

MAKING A DIFFERENCE IN MASSACHUSETTS

FISCAL YEAR 2008



Boston University's

Economic and Social Impact Sourcebook

June 2009

“In the heart of the city, in the service of the city”
(Lemuel Murlin, President of Boston University, 1911 to 1925)

The Schools and Colleges of Boston University

College of Arts & Sciences

College of Communication

School of Education

College of Engineering

College of Fine Arts

College of General Studies

Henry M. Goldman School of Dental Medicine

Graduate School of Arts & Sciences

College of Health & Rehabilitation Sciences: Sargent College

School of Hospitality Administration

School of Law

School of Management

School of Medicine

Metropolitan College

School of Public Health

School of Social Work

School of Theology

PREFACE

This report describes the economic and social impacts of Boston University on the Commonwealth of Massachusetts for the fiscal year ending June 30, 2008.

As with earlier versions, this report does, to some extent, understate Boston University's economic impact on the Commonwealth because it excludes a number of economic components for which there are no technically sound methodologies or parameters for estimating the economic impacts. For example, it excludes the spending done by visitors who attend the University's on-campus events (e.g., Commencement, Alumni Weekend, athletic and cultural events, and reunion programs), and the impact on the regional economy of the business partnerships arranged through the Photonics Center and the Fraunhofer Center for Manufacturing Innovation. It also excludes the economic impact of Boston University's Technology Development office, which provides venture capital funding to support new and growing companies in health care and information technology. Further, it does not account for the extent to which the University's out-of-state expenditures impact the Massachusetts economy.

The report uses the latest available economic and employment multipliers from the Department of Commerce in the calculations for the City of Boston, the Boston Metropolitan Area, and the remainder of the Commonwealth. The role of economic multipliers in deriving levels of indirect spending is described in Appendix 1, along with several key aspects of the methodology that should assist the reader in understanding both the data and how the economic impact numbers were produced. The methodologies and quantitative techniques used to produce the economic impact numbers reported herein are consistent, reliable, technically sound, and fully justifiable.

The basic employee, student, financial, and programmatic data used in this report were provided by Boston University's Institutional Research office, the Office of the Comptroller, Media Relations, Human Resources, Auxiliary Services, and Purchasing Services. An independent consultant (Susan Forti Associates) employed by the University computed the economic and employment impacts using appropriate quantitative techniques.

Questions about this report should be addressed to: Colin Riley, Director of Media Relations, Boston University Media Relations, 595 Commonwealth Avenue West, Boston, MA 02215; criley@bu.edu or 617-353-5386.

HIGHLIGHTS

Over the past 165 years, Boston University has been a leader in higher education. It has been and continues to be a major resource to the City of Boston, the communities in the Boston Metropolitan Area, and the Commonwealth of Massachusetts. This report describes Boston University's economic impact on the region and the University's programs and services that contribute positively to the quality of life in the region. It documents how local economies and citizens benefit from a combination of all Boston University spending (including the spending of students and their out-of-state visitors); the employment opportunities that result from University spending; and the many cultural, educational, and social services that are offered by University faculty, staff, and students.

Boston University's economic impact on the Commonwealth of Massachusetts totaled more than \$3.8 billion in FY-2008, and the University accounted for a total of 43,809 jobs in the Commonwealth. The University directly employed 25,828 individuals who lived in Massachusetts, and an additional 17,981 jobs resulted from University spending. Overall, Boston University is the fourth-largest employer in the City of Boston and is among the 25 largest employers in the state. The following exhibit summarizes the economic and employment impacts by region.

TABLE 1 MAKING A DIFFERENCE IN MASSACHUSETTS OVERVIEW OF BOSTON UNIVERSITY'S FY-2008 ECONOMIC AND EMPLOYMENT IMPACTS			
	City of Boston	Boston Metropolitan Area	Commonwealth of Massachusetts
Boston University's Direct Spending for Employee Salaries and Benefits and the Purchase of Goods and Services	\$486,415,452	\$1,275,009,208	\$1,339,897,856
Direct Spending by Boston University Students and Their Out-of-State Visitors	\$248,876,822	\$378,294,592	\$383,886,085
Additional Spending Created by Boston University's Spending and the Spending by Boston University Students and Their Out-of-State Visitors	\$428,673,017	\$1,823,423,719	\$2,129,867,653
TOTAL ECONOMIC IMPACT	\$1,163,965,291	\$3,476,727,519	\$3,853,651,594
TOTAL EMPLOYMENT IMPACT	14,578 JOBS	39,723 JOBS	43,809 JOBS

Included in the direct spending reported in Table 1 are numerous payments and services that Boston University provides directly to local communities. Although most property owned by the University is legally exempt from real estate taxes, Boston University has paid more than \$54.2 million in real estate property taxes and linkage payments to the City of Boston since FY-1981. The Boston University police force provides around-the-clock coverage of both the Charles River and Medical Center campuses and provides back-up assistance to the Boston, Brookline, Cambridge, and State Police.

At an annual cost of more than \$1.3 million, the University provides rubbish removal and daily care of sidewalks, streets, and MBTA tracks. The care consists of repairs, cleaning, snow removal, and planting shrubbery on public property. All of the University's rubbish removal is done by private contractors at the University's expense. These efforts greatly reduce the University's demand on municipal services that Boston and Brookline would otherwise have to fund themselves.

Boston University also annually awards approximately 40 four-year, full-tuition scholarships to graduates of Boston's public high schools. Since FY-1973, the University has offered more than \$125 million in scholarships through this Boston Scholars Program. Through the Medeiros Scholarships, the University has offered more than \$28 million in scholarships since FY-1987 to graduates of the archdiocesan schools in Greater Boston. The University awards four-year scholarships to outstanding graduates of Chelsea High School, Brookline High School, and Roxbury Community College. Boston public school teachers and Boston city employees are also eligible for scholarships to graduate programs at Boston University.

Boston University's economic impact far exceeds the figures reported above because important categories of expenditures could not be quantified and allocated by region. For example, we could not quantify expenditures by visitors that the University attracts to Boston each year for on-campus events such as Commencement, Alumni Weekend, athletic and cultural events, and reunion programs. The dollar value of the expenditures of visitors not included in this report is large, and the money flows directly into the local economy — creating jobs for local residents and adding economic vitality to the community.

Also excluded from the above figures are the contributions made to the local economy by the Huntington Theatre Company, a professional company in residence at Boston University. This organization has operating expenditures of nearly \$13.7 million and ticket sales totaling nearly \$5.4 million by 131,807 patrons. Without the support that Boston University provides to the Company, it is likely that it would either be forced to relocate or cease to exist.

Boston University enjoys an outstanding international reputation as a center of education and research programs. Of equal importance to the economic and employment benefits is the University's positive social and cultural impact on the local region. Among the numerous programs and services that Boston University offers to local communities are: the Boston University/Chelsea Partnership; programs and services for the elderly and people with disabilities; scholarships to students from Boston, Brookline, and other communities across the Commonwealth; the University-owned WBUR-FM radio station; neighborhood health centers; and free use of athletic facilities for high school competitions and the Special Olympics.

Boston University is proud of its commitment to the community — a commitment to *“Making a Difference in Massachusetts.”*

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I. INTRODUCTION

Boston University is an internationally recognized center of higher education and research and the nation's fourth-largest independent not-for-profit institution of higher education. It is also the largest independent institution of higher education in the Commonwealth of Massachusetts. The University has an annual budget of nearly \$1.9 billion and enrolls nearly 33,000 students in 17 schools and colleges (see inside front cover). The former three-time Poet Laureate of the United States and three Nobel Laureates are members of the faculty. In addition, eight Boston University students have been named Rhodes Scholars and five students have been named Marshall Scholars. With nearly 4,800 international students from 133 foreign countries, the University ranks 10th in the nation in the number of international students enrolled. Boston University faculty generate more than \$477 million in research and training grants and contracts annually. In addition, according to a survey of North American universities, the University recently ranked 35th in the nation in the number of start-up companies formed and 79th in the nation in the number of patents received as a result of faculty research.

For more than a century and a half, Boston University has been a leader in higher education. It has been and continues to be a major resource to the City of Boston, the cities and towns in the Boston Metropolitan Area, and the Commonwealth of Massachusetts. Local citizens and local businesses benefit from Boston University's spending, the employment opportunities created by the University's spending, and the many cultural, educational, and social services that are offered to the community by University faculty, staff, and students.

This report describes the economic impact that Boston University has on each of three geographical regions: the City of Boston, the Boston Metropolitan Area (all cities and towns in Suffolk, Norfolk, Middlesex, Essex, and Plymouth counties), and the Commonwealth of Massachusetts. Section V describes many University-sponsored and University-related programs and services that affect both the economy and the quality of life in these regions.

What is included in the economic impact calculations?

An institution's economic impact on a region results from both the *direct* spending that is attributable to the institution and the *indirect* spending that arises from the institution's direct spending. The *direct* spending that is attributable to Boston University consists of its salary and benefit expenses, the money it spends to purchase goods and services, the money its students spend on living expenses, and the money spent locally by the students' out-of-state visitors. These expenditures flow directly into the regional economy.

In turn, the dollars that Boston University spends are then spent by the individuals and organizations that receive them. This constitutes *indirect* spending. For example, Boston University employees use their salaries to purchase goods and services. The businesses from which these purchases are made hire employees, pay salaries, and purchase the goods and services needed for their operation.

Therefore, Boston University's direct corporate spending results in a combination of new corporate spending and new consumer spending. As a result, the economic impact that Boston University has on a particular geographical region is much greater than the sum of its direct expenditures.

The U.S. Department of Commerce recognizes that an organization's economic impact on a region results from a complex combination of inter-industry relationships that are driven by corporate and consumer spending, and has developed "*regional input-output multipliers*" to compute the economic impact that results from corporate and consumer spending. The multipliers take into account the specific inter-industry relationships and consumer spending patterns that contribute to a region's economy. Appendix 1 presents a more detailed explanation of corporate spending, consumer spending, and the multiplier effect. It also describes the sources of data used in the analysis.

What is excluded?

For the purposes of this report, out-of-state expenditures by Boston University are considered to have no economic impact within Massachusetts. Specifically, the salaries that the University pays to employees who live out-of-state and the dollars that the University spends to purchase goods and services from out-of-state vendors are excluded from the University's direct spending calculations. As a result, Boston University's economic and employment impacts on the region are understated by two factors. They are understated to the extent that: (1) the University's out-of-state suppliers purchase goods and services from Massachusetts companies, and (2) the University's employees who reside out-of-state may purchase goods and services in Massachusetts and pay taxes in Massachusetts if they work in the state.

This report also excludes local purchases by the tens of thousands of visitors that the University attracts to Boston each year for events such as Alumni Weekend, Commencement, athletic events, cultural and social programs, and class reunions (although it does include spending by certain categories of visitors to our students). These visitors spend money on lodging, food, entertainment, parking, gas, and myriad other consumer goods and services. Their purchases are considerable and the dollars flow directly into the local economy. Nearby hotels, restaurants, clothing stores, bookstores, copy centers, pharmacies, and other small businesses constitute a thriving retail community that provides jobs to local residents and adds economic vitality to Kenmore Square and the corridors along Commonwealth Avenue, Beacon Street, and Brookline Avenue.

Also excluded from this report is the economic impact of the Huntington Theatre Company, a professional company in residence at Boston University. Boston University is a major sponsor of the Huntington Theatre Company. This independent organization is so closely related to Boston University that without the University's support it would, most likely, not exist or be forced to locate elsewhere. The Huntington Theatre Company has operating expenditures of nearly \$13.7 million and ticket sales totaling nearly \$5.4 million by 131,807 patrons. These expenditures and those of the theatre's patrons are not included in the University's direct spending, but they certainly impact the economic vitality and quality of life in the region.

Other considerations

Boston University's impact on the region is only partially measured by its direct and indirect spending. For example, Boston University's impact on the region's employment is substantial. In FY-2008, the University employed a total of 25,828 individuals (including full-time, part-time, and student employees; see Appendix 2) who lived in Massachusetts, and another 17,981 indirect jobs in the state resulted from the University's direct spending.

Boston University's direct spending includes services that the local communities would otherwise have to fund on their own. This is illustrated by Boston University's police force, which provides around-the-clock University-wide protection and serves as a deterrent to crime in the neighborhoods surrounding both the Charles River and Medical Center campuses.

Boston University also makes substantial direct payments to local communities. For example, although most of its property is legally exempt from real estate property taxes, the University paid nearly \$3.3 million in property taxes and linkage payments to the City of Boston in FY-2008 and nearly \$4.7 million in payments in lieu of taxes. The University also paid more than \$530,000 to Boston for fees, permits, and licenses (e.g., building permits, inspection services, parking, and entertainment licenses). Payments to the Town of Brookline included more than \$2.1 million in property taxes and other fees. (See Appendix 3 for the University's economic impact on the Town of Brookline.)

Boston University brings a substantial amount of funding into the Commonwealth. In FY-2008, federal sources provided nearly \$255 million to the University for research and student financial aid. In addition, Boston University's private voluntary support (donations) from alumni, friends, corporations, and foundations from outside of the Commonwealth totaled more than \$49.6 million.

Furthermore, a wide range of socioeconomic benefits accrue to the region by the presence of an internationally recognized center of higher education and research. The benefits include scores of programs and services provided by the University both locally and throughout the Commonwealth. These programs and services improve the quality of life for countless citizens. In addition, private and public funding is made available for other use by University-funded programs such as: business services provided for free by Boston University students; free medical and dental services and programs for the elderly; free training programs for teachers and school administrators; free legal defense to indigents who would otherwise require a court-appointed attorney; and numerous services provided by University volunteers. Many of the services provided by the University to the community are listed in Section V of this report, Social Programs and Services.

II. THE BOSTON UNIVERSITY COMMUNITY IN MASSACHUSETTS

The Boston University community in Massachusetts comprises more than 140,000 people. That number would increase several-fold if we included the spouses and dependents of our employees, the parents and siblings of our students, and the families of our alumni. The Boston University community is presented in Table 2.

TABLE 2 BOSTON UNIVERSITY THE FY-2008 BOSTON UNIVERSITY COMMUNITY IN MASSACHUSETTS*			
	City of Boston	Boston Metropolitan Area	Commonwealth of Massachusetts
EMPLOYEES**	4,310	14,110	14,841
STUDENTS***	21,270	30,545	31,086
ALUMNI	13,596	79,943	94,201
	39,176	124,598	140,128

* Based on home addresses of employees and alumni, and local addresses of students.
 ** Employee counts exclude 10,987 student employees in FY-2008.
 *** Official enrollment for FY-2008 was 32,735. This includes 1,723 students enrolled in Study Abroad Programs or with out-of-state addresses. This number excludes 74 BU Academy students not enrolled in college-level Boston University courses.

Boston University Employees

The employees of Boston University include the faculty and staff on the Charles River Campus, the Medical Campus, and Boston University Academy, as well as those based at other sites including Tanglewood, Woods Hole, and numerous area hospitals. In accordance with accepted reporting practices, we also include the employees of Boston University's subsidiary corporations, 660 Corporation, Hotel Commonwealth, and the employees hired by four management firms that provide the University's food services (ARAMARK and SportServices) and parking services (Curbside Parking and Standard Parking). The 660 Corporation, a for-profit entity that is subject to appropriate federal, state, and local taxes, operates the University's convenience stores. University Inn and Lure Restaurant Group are for-profit entities that are also subject to appropriate federal, state, and local taxes, and operate the Hotel Commonwealth and its restaurants. See Appendix 2 for details on University employees in Massachusetts.

As shown in Table 2, Boston University employed 14,841 Massachusetts residents in FY-2008. This figure excludes the University's 10,987 student employees, and includes all full-time, part-time, and casual employees.

The faculty and staff of Boston University provide strength, vitality, and continuity to the institution and are well-educated constituents of local communities. More than 83 percent of the full-time faculty on the Charles River Campus, 94 percent of the full-time faculty at the School of Public Health, 95 percent of the full-time faculty at the Henry M. Goldman School of Dental Medicine, and 95 percent of the full-time faculty at the School of Medicine have doctorates. In FY-2008, three faculty members received a Fulbright Fellowship. In addition, three Nobel Laureates and the former three-time Poet Laureate of the United States were on the faculty in FY-2008. Boston University's full-time faculty average 11 years of service at the University, and the full-time staff average nine years of service. Additionally, Boston University was ranked among the top 10 institutions in eight disciplines according to the 2007 Faculty Scholarly Productivity Index, by Academic Analytics, which ranks research universities by publications, grants, and awards.

Boston University Students

With 32,735 students enrolled in the fall of 2007, Boston University was the fourth-largest independent institution of higher education in the United States and the largest in Massachusetts. Eighty percent of the students enrolled full-time, and 40 percent were in graduate or professional programs. Table 3 shows that 31,086 students resided in Massachusetts during the academic year. The remaining students either commuted from nearby states or were enrolled in University programs located overseas or out-of-state. In FY-2008, a total of 11,211 students lived in University residences. Boston University houses 72.5 percent of its full-time undergraduate students.

<u>STUDENT RESIDENCES</u>	<u>City of Boston</u>	<u>Boston Metropolitan Area</u>	<u>Commonwealth of Massachusetts</u>
DORMITORY RESIDENTS	8,328	8,778	8,778
UNIVERSITY APARTMENT RESIDENTS	2,328	2,433	2,433
OFF-CAMPUS UNDERGRADUATES	3,126	5,336	5,472
OFF-CAMPUS GRADUATE & NON-DEGREE STUDENTS	7,465	13,851	14,253
BU ACADEMY STUDENTS (off-campus)	23	147	150
TOTAL STUDENTS	21,270	30,545	31,086

Official enrollment for FY-2008 was 32,765. This includes 1,723 students enrolled in Study Abroad Programs or with out-of-state addresses. This number excludes 74 BU Academy students not enrolled in college-level Boston University courses.

The student body is rich in diversity and academic ability. Since 1971, eight outstanding students have been chosen as Rhodes Scholars and five students have been named Marshall Scholars. Four students received Fulbright grants in FY-2008. The freshman class that entered in the fall of 2007 had SAT scores that were 253 points above the national average, and more than 79 percent of the entering class came from outside of the state. Overall, nearly 66 percent of Boston University's enrolled students are from out-of-state. Also, with 4,789 students from 133 foreign countries, Boston University ranks 10th in the nation in the number of international students enrolled, a testimony to its international reputation.

Boston University Alumni

More than 94,000 alumni of Boston University reside in the Commonwealth of Massachusetts. Their contributions to the economy of the Commonwealth cannot be quantified because their income levels are not known. It is clear, however, that a degree from Boston University is valuable to both the degree recipient and to the community where he/she lives and works. Boston University alumni have earnings and earning potential that generate substantial economic activity in communities across the Commonwealth.

It is also worth noting that a significant percentage of the University's out-of-state students subsequently become residents of the state upon graduation. A recent study showed that 16.3 percent of the out-of-state freshmen who came to Boston University from fall 1999 to fall 2003 still reside in the Commonwealth and 8.1 percent still live in the City of Boston. Boston University alumni are a well-educated and highly skilled component of the labor force in the Commonwealth.

The employees of Boston University, its students, and its alumni consistently demonstrate their willingness to contribute their talents and energies to the community. In 1986, Boston University established the Boston University Community Service Center to provide faculty, staff, students, and alumni with volunteer opportunities in the community. The volunteer opportunities include programs in youth tutoring, youth recreation, collecting food for shelters, delivering meals to homebound people with AIDS, and recycling. In FY-2008, an estimated 2,000 volunteers spent more than 70,000 hours in volunteer community service programs offered through the Community Service Center. Volunteer work extends beyond the Boston community with nearly 60 Boston University alumni serving around the world for the Peace Corps. A recent report by the Peace Corps ranked Boston University 11th in the country for producing Peace Corps volunteers among large colleges and universities, and third for graduate students. Other examples of community involvement are reported in Section V of this report.

III. ECONOMIC IMPACT

Summary

The economic impact of Boston University on the Commonwealth of Massachusetts totaled more than \$3.8 billion for FY-2008 (the fiscal year ending June 30, 2008). As summarized in Table 4, this consists of direct spending by Boston University (\$1.3 billion); Boston University students (\$342.0 million); and the students' out-of-state visitors (\$41.9 million). It also includes the indirect spending (\$2.1 billion) that is generated by the direct spending. The remainder of this section contains three additional tables (Tables 5, 6, and 7) that further define the levels of direct and indirect spending that are summarized below.

	City of Boston	Boston Metropolitan Area	Commonwealth of Massachusetts
DIRECT BOSTON UNIVERSITY SPENDING			
Salaries and Benefits	\$200,588,512	\$828,286,158	\$862,950,396
Purchased Goods and Services	\$285,826,940	\$446,723,050	\$476,947,460
Total Salaries, Benefits, and Purchases	\$486,415,452	\$1,275,009,208	\$1,339,897,856
DIRECT STUDENT AND VISITOR SPENDING			
Student Spending			
Essential Living Expenses	\$181,101,645	\$282,101,525	\$287,693,018
Non-essential Purchases	\$38,250,272	\$54,311,047	\$54,311,047
	\$219,351,917	\$336,412,572	\$342,004,065
Out-of-State Visitor Spending	\$29,524,905	\$41,882,020	\$41,882,020
Total Student and Visitor Spending	\$248,876,822	\$378,294,592	\$383,886,085
TOTAL DIRECT SPENDING	\$735,292,274	\$1,653,303,800	\$1,723,783,941
INDIRECT SPENDING CREATED BY THE DIRECT SPENDING OF THE UNIVERSITY, ITS STUDENTS, AND THEIR OUT-OF-STATE VISITORS	\$428,673,017	\$1,823,423,719	\$2,129,867,653
TOTAL ECONOMIC IMPACT	\$1.16 B	\$3.48 B	\$3.85 B

What does Boston University spend?

Boston University's direct spending consists of expenditures for employee salaries, employee benefits, and the purchase of goods and services. These direct expenditures are used in conjunction with the appropriate economic multipliers from the U.S. Department of Commerce to compute the resulting levels of indirect spending. Table 5 shows Boston University's expenditures for salaries and benefits as well as the economic impact of the expenditures. Similarly, Table 6 shows the University's expenditures for the purchase of goods and services and the resulting economic impact.

Employee Salaries and Benefits As shown in Table 5, the economic impact of Boston University's expenditures for salaries and benefits totals more than \$2.0 billion in the Commonwealth. The impact on the City of Boston is nearly \$349 million and the total for the Boston Metropolitan Area is more than \$1.8 billion. These figures do not include additional income earned by University faculty and staff for professional consulting, publishing, or lectures.

In FY-2008, Boston University spent a total of \$862.9 million on salaries and benefits for employees living in Massachusetts (\$689.4 million on salaries and \$173.5 million on benefits). Of these amounts, \$200.6 million went to employees living in the City of Boston and \$828.3 million to employees living in the Boston Metropolitan Area.

	City of Boston	Boston Metropolitan Area	Commonwealth of Massachusetts
SALARIES	\$160,068,100	\$661,718,891	\$689,394,568
BENEFITS			
FICA	\$10,535,667	\$42,035,070	\$43,813,745
Pensions	\$10,461,472	\$44,635,535	\$46,415,292
Health Insurance	\$12,004,444	\$49,256,765	\$51,334,613
Tuition Remission	\$4,424,884	\$18,966,265	\$19,714,471
Workers' Compensation	\$764,525	\$2,754,109	\$2,905,472
Unemployment Compensation	\$613,854	\$1,601,475	\$1,763,206
Life Insurance	\$402,413	\$1,692,237	\$1,760,714
Disability Insurance	\$746,080	\$3,192,782	\$3,319,407
Other	\$567,073	\$2,433,029	\$2,528,908
TOTAL BENEFITS	\$40,520,412	\$166,567,267	\$173,555,828
TOTAL SALARIES AND BENEFITS	\$200,588,512	\$828,286,158	\$862,950,396
ECONOMIC IMPACT	\$348,502,479	\$1,816,348,714	\$2,006,187,079

Purchases of Goods, Services, and Capital Expenditures In FY-2008, Boston University purchased a wide variety of goods and services from more than 8,500 Massachusetts companies, including 3,482 in the City of Boston and an additional 4,096 in the remainder of the Boston Metropolitan Area (see Table 6). These purchases ranged from paper clips to trucks, sophisticated computer equipment, architectural designs, and construction contracts.

The economic impact of Boston University’s purchases totaled more than \$955.0 million in the Commonwealth. This consisted of more than \$383.0 million to vendors located in the City of Boston and more than \$830.8 million to vendors located in the Boston Metropolitan Area. The purchases included nearly \$169.7 million of capital expenditures made to Massachusetts contractors for large-scale construction and renovation projects designed to improve Boston University’s physical facilities. These capital expenditures have supported the University’s continuing commitment to enhancing student life on campus.

Boston University has made major investments in improving the student experience through outstanding new housing and dining options, enriched academic facilities, and programming that helps build community. In FY-2008, construction continued on Phase 2 of the John Hancock Student Village, a new apartment-style residence that will house an additional 960 students and is scheduled to open for fall 2009. With this addition, Boston University will house 80 percent of its undergraduates, a significant step toward its goal of 85 percent.

Housing is also a critical issue on the Medical Campus because of the premium on safe, affordable residences in Boston’s South End. In 2007, the University approved the purchase of land for a residence at Albany and Fellows streets, a location that will support the around-the-clock schedules of medical students and residents. The purchase occurred in FY-2008. Additionally, planning for construction of a new classroom building, which will incorporate a library, is under way on the Medical Campus.

	City of Boston	Boston Metropolitan Area	Commonwealth of Massachusetts
NO. OF VENDORS & CONTRACTORS	3,482	7,578	8,538
OPERATING EXPENDITURES	\$127,843,135	\$277,494,892	\$307,261,817
CAPITAL EXPENDITURES	\$157,983,805	\$169,228,158	\$169,685,643
TOTAL GOODS AND SERVICES	\$285,826,940	\$446,723,050	\$476,947,460
ECONOMIC IMPACT	\$383,064,221	\$830,816,593	\$955,006,143

What do our students and their out-of-state visitors spend?

The economic impact of the spending by Boston University students and their out-of-state visitors totals more than \$892.4 million. This consists of \$432.4 million in the City of Boston and \$829.6 million in the Boston Metropolitan Area. The details are presented in Table 7 on the following page, and they are discussed below.

Boston University students spend an estimated \$342.0 million in the Commonwealth, above and beyond their tuition, room, and board payments to the University. This consists of nearly \$287.7 million for basic or essential living expenses (such as books, transportation, other incidentals, and off-campus housing) and another \$54.3 million on non-essential expenses (including entertainment, health clubs, private music and dance lessons, cable television, etc.).

In addition to student spending, Table 7 shows that spending by the out-of-state visitors to Boston University students totals nearly \$41.9 million in the Boston Metropolitan Area. Of that amount, \$29.5 million is spent in the City of Boston. As a point of reference, more than 79 percent of the University's fall 2007 entering freshmen were from out-of-state, and nearly 66 percent of the total student body were from out-of-state.

	City of Boston	Boston Metropolitan Area	Commonwealth of Massachusetts
STUDENT SPENDING*			
Spending on Essentials/Basics			
Academic Year	\$175,626,152	\$274,691,564	\$280,169,327
Summer Term	\$5,475,493	\$7,409,961	\$7,523,691
	<u>\$181,101,645</u>	<u>\$282,101,525</u>	<u>\$287,693,018</u>
Spending on Non-essentials			
Academic Year	\$35,057,550	\$50,156,700	\$50,156,700
Summer Term	\$3,192,722	\$4,154,347	\$4,154,347
	<u>\$38,250,272</u>	<u>\$54,311,047</u>	<u>\$54,311,047</u>
Total Student Spending	<u>\$219,351,917</u>	<u>\$336,412,572</u>	<u>\$342,004,065</u>
Number of Students	<u>21,270</u>	<u>30,545</u>	<u>31,086</u>
SPENDING BY OUT-OF-STATE VISITORS TO BOSTON UNIVERSITY STUDENTS			
	\$29,524,905	\$41,882,020	\$41,882,020
TOTAL STUDENT AND VISITOR SPENDING	<u>\$248,876,822</u>	<u>\$378,294,592</u>	<u>\$383,886,085</u>
ECONOMIC IMPACT	<u>\$432,398,589</u>	<u>\$829,562,211</u>	<u>\$892,458,370</u>
* Student Spending excludes tuition, fees, and other expenses paid directly to Boston University.			

What financial resources does the University attract to the area?

Boston University's outstanding reputation as an educational and research institution attracts substantial financial resources to the local area. These include tuition income from out-of-state and international students; federal and private funding for research and financial aid; financial gifts from out-of-state alumni; and spending by out-of-state visitors. Specific examples for FY-2008 are outlined below.

- More than \$612 million of tuition and fee income was brought into the Commonwealth by Boston University's out-of-state students, who constitute nearly 66 percent of the University's enrolled students. A portion of that money came from the University's 4,789 international students.
- Boston University received nearly \$237 million of federal funding through grants and contracts for research and training.
- Boston University received more than \$18 million of federal student aid funds.
- Boston University received \$243.8 million from foundations, private corporations, and other non-federal sources for research, training, and student aid.
- Boston University alumni, friends, corporations, and foundations donated nearly \$80 million to the University, and nearly \$50 million of that amount was from sources outside of the Commonwealth.
- Nearly \$42 million was spent locally by out-of-state visitors to Boston University students.
- Millions of additional dollars were spent locally by the tens of thousands of people who came to Boston to attend University events including Alumni Weekend, athletic events, cultural and social events, reunion programs, colloquia, and professional development programs.

What direct payments and services are provided to local communities?

Boston University makes significant contributions to local communities through a combination of direct payments and services. The direct payments include payments in lieu of taxes; real estate property taxes; linkage payments; and payments for permits and license renewals. Boston University also performs many municipal services that otherwise would have to be funded by the community. Specific examples for FY-2008 are outlined below.

- Boston University paid nearly \$3.3 million in real estate property taxes and linkage payments to the City of Boston. Since FY-1981, the University has paid more than \$54.2 million in real estate property taxes and linkage payments to the City of Boston.
- In addition to the above payments to the City of Boston, Boston University paid to the Town of Brookline nearly \$1.9 million in real estate property taxes, and \$250,935 for permits, licenses, and other town fees in FY-2008. The University also pays real estate property taxes and fees to other cities and towns in the Commonwealth where it owns property.

- Boston University paid nearly \$4.7 million to the City of Boston for voluntary payments in lieu of taxes. Since FY-1981, these payments total nearly \$43.0 million.
- Boston University's subsidiary corporations paid more than \$930,000 in taxes to the City of Boston. Since FY-1981, these payments total nearly \$12 million.
- Boston University employs its own police department and residential security staff, consisting of 53 police officers and 96 security guards, who provide protection to the University community, including neighboring property, 24 hours a day, seven days a week. The police force is a deterrent to crime in the neighborhoods close to the Charles River Campus, and its members patrol the Medical Campus in the South End, helping to reduce crime in that area. University Police also provide backup assistance to the Boston, Brookline, Cambridge, and Massachusetts State Police when needed.
- As part of the Ride-Along Program, the University's Director of Community Relations accompanies Boston and Brookline police patrols that respond to off-campus party and noise complaints. The director notifies the Dean of Judicial Affairs regarding issues involving off-campus student violations of the student code.
- As part of their campus patrol, Boston University police officers issue parking tickets on behalf of the City of Boston. More than 1,400 such tickets with an aggregate value of \$18,225 were issued in FY-2008.
- Boston University provides daily maintenance of sidewalks, MBTA tracks, and streets around the campus. The University removes snow and trash. It also plants and repairs trees and does pest control. In FY-2008, the cost of these activities totaled nearly \$1.2 million.
- In FY-2008, Boston University contributed more than \$2.4 million to the Commonwealth Avenue improvement and beautification project in collaboration with city, state, and federal agencies.
- Boston University manages its own rubbish removal program. In FY-2008, the University paid private contractors \$110,000 for rubbish removal services on the Charles River Campus.
- Boston University pays City of Boston police details for work at construction projects and high-attendance events. In FY-2008, these payments totaled more than \$93,000.

IV. EMPLOYMENT IMPACT

In FY-2008, nearly 44,000 jobs in the Commonwealth were attributable to Boston University. The University and its subsidiary corporations directly employed 25,828 individuals who lived in the Commonwealth, and an additional 17,981 jobs were required to support the more than \$3.8 billion of direct and indirect spending attributable to Boston University. The additional or indirect jobs were computed using employment multipliers provided by the U.S. Department of Commerce (see Appendix 1). Boston University's employment impact is summarized in Table 8 and additional employment details are provided in Appendix 2.

	City of Boston	Boston Metropolitan Area	Commonwealth of Massachusetts
DIRECT JOBS	12,954 *	25,097 **	25,828 **
INDIRECT JOBS	1,624	14,626	17,981
TOTAL JOBS	14,578 *	39,723 **	43,809 **

* Includes 8,644 student jobs.
** Includes 10,987 student jobs.

As shown above, Boston University's employment impact on the City of Boston totals 14,578 jobs consisting of 12,954 direct jobs and 1,624 indirect jobs. In the Boston Metropolitan Area, the University's employment impact totals 39,723 jobs consisting of 25,097 direct jobs and 14,626 indirect jobs.

According to a report by the Boston Redevelopment Authority, Boston University is the fourth-largest private employer in Boston. The University is also among the 25 largest employers in the state according to the Massachusetts Division of Employment and Training. Boston University is recognized as a significant creator of employment opportunities in the Commonwealth.

V. SOCIAL PROGRAMS AND SERVICES

(As of June 30, 2008)

In addition to the monetary impact Boston University has on the Commonwealth of Massachusetts, numerous community programs and services are funded directly by the University or indirectly through research grants and support from various foundations. These programs include neighborhood health centers; the Boston University/Chelsea Partnership; Boston and Brookline Scholarships; academic enrichment and remedial help programs; free or discounted concerts and lectures; the University-owned and -supported radio stations; the use of recreational facilities for high school competitions; and the many community volunteer programs that are coordinated by the University's Community Service Center (CSC). The CSC provides volunteers with opportunities to address community concerns in a meaningful and mutually beneficial way. More than 2,000 volunteers serve through CSC and other Boston University programs or services at more than 160 agencies annually. A representative listing of programs and services with brief descriptions follows. An index of all the listed programs and services begins on page 44.

DESCRIPTION OF SOCIAL PROGRAMS AND SERVICES

Educational Programs and Services

African Presidential Archives & Research Center (APARC) APARC is an unprecedented and unique effort to study democratization and free market reform in Africa. Through a residency program for former democratically elected African heads of state and access to their papers, and through access to current democratically elected leaders, the Center provides a forum for leaders to share and a venue for others to benefit from their insights and expertise. The Center offers an exceptional opportunity to see the present phase of Africa's development through the eyes of the architects of that change. The APARC American-African Universities (AAU) Collaborative provides an opportunity for students and faculty from seven American and African schools to engage in transcontinental conversations about African policy issues, particularly those that focus on democracy, free market reform, and globalization. The participating schools include Boston University, the University of Dar es Salaam in Tanzania, the University of Witwatersrand in South Africa, the University of Ghana at Legon, Morehouse College in Georgia, North Carolina A&T University, and Elizabeth City State University in North Carolina. The Center also serves as a setting for policy debates and deliberations on democratization and free market reform in Africa. *Information: 617-353-5452*
or <http://www.bu.edu/aparc>

African Studies Center The African Studies Center's Outreach Program disseminates information on Africa and African-related issues to the public and professionals, such as elementary and secondary school teachers, journalists, and museum specialists. *Information: 617-353-7303*

Afterschool Programs Volunteers provide homework assistance and recreational activities for students of all ages. Specific sites include Head Start Jamaica Plain, the Smith Leadership Academy Charter School in Dorchester, Tenacity at the Reggie Lewis Center, and Mission SAFE in Roxbury. *Information: 617-353-4710*

Boston High School Scholarship Program Every year, Boston University provides approximately 40 full-tuition, four-year scholarships to students who graduate from Boston public high schools. Since its inception in 1973, the Boston High School Scholarship Program has awarded more than \$125 million in scholarships to some 1,719 students. The scholars are selected by a three-person committee comprised of representatives from the University, the Boston Public Schools, and the Mayor's office. BU Undergraduate Admissions hosts an annual informational breakfast for Boston's guidance counselors. Interested students at the public high schools are encouraged to attend the presentation, which is provided by an admissions representative. Boston University is also committed to rewarding academic achievement and ensuring that a BU education is available to as many qualified students as possible from the Boston Public High Schools. Beginning with the freshmen enrolling in fall 2009, the University will award need-based grants sufficient to meet students' eligibility for need-based assistance without an expected loan commitment to all admissible students. These awards are also renewable for up to eight semesters (four years) of undergraduate study when the student maintains academic and financial need requirements. *Information: 617-353-9418*

Boston Scholars Academic Orientation & Retention Support Boston University offers a one-week academic orientation to the Boston High School Scholars in advance of their freshman year. Through a program of interdisciplinary study, which is taught by University faculty, students experience college-level lectures, practice college-level writing, and participate in discussion groups. Retention support for enrolled Scholars is provided through extensive advising services. *Information: 617-353-3551*

Boston University Academy Founded in 1993, Boston University Academy provides an exceptional education for students with genuine intellectual curiosity, strong academic abilities, and a diversity of interests. A day school of 155 students located on the Boston University campus, the Academy offers students in grades 9 through 12 an unparalleled preparation for the college experience by combining intimate classroom settings with the resources of a world-class research university. Small class sizes and close relationships with advisors allow Academy students to master the classically based core curriculum in grades 9 and 10. With the oversight and support of Academy faculty and advisors, juniors and seniors enroll in undergraduate courses each semester at the University, earning a full year of college credit before graduation. All seniors choose an interest and work alongside a University professor on a yearlong independent research project. *Information: 617-353-9000*

Boston University/Boston Schools Collaborative This collaborative program provides a variety of services and access to University resources for selected Boston public schools. Services include technical assistance and professional development activities for teachers and school administrators, as well as a variety of higher education awareness and academic support programs for students. *Information: 617-353-3551*

Boston University Center for the Advancement of Ethics & Character (CAEC) Since its founding in 1989, the CAEC, the first ethics center in the country to focus on the education of teachers, has enabled thousands of educators in rural, urban, and suburban schools to foster excellence of mind and character in their students. An internationally recognized research institute, the CAEC has worked closely with state departments of education, school districts, and numerous educational institutions around the world. For example, since 1998 the CAEC has served as chief advisor and mentor for the South Carolina State Department of Education, conducting academies for hundreds of teachers and administrators from low-income, rural school districts. Current projects include work

with the New England Sports Museum; the University of Hiroshima (Japan); and Singapore's Ministry of Education. The CAEC also holds institutes and symposia, such as the two-day Institute, "The Ethic of Caring" (spring 2007) and "Educating for Justice" (spring 2008). The CAEC publishes a newsletter for educators and others interested in ethics education. *Information: 617-353-3262*

Boston University/Chelsea Partnership In June 2008, the partnership under which Boston University administered the Chelsea Public Schools for nearly two decades came to its scheduled conclusion. This unique partnership was an initiative to improve Chelsea's schools and to offer a model for urban school reform. During the partnership, the Chelsea curriculum was completely rewritten, teachers benefited from comprehensive, in-depth professional development opportunities, basic support services and management procedures were fundamentally improved, and all school buildings were replaced. A cornerstone of the partnership has been an early childhood program serving 400 three- and four-year-olds and the creation of the Silber Early Learning Center. Since 1989, Boston University has raised more than \$12 million to supplement the public school budget and provided nearly \$16.4 million worth of in-kind and direct support to Chelsea. A number of cooperative initiatives will continue, including scholarships for students and teachers, and research findings from work done in Chelsea will inform urban education reform efforts around the nation for years to come. *Information: 617-358-1360*

Boston University High School Honors Program Since the 1970s, rising high school seniors enrolled as High School Honors students have earned up to eight Boston University credits by enrolling in two summer courses of their choice. As credit-earning students, they take classes alongside Boston University undergraduates. Students receive guidance when selecting courses to ensure that they receive an introduction to subject areas beyond the offerings of their high school curriculum while also earning credits that are applicable to future college work. *Information: 617-353-1378*

Boston University Research Internship in Science & Engineering Started in 1978, outstanding rising high school seniors from across the country participate in ongoing research in the areas of astronomy, biology, chemistry, engineering, medicine, physics, or psychology under the guidance of a faculty research scientist. Students work on a research project for 30 to 40 hours a week over the six-week period. Research interns experience the culture of a laboratory environment and gain valuable technical and analytical skills. This experience frequently culminates in the submission of research papers to national science fair contests, such as the Siemens Competition in Math, Science & Technology. *Information: 617-353-1378*

Boston University Initiative for Literacy Development (BUILD) This School of Education program, formed in 1997, is a cooperative effort by the Boston University/Boston Public Schools Collaborative, the Student Employment Office, and the Financial Assistance Office at Boston University. With federal Work-Study funds made available by the University in support of the federal America Reads and the local Read Boston programs, 130 literacy tutors provide assistance at seven afterschool programs, six in-school programs, and one community-based program, serving elementary school children in Boston and Chelsea. *Information: 617-353-3551*

Boston University Science & Mathematics Education Center In 1990, responding to the need for innovation in science and mathematics education, faculty at Boston University established the Boston University Science & Mathematics Education Center. This Center helps scientists and mathematicians share their expertise with middle and high school teachers and their students. Faculty who initiate curriculum and educational development projects in these areas receive support

from the Center, and local teachers, in turn, share their insights with University faculty. *Information: 617-353-7100*

Boston University Summer Challenge Program The Boston University Summer Challenge Program, which began in the summer of 2002, is a two-week, non-credit college preparatory program designed for rising high school sophomores, juniors, and seniors who want to experience college in a structured and supportive environment. Students in the program get a preview of college life and coursework by taking two non-credit seminars in such topics as business, creative writing, psychology, science, mass communications, and international politics. Sponsored social events are scheduled for evenings and weekends. *Information: 617-353-1378*

Cardinal Medeiros Scholars The Cardinal Medeiros Scholarship Program awards scholarships annually to graduating seniors from Catholic high schools in the Archdiocese of Boston. The recipients of the four-year, full-tuition awards are nominated by their schools and are chosen for their academic achievement, leadership ability, and contributions to their schools and communities. Scholarships are awarded by a committee of representatives from Boston University Undergraduate Admissions and the Archdiocese of Boston. Since its inception in 1986, the University has offered more than \$28 million in scholarships and has admitted 291 scholars. *Information: 617-353-2320*

CityLab It has been well documented that elementary and secondary schools often lack the resources and expertise necessary to provide students with hands-on science experiences that have human health applications. CityLab is a regional biotechnology learning laboratory that provides such scientific experiences via its well-received curriculum supplements for middle and high school students and their teachers. Located in an urban medical center, CityLab is the umbrella under which the Boston University School of Medicine (BUSM) concentrates its extensive pre-college science education efforts. It is a hands-on, inquiry-based biotechnology laboratory program that was established in 1991 and has since served more than 65,000 students. CityLab has two dedicated laboratories at BUSM and, with the introduction of a mobile biotechnology laboratory (MobileLab) in 1998, CityLab now serves approximately 6,000 students per year in grades 7–12. It has evolved as a successful model for both local and national efforts to improve pre-college science education, as evidenced by the long waiting lists to secure a visit to the BUSM CityLab or MobileLab and by the growing number of CityLab satellites and mobile laboratories (presently eight satellite locations and three MobileLabs) that have replicated many facets of this program. The BUSM CityLab has also disseminated its curriculum supplements directly through school visits and teacher workshops and indirectly through the satellites and mobile laboratories to hundreds of teachers who have incorporated the units into their teaching. To date, an estimated 275,000 students have participated in a laboratory experience that utilizes CityLab materials.

Boston University, through its commitment to CityLab, is particularly sensitive to the needs of the local community, striving to enhance student and teacher access to state-of-the-art laboratory space, equipment, and pedagogical resources in molecular biology. Such opportunities for teachers and students are often beyond the means of even the most affluent schools, yet authentic opportunities to actively use the concepts and techniques associated with the burgeoning science of molecular biology is a necessity if students are to reap the benefits of the growing biotechnology and clinical research industries in our region. CityLab, through utilization of both its mobile laboratory and on-site laboratories at the School of Medicine, commits 56 class visits exclusively to Boston Public Schools each year. This amounts to an estimated in-kind contribution of \$45,000 per academic year. In addition, CityLab provides \$500 scholarships to Boston Public School students who attend the

SummerLab Biotechnology Program held each year during the first week in August. Boston University's CityLab looks forward to maintaining its continued support of teachers and students in Boston Public Schools by providing access to laboratory-based learning experiences in biotechnology, molecular biology, and clinical sciences. *Information: 617-638-5623*

COACH (College Opportunity & Career Help) This program provides a corps of Boston University students serving as coaches for the college awareness and college application process for students at Charlestown High School and English High School in Boston. From October through May, coaches meet weekly with small teams of juniors and seniors using curriculum materials developed by the Education Resources Institute. The University contributes program costs of approximately \$16,000. *Information: 617-353-3551*

Donald D. Durrell Reading & Writing Clinic The Donald D. Durrell Reading and Writing Clinic at Boston University's School of Education provides a site for year-round, out-of-school tutoring services on Saturday mornings for elementary, middle, and high school students who are experiencing difficulty in reading and writing. Working under the direction of School of Education faculty, highly qualified literacy specialists assess each student's strengths and needs, and then plan and implement appropriate research-based interventions. At the end of each 15-week term, literacy specialists prepare a comprehensive report of each student's progress, and present the report to parents. *Information: 617-358-0910*

Early Learning Center Serving children between the ages of three and seven, this public preschool program, which operates from 8 a.m. to 5 p.m., offers both instruction and afternoon enrichment activities. Boston University provides the instructional staff for the afternoon hours. The Center opened in 1987 with the assistance of faculty from Boston University, Wheelock College, and Simmons College, and with personnel from the Boston Public Schools system. It has become a national model for early education programs. The program has its own facility located in the Baldwin School in Brighton. *Information: 617-353-3551*

Field Placements of Education Students All students pursuing licensure programs in the School of Education must complete field placements in an appropriate school or community agency. The School has been linked with local public schools since 1918, and has placed thousands of Boston University students in classrooms. Students assist teachers and social service agencies in the Boston area and throughout the world. *Information: 617-353-3212*

Intergenerational Literacy Project This program encourages language and literacy development in families who speak languages other than English, in order for parents to better help their children take advantage of educational opportunities. A collaboration between Boston University and Chelsea Public Schools begun in 1989, the project provides literacy education to adults who are recent immigrants learning English. Helping the parents to become better readers and writers helps their children achieve success in school. Approximately 75 families participate in this program each semester, with both the children and the parents attending classes. *Information: 617-353-2699*

Prison Education Program (PEP) Since 1972, this program has provided college credit courses leading to degrees for qualified prisoners at Massachusetts state medium- and minimum-security prisons. The University subsidizes tuition, student books and supplies, and faculty salaries. This year, 265 students are enrolled in 29 courses at MCI Norfolk, MCI Framingham, Bay State Correctional Center, and the South Middlesex Correctional Center. *Information: 617-353-5945*

Program in Mathematics for Young Scientists (PROMYS) This six-week summer program, conducted by the Boston University Department of Mathematics, is offered for high school students and high school mathematics teachers from all over the United States. Students chosen on the basis of potential and merit attend classes emphasizing active problem-solving, including the formulation, criticism, and modification of conjectures. Teachers earn graduate-level course credit from Boston University and bring techniques learned in this program back into their classrooms. *Information: 617-353-2563*

Reach Out and Read This nationally recognized program that promotes early literacy was started at Boston Medical Center in 1989 and now has more than 2,700 locations nationwide. The program provides literacy guidance to parents and distributes free books to children. Its primary focus is to institutionalize the well-accepted practice of using books to help elevate a child's communication skills. The goal of the program is to help parents and caregivers instill a love of reading in their children. *Information: 617-629-8042*

Sargent Center for Outdoor Education This year-round University-owned educational facility in New Hampshire serves a wide constituency under a guiding ethic that aims to foster stewardship for the environment and a sense of community values. Each year, more than 3,500 middle school children participate in environmental education programs. In addition, numerous nonprofit organizations, colleges, and universities participate in adventure-based team-building programs. User groups include social service agencies such as Upward Bound, churches, and other youth-advocacy organizations. "Adventure Camp" provides a stimulating resident camper program for children ages 10 to 16 in July and August. Two days a week, the Center is also a meals site for the Senior Nutrition Program, a low-cost service offered to Monadnock region adults age 60 and older. To reach out to young people locally, Sargent Center exchanges service for adventure with the children from Kids Together—A Place to Go, a nonprofit after-school program serving Peterborough youth in grades four to eight. The Center also provides a Vacation Day Camp and family programs throughout the year for local residents. *Information: 603-525-3311*

Scholarship Assistance The University annually provides a continuing investment in the educational future of the City of Boston, its young people, and other members of the community. In addition to the Boston Scholars Program, BU offers annual special scholarship programs for Boston City employees, Boston teachers, graduates of nearby Brookline and Chelsea high schools, graduates of local Archdiocesan schools, and children of Boston and Brookline firefighters killed in the line of duty. The cumulative expenditure for all such scholarships since 1980 is more than \$128 million. *Information: 617-353-2328*

School of Education Consortium Council Since 1977, the School of Education (SED) has sponsored a consortium of seven local public school districts, including a Boston Public School Cluster and a number of human service agencies. These units are represented on the School of Education Consortium Council that also includes faculty members from the School of Education. SED students complete fieldwork in a variety of settings offered by the Consortium. The Council members advise the School of Education faculty on matters of curriculum as well as those related to the SED student placement and practicum experiences. In exchange, Boston University provides the funding for educational projects within the Consortium's districts and member agencies. Among such projects have been after-school enrichment programs, artist-in-residence series, and participation in a literacy workshop for teachers at the secondary level. *Information: 617-353-3212*

Space Science Information Requests The Boston University Observatory receives numerous requests from the public and others via the phone, e-mail, and post for information about astronomy and space science research topics and current discoveries, advice about telescopes and optics, educational equipment, and teaching materials. The Boston University Department of Astronomy also hosts Public Open Nights at the Observatory, open to everyone, giving Boston-area residents a chance to observe the night sky through telescopes and binoculars and see things they otherwise might not get to see, and learn some astronomy as well. The Open Nights are held most Wednesday evenings throughout the year, weather permitting. *Information: 617-353-2630 (observatory); 617-353-5700 (curator)*

Space Science School Visits Faculty, staff, and students at the Boston University Department of Astronomy frequently volunteer to visit area schools and other interested organizations to speak about astronomy and space science. University researchers in these disciplines provide equipment and assist with telescopic observing sessions, etc. These visits may last from an hour to a full day. *Information: 617-353-2630 (observatory); 617-353-5700 (curator)*

Step UP Boston University is part of a five-university collaboration with the City of Boston and the Boston Public Schools. Working with two partner schools—the William M. Trotter Elementary School in Dorchester and the Boston English High School in Jamaica Plain—as well as all ten schools involved in the initiative, the University provides specific programs and initiatives that respond to needs identified by the partner schools. Coordinated services offer academic support for schools, quality extended learning opportunities, health and wellness programs, and opportunities for parent engagement. *Information: 617-353-3551*

Upward Bound and Upward Bound Math/Science These programs provide academic enrichment and remedial help, on an annual basis, to 125 Boston and Chelsea public high school students through intensive classroom work during the academic year and a six-week residential tutorial and enrichment program in the summer. The University contributes a portion of the housing and meal costs for participants, totaling more than \$81,000. *Information: 617-353-3551*

Business and Professional Programs and Services

AdLab The College of Communication created this award-winning student-run advertising agency in 1974. Today, AdLab is a full-service agency with capabilities ranging from traditional to interactive to brand planning to guerrilla marketing. Students in AdLab develop and implement advertising campaigns for about 60 clients every year. These clients range from public service and nonprofit organizations to entrepreneurial start-ups and special projects with nationally recognized brands. Clients hire AdLab as they would hire any professional agency, and must have a budget capable of implementing the plan. AdLab charges a very nominal \$100 fee. Contact information, examples of past work, and a current client list are available at www.bu.edu/adlab.

BioSquare Located in Boston's South End, BioSquare is a 16-acre research and business park under development by Boston University and the Boston Medical Center. Reflecting the University's entrepreneurial spirit and approach to business as well as its commitment to excellence in teaching and research, BioSquare is directly adjacent to the Boston University Medical Campus and has been designed to provide a dynamic research and business environment that will facilitate collaboration between the outstanding researchers and clinicians of the Boston University Medical Center and

industry. These collaborations will help extend the frontiers of biomedical research and spark the development of new technologies and services that will advance the quality of life for others and stimulate the development of new commercial products. BioSquare now consists of three biomedical research buildings and a 1,000-space garage and retail facility. The three existing biomedical research buildings include the 200,000-square-foot Center for Advanced Biomedical Research, the 192,000-square-foot Evans Biomedical Research Building, and a 180,000-square-foot biomedical research building located at 670 Albany Street. In addition, BioSquare has constructed a 1,500-space parking garage and the new National Emerging Infectious Diseases Laboratories. Future plans include the development of two additional research buildings. *Information: 617-353-8630*

Boston University Institute for Leading in a Dynamic Economy (BUILDE)

This Institute was created to explore the effects of emerging information and related technologies on competitive markets and organizations. The Institute is founded on the principle that rigor and relevance in business research need not be removed from “real-world” issues. Rather, through effective collaboration with leading private and nonprofit organizations, cross-disciplinary teams of scholars can bring relevant theory and rigorous method to bear on markets and competitive environments; risk management financing and decision-making; innovation engines; and new capabilities and organizational forms. *Website: <http://smqdev.bu.edu/research/builde>; Information: 617-353-4601;*

Center for Energy & Environmental Studies This Center offers publications that deliver information to the community regarding the interrelationships between energy and the environment, emphasizing the significance of scientific research in policy making. The Center’s faculty holds joint appointments with the Department of Geography & Environment and affiliated departments, and engages in environmental research ranging from the analysis of deforestation in the Brazilian Amazon to the study of global climate change. The Center has close collaborative ties with the Departments of Biology, Earth Sciences, and International Relations, and with the Center for Remote Sensing, the Center for Transportation Studies, and the Center for Ecology & Conservation Biology. *Information: 617-353-3083*

Civil Litigation Program This School of Law program, which began in 1968, provides free legal services to low-income clients in the Boston area in civil cases, such as domestic relations, housing, and immigration. Second- and third-year law students represent their clients under the supervision of a clinical law teacher in all aspects of the cases. The Civil Litigation Program operates out of the offices of Greater Boston Legal Services. *Information: 617-353-3148*

Criminal Law Clinics at Boston University School of Law For more than 25 years, second- and third-year law students have served the Boston area through participation in the Criminal Law Clinics program. Students in the Defense Program are responsible for the defense in about 200 criminal cases annually in the Boston Municipal Court and the Boston Juvenile Court, representing indigents who would otherwise require a court-appointed attorney. Students in the Prosecution Program represent the Norfolk County District Attorney’s Office in cases in the Quincy District Court, prosecuting about 100 cases annually. All cases are closely supervised by faculty members who are practicing attorneys. *Information: 617-353-3131*

Executive Development Roundtable (EDRT) The Executive Development Roundtable in the School of Management is dedicated to executive and leadership development and the principle that continuous individual and organizational improvement is a firm’s most important strategic

advantage. The EDRT conducts fundamental research in executive development and works to improve the implementation of management, executive-development policies, and education to meet emerging leadership needs. The EDRT also creates a partnership between the corporate and academic communities that explores best-practice approaches to improving the development of managers throughout their careers, and the EDRT serves as a networking and professional development resource for upper-level professionals. *Information: 617-353-2031*

Fraunhofer Center for Manufacturing Innovation The Center is a partnership between Boston University and Fraunhofer Gesellschaft of Germany, the largest nonprofit applied research organization in Europe. More than 12,000 scientists and engineers work at 55 research institutes worldwide to solve problems for government and industry. The Fraunhofer Center for Manufacturing Innovation, located on the Boston University campus, specializes in the development of instruments, high-precision automation systems, and devices for the optoelectronics, semiconductor, and biotechnology/biomedical industries. Together with Boston University's College of Engineering, the Center works closely with its clients and provides engineering R&D services to local and international companies focusing on instrument development and next-generation automation solutions. *Information: 617-353-1888 or www.bu.edu/fhcmi*

Hothouse Productions This video production unit in the College of Communication is both a class and a student-run, client-driven production company. Students produce videos for nonprofit organizations and for individuals who are contributing to important charitable or educational projects. One example is the production of a promotional video for the Boston Firefighters Burn Foundation. The seven-minute film, "Get In, Get Out, Give Back," chronicles firefighters' efforts to help children recovering from severe burns. *Information: 617-353-5807*

Human Resources Policy Institute (HRPI) The Institute strives to provide a forum for the exchange of ideas and information between industry and academia in human resource management. Faculty, graduate students, and fellows at the School of Management partner with top-level human resources executives from member companies to discuss the latest trends and best practices. HRPI supports faculty and graduate student research on future human resources challenges and provides professional development for high-potential human resource managers. HRPI awards research grants and provides funding for the writing of case studies. HRPI's members, faculty, students, and invited guests meet twice yearly to review current and emerging issues in human resource management. *Information: 617-353-3304*

Institute for Global Work The Institute for Global Work was established at the School of Management to spearhead a systematic understanding of the complex realities of global relations. The Institute's principles are three-fold: to co-create ideas of global business processes through partnerships between academia, industry, and governmental agencies; to shape leading-edge practice through systematic research and thought-leadership; and to link research findings to education using multiple modes at different levels. Member firms meet twice yearly and have access to executive education offerings. *Information: 617-353-4601*

Institute for Technology Entrepreneurship & Commercialization (ITEC) The Institute offers a new model for entrepreneurial research, education, and commercialization. ITEC is dedicated to the new entrepreneur who is focused on technologies, products, and services that meet pressing global needs in health care, life sciences, alternative energy, and many other sectors. Structured like no other entrepreneurship program, ITEC offers cross-channel resources from the School of Management with the School of Medicine, School of Public Health, the College of Arts & Sciences, the School of Law, and the College of Engineering, including biomedical engineering, photonics, and physics. ITEC provides entrepreneurial assistance by developing and applying new business models, customized education, and training programs through the School of Management, and student internships with local, national, and international for-profit and nonprofit corporations. *Information: 617-353-9391 or www.bu.edu/itec/*

Office of Technology Development (OTD) The mission of OTD is to promote the commercialization of technologies arising from Boston University faculty research, foster an entrepreneurial environment for BU faculty and students, create strong interactions between the BU research community and the greater Boston corporate and financial communities, and support the academic mission of BU by involving students in the commercialization process. OTD's activities are executed by four core groups working together to provide a comprehensive approach to commercialization activities. Whether OTD begins with novel concepts, mature academic technologies, or emerging companies, OTD's support services and industry experts provide the opportunity to achieve success at every stage along the path to commercial success. The four core groups are Technology Transfer, New Ventures, Business Incubation, and Translational Research. *Information: 617-353-4550*

Photonics Center Over the past decade, the Boston University Photonics Center (BUPC) has become a world-renowned pioneer in the field of photonics—the science and engineering of light. The Center has created a unique national resource for development of advanced photonic device prototypes for commercial and military applications. The Center's 235,000-square-foot multidisciplinary facility opened in June 1997 and includes 23 research laboratories. From its inception, the BUPC has attracted scholarly innovators to lead its academic and educational programs. Events such as the Future of Light Symposium, the Distinguished Lecture Series and the monthly Photonics Forums, are examples of the Center's commitment to Photonics education.

Ground-breaking research conducted at the Center includes work on science and technology for solid-state source and detector materials, quantum cryptography, subsurface imaging, adaptive optics, micro-opto-electro-mechanical systems (MOEMS), high-speed modulation and sensing, biophotonics, nanophotonic devices, and biomedical applications of photonics. In 2007–2008, the Photonics Center and its 35 affiliated faculty members received \$18.5 million in research and technology development funding.

In addition to its laboratory and classroom space, the BUPC houses a full-service business incubator. The incubator is capable of supporting up to 14 start-up companies. In 2007-2008, three companies graduated from the incubator, including Biomimetic Systems, Inc., a BU spinout company. The incubator also welcomed five new companies including two BU spinouts. The companies in the incubator have contributed to the BUPC student population and to the local economy by creating jobs and new educational opportunities. *Information: 617-353-8899 or www.bu.edu/photonics*

PRLab This student public relations agency in the College of Communication has offered free public relations assistance to nonprofit organizations for more than two decades. In some cases, particularly

with "for profit" clients, PRLab may charge a small annual fee for their services to help offset expenses of PRLab. An average of 30 students each semester spend 7 to 14 hours a week working on-site, devising publicity campaigns, developing public relations programs, arranging fundraising events, creating websites, and establishing media contacts. Last semester, PRLab students provided 5,000 hours of free services to greater Boston organizations. *Information: 617-358-0066*

Student Internships from the School of Social Work Every year, approximately 300 student interns work two or three days a week in nonprofit and social service settings representing health, mental health, child welfare, aging, substance abuse, and community service agencies throughout New England. Interns offer direct clinical services and work in community organizations, systems management, and program planning. Student interns have been serving the community since the 1920s. *Information: 617-353-3754*

Community and Government Programs

Commonwealth Avenue Improvements Beginning in 1994, Boston University, in conjunction with city, state, and federal agencies, began working on a plan to revitalize and improve Commonwealth Avenue. In 2007, the project came to fruition. At an overall cost of \$13 million, the project includes wider sidewalks, additional trees and streetlights, articulated crosswalks, and the reduction of three lanes of through traffic to two lanes. The cost to Boston University is approximately \$3 million. *Information: 617-353-9095*

Community Affairs The Director of Community Relations and the Community Relations Liaison on the Charles River Campus facilitate communication between the University and its neighbors. They work closely with residents and officials in Boston and Brookline neighborhoods responding to inquiries, coordinating programs with local business associations, organizing efforts to meet community needs and are members of many of the local community boards. Some of the community initiatives include sponsorship of the *After the Prom Party* at Brookline High School, distribution of gift cards at Thanksgiving to families living in the Brookline Housing Authority's Egmont/Trustman Apartments, sponsorship of Hamilton School student athletic program at the University's Case Center, and participation and sponsorship of the Mayor's *Summer in the City* family day at Boston University which was attended by 2,500 Boston residents. The Community Affairs' office also distributes books at the holidays to one thousand elementary school children in Boston attending the following schools: Emerson, Cathedral Grammar, Clap, Hurley, Orchard Gardens, Quincy, Saint Patrick's, Blackstone, Russell, Gardner, Horace Mann, Hamilton, Conservancy Charter, Winship, Garfield, and Kids are People 2. The office also distributes free tickets to University athletic and cultural events, and contributes monetary donations to local charities.

The Director of Community Outreach at Boston University School of Medicine (BUSM) is the liaison between BUSM and the surrounding communities. The Director works closely with community leaders and community organizations and develops productive working relationships with the residents. Some of the community initiatives include distribution of computers to the residents of local housing developments and youth groups; distributions of free tickets to University athletic and cultural events and in conjunction with the Director of Community Relations, distribution of holiday books to over 700 Boston Public School students. *Information: 617-353- 2078 (Charles River Campus)*

Community Task Force Since 1984, University and local representatives from neighborhood organizations have used the Boston University Community Task Force as a public forum to discuss

community issues. University administrators, planners, and consultants also meet regularly with representatives of neighboring community organizations. *Information: 617-353-2078*

Government & Community Affairs Serving as the primary administrative group linking the University with the community, this office recognizes that Boston University has an impact on its neighbors and works to ensure that this impact is positive. The office maintains frequent contact with area residents and state and local leaders, keeping them informed about University development plans, evolving programs, cultural events, lectures, workshops, and seminars offered to the community. The Director of State Relations represents the University's interests before the Legislature, the Board of Higher Education, and the executive branch of state government. The Director of City Relations maintains contact with the Mayor's Office, the City Council, and City agencies. The Director of Community Relations, Director of Community Outreach/BUSM, and the Community Relations Liaison keep communication open between the University and its neighbors, working closely with residents and officials in the Boston neighborhoods of Kenmore Square, Audubon Circle, Allston, Brighton, the South End, Lower Roxbury, Chinatown, Dorchester, and the Town of Brookline. *Information: 617-353-9095*

Master Plan Boston University, in cooperation with Community Task Force representatives and city agencies, was the first area institution to develop a Master Plan approved by the Boston Redevelopment Authority. The first Master Plan for the Charles River Campus, covering 1986 to 1996, analyzed the University's needs (housing, enrollment, parking, academic, and recreation) and studied potential sites to accommodate the University's changing needs. The University's second Master Plan, for 1997 to 2002, resulted from a 14-month review process, including five meetings of the Community Task Force and extensive input from the City of Boston. The plan was approved by the Boston Redevelopment Authority in October 1997. Beginning in the fall of 2002, the University began work on its third Master Plan. This seven-year plan, for 2003 to 2010, was approved by the Boston Redevelopment Authority in March 2003, after seven meetings of the Boston University Community Task Force. *Information: 617-353-9095*

Ride-Along Program Through this program, the Director of Community Relations rides with the Boston Police and the Brookline Police on designated weekends to ensure prompt response to neighborhood concerns involving students' off-campus behavior. Boston University students found to be in violation of the Code of Student Responsibilities, after a disciplinary hearing, are sanctioned by the Dean of Students. *Information: 617-353-2078*

State and City Relations The Director of State Relations represents the University's interests before the legislature, the Board of Higher Education, and the executive branch of state government. The Director of City Relations works with the Mayor's Office, the City Council, and city agencies.

Transportation Solutions for Commuters, Inc. (TranSComm) TranSComm is a proactive organization committed to working collaboratively with the community and local, state, and federal agencies to propose and implement better transportation options for its neighbors, employees, staff, students, patients, and visitors. This program, serving the Boston University Medical Center, is a cooperative effort to coordinate the transportation needs of the thousands of people who receive daily care from, are employed by, or study at the sponsoring institutions. By working with the Boston Transportation Department, TranSComm continues to promote public transit, carpooling, vanpooling, and cycling programs to reduce traffic congestion and air pollution in the neighborhood. *Information: 617-638-7473*

Programs and Services for People with Disabilities

Center for the Study of Communication & the Deaf This Center at the School of Education is devoted to both applied and theoretical research to benefit the Deaf and their families. Faculty and students focus on three major research themes: the acquisition of signed languages, the impact of language on the education of the Deaf child, and the developmental assessment of bilingual approaches to the education of Deaf children. The Center provides a variety of community services that focus on projects and workshops assisting hearing parents of Deaf children and on workshops and presentations to area agencies. *Information: 617-353-3205*

Joining Hands Volunteers from the University's Community Service Center assist elders and people with disabilities to experience outdoor activities, facilitate art activities, learn to swim, and enjoy companionship. Volunteers gain an awareness of these important segments of the population and become a positive force in the Boston community. In 2008, 91 volunteers completed 2,958 hours of service. *Information: 617-353-4710*

Pike Prize for Service to People with Disabilities This prize is awarded by the School of Law either to a person with a disability or to someone who has worked on behalf of promoting greater understanding of disability law, and whose accomplishments have been especially noteworthy. *Information: 617-353-3658*

Special Education Students from the School of Education have been working in local schools and agencies for decades. Each year, more than 40 students work with children, families, and adults who have developmental, physical, or psychological disabilities. *Information: 617-353-3240*

Programs and Services for Elders

Boston Geriatric Education Model Consortium (GEM) The Boston GEM Consortium project works with the Boston University School of Social Work to provide an innovative master's-level social work training program. Focused on preparing social work practitioners, the GEM program meets the unique needs of the aging population by serving older clients and their families in the Boston neighborhoods of Roxbury, Dorchester, and the South End. The Boston GEM Consortium is funded by The John A. Hartford Foundation as part of the Practicum Partnership Program, managed by the New York Academy of Medicine. Additional support for the program is provided by The Atlantic Philanthropies. Underlying the Boston GEM Consortium project is the belief that MSW students trained in this model will develop a sophisticated understanding of the needs of older clients and their families, the services available to meet those needs, and the complexities of providing client-centered care via interacting multiple health and service systems. *Information: 617-353-7009*

Boston University Geriatric Services Sponsored jointly by the School of Medicine and the Boston Medical Center, this program is the oldest continuously operating home-medical service in the United States. Boston University Geriatric Services provides an array of health services for Boston's elderly, including medical care for patients in their own homes. The program makes approximately 5,000 home visits to 800 elders each year, thus enabling many patients who would otherwise require placement in nursing homes to remain independent. No patient is ever denied service for lack of ability to pay. Since 1875, physicians and medical students have been delivering health care to patients in their homes, where they feel most comfortable. *Information: 617-638-6100*

Elders Living at Home Program (ELAHP) This Boston Medical Center program, established in 1986, serves low-to-moderate-income elders, age 60 or older, who are homeless or face the loss of their apartments, or who live in a life-threatening situation. ELAHP provides clients with temporary shelter leased from the Boston Housing Authority (BHA) while permanent housing is located. Over the years, ELAHP's temporary housing has expanded to its current capacity of 28 units at four different sites, and has served as a model for collaborations between the BHA and other providers of services to the homeless. This program also provides or arranges for social services, health services, and legal counsel. ELAHP also coordinates nursing and social-work staffing at the Cardinal Medeiros Center, a nutrition site in Boston that serves some 150 homeless people daily. *Information: 617-638-6148*

Evergreen Program Boston University sponsors this year-round program that, for a nominal fee, provides persons age 58 and over with courses and lectures covering politics, foreign languages, literature, music, and physical activities. In addition, through the Evergreen program, for an \$80 fee, senior citizens may audit any regular University course, whenever space is available and with the instructor's consent. More than 1,400 older persons attend the Evergreen lecture series and audit classes each year. *Information: 617-353-9852*

Geriatric Assessment Center This consultation program provides comprehensive interdisciplinary team assessments of individuals age 65 or older. The Center, formed in 1986, is dedicated to identifying problems that reduce the independence of older people and to making practical recommendations to enable individuals to function to their fullest capacity. *Information: 617-414-4639*

Institute for Geriatric Social Work Established in 2002 with a five-year grant from The Atlantic Philanthropies, the Institute for Geriatric Social Work (IGSW) has become a leader in the effort to build a stronger social work workforce for an aging society. With 36,000 IGSW-trained practitioners currently working in the field and IGSW training now available in all 50 states and overseas, the mission of IGSW is to strengthen the quality of the geriatric workforce through educational innovation, assessment, and policy-relevant research. Located at the Boston University School of Social Work, one of the nation's preeminent social work programs, IGSW brings together expertise in instructional technology, educational design, testing, and evaluation to improve the preparedness and quality of practice of social workers and other social service practitioners who work with older adults and their families. *Information: 617-358-2626*

Vaccines and Screenings Through the Boston Medical Center, free vaccinations and health screenings are provided to the community. These include annual influenza vaccinations as well as screenings for skin cancer, prostate cancer, glaucoma, and osteoporosis. *Information: 617-638-8922*

Health Care and Related Programs and Services

The Boston University Medical Campus in the South End of Boston includes the **School of Medicine** and the **Division of Graduate Medical Sciences**; the **School of Public Health**; the **Henry M. Goldman School of Dental Medicine**; and **Boston Medical Center (BMC)**. The Center was formed by the 1996 merger of the Boston University Medical Center Hospital and Boston City Hospital. The BMC is the principal teaching affiliate of the Boston University School of Medicine. With its mission to provide consistently accessible health services to all, Boston Medical Center is the largest safety-net hospital in New England. This rich concentration of medical educators, researchers, and health care professionals represents a major resource for residents of the many Boston communities that receive

direct services, especially the South End, South Boston, Roxbury, and Dorchester. **The Boston Medical Center** provides free care to patients unable to pay. Many projects run by the Medical Center are described below, but there are dozens of other contributions to health care delivery, preventive medicine, and education carried out by individuals throughout the Medical Campus. The **College of Health & Rehabilitation Sciences: Sargent College** and the **School of Social Work** on the Charles River Campus also offer a wide variety of physical and mental health care services to the community.

Action for Boston Community Development (ABCD) Head Start The Henry M. Goldman School of Dental Medicine conducts Early Head Start oral health screenings for children enrolled in ABCD Early Head Start Centers located in Dorchester, East Boston, Bradshaw, and the South End. It also participates in ABCD parent workshops and provides a variety of dental health promotion activities. *Information: 617-638-5222*

Albert & Jessie Danielsen Institute Established to promote the benefits for human well-being of a close connection between psychology and religion, the Danielsen Institute consists of four endeavors: a mental health clinic, a training program for psychotherapists, an academic program, and a research center. Serving more than 600 people each year, the Danielsen Clinic provides mental health therapy, pastoral counseling, and psychiatric consultation to individuals, couples, groups, families, and special focus groups in the Greater Boston area. Fees are covered by many health insurance plans, and the Institute also offers sliding scale fees for self-pay cases. The Danielsen Institute's Research Center for the Study of Religion & Psychology conducts research in many areas where psychology and religion interface, securing grants for large projects and guiding the research of students in the academic programs. Currently, the Center's largest research project, funded by the Metanexus Institute, concerns "religious and psychological well-being." The Danielsen Clinic is licensed by the Commonwealth of Massachusetts, accredited by the American Association of Pastoral Counselors, and affiliated with the Samaritan Institute. The Training Program provides placements for Boston University graduate students in the mental health field, psychology interns, post-master's social workers, and post-doctoral psychologists, and offers continuing education for area psychologists and social workers. The Program also provides training for psychiatry residents from local medical schools and residency programs. The internship program is accredited by the American Psychology Association. The Academic Program supports the study of pastoral psychology and psychology and religion in various degree programs in the Boston University School of Theology, as well as a doctoral program in Counseling Psychology and Religion in the Graduate School of Arts & Sciences. *Information: 617-353-3047 or www.bu.edu/danielsen/*

American Student Dental Association (ASDA) Oral Health Outreach at Yawkey Club This is an on-site dental health education, screening, sealant, fluoride, and referral program at the Yawkey Club, a Boys and Girls Club in Roxbury. Program activities include an ASDA-planned dental health fair with dental "stations" focusing on various aspects of dental health, including brushing and flossing, the negative effects of tobacco on oral health, tooth protectors, the importance of regular dental visits, and the importance of healthy eating to promote good oral health. *Information: 617-638-5222*

Applied Professional Experience (APEX) Program This innovative educational program, established in 1989, provides first- and second-year dental students with the opportunity to work in a variety of community-based dental health centers in the Boston area. Dental students provide needed auxiliary services to the community health centers while gaining valuable experience in caring for the underserved population. The dental staff benefits from a cadre of experienced, well-educated interns

while also gaining an opportunity to mentor future colleagues. Community health centers participating in the APEX Program include Boston Health Care for the Homeless, Boston Medical Center, Brookside Park Health Center, Codman Square Health Center, Dimock Community Health Center, Dorchester House, Geiger-Gibson Health Center, Lynn Community Health Center, South End Community Health Center, VAMC Bedford, and Whittier Community Health Center. *Information: 617-638-8523*

Arthritis Center This Center's staff is active in a number of community efforts for arthritis patients in the inner city of Boston, providing professional staff at the Boston University Medical Center and participating in community programs, including arthritis support groups, service on medical advisory boards, and speaking to patient groups. *Information: 617-638-4318*

Associated Early Care & Education This program provides affordable childcare for infants, toddlers, and preschool children of working families in the Greater Boston area. The Henry M. Goldman School of Dental Medicine provides an oral health program offering dental health education, oral screenings, and fluoride varnish applications to children, as well as staff and parent training at the Jamaica Plain, Sunnyside, Ruggles/Gilday, and Castle Square sites. *Information: 617-638-5222*

Blackstone Elementary School Field Trip The Henry M. Goldman School of Dental Medicine facilitates a field trip to the school for third-grade students from Blackstone Elementary School in the South End. Students and teachers participate in an interactive PowerPoint discussion about dental health and healthy eating, and enjoy creative dental activities in the Simulated Learning Center. A nutritious lunch is provided and "goody bags" containing toothbrushes, floss, and other oral health-related items are given out. During this annual event, the children are "dental students for a day," gaining exposure to various career options in dentistry. *Information: 617-638-5222*

Boston Area Health Education Center (BAHEC) This Center, founded in 1978 at Boston City Hospital, is part of the Boston Public Health Commission and provides academic enrichment activities, health education, and health-related internships for inner-city adolescents interested in pursuing health careers and professions on the Boston University Medical Campus. Special initiatives consist of a college/career information resource library, computer education classes, and an adult education exchange program. *Information: 617-534-5258*

Boston Asthma Games In partnership with the Boston Public Health Commission Van and Asthma Program, the Henry M. Goldman School of Dental Medicine offers dental health information, education, and dental screenings to children with asthma and their families participating in this annual event. The Boston Asthma Games enables children with asthma to be physically active while learning to better treat and manage their asthma. The Asthma Health Project is an initiative of the Boston Public Health Commission and Children's Hospital in Boston. *Information: 617-638-5222*

Boston Center for Refugee Health and Human Rights The Boston Center for Refugee Health and Human Rights (BCRHHR) serves survivors of torture and related trauma by providing medical, social, and legal services to more than 200 people from 30 countries. The Center is located at Boston Medical Center and staffed by School of Public Health professors and Boston Medical Center physicians, as well as faculty from Boston University's law, medical, and dental schools. The Division of Community Health Programs (CHP) of the Henry M. Goldman School of Dental Medicine has collaborated with the Boston Center for Refugee Health and Human Rights since 1999 to assess and address the oral health needs of torture survivors through the Survivors of Torture Oral Health

Program. Patients receive oral health education, dental screenings and referrals, and dental home-care products. A short video developed by dental school faculty for health professionals on how to sensitively conduct oral health exams on survivors of torture is available at: www.bcrhhr.org/. In addition, CHP provides appropriate referrals to survivors of torture as identified through Physicians for Human Rights and other similar organizations such as the Cambridge Health Alliance. *Information: 617-414-4794*

Boston Coalition for Adult Immunization (BCAI) Each year, medical faculty and students participate in an immunization campaign for Boston's vulnerable residents. At BCAI flu clinics, students distribute immunization information in numerous languages, assist with informed consent processes, manage the flow and activities, assist residents who have questions, and provide clinic management. *Information: 617-638-4194*

Boston Diabetes Expo The Henry M. Goldman School of Dental Medicine collaborates with the Boston Public Health Commission, Blue Cross Blue Shield of Massachusetts, Delta Dental of Massachusetts, Harvard School of Dental Medicine, Massachusetts College of Pharmacy and Health Sciences, and the Forsyth Dental Hygiene Program to ensure a unified oral-health presence at the Boston Diabetes Expo. Oral health promotion and dental screenings are offered throughout the day. *Information: 617-638-5222*

Boston Health Care for the Homeless Program (BHCHP) Boston Medical Center assists the Boston Health Care for the Homeless Program to develop methods to improve their strategic planning, especially for funding. Department faculty assist with developing a data set regarding the use of sub-acute medical care provided to Boston's homeless population at the Barbara M. McInnis House and Betty Snead House, their two respite centers in Boston. The School of Public Health assists by demonstrating how utilization of these respite centers reduces hospital admissions, readmissions, and emergency utilization, thereby impacting the costs of care. *Information: 617-414-1321*

Boston Medical Center This hospital, the largest safety-net hospital in New England, provides care for Boston residents, particularly those from inner-city neighborhoods. Its clinical staff is composed exclusively of Boston University School of Medicine faculty members and physicians-in-training. *Information: 617-638-8000*

Boston Medical Center Adolescent Center Since 1977, Boston Medical Center has provided a teen-tot program for adolescent parents in the Boston area. The hospital also provides medical support to high school-based health centers and the Boston Public Schools. The Adolescent Center offers contraceptive counseling and care, HIV testing and counseling, and comprehensive medical care for adolescents. *Information: 617-414-4086*

Boston Medical Center Emergency Department Located at the Boston Medical Center, this emergency medical center is the largest 24-hour Level 1 trauma center in New England, with more than 126,000 visits last year. The School of Medicine plays a key role in training emergency medical personnel in the treatment of trauma victims. *Information: 617-638-8000*

Boston Medical Center's Partnership for Men's Health – Health Fair At this BMC health fair targeted to men, the Henry M. Goldman School of Dental Medicine provides free oral health screenings and a wide range of information on various oral health topics such as oral cancer, children's oral health, tobacco, meth mouth, and use of tobacco. Students from both the Dental School and the Forsyth

Dental Hygiene Program at MCPHS volunteer their services at this very large and informative cancer screening event. *Information: 617-638-5222*

Boston University Area Health Education Center For more than a decade, this Center has been working in urban neighborhoods under the auspices of the Boston Medical Center. The Center develops educational programs that help to support the primary-care practitioners who are already there and encourage medical students to go into primary-care practice in the inner city. The Center also arranges for medical students to provide services to many of the 25 Neighborhood Health Centers throughout the city, which provide high-quality, primary health care in neighborhoods where it would not otherwise be available. *Information: 617-638-5110*

Boston University Residence Life Wellness Fair, Charles River Campus The Henry M. Goldman School of Dental Medicine participates in this annual BU Center for Wellness and Residential Education “Be Well” Fair. The fair exposes undergraduates to a wide range of health and wellness activities and concepts. Oral health promotion activities are geared to oral health issues faced by college students. *Information: 617-638-5222*

Boston University School of Public Health Practice Office This office initiates, fosters, and strengthens collaborative practice, teaching, and community-based research linkages between the School of Public Health and government and community agencies. The office develops, expands, and promotes different types of community practice and service opportunities for students, faculty, and staff at the School. *Information: 617-638-4656*

Cancer Research Center This Center sponsors educational programs, and its staff conducts patient-care activities at the Boston Medical Center and other hospitals affiliated with the School of Medicine. *Information: 617-638-4173*

Car Seat Program Children’s car seats—both booster and convertible—are distributed to low- and moderate-income parents who are Boston Medical Center HealthNet Plan members, through the social services department at the Boston Medical Center. The goal of the project, which was initiated through a grant from General Motors, is to reduce the probability of injury to young children. *Information: 617-414-5004*

Center for Addictions Research & Services The Boston University Center for Addictions Research & Services, based in the School of Social Work (BUSSW), addresses a broad range of addiction issues affecting individuals, families, and communities struggling with substance abuse, HIV/AIDS, and the problems of access to substance abuse treatment. *Information: 617-353-7222*

Center to Prevent Alcohol-Related Problems Among Young People The Center is expanding and enhancing the School of Public Health’s (SPH) current alcohol-related research through collaborative projects and activities among researchers at SPH, the School of Medicine, and the Boston Medical Center. The Center includes three primary and three pilot research projects and also hosts seminars and workshops for the public. One study will investigate the after-effects of binge drinking on college students’ academic performance. Another effort will evaluate the effectiveness of brief alcohol counseling for young patients presenting at hospital emergency departments. The Center also facilitates the development of campus/community partnerships in Massachusetts to identify and implement programs to reduce college alcohol-related problems. *Information: 617-437-1500*

Chelsea Comprehensive School-Based Oral Health Program The Henry M. Goldman School of Dental Medicine provides comprehensive dental services to children in the Chelsea Public Schools, including classroom education, dental screenings and referrals, placement of dental sealants, fluoride varnish applications, and restorative dental care. This program has been recognized as a best practice by the American Dental Education Association and includes classroom oral health education to over 3,000 students in pre-kindergarten through grade 6, dental screenings and referrals to over 2,200 children, and a city-wide sealant program for all Chelsea second graders.

Chelsea Back to School Celebration This outdoor summer event is sponsored by the Chelsea Public Schools and focuses on information needed to help students return to school healthy and ready to learn. Held at the Williams Middle School, this highly successful Back-to-School Fair is typically attended by more than 600 people and provides an excellent opportunity for Henry M. Goldman School of Dental Medicine staff to distribute information on the Chelsea School Dental Center. *Information: 617-638-5222*

Chelsea Early Childhood Project Annual oral health education and screenings are provided to preschool-aged children in the Chelsea Early Childhood Project, which supports children aged two to four in day care centers and private homes. *Information: 617-638-5222*

Chelsea Early Learning Center Open House Faculty and staff from the BU/Chelsea Partnership Dental Programs are invited to set up an information table at the Early Learning Center's Open House for parents of children in grades pre-kindergarten and kindergarten. Information is distributed to over 150 parents about the importance of early dental care and the availability of the Chelsea School Dental Center. *Information: 617-638-5222*

Chelsea Head Start (CAPIC) Dental education, screening, and fluoride varnish applications are provided twice each year to Head Start students aged three to five enrolled in the CAPIC Head Start (Chelsea, Revere, Winthrop) Program. In addition, Henry M. Goldman School of Dental Medicine faculty offer oral health education to CAPIC teachers, family advocates, and parents. *Information: 617-638-5222*

Chelsea Intergenerational Literacy Program Twice per year, the Henry M. Goldman School of Dental Medicine provides oral health education to adults who are learning English as well as screenings and referral assistance for their children. *Information: 617-638-5222*

Chelsea Nutrition and Wellness Fair This event, held at the Williams Middle School, offers an opportunity for school nurses and local health care providers to distribute printed information on various health topics. Boston University Henry M. Goldman School of Dental Medicine faculty provide oral health education and information about the free oral health services offered to children from preschool age through high school at the Chelsea School Dental Center. *Information: 617-638-5222*

Chelsea School Dental Center (CSDC) In the spring of 2003, the Henry M. Goldman School of Dental Medicine opened the Chelsea School Dental Center, which is located within the health suite at Chelsea's Williams Middle School. The CSDC gives care to Chelsea public school students regardless of their grade level or ability to pay for services. Routine preventative care, radiographs, and restorations are provided by a dental hygienist and a pediatric dentist. Since 2003, CSDC has provided thousands of students with preventative and restorative dental care. Many of the patients, who range in age from preschoolers to high school seniors, have never been to a dentist and would

have no other source of dental care if it were not for this clinic. Four bilingual dentists devote time to treating patients in the clinic. *Information: 617-638-5222*

Child Witness to Violence Project This counseling, advocacy, and outreach program, which is run under the auspices of the Division of Developmental and Behavioral Pediatrics at the Boston Medical Center, provides services to young children and their families who have witnessed community or domestic violence, and offers training for professionals who treat victims. The goals of this service are to provide direct counseling intervention to children and families who are referred to the program and to provide training and consultation to caregivers of children. *Information: 617-414-4244*

Comprehensive Care Program This program at Boston Medical Center enhances the quality of health services and social support for children with complex medical conditions. It is a primary-care program for children from birth to 18 years old, offering medical, case management, and home-visiting services. *Information: 617-414-4773*

Countdown to Kindergarten An annual event, Countdown to Kindergarten prepares preschool children for entry into kindergarten in the Boston Public Schools. The Henry M. Goldman School of Dental Medicine participates each year in this celebration held at the Boston Children's Museum. With the assistance of Dental School student volunteers, a wide range of age-appropriate dental health activities and oral screenings are offered to the hundreds of children and parents in attendance. *Information: 617-638-5222*

Crispus Attucks Children's Center Oral health screenings are provided for children aged birth to six years enrolled in the Crispus Attucks Center. Students from the MCPHS Forsyth Dental Hygiene Program assist Henry M. Goldman School of Dental Medicine faculty in providing these yearly dental screenings. Additionally, oral health training is provided for Crispus Attucks staff. *Information: 617-638-5222*

Dental Health Centers Through the Henry M. Goldman School of Dental Medicine, Boston University provides quality dental care at reasonable rates to all residents of the Greater Boston community. Patients are served in two state-of-the-art clinics: at the Boston University Medical Center for the general public, and at a satellite facility on Commonwealth Avenue for the University community and their families. *Information: 617-638-4670 or 617-358-1000*

Entre Familia This residential program, associated with the Boston Medical Center Child and Adolescent Psychiatry Department, provides treatment programs for Latina women with substance abuse problems and their children. *Information: 617-534-2922*

Framingham Early Childhood Fair This fair, sponsored by a Framingham partnership, is designed to introduce children and their families to the variety of educational, health, and recreational resources available in Framingham. The Henry M. Goldman School of Dental Medicine provides oral health education and promotes oral health awareness for the Framingham Fluoride Program and the SEAL Framingham Dental Sealant Program. *Information: 617-638-5222*

Framingham Healthy Kids Day Hundreds of adults and their children attend this annual Healthy Kids Day event held at the MetroWest YMCA in Framingham. Dental health and nutrition information is

provided to families through demonstrations using display boards and an animal puppet, and by educational handouts and activity sheets. *Information: 617-638-5222*

Give Kids A Smile, Rosie's Place, Child Works Program The BUGSDM chapter of the American Association of Women Dentists (AAWD) holds an interactive, age-appropriate dental health fair for the children who accompany their mothers to Rosie's Place, a shelter for homeless, displaced, and battered women. In the past, the AAWD has received supplies for Give Kids A Smile from ADA/Colgate. *Information: 617-638-5222*

Good Grief Program This program of the Boston Medical Center trains teachers and child-care professionals nationwide to help children who are facing loss by helping these kids master coping skills. The program is open to health-care and mental health professionals as well as educators. The program also works closely with doctors, nurses, and social workers who treat children and their families facing a life-challenging illness. *Information: 617-414-4005*

Grow Clinic The Grow Clinic at Boston Medical Center provides multidisciplinary services for children not growing at a normal rate. These services include home visits, distribution of in-kind donations, and advocacy with community resources. The Grow Clinic also identifies and treats children at risk due to malnutrition. *Information: 617-414-5251*

Harbor Area Early Intervention Program Parents' Oral Health Meeting Children enrolled in this Early Intervention Program have health or developmental issues that make them more susceptible to oral health problems. Henry M. Goldman School of Dental Medicine faculty provide parental education and dental screenings for children enrolled in this Boston-area program. Parents have the opportunity to ask questions regarding their children's oral health and receive specific referral recommendations. *Information: 617-638-5222*

Healing the Children Since 1993, faculty members from the Henry M. Goldman School of Dental Medicine's Department of Oral & Maxillofacial Surgery have traveled to South American countries to provide direct care to more than 100 children annually. This work is done in affiliation with Healing the Children Northeast, Inc.—Missions Abroad, a charitable organization. The School's faculty donate their time and expertise to this program. *Information: 617-638-4350*

Health-Care Affiliates There are 25 New England hospitals, 15 neighborhood health centers, and numerous health-care agencies affiliated with the Boston University School of Medicine. The Boston Medical Center and the Boston Veterans' Administration Medical Center are the School's principal affiliates in addition to many community hospitals. Students and faculty from the School of Medicine treat thousands of patients annually in these facilities. *Information: 617-638-5300*

Health Careers Academy Community Health Fair The Henry M. Goldman School of Dental Medicine offers oral health and nutrition education materials and dental screenings to teens and young adults at this Health Careers Academy's annual "Take the Orange Line to Better Health" community health fair at Ruggles Station in Boston. *Information: 617-638-5222*

Health Connection This free health information and referral service is provided by Boston Medical Center and is staffed by registered nurses. Callers have access to a medical professional who determines the caller's needs, assesses the immediacy of care or services needed, and answers medical questions. Additionally, nurses have access to a broad array of cancer information support

services listings. Nurses are especially helpful to those callers who are uninsured and are having difficulty accessing appropriate health services. Health literature is provided upon request.

Information: 800-841-4325

Health Reform Program This School of Public Health program designs practical solutions to health-care problems—solutions that address the needs of all parties. The program’s first component, U.S. Health Reform, addresses problems at national and state levels, such as many patients’ inability to afford needed prescription drugs; the disproportionate closing of hospitals in minority and lower-income communities; and the affordability of expanded insurance coverage. The second component, the Access and Affordability Monitoring Project, identifies problems of unequal access to health care and the high cost of health care in Massachusetts; investigates their causes; monitors the progress of public and private efforts to ameliorate them; and designs alternative solutions. *Information: 617-638-5042*

Healthy Baby/Healthy Child (HB/HC) Oral Health Promotion Program The Henry M. Goldman School of Dental Medicine has developed an oral health promotion model aimed at preventing early childhood caries which targets high-risk, pregnant women and their children. Of particular importance are those living in communities that are disproportionately impacted by infant mortality and other health disparities. As part of the intervention, School of Dental Medicine faculty train public health nurses from the Boston Public Health Commission’s HB/HC home visitation program to carry out basic oral health assessments and provide oral health education to their clients. In addition, staff facilitates referrals for dental care as needed. *Information: 617-638-5222*

Healthy Baby/Healthy Child (HB/HC) Summer Camp Picnic In collaboration with the Boston Public Health Commission, the Henry M. Goldman School of Dental Medicine participates in the Healthy Baby/Healthy Child Summer Camp Picnic activities at Franklin Park. Oral health education, enjoyable dental activities, and oral health screenings are offered to those attending this summer camp event. *Information: 617-638-5222*

Healthy Public Housing Environmental health faculty in the School of Public Health have developed a long-term partnership with Healthy Public Housing, a program in Boston Housing Authority developments that seeks to develop improvements that decrease asthma rates, especially in South Boston. *Information: 617-638-7720*

Healthy Teeth for Tots The Henry M. Goldman School of Dental Medicine partners with Dorchester House Multi-Service Center to develop and implement a model program that creates a seamless collaboration between pediatricians and dental providers within the community health center. The result is decreased prevalence of early childhood caries and an increased number of children receiving preventive and restorative dental services. To date, the program has implemented pediatrician-administered caries risk assessment, oral health education, and fluoride varnish applications. *Information: 617-638-5222*

HIV Dental Care/Ryan White Through support from the Ryan White Care Act, the Henry M. Goldman School of Dental Medicine provides considerable treatment, which is mostly uncompensated, to patients with HIV and AIDS throughout New England. A network for education referral has been established and includes Cambridge Cares About AIDS, Boston University Medical Center, and Provincetown AIDS Support Group. *Information: 617-638-5499*

Join Together This is a project of the Boston University School of Public Health, which supports Web-based efforts to reduce, prevent, and treat substance abuse across the nation. The program's core mission is helping community leaders around the country be more effective in dealing with illicit drugs, alcohol abuse, tobacco use, inhalants, gun control, and violence prevention. Join Together hosts a public service website, *AlcoholScreening.org*, that helps risky drinkers understand the effects that their drinking may be having on their health, and points them to resources. More than 466,000 people have participated in this confidential screening over the past five years. *Information: 617-437-1500 or www.jointogether.org/sa*

Massachusetts Center for SIDS Since 1975, the Massachusetts Center for Sudden Infant Death Syndrome (SIDS) has provided counseling and information to families whose babies have died suddenly and unexpectedly from SIDS and other causes. The Center also provides 24-hour crisis counseling, counseling provided by community-based bereavement counselors, and parent support group meetings. *Information: 617-414-7437*

Massachusetts Operation Stand Down for Homeless Veterans This two-day multi-service intervention in Boston is designed to address the problems of homelessness among military veterans. Homeless veterans have access to free food, clothing, health care, and psychiatric and social work services at this annual event. The Henry M. Goldman School of Dental Medicine offers dental screenings and oral health education to the many veterans in attendance. *Information: 617-638-5222*

Massachusetts State House Health Fair Sponsored by the Massachusetts Association of Health Plans and in partnership with Delta Dental of Massachusetts, the Henry M. Goldman School of Dental Medicine provides oral health information, demonstrations, and oral cancer screenings for all interested attendees. Oral health screenings are integrated with other health screenings including cholesterol, blood pressure, body mass index, bone density, and skin wellness. *Information: 617-638-5222*

Mattapan Community Health Center's Health Care Revival The Mattapan Community Health Center's annual event, Health Care Revival, provides up-to-date information on various health topics and community resources. At this event, Henry M. Goldman School of Dental Medicine faculty and students engage families in discussions on dental health behaviors including brushing, flossing, consuming a healthy non-cariogenic diet, and using preventive products such as fluoride, mouth guards, and sealants. *Information: 617-638-5222*

MetroWest School-Based Sealant Programs With generous support from the MetroWest Community Health Care Foundation, the Henry M. Goldman School of Dental Medicine provides an oral health education, screening, and sealant placement program for second graders in all eight public elementary schools in Framingham and all five public elementary schools in Natick. *Information: 617-638-5018*

Framingham Fluoride Program Funded by the MetroWest Community Health Care Foundation, oral screenings and fluoride varnish applications are given to preschoolers at the South Middlesex Opportunity Council (SMOC) Framingham Head Start and to kindergarten and first grade children at three public elementary schools in Framingham. In addition, dental health education workshops are held each year for the Framingham Head Start staff and parents. *Information: 617-638-5222*

Natick Fluoride Program This program, in conjunction with the MetroWest School-based Sealant Programs, provides dental screenings and fluoride applications to kindergarten and first grade children in the Town of Natick. *Information: 617-638-5018*

MGH Chelsea Summer Safety Fair The MGH Chelsea Health Center's Summer Safety Fair is an annual summer kick-off celebration that focuses on keeping children safe during the summer months. Children bring their bicycles for safety checks and receive free bike helmets. The Henry M. Goldman School of Dental Medicine offers information about the use of mouth guards and the importance of dental visits, and children are invited to come to the Chelsea School Dental Center. *Information: 617-638-5222*

Occupational Therapy Volunteer Programs Occupational therapy students at Boston University College of Health & Rehabilitation Sciences: Sargent College are involved with many volunteer activities, both through scheduled fieldwork placements and based on their individual initiatives. Each year, in the final semester of the academic program, students participate in the Group Leadership Experience, where they design and implement a weekly group, based on the identified needs of a community program. For example, student volunteers have worked directly with the Brookline Council on Aging promoting activity and wellness among senior citizens, and have provided a social skills group for pre-school students identified with developmental delays. Under the direction of faculty members, BU students volunteer in group programs for adults with Parkinson's disease, aphasia, and at group homes for adults with psychiatric disabilities. During the junior year, students volunteer in multiple settings at the Perkins School for the Blind. Many additional opportunities are available through their student organization, BUSOTA (BU Student Occupational Therapy Association), BU's Alternative Spring Break, and other relevant national and international volunteer programs. *Information: 617-638-2729*

Orchard Gardens/Smart Smiles Second Grade Field Trip Orchard Gardens K-8 School second graders participate in an annual spring field trip to the Henry M. Goldman School of Dental Medicine. Students enjoy a variety of hands-on activities in a health-fair type atmosphere with six dental stations. Additionally, some of the children receive sealants, dental cleanings, and fluoride applications, provided by dental students in the Dental Treatment Center on the sixth floor. The field trip finishes with a nutrition lesson and a healthy snack. *Information: 617-638-5222*

Outreach Core of the Superfund Basic Research Program Through the Department of Environmental Health at the School of Public Health, investigators participate in presentations, meetings, and mini-courses organized by participating community groups. A Community Advisory Committee provides feedback to the program on how the information is being used and understood, and what additional information a community needs regarding the Superfund, a federal law providing funds for cleaning up heavily polluted sites. Educational materials related to the program's work are distributed to appropriate community groups and health-care professionals. A major portion of the Outreach Core is an internship program aimed at high school and community college students from underserved communities to promote interest in careers related to environmental health sciences. *Information: 617-638-4620 or www.bu.edu/dbin/sph/research_centers/superfund.php*

Outreach Van Project The Outreach Van is a student-run community service project staffed by volunteers from Boston University Medical Center to provide health care to the medically underserved and homeless communities. Faculty and students go out one evening per week to East

Boston to conduct free screenings and distribute clothing and other basic necessities to approximately 20 to 30 people weekly during the colder months and 65 to 75 people weekly when the weather is warmer. The Henry M. Goldman School of Dental Medicine provides dental supplies for distribution to the many people served through this very beneficial outreach program.

Information: 617-872-7782

Parkinson's Disease Center Headquartered at the Boston University Medical Center since 1979, this program administers an information and referral center that responds to more than 3,000 telephone inquiries every year and augments the Movement Disorders Center of the Boston Medical Center for clinical services. *Information: 617-638-8466*

Public Health Education Week During Public Health Education Week, School of Public Health (SPH) students, with support from faculty and staff, conduct high school education programs in Boston Public Schools. SPH students speak with high school students about the relevance of public health in their everyday lives, health promotion, disease prevention, and health protection. *Information: 617-414-1402*

Research Science Institute Since 1994, the Henry M. Goldman School of Dental Medicine has been a participant in the Research Science Institute, a six-week summer program for high school students. Sponsored by the Center for Excellence in Education in collaboration with Massachusetts Institute of Technology, the students experience college-level classes and complete hands-on research guided by selected mentors at corporations, universities, and organizations. *Information: 617-638-5222*

Rosie's Place Wellness Fair Through a long-standing program with Rosie's Place, the Henry M. Goldman School of Dental Medicine enables the women there to receive free basic dental care. The annual Rosie's Place Wellness Fair provides an opportunity for the School to promote oral health to nearly 100 women by providing oral health information as well as toothbrushes and toothpaste. *Information: 617-638-5222*

Sargent College Clinical Centers (SCCC) The six clinical centers of Boston University's College of Health & Rehabilitation Sciences: Sargent College, are providing care and service to patients and clients throughout Greater Boston. Programs are professionally staffed and open to all. With several locations, SCCC provides an array of services, ranging from physical therapy and rehabilitation to athletic enhancement, nutrition, and fitness. The academically driven centers include the Vocational Rehabilitation Center, the Speech, Language & Hearing Center, and the Center for Neurological Rehabilitation. The professional staff consists of experienced clinicians and specialists, as well as practicing faculty members. *Information: 617-353-8383*

Sargent College Healthy Lifestyle Challenge This health-awareness program encourages incorporating healthful habits in everyday life. Open to members of the BU community and those beyond, participants are asked to follow a different set of lifestyle tips every two weeks by online communications. More than 1,500 people have enrolled in the program in the past three years. This Web-based program is available online at www.bu.edu/sargent/challenge. *Information: 617-353-7476*

Smart Smiles in Boston Public Schools As part of a collaborative effort with Tufts University School of Dental Medicine, the Commonwealth Mobile Oral Health Services, and the Boston Public Schools, the Boston University Henry M. Goldman School of Dental Medicine, through Smart Smiles in Boston

Public Schools, provides dental health education to more than 2,600 children annually and sealant placement to over 1,100 second grade children in 38 Boston public elementary schools. *Information: 617-638-5222*

Smart Smiles Sealant Coordination Center Boston University Henry M. Goldman School of Dental Medicine serves as the Sealant Coordination Center (SCC) for Smart Smiles in Boston Public Schools. The SCC provides the infrastructure to develop and evaluate this school-based oral health sealant and referral program. *Information: 617-638-5222*

Student Dental Health Plan The Henry M. Goldman School of Dental Medicine was the first dental school in the country to offer a dental plan for students at local colleges and universities, typically an underserved population. For a nominal annual fee, students and spouses receive preventive care and basic restorative and emergency services. Twenty-three local higher education institutions are members of the plan, including Boston University, Emerson College, Northeastern University, Suffolk University, and the University of Massachusetts. *Information: 617-638-4741*

Summer Adventures in Learning Health Initiative (SAIL-HI) The Henry M. Goldman School of Dental Medicine partners with the Woodrow Wilson Community School in Framingham to implement SAIL-HI, a four-week summer camp for 100 disadvantaged elementary school children. At least one day each week is devoted to oral health education and includes interactive oral health presentations as well as dental screenings and referrals. *Information: 617-638-5222*

Survivors of Torture Oral Health Program Since 1999, in collaboration with the Boston Center for Refugee Health and Human Rights (BCRHHR), the Henry M. Goldman School of Dental Medicine has assessed and addressed the oral health needs of torture survivors through the Survivors of Torture Oral Health Program. During this past year, over 50 people received oral health education, dental screenings and referrals, and dental home-care products through participation in this program. *Information: 617-638-5222*

University of Massachusetts, Harbor Point, Student Wellness Fair This annual health fair is carried out in collaboration with Health Services at the University of Massachusetts at Boston. The event offers students a variety of health and wellness materials, including dental health information, provided by the Henry M. Goldman School of Dental Medicine faculty and students using flipcharts, educational boards, dental hygiene samples, and printed information of interest to students. *Information: 617-638-5222*

Urban Environmental Health Initiative The School of Public Health's Department of Environmental Health has built a partnership with its neighboring communities and with public health and environmental protection agencies under the aegis of the Urban Environmental Health Initiative. In this program, students benefit from the experiences of these partners and apply the lessons learned from thousands of hours of working to improve the lives and health of people in cities. It builds upon presentations on focused topics and readings of background literature to give students an understanding of how the built environment interacts with other public health issues. Teams of students then use geographic information systems (GIS) to analyze an issue, illustrate how it affects urban communities, and develop solutions to reduce environmental burdens. In addition, students volunteer hundreds of hours in the community, designing programs and providing information on environmental health. *Information: 617-638-4620*

Wollaston Child Care Center — Oral Health Education Preschool children participate in enjoyable and interactive oral health activities and receive free oral hygiene supplies at this annual oral health educational session held during dental health month. *Information: 617-638-5222*

Social Action Outreach Programs and Services

Alternative Spring Breaks (ASB) Each year, hundreds of volunteers spend Spring Break doing work through the Community Service Center's Alternative Spring Breaks program. The goal of ASB is to provide the student body with a unique and memorable service opportunity as a substitute to the conventional Spring Break. ASB trips promote community service, develop leadership skills, and create strong bonds among participants. The trips allow volunteers to visit other parts of the country and learn about various social issues ranging from affordable housing and public education to HIV/AIDS awareness and the environment. *Information: 617-353-4710*

Children's Theatre Volunteers from the Community Services Center create and perform original variety shows for young children in hospitals and shelters. Performances range from storybook adaptations to improvisation, and the shows feature lessons and morals relevant to today's youth. In addition to performing for children, volunteers also provide theater workshops for local elementary and middle school students who otherwise would not be exposed to the performing arts. In 2008, 93 volunteers completed 2,739 hours of service. *Information: 617-353-4710*

First-Year Student Outreach Project (FYSOP) The First-Year Student Outreach Project (FYSOP) offers incoming Boston University students a unique opportunity to get settled in their new community by performing a week of service before classes even begin. FYSOP volunteers participate in program orientation, a full day of education, and three full days of direct service in one of eight issue areas: Children, Disabilities, Elders, Environment, Gender Focus, HIV/AIDS Awareness, Homelessness & Housing, and Hunger. Each year, FYSOP volunteers complete more than 10,000 hours of service in the Greater Boston area. These hours have an immediate impact on the community and give volunteers the opportunity to learn and create new friendships through service. Participants are able to make new and long-lasting friendships through their interactions with 136 sophomore, junior, and senior Staff Leaders and 500 new students who are dedicated to service. In the summer of 2008, 770 volunteers completed 16,960 hours of service. *Information: 617-353-4710*

Holiday Reading Program In conjunction with College for Every Student, Boston University has been sending varsity and club team student-athletes into public elementary schools since 1998 to bring kids holiday cheer and carefully chosen books. Athletes read to the students and discuss passages, providing not only a chance to improve reading skills but valuable role modeling. This year, 285 varsity and club student-athletes took part before their finals got under way, helping to persuade 1,000 grade school youth that reading is cool. *Information: 617-358-5175*

Making Music Volunteers provide instrumental music lessons to children at the Farragut Elementary School in Boston's Mission Hill and the Garfield School in Brighton. The program year ends with a celebratory recital held on the Boston University campus, where the Making Music students and volunteers perform selected pieces they learned during the year. In 2008, 107 volunteers completed 3,478 hours of service. *Information: 617-353-4710*

Multicultural Advancement Partnership Program (MAPP) Volunteers work with refugees, immigrants, and international students to improve their understanding of English and their

experience in America. Special emphasis is placed on literacy, English as a Second Language, and job training skills. MAPP volunteers work in community centers throughout the Boston area and are paired with conversation partners through the Center for English Language & Orientation Programs (CELOP). In 2008, 177 volunteers completed 3,848 hours of service. *Information: 617-353-4710*

OXFAM Fast for a World Harvest This student fast program to raise funds to help alleviate global poverty and hunger was first implemented at Boston University in 1988. Boston University consistently raises more money for this program than any other college or university in the Boston area. All money raised goes to OXFAM, a nonprofit organization focused on spreading social justice and economic equality across impoverished regions of the world. In fall 2007, 1,500 students donated 3,000 meals raising \$7,500. *Information: 617-353-4710*

Project Hope Project Hope seeks to show compassion, gain understanding, and educate others about HIV/AIDS. BU volunteers work with organizations such as the AIDS Action Committee, the Boston Living Center, Community Servings, and many others. In 2008, 150 volunteers completed 2,698 hours of service. *Information: 617-353-4710*

Siblings Program Volunteers are paired one-on-one in a mentoring relationship with students from the Garfield and Winship Schools in Brighton. The Boston University volunteers act as role models, provide companionship, and share cultural, recreational, and educational experiences with the children. In 2008, 147 volunteers completed 7,644 hours of service. *Information: 617-353-4710*

Student Food Rescue (SFR) Volunteers salvage and transport more than 3,500 pounds of surplus food weekly to area food programs. The food is donated by local restaurants, supermarkets, bakeries, and dining halls and is provided to area meal programs, food pantries, and shelters. In June 2005, SFR was named the “most successful student-run food salvage program in the nation” by the National Student Campaign Against Hunger and Homelessness. In 2008, 195 volunteers completed 4,974 hours of service. *Information: 617-353-4710*

Student Studio Through this project, BU student volunteers bring visual arts education to area schools that lack art programs. Student Studio volunteers design lesson plans around an artist, movement, or technique and develop a fun, hands-on project for the students. Student Studio partners with the Winship Elementary School in Brighton, Mason Elementary in Roxbury, St. Stephen’s School in Boston, and Thomas Gardener Elementary in Allston to provide students with the opportunity to express their creativity and create individual art pieces. In 2008, 88 volunteers completed 2,288 hours of service. *Information: 617-353-4710*

12-Step Groups Throughout the year, Boston University’s Marsh Chapel provides space and support for these self-help groups. Several Alcoholics Anonymous groups hold weekly meetings at the Chapel throughout the year. *Information: 617-353-3560*

United Way In addition to serving on advisory boards and volunteering with many United Way agencies, the employees of Boston University generously support the United Way of Massachusetts Bay. In the 2008 campaign, faculty and staff contributed more than \$176,000 to the United Way. *Information: 617-358-UWAY*

Voices from the Middle (VFM) Voices from the Middle is a collaborative theatre project between the Boston University Community Service Center and Donald McKay Elementary School in East Boston.

During this yearlong program, volunteers guide a middle-school class through the process of producing, writing, and performing a topical play that is relevant to the challenges America's young people face. Participants are exposed to the performing arts, filling the void left by dwindling theatre programs in the public school system, and, ultimately, empowering the social consciousness of urban youth through the art of self-expression. In 2008, 11 volunteers completed 501 hours of service. *Information: 617-353-4710*

Wizards Boston University volunteers introduce the wonders of science to elementary school children with a different hands-on experience each week. Through applied science, volunteers provide an often-missed link between the classroom and the real world. In 2008, 81 volunteers completed 2,106 hours of service. *Information: 617-353-4710*

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APPENDIX 1

RESEARCH METHODOLOGY

RESEARCH METHODOLOGY

INTRODUCTION

As described by the U.S. Department of Commerce, an organization's economic impact on a region results from a complex combination of inter-industry relationships involving both corporate and consumer spending. Contributing to the total economic impact are the salaries that the organization pays to its employees and the dollars that it spends to purchase goods and services from local vendors. For academic institutions such as Boston University, the economic impact also includes expenditures made by its students and their out-of-state visitors.

As described below, an organization's direct expenditures generate two types of additional indirect spending: *Corporate Spending* by the vendors who supply (sell) goods and services to the organization, and *Consumer Spending* by the organization's own employees, and the employees of its suppliers. In turn, this spending also generates jobs and employment opportunities in the region.

This appendix describes the components of Boston University's direct spending, how the expenditure data were collected, and how the expenditures were allocated by region. It also describes the U.S. Department of Commerce's Corporate and Consumer Spending Model, and how the Department's "regional input-output multipliers" are used to compute both the indirect spending and the additional employment opportunities that result from an institution's spending.

DIRECT SPENDING

The spending and employment data used in this report include the University's subsidiary corporations, 660 Corporation, Hotel Commonwealth, and the employees hired by four management firms to provide the University's food services (ARAMARK and SportServices) and parking services (Curbside Parking and Standard Parking). The 660 Corporation operates various retail stores such as Campus Convenience.

Direct spending is structured into the five major categories described below.

1. Number of Employees and Employee Salaries

Boston University's employee and salary statistics are provided by BU Human Resources and are generated from the University's Payroll System. Anyone who was employed in December of the fiscal year is included. The corresponding data for the subsidiary corporations and management firms (hereafter referred to as the "affiliated organizations") are provided by each organization. The University's employee and salary statistics are computed by region, based on the home address of each employee. External professional, consulting, publishing, and lecture fees earned by faculty and staff are not included.

2. Employee Benefits

Total University expenditures for each employee benefit program are provided by BU's General Accounting Office and by the affiliated organizations. These costs are allocated by region based on the employees' home addresses. In accordance with the Department of Commerce's Consumer Spending Model, employer-provided benefits are treated as employee compensation. If employees had to pay the total cost of their benefits, their

ability to purchase other goods and services would be reduced. The benefit programs included in this report are:

- FICA (Social Security and Medicare)
- Pensions
- Health and Dental Insurance
- Tuition Remission
- Workers' Compensation
- Unemployment Compensation
- Life Insurance
- Disability Insurance
- Other (Accidental Death, Miscellaneous, Employee Counseling, Supplemental Death, Short Term Disability, Retirement Death Benefit, Supplemental Retirement Payments, and Bookstore Discounts).

3. Purchased Goods and Services

University expenditures for goods and services are from reports produced from the Accounts Payable and General Ledger systems. The reports are divided into geographic regions based on vendor ZIP codes, and show the total dollars expensed in each object code to each vendor. Separate reports are provided for current funds (operating expenses) and for plant funds (capital expenditures). These reports show the Boston University Materials Codes (Commodity Codes) assigned by Purchasing Services to appropriate purchases. The University's affiliated organizations provide total-dollar expenditures by region and industry.

4. Number of Students and Student Spending

Institutional Research generates a report, based on official fall semester student enrollments, that shows the number of students by type of housing (dormitory-style residences, University-owned apartments, off-campus housing) within each region. Region is determined from the students' local addresses as recorded on the Registrar's Personal Data File. When a student's local address is not provided, the student's record is reviewed and the student is allocated to the appropriate region. The number of students reported by type of housing and region include both college-level and Boston University Academy students.

Boston University publishes a table titled *Estimated Academic and Living Expenses* to illustrate the expenses that students are likely to incur depending on the type of housing that they select (dormitory-style residences, University-owned apartments, off-campus housing). The estimated expenses for incidentals (books, transportation, and basic personal expense), room and board (for students who live off campus), and health insurance (for graduate and non-degree students who live off campus) are applied to the above student counts to estimate what students typically spend for essential goods and services that are not provided by the University. A survey conducted in the spring of 1997 by Institutional Research showed that student spending on entertainment and other non-essential items, such as health clubs, pets, cable television, and private dance and music lessons averages \$50 per student for each week that classes are offered (33 weeks during the academic year, 12 weeks during the summer). This amount is used to calculate discretionary spending by our students.

5. Visitor Spending

Spending by out-of-state family members and friends who visit Boston University students is estimated using data provided in a report by the Association of Independent Colleges and Universities in Massachusetts titled *The Economic Impact of Massachusetts Independent Higher Education, 1989-90 Academic Year*. The spending data in that report (adjusted for inflation) are used to compute an average annual visitor expenditure per FTE student. Spending is allocated by region based on the students' local addresses.

This report does not estimate spending by other out-of-state visitors who come to Boston University each year to attend Commencement, Alumni Weekend, professional and academic programs, athletic, cultural and social events, and class reunions. These visitors make considerable purchases, which include lodging, food, gasoline, parking, entertainment, and consumer goods.

INDIRECT SPENDING

The total economic impact of an organization is much greater than the sum of its direct expenditures. Using Boston University Materials Codes as a guide (see Purchased Goods and Services, on page 51), direct expenditures are aggregated into 60 industry codes as defined in the *U.S. Department of Commerce Bureau of Economic Analysis Regional Input-Output Modeling System*. The total for each of the industry types is multiplied by regional input-output multipliers in the model to obtain the level of indirect spending that is produced by the direct spending. The multipliers take into account specific inter-industry relationships, and the impact which the University has on corporate and consumer spending patterns in the region.

Indirect corporate spending includes:

1. the dollars which the University's suppliers spend in Massachusetts (including payroll) to produce the goods and services which the University purchases from them;
2. the dollars which our suppliers' suppliers spend in Massachusetts (including payroll) to produce the goods and services that our suppliers purchase from them;
3. the dollars which the suppliers of our suppliers' suppliers spend in Massachusetts (including payroll) to produce the goods and services that our suppliers' suppliers purchase from them;
4. this process continues back to the acquisition of raw materials used for the production of goods and services ultimately acquired by the University.

Consumer spending consists of the dollars that are spent in Massachusetts by University employees and the employees of all of the suppliers described above.

The multipliers used in this report were obtained from the U.S. Department of Commerce for three geographic regions: Suffolk County (used for the City of Boston), the Boston Metropolitan Area (all of the cities and towns in Suffolk, Norfolk, Middlesex, Essex, and Plymouth counties), and the Commonwealth of Massachusetts. The multipliers for each region (and the resulting calculations of indirect spending and employment) are cumulative, i.e., the Boston Metropolitan Area includes the City of Boston, and the Commonwealth of Massachusetts includes the Boston

Metropolitan Area. The more encompassing the region, the larger the multiplier because the spending of suppliers, and the suppliers of suppliers, and their suppliers, etc., has a cumulative effect.

Expenditures made outside of the region (to out-of-state employees and vendors) are considered to have no impact in Massachusetts and are excluded from this report.

EMPLOYMENT IMPACT

The U.S. Department of Commerce's model also provides Employment Multipliers for each of the 60 aggregate industries. These multipliers estimate the number of jobs required to produce \$1 million of each product. Employment Multipliers are applied to total direct expenditures in each industry to determine the total number of jobs created by Boston University's spending in the region.

A more detailed description of the *U.S. Department of Commerce Bureau of Economic Analysis Regional Input-Output Modeling System* follows.

**U.S. Department of Commerce
Bureau of Economic Analysis
Regional Input-Output Modeling System (RIMS II)**

Calculation of the total economic impact of direct expenditures must take into account specific inter-industry relationships within a region. These relationships largely determine how the regional economy responds to expenditures and changes in expenditures. Inter-industry relationships are factored into the calculation of total economic impact by using regional input and output multipliers provided by the Regional Input-Output Modeling System (RIMS II) of the U.S. Department of Commerce.

RIMS II is widely used by public and private sectors throughout the country. For example, the Department of Defense uses RIMS II to estimate the regional impacts of changes in defense expenditures, and the Florida Department of Transportation uses RIMS II to estimate the regional impacts of constructing and operating transportation facilities.

Following is an overview of how these multipliers are derived. Additional information is available from the U.S. Department of Commerce, Bureau of Economic Analysis, BE-61, Washington, DC 20230, 202-606-5343. The Bureau's website is located at www.bea.gov.

- 1) The Bureau of Economic Analysis [BEA] categorizes all national production into 471 detailed industries and summarizes these details into 60 aggregate industries.
- 2) National surveys are conducted to determine how much of the output (i.e., product) of each industry is used in the production of each industry. For example, a survey of industry X would ask "How much (in \$) of the output of industries A, B, C, D, etc. is used to produce a dollar's worth of the product of industry X?" These input amounts are the direct requirements for the production of \$1 of output by industry X. The data from these surveys are compiled on national input-output tables maintained by the BEA.
- 3) The BEA determines how much the demand for each product is caused by the earnings paid to workers in each industry. The Total Requirements Coefficients for the production of \$1 of product X include estimates of the increase in demand for product X which is caused by earnings paid to employees of industry X as well as each of its supplying industries. Because these coefficients are dollar multiples of the initial dollar spent to produce a product, they are referred to as Output Multipliers.
- 4) The BEA also compiles wage and salary data for every county in the nation including the ratio of jobs to earnings in each region. This database is used to adjust the BEA's national input-output table to reflect each region's industrial structure and trading patterns. It is also used to determine Employment Multipliers.
- 5) Employment Multipliers estimate the number of jobs required in each industry which contributes to the production of \$1 million of each product. For example, for the production of \$1 million of product X, how many jobs are required in industry X as well as in each of its supplier industries?

APPENDIX 2

BOSTON UNIVERSITY EMPLOYEES LIVING IN MASSACHUSETTS

BOSTON UNIVERSITY
 FY-2008 BOSTON UNIVERSITY EMPLOYMENT STATISTICS
 EMPLOYEES LIVING IN MASSACHUSETTS

	<u>City of Boston</u>	<u>Boston Metropolitan Area</u>	<u>Commonwealth of Massachusetts</u>
EMPLOYEES*			
Faculty and Staff	2,997	10,938	11,416
Casual Employees	<u>645</u>	<u>1,950</u>	<u>2,075</u>
	3,642	12,888	13,491
Student Employees	<u>8,644</u>	<u>10,987</u>	<u>10,987</u>
	12,286	23,875	24,478
660 Corporation	165	315	337
Hotel Commonwealth	210	372	399
Parking—Charles River Campus	15	48	48
Parking—Medical Campus	27	56	56
Food Services—ARAMARK	227	379	454
Food Services—SportServices	<u>24</u>	<u>52</u>	<u>56</u>
	668	1,222	1,350
Total Direct Excluding Students	4,310	14,110	14,841
TOTAL DIRECT EMPLOYMENT	12,954	25,097	25,828
INDIRECT EMPLOYMENT	<u>1,624</u>	<u>14,626</u>	<u>17,981</u>
TOTAL EMPLOYMENT	<u><u>14,578</u></u>	<u><u>39,723</u></u>	<u><u>43,809</u></u>

*See page 50 for further information on how employment statistics are derived.

APPENDIX 3

BOSTON UNIVERSITY'S ECONOMIC IMPACT ON THE TOWN OF BROOKLINE

BOSTON UNIVERSITY
 FY-2008 BOSTON UNIVERSITY EMPLOYMENT STATISTICS
 THE TOWN OF BROOKLINE

EMPLOYEES LIVING IN BROOKLINE*	
Faculty and Staff	873
Casual Employees	<u>126</u>
	999
Student Employees	<u>427</u>
	1,426
660 Corporation	3
Hotel Commonwealth	14
Parking—Charles River Campus	2
Parking—Medical Campus	0
Food Services—ARAMARK	13
Food Services—SportServices	<u>1</u>
	33
TOTAL DIRECT EMPLOYMENT	1,459
INDIRECT EMPLOYMENT	<u>437</u>
TOTAL EMPLOYMENT IMPACT	<u><u>1,896</u></u>

*See page 50 for further information on how employment statistics are derived.

DIRECT BOSTON UNIVERSITY SPENDING	
Salaries and Benefits	\$75,601,012
Purchased Goods and Services**	<u>\$28,128,851</u>
Total Salaries, Benefits, and Purchases	\$103,729,863
DIRECT STUDENT AND VISITOR SPENDING	
Student Spending	
Essential Living Expenses	\$36,049,822
Non-essential Purchases	<u>\$5,040,602</u>
	\$41,090,424
NUMBER OF STUDENTS LIVING IN BROOKLINE	2,868
Out-of-State Visitor Spending	\$3,878,225
Total Student and Visitor Spending	\$3,878,225
TOTAL DIRECT SPENDING	\$3,878,225
INDIRECT SPENDING	\$99,053,229
TOTAL ECONOMIC IMPACT	<u><u>\$247,751,741</u></u>

**Includes direct payments to the town for real estate property taxes (\$1,860,538), and licenses, permits, and other town fees (\$250,935).