capital Projects Funded	\$908,987
Student Personal Expenditures	\$24,525,990
TOTAL EXPENDITURES	\$52,885,575

Figure 4
Scenario 1 - Spending Expenditures

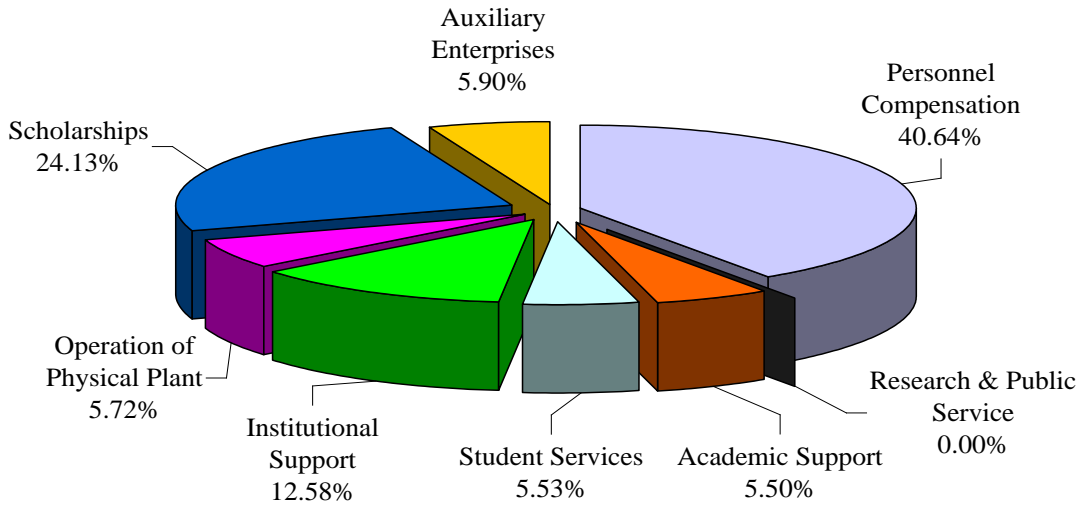


When it comes to DSC’s initial spending or operating expenditures, the personnel compensation makes up the largest share of total operating spending at 40%; it is followed by Scholarships (including Hope) as the second largest component at 24%; Institutional Support, third at 12%; and the remaining includes other costs as shown in Table 3 and Figure 5.

Table 3
Annual Operating Expenditures (FY 2004)
Scenario 1 – Student Population = 4,200

<i>Type</i>	<i>Expenditure</i>
Instruction (Personnel Compensation)	\$11,155,863
Research & Public Service	\$1,289
Academic Support	\$1,510,758
Student Services	\$1,517,481
Institutional Support	\$3,453,339
Operation of Physical Plant	\$1,570,121
Scholarships (including HOPE)	\$6,623,288
Auxiliary Enterprises	\$1,618,459
TOTAL EXPENDITURES	\$27,450,598

Figure 5
Scenario 1 - Annual Operating Expenditures



Employee Spending

During the 2003-2004 academic year, DSC had a total of 252 employees. The number and type of employees is presented in Table 4.

Table 4
DSC Total Faculty & Staff
Scenario 1 – Student Population = 4,200

<i>Employee Category</i>	<i>Total</i>
Full-Time Faculty	117
Full-Time Staff	135
TOTAL PERSONNEL	252

As shown in Table 3 the gross employee compensation for Fiscal Year 2004 was approximately \$11.15 million. As a result, the net payroll impact for Northwest Georgia

was also \$11.15 million. The employee compensation makes up nearly 45% of the total spending by the institution and plays a significant role in re-generating further rounds of spending in the local economy. The employee spending contributes to the growth of the local economy and can generate significant economic impacts. We can estimate how employees spend their income by using ratios of spending patterns developed by the U.S. Department of Labor (2003). These estimates are shown in Table 5. As apparent from the Table the largest spending was on housing (32%), education (19%), and food (13.5%).

Table 5
DSC Faculty and Staff Average Annual Expenditures in Whitfield County, GA
Scenario 1 – Student Population = 4,200

<i>Population Group</i>	<i>Average Annual Expenditure (dollars)</i>	
	<i>Shares of Average Spending</i>	<i>Total Spending</i>
Housing	32.9%	\$3,670,279
Education	19.3%	\$2,153,082
Apparel & Service	19.2%	\$2,141,926
Food	13.5%	\$1,506,042
Transportation	7.0%	\$780,910
Tobacco Products & Smoking supply	5.5%	\$613,572
Miscellaneous	4.9%	\$546,637
Reading	4.4%	\$490,858
Personal Care Products & Services	3.7%	\$412,766
Health Care	1.7%	\$189,649
Entertainment	1.3%	\$145,026
Cash contributions	1.2%	\$133,870
Alcoholic Beverages	0.9%	\$100,402
Personal insurance & pensions	0.4%	\$44,623
Total	100%	\$11,155,863

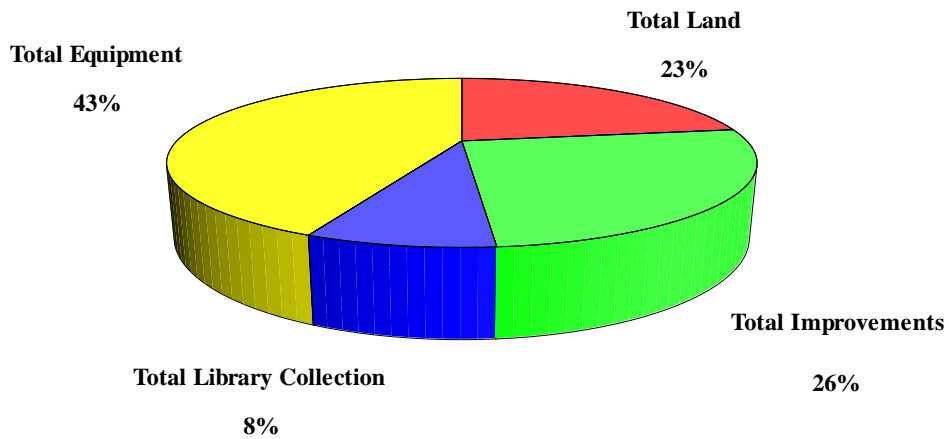
Capital Projects Funded

During fiscal year 2004, DSC's operating budget was more than double the size it was in the year 1992-1993. The growth in academic services at DSC is the major contributor to the increased expenditures; in fact, the total expenditures per student has increased by 44% in the last seven years. This growth has promoted more changes in the academic capacity of the College; consequently, the College has expanded its operation to meet the growing demand for educational services. This expansion has required the need for greater human and physical capitals, thereby increasing the number of full-time staff by 31%, increased student financial aid by 31%, and increase in total endowments by 77% during the years 1993 and 2001. The total investment committed to projects for FY 2004 as of June 30th was **\$908,987** as presented in Table 6 and depicted in Figure 4.

Table 6
Schedule of Investment in Plant
Scenario 1 – Student Population = 4,200

<i>Type</i>	<i>Investment (As of June 30, 2004)</i>
Total Land	\$362,600
Total Buildings	\$0
Total Improvements other than Buildings	\$415,315
Total Library Collection	\$131,072
Total Equipment	\$693,381
TOTAL INVESTMENT IN PLANT	\$908,987

Figure 6
Schedule of Investment in Plant
Scenario 1 – Student Population = 4,200



Student Spending

In the fall semester of 2004, DSC had a total headcount enrollment of **4,252** students; 1,765 were full-time (42%) and 2,475 were part-time (58%). In the spring semester of 2004, DSC had a total enrollment of **3,951** students; of which about 1,520 were full-time (39%) and 2,431 were part-time (61%). In the summer of 2004, DSC had a total enrollment of **1,923** students: 153 were full-time (8%); 1,770 were part-time (92%). All students attending DSC live in the community as the College has no dormitories or on-campus housing. Students commute to and a significant number live in rental houses or apartments. This will be typical of the students enrolled in the fall, spring, and summer semesters of 2004.

To estimate the economic impact of student spending, this report took into consideration the number of part-time and full-time students and adjusted the estimation procedures to produce a more accurate estimate of these spending impacts. To avoid double-counting and consistency with the previous studies, the DSC fee and tuition are

not included in the calculation of students spending here. The estimates of spending for full-time students were based on the numbers provided by the federal financial aid budgets. The federal financial aid budgets are conservative estimates of costs for grant/loan purposes and therefore an additional \$750 per year was included to estimate spending for recreation, entertainment, and other non-essential expenditures that students would typically make. Full-time students attending summer school or only one semester during the regular academic year were counted on a pro-rated basis. The study followed the previous studies and assumed that each part-time student had a budget of \$950 per semester to cover transportation, meals, school supplies, and photocopying expenses.

Using these factors, the analysis estimates that the average full-time student at DSC spends about \$5,479 for fall and spring semesters. This spending has a total economic impact of \$22,493,100 on the local economy. It is also estimated that the average full-time student spends \$2,335 for the summer semester with a total economic impact of \$2,032,890 on the local economy. Combined with the estimates for full-time and part-time students, there is an estimated total student spending amount of \$24,525,990 in the local economy. The total spending by students in FY 2004 is provided in Table 7.

Table 7
Total Spending by Students
Scenario 1 – Student Population = 4,200

<i>Category</i>	<i>FY 2004</i>		
	<i>Summer</i>	<i>Fall</i>	<i>Spring</i>
Student Enrollment	1,911	4,243	3,935
Full-time	151	1,769	1,481
Part-time	1,760	2,479	2,454
Total Spending by Students	\$2,032,890	\$12,047,401	\$10,445,699

The Economic Multiplier

Under the above financial calculations, the total spending by DSC under Scenario 1 with 4200 students was \$52.8 million. Through the economic multiplier effect, this expenditure fueled more spending in the local economy. Thus, DSC's combined payroll, operational and capital expenditures, and student spending led to a direct economic impact of **\$71,879,658** in Northwest Georgia. Again, applying the economic multiplier effect, this money is spent and re-spent within the local economy to create a second or third round of economic impact. Of course, the magnitude of the economic impact created from these spending will depend on the size and the diversity of the regional economy. All the same, the multiplier-effect of these spending shows the magnitude of the economic impact and most studies on average have used a multiplier that is very close to 2. The multipliers used in this study employs the methodology used by the University System of Georgia study as mentioned previously and are presented in Table 8.

Table 8
Template Multipliers for DSC Using FY 2004 Financial Base
Scenario 1 – Student Population = 4,200

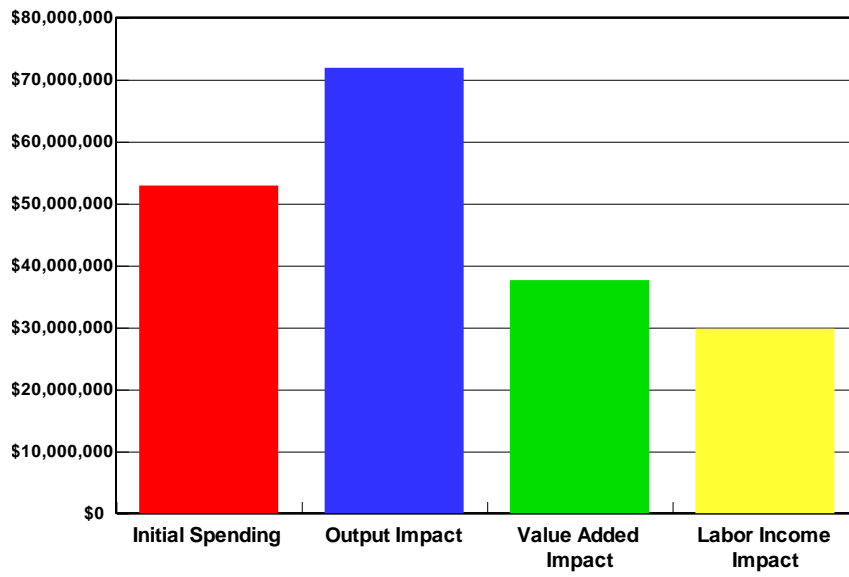
	<i>Output</i>	<i>Value Added</i>	<i>Labor Income</i>	<i>Employment</i>
<i>Multiplier Type</i>	<i>Multiplier</i>			
Spending by Institution	1.5	0.9	0.8	20.8
Capital Project Funded	1.4	0.7	0.5	15.2
Spending by Students	1.2	0.5	0.3	13.9

These output impacts are significant and measure the economic impacts of the initial spending by DSC and the impacts generated by the re-spending of these amounts in the local economy. **In sum, the total output impact generated in the local economy using FY 2004 as financial base with a 4200 student body was \$71,879,658. The value-added impact was \$37,604,823; the labor income impact \$29,772,768; and the employment impact generated 926 jobs.** The estimate and results for the total economic impact of all spending by DSC for Scenario 1 (4200 students) is presented in Table 9 and depicted in Figure 7.

Table 9
Total Economic Impact of Dalton State College on the Region with 4200 Students

<i>DSC</i>	<i>Initial Spending</i>	<i>Output Impact</i>	<i>Value Added Impact</i>	<i>Labor Income Impact</i>	<i>Employment Impact</i>
	<i>(current dollars)</i>				<i>(# of jobs)</i>
Initial Spending	27,450,598	41,175,897	24,705,538	21,960,478	570.9
Capital Projects Funded	908,987	1,272,581	636,290	454,493	13.80
Students Personal Expenditures	24,525,990	29,431,180	12,262,995	7,357,797	340.82
Total	52,885,575	71,879,658	37,604,823	29,772,768	926

Figure 7
Total Economic Impact of Dalton State College on the Region with 4,200 Students



DSC ECONOMIC IMPACT STUDY: SCENARIO 2 (5,000 STUDENTS)

In the above Scenario 1 with Fiscal Year 2004 spending as a benchmark, the economic impact of DSC on the regional economy was estimated based on a current student population of 4,200 students. In Scenario 2, the study assumes a projected DSC student enrollment of 5,000. Like Scenario 1 above, the economic impact of student spending for Scenario 2 is also estimated using the methodology provided by University System of Georgia. The growth in the student enrollment assumes associated increases in the number of faculty, staff, and other administrators at DSC. Again, the goal here is to project the economic impact of student spending on the local economy when the enrollment count increases to 5,000 students. This assumes the same percentage increase in the number of full-time and part-time students based on the enrollment in the previous years. Thus, under Scenario 2 with a student population of 5,000, the student body is also 40% full-time and 60% part-time. The study allows a 2% increase in the cost of attending school for the average full-time student under Scenario 2 in order to have a more accurate estimate of total student spending. Using these factors, the average full-time student spending is estimated at \$5,698 for the fall and spring semesters and \$2,390 for the summer semester.

DSC's Initial Spending

Extrapolating from the Fiscal Year 2004 DSC expenditures used for Scenario 1, the total initial spending estimates by DSC with 5,000 students would be **\$65,331,319**. Like Scenario 1 with 4,200 students, this spending fuels economic growth when households spend and re-spend such amounts of money in the local economy. As a breakdown (Table 10 and Figure 8), the \$65,331,319 amount include \$32,679,283 in initial spending

for total operating expenditures (50% of total spending); \$1,500,000 in funded capital projects (2% of total spending); and \$31,152,036 (47.6% of total spending) in student personal expenditures.

Table 10
Total Initial Spending by DSC
Scenario 2 – Student Population = 5,000

<i>Category</i>	<i>Initial Spending (Current Dollars)</i>
Initial Spending (Total Operating Expenditures)	\$32,679,283
Capital Projects Funded	\$1,500,000
Student Personal Expenditures	\$31,152,036
TOTAL EXPENDITURES	\$65,331,319

Figure 8
Total Initial Spending by DSC
Scenario 2 – Student Population = 5,000

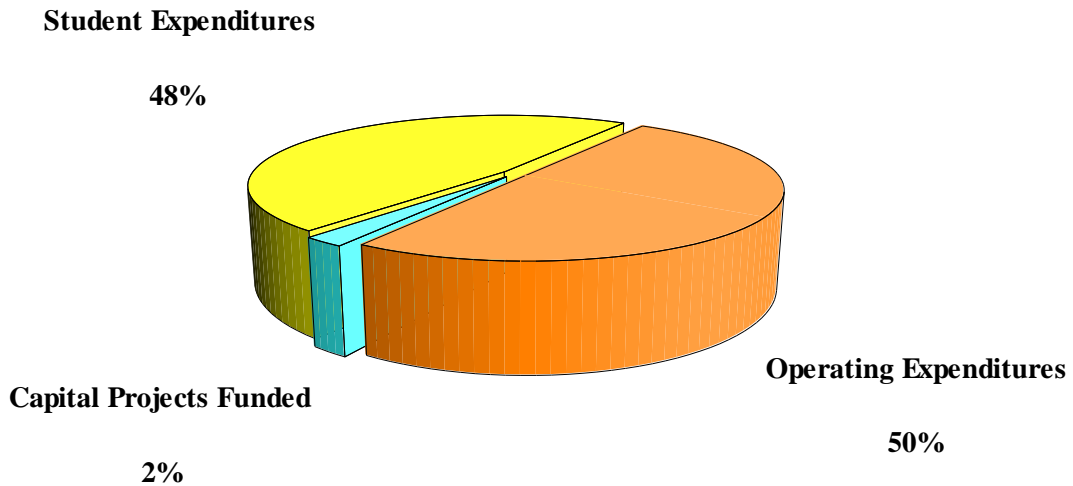


Table 10 shows the gross employee compensation as approximately \$13.2 million and the net payroll impact for Northwest Georgia to be \$13.2 million as well under Scenario 2.

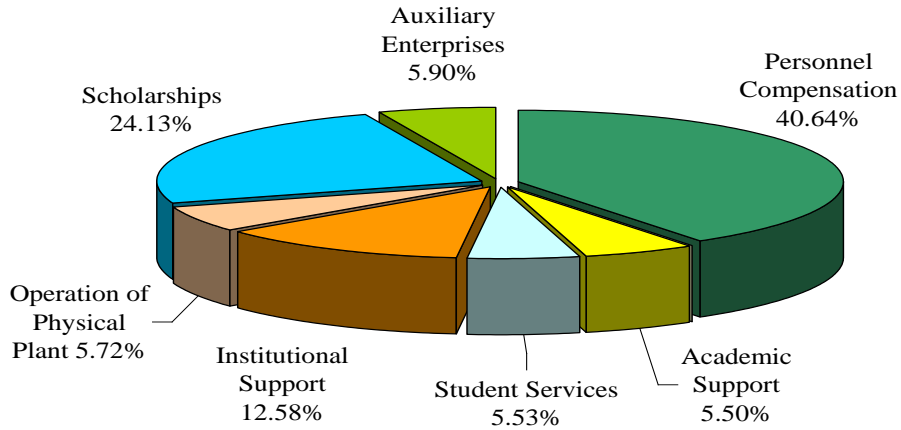
The expenditure on scholarship (including Hope) is \$7.8 million, and institutional support

spending to be \$4.1 million. Again, the personnel compensation makes up the largest shares of total operating spending (40%), scholarships (including Hope) making up 24%, and the institutional support spending nearly 13% of total spending and the remaining to include other operating costs. DSC's operating expenditures estimates under Scenario 2 with 5,000 students is shown in Table 11 and the percentages are depicted graphically in Figure 9.

Table 11
Annual Operating Expenditures Extrapolated From FY 2004
Scenario 2 – Student Population = 5,000

<i>Type</i>	<i>Expenditure</i>
Instruction (Personnel Compensation)	\$13,280,789
Research & Public Service	\$1,534
Academic Support	\$1,798,521
Student Services	\$1,806,525
Institutional Support	\$4,111,117
Operation of Physical Plant	\$1,869,191
Scholarships (including HOPE)	\$7,884,866
Auxiliary Enterprises	\$1,926,736
TOTAL EXPENDITURES	\$32,679,283

Figure 9
Scenario 2 - Annual Operating Expenditures



Employee Spending

Under Scenario 2 where a DSC student population for fall semester will be 5,000 students, an estimate of a total of 300 employees, including 188 faculty and 122 administrators and staff is projected (Table 12).

Table 12
DSC Total Faculty & Staff
Scenario 2 – Student Population = 5,000

<i>Employee Category</i>	<i>Total</i>
Full-Time Faculty	188
Full-Time Staff	122
TOTAL PERSONNEL	300

As shown in Table 11 above, the gross employee compensation is approximately \$13.2 million and the net payroll impact for Northwest Georgia also becomes \$13.2 million. The employee compensation makes up nearly 41% of the total spending by the

institution and plays a significant role in re-generating further rounds of spending in the local economy. This employee spending contributes to the growth of the local economy and can generate significant economic impacts.

Capital Projects Funded

Given current and planned expenditures, the Vice President of Fiscal Affairs projects a capital spending of about \$1.5 million to accommodate a 5,000 student population at DSC. Given state appropriations uncertainties, this is a conservative figure but still represents quite a significant increase (more than 50%) from capital investments spent for Fiscal Year 2004 at \$908,987 with 4,200 students (See Table 2).

Student Spending

With a 5,000 student enrollment and assuming the same percentage classification between the number of full-time and part-time students as in Scenario 1, the number of full-time students is estimated at 2,000 or 40% and part-time students at 3,000 students or 60%. Similarly, inferring from the number of students enrolled in spring and summer semesters under Scenario 1, a fall enrollment of 5,000 students would yield a spring enrollment of 4,704 students; out of which 1,881 students (40%) would be full-time and 2,822 students (60%). In the summer semester, DSC would enroll 2,289 students; 915 of them would be full-time and 1,374 would be part-time. Once more, there is an assumption that all the students would live in rental houses or apartments in the community and not in DSC on-campus housing facilities. Students would still continue to commute to campus.

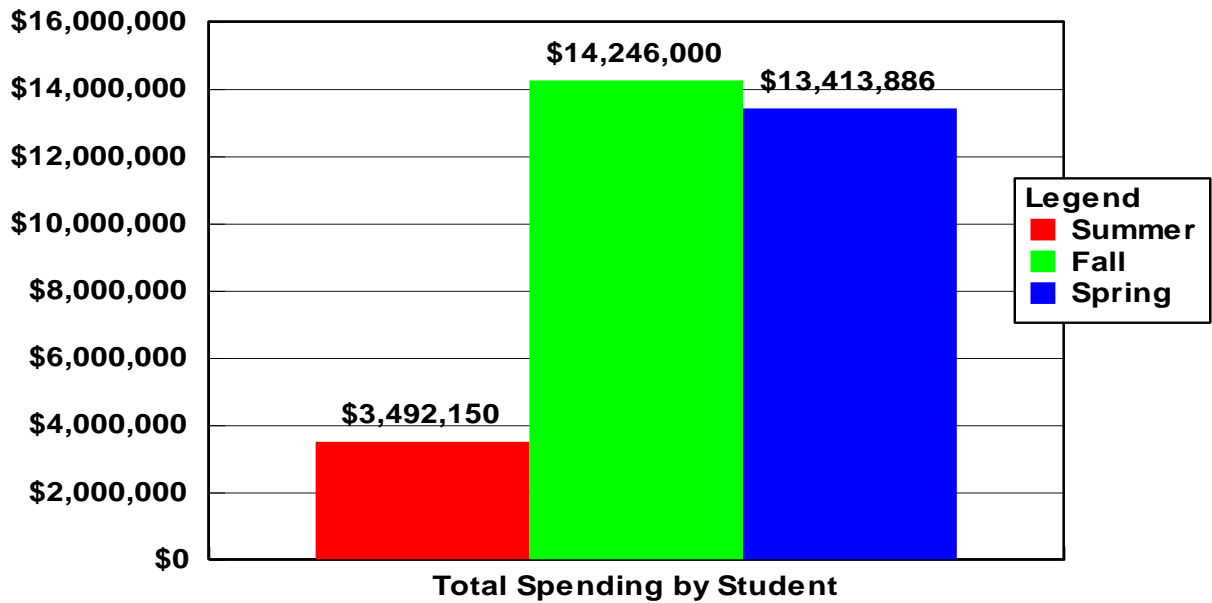
It can be estimated that the average full-time student would spend \$5,698 for the fall and spring semesters, with a total economic impact of **\$27,659,886** on the local

economy. The average full-time student would spend \$2,390 for the summer semester with a total economic impact of **\$3,492,150** on the local economy. Combined with the estimate for full-time and part-time students, a total student spending is estimates in the amount of **\$31,152,036**. The total spending by students is provided in Table 13 and also depicted in Figure 10.

Table 13
Total Spending by Students
Scenario 2, population = 5,000

	<i>FY 2005</i>		
<i>Category</i>	<i>Summer</i>	<i>Fall</i>	<i>Spring</i>
Student Enrollment	2,289	5,000	4,704
Full-time	915	2,000	1,881
Part-time	1,374	3,000	2,822
Total Spending by Students	\$3,492,150	\$14,246,000	\$13,413,886

Figure 10
Total Spending by Students
Scenario 2, population = 5000



The Economic Multiplier

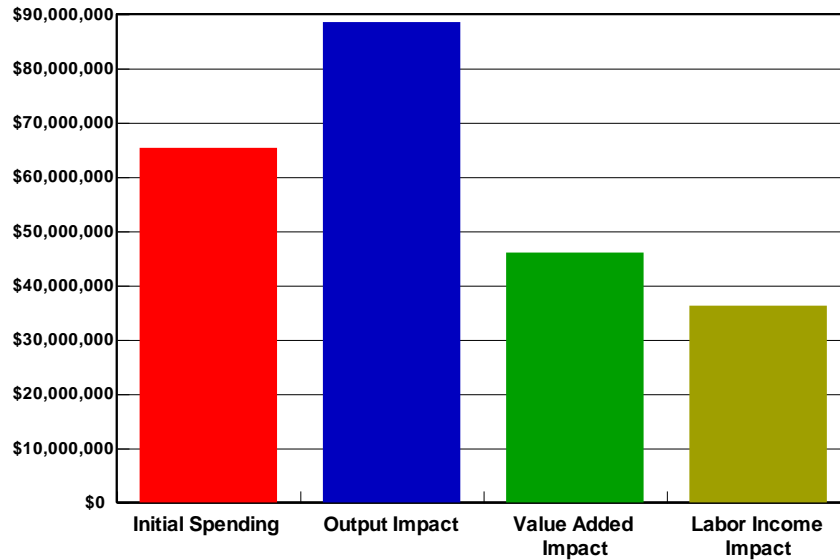
The total spending by DSC under Scenario 2 as depicted in Table 9 would be \$65.3 million. This spending would fuel more spending in the local economy through the multiplier effect. Overall, DSC’s combined payroll, operational and capital expenditures, and student spending would lead to a direct economic total impact of \$88,501,367 in the Northwest Georgia economy. These output impacts are again significant and measure the economic impacts of the initial spending by DSC and the impacts generated by the re-spending of these amounts in the local economy. The value-added represents \$46,037,362; the labor income impact is \$36,239,037; and the employment impact would generate 1,153

jobs. The total economic impact of all spending by DSC with a projected student enrollment of 5,000 students is presented in Table 14 and graphically depicted in Figure 11.

Table 14
Total Economic Impact of Dalton State College on the Region
Scenario 2, population = 5,000

<i>DSC</i>	<i>Initial Spending</i>	<i>Output Impact</i>	<i>Value Added Impact</i>	<i>Labor income Impact</i>	<i>Employment Impact</i>
	<i>(current dollars)</i>				<i>(jobs)</i>
Initial Spending	32,679,283	49,018,924	29,411,354	26,143,426	697.72
Capital Projects Funded	1,500,000	2,100,000	1,050,000	750,000	22.8
Students Personal Expenditures	31,152,036	37,382,443	15,576,018	9,345,611	432.9
Total	65,331,319	88,501,367	46,037,362	36,239,037	1,153.42

Figure 11
Total Economic Impact of Dalton State College on the Region,
Scenario 2, population = 5000



DSC ECONOMIC IMPACT STUDY: SCENARIO 3 (7,500 STUDENTS)

Under Scenario 3, the economic impact of DSC on the regional economy is estimated based on a projected increase in the student enrollment of 7,500 for fall semester. A similar assumption is made that 40% of the students will be full-time and 60% would be part-time. Like the previous scenarios above, a 2% increase is allowed in the cost of attending school for an average full-time student. Using these factors, it is estimated that the average full-time student would spend \$5,706 for the fall and spring semesters. It is also estimated that the average full-time student would spend \$2,390 for the summer semester.

DSC's Initial Spending

Following previous financial extrapolations, a total initial spending is estimated at **\$97,750,077**. This figure includes \$49,018,925 in initial spending for operating expenditures (50.1% of total spending), \$2,000,000 in capital expenditures (2.1% of total spending), and \$46,731,152 in Students Personal Expenditures (47.8% of total spending). These expenditures are shown in Table 15 and Figure 12. The total initial spending of \$49 million becomes the spending income that is available for households in the economy and this in turn produces other rounds of spending and re-spending – leading to increased economic growth in the region.

Table 15
Total Initial Spending by Dalton State College
Scenario 3, population =7,500

<i>DSC</i>	<i>Initial Spending (current dollars)</i>
Initial Spending (Total Operating Expenditures)	\$49,018,925
Capital Projects Funded	\$2,000,000
Students Personal Expenditures	\$46,731,152
Total	\$97,750,077

Figure 12
Total Initial Spending by Dalton State College
Scenario 3, population =7,500

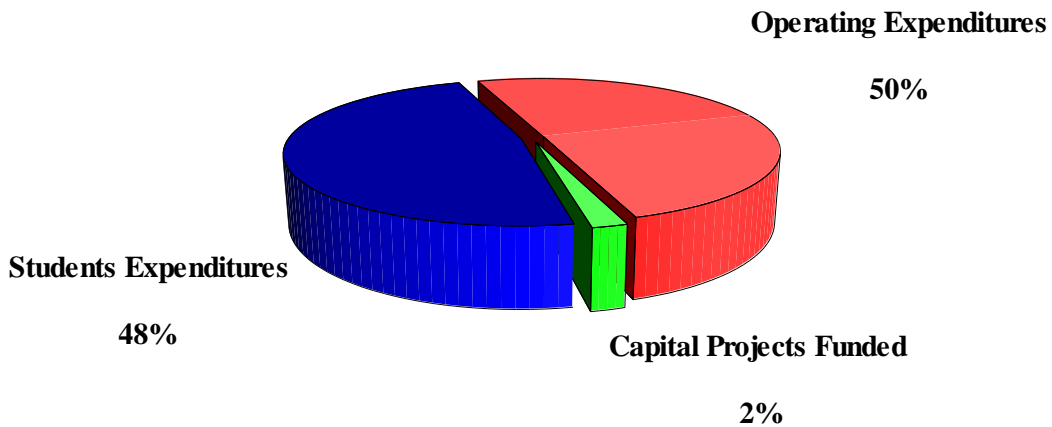


Table 16 shows the gross employee compensation as approximately \$19.9 million and becomes the net payroll impact for the economy in Northwest Georgia. The expenditures on scholarship (including Hope) are \$11.8 million, and the institutional support spending is \$6.1 million. The personnel compensation as always makes up the largest shares of total operating spending (41%), followed by scholarships (including Hope) at 24%, and institutional support spending at nearly 13% of total spending with the remaining to include other operating costs.

Table 16
Annual Operating Expenditures
Scenario 3 – Student Population = 7,500

<i>Type</i>	<i>Expenditure</i>
Instruction (Personnel Compensation)	\$19,921,183
Research & Public Service	\$2,301
Academic Support	\$2,697,782
Student Services	\$2,709,787
Institutional Support	\$6,166,676
Operation of Physical Plant	\$2,803,787
Scholarships (including HOPE)	\$11,827,300
Auxiliary Enterprises	\$2,890,105
TOTAL EXPENDITURES	\$49,018,925

Employee Spending

At a student population of 7,500, the study projects a corresponding increase in the number of faculty and staff. Under this scenario, DSC would have a total of 450 employees: 282 faculty members and 168 staff (Table 17). As shown in Table 16, the gross employee compensation would be approximately \$19.9 million. This is money that is available as spending and would have a net payroll impact for the local economy. Note again that this employee compensation makes up nearly 45% of the total spending by DSC and it would play a significant role in re-generating further rounds of spending in the local economy. In fact, as noted previously, the employee spending contributes to the growth of the local economy and can generate significant economic impacts.

Table 17
DSC Total Faculty & Staff
Scenario 3 – Student Population = 7,500

<i>Employee Category</i>	<i>Total</i>
Full-Time Faculty	282
Full-Time Staff	168
TOTAL PERSONNEL	450

Capital Projects Funded

It is estimated by the Vice President for Fiscal Affairs that DSC could spend up to about \$2 million in capital projects should student enrollment increase to 7,500 students. Again, this is a very conservative estimate given the vagaries of the State economy and how it may affect subsequent appropriation to the College.

Student Spending

Like the preceding scenarios, a fall semester total headcount enrollment of 7,500 students will again assume a 40% full-time (3000 students) and 60% part-time (4,500 students) student body. The following spring semester could yield a total enrollment of 7,055 students; again 40% (2,822 students) will be enrolled as full-time and 60% (4,233 students) enrolled as part-time. The summer semester would enroll 3,434 students; 1,373 would be full-time, and 2,060 would enroll as part-time. It would be assumed again that these students would live in the community and commute to campus. A majority would live in rental houses or apartments. In line with the study’s methodology, the average full-time student would spend \$5,706 for both fall and spring semesters, with a total economic impact of \$41,492,682 on the local economy. It is also estimated that the average full-time student would spend \$2,390 in the summer semester and have a total

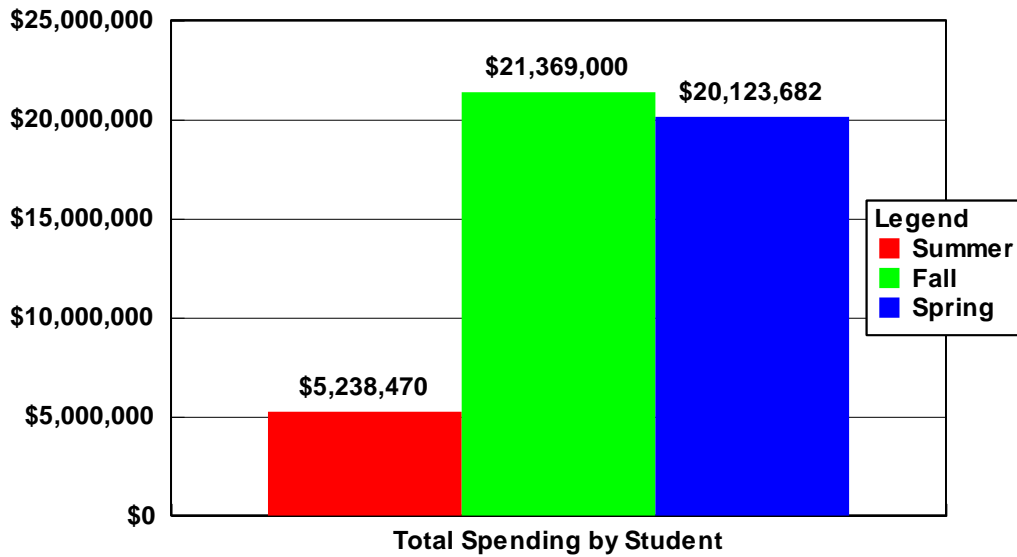
economic impact of \$5,238,470 on the local economy. Combined with the estimates for full-time and part-time students, the total student spending would amount to \$46,731,152.

The total spending by students in is provided in Table 18 and Figure 13.

Table 18
Total Spending by Students
Scenario 3 – Student Population = 7,500

<i>Category</i>	<i>FY 2006</i>		
	<i>Summer</i>	<i>Fall</i>	<i>Spring</i>
Student Enrollment	3,434	75,00	7,055
Full-time	1,373	3,000	2,822
Part-time	2,060	4,500	4,233
Total Spending by Students	\$5,238,470	\$21,369,000	\$20,123,682

**Figure 13
Total Spending by Students
Scenario 3 population = 7,500**



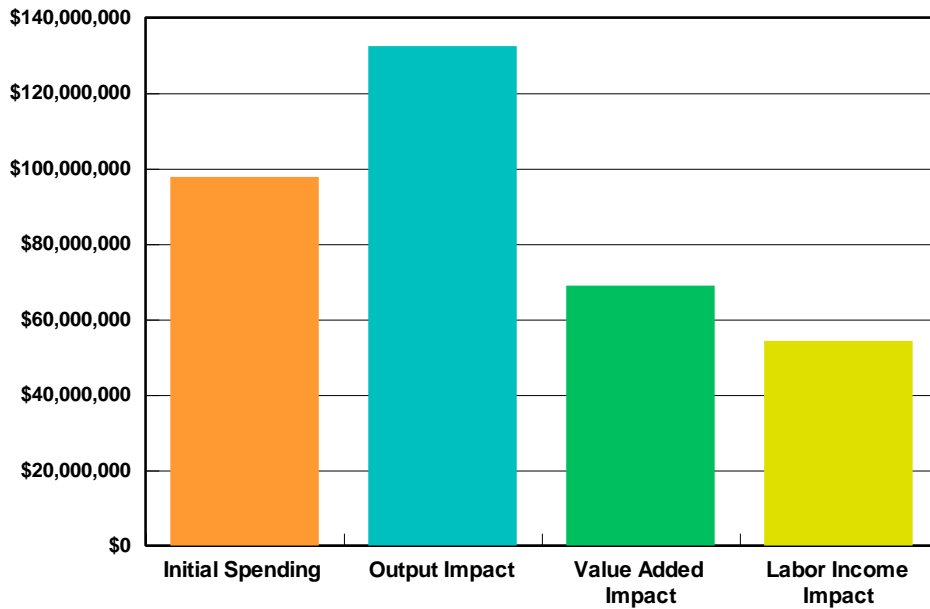
The Economic Multiplier

Through the multiplier effect, the total spending by DSC under Scenario 3 with a 7,500 student body would be \$97.7 million. This spending will likely fuel more spending and re-spending in the local economy. Indeed, DSC’s combined payroll, operational and capital expenditures, and student spending would lead to a direct economic impact of \$132,405,769 in Northwest Georgia. The value-added impact is estimated at \$68,882,608; the labor income impact at \$54,234,486; and the employment impact would generate about 1700 jobs. These are significant output impacts as they measure the economic impacts of the initial spending by DSC and the impacts the outputs generate by the re-spending of these amounts in the local economy. The total economic impacts of all the spending under Scenario 3 are presented in Table 19 and Figure 14.

Table 19
Total Economic Impact of Dalton State College on the Region
Scenario 3, population =7,500

<i>DSC</i>	<i>Initial Spending</i>	<i>Output Impact</i>	<i>Value Added Impact</i>	<i>Labor Income Impact</i>	<i>Employment Impact</i>
	<i>(current dollars)</i>				<i>(# of jobs)</i>
Initial Spending	\$49,018,925	\$73,528,387	\$44,117,032	\$39,215,140	1,019.14
Capital Projects Funded	\$2,000,000	\$2,800,000	\$1,400,000	\$1,000,000	30.4
Students Personal Expenditures	\$46,731,152	\$56,077,382	\$23,365,576	\$14,019,346	649.54
Total	\$97,750,077	\$132,405,769	\$68,882,608	\$54,234,486	1,699

Figure 14
Total Economic Impact of Dalton State College on the Region,
Scenario 3, population =7,500



Conclusion

This study has attempted to provide a conservative estimate of the economic impact of DSC on the local Northwest Georgia economy. As part of this process, the report utilized an economic multiplier appropriate for the Northwest region. This DSC economic impact study was based on methodology provided by the Selig Center for Economic Growth (2002) at the University of Georgia. The methodology allows institutions within the University System of Georgia to estimate the economic impact of their institutions on their regional economies. This study is thus an attempt by college administrators to provide predicted economic impact of DSC in the Northwest Georgia region under three different student enrollment growth scenarios of 4,200, 5,000, and 7,500 students. This projection is provided based on the assumption that DSC expects future growth in its student enrollment and would want an estimate on the expected economic impact of this student growth on the local economy.

The economic impact of DSC is estimated through the following: the output impacts, value-added impact, labor income impact on the regional economy, and the employment impact (number of jobs created). The economic impact of DSC's Initial Spending or its operating expenditures on the regional economy is estimated under the three scenarios and reported in Table 20. The economic impact of DSC's Operating Expenditure, Capital Project Funded, and Student Personal Expenditure on the local economy is estimated under the three scenarios and reported in Tables 21-23.

Under Scenario I with 4,200 students (which was the benchmark and a Fiscal Year 2004 financial base for the study), DSC has a direct spending impact of **\$52.8** million – generating an additional \$71.8 million output impact, a \$37.8 million in value added

impact, a \$29.7 million in labor income impact, and **926** additional jobs. Under Scenario 2 with 5,000 students, DSC would have a direct spending impact of **\$65** million and generate an additional \$88.5 million output impact, \$46 million in value added impact, \$36.2 million in labor income impact, and **1153** additional jobs. Under Scenario 3 with 7,500 students, DSC would have a direct spending impact of **\$97.7** million and generate an additional \$132.4 million output impact, \$68.8 million in value added impact, \$54.2 million in labor income impact, and **1,699** additional jobs. The growth in student enrollment from 4,200 to 5,000 leads to a **23.5%** increase in the rate of economic impact of DSC on the regional economy and student growth to 7,500 students in leads to an **84%** increase in the rate of economic impact in Northwest Georgia. The estimates and results are presented in Table 20.

On the whole, the total economic impact of DSC's Operating Expenditure of \$27 million on the regional economy in with 4,200 students expands to \$87.8 million, \$104.7 million with 5,200 students, and \$156.8 million with 7,500 students (Table 21). Similarly, the total economic impact of DSC's Capital Project Funded of nearly \$1 million on the regional economy with 4,200 students expands to \$2.3 million, \$3.9 million with 5,000 students, and \$5.2 million in with 7,500 students (Table 22). And the total economic impact of DSC's Student Personal Expenditure of \$24.5 million on the regional economy in with 4,200 students expands to \$73.5 million, \$93.4 million with 5,000 students, and \$140 million with 7,500 students (Table 23).

Figure 15
Total Economic Impact of DSC on Local Economy

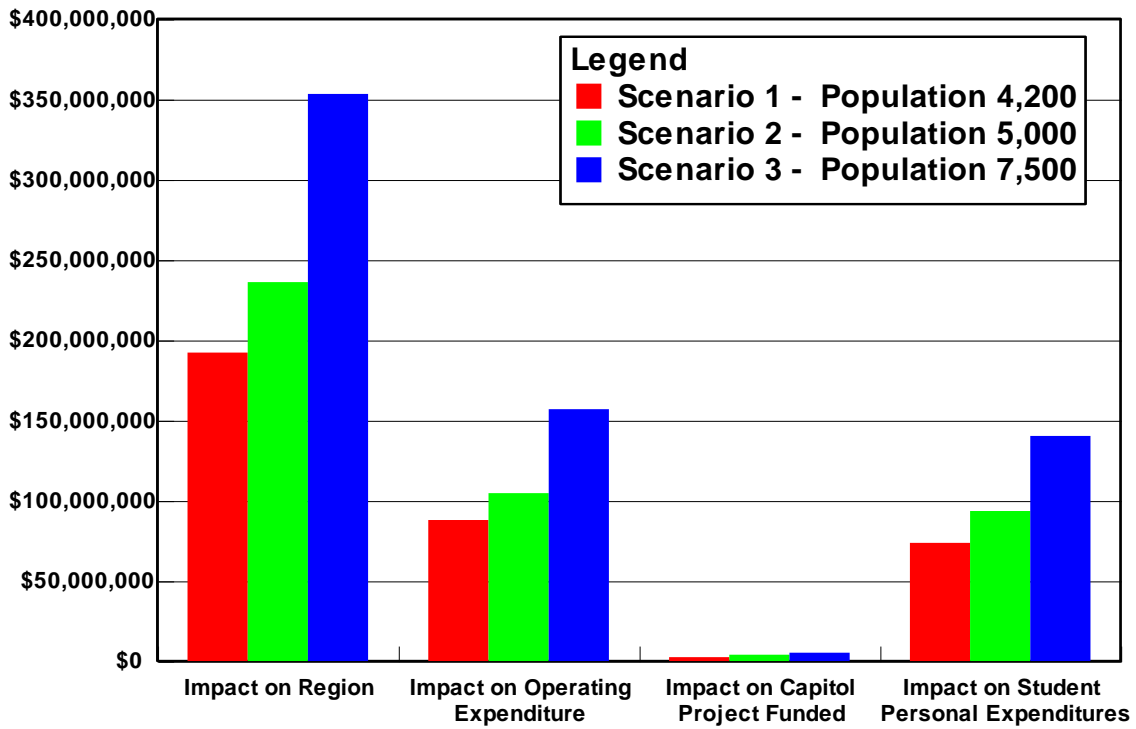
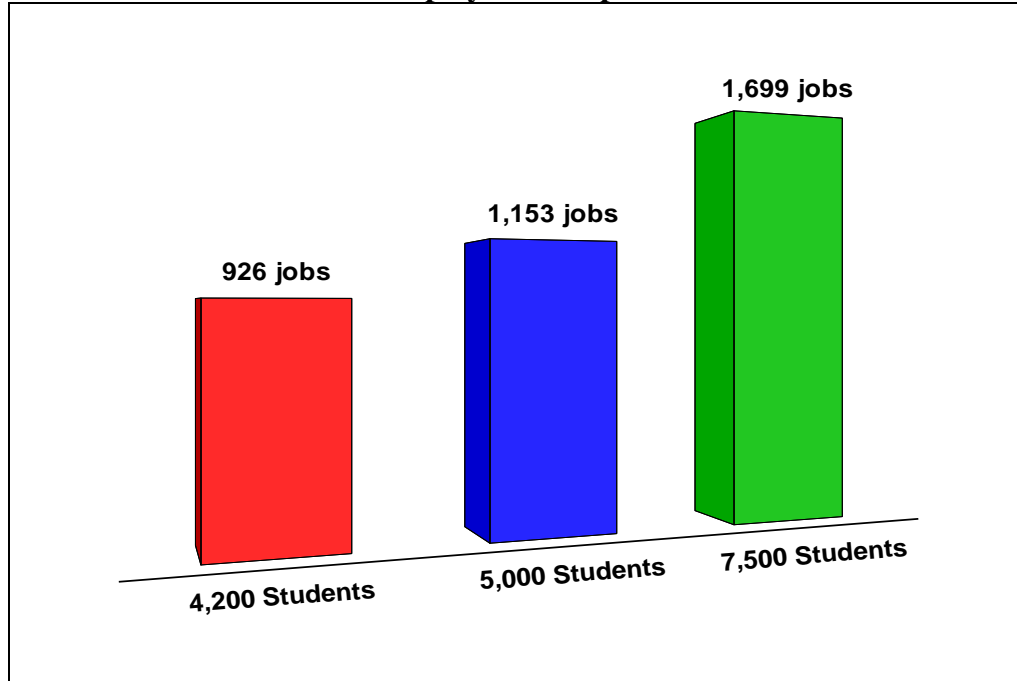


Table 20
Total Economic Impact of Dalton State College on the Region

<i>DSC</i>	<i>Scenario 1</i>	<i>Scenario 2</i>	<i>Scenario 3</i>	<i>Growth Rate (%)</i>	
				<i>Scenario 1-2</i>	<i>Scenario 1-3</i>
	<i>(current dollars)</i>				
Initial Spending	\$52,885,575	\$65,331,319	\$97,750,077	23.5%	84.8%
Output Impact	\$71,879,658	\$88,501,367	\$132,405,769	23.12	84.2
Value Added Impact	\$37,604,823	\$46,037,362	\$68,882,608	11.38	66.6
Labor Income Impact	\$29,772,768	\$36,239,037	\$54,234,486	21.7	82.16
Total Impact	\$192,142,824	\$236,109,085	\$353,272,940	22.99	84.02
Employment Impact	926	1,153	1,699	24.5	83.4

**Figure 16
Employment Impact**



**Table 21
Economic Impact of DSC Operating Expenditure**

<i>DSC</i>	<i>Scenario 1</i>	<i>Scenario 2</i>	<i>Scenario 3</i>	<i>Growth Rate (%)</i>	
				<i>Scenario 1-2</i>	<i>Scenario 1-3</i>
	<i>(current dollars)</i>				
Initial Spending	\$27,450,598	\$32,679,283	\$49,018,925	19.04	78.57
Output Impact	\$41,175,897	\$49,018,924	\$73,528,387	19.04	78.57
Value Added Impact	\$24,705,538	\$29,411,354	\$44,117,032	19.04	78.57
Labor income Impact	\$21,960,478	\$26,143,426	\$39,215,140	19.04	78.57
Total Impact	\$87,841,913	\$104,573,704	\$156,860,559		
Employment Impact	571	697	1019	22.21	78.51

Table 22
Economic Impact of Capital Project Funded

<i>DSC</i>	<i>Scenario 1</i>	<i>Scenario 2</i>	<i>Scenario 3</i>	<i>Growth Rate (%)</i>	
	<i>(current dollars)</i>			<i>Scenario 1-2</i>	<i>Scenario 1-3</i>
Initial Spending	\$908,987	\$1,500,000	\$2,000,000	65.01	120.02
Output Impact	\$1,272,581	\$2,100,000	\$2,800,000	65.01	120.02
Value Added Impact	\$636,290	\$1,050,000	\$1,400,000	65.01	33.33
Labor income Impact	\$454,493	\$750,000	\$1,000,000	65.01	120.02
Total Impact	\$2,363,364	\$3,900,000	\$5,200,000		
Employment Impact	14	23	30	65.21	120.28

Table 23
Economic Impact of Student Personal Expenditure

<i>DSC</i>	<i>Scenario 1</i>	<i>Scenario 2</i>	<i>Scenario 3</i>	<i>Growth Rate (%)</i>	
	<i>(current dollars)</i>			<i>Scenario 1-2</i>	<i>Scenario 1-3</i>
Initial Spending	\$24,525,990	\$31,152,036	\$46,731,152	27.01	90.53
Output Impact	\$29,431,180	\$37,382,443	\$56,077,382	27.01	90.53
Value Added Impact	\$12,262,995	\$15,576,018	\$23,365,576	27.01	90.53
Labor income Impact	\$7,357,797	\$9,345,611	\$14,019,346	27.01	90.53
Total Impact	\$73,577,962	\$93,456,108	\$140,193,456		
Employment Impact	340	432	649	27.01	90.58

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