

**The Economic Impact
of Louisiana State University
on the Baton Rouge MSA**

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By

Stephen R Barnes
Assistant Professor-Research and
Associate Director, Division of Economic Development and Forecasting

Dek Terrell, Freeport-McMoRan Professor
Director, Division of Economic Development and Forecasting
Louisiana State University



Executive Summary

As the state's flagship university, LSU attracts approximately 28,000 students, employs 6,150 full-time workers and another 9,650 part-time employees. This study focuses on estimating the total economic impact of LSU on the Baton Rouge MSA. As expected, LSU makes a significant contribution to the area economy.

- LSU's presence in the area led to \$1.3 billion in direct and indirect sales in the 2010 fiscal year. This volume is comparable to 3% of GDP for the metro area.
- Over \$738 million in salaries and wages were generated last year. This is comparable to nearly 5% of total wages in the Baton Rouge MSA in 2009. LSU's payroll directly accounts for more than 2% of the area's wages and salaries.
- An estimated 21,940 jobs were created by the presence of LSU in the MSA. Approximately 8,717 full-time equivalent jobs were located on campus while 13,223 were in other parts of the MSA. Together, direct, indirect and induced employment attributable to LSU accounts for over 6% of total non-agricultural employment in the MSA.
- Students from outside the MSA brought \$435 million into the local economy (\$298 million after tuition and fees) during the 2010 fiscal year. Including students from inside the MSA, student spending increases to \$602 million (\$420 million after tuition and fees).
- In fiscal year 2010, LSU professors and researchers attracted over \$80 million in federal research grants for the MSA.

1. Introduction

This study examines the economic impact of Louisiana State University on the Baton Rouge metro area. Louisiana State University, the state's flagship university, attracted approximately 28,000 students and employed over 6,150 full-time faculty and staff during the 2009-2010 academic year. The 34,150 students and full-time employees that are associated with the campus are equal to 15% of the City of Baton Rouge's population. Although there are many full-time professors, researchers and staff working each day at LSU, there are even more part-time employees. There were 9,650 part-time wage earners working at LSU last year. When part-time employees are included, total employment was over 15,800 or 6% of all jobs in East Baton Rouge Parish. LSU attracts the majority of these students and employees to move to Baton Rouge from outside the area and contribute to the local economy.

LSU's reputation is what draws many students and faculty to its ranks as it continues to receive national recognition in various areas. LSU is the only public university in Louisiana ranked as in the first tier for "Best National Universities" by U.S. News & World Report. The Wall Street Journal for two consecutive years ranked the E. J. Ourso College of Business Flores MBA Program in the top 10 that draw corporate recruiters regionally. Additionally, the School of Landscape Architecture's undergraduate program is ranked first in the nation. LSU has taken the necessary steps to provide the future workforce of Louisiana as well. It has one of only 30 accredited programs in the country that train medical physicist needed for cancer diagnosis and therapy. These accomplishments make LSU and Baton Rouge an attractive destination to study, work and live.

Universities such as LSU are not only a source of new residents. They also act as a corridor for new investment and revenue streams into the community. Professors and students work to obtain federal grants to conduct research in their fields. The grant application process is extremely competitive, but the faculty at LSU attracted over \$80 million in federal grants last year alone. A professor's success in receiving a grant for research is not only a win for that faculty member, but also for the area economy. By receiving federal funding for research, LSU is directing monies from outside the state into Baton Rouge.

Beyond those acute economic benefits, there is a wide array of benefits that a major research university provides to the community. LSU is a leading contributor to the local workforce through educating future business and community leaders. The skilled workforce that LSU provides also creates an incentive for businesses to relocate to the area. The University can also serve as a catalyst for long term economic growth by cultivating entrepreneurship and technical expertise. Even beyond economic impacts, the University serves as a beacon for artistic and cultural activities that promote a better quality of life and also serves its community by promoting educational opportunities for children. While these additional contributions to the local community represent important benefits in both economic and non-economic terms, the effects are more dispersed and have not been considered in this study.

2. Measuring the Economic Impact of LSU

The intent of this report is to measure the impact of LSU in terms of sales, earnings and employment on the Baton Rouge Metropolitan Statistical Area (MSA). The Baton Rouge MSA

consists of Ascension, East Baton Rouge, East Feliciana, Iberville, Livingston, Point Coupee, St. Helena, West Baton Rouge and West Feliciana parishes. The impact of other LSU System campuses located in Baton Rouge such as the Paul M. Hebert Law Center, the AgCenter and the Pennington Biomedical Research Center were not considered. This study determines the static impact that can be quantified in dollar amounts of sales and earnings or levels of employment. It ignores the difficult-to-measure increases in the quality of life that comes with having a large source of human capital and contributor to cultural activities in the community. In addition, this report does not take into account the efficiencies and opportunities produced through extensive research and collaboration taking place on campus and their contributions to economic development in the MSA.

The pure magnitude of LSU and its operations implies it is quite significant to the Baton Rouge economy. Although its large expenditures and number of employees lead to a large impact, they only represent the direct impact of the campus. In order to determine the full static impact of LSU, the indirect and induced impacts must also be considered. To use an analogy, imagine the Baton Rouge MSA economy as a large pond. If a large rock (i.e. LSU) was suddenly dropped into the pond, it would make a big splash. However, the rock will also create ripples extending to the outer edges of the pond. For example, when LSU pays its employees, they will spend their paychecks at local retail stores and restaurants, for services, on housing, etc. Their purchases create sales, earnings and jobs at stores throughout Baton Rouge. When the employees of these stores spend their paychecks, it creates additional sales, jobs and earnings until the ripples reach the edge of the pond.

The multiplier effect of LSU's direct impact was calculated using input/output tables. The Bureau of Economic Analysis, an agency of the U.S. Department of Commerce, created and maintains the Regional Input-Output Modeling System (RIMS II). This system can provide multiplier tables for a geographic area to measure indirect and induced economic impacts. This study is based on RIMS II tables for the Baton Rouge MSA using the expenditure approach, meaning the "inputs" are spending that would not occur in LSU's absence.

The total impact of LSU is derived from four components: student spending, University operations (excluding athletics and capital improvements), LSU Athletic Department impacts and capital improvement expenditures. Student spending was estimated with the assistance of the Office of Budget and Planning. Detailed enrollment data for each semester of the 2010 fiscal year was merged with cost of attendance figures provided by Undergraduate Admissions and Student Aid. Students were grouped by their home parish or state, their living arrangements in Baton Rouge, and their classification as an undergraduate, graduate or veterinary medicine student. Part-time student enrollment was converted to full-time equivalents to prevent overstating student spending attributable to LSU. This amount of detail provides more accurate estimates of student expenditures on books and supplies, room and board, transportation, and miscellaneous items for the fall, spring and summer semesters. The spending figures were then used to obtain the total effect of student spending in Baton Rouge.

It is understood that spending by students from outside the MSA would not occur if LSU had not drawn them to Baton Rouge. In addition, students who are from the MSA might have moved away if LSU were not an enticing place to get a college degree. Currently, over 10,000 part-time and full-time students are from the 9 parish MSA. Unfortunately, it is difficult to

determine which students would continue to enroll if the university offered a degree of lesser quality or would remain in Baton Rouge in LSU's absence. Therefore, our economic impact analysis excludes all spending by students from the Baton Rouge metro area. Because some students from the Baton Rouge MSA would surely choose to leave the area for another school in LSU's absence or if the quality of education were not as good, the estimates provided herein should be considered conservative.

The second major component of this study is the impact of LSU's operating expenditures, excluding athletics and capital improvements. Major expenditures made within the MSA during the 2010 fiscal year were included. A large share of LSU spending in the MSA comes in the way of salaries paid to faculty and staff. Other large expenditures include payments for operating services, supplies, utilities and equipment. Some items were not included because the money left the MSA or because they were counted elsewhere. For example, auxiliary expenditures were not considered in this component because their impact is accounted for in the student spending and Athletic Department components.

To capture the impact of LSU's Athletic Department we relied on a prior study done by Dr. Loren Scott, Professor Emeritus in the Economics Department at LSU. He conducted surveys at athletic events to determine where LSU fans were spending their money. His results were adjusted for inflation and used in this report.

Finally, to account for the impact of capital improvement expenditures, we relied on data from the LSU Office of Accounting Services on expenditures for the 2010 fiscal year on major capital improvements. While the University's substantial infrastructure regularly requires

some level of expenditures to maintain, several large projects were in construction or planning stages during the 2010 fiscal year.

3. The Impact of LSU

It is easy to imagine that a major university would have a significant impact on its metropolitan area's economy. Indeed, LSU does have major implications for the Baton Rouge economy. In this section we will detail the effect of having a large public university located in the MSA.

3.1 Student Spending

One of LSU's core functions is to provide a nationally competitive quality education. Because of this core function, LSU's incoming students provide a steady stream of new residents for the area each year. Unlike other new residents, LSU students are less concerned about the current availability of well-paying jobs. They will, however, still spend significant amounts of money while residing in Baton Rouge. In this way, LSU has the beneficial effect of leveraging investments in the university to spur economic activity through student spending.

Table 1 shows how students allocate their budgets while attending LSU. The column "All Students" shows estimated spending for all students enrolled at LSU during the 2010 fiscal year, regardless of prior residence. The last column shows spending only for students that moved to the Baton Rouge MSA from some other area to attend LSU. Total student spending was estimated to be \$602.3 million (\$420.4 million after tuition and fees). Students from outside the MSA spent \$435.4 million last year (\$297.5 million after tuition and fees). Half of these students' expenditures, \$213.5 million (\$298.1 million including all students), are spent on

room and board. The result of so much spending in this category is seen around campus through new real estate developments and a large number of restaurants. After tuition and fees, room and board, the next largest category is personal and miscellaneous items. During the 2010 fiscal year, students from outside the MSA spent \$31.9 million (\$46.2 million including all students) at retail stores in the Baton Rouge MSA.

Table 1: LSU Student Spending (in millions of dollars)

Category	All Students	Students from Outside BR MSA
Tuition & Fees	\$ 181.9	\$ 138.0
Books & Supplies	\$ 38.9	\$ 26.8
Room	\$ 153.8	\$ 109.1
Board	\$ 144.3	\$ 104.5
Transportation	\$ 37.1	\$ 25.2
Personal & Miscellaneous	\$ 46.2	\$ 31.9
Total	\$ 602.3	\$ 435.4

Based on these estimates, the average annual expenditure for a full time LSU student is \$25,200 per year. This is calculated by dividing total spending by the average full-time equivalent number of students attending LSU in the fall and spring of the 2010 fiscal year (\$602,300,000/23,859). If tuition and fees were paid by a scholarship or grant program, the average out-of-pocket cost for a full time student would decrease to \$17,700 per year. The real cost for an individual student would be slightly higher if he or she enrolled in a summer session and slightly lower if not.

3.2 Economic Impact of LSU (Excluding Athletics and Capital Improvements)

In addition to the student expenditures, LSU injects substantial funds into the Baton Rouge MSA from operations. University revenues for the 2010 fiscal year were just over \$825 million, and the university's direct payroll was \$378.4 million for the year. Using our earlier metaphor, this constitutes a very large rock dropped into the Baton Rouge economy.

Tables 2-4 provide estimates of the economic impact of LSU on the Baton Rouge metro area economy, excluding the LSU Athletic Department and capital improvement expenditures. The results of Dr. Loren Scott's study on the Athletic Department's impact as well as a summary analysis of the impact of capital improvement expenditures will be integrated into this report in the next section.

Table 2 shows how LSU student spending and LSU expenditures (excluding athletics and capital improvements) flow through the MSA's economy to create ripples in many different industries other than those where the original spending took place. Not surprisingly, 28,000 students and 6,150 full time workers create a substantial demand for housing. The Real Estate Rental and Leasing sector tops our list of sales attributable to LSU with \$222.3 million sales. Retail Trade was the second most affected sector with \$184 million in sales. The Health Care and Social Assistance sector rounded out the top three sectors that most benefited from LSU with \$82.6 million in sales. In total, over \$1 billion in sales can be attributed to student spending and LSU operations, excluding athletic operations and capital improvement expenditures. As a point of reference, the U.S. Bureau of Economic Analysis' most recent estimate of the Baton Rouge MSA GDP was 39.2 billion in 2008.

Table 2: Baton Rouge Sales Attributable to LSU Student Spending and LSU Operations (excluding athletics and capital improvements, in millions of dollars)

Industry	Sales
Real estate and rental and leasing	\$ 222.3
Retail trade	\$ 184.0
Health care and social assistance	\$ 82.6
Food services and drinking places	\$ 81.7
Administrative and waste management services	\$ 67.1
Wholesale trade	\$ 59.8
Finance and insurance	\$ 59.0
Transportation and warehousing	\$ 52.2
Utilities	\$ 42.8
Manufacturing	\$ 39.4
Other Services	\$ 34.4
Information	\$ 31.1
Professional, scientific, and technical services	\$ 29.9
Total Sales	\$ 1,032.5

Note: This table is based on the Bureau of Economic Analysis' RIMS II tables, which provide impact multipliers for 20 industries. Industries with relatively small impacts to sales are omitted from the table. The total impact is the sum over all 20 industries.

Table 3 examines the total impact of LSU operations (excluding athletics and capital improvement expenditures) on household earnings in the MSA. Total direct and indirect earnings, including induced effects, were over \$660 million in the 2010 fiscal year. Over half of total earnings came directly from LSU. However, 43% (\$284.6 million) of the total were indirect or induced earnings paid by businesses in the MSA that profit from LSU's existence. Baton Rouge residents working in Retail Trade benefitted the most from the presence of LSU with \$62.6 million in indirect earnings. The second most highly impacted industry is Healthcare and Social Assistance, with \$38.9 million in earnings attributable to LSU. Workers in Administrative

and Waste Management Services earned an extra \$30.9 million because of LSU’s impact on the MSA.

Table 3: Baton Rouge Earnings Attributable to LSU Student Spending and LSU Operations (excluding athletics and capital improvements, in millions of dollars)

Direct LSU Earnings	\$ 378.4
Indirect and Induced Earnings by Industry:	
Retail trade	\$ 62.6
Health care and social assistance	\$ 38.9
Administrative and waste management services	\$ 30.9
Food services and drinking places	\$ 25.7
Wholesale trade	\$ 18.7
Transportation and warehousing	\$ 16.6
Finance and insurance	\$ 15.9
Professional, scientific, and technical services	\$ 13.7
Other services	\$ 11.0
Real estate and rental and leasing	\$ 10.2
Utilities	\$ 10.1
Total Indirect and Induced Earnings	\$ 284.6
Total Earnings	\$ 663.0

Note: This table is based on the Bureau of Economic Analysis’ RIMS II tables, which provide impact multipliers for 20 industries. Industries with relatively small impacts to earnings are omitted from the table. The total indirect impact is the sum over all 20 industries.

Table 4 focuses on the jobs created across the MSA by LSU. In all, nearly 20,000 jobs are attributable to student spending and LSU operations (excluding athletics and capital improvement expenditures), but only 45% of employees work directly for LSU. Over 10,500 wage earners in the MSA can attribute their jobs to LSU even though they don’t work on campus. A quarter of the indirect jobs (2,660) are in Retail Trade. Businesses in the Food Services and Drinking Places sector were able to employ over 1,700 people because of LSU. In addition, the Administrative and Waste Management Services as well as the Health Care and

Social Assistance sectors in the MSA both attributed over 1,000 jobs to LSU in the 2010 fiscal year.

Table 4: Baton Rouge Employment Attributable to LSU Student Spending and LSU Operations (excluding athletics and capital improvements)

Direct LSU Employment (FTE)	8,717
Indirect Employment by Industry:	
Retail trade	2,660
Food services and drinking places	1,747
Administrative and waste management services	1,438
Health care and social assistance	1,032
Transportation and warehousing	698
Real estate and rental and leasing	590
Other services	445
Finance and insurance	358
Wholesale trade	346
Professional, scientific, and technical services	253
Educational services	189
Information	152
Utilities	128
Manufacturing	123
Construction	104
Total Indirect Employment	10,572
Total Employment	19,289

Note: This table is based on the Bureau of Economic Analysis' RIMS II tables, which provide impact multipliers for 20 industries. Industries with relatively small impacts to employment are omitted from the table. The total indirect impact is the sum over these 20 industries.

3.3 Total Impact

The previous three tables have given industry-level impacts on the MSA of LSU student spending and University operations, exclusive of athletics and major capital improvements. A more accurate estimate of the total impact of LSU on the Baton Rouge MSA requires integrating the study done by Dr. Loren Scott on the Athletic Department into this report and accounting

for the significant expenditures undertaken for capital improvement efforts. In this section, we apply the calculations, adjusted for inflation, from Dr. Loren Scott’s study to get more complete impact estimates on business sales, household earnings and employment. We also consider the overall impact of capital improvement expenditures that were undertaken in the 2010 fiscal year.

The total impact of LSU on the Baton Rouge MSA is significant. Approximately \$1.3 billion in output was created by LSU’s presence in the 2008 fiscal year. This is comparable to 3% of metro area GDP. In terms of earnings, roughly \$738 million in salaries and wages were generated in one year. This implies that 5% of metro area wages are attributable to LSU when both the direct and indirect impacts are included (LSU’s direct payroll accounts for 2% of metro area wages). In total, an estimated 21,940 jobs were created by the presence of LSU in the MSA. Approximately 8,717 full-time equivalent jobs (6,159 full-time and 9,658 part-time jobs) were located on campus while 13,223 were in other parts of the MSA. Together, direct and indirect employment from LSU is comparable to over 6% of total non-agricultural employment in the MSA.

Table 5: Total Impact of LSU on the Baton Rouge MSA (all dollars are in millions)

	LSU Students and University Budget	LSU Athletic Department	Capital Improvements	Total
Sales	\$ 1,032.5	\$ 106.5	\$ 128.8	\$ 1,267.7
Earnings	\$ 663.0	\$ 32.5	\$ 42.2	\$ 737.7
Jobs	19,288	1,398	1,254	21,940

4. Summary & Conclusion

With over 28,000 students, more than 6,150 full time employees, and a budget of over \$825 million, it should come as no surprise that LSU has a large impact on the economy of the Baton Rouge MSA. This study seeks to quantify the direct, indirect and induced impacts of LSU on the Baton Rouge metro area economy. The results indicate that LSU's presence leads to well over \$1 billion of sales in the MSA. In terms of jobs and earnings, over 21,900 jobs and more than \$737 million in earnings can be attributed to LSU.