

The Economic Impact of Bellarmino University On Kentuckiana

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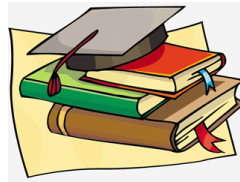
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\$248
MILLION
IN TOTAL
IMPACT
IN 2015



\$86
MILLION
SPENDING
IMPACT



\$162
MILLION
KNOW-
LEDGE
IMPACT



780 JOBS
SUPPORT
ED



\$4.3
MILLION
IN
GOVERN
MENT
REVENUE

- **\$248 million in total impact in Kentuckiana in 2015 by Bellarmine.**
- **\$86 million in spending impact as a result of Bellarmine.**
- **780 jobs supported by Bellarmine.**
- **\$4.3 million in state and local government revenue produced by Bellarmine.**
- **\$116 million in increased earnings of Bellarmine alumni working and living in Kentuckiana.**
- **\$45 million in social benefits from Bellarmine alumni in Kentuckiana.**
- **\$2 million in volunteer services contributed by Bellarmine students.**
- **\$8 million in cultural benefits to residents of the Highlands neighborhood of Louisville.**

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BELLARMINE UNIVERSITY IMPACT NUMBERS

BELLARMINE SPENDING IMPACT

DIRECT SPENDING BY BELLARMINE IN KENTUCKIANA		
University Spending	\$10,749,832	
Employee Spending	\$17,768,508	
Student Spending	\$8,474,801	
Visitor Spending	\$4,272,492	
	\$41,265,633	
SECONDARY SPENDING IN KENTUCKIANA	\$45,167,512	\$86,433,145

BELLARMINE KNOWLEDGE IMPACT

INCREASED EARNINGS OF ALUMNI		
	\$116,517,614	
SOCIAL BENEFIT IMPACT		
Reduced Absenteeism	\$5,457,383	
Reduced Alcoholism	\$1,575,255	
Reduced Crime Victim Cost	\$2,175,851	
Reduced Incarceration	\$6,540,226	
Reduced Smoking	\$2,422,148	
Reduced Unemployment	\$15,719,206	
Reduced Welfare Expenditures	\$11,553,822	
Total Bellarmine Social Benefit Impact	\$45,443,891	\$161,961,505
TOTAL KENTUCKIANA ECONOMIC IMPACT		\$248,394,650

INTRODUCTION

Bellarmino University is an independent Catholic university in Louisville. It offers more than 60 undergraduate majors, as well as graduate and doctoral degree programs. U.S. News & World Report and the Princeton Review consistently rank Bellarmine among America’s best institutions for higher education. Bellarmine graduates earn higher average salaries than graduates of any other major Kentucky college or university, according to research from the Brookings Institution and the Kentucky Center for Education and Workforce Statistics.

The impacts in this report are for the calendar year of 2015. Future impacts could be higher or lower depending upon enrollment, construction, contributions, and levels of government funding. It should be understood that the spending impact numbers are based on the “outside dollar” impact of Bellarmine.¹ The existence of Bellarmine results in a total \$248 million impact in Kentuckiana as well as supporting 780 jobs. The total impact includes an \$86 million Spending Impact and a \$162 million Knowledge Impact.

The total impact that Bellarmine University provides to Kentuckiana includes the following types of impacts:

- Spending impacts by Bellarmine University and its employees, students and visitors to the campus.
- The direct and indirect job impacts of Bellarmine.
- The state and local government revenue impact of Bellarmine.
- The impact of the increased earnings of alumni because of their Bellarmine education.
- The impact of the benefits of positive lifestyle choices of Bellarmine alumni
- The impact of the volunteer service of Bellarmine students.
- The cultural, recreational and educational impact of Bellarmine on the Highlands neighborhood of Louisville.

STUDY PERIOD: Calendar Year 2015

FOCUS OF THE STUDY: Bellarmine University

GEOGRAPHIC REGION: Kentuckiana (Bullitt, Hardin, Henry, Jefferson, LaRue, Meade, Nelson, Oldham, Shelby, Spencer, and Trimble Counties in Kentucky and Clark, Floyd, Harrison, Jefferson, Scott, and Washington Counties in Indiana)

BELLARMINE UNIVERSITY SPENDING IMPACT

The Spending Impact of an organization on a region is derived from its ability to attract “outside dollars” to the region or to prevent funds from leaving it. The Spending Impact of a university comes from its ability to attract students from other parts of the country and to retain local students who would otherwise have attended a college or university elsewhere.

¹ “Outside dollars” are funds that come into Kentuckiana from outside the region. Kentuckiana is defined as the Louisville Metropolitan Statistical Area.

“Outside dollars” received by a region from out-of-area sources determine the impact of a University on the local economy. For instance, tuition revenue that Bellarmine University receives from Indianapolis is different from revenue received from St. Matthews. The Indianapolis family earned its income from outside Kentuckiana. When their tuition is paid to the University it is an outside injection into the economy of Kentuckiana. Tuition revenue from the St. Matthews family comes from within Kentuckiana and remains within it. Therefore local tuition revenue is not used to determine Bellarmine’s Spending Impact, as it is “inside dollars,” and typically would remain in the region whether Bellarmine University was present or not.

The share of Bellarmine revenues from tuition, contributions, grants, and auxiliary activities that came from outside of Kentuckiana in 2015 was 43.2%. This percentage was multiplied by University vendor spending and payroll in the region to determine the Bellarmine Direct Spending Impact.

It should also be understood that not all spending by Bellarmine stays within Kentuckiana. Dollars that “leak” out of Kentuckiana through purchases from outside suppliers are not included in Bellarmine’s economic impact on Kentuckiana. Exhibit 1 summarizes what funds are included and excluded from the spending impact in this report.

EXHIBIT 1
WHAT IS INCLUDED AND EXCLUDED IN THE SPENDING IMPACT

Types of Spending	Included in the Spending Impact	Excluded from the Spending Impact
University vendor spending	In Kentuckiana	Outside Kentuckiana
Employee Salary and Benefits	In Kentuckiana	Outside Kentuckiana
Student living expenses	Non-Kentuckiana students	Kentuckiana students
Visitor spending	Non-Kentuckiana visitors	Kentuckiana visitors

This spending impact analysis measures the impact of direct, indirect and induced spending impacts from Bellarmine University on Kentuckiana. Exhibit 2 explains these impacts. The multipliers used in this study are from IMPLAN.²

EXHIBIT 2
DEFINITIONS OF SPENDING IMPACTS

	Direct Impact	Indirect Impact	Induced Impact
Definition	Bellarmino spending for operations and construction in Kentuckiana	Businesses which supply Bellarmine spend more money in Kentuckiana	Spending by employees of Bellarmine and employees of its suppliers in Kentuckiana
Total Spending Impact	\$41.3 Million	\$21.9 Million	\$23.2 Million

² Minnesota IMPLAN Group, Inc. (MIG) is the firm responsible for IMPLAN (Impact analysis for Planning) data and the software used. IMPLAN is a micro-computer-based, input-output modeling system. With IMPLAN, one can estimate Input-Output models of up to 528 sectors for any region consisting of one or more counties. IMPLAN includes procedures for generating multipliers and estimating impacts by applying final demand changes to the model.

BELLARMINE UNIVERSITY DIRECT SPENDING IMPACT

Bellarmino University had a direct spending impact of \$41.3 million in Kentuckiana in 2015. Exhibit 3 summarizes the sources of the direct spending impact.

EXHIBIT 3 **DIRECT SPENDING BY BELLARMINE UNIVERSITY IN KENTUCKIANA**

University Spending	\$10,749,832
Employee Spending	\$17,768,508
Student Spending	\$8,474,801
Visitor Spending	\$4,272,492
Total Direct Spending	\$41,265,633

UNIVERSITY DIRECT SPENDING

Bellarmino University spent almost \$24.9 million in Kentuckiana during 2015. Not included in this direct spending are payments to vendors outside of Kentuckiana. Of this amount more than \$10.7 million was derived from students, grants, and contributions from outside of Kentuckiana. Not included in this total are salaries to employees, loans and grants to students, and purchases of goods and services from organizations outside the region.

EMPLOYEE DIRECT SPENDING

In 2015 the payroll for Bellarmine employees living in Kentuckiana was almost \$41.1 million. The payroll derived from income from out-of-area students, grants and contributions was about \$17.8 million. Employee compensation includes fringe benefits and FICA taxes paid by the employer on behalf of the employee. This does not include wages paid to student workers.

STUDENT DIRECT SPENDING

The student direct spending impact is generated by the expenditures of students at Bellarmine from outside of Kentuckiana. For students living in University housing it includes spending on clothing, entertainment, food, and the like. For non-local students living off-campus the spending impact also includes apartment rent.

In 2015 out-of-area students spent almost \$8.5 million in Kentuckiana. Revenue from these students is injected into the local economy each time students go to a restaurant, purchase gasoline and other goods and services at local businesses. These Bellarmine students stimulate the Kentuckiana economy.

VISITOR DIRECT SPENDING

The Bellarmine campus hosted over 220,000 visitors last year for Knights games, the Irish Festival, speakers in the Wyatt Lecture Series and many other events. Most of these people who came to campus were from the area.

Over 25,000 of these visitors came from outside of Kentuckiana. These people brought almost \$4.3 million in new money to Kentuckiana in 2015. Researchers came to the Thomas Merton Center. Parents brought their teens to tour the campus while others came to see their young adults walk down the graduation aisle. Alumni came back to see the site of so many cherished memories. Exhibit 4 describes these visitors.

EXHIBIT 4
SPENDING BY VISITORS TO BELLARMINE UNIVERSITY

Category	Number of Visitors	Total Expenditures
Admissions Visits	6,895	\$1,161,626
Alumni Events	605	\$101,927
Athletic Events	8,680	\$1,462,351
Conferences	6,570	\$1,106,872
Graduation	2,000	\$336,947
Merton Center	610	\$102,769
TOTAL	25,360	4,272,492

* Exact numbers for attendance by out-of-area visitors are not available in most cases. Estimates have been used.

THE MULTIPLIER EFFECT

To understand the dynamics of the Bellarmine impact we can visualize a rock being thrown into a lake. There is an initial splash, and then waves continue to move out from the center. The Direct Impact is like the splash. The Indirect and Induced Impacts are like the waves.

These three impacts are defined below.

- **Direct Spending** - Bellarmine spending for operations and construction in Kentuckiana
- **Indirect Spending** - Businesses which supply Bellarmine spend more money in Kentuckiana
- **Induced Spending** - Spending by employees of Bellarmine and employees of its suppliers in Kentuckiana

The total direct spending impact of the Bellarmine University community in Kentuckiana was more than \$41 million in 2015. This amount went to area businesses, including utilities, plumbers, restaurants, property owners, hotels, and other services.

Indirect spending happens when these local businesses use the funds from Bellarmine to buy other goods and services in Kentuckiana. The company that delivers food to the dining hall gets its trucks serviced locally. The hotel that hosts a parent from Atlanta gets its cleaning supplies from local markets. Of course, both the food supplier and the hotel pay their employees from money spent by the Bellarmine community.

Induced spending happens when the employees of Bellarmine, the food delivery company and the hotel buy ice cream at Meijer, or a car along Shelbyville Road.

The impact of both Indirect Spending and Induced Spending is known as the multiplier effect. The multipliers used in this report were derived from IMPLAN which is produced by the Minnesota

IMPLAN Group, Inc. (MIG). Exhibit 5 shows the direct, indirect and induced impacts on jobs and sales in Kentuckiana in 2015 from Bellarmine University.

EXHIBIT 5
**BELLARMINE UNIVERSITY TOTAL ECONOMIC IMPACT
 ON KENTUCKIANA 2015**

Impact Type	Jobs	Sales
Direct Effect	470	\$41,265,633
Indirect Effect	136	\$21,897,852
Induced Effect	173	\$23,269,660
Total Effect	780	\$86,433,145

IMPACT BY INDUSTRY

Exhibit 6 shows Bellarmine impacts by industry for Kentuckiana. According to estimates, Bellarmine spending in 2015 supported more than \$86 million in sales in Kentuckiana. The education industry is not surprisingly most impacted by Bellarmine with \$39.8 million in sales.

The industries, outside of education, most impacted by Bellarmine spending include: real estate with \$11 million in sales, business services with \$4.6 million in sales, construction with \$4.5 million in sales, accommodation and food services with \$3.9 million in sales, and healthcare with \$3.3 million in sales.

EXHIBIT 6
**IMPACT OF BELLARMINE UNIVERSITY BY
 MAJOR INDUSTRY IN KENTUCKIANA 2015**

Industry	Sales
Education	\$39,809,694
Real Estate	\$10,998,221
Business Services	\$4,579,013
Construction	\$4,486,376
Accommodation and Food Services	\$3,872,548
Healthcare	\$3,331,269
Finance and Insurance	\$2,899,365
Communications	\$2,765,092
Other Industries	\$2,656,415
Retail Trade	\$2,205,850
Utilities	\$2,116,463
Wholesale Trade	\$1,650,494
Manufacturing	\$1,625,905
Government	\$1,393,168
Transportation	\$1,045,895
Arts, Recreation and Entertainment	\$997,378
Total	\$86,443,145

JOB IMPACT

Bellarmino University supported 780 jobs in Kentuckiana in 2015. There were 485 full-time Bellarmine employees in 2015 living in Kentuckiana. 210 of those jobs were supported by Bellarmine students from outside Kentuckiana. Additionally there were 570 people who owed their jobs to the presence of Bellarmine.

STATE AND LOCAL GOVERNMENT IMPACT

Exhibit 7 shows the total government taxes and receipts that Bellarmine University contributed to Kentuckiana. The University generated over \$4,275,000 of tax revenues to state and local governments from all sources.

EXHIBIT 7
STATE AND LOCAL GOVERNMENT REVENUE IMPACT IN 2015

Description	Employee Compen- sation	Tax on Production and Imports	Households	Corporations
Dividends				\$12,547
Social Ins Tax- Employee Contribution	\$21,565			
Social Ins Tax- Employer Contribution	\$42,397			
Tax on Production and Imports: Sales Tax		\$1,704,628		
Tax on Production and Imports: Property Tax		\$922,055		
Tax on Production and Imports: Motor Vehicle		\$28,710		
Tax on Production and Imports: Severance Tax		\$67,959		
Tax on Production and Imports: Other Taxes		\$78,886		
Tax on Production and Imports: S/L Non Taxes		\$17,643		
Corporate Profits Tax				\$213,570
Personal Tax: Income Tax			\$1,018,746	
Personal Tax: Non Taxes (Fines- Fees)			\$73,935	
Personal Tax: Motor Vehicle License			\$38,248	
Personal Tax: Property Taxes			\$11,937	
Personal Tax: Other Tax (Fish/Hunt)			\$23,405	
TOTAL STATE AND LOCAL TAXES	\$63,962	\$2,819,909	\$1,166,272	\$226,116
ALL TAXES				\$4,276,258

LOUISVILLE METRO GOVERNMENT

The Bellarmine University community was responsible for \$1,264,814 in revenue to Louisville /Jefferson County Metropolitan Government in 2015. There were, of course, costs to the City for servicing the University campus including responses by police, fire, and EMS, and the cost of the real estate tax exemption on the Bellarmine campus. These costs are described below.

Public Safety

Bellarmino has its own security service which reduces the cost to public safety departments. Because of this the cost to the City of Louisville for Public Safety responses to the campus is a small portion of

City spending. Below are calculations of costs to Metro Government Police, Fire and EMS for Fiscal Year 2015.

Police expenses accounted for more than \$174.6 million of Metro Louisville spending. In 2015 only 70 of a total of 546,331 responses were to the Bellarmine campus. Therefore the Bellarmine share of total police spending was \$22,368 in 2015.

Fire Department expenses in Fiscal Year 2015 were \$55.5 million. In 2015 there were 52 responses by the Fire Department to the Bellarmine campus out of a total of 33,909. This was less than 0.2% of all responses in 2015. Based on this percentage rate, the cost of serving the University campus by the Fire Department was \$85,104.

Louisville Emergency Management Service/MetroSafe had expenses of \$23.8 million. There were 35 responses to the Bellarmine campus in 2015 out of a total of 111,243 responses in the City. Therefore the Bellarmine share of total EMS spending was \$7,499 in 2015.

Property Tax

The City of Louisville received over \$145 million in real estate taxes in Fiscal Year 2015. Bellarmine University occupies 0.2 square miles of the total 386 square miles of City area. This is almost 0.05% of the land in the City. If Bellarmine University did not exist the campus land would most likely be covered with houses. Based on current levels of real estate taxes the City would have received \$72,320 in property tax revenue in 2015.

The total cost for emergency responses to campus and the property tax exemption was \$187,291. This is a much smaller figure than the \$1,264,814 that the Metro Government received in 2015 from the presence of Bellarmine.

THE BELLARMINE UNIVERSITY KNOWLEDGE IMPACT

Bellarmino University makes a significant Knowledge Impact by increasing the human capital of its graduates. “Human capital refers to the stock of competencies, knowledge and personality attributes embodied in the ability to perform labor so as to produce economic value. It is the attributes gained by a worker through education and experience.” (Sullivan & Sheffrin, 2003) In the context of this report, Knowledge Impact refers to the contribution of Bellarmine University toward higher incomes and the social benefits of positive lifestyle choices.

According to Stokes and Coomes (1998), “Knowledge Impacts result from the transmission of ideas to the community.” Machlup (1980) makes a distinction between “subjective new knowledge” and “objective” or “socially new knowledge.” Subjective knowledge is produced by the passing of knowledge from faculty to students. It is new to the students but not new to society. University students receive knowledge and greater technical ability. This increase in their human capital translates into higher earnings for themselves, with multiplied benefits for the community. It also results in greater productivity for the labor force.

The transfer of subjective knowledge accounts for most of the Knowledge Impacts of universities. These effects are long-term. There also are short-term knowledge effects. Individuals gain knowledge

that enables them to increase their earnings quite rapidly. Universities drop and add programs in response to market conditions. These one-time changes in enrollments in particular programs have short-term labor effects. (Stokes & Coomes, 1998)

“Objective” or socially new knowledge creation is the “raison d’être” of the research university. “Advances in such areas as medical technology, pharmaceuticals, agronomy and computer science are made in University laboratories. New mathematical understanding is applied to the social and natural sciences and leads to advances in knowledge. Some breakthroughs are spun off immediately to industry and have resulted in “local economic benefits to such areas as Boston’s Route 128 corridor and the Bay Area’s Silicon Valley. While production of objective knowledge is difficult to quantify, the number of patents issued and the level of capital investment have been used as indicators.” (Stokes & Coomes, 1998)

BELLARMINE UNIVERSITY ALUMNI IMPACT

The principal economic value of a University degree lies in the difference between the average earnings of a University graduate compared to those of a high school graduate. University graduates can expect to earn approximately \$570,000 more over their lifetimes than those who leave University before graduating. (Day & Newberger, 2002)

There were 20,189 known Bellarmine University alumni alive today in Kentuckiana. Of this total, 15,709 of the alumni were employed in the labor force. (Exhibit 8) These alumni have an impact on Kentuckiana, through outstanding work in serving society. Through determination and dedication, alumni influence is felt in the arts, business, education, government, health care, science, and many other areas.

The total value of their increased earnings impact is in 2015 was about \$233 million Fifty percent of this Alumni Impact, or \$116.5 million, in Kentuckiana is included in this report. This assigned some of the responsibility for social benefits to the University and left some credit to other factors such as family background and personal characteristics.

To determine the value of a bachelor’s degree from Bellarmine University, the number of known alumni by gender, graduation year, and degree was multiplied by the average annual earnings for each category. (U.S. Census Bureau, Housing and Household Economic Statistics Division, 2009) The average annual income for high school graduates was then subtracted. This total figure was multiplied by 50%.

EXHIBIT 8 **BELLARMINE UNIVERSITY WORKING ALUMNI IN KENTUCKIANA***

Highest Degree Held	Alumni Total	Increased Earnings Value to Individuals
Doctorate	433	\$18,944
Masters	4,219	\$8,705
Bachelors	11,057	\$17,013
Total	15,709	

* Alumni numbers include all living alumni with addresses who are working.

SOCIAL BENEFIT IMPACT

Education pays - not just in better incomes but also in better lifestyles. Better living pays benefits to society. University graduates tend to possess greater self-esteem; live longer, healthier lives; assume greater civic responsibility; enjoy more aesthetic interests; attend more athletic events; exercise better moral judgment; and nurture children more effectively than do those without university educations. (Baum & Payea, 2005; Behrman & Stacey, 1997; Watts, 2001)

Absenteeism, alcoholism, crime, incarceration, unemployment, and welfare place heavy costs on governments and businesses. Rates for these behaviors decline as education levels increase. Because of the lower rates of these behaviors University graduates incur lower costs to society.

The total value of these reduced social costs is almost \$90.9 million. Fifty percent of this Social Benefit Impact of Bellarmine University alumni, more than \$45.4 million, in Kentuckiana is included in this report. This assigned some of the responsibility for social benefits to the University and left some credit to other factors such as family background and personal characteristics.

Bellarmino University, therefore, has a Social Benefit Impact on Kentuckiana because of the choices made by its alumni who live there. Exhibit 9 shows the value of these reduced social costs.

EXHIBIT 9 **BELLARMINE UNIVERSITY SOCIAL BENEFIT IMPACT IN KENTUCKIANA**

Reduced Absenteeism	\$5,457,383
Reduced Alcoholism	\$1,575,255
Reduced Crime Victim Cost	\$2,175,851
Reduced Incarceration	\$6,540,226
Reduced Smoking	\$2,422,148
Reduced Unemployment	\$15,719,206
Reduced Welfare Expenditures	\$11,553,822
Total Bellarmine University Social Benefit Impact	\$45,443,891

COMMUNITY SERVICE

Bellarmino offers multiple venues for service-learning and community engagement both on campus and in the local community, as well as nationally and internationally. This is enmeshed within the mission of the University and therefore is a tenet of the BU experience. 100% of Bellarmine graduating seniors have participated in service at least once during their experience at Bellarmine. Whether they're getting involved with local agencies purely to volunteer their time and talents or interested in supplementing their classroom experience by serving others, Bellarmine students are actively making a difference.

Bellarmino Students contributed 88,919 hours of community service in 2015. The Corporation for National and Community Service places a value of community service at \$23.56 per hour (Independent Sector, 2015). The total value of BU community service for 2015 was \$2,051,356. (Exhibit 10)

The hours of student community service included in this report include activities which provide benefits to individuals and non-profit organizations. It does not include service that is of primary benefit to for-profit businesses. These hours include activities done as part of general education classes and pre-professional nursing, physical therapy and respiratory therapy classes.

EXHIBIT 10
VALUE OF BELLARMINE STUDENT
COMMUNITY SERVICE IN KENTUCKIANA

Service Category	Community Service	Number of Hours	Value
Academic	Academic Service Learning	3,750	\$86,513
Education	Student Teachers and Field Placement	56,800	\$1,310,376
Health	Nursing Graduate	3,500	\$80,745
Health	Nursing Undergraduate	7,962	\$183,683
Health	Physical Therapy	2,600	\$59,982
Health	Respiratory Therapy	148	\$3,414
Student Volunteering	Athletes	1,200	\$27,684
Student Volunteering	Knights in Action	2,397	\$55,299
Student Volunteering	Registered Student Organizations	10,562	\$243,660
Total		88,919	\$2,051,356

ACADEMIC SERVICE-LEARNING

Academic Service Learning opportunities help Bellarmine students practice the values they learn in the classroom, through volunteering in the community. These courses require service in the community, reflection, and service-learning is an integral part of in and out of classroom learning. A testament to this is the first endowed physical therapy clinic being housed on campus as well as the numerous community partnerships taking place through curricular and co-curricular learning.

Bellarmino University offered over fifty courses with components of service-learning in 2015. 81% of Bellarmine Seniors responding to the National Survey of Student Engagement 2012 survey reported participation in service-learning courses during their time at BU.

In 2015 Bellarmine students spent 3,750 hours working with 35 faculty members who had a service learning component in their courses. The value of Bellarmine University Academic Service Learning to Kentuckiana in 2015 was \$86,513.

EDUCATION

295 Bellarmine University Education students worked as student teachers and in field placements in 2015. These students spent 56,800 hours serving in public and private schools in Kentuckiana. The value to Kentuckiana of these Education students was \$1,310,376.

HEALTH CARE

544 students in the Lansing School of Nursing and Health Sciences participated in community service in 97 projects in Kentuckiana in 2015. These nursing, physical therapy, and respiratory therapy students spent a total of 14,210 hours providing service which was valued at \$327,825.

STUDENT VOLUNTEERING

Student volunteering includes activities which are not related to academic classwork. These activities include service by athletes, members of Registered Student Organizations and on the Knights in Action Day of Service held at the beginning of the Fall semester.

Student Athletes – Members of the nine intercollegiate athletic teams spent a total of 1,200 hours in community service activities in 2015. These projects were valued at \$27,684.

Knights in Action: Day of Service – This is a common experience all first-year students take part in during Orientation. The program was begun to connect students to the mission of Bellarmine and to help them to understand that service is an integral part of the four-year experience and beyond. Students participate in service projects at 35 non-profit locations alongside 48 faculty members, 25 staff members, 82 student leaders, and over six hundred fellow first-year peers. This day of service serves as a stepping stone to understand community, and to connect, and to serve.

In 2015 students involved in Knights in Action spent 2,397 hours working on community projects valued at \$55,299.

Registered Student Organizations – Bellarmine students spent 10,562 hours participating in over 130 service projects in 2015. These activities were valued at \$243,660. Significant projects included the following: Students belonging to the Knights Way spent time with families who have disabled children. The Bellarmine Emergency Response Team provided EMS coverage for three events for the Champs Roller Dome as well as the figure skating competition at the Iceland sports complex. The Men's Ultimate Frisbee Club helped clean up Joe Creason Park across Newberg Road from the University campus.

IMPACT ON HIGHLANDS RESIDENTS

The Highlands is an area which contains a high density of nightclubs, eclectic businesses, and many upscale and fast food restaurants. It is centered along a three-mile stretch of Bardstown Road and Baxter Avenue and is so named because it sits atop a ridge between the middle and south forks of Beargrass Creek. ("Highlands, Louisville, the." no date) For purposes of this study the Highlands is defined as the 40204 and 40205 zip codes. In 2010 this neighborhood was home to about 33,000 people.

This report shows that Bellarmine University provided a net benefit of over \$8 million to residents of the Highlands in 2015. Exhibit 11 below describes the contributions by the University community to Highlands residents.

Community Service – Bellarmine students provided over \$245,000 in community service in the Highlands in 2015.

Culture – Bellarmine University musical, art, theater and other events contributed almost \$220,000 in value to people living in the Highlands. Cultural events in the Highlands save local people from traveling to more distant parts of the City.

Education –Students from the Highlands received almost \$1.2 million in financial aid from Bellarmine University.

Recreation – The parklike setting of the Bellarmine campus has a value of \$356,000 to neighborhood joggers, walkers and bikers.

Many Highlands children attended athletic camps at Bellarmine facilities. The amount of saving in travel time was over \$29,000.

In May 2016 Bellarmine acquired an 11 acre parcel on Newberg Rd and Champions Trace Lane. The current plans call for a 2,500-seat stadium, a 30,000-square-foot indoor practice facility, six tennis courts and a 24,590-square-foot team facility with office and locker rooms.

Spending – Over \$6 million from Bellarmine University, its employees, students, and visitors was spent in the Highlands in 2015.

EXHIBIT 11
**BENEFITS OF BELLARMINE UNIVERSITY TO
HIGHLANDS RESIDENTS**

Benefit Category	Specific Benefit	Value
Community Service	University Students	\$245,710
Culture	Cultural Programs	\$219,779
Education	Education for Residents	\$1,180,587
Spending	Employees	\$1,081,105
Spending	Students	\$847,480
Spending	Visitors	\$427,249
Spending	University	\$3,652,110
Recreation	Athletic Camps	\$29,358
Recreation	Campus Outdoor Activities	\$355,875
HIGHLANDS RESIDENTS TOTAL		\$8,039,254

COMMUNITY SERVICE

Service is an important aspect of the Bellarmine community, and the Highlands community is a wonderful extended classroom for students and employees. Whether they're getting involved with local agencies purely to volunteer their time and talents or interested in supplementing their classroom experience by serving others, Bellarmine students and employees are actively making a difference.

Bellarmino students contributed over \$245,000 in community service activities in the Highlands. This included about \$126,000 for the contributions of student teachers at Atherton High School, Bloom Elementary School, Highland Middle School, and St. Agnes School.

CULTURE

Highlands residents attended cultural programs at Bellarmine University about 45,000 times last year. These programs included concerts, exhibits, lectures, and theatre performances, and other events.

Highlands residents benefited from having these programs close to their homes. This saved them from longer round trips to other more distant events. Average travel time saved is estimated at twenty minutes for each event. This is because a Highlands resident is most often choosing between attending a program at Bellarmine and driving longer distances to U of L or downtown Louisville. When leisure time is valued at \$15 an hour the value of time saved was almost \$220,000. (Exhibit 12)

EXHIBIT 12
TIME VALUE OF BELLARMINE UNIVERSITY CULTURAL PROGRAMS TO HIGHLANDS RESIDENTS

Attendance from the Highlands	X	Hours of Travel Time Saved	X	Hourly Value of Leisure Time	=	Total Value of Time Saved
44,956		.333		\$15.00		\$219,779

EDUCATION

In 2015 Bellarmine University gave each undergraduate student an average of \$17,426 in financial aid. There were 68 permanent Highlands residents who attended undergraduate classes at Bellarmine. These students received more than \$1,080,000 in aid from the University. (Exhibit 13)

EXHIBIT 13
VALUE OF UNIVERSITY TUITION DISCOUNTS TO UNDERGRADUATE HIGHLANDS RESIDENTS

Number of Highlands Permanent Resident Students	X	Average Tuition Discount per Full Time Student	=	Total Value of Highlands Discounted Tuition
68		\$17,426		\$1,180,587

RECREATION

Athletic Camps - Bellarmine offers summer camps in seven sports. Almost 2,000 children from the Highlands attended these camps. Their parents made almost 6,000 trips to bring them to and from the camps. The close proximity of the camps in the Highlands saved parents twenty minutes per trip. When leisure time is valued at \$15 an hour this places a value of more than \$29,000 on the time saved.

Walking and Jogging – The hilltop campus of Bellarmine University is located in a parklike setting with large areas of open lawns. Highlands residents can be found walking, jogging and biking on campus in the mornings, evenings and on weekends. Across Newberg Road are the hills, woods, and creeks of Joe Creason Park. The University owns about 14 acres of this beautiful park.

The pleasure of using the open spaces owned by Bellarmine has a value. We estimate from University and Metro Parks sources that Highlands residents spend about 23,725 hours enjoying these spaces each year. When leisure time is valued at \$15 hour the total value to Highlands people was \$355,875.

UNIVERSITY COMMUNITY SPENDING

The Bellarmine community spent over \$6 million in 2015 in the Highlands zip codes of 40204 and 40205. Bellarmine University purchased goods and services from neighborhood businesses. Fifty University employees living in the Highlands spent money there. Students patronized local restaurants and stores and theaters. Over 5,000 visitors spent money there also.

University – Bellarmine spent over \$3,650,000 in the Highlands in 2015.

Employees – Over 100 Bellarmine employees live in zip codes 40204 and 40205. These employees as well as others spent more than \$1,080,000 last year in the Highlands.

Students – Bellarmine students spent almost \$850,000 in the Highlands neighborhood on everything from groceries and pizza to movies and nightclubs.

Visitors – Out of town visitors to Bellarmine spent about \$427,000 last year along the Bardstown, Baxter, and Barret Avenue corridors.

CONCLUSION

The significant Economic Impact of Bellarmine University on Kentuckiana can be felt in a number of ways. The University produces alumni who earn more than individuals who did not complete a degree in higher education. These alumni adopt better lifestyles and thus save the community on expenses such as healthcare. The University provides employment opportunities, not only through jobs on campus but also through jobs generated by business the University and its members conduct locally.

The University and those associated with it pumped \$248 million into the Kentuckiana economy in 2015. It is clear that in addition to the University's profound contributions to the cultural life of the community it is making sizable economic contributions as well.

APPENDIX 1

METHODS USED TO CALCULATE THE SPENDING IMPACT

The analysis of the Spending Impact of Bellarmine University on Kentuckiana was conducted in the tradition of the method developed for the American Council on Education (ACE) by Caffrey and Isaacs (1971) to determine the impact of higher education. The ACE method is still the primary method employed in economic impact studies. (Siegfried, Sanderson, & McHenry, 2007) To determine Bellarmine University's economic impact, its Spending and Knowledge Impacts were examined in depth. Methods used in the analysis of the Spending Impact are described below:

Spending Impact - The Bellarmine University Spending Impact is the result of Direct, Indirect, and Induced Spending. Direct spending comes from the University, its employees, students, and visitors. Indirect Spending is by businesses which supply Bellarmine and spend more money in Kentuckiana. Induced Spending is by employees of Bellarmine and employees of its suppliers in Kentuckiana

Total Spending Impact - The Total Spending Impact = Direct Spending Impact + Indirect Spending and Induced Spending Impact.

Multiplier - The ratio of Total Spending Impact to Direct Spending Impact (Multiplier = Total Spending Impact/Direct Spending Impact). An institution's Total Spending Impact is derived from some multiple of its direct expenditures. To determine Bellarmine University's Total Spending Impact multipliers used in this study are from IMPLAN.

Minnesota IMPLAN Group, Inc. (MIG) is the firm responsible for IMPLAN (IMPact analysis for PLANning) data and the software used. IMPLAN is a micro-computer-based, input-output modeling system. With IMPLAN, one can estimate Input-Output models of up to 528 sectors for any region consisting of one or more counties. IMPLAN includes procedures for generating multipliers and estimating impacts by applying final demand changes to the model.

Out of Region Students - The Economic Impact of an organization on a region is derived from its ability to attract outside money to a region or to prevent funds from leaving it. The Economic Impact of a University comes from its ability to attract students from other parts of the country and to retain local students who would otherwise have attended University elsewhere.

The "outside money" received by a region from these out-of-region students determines the impact of a University on the economy. For instance, tuition revenue that Bellarmine University receives from Nashville is different from revenue received from Shelbyville. The Nashville family earned its income from outside Kentuckiana. When their tuition is paid to the University it is an outside injection into the economy of Kentuckiana. Tuition revenue from the Shelbyville family comes from within Kentuckiana and remains within it. Therefore local tuition revenue is not used to determine Bellarmine's Spending Impact, as it is "inside money" and typically would remain in the region whether Bellarmine University was present or not.

The share of tuition revenue that came from outside of Kentuckiana in 2015 was 43.2%. This percentage was multiplied by University vendor spending and payroll in Kentuckiana to determine the Bellarmine Direct Spending Impact for the region.

Student Personal Spending - Student living expenses for food, entertainment, transportation, clothing and other items, which are above payments to Bellarmine University for tuition, residence halls, and meal plans are counted as student personal spending. Only personal spending by Bellarmine students originating from outside Kentuckiana was counted when determining the Bellarmine Economic Impact.

METHODS USED TO CALCULATE THE KNOWLEDGE IMPACT

Spending and Knowledge Impacts differ in their relative influence over time. The local Spending Impact of a University is noticeable immediately, whereas Knowledge Impacts continue to influence the community throughout the entire lives of alumni and, therefore, have long-term effects. A high level of educational attainment (“knowledge”) allows the University graduate to benefit directly (in the form of higher earnings) and also yields significant social returns, such as the individual’s interactions with co-workers (to better a company or organization) and the increased tendency of these graduates to make positive lifestyle choices. (Stokes & Coomes, 1998)

The extent of the Spending and Knowledge Impact of a University is related to the source of its students, and the size of the region in which it is located. Institutions that receive the majority of their students from inside of their regions, such as Bellarmine, have small Spending Impacts. Typically Universities in large regions, such as Bellarmine, have large Knowledge Impacts because most of their graduates remain in the area.

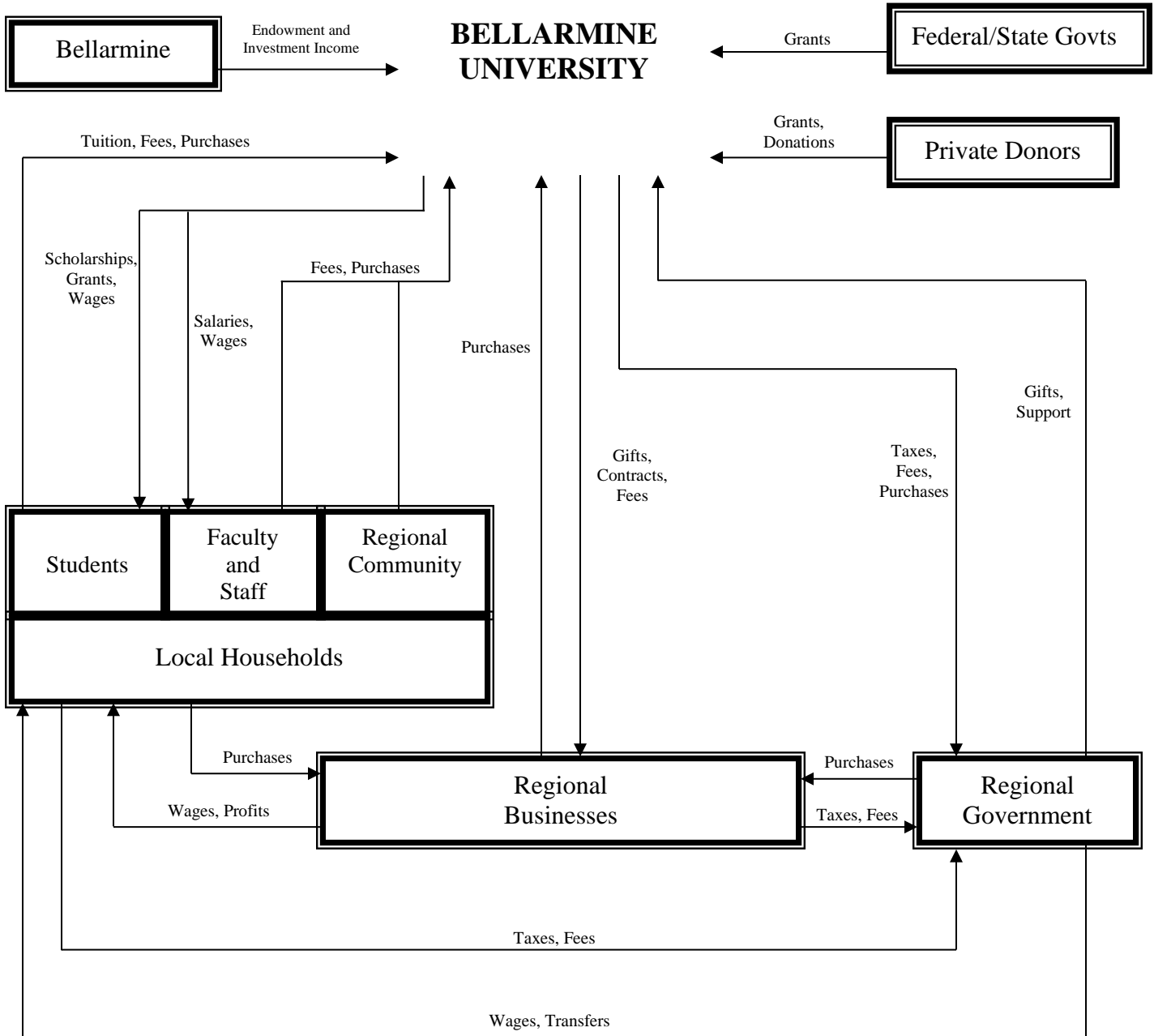
Knowledge Impacts – Alumni Earnings - The principal economic value of a University degree lies in the difference between the average earnings of a University graduate versus that of a high school graduate. This was calculated in the following manner: the number of alumni by gender, graduation year, and degree was multiplied by the average annual earnings for each category. The average annual income for high school graduates for each category was then subtracted. This process showed the additional earnings gained from a University education.

Knowledge Impacts – Social Benefits - This is the benefit of reduced alcoholism, incarceration, unemployment, and welfare because of the choices made by Bellarmine alumni who live in Kentuckiana. Lower social costs reduce expenditures of businesses and governments.

CASH FLOW MODEL

The flow chart on the following page represents the place of Bellarmine University in the flow of income and expenditures in a regional economy. The concept is the same for Kentuckiana. “The circular flow of income, where households earn income and spend, businesses receive revenues from household spending and pay their operating costs, and local governments receive taxes and fees which are transformed into municipal services, is illustrated by the chart. The income-spending/income-re-spending cycle constitutes the multiplier process,” (Rennie, 2002) to which reference is made earlier in this report (see “Methods Used to Calculate the Spending Impact”)

APPENDIX 2
ECONOMIC IMPACT OF BELLARMINE UNIVERSITY
CASH FLOW MODEL (Rennie, 2002)



APPENDIX 3
KEVIN STOKES – BIOGRAPHICAL SKETCH

Kevin Stokes is one of the leading providers of Economic Impact studies for private Universities. He has developed a unique method for determining the impact of higher education on municipal budgets. His clients have included Biola University (CA), DePauw University (IN), Franklin College (IN), Hope College (MI), Loma Linda University (CA), Lyon College (AR), Roger Williams University (RI), University of Bridgeport (CT), University of the Southern Caribbean (Trinidad), and Washington and Lee University (VA).

Clients in healthcare have gained from his expertise in the areas of analysis of variance, certificate of need application, management training, market definition, mergers and acquisitions, personnel development, statistical regression, trend analysis and value of life analysis. Clients have included Adventist Health System-Asia (Singapore), Adventist Living Centers (IL) , Brooke Grove Healthcare (MD), Battle Creek Adventist Hospital (MI), Fuller Memorial Hospital (MA), Geer Memorial Hospital (CT), Gritman Hospital (ID), HMO Nebraska, Kentucky Poison Control Center, Louisville Medical Center Development Corporation (KY), Pullman Memorial Hospital (WA), Sacred Heart Hospital (WA) and the World Health Organization.

Mr. Stokes received his B.A. from Andrews University in Michigan and his M.A. in Economics from Washington State University. He has served as adjunct Professor of Economics and Statistics at Webster University.

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