
The Economic Impact of Drake University

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Executive Summary

In 2007, Drake University impacted the economy of Iowa by operations and purchases, through its payrolls and programs, through the local spending of its students and through the visitors it attracted to the central Iowa campus. As a result, the net impact that Drake University had on the Iowa economy in 2007 was:

- consumer spending of more than \$267 million
- total personal income of more than \$100 million
- Iowa jobs of more than 3,200, 45% of which were in the high-paying professional services sector
- hospitality visitors to the area of about 200,000, purchasing an estimated 49,000 hotel room stays and spending over \$14.5 million

Introduction

Drake University is a major contributor to the social and economic progress of the people of Iowa. It provides broad-based education and training to citizens throughout the State and has a reputation that draws students from across the country and around the world. It trains our youth for the jobs of tomorrow. It aids in the transfer of technology and knowledge from pure research to applied research to practical application.

In January 2008, Drake University commissioned the Strategic Economics Group to analyze the economic impact that the University has on the businesses and residents of Iowa. This analysis included information on the 2007 operations expenditures of the University, the impact of student expenditures on businesses in the central Iowa area, and the economic impact on the State of the educational, athletic and cultural programs of the University.

The project staff built an input-output model for each of the three areas of the University's economic activity identified above. The input-output model reflects the economic condition of the State and local area and is used to translate the initial spending in these three functional areas into the ultimate effects on the economy of the region.

In this report the project staff identifies the major economic and social impacts of Drake University on the lives and economic fortunes of the citizens of our State. Both qualitative and statistical impacts are

described with the qualitative impacts adding context and substance to the statistical analysis. Many positive factors defy quantification but are, nonetheless, important to our quality of life.

Methodology

This study is primarily concerned with analyzing the demand-side effects of the University on the State's economy. It investigates the University's effects on Iowa's economy based on the various goods and services that Drake University and its employees, students, and visitors purchase locally. These effects are quantifiable. Supply-side effects, or the effects that the University has on the Iowa economy based on the resources it offers to the State, are also important to evaluate, although more difficult to quantify. For example, the presence of dedicated centers of academic concentration and highly skilled labor attracts increased business activity to the State. Certainly the University's law, insurance and pharmacy programs serve as such business magnets. Any attempt to evaluate the economic benefits of a complex institution such as Drake University will reveal many other such benefits that are difficult, if not impossible, to measure.

By providing access to libraries, noncredit courses, continuing education opportunities and cultural and athletic events, Drake University enhances the quality of life for all citizens of the State. Such unmeasured benefits are likely to be even greater than the measured ones.

The methodology employed in this study involved examining data for three aspects of the activities of the University:

1. **University Operations** – including the management, classroom teaching, operations and maintenance of the service delivery
2. **Student Spending** – including the incidental consumption spending by students and their families at retail and service businesses in the area
3. **Drake Visitor Spending** – including university arts, theatre and cultural programs, academic support centers and institutes, athletic and extra-curricular events and activities, visits by family members and use of University facilities for community, civic and business functions

For each of these components and for the total, the project staff examined the impact on the area economies using three indicators:

1. **Output Production** – a measure of the increased value of all goods, services and labor within the service area because of this economic activity. At the state level, it represents the growth that occurred in the State Gross Domestic Product.

2. **Income** – the measure of increased personal income as a result of this economic activity.
3. **Jobs** – the estimate of job growth that this activity generated.

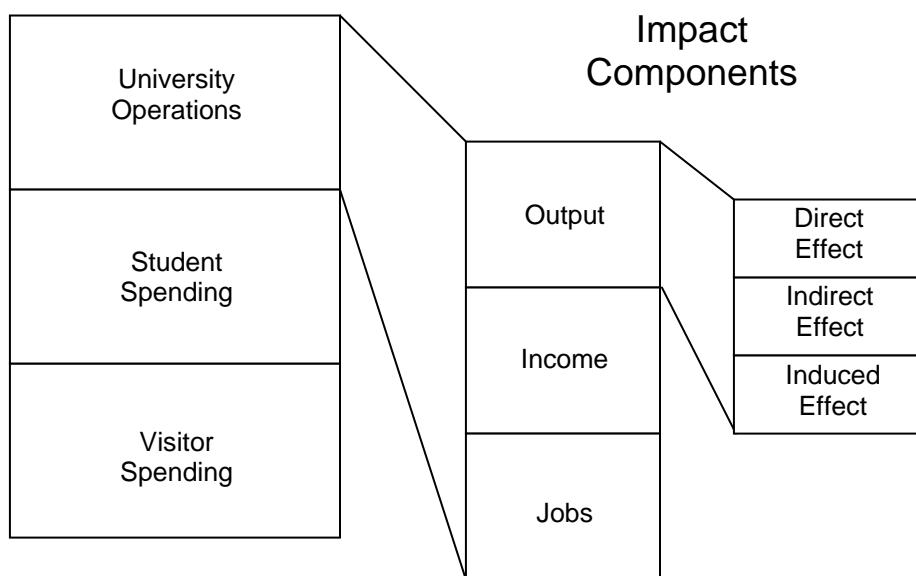
In each case – output, income and jobs – the total impact is the sum of the following three factors:

1. **Direct Effect** – the initial economic activity of the University that drives the subsequent effect on other sectors of the economy.
2. **Indirect Effect** – the resulting business-related effect on the vendors and employees of the University as a result of the direct effect.
3. **Induced Effect** – the consumer-related consequence of added payrolls and increased vendor purchases on other vendors in the surrounding community as a result of the direct effect and the indirect effect.

The project staff analyzed data for the 2007 calendar year and built economic impact models for each of the three economic areas (university operations, student spending and Drake visitor spending), by each of the three indicators (output, income and jobs), deriving the three impact components (direct, indirect and induced effects). The project staff modified the individual models for the State based on the Minnesota IMPLAN Group's input-output model to accommodate the wage levels and worker productivity levels in the various Iowa sectors (See Appendix F for a more detailed description of the models).

Figure 1. Structure of the Analysis

Data Inputs



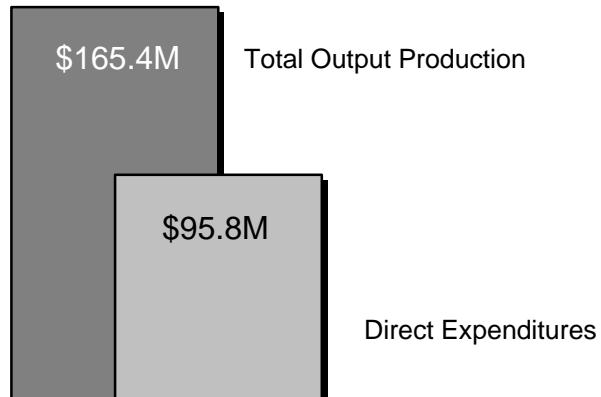
University Operations – Drake University as an Enterprise and an Employer

The most significant way that the University benefits Iowa's economy relates to the local expenditures it makes associated with the operating expenses of the University, which include faculty and staff payrolls, the purchasing of office supplies, motor vehicles and their maintenance, utilities, books and periodicals, custodial and repair services, and insurance, just to name a few. In addition, there are capital outlays for equipment, the construction of new buildings, and the improvement of existing ones.

Drake spends a large portion of its operating budget in the local economy through purchases of supplies, equipment, and services (including on-campus student housing and food services). According to University officials, Drake spent approximately \$95.8 million during 2007 on such expenditure categories. Of the \$47.4 million in vendor payments made in 2007, 60% (\$28.1 million) were made to Iowa individuals or businesses.

The local payrolls and purchases generated a total of \$165.4 million in output production (or economic activity) which, in turn, created 1,834 additional jobs within the State. These direct and direct plus secondary economic impacts are depicted in Chart 1.

Chart 1. Economic Impact of University Spending



In 2007, the business-related vendor spending (indirect effect) and consumer-related (induced effect) added another \$25.5 million and \$44.1 million, respectively. The total impact on spending was more than \$165 million. Table 1 summarizes the economic impact of business operations of Drake University.

Table 1. Drake University Operations Impact in 2007¹

Operations Spending	Output (\$1,000)	Income (\$1,000)	Jobs
Direct Effect	\$95,799	\$51,863	1,108
Indirect Effect	\$25,536	\$7,537	277
Induced Effect	\$44,092	\$13,220	449
Total Impact of Operations	\$165,427	\$72,620	1,834

Each job that exists either directly or indirectly as a result of Drake University's presence in the State contributes to Iowa's economic stability and growth. The actual number of people that Drake directly employed in 2007 was 1,108. Of this total, 257 were full-time faculty, 614 were full-time staff 107 part-time or temporary employees and 130 full-time and part-time contracted staff.

When people are employed by Drake University, their paychecks create a direct demand for additional goods and services in the local economy. The \$95.8 million of direct spending includes \$51.9 million of wage and salary income which supports \$20.7 million of secondary (indirect and induced) income which implies a 1.4 income multiplier. An average employment multiplier of 1.65 describes how many more demand-side jobs are created by Drake employment.

Drake University Students as Consumers

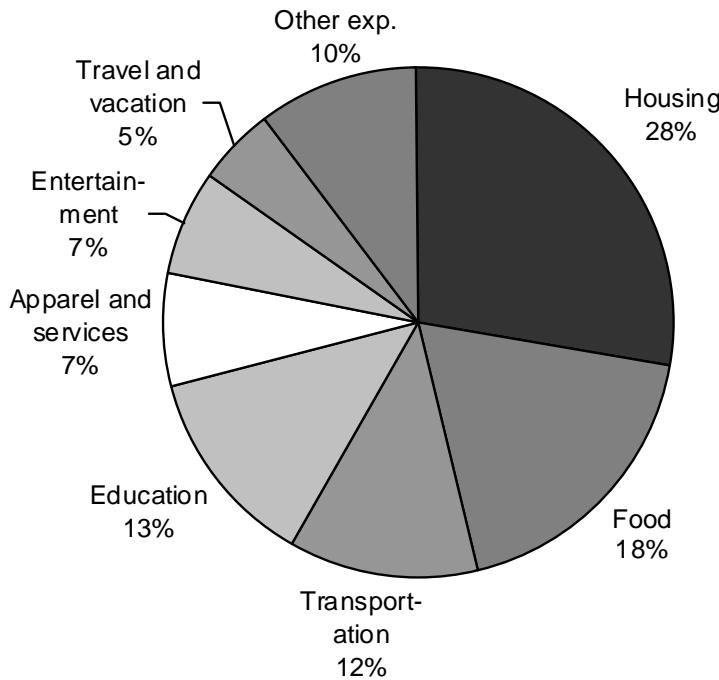
The headline read "Spending on Dorm Furnishings, Electronics Drives Back-to-College Sales Past \$47 Billion" in the August 14, 2007 National Retail Federation press release². College students are a lucrative market. According to the study authors Kathy Grannis and Scott Krugman, "Students living on-campus will outspend others by a wide margin as dorm dwellers are expected to spend \$1,529.45 on college merchandise, nearly double what students living at home will spend (\$774.86) and also substantially more than students living off-campus (\$1,161.98)."

Students make an important financial contribution to the local economy. During the 2007 academic year, approximately half of Drake University's 5,617 students came to the area from out-of-state. They brought purchasing power with them. In addition, the 3,035 in-state students, 1,474 of whom were commuters, represent a market also to the extent that were it not for Drake University they might attend college elsewhere.

¹ In data tables throughout this report, column or row detail may not sum to totals because of rounding.

² Kathy Grannis and Scott Krugman, "Spending on Dorm Furnishings, Electronics Drives Back-to-College Sales Past \$47 Billion." National Retail Federation, August 14, 2007.

Chart 2. U.S. College Student Spending Patterns, 2007



According to the Bureau of Labor Statistics Consumer Expenditure Survey³, the average college student in 2007 spent a total of more than \$13,350. Excluding the direct cost of education (\$13,350 - \$2,150 = \$11,203), about 32% of the remaining amount was spent on housing, 21% on food, 14% on transportation and about 8% each on apparel and entertainment. Using these norms, we estimate that the 5,617 Drake students spent about \$53.2 million on living expenses in 2007 (See Table 2).

Table 2. Average Drake Student Spending, 2007

Category	Yearly Student Expense	University Housing (\$Mil)	Off-Campus Housing (\$Mil)	Total (\$Mil)
Housing	\$3,560	\$0	\$11.6	\$11.6
Food	\$2,372	\$5.6	\$7.8	\$13.3
Transportation	\$1,535	\$3.6	\$5.0	\$8.6
Apparel and services	\$899	\$1.5	\$2.1	\$3.7
Entertainment	\$868	\$2.0	\$2.8	\$4.9
Travel and vacation	\$630	\$1.5	\$2.1	\$3.5
Other expenditures	\$1,339	\$3.1	\$4.4	\$7.5
Total expenditures	\$11,203	\$17.4	\$35.8	\$53.2

³ Geoffrey D. Paulin, "Expenditures of college-age students and nonstudents," Consumer Expenditure Surveys, U.S. Department of Labor, Bureau of Labor Statistics. Monthly Labor Review, July 2001. The project staff has inflation-adjusted the 1996 survey numbers to 2007 levels.

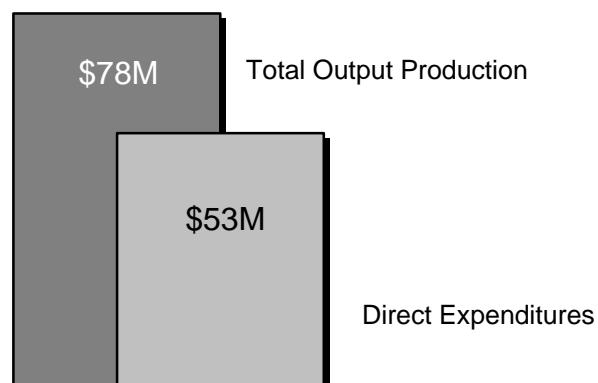
The out-of-state students, who accounted for 46% of the total in 2007 (2,582) might typically have purchased some of those items at home. For those students, our estimates excluded half of the apparel and shoe purchases that would most likely have been made in their home state. We also excluded the spending on housing for the 42% of the students who lived in university-owned residence halls during the year, because their spending has already been counted into the operations cost of the University.

The secondary effect of the \$53.2 million in direct student spending in the Iowa economy generated an estimated \$78 million in economic activity, \$20 million in income and an additional 975 jobs in the State (See Table 3).

Table 3. Student Spending Impact in 2007

Student Spending	Output (\$1,000)	Income (\$1,000)	Jobs
Direct Effect	\$53,204	\$12,610	736
Indirect Effect	\$12,827	\$3,880	114
Induced Effect	\$12,170	\$3,689	125
Total Impact	\$78,200	\$20,179	975

Chart 3. Economic Impact of Drake Student Spending



Direct Spending – Drake Visitors as a Market

Visitors to the campus are also contributors to the local economy and support the tourism and hospitality industry — an important sector of the local economy. Drake University, its sponsored events and its employees and students attracted more than 199,000 visitors to the campus in 2007. These

visitors spent money in the area on dining and lodging (an estimated 49,000 room-nights in central Iowa hotels).

In 2007, more than 5,200 prospective students and their families came to Des Moines to check out Drake University. Drake athletic events attracted over 90,000 non-student visitors during 2007. The Drake Relays and the State High School Track Meet attracted about 72,000 competitors, participants and visitors to the campus (Table 4). The campus and local business leaders have developed programs to encourage these campus visitors to stay at local hotels and spend money at local restaurants, shops, and entertainment venues.

Table 4. Drake Visitor Spending Estimates by Event, 2007⁴

Category	Visit Person-Days	Lodging Room-Nights	Ticket Revenue	Food and Lodging	Estimated Spending
Prospective Students	5,226	2,402	\$0	\$625,060	\$625,060
Freshman Orientation	2,020	2,020	\$0	\$333,300	\$333,300
Prospective Faculty	102	102	\$0	\$16,830	\$16,830
Parent/Family Visits	16,572	10,328	\$0	\$2,687,640	\$2,687,640
Athletic Events	90,000	0	\$1,400,000	\$2,250,000	\$3,650,000
Drake Relay	40,000	20,000	\$700,000	\$3,800,000	\$4,500,000
High School Track Meet	32,000	8,000	\$0	\$1,600,000	\$1,600,000
Commencement	13,600	6,252	\$0	\$1,126,001	\$1,126,001
Total Visits	199,520	49,104	\$2,100,000	\$12,438,831	\$14,538,831

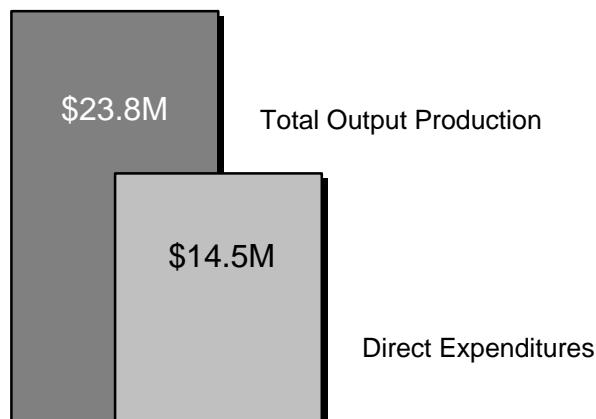
We estimate that the total spending by visitors in the local economy in 2007 was more than \$14.5 million from the seven major categories listed above. This \$14.5 million of direct spending generated secondary spending as the money continued to circulate in the local economy, resulting in an increase of \$23.9 million in economic activity, \$8.1 million in wage and salary income, and an additional 431 local jobs. Those jobs were mostly in the retail trade, entertainment, lodging, and dining establishments in the area economy. Table 5 and Chart 4 show the secondary effects of that spending.

Table 5. Drake Visitors Impact in 2007

Visitors Spending	Output (\$1,000)	Income (\$1,000)	Jobs
Direct Effect	\$14,539	\$5,362	340
Indirect Effect	\$4,387	\$1,265	41
Induced Effect	\$4,936	\$1,496	51
Total Impact	\$23,861	\$8,123	431

⁴ For a detailed analysis of the assumptions for these estimates see Appendix E.

Chart 4. Economic Impact of Drake Visitor Spending



Drake University is an Engine of Community Growth

Drake University exerts a direct impact on Iowa's economy through business counseling, research, technology transfer and more. Described below are key services that are delivered statewide.

John Pappajohn Entrepreneurial Institute

Headquartered in Drake's College of Business and Public Administration, the John Pappajohn Entrepreneurial Institute is one of five centers located throughout the State funded by gifts from Des Moines venture capitalist and philanthropist John Pappajohn. The Institute provides business counseling, education and research services to small businesses and promotes entrepreneurial growth in Iowa.

Kelley Insurance Center

Des Moines is one of the largest insurance carrier centers in the world, and Drake University's insurance programs provide the world-class educational support to that industry. The Kelley Insurance Center offers high quality programs for professional development and continuing education. These programs cover courses for development or qualification for professional designations, those that are tailored for insurance companies and agencies and those for specialized insurance schools or conferences.

Drake Law Centers

Drake University's law program interacts with the community through the internationally recognized

centers for agricultural law, constitutional law, intellectual property law, legislative practice and children's rights.

Drake's Agricultural Law Center provides opportunities to study how the legal system shapes our food system and influences the ability of the agricultural sector to produce, market and utilize agricultural products. The Constitutional Law Center is funded by the federal government to study the U.S. Constitution, its roots, formation, principles and development. The Intellectual Property Law Center promotes global, interdisciplinary understanding of intellectual property law and policy. The Center for Legislative Practice combines classroom study and hands-on experiences to help students understand law-making processes. The Middleton Center for Children's Rights pursues a broad agenda, advancing children's rights through the legal process and training, public information and public policy formulation.

Drake University Contributes to Cultural and Educational Growth

Through the arts, sports, education, and community service – Drake University keeps central Iowa involved, brings world-renowned attractions to the region and is a contributor to the cultural richness and the quality of life prized by local residents. Drake contributes to the cultural life of central Iowa through performances, exhibitions, films, recitals and lectures by Drake faculty, visiting lecturers, students, and others. Theater, art, music, and dance programs are offered to the public throughout the school year, and the Writers and Critics series presents top national and international speakers and entertainers.

With dozens of collaborative projects with public schools, Drake is a leader in the effort to improve K-12 education by reaching out and forming partnerships with local and regional schools. In response to the re-certification/license renewal requirements for teachers, counselors and school administrators, the Drake School of Education operates an extensive Continuing Education department, offering a wide variety of workshops, seminars and non-degree courses to students in live and electronic formats.

Drake University Gives a Head Start to Metro Area Students

Drake University Head Start, including Early Head Start, is the largest Head Start grantee in the state of Iowa and one of only a few university-based Head Start programs in the nation. Drake University Head Start serves children from birth to age three through the Early Head Start program and children ages three and four and their families through the 3 and 4-year-old preschool program.

The 3 and 4-year-old program currently serves more than 900 children and serves six central Iowa counties. The program offers a variety of services to participating children and their families, including nutrition and health. Literacy is a strong component of the program and Drake University provides family literacy services to Head Start children and their families.

Drake University Invests in Campus and Neighborhood Infrastructure

Since 2002, Drake has invested over \$65 million in the campus facilities and grounds. Improvements included extensive landscaping in the Helmick Commons portion of campus; renovation of over 30 classrooms; renovation of the Olmsted Center, the main floor of Olin Hall, Scott Chapel, the Drake Stadium and Cole Hall. In addition, by the fall of 2008, Drake will have renovated all of its nine residence halls within the last five years. Also during this same time period, Drake completely re-engineered its underground heating and cooling infrastructure, as well as the chillers and boilers in its central plant.

In addition, to campus construction, Drake has also invested heavily in the Drake neighborhood. During the past three years, Drake's Real Estate operation has renovated 54 residential homes in the neighborhood with a capital investment of approximately \$1.8 Million. Moreover, as the owner of the Drake Holiday Inn Express, Drake invested significant dollars in the Inn's recent modernization effort. Drake also reached out to local and national developers to spearhead and encourage the \$35 million mixed use project at 30th and University Avenue.

Summary

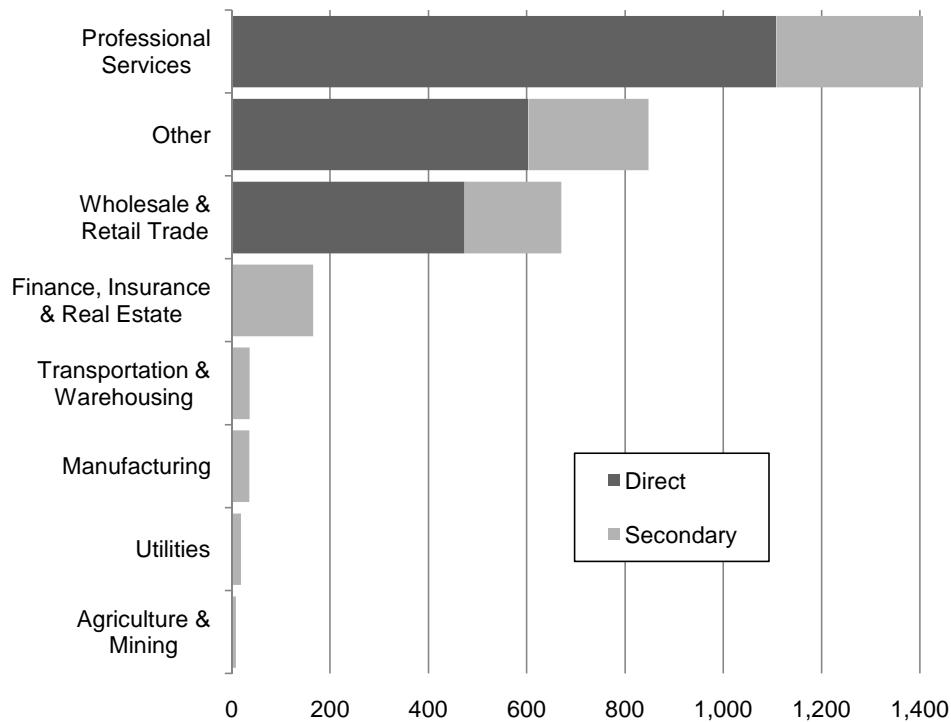
In this study we examined three ways in which Drake University interacts with the Iowa economy: through its operations and purchases, through the spending pattern of its students and through the spending of the visitors it attracts to central Iowa. In 2007, Drake University impacted more than \$267 million in economic activity in Iowa, increased the personal income levels by more than \$100 million and generated more than 3,200 additional jobs. Table 6 shows the total impact of those three components.

Table 6. Summary of Economic Impact, 2007

Component	Value of Output (\$1,000)	Value of Income (\$1,000)	Number of Jobs
University Operations	\$165,427	\$72,620	1,834
Student Spending	\$78,200	\$20,179	975
Visitors Spending	\$23,861	\$8,123	431
Total	\$267,489	\$100,921	3,240

As anticipated, about 45% of the jobs that Drake University affected in 2007 were in the professional services and 26% in the other service sectors. Jobs in the retail and wholesale trade sector accounted for another 21% of the total. Chart 5 illustrates the distribution of jobs in the Iowa economy that were affected by Drake University in 2007. More details can be found in the IMPLAN tables in Appendices A through D.

Chart 5. Jobs Impacted by Drake University



During 2007, the metropolitan Des Moines labor market employed 324,800 individuals in payroll jobs, of which 3,240 or about 1% can be attributed to the presence of Drake University.

Appendix A – IMPLAN Operations Tables

Table A1. Output Impact of University Operations (\$1,000s)

Sectors	Direct Effects	Business-Related Indirect Effects	Consumer-Related Induced Effects	Total Effects
Agriculture & Mining	\$0	\$56	\$516	\$572
Utilities	\$0	\$981	\$1,222	\$2,203
Manufacturing	\$0	\$1,746	\$4,387	\$6,133
Transportation & Warehousing	\$0	\$958	\$950	\$1,909
Wholesale & Retail Trade	\$0	\$1,124	\$8,136	\$9,260
Finance, Insurance & Real Estate	\$0	\$10,298	\$5,526	\$15,824
Professional Services	\$95,799	\$7,865	\$11,832	\$115,496
Other	\$0	\$2,508	\$11,523	\$14,031
Total	\$95,799	\$25,536	\$44,092	\$165,427

Table A2. Income Impact of University Operations (\$1,000s)

Sectors	Direct Impact	Business-Related Indirect Impact	Consumer-Related Induced Impact	Total Impact
Agriculture & Mining	\$0	\$10	\$63	\$73
Utilities	\$0	\$312	\$310	\$622
Manufacturing	\$0	\$396	\$649	\$1,045
Transportation & Warehousing	\$0	\$490	\$408	\$898
Wholesale & Retail Trade	\$0	\$429	\$3,180	\$3,608
Finance, Insurance & Real Estate	\$0	\$2,055	\$1,401	\$3,456
Professional Services	\$51,863	\$2,858	\$5,301	\$60,022
Other	\$0	\$987	\$1,909	\$2,896
Total	\$51,863	\$7,537	\$13,220	\$72,620

Table A3. Jobs Impact of University Operations

Sectors	Direct Impact	Business-Related Indirect Impact	Consumer-Related Induced Impact	Total Impact
Agriculture & Mining	0	1	3	4
Utilities	0	6	5	11
Manufacturing	0	8	12	20
Transportation & Warehousing	0	12	10	22
Wholesale & Retail Trade	0	10	122	132
Finance, Insurance & Real Estate	0	91	36	126
Professional Services	1,108	100	147	1,354
Other	0	50	116	166
Total	1,108	277	449	1,834

Appendix B – IMPLAN Student Spending Tables

Table B1. Output Impact of Drake Student Spending (1,000s)

Sectors	Goods, Services and Labor Direct Impact	Business- Related Indirect Impact	Consumer- Related Induced Impact	Total Impact
Agriculture & Mining	\$0	\$369	\$144	\$513
Utilities	\$0	\$786	\$341	\$1,127
Manufacturing	\$0	\$2,317	\$1,223	\$3,540
Transportation & Warehousing	\$0	\$666	\$265	\$931
Wholesale & Retail Trade	\$22,928	\$1,162	\$2,275	\$26,364
Finance, Insurance & Real Estate	\$0	\$2,883	\$1,542	\$4,425
Professional Services	\$0	\$3,527	\$3,167	\$6,694
Other	\$30,276	\$1,117	\$3,213	\$34,607
Total	\$53,204	\$12,827	\$12,170	\$78,200

Table B2. Income Impact of Drake Student Spending (\$1,000s)

Sectors	Direct Impact	Business- Related Indirect Impact	Consumer- Related Induced Impact	Total Impact
Agriculture & Mining	\$0	\$39	\$18	\$56
Utilities	\$0	\$225	\$87	\$311
Manufacturing	\$0	\$359	\$181	\$541
Transportation & Warehousing	\$0	\$327	\$114	\$441
Wholesale & Retail Trade	\$8,746	\$447	\$889	\$10,081
Finance, Insurance & Real Estate	\$0	\$699	\$391	\$1,090
Professional Services	\$0	\$1,375	\$1,478	\$2,853
Other	\$3,864	\$409	\$532	\$4,806
Total	\$12,610	\$3,880	\$3,689	\$20,179

Table B3. Jobs Impact of Drake Student Spending

Sectors	Direct Impact	Business- Related Indirect Impact	Consumer- Related Induced Impact	Total Impact
Agriculture & Mining	0	2	1	3
Utilities	0	4	1	5
Manufacturing	0	8	3	11
Transportation & Warehousing	0	8	3	11
Wholesale & Retail Trade	436	13	34	483
Finance, Insurance & Real Estate	0	20	10	30
Professional Services	0	37	41	78
Other	300	22	32	354
Total	736	114	125	975

Appendix C – IMPLAN Visitor Spending Tables

Table C1. Output Impact of Drake Visitor Spending (\$1,000s)

Sectors	Direct Impact	Business-Related Indirect Impact	Consumer-Related Induced Impact	Total Impact
Agriculture & Mining	\$0	\$166	\$58	\$225
Utilities	\$0	\$323	\$138	\$461
Manufacturing	\$0	\$908	\$496	\$1,405
Transportation & Warehousing	\$0	\$209	\$108	\$317
Wholesale & Retail Trade	\$2,051	\$389	\$923	\$3,362
Finance, Insurance & Real Estate	\$0	\$738	\$625	\$1,364
Professional Services	\$0	\$1,145	\$1,285	\$2,429
Other	\$12,488	\$508	\$1,303	\$14,299
Total	\$14,539	\$4,387	\$4,936	\$23,861

Table C2. Income Impact of Drake Visitor Spending (\$1,000s)

Sectors	Direct Impact	Business-Related Indirect Impact	Consumer-Related Induced Impact	Total Impact
Agriculture & Mining	\$0	\$17	\$7	\$24
Utilities	\$0	\$93	\$35	\$128
Manufacturing	\$0	\$131	\$73	\$205
Transportation & Warehousing	\$0	\$99	\$46	\$145
Wholesale & Retail Trade	\$740	\$149	\$360	\$1,250
Finance, Insurance & Real Estate	\$0	\$165	\$159	\$323
Professional Services	\$0	\$414	\$599	\$1,014
Other	\$4,622	\$197	\$216	\$5,034
Total	\$5,362	\$1,265	\$1,496	\$8,123

Table C3. Jobs Impact of Drake Visitor Spending

Sectors	Direct Impact	Business-Related Indirect Impact	Consumer-Related Induced Impact	Total Impact
Agriculture & Mining	0	1	0	1
Utilities	0	2	1	2
Manufacturing	0	3	1	4
Transportation & Warehousing	0	2	1	4
Wholesale & Retail Trade	37	4	14	54
Finance, Insurance & Real Estate	0	5	4	9
Professional Services	0	11	17	28
Other	303	13	13	328
Total	340	41	51	431

Appendix D – IMPLAN Total Impact Tables

Table D1. Total Drake University Output Impact (\$1,000s)

Sectors	Direct Impact	Business-Related Indirect Impact	Consumer-Related Induced Impact	Total Impact
Agriculture & Mining	\$0	\$591	\$718	\$1,309
Utilities	\$0	\$2,090	\$1,701	\$3,792
Manufacturing	\$0	\$4,971	\$6,107	\$11,077
Transportation & Warehousing	\$0	\$1,833	\$1,323	\$3,156
Wholesale & Retail Trade	\$24,979	\$2,675	\$11,334	\$38,987
Finance, Insurance & Real Estate	\$0	\$13,919	\$7,693	\$21,612
Professional Services	\$95,799	\$12,536	\$16,283	\$124,619
Other	\$42,765	\$4,134	\$16,039	\$62,937
Total	\$163,543	\$42,749	\$61,197	\$267,489

Table D2. Total Drake University Income Impact (\$1,000s)

Sectors	Direct Impact	Business-Related Indirect Impact	Consumer-Related Induced Impact	Total Impact
Agriculture & Mining	\$0	\$65	\$88	\$153
Utilities	\$0	\$630	\$432	\$1,062
Manufacturing	\$0	\$886	\$904	\$1,790
Transportation & Warehousing	\$0	\$916	\$568	\$1,484
Wholesale & Retail Trade	\$9,486	\$1,025	\$4,429	\$14,939
Finance, Insurance & Real Estate	\$0	\$2,919	\$1,950	\$4,869
Professional Services	\$51,863	\$4,648	\$7,378	\$63,888
Other	\$8,486	\$1,593	\$2,657	\$12,736
Total	\$69,834	\$12,682	\$18,405	\$100,921

Table D3. Total Drake University Jobs Impact

Sectors	Direct Impact	Business-Related Indirect Impact	Consumer-Related Induced Impact	Total Impact
Agriculture & Mining	0	4	4	8
Utilities	0	12	6	18
Manufacturing	0	18	17	35
Transportation & Warehousing	0	23	14	36
Wholesale & Retail Trade	473	27	169	669
Finance, Insurance & Real Estate	0	116	50	165
Professional Services	1,108	148	204	1,460
Other	603	84	161	848
Total	2,183	431	625	3,240

Appendix E – Visitor Spending Assumptions

Table 4. Drake Visitor Spending Estimates by Event, 2007

Category	Visit Person-Days	Lodging Room-Nights	Ticket Revenue	Food and Lodging	Estimated Spending
Prospective Students	5,226	2,402	\$0	\$625,060	\$625,060
Freshman Orientation	2,020	2,020	\$0	\$333,300	\$333,300
Prospective Faculty	102	102	\$0	\$16,830	\$16,830
Parent/Family Visits	16,572	10,328	\$0	\$2,687,640	\$2,687,640
Athletic Events	90,000	0	\$1,400,000	\$2,250,000	\$3,650,000
Drake Relay	40,000	20,000	\$700,000	\$3,800,000	\$4,500,000
High School Track Meet	32,000	8,000	\$0	\$1,600,000	\$1,600,000
Commencement	13,600	6,252	\$0	\$1,126,001	\$1,126,001
Total Visits	199,520	49,104	\$2,100,000	\$12,438,831	\$14,538,831

Table 4, as presented earlier on page 8, is based on the following assumptions. Lodging room rates in the area, including taxes, were approximately \$100 per night. We estimated a modest allowance for dining costs of \$40 for three meals on the first day and \$25 per person for breakfast and lunch on the second visit day. Table E2 shows these spending assumptions.

Table E2. Estimates for Visitor Spending Assumptions

Spending Categories	Overnight 1-Person	Overnight 2-Persons	Day Trip 2-Persons
Lodging	\$100	\$100	\$0
Meals day 1	\$40	\$80	\$50
Meals day 2	\$25	\$50	\$0
Totals	\$165	\$230	\$50

Table E3 shows the metrics which we used to estimate the number of student-based visitors. In 2007, Drake University had an enrollment of 5,617, 26% of whom were commuters, 28% were in-state non-commuters and 46% were out-of-state residents. We assumed that prospective students and graduates (and thus their commencement guests) also conformed to these same shares.

Table E3. Metrics for Visitor Spending Assumptions

Student Category	2007 Students	Student Share	Prospective Students	Graduation Guests
Commuters	1,474	26%	1,372	3,569
In-State, Non-Commuters	1,561	28%	1,452	3,779
Out-of-State	2,582	46%	2,402	6,252
Total	5,617	100%	5,226	13,600

The decision rule we followed was that students, prospective students and commencement guests from out-of-state would spend an overnight during their visit while those in-state non-commuters would make a day trip and commuters would not spend anything extra. Table E4 identifies the specific assumptions used for each category.

Table E4. Individual Spending Assumptions

Category	Notes
Prospective Students	Assumes one 2-person overnight visit for each out-of-state prospective student (2,402) and a 2-person day visit for each in-state non-commuter prospective (1,452).
Freshman Orientation	Assumes one 1-person overnight visit for each incoming freshman (2,020).
Prospective Faculty	Assumes one 1-person overnight visit for each prospective faculty member (102).
Parent/Family Visits	Assumes four campus visits consisting of four 2-person overnight visits for each out-of-state student (2,582) and four 2-person day visits for each in-state non-commuter student (1,561).
Athletic Events	Assumes 90,000 paid ticket sales to individuals that will eat one meal in the community.
Drake Relay	Assumes 20,000 attendees with one 1-person overnight visit and 20,000 with one day trip visit.
Boys and Girls State Track Meet	Assumes 32,000 visitors over the three day period. 25% spend one 2- person overnight, two meals per day.
Commencement	Assumes 13,600 individuals, 46% representing the out-state share of the graduates with 1-person overnight stays and 28% representing the in-state share of the graduates with a 1- person meal only.

These seven categories cover the major groups of campus visitors. The research staff could not account for every Drake visitor who impacted the economy of Central Iowa and thus our analysis understates their economic impact.

Appendix F - Documentation

About the IMPLAN Input-Output Model

The traditional indicators which economists use for measuring the economic importance of an activity include the size of its workforce and payroll, its capital investment and its local purchase of goods and services. Economists call these the 'direct expenditures' or 'direct effects'.

Direct effects refer to the operational characteristics (employment, payroll, sales) of the activities that we studied. Indirect effects measure the value of supplies and services that were purchased directly by the University from businesses and firms within the region. Induced effects occurred when workers in the direct and indirect industries spent their earnings on goods and services from other vendors within the region. Induced effects are also often called 'household effects'. The total economic impact is the aggregate of the direct, indirect, and induced effects. It is the total effect on the economy of transactions that are attributable to the direct economic activity of Drake University.

But the workers and the vendors who receive those direct expenditures don't bury them in a mattress. They will spend some of the money, save some of it and thus begins the journey by which the dollars travel through many hands before they finally leave the economic region. Economists call this phenomenon the 'multiplier effect'. The multiplier factor is calculated by dividing the sum of the direct, indirect and induced effects by the direct effect.

The multiplier effect for any economy or industry is examined using an 'input-output analysis'. The tool was devised by the 1973 Nobel Prize winning economist Wassily Leontief. It uses a matrix that measures inter-industry relations in an economy, and shows how the output of one industry becomes the input for another. The most widely used regional input-output economic impact tool is the IMPLAN model developed and distributed by Minnesota IMPLAN Group, Inc. (MIG). According to MIG, the model is currently in use by more than 1,000 public and private institutions.

The research staff for this study employed the latest version of the IMPLAN model to determine the total impact of the direct expenditures made by Drake University in 2007. The total impact includes the direct, indirect and induced economic effects.

The research team started by developing the spending profile of the University, as identified in its operating budget. The team used the University's total cost of service delivery as the direct effect variable for the modeling of output, total employment as the direct effect variable for the modeling of jobs and total payroll as the direct effect variable for the modeling of income.

In addition to the direct employment and payroll effects, the overall operations of the University generate secondary impacts within the community as services and supplies are purchased and payroll dollars get spent in local businesses. The research staff applied the IMPLAN statewide regional economic input-output model, modified by staff at Iowa State University to determine the magnitude of these secondary impacts.

The results of this Input-Output analysis are presented in the various tables found throughout this report.

About the Research Team

Strategic Economics Group has been serving businesses and government in Iowa and the Midwest since 2001 as the region's only locally owned economic research consulting firm. In addition to both state and local governmental entities, our clients have included American Home Mortgage Corporation, Catholic Health Initiative, Chamber Alliance, Des Moines Area Community College, Federal Reserve Bank of Chicago, Greater Des Moines Partnership, Hubbell Realty, Iowa Area Development Group, Iowa Association for Business and Industry, Iowa Association of Electric Cooperatives, Iowa Farm Bureau Federation, Iowa Utility Association, Iowa Student Loan Liquidity Corporation, Mediacom Communications, Mid-American Energy, OpportunityIowa, Principal Financial, Project Destiny, U.S. Small Business Administration, West Metro Regional Airport Authority.

Harvey Siegelman is the President and Senior Economic Analyst with Strategic Economics Group. Prior to forming this research-based consulting firm, Siegelman had served for two decades as the State Economist of Iowa and as an Adjunct professor of Economics at Drake University. Mr. Siegelman's specialty areas have included project management, economic development and strategic planning, state and local government finance and macroeconomic analysis.

Prior to his appointment as State Economist, he was a health planner, a labor market analyst and a professor of economics.

Daniel Otto is a Senior Economic Analyst with Strategic Economic Group and Professor of Economics at Iowa State University in Ames, Iowa. Professor Otto's specialty areas have included community and rural economic development, economic impact analysis, and government finance economics.

His recent activities have included economic development workshops, analysis of community facilities and services, income and employment, economic impact studies, and workshops on public policy issues for rural areas. He has also worked with developing data bases, economic forecasting, and input-output modeling activities.

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