

# THE ECONOMIC IMPACT OF DREXEL UNIVERSITY

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## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY</b> .....	<b>IV</b>
<b>1.0 INTRODUCTION</b> .....	<b>1</b>
<b>1.1 ABOUT DREXEL UNIVERSITY</b> .....	<b>1</b>
<b>1.2 SCOPE OF REPORT</b> .....	<b>2</b>
<b>2.0 ECONOMIC AND FISCAL IMPACTS FROM DIRECT SPENDING</b> .....	<b>4</b>
<b>2.1 DREXEL’S DIRECT EXPENDITURES AND THEIR ECONOMIC AND FISCAL IMPACT</b> .....	<b>4</b>
<b>2.2 ECONOMIC AND FISCAL IMPACT METHODOLOGY</b> .....	<b>5</b>
<b>3.0 ECONOMIC AND FISCAL IMPACT FROM CAPITAL INVESTMENTS</b> .....	<b>6</b>
<b>3.1 CAPITAL INVESTMENTS</b> .....	<b>6</b>
<b>3.2 ECONOMIC AND FISCAL IMPACT FROM PAST CAPITAL INVESTMENTS (2000-2011)</b> .....	<b>7</b>
<b>3.3 ECONOMIC AND FISCAL IMPACT FROM FUTURE CAPITAL INVESTMENTS (2012-2017)</b> .....	<b>8</b>
<b>3.4 ECONOMIC AND FISCAL IMPACT FROM LeBOW COLLEGE OF BUSINESS BUILDING (2011-2014)</b> .....	<b>10</b>
<b>3.5 ECONOMIC AND FISCAL IMPACT FROM CAPITAL INVESTMENTS (2000-2017)</b> .....	<b>11</b>
<b>4.0 ECONOMIC AND FISCAL IMPACT FROM OPERATING EXPENDITURES</b> .....	<b>14</b>
<b>4.1 OPERATING EXPENDITURES</b> .....	<b>14</b>
<b>4.2 ECONOMIC AND FISCAL IMPACTS FROM OPERATING EXPENDITURES</b> .....	<b>15</b>
<b>4.3 THE DIFFERENTIATING VALUE OF DREXEL’S OPERATING EXPENDITURES</b> .....	<b>18</b>
<b>5.0 STRATEGIC PARTNERSHIPS</b> .....	<b>19</b>
<b>5.1 PRIORITIZING RESEARCH EXCELLENCE</b> .....	<b>19</b>
<b>5.2 OTHER INNOVATIVE PARTNERSHIPS</b> .....	<b>21</b>
<b>6.0 ECONOMIC AND FISCAL IMPACT FROM WAGE PREMIUM</b> .....	<b>23</b>
<b>6.0 ECONOMIC AND FISCAL IMPACT FROM WAGE PREMIUM</b> .....	<b>23</b>
<b>6.1 DEFINING THE WAGE PREMIUM</b> .....	<b>23</b>
<b>6.2 WAGE PREMIUM ENJOYED BY DREXEL GRADUATES AND ALUMNI</b> .....	<b>24</b>
<b>6.3 ECONOMIC IMPACT FROM WAGE PREMIUM ENJOYED BY DREXEL GRADUATES AND ALUMNI</b> .....	<b>25</b>
<b>6.4 ECONOMIC IMPACT FROM ALUMNI GIVING</b> .....	<b>26</b>
<b>7.0 ECONOMIC AND FISCAL IMPACTS FROM ANCILLARY SPENDING</b> .....	<b>27</b>
<b>7.1 ANCILLARY SPENDING</b> .....	<b>27</b>

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7.2	ANCILLARY SPENDING BY STUDENTS .....	28
7.3	STUDENT VISITOR SPENDING .....	29
7.4	PROSPECTIVE STUDENT VISITOR SPENDING .....	31
7.5	DUCOM PATIENT AND VISITOR SPENDING .....	32
7.6	EVENT ATTENDEE AND PARTICIPANT SPENDING .....	33
7.7	ECONOMIC AND FISCAL IMPACTS FROM ANCILLARY SPENDING .....	35
8.0	GLOBAL LEADERSHIP AND LOCAL ENGAGEMENT .....	36
8.1	GLOBAL PERSPECTIVE, LOCAL IMPLEMENTATION .....	36
8.2	SERVICE AND SOLUTIONS IN ACTION .....	38
8.3	A COMMITMENT TO CONTINUED ENGAGEMENT .....	41
9.0	CONCLUSION.....	42
	APPENDIX A – ECONOMIC AND FISCAL IMPACT MODEL METHODOLOGY .....	1
A.1	ECONOMIC IMPACT MODEL.....	1
A.2	FISCAL IMPACT MODEL.....	2
	APPENDIX B – ADDITIONAL DETAIL ON ECONOMIC AND FISCAL IMPACT OF DREXEL UNIVERSITY’S CAPITAL INVESTMENTS .....	4
	APPENDIX C – GEOGRAPHIC DISTRIBUTION OF RESIDENTIAL LOCATION OF DREXEL UNIVERSITY EMPLOYMENT AND EARNINGS .....	7
	APPENDIX D – ADDITIONAL DETAIL ON ECONOMIC AND FISCAL IMPACT OF DREXEL UNIVERSITY’S OPERATING EXPENDITURES .....	8
	APPENDIX E – WAGE PREMIUM ASSOCIATED WITH HIGHER LEVELS OF EDUCATIONAL ATTAINMENT.....	16
	APPENDIX F – DREXEL UNIVERSITY MISSION STATEMENT .....	17
	<i>The Drexel University Strategic Plan: 2012-2017 - Presidential Update.....</i>	17
	APPENDIX G – DREXEL NEIGHBORHOOD INITIATIVE GOALS.....	19

## EXECUTIVE SUMMARY

Located in the University City District of Philadelphia, **Drexel University** is a comprehensive private research university with nearly 25,000 students. Drexel is comprised of 14 schools and colleges, including schools of law, medicine, engineering, and business. Offering over 100 academic programs and a unique co-operative education program, Drexel has emerged as a top-tier university.



This report seeks to articulate and estimate **the economic and fiscal impact Drexel has within the City of Philadelphia and the Commonwealth of Pennsylvania**. Because Drexel is an educational, research, and medical institution, it may not be often thought of in terms of the contribution it makes to the local and state economy and to local and state finances. However, Drexel makes significant economic and fiscal impacts in the following realms:

1. **Direct Spending – Capital investments and operating expenditures** induce significant spillover activity and generate high levels of employment within the City and Commonwealth and high amounts of tax revenues for the City and Commonwealth (see Tables ES.1 and Table ES.2).
2. **Human Capital Investment** – Educational resources and academic degrees Drexel confers represent **an investment in human capital** within the City and Commonwealth, and confer a **wage premium** on Drexel alumni that generates further economic stimulus.
3. **Ancillary Spending** – Drexel draws students, visitors of students, visiting prospective students, patients and their visitors, and event attendees and participants, whose **ancillary spending represents an importation of dollars** that support job creation and generate tax revenues within the City and Commonwealth (see Table ES.3).
4. **Local Engagement** – Drexel marshals the full weight of its many departments and programs to engage on **practical solutions to contemporary urban issues** throughout the City and to provide invaluable services and resources at the neighborhood level.

In short, Drexel's impact – on the City and Commonwealth economy and on state and local finances – is significant. Its impact comes from activities that are of utmost importance to the City and Commonwealth, and to the world at large: human capital investment, academic and medical research, civic engagement, and neighborhood economic development. Drexel has distinguished itself at both a local and global level in these areas, and its current trajectory suggests continued advancement, for the benefit of the City, Commonwealth, and beyond.

**Table ES.1 - Estimated Total Economic and Fiscal Impact Resulting from Capital Investments Completed or to be Completed by Drexel from 2000 to 2017 (in 2012 \$) – \$1.1 Billion of Economic Impact within the City and \$1.7 Billion of Economic Impact within the Commonwealth**

	Philadelphia	Pennsylvania
Total Output (\$M)	\$1,061	\$1,712
Total Employment	4,490	14,683
Total Tax Revenues (\$M)	\$10.2	\$37.7

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table ES.2 – Estimated Total Annual Economic and Fiscal Impact Resulting from Estimated FY 2011 Operating Expenditures by Drexel – \$1.2 Billion of Economic Impact within the City and \$1.7 Billion of Economic Impact within the Commonwealth Each Year**

	Philadelphia	Pennsylvania
Total Output (\$M)	\$1,202	\$1,696
Total Employment	14,973	20,187
Total Tax Revenues (\$M)	\$27	\$51

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table ES.3 – Estimated Total Annual Economic and Fiscal Impact Resulting from Ancillary Spending Attributable to Student Spending, Student Visitor Spending, Prospective Student Visitor Spending, Patient Visitor Spending, and Event Attendee and Participant Spending – \$290 Million of Economic Impact within the City and \$380 Million of Economic Impact within the Commonwealth Each Year**

	Philadelphia	Commonwealth of
Total Output (\$M)	\$287	\$378
Total Employment	2,361	4,538
Total Tax Revenues (\$M)	\$2.6	\$9.9

*Source: Drexel University (2012), Econsult Corporation (2012)*

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## 1.0 INTRODUCTION

### 1.1 About Drexel University

Located in the University City District of Philadelphia, **Drexel University** is a comprehensive private research university with nearly 25,000 students. It has a distinguished faculty: 95 percent hold the highest degree in their field. Drexel is comprised of 14 schools and colleges, including schools of law, medicine, engineering, and business. Offering over 100 academic programs and a unique co-operative education program, Drexel has emerged as a top-tier university.



Founded in 1891 as a technology institute, Drexel was originally known as the Drexel Institute of Science, Art, and Industry. Over the past century, Drexel has evolved into the 14<sup>th</sup> largest private university in the nation, and has been ranked sixth on US News & World Reports' list of "Up & Coming" universities. As a national leader in innovative technology curriculum, Drexel was the first major university to operate a completely wireless campus.

Drexel is also a major provider of health care services and health care education within the Greater Philadelphia region. The Drexel University Health Sciences network is comprised of three schools, the College of Nursing and Health Professions, the School of Public Health, and (located on its Queen Lane campus) the Drexel University College of Medicine (DUCOM). Drexel also has a strong affiliation and partnership with Hahnemann University Hospital.

Through physical construction, academic partnerships, acquisition of the Drexel University College of Medicine at Queen Lane in 2002, and the accreditation of multiple new colleges and schools, Drexel has expanded greatly over the past few decades. From 2000 to 2011 alone, Drexel completed nine new, state-of-the-art buildings and acquired several preexisting structures for academic, medical, and research use.

Its most recent prominent partnership, in 2011, is with the Academy of Natural Sciences, the oldest and most highly regarded natural science research institution in the US. This entity, now known as the Academy of Natural Sciences of Drexel University, is charged with creating a sustainable future for Drexel, with forming the Biodiversity, Ecology, and Environmental Science Department (ready to enroll its first students in Fall 2012), and with exploring the many opportunities for research, education, and environmental policy collaborations.

## 1.2 Scope of Report

The purpose of this report is to articulate and estimate **the economic and fiscal impact Drexel has within the City of Philadelphia and the Commonwealth of Pennsylvania.** Because Drexel is an educational, research, and medical institution, it may not be immediately thought of in terms of the contribution it makes to the local and state economy and to local and state finances. However, Drexel makes a significant impact in economic and fiscal terms, in the following realms:



The Drexel University Recreation Center opened in 2010. Storm water collected at the Recreation Center is reused for flushing toilets. The glass façade and roof light scoops eliminate use of daytime electric lighting in 87 percent of interior occupied space.

1. **Direct Spending (Section 2, Section 3, and Section 4) – Drexel’s direct capital investments and operating expenditures** have significant impact on the City and Commonwealth in terms of generating output, supporting employment, and producing tax revenues. These impacts have been of particular importance during a time of economic and fiscal distress.
2. **Partnerships (Section 5) –** Drexel is increasingly accomplishing its goals through strategic alliances and institutional affiliations. These collaborative efforts strengthen the region by more efficiently and effectively deploying scarce resources towards **meaningful educational, medical, and research outcomes.**
3. **Human Capital Investments (Section 6) –** The **highly skilled labor force** Drexel produces helps make economic growth and industry leadership possible for the region by providing critical human capital investments that are deployed within the City and Commonwealth. The focus of Drexel’s work – educating students – is of utmost importance to the modern knowledge economy, and thus adds considerable value to its participants and to the City and Commonwealth.
4. **Drawing Power (Section 7) –** The **ancillary spending** of students, faculty, staff, administrators, and visitors – many of whom travel from geographic regions well outside the City and Commonwealth – stimulates the local and state economy. This represents a significant importation of purchasing power for the benefit of local businesses, employees, and governments. Drexel’s presence provides a particular boost to the retail, accommodations, and transportation industries within the City and Commonwealth.

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5. **Global Leadership and Local Engagement (Section 8)** – Drexel’s impact within the City and Commonwealth goes beyond easily quantifiable categories. **The leadership role Drexel plays at a local, regional, national, and global level is an invaluable resource to the City and Commonwealth.** Drexel’s many activities and accolades throughout the world bring positive attention to the City and Commonwealth, and its neighborhood-level partnerships and community resources have significant local impact.

In 2005, Drexel engaged Econsult Corporation to undertake a similar quantification of economic and fiscal impact, resulting in an analysis that used data largely from Fiscal Year (FY) 2004. This report provides a comprehensive update of that report, and encompasses the current academic and research activities of Drexel’s schools, other university-related administrative functions, and the Drexel University College of Medicine.

To be conservative, Drexel’s many partnerships and affiliations are discussed in a narrative fashion, but activities associated with those engagements are not quantified as part of Drexel’s overall economic and fiscal impact numbers. For example, the economic impact estimates made in this report are not inclusive of the capital investments, operating expenditures, or ancillary spending associated with such entities as Hahnemann University Hospital or the Academy of Natural Sciences of Drexel University.



## 2.0 ECONOMIC AND FISCAL IMPACTS FROM DIRECT SPENDING

### 2.1 Drexel's Direct Expenditures and Their Economic and Fiscal Impact

In addition to its many academic, research, administrative, and medical efforts, **Drexel is a major contributor to the City and Commonwealth economies through its direct capital investments and operating expenditures.** As one of the top fifty employers within the City, its substantial payroll contributes to the regional economy as wages are spent locally. Drexel is a major purchaser of goods and services from vendors throughout the City, and engages in significant capital investments within the City in the form of new buildings, large-scale maintenance



The LeBow Building is scheduled to open in Fall 2014. It will replace the former Matheson Hall (deconstruction shown above). Construction began in Summer 2011. The \$92 million project will be named after Bennett S. LeBow, a graduate of the College of Engineering and a major donor of Drexel University.

efforts, and infrastructure projects. These expenditures, and the jobs and tax revenues they support, are of particular importance during a time of economic and fiscal distress, as they have helped counter-balance slack construction demand, high unemployment, and declining public sector revenues.

These expenditures also generate spillover economic and fiscal impacts. Materials purchases cause vendors to ramp up their economic activity, wages are spent throughout the City and Commonwealth, and all of these activities lead to increased tax revenues for the City and Commonwealth. The composition and scale of these economic and fiscal impacts can be estimated by using an input-output model to translate Drexel's direct expenditures into the resulting total expenditures and into the employment, earnings, and tax revenues that they support.

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## 2.2 Economic and Fiscal Impact Methodology

Econsult estimated the total impact of these direct expenditures through a two-step process:<sup>1</sup>

1. **Economic Impact** - Econsult constructed an input-output model using Regional Input-Output Modeling System (RIMS II) multiplier data supplied by the US Department of Commerce Bureau of Economic Analysis. This model accounts for two spillover effects of direct expenditures: 1) of the direct expenditures that are in the form of compensation to employees, some is in turn spent by those employees within the local economy (these are referred to as induced expenditures), and 2) for all other direct expenditures, suppliers respond to this demand by ramping up their supply chains, thus leading to their suppliers doing the same (these are referred to as indirect expenditures). Total impact is the sum of direct expenditures and the indirect and induced expenditures generated by them. Total impact can be expressed in the form of expenditures (i.e. output), employment (i.e. jobs), and earnings (i.e. salaries and wages). For the purposes of this study, total economic impact is presented at the City and Commonwealth levels.<sup>2</sup>
2. **Fiscal Impact** – A fiscal impact model was implemented to estimate the tax revenues to local and state government entities resulting from the scale and composition estimated in the economic impact model. This model employs “Journey to Work” data from the US Census Bureau County Business Patterns dataset to estimate income earned by residents of each county within the region. Earned income taxes by county and state can then be properly applied. Sales and business taxes are estimated by applying average tax base per employee by major industry. For the purposes of this study, total fiscal impact is presented at the City and Commonwealth levels.<sup>3</sup>

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<sup>1</sup> Economic and fiscal impact analysis results are inherently not intended to be precise in nature, and are rounded accordingly. See Appendix A for more detail on Econsult’s economic and fiscal impact methodology.

<sup>2</sup> Since the City is completely contained within the Commonwealth, the Commonwealth economic impact figures include the City economic impact figures, and the difference between the two represents the economic impact that is estimated to take place inside the Commonwealth but outside the City.

<sup>3</sup> Since the City and Commonwealth are distinct government jurisdictions, there is no overlap between City economic impact figures and Commonwealth economic impact figures: the City tax revenue figure is the amount estimated to go to the City, and the Commonwealth tax revenue figure is the amount estimated to go to the Commonwealth.

## 3.0 ECONOMIC AND FISCAL IMPACT FROM CAPITAL INVESTMENTS

### 3.1 Capital Investments

Drexel's recent capital investments highlight its growth as a top-tier institution in the realms of education, research, and medicine. Significant projects currently under way include the LeBow College of Business Building and the Chestnut Street American Campus Communities project (Chestnut Street ACC), which will feature housing, retail, and dining venues. In Fall 2011, Drexel opened the Papadakis Integrated Sciences Building (PISB). Named after Constantine Papadakis,



the President of Drexel from 1995 until his passing in 2009, the PISB is home to the biological sciences department as well as the new Department of Biodiversity, Earth and Environmental Science.

The Papadakis Integrated Sciences Building (PISB) opened in Fall 2011. LEED certified, PISB is the home of the largest living biowall in North America and the only such biowall on a university campus.

In addition to the impacts the aforementioned examples and other buildings have on Drexel's academic, research, and medical efforts and on its campus and neighborhood, they also generate significant economic

and fiscal impact by creating construction jobs, stimulating additional economic activity, and generating state and local tax revenues. These impacts are particularly welcomed at a time of slack construction demand, economic slowdown, and fiscal distress.

Econsult analyzed the economic and fiscal impacts of Drexel and DUCOM's capital investments in three distinct, non-overlapping time periods. The first time period encompasses the period from 2000 to 2011, and represents past large-scale construction projects and improvements made to existing facilities that were started and completed during that 12-year period. The second time period looks to the future of Drexel and DUCOM, utilizing three illustrative projects that will begin in 2012 and finish before 2017. Finally, to illustrate the vast economic and fiscal impacts from the construction of just one large construction project, Econsult specifically analyzed the LeBow College of Business Building, which straddles these two time periods, as construction commenced in 2011 and is slated to be completed in 2014.

### 3.2 Economic and Fiscal Impact from Past Capital Investments (2000-2011)



Millennium Residence Hall opened in 2010. Environmentally sustainable design features include a 3,000 square-foot green roof to reduce storm-water run-off and heat-island effect and a rain screen panel system envelop to provide solar shading.

Between 2000 and 2011, Drexel undertook \$361 million in major capital investments. These included such projects as PISB (2011), Millennium Residence Hall (2010), Drexel University Recreation Center (2010), Race Street Residence Hall (2007), and Pearlstein Business Learning Center (2002).

These capital expenditures resulted in significant economic impacts within the City and Commonwealth (see Table 3.1). Drexel's capital investments from 2000 to 2011 are estimated to have generated a one-time total of about \$540 million in total expenditures, supporting about 2,300 jobs and about \$90 million in earnings within the City, and creating about \$5 million in tax revenues for the City, and a one-time total of about \$870 million in expenditures, supporting about 7,500 jobs and about \$280 million in earnings, and creating about \$19 million in tax revenues for the Commonwealth.

**Table 3.1 – Estimated Total Economic and Fiscal Impact Resulting from Capital Investments Completed by Drexel from 2000 to 2011 (in 2012 \$)<sup>4</sup>**

	Philadelphia	Pennsylvania
Direct Expenditures (\$M)	\$361	\$361
Indirect Expenditures (\$M)	\$179	\$509
<b>Total Output (\$M)</b>	<b>\$540</b>	<b>\$870</b>
<b>Total Employment</b>	<b>2,300</b>	<b>7,500</b>
<b>Total Earnings (\$M)</b>	<b>\$89</b>	<b>\$282</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$5</b>	<b>\$19</b>

Source: Drexel University (2012), Econsult Corporation (2012)

<sup>4</sup> Throughout the report, totals may not sum exactly due to rounding.

### 3.3 Economic and Fiscal Impact from Future Capital Investments (2012-2017)

Between Fiscal Years 2012 and 2017, Drexel will be implementing its “Strategic Plan.” Included among its many anticipated new construction and major renovation projects are \$257 million in capital investment in the form of three large-scale projects:

- Chestnut Square, a 360,000 square foot mixed-use facility that will include student housing and retail
- A mixed-use facility on Lancaster Avenue that will include 1,200 beds and 40,000 square feet of commercial space
- A 170-room hotel

The capital expenditures from these three projects are estimated to generate a one-time total of about \$380 million in total expenditures, supporting about 1,600 jobs and about \$60 million in earnings within the City, and creating about \$4 million in tax revenues for the City, and a one-time total of about \$620 million in expenditures, supporting about 5,300 jobs and about \$200 million in earnings, and creating about \$14 million in tax revenues for the Commonwealth (see Table 3.2).



The ground-breaking ceremony and initial renderings for Chestnut Square. Through a partnership with American Campus Communities, Drexel will add 861 beds to its campus when this project is completed in Fall 2013.

**Table 3.2 – Estimated Total Economic and Fiscal Impact Resulting from Three Illustrative Capital Investments Anticipated by Drexel from 2012 to 2017 (in 2012 \$)**

	Philadelphia	Pennsylvania
Direct Expenditures (\$M)	\$257	\$257
Indirect Expenditures (\$M)	\$127	\$362
<b>Total Output (\$M)</b>	<b>\$384</b>	<b>\$619</b>
<b>Total Employment</b>	<b>1,600</b>	<b>5,300</b>
<b>Total Earnings (\$M)</b>	<b>\$64</b>	<b>\$201</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$4</b>	<b>\$14</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

These estimates only measure the three illustrative projects mentioned above, and do not include the impacts associated with other major projects envisioned by Drexel in its 2012-2017 Strategic Plan. Therefore, Drexel's economic and fiscal impacts during that time frame will be even larger, inclusive of other projects it undertakes beyond these three projects.

Notably, the projects discussed here represent expansions in Drexel's ability to draw outsiders into the City and Commonwealth. Their addition to the campus will expand Drexel's student body and increase the number of people and the amount of spending being imported from outside the City and Commonwealth.

Further, all three of these projects involve third-party, non-local partners. The investments of these non-local partners also represent a leveraging of Drexel resources and an importation of outside dollars for the purpose of generating economic activity, supporting jobs, and producing tax revenues within the City and Commonwealth.

### 3.4 Economic and Fiscal Impact from LeBow College of Business Building (2011-2014)

Not included in either the past or the future capital investment numbers is the construction of the LeBow College of Business Building, which is set to open in Fall 2014. The 12-story building, on which construction began in 2011, will be the new home of the LeBow College of Business and the Department of Economics and International Business.

This \$92 million project is estimated to generate significant economic impacts within the City and Commonwealth (see Table 3.3). Drexel's capital investments in the building are estimated to generate a one-time total of about \$140 million in total expenditures, supporting about 600 jobs and about \$20 million in earnings within the City, and creating about \$1 million in tax revenues for the City, and a one-time total of about \$220 million in expenditures, supporting about 1,900 jobs and about \$70 million in earnings, and creating about \$5 million in tax revenues for the Commonwealth.



The LeBow College of Business Building will feature a 300-seat auditorium along with classroom space and lecture halls. It is being developed by A.M. Stern Architects LLP (New York) and Voith & Mactavish Architects LLP (Philadelphia).

**Table 3.3 - Estimated Total Economic and Fiscal Impact Resulting from Construction of the LeBow College of Business Building (in 2012 \$)**

	Philadelphia	Pennsylvania
Direct Expenditures (\$M)	\$92	\$92
Indirect Expenditures (\$M)	\$46	\$130
<b>Total Output (\$M)</b>	<b>\$138</b>	<b>\$222</b>
<b>Total Employment</b>	<b>580</b>	<b>1,900</b>
<b>Total Earnings (\$M)</b>	<b>\$23</b>	<b>\$72</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$1.3</b>	<b>\$4.9</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

### 3.5 Economic and Fiscal Impact from Capital Investments (2000-2017)

Summing these three categories of capital investments yields an estimate of the economic and fiscal impacts for the period from 2000 to 2017 (see Table 3.4). Inclusive of its major capital investments from 2000 to 2011, the LeBow College of Business Building, and the three illustrative projects it anticipates completing between 2012 and 2017 Drexel will have made about \$710 million in capital expenditures. These investments are estimated to generate a one-time total of **about \$1.06 billion in total expenditures, supporting about 4,500 jobs and about \$180 million in earnings within the City, and creating about \$10 million in tax revenues for the City**, and a one-time total of **about \$1.71 billion in expenditures, supporting about 14,700 jobs and about \$560 million in earnings within the Commonwealth, and creating about \$38 million in tax revenues for the Commonwealth**.

**Table 3.4 - Estimated Total Economic and Fiscal Impact Resulting from Capital Investments Completed or to be Completed by Drexel from 2000 to 2017 (in 2012 \$)**

	Philadelphia		Pennsylvania	
	Annualized	Total	Annualized	Total
Direct Expenditures (\$M)	\$39	\$710	\$39	\$710
Indirect Expenditures (\$M)	\$20	\$351	\$56	\$1,002
<b>Total Output (\$M)</b>	<b>\$59</b>	<b>\$1,061</b>	<b>\$95</b>	<b>\$1,712</b>
<b>Total Employment</b>	<b>249</b>	<b>4,490</b>	<b>816</b>	<b>14,683</b>
<b>Total Earnings (\$M)</b>	<b>\$10</b>	<b>\$176</b>	<b>\$31</b>	<b>\$555</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$0.6</b>	<b>\$10.2</b>	<b>\$2.1</b>	<b>\$37.7</b>

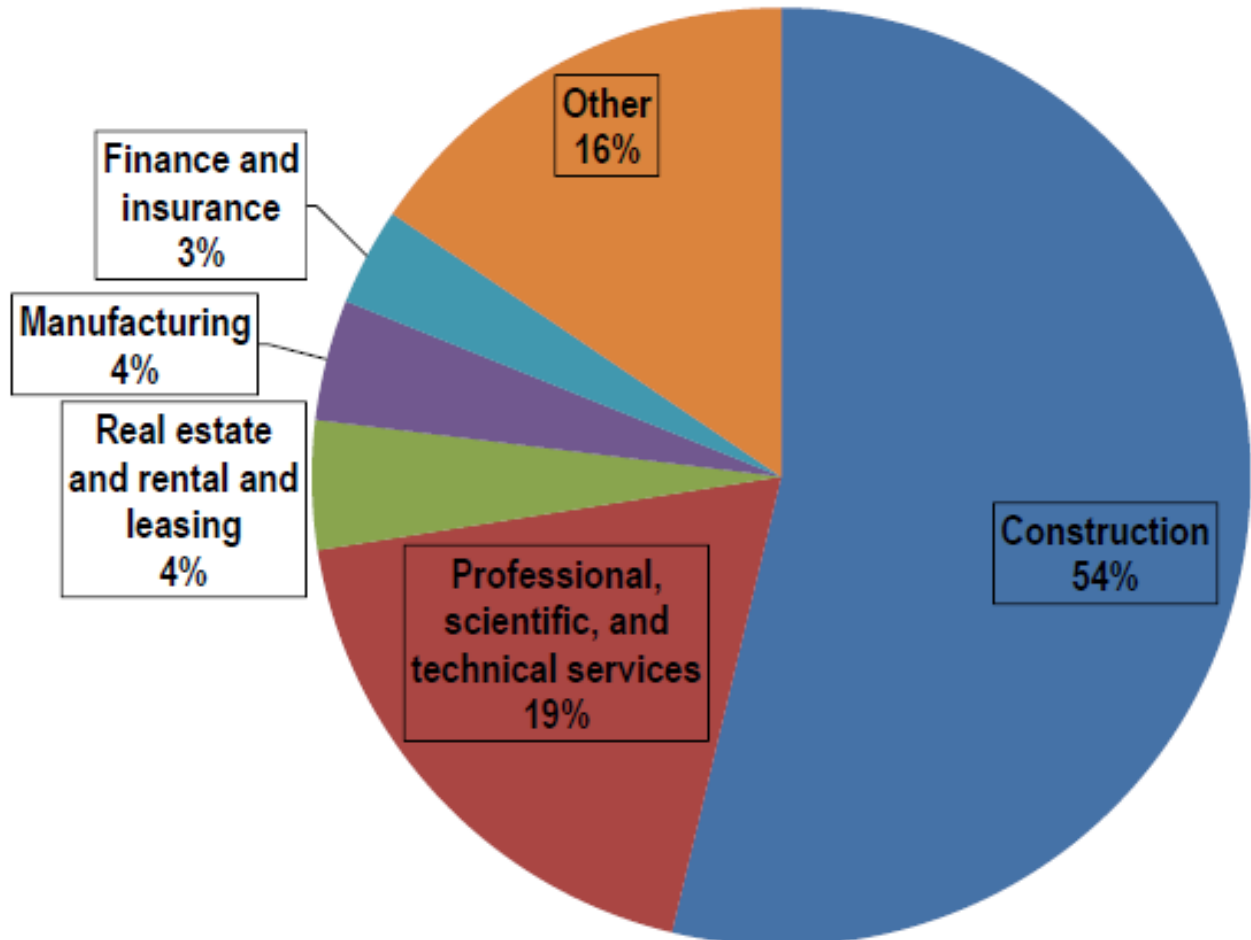
*Source: Drexel University (2012), Econsult Corporation (2012)*

Although construction is the industry that is most positively impacted by Drexel's capital investments, impacts are spread widely across a multitude of industries. Industries besides construction are estimated to receive about half of the positive economic impact within the City



and about two-thirds of the economic impact within the Commonwealth (see Figure 3.1 and Figure 3.2).<sup>5</sup>

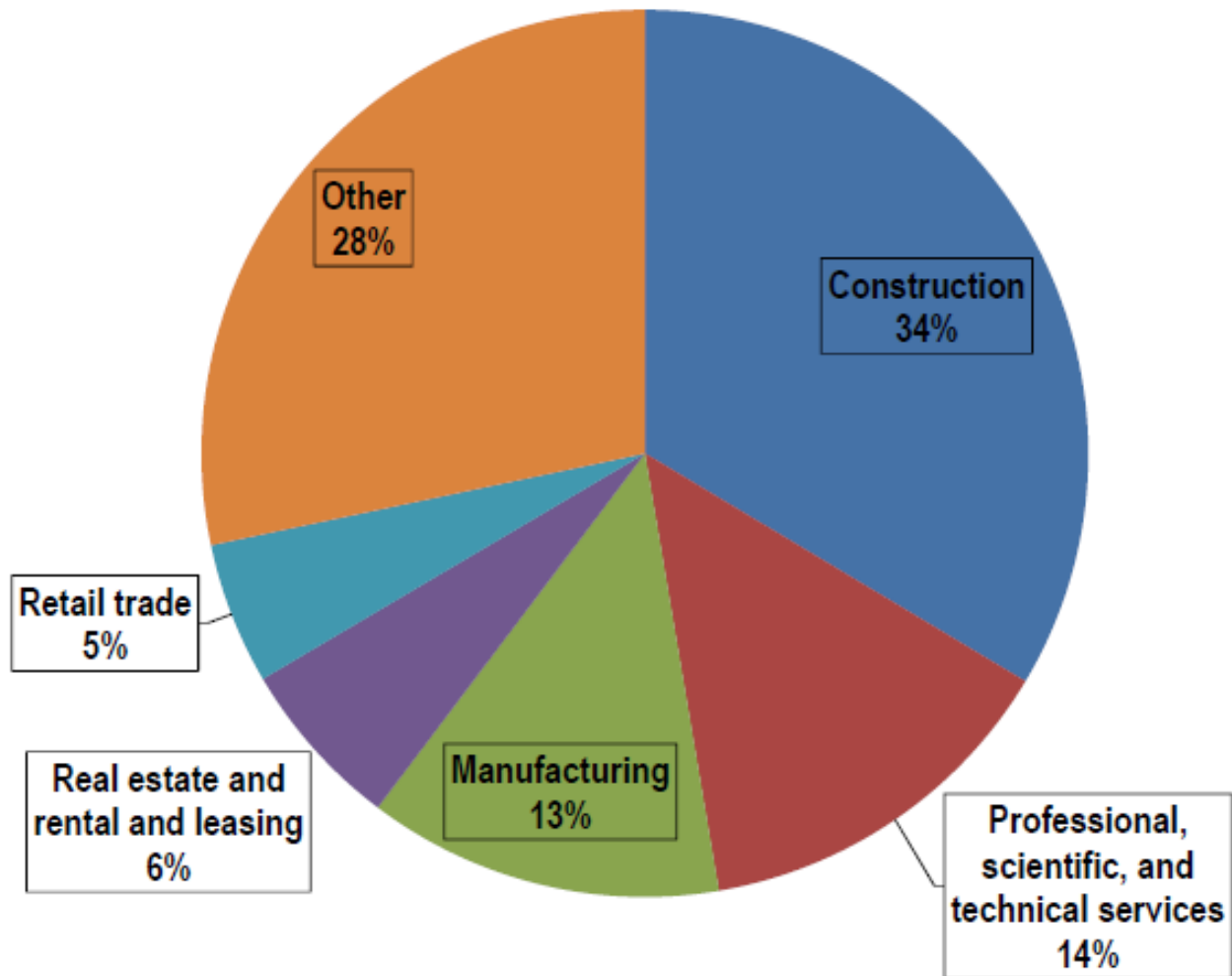
**Figure 3.1 – Industry Distribution of Expenditure Impact of Drexel Capital Investments from 2000 to 2017 within the City of Philadelphia**



Source: Drexel University (2012), Econsult Corporation (2012)

<sup>5</sup> See Appendix B for additional detail on the estimated economic and fiscal impact from Drexel’s capital investments.

**Figure 3.2 – Industry Distribution of Expenditure Impact of Drexel Capital Investments from 2000 to 2017 within the Commonwealth of Pennsylvania**



Source: Drexel University (2012), Econsult Corporation (2012)

## 4.0 ECONOMIC AND FISCAL IMPACT FROM OPERATING EXPENDITURES

### 4.1 Operating Expenditures

FY 2011 budgeted spending totaled about \$800 million for Drexel University and DUCOM. Drexel is a major employer within the City and the Commonwealth: over 50 percent of its almost 12,000 employees reside within the City, and over 90 percent reside within the 11-county Philadelphia Metropolitan Statistical Area (MSA) (see Table 4.1).

**Table 4.1 – Geographic Distribution of Residential Location of Employment and Earnings<sup>6</sup>**

	Employment	Distribution	Earnings (\$M)	Distribution
Philadelphia	5,945	51%	\$158	39%
5-County	9,215	80%	\$319	80%
Pennsylvania	9,501	82%	\$324	81%
11-County	10,489	91%	\$380	95%
<b>Total</b>	<b>11,567</b>	<b>100%</b>	<b>\$400</b>	<b>100%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

Drexel’s annual operations result in a significant amount of indirect expenditures, as vendors within the City and Commonwealth ramp up to meet the demand associated with Drexel’s purchasing, and of induced expenditures, as its employees spend a portion of their earnings within the City and Commonwealth.<sup>7</sup> These impacts are particularly welcomed at a time of high unemployment, economic slowdown, and fiscal distress.

<sup>6</sup> “5-County” = Philadelphia and its surrounding suburban counties (Bucks, Chester, Delaware, Montgomery); “11-County” = the Philadelphia Metropolitan Statistical Area, which includes Philadelphia and its surrounding suburban counties plus Burlington, Camden, Gloucester, and Salem counties in New Jersey, New Castle County in Delaware, and Cecil County in Maryland. See Appendix C for a more detailed version of this table.

<sup>7</sup> To be conservative, the following budget items were excluded from economic and fiscal impact analysis:

1. Interest expenses and depreciation/amortization do not necessarily result in indirect expenditures within the City and Commonwealth, and

## 4.2 Economic and Fiscal Impacts from Operating Expenditures

Drexel's operating expenditures are estimated to generate an annual total of **about \$1.21 billion in total expenditures, supporting about 15,000 jobs and about \$570 million in earnings within the City, and creating about \$27 million in tax revenues for the City**, and an annual total of **about \$1.71 billion in expenditures, supporting about 20,200 jobs and about \$790 million in earnings, and creating about \$51 million in tax revenues for the Commonwealth** (see Table 4.2).

**Table 4.2 – Estimated Total Annual Economic and Fiscal Impact Resulting from Estimated FY 2011 Operating Expenditures by Drexel**

	Philadelphia	Pennsylvania
Direct Expenditures (\$M) <sup>8</sup>	\$731	\$736
Indirect Expenditures (\$M)	\$471	\$961
<b>Total Output (\$M)</b>	<b>\$1,202</b>	<b>\$1,696</b>
<b>Total Employment</b>	<b>14,973</b>	<b>20,187</b>
<b>Total Earnings (\$M)</b>	<b>\$566</b>	<b>\$793</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$27</b>	<b>\$51</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

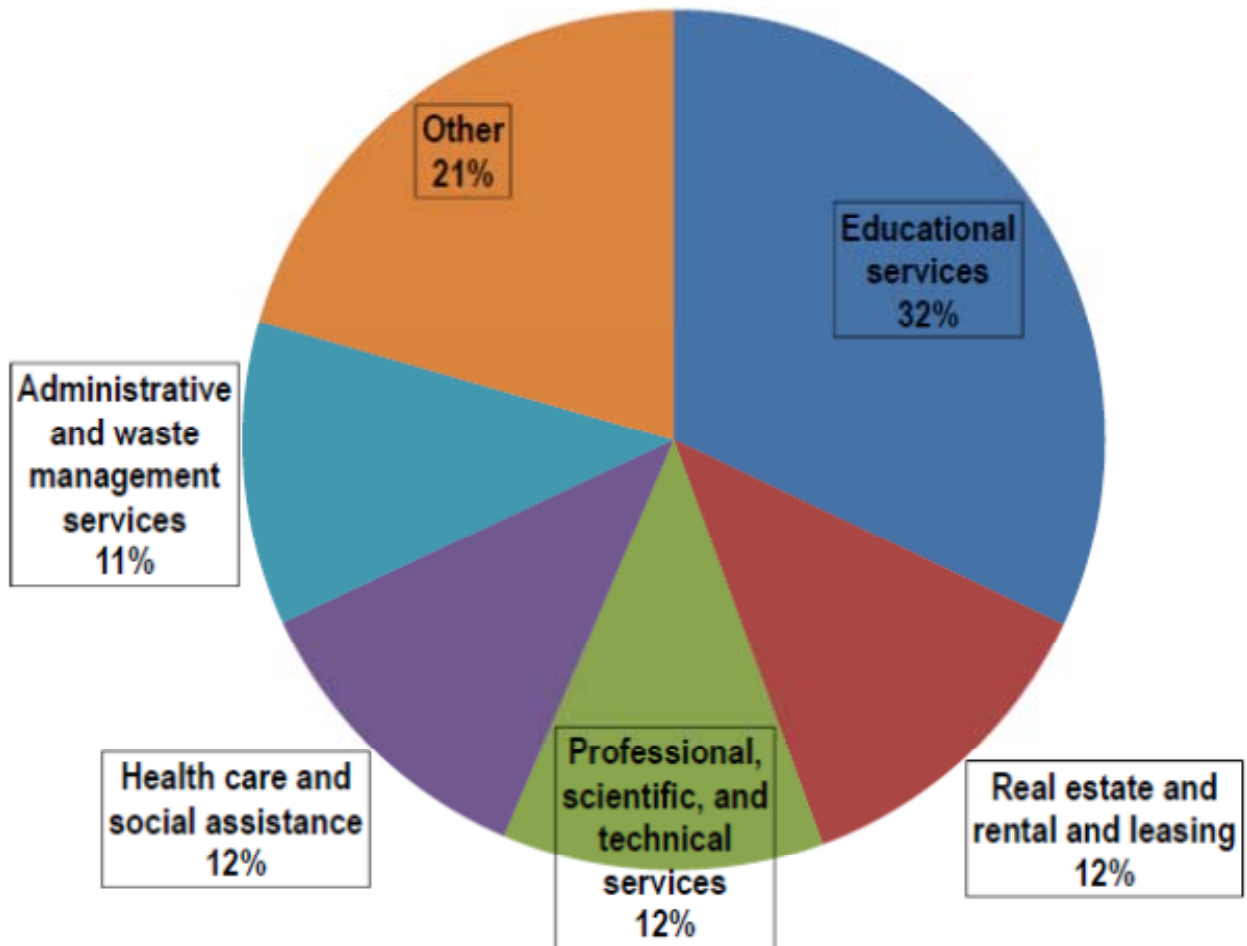
Although education is the industry that is most positively impacted by Drexel's operating expenditures, impacts are spread widely across a multitude of industries. Industries besides education are estimated to receive about two-thirds of the positive economic impact within the City and about three-quarters of the positive economic impact within the Commonwealth (see Figure 4.1 and Figure 4.2).<sup>9</sup>

- Salaries paid to employees who reside outside of the 11-county MSA do not necessarily result in induced expenditures within the City and Commonwealth.

<sup>8</sup> Direct expenditures differ between Philadelphia and Pennsylvania to account for the small proportion of Drexel employees who reside within Pennsylvania but outside of the Philadelphia MSA, who are therefore counted among the direct expenditures within Pennsylvania but not among the direct expenditures within Philadelphia.

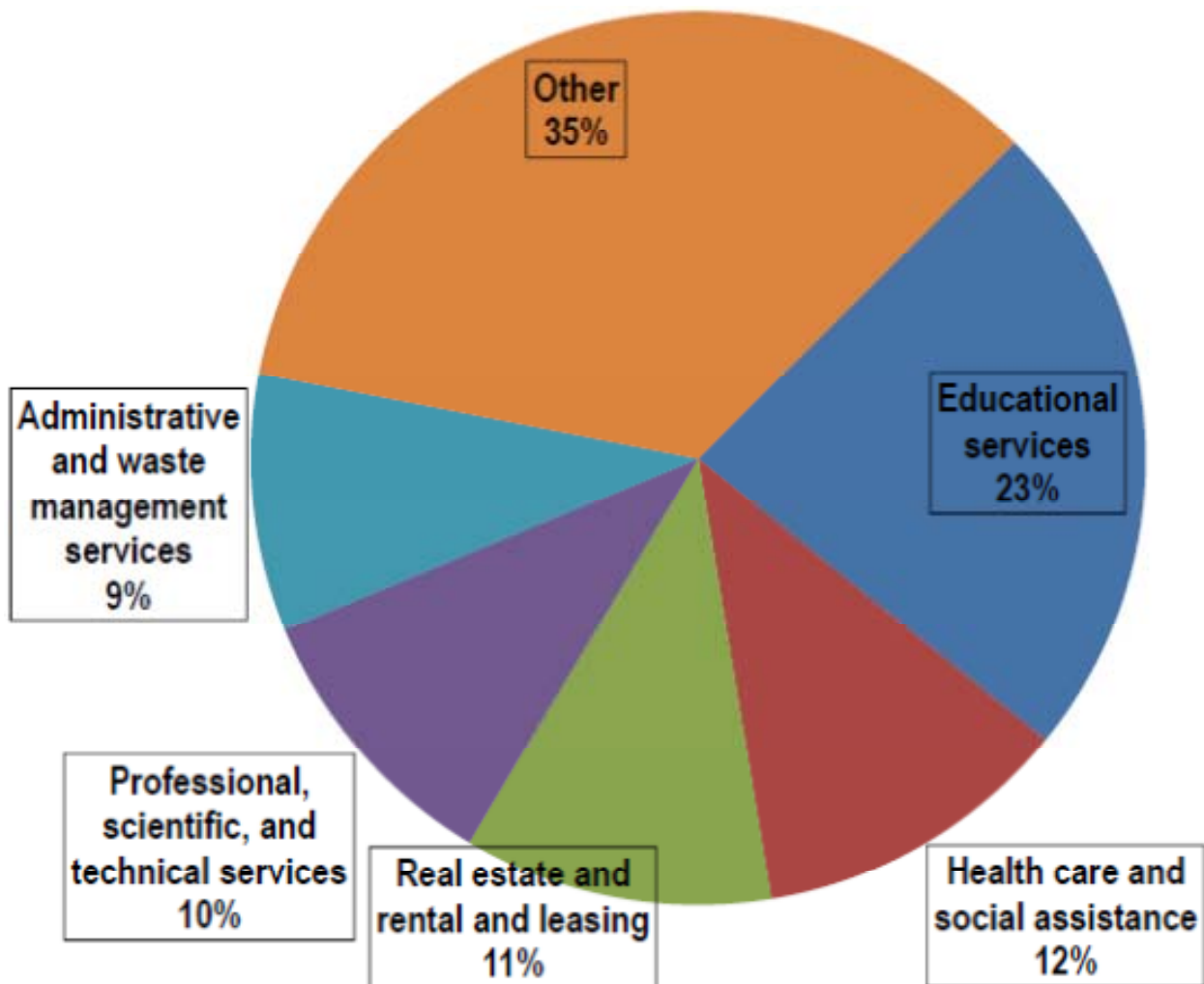
<sup>9</sup> See Appendix D for additional detail on the estimated economic and fiscal impact from Drexel's operating expenditures.

**Figure 4.1 – Industry Distribution of Expenditure Impact of Drexel FY 2011 Operating Expenditures within the City of Philadelphia**



Source: Drexel University (2012), Econsult Corporation (2012)

**Figure 4.2 – Industry Distribution of Expenditure Impact of Drexel FY 2011 Operating Expenditures within the Commonwealth of Pennsylvania**



Source: Drexel University (2012), Econsult Corporation (2012)

### 4.3 The Differentiating Value of Drexel's Operating Expenditures

As noted above, operating expenditures of this magnitude are particularly welcomed during a time of high unemployment, economic slowdown, and fiscal distress. What particularly differentiates Drexel as an economic engine for the City and Commonwealth are the characteristics of these operating expenditures. These expenditures result in additional economic, fiscal, and qualitative benefits to the City and Commonwealth, which are discussed in further detail in the remaining sections of this report:



Pearlstein Business Learning Center, which houses the LeBow College of Business, opened in 2002. Pearlstein offers a unique learning experience, with tiered seating and fully equipped classrooms.

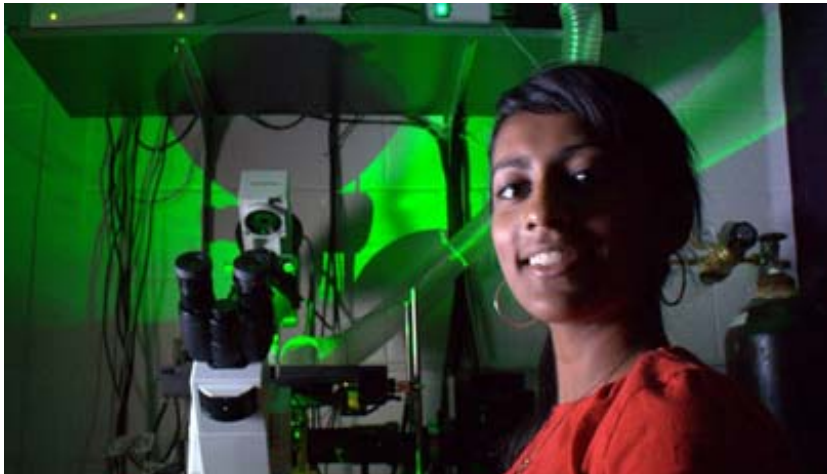
1. Drexel's aggressive use of partnerships to advance its educational, research, medical, and physical objectives yields powerful synergies and produces positive results for the City and Commonwealth (Section 5).
2. Drexel's main products are educational resources and academic credentialing, which in today's knowledge economy results in a deeper base of human capital within the City and Commonwealth (Section 6)
3. Drexel has become a major draw for people – students, faculty, patients, visitors, shoppers, and event attendees – resulting in significant importations of spending for the benefit of businesses, workers, and governments within the City and Commonwealth (Section 7).
4. Drexel's commitment to global excellence and local engagement results in worldwide acclaim and practical solutions, both of which confer advantages to the City and Commonwealth (Section 8).

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## 5.0 STRATEGIC PARTNERSHIPS

### 5.1 Prioritizing Research Excellence

Research is an integral aspect of the intellectual and economic success of an institution of higher learning. It represents the institution's advancement of human knowledge, and draws media attention, industry accolades, and federal funding. In all of these regards, Drexel's research efforts have been a resounding success and a demonstration of its intellectual might, service orientation, and predisposition to strategic collaborations.



Drexel is a leading research institution, winning highly regarded grants each year. In 2011, numerous grants were awarded to Drexel faculty and students enabling continued success.

With an annual research budget of about \$115 million in 2011, Drexel coordinated three realms of research: faculty, graduate, and undergraduate. With projects ranging from nanotechnology and clinical psychology, to biodiversity conservation, microwave biomedical technologies and biofuels, Drexel continues to be a hub for innovation and research excellence. Drexel recently received twelve noteworthy research grants,

providing funding for research projects with a focus on Drexel's surrounding environment including architectural and civil engineering projects for the Morton McMichael School Playground, and a community health and prevention partnership aiming to improve the health and well-being of children in West Philadelphia.

Achieving recognition in many fields, Drexel has been widely recognized for a few specific initiatives, including the Drexel SmartHouse and the Baiada Center for Entrepreneurship. The Drexel SmartHouse was awarded the World Green Energy Symposium NOVA Award in 2011. This award is presented to those who have made outstanding contributions in the field of energy alternatives and or sustainable energy innovations. The Drexel SmartHouse is located in Powelton Village, founded by a group of undergraduate students of the Pennoni Honors College in 2006. The house serves as a "living laboratory" for exploring and innovating cutting edge technology and green design research. The SmartHouse has raised over \$300,000 in funding through grants and awards for student-lead research. Two of the most prominent awards include an EPA P3 grant of



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\$75,000 and a NCIIA grant of \$25,000. The project brings together students working in innovative research in engineering, architecture, design, and business.

In each of the three realms of research, Drexel engages in and hosts multiple forums, conferences, and fairs each year. Students and faculty, both of Drexel University and other institutions are invited to share worthy research at such events. Within each college are various research initiatives with faculty, graduate students, and undergraduates working to develop and maintain a competitive edge in their research. In 2011, the School of Biomedical Engineering, Science, and Health Systems received \$20 million in grants to establish a research endowment. The distinguished faculty in this school deserves special attention. In 2010, Dr. Arye Rosen received a highly competitive Bill & Melissa Gates Foundation grant (about 3 percent of applicants are awarded funding) to pursue his low-cost, solar-powered research for transforming health obstacles in the developing world.

Drexel highlights and distinguishes itself as a research-focused progressive institution conducting research that benefits society. Students are encouraged to apply for the STAR (Students Tackling Advanced Research) Scholars Program early in their undergraduate career. Developed by former President Constantine Papadakis and Joan McDonald, Dean of Enrollment Management, the STAR Scholars Program was inspired by Drexel's philosophy of learning by doing and by its history as a cooperative education institution.

The STAR Scholars Program allows high-achieving first-year students from all disciplines and majors to participate in a faculty-mentored research, scholarship, or creative opportunity during the summer after their freshman year, granting the opportunity to create and present professional research posters at the STAR Scholars Summer Showcase at the end of the summer term and potentially at other regional and national conferences. The STAR Scholars Program provides a means for students to get to know faculty, explore a major course of study, and gain practical skills and valuable research experience for their future career or course of graduate study.

These research efforts are indicative of a purpose-driven, civic-minded academic institution which is marshalling its considerable academic resources and social mission towards advancements in a variety of fields. From an economic impact standpoint, many of these research initiatives have the added benefit of drawing in funding from federal and other non-local sources, thus representing the use of funds from outside the City and Commonwealth for the benefit of economic activity within the City and Commonwealth.

## 5.2 Other Innovative Partnerships

Drexel has many strategic collaborations that benefit students and create bold opportunities. Recently, Drexel has initiated three greatly impactful partnerships (1) the Academy of Natural Sciences (now the Academy of Natural Sciences of Drexel University), (2) Sony Electronics, and (3) Hahnemann College and the Woman's Medical College of Pennsylvania.

In 2011, Drexel University and the Academy of Natural Sciences announced their partnership. The Academy of Natural Sciences is the nation's oldest natural history museum and a world-renowned leader in biodiversity and environmental research. The Academy was established in 1812 and has been pursuing excellence in earth sciences research for 200 years.



President and CEO of the Academy, George Gephart, Philadelphia Mayor Michael Nutter, and Drexel University President John Fry at the unveiling of the new sign outside the Academy of Natural Sciences of Drexel University.

One of the most notable opportunities that this affiliation has opened the doors for is the creation of the Biodiversity, Ecology, and Environmental Science (BEES) Department. Academy scientists will be teaching courses and leading field experience for Drexel students studying these fields. This affiliation has been a progressive move for both Drexel and the Academy, combining forces to conduct research of the natural sciences and collaborating with the Academy's Center for Environmental Policy to establish a sustainable future for Drexel. The research collaboration made possible by this partnership benefits not only Drexel and the Academy's researchers, but the environmental research field as a whole, drawing attention and activity into the City and Commonwealth in the process.

In April of 2012, Sony Electronics announced the start of the Sony Digital Media Academy. Partnering with nine universities, the collaboration between Sony and these leading academic institutions will "foster and fuel innovative approaches and facilitate new, expressive applications of digital media technologies. Among the group of universities selected are American University and New York University. Drexel's graphic design program is ranked in the top 10 in the nation, and digital media is ranked seventh. Among other collaborations, Drexel and Sony will develop a paperless design studio. These partnerships advance Drexel's intellectual and practical expertise strengthen its global ties, and attract outside visitors and economic activity into the City and Commonwealth.



Drexel University's Antoinette Westphal College of Media Arts & Design is a founding partner of the Sony Digital Media Academy. One of its first projects will be a sustainable paperless studio.

DUCOM is the consolidation of two of the nation's oldest medical colleges, Hahnemann College and the Woman's Medical College of Pennsylvania. Woman's Medical College of Pennsylvania was the first women's medical college in the world. Located in the East Falls section of Pennsylvania, DUCOM has the largest enrollment of medical students of any private medical college in the nation. It is a leader in various realms of medical fields, including malaria, HIV/AIDS, and spinal cord research.

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## 6.0 ECONOMIC AND FISCAL IMPACT FROM WAGE PREMIUM

### 6.1 Defining the Wage Premium

An important impact of institutions of higher learning is borne through the education of their students. The conferring of educational resources and academic credentialing yields four positive outcomes for society.

1. Graduates are able to add more value to today's knowledge economy as a result of their training and credentials.
2. They reap some of the benefit of that added value, in the form of higher wages.
3. Higher wages in turn increase the amount of income-based tax revenues generated by local, state, and federal government entities.
4. Higher wages in turn increase participants' disposable income, some of which can be spent within their local economies, further multiplying the economic benefits.

With the education of each student and the conferring of each degree, universities give society an intellectual boost, help that participant make more money, generate more tax revenues for governments, and provide more business opportunities for local economies. This increase in earnings potential is often referred to as the "wage premium."

According to the US Bureau of Labor Statistics, the wage premium for each successive level of educational credentialing is significant. And, in an increasingly knowledge-based economy, that premium is growing. Between 2000 and 2010, at a time of relatively flat overall wage growth, the gap in median earnings between those without a high school diploma and those with one has grown by 27 percent to over \$9,000 per year, and the gap in median earnings between those with some college education or an associate degree and those with a bachelor degree has grown by 32 percent to over \$15,000 per year.<sup>10</sup>

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<sup>10</sup> See Appendix E for additional detail on these changes in wage premium over time.

## 6.2 Wage Premium Enjoyed by Drexel Graduates and Alumni

The educational resources disseminated by Drexel to its students, and the degrees it bestows upon the conclusion of studies, confer an increasing wage premium in the global marketplace. The 5,500 Drexel students who graduated in FY 2011 therefore represent about \$100 million in annual wage premium. This amount is enjoyed every year, and is added to by preceding and succeeding classes of graduates (see Table 6.1).

**Table 6.1 – Wage Premium from Degrees Conferred to 2011 Drexel Graduates**

	Annual Wage Premium	2011 Graduates
Associate	\$5,400	27
Bachelor	\$20,600	2,666
Advanced	\$15,650	2,808
<b>Total Wage Premium (\$M)</b>		<b>\$99</b>

*Source: Bureau of Labor Statistics (2011), Drexel University (2012), Econsult Corporation (2012)*

In total, about 58,000 Drexel alumni live and work within the Commonwealth. This represents an annual wage premium of about \$1 billion within the Commonwealth (see Table 6.2).<sup>11</sup>

**Table 6.2 – Wage Premium from Degrees Conferred to Drexel Alumni Currently Living and Working within the Commonwealth**

	Annual Wage Premium	Living and Working in PA
Associate	\$5,400	283
Bachelor	\$20,600	27,906
Advanced	\$15,650	29,392
<b>Total Wage Premium (\$M)</b>		<b>\$1,036</b>

*Source: Bureau of Labor Statistics (2011), Drexel University (2012), Econsult Corporation (2012)*

<sup>11</sup> About 1,200 Drexel alumni live and work within the City, representing an annual wage premium of about \$20 million.

### 6.3 Economic Impact from Wage Premium Enjoyed by Drexel Graduates and Alumni

In addition to representing a graduate's increased ability to contribute to society through his or her intellectual talents, the wage premium also represents additional purchasing power, which results in additional economic stimulus, supporting jobs and generating tax revenues. Conservatively assigning to Drexel only 10 percent of the wage premium enjoyed by alumni living and working within the Commonwealth (to account for the likely substitution of a similar degree from another academic institution),<sup>12</sup> it is estimated that the economic impact resulting from the wage premium enjoyed by Drexel alumni living and working within the Commonwealth totaled about **\$235 million in output, supporting about 1,900 jobs and about \$80 million in earnings, and generating about \$5 million in state tax revenues** (see Table 6.3).

**Table 6.3 – Estimated Annual Economic and Fiscal Impact from the Wage Premium from Degrees Conferred to Drexel Alumni Currently Living and Working within the Commonwealth**

	Pennsylvania
Direct Expenditures (\$M)	\$104
Indirect Expenditures (\$M)	\$132
<b>Total Output (\$M)</b>	<b>\$235</b>
<b>Total Employment</b>	<b>1,900</b>
<b>Total Earnings (\$M)</b>	<b>\$80</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$5</b>

Source: Bureau of Labor Statistics (2011), Drexel University (2011), Econsult Corporation (2012)

<sup>12</sup> In other words, what is attributable to Drexel is not the entire wage premium but rather what proportion of that wage premium would be lost if Drexel did not provide educational resources and confer academic degrees. To assume that the absence of Drexel would lead to only a 10 percent reduction in wages earned among the universe of Drexel alumni living within the Commonwealth is conservative, because it not only represents the estimated difference in wages earned between graduates of Drexel and graduates of other local academic institutions, but also the estimated loss of all wages earned within the City and Commonwealth by students who, in the absence of Drexel, might select an academic institution outside the Commonwealth and therefore would be far less likely to end up being employed within the Commonwealth upon graduation.

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#### **6.4 Economic Impact from Alumni Giving**

The increased earnings of Drexel alumni who live and work within the City and Commonwealth have an economic impact on the City and Commonwealth. However, the increased earnings of Drexel alumni who do not live and work within the City and Commonwealth also have an economic impact on the City and Commonwealth. When Drexel alumni live and work elsewhere, they strengthen the connection between those locations and the City and Commonwealth. Also, alumni giving represents the transfer of salaries earned in other locations into the City and Commonwealth, supporting jobs and generating tax revenues within the City and Commonwealth.

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## **7.0 ECONOMIC AND FISCAL IMPACTS FROM ANCILLARY SPENDING**

### **7.1 Ancillary Spending**

In addition to its own capital investments and operating spending, Drexel stimulates the City and Commonwealth through a variety of ancillary spending categories for which it is primarily responsible. Therefore, over and above its considerable spending within the City and Commonwealth, Drexel attracts additional spending into the City and Commonwealth. There are five such major categories of ancillary spending:

1. Drexel students
2. Visitors of Drexel students
3. Prospective Drexel students
4. Patients and Visitors of DUCOM
5. Attendees of Drexel University events

Each of these ancillary spending categories represent a significant amount of spending within the City and Commonwealth that would not otherwise have taken place but for the presence of Drexel. As noted above, these ancillary spending amounts are likely to rise significantly in the near future: as Drexel continues to build up its campus, it is likely to add to its enrollment numbers, increase the number and size of events it hosts, and further enhance its drawing power for retail and entertainment dollars.



## 7.2 Ancillary Spending by Students

Drexel students not only pay tuition, they also spend large amounts on transportation, room, board, books, and other expenditures. Significantly, much of this spending is brought in from outside the City and Commonwealth: in 2011, 55 percent of students and 59 percent of incoming full-time freshmen students came from outside the Commonwealth.

Excluding tuition and spending that is collected by Drexel itself (i.e. room and board for on-campus students, books for all students), and using conservative estimates for annual spending amounts, it is estimated that **Drexel students injected an additional \$176 million in spending into the City and Commonwealth** in FY 2011 (see Table 7.1).<sup>13</sup>

**Table 7.1 – Estimated Annual Spending by Drexel Students<sup>14</sup>**

Student Type	# Students	Trans- portation	Room	Board	Other	Total Spending (\$M)
On-Campus Undergraduate	4,226				\$4,000	\$17
On-Campus Graduate	249				\$4,000	\$1
Off-Campus Undergraduate	3,978		\$7,200	\$3,000	\$4,000	\$56
Off-Campus Graduate	3,729		\$7,200	\$3,000	\$4,000	\$53
Commuter Undergraduate	6,712	\$1,800			\$2,000	\$26
Commuter Graduate	5,966	\$1,800			\$2,000	\$23
<b>Total Spending (\$M)</b>	<b>24,860</b>	<b>\$23</b>	<b>\$55</b>	<b>\$23</b>	<b>\$74</b>	<b>\$176</b>

Source: Drexel University (2012), Econsult Corporation (2012)

<sup>13</sup> No estimate is included of spending by Drexel faculty, staff, and administration, although obviously they are, in the aggregate, major spenders within the City and Commonwealth. It is presumed that the economic impact associated with their local spending is already accounted for in the indirect impact associated with Drexel's operating expenditures, which estimates the spillover effect of wages paid on the City and Commonwealth economy. Therefore, those impacts are already accounted for in Section 4.

<sup>14</sup> These estimates are based on all available data provided by Drexel, as well as averages from primary research conducted by other universities.

### 7.3 Student Visitor Spending

Visits by family and friends of Drexel students constitute a significant importation of purchasing dollars into the City and Commonwealth, with particular gains for the local accommodation, transportation, retail, and entertainment industries. These visitors were sorted into four categories, and conservative spending profiles were determined for each category:

1. Freshman move-in – It was assumed that in-town freshmen had two in-town visitors and that out-of-town freshmen had two out-of-town visitors.
2. Family weekend – It was assumed that in-town students who entertained family members during Family Weekend had two in-town visitors and that out-of-town students who entertained family members during Family Weekend had two out-of-town visitors.
3. Graduation – It was assumed that in-town graduates had two in-town visitors and that out-of-town graduates had two out-of-town visitors.



Drexel graduated 5,500 students in 2011.

4. Miscellaneous – It was assumed that all students had two visitors whose spending profile approximated that of in-town visitors.<sup>15</sup>

Out-of-town visitors were assumed to have come in groups of two and to have spent \$200 per group, while in-town visitors were assumed to have come in groups of two and to have spent \$20 per group on such items as accommodations, transportation, and food.<sup>16</sup> Based on these conservative estimates, it was estimated that spending by these visitors represented an additional \$2 million in spending within the City and Commonwealth in FY 2011 (see Table 7.2).

**Table 7.2 – Estimated Annual Spending by Visitors of Drexel Students<sup>17</sup>**

Visitor Type	Freshman Move-in	Family Weekend	Graduation	Other Visitors	Total # Visitors
In-town visitors @ \$20/each	2,066	660	3,631	49,360	55,716
Out-of-town visitors @ \$200/each	1,064	340	1,870		3,275
<b>Total Spending (\$M)</b>	<b>\$0.3</b>	<b>\$0.1</b>	<b>\$0.4</b>	<b>\$1.0</b>	<b>\$1.8</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

<sup>15</sup> Such visitors may in fact be coming from out of town but are much less likely to incur accommodations expenses, and are therefore treated as in-town visitors in terms of their spending profile.

<sup>16</sup> For overnight stays, on a per-day basis, the US General Service Administration and the Consumer Expenditure Survey of the US Department of Labor's Bureau of Labor Statistics estimate per-day transportation costs of \$23, per-day accommodations costs of \$153, and per-day food costs of \$66, which sums to \$242. This is conservatively rounded down to \$200.

It is further conservatively assumed that this represents the average spending per trip, even though many trips last more than one day and therefore entail additional spending.

It is also assumed that each out-of-town group requires only one hotel room (e.g. a husband and wife sharing a room).

In-town visitors were conservatively assumed to have a spending profile of one-tenth of what was assumed for out-of-town visitors, of \$20.

<sup>17</sup> These estimates are based on all available data provided by Drexel, as well as averages from primary research conducted by other universities.

#### 7.4 Prospective Student Visitor Spending

Between May and August of 2011 over 27,000 prospective students visited the Drexel campus. Two-thirds came from Pennsylvania, New Jersey, or Delaware, and it was conservatively assumed that the remaining one-third required an overnight stay of one hotel room and one night. Based on these assumptions, it is estimated that prospective students visiting Drexel represented an additional \$2 million in spending within the City and Commonwealth (see Table 7.3).

**Table 7.3 – Estimated Annual Spending by Prospective Drexel Students Visiting Campus<sup>18</sup>**

Residential Location of Visiting Student	# Visiting Students	Average Spending	Total Spending (\$M)
PA, NJ, DE	18,075	\$20	\$0.4
Other States	8,256	\$200	\$1.6
International	933	\$200	\$0.2
<b>Total Spending (\$M)</b>			<b>\$2.2</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

<sup>18</sup> These estimates are based on all available data provided by Drexel, as well as averages from primary research conducted by other universities.

## 7.5 DUCOM Patient and Visitor Spending

In 2011, DUCOM had about 100,000 inpatient visits and about 340,000 outpatient visits. These visits signify an importation of spending on the part of patients and those who accompany them. Conservative estimates of spending were assigned to these patient categories, depending on whether they were coming from within the City or from outside the City (since shorter distances traveled means fewer expenditures). Based on these assumptions, it is estimated that DUCOM patients and their visitors represented an additional \$5 million in spending within the City and Commonwealth (see Table 7.4).

**Table 7.4 – Estimated Annual Spending by DUCOM Patients and Their Visitors<sup>19</sup>**

Patient Type	# Patients	Average Spending	Total Spending (\$M)
Inpatient and Visitor (in-town)	81,282	\$10	\$0.8
Inpatient and Visitor (out-of-town)	25,150	\$20	\$0.5
Outpatient (in-town)	257,097	\$10	\$2.6
Outpatient (out-of-town)	79,550	\$20	\$1.6
<b>Total Spending (\$M)</b>	<b>443,079</b>		<b>\$5.5</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

<sup>19</sup> These estimates are based on all available data provided by Drexel, as well as averages from primary research conducted by other health systems.

## 7.6 Event Attendee and Participant Spending

Drexel hosts hundreds of events each year, which draw into the City and Commonwealth numerous out-of-town participants and visitors. These include sporting events, business events, and cultural events.

Activity on the Drexel campus is growing. In 2012, the men's basketball team made it to the quarterfinals of the National Invitational Tournament, and head coach Bruiser Flint was named Coach of the Year for the fourth time in his career. This has resulted in increases in both attendance and in the national profile of the team.

On the cultural front, the theatre ensemble group Drexel Players partnered with Riot Group, a New York based group, for multiple sold-out shows in 2011, drew students, local patrons, and out-of-town visitors. Also, the Drexel University Jazz Orchestra hosted a troupe from Spelman College in Atlanta for three nights of jazz festivities.



Drexel's fan base was ranked number one within the City in 2012 by the Philadelphia Daily News.

Conservatively accounting only for men's basketball among sporting events and for attendance at Mandell Theater and Behrakis Grand Hall for business and cultural events, and assigning low estimates for per-visitor spending, it was estimated that Drexel events represented an additional \$2 million in spending within the City and Commonwealth (see Table 7.5).

**Table 7.5 – Estimated Annual Spending by Attendees of Drexel Events<sup>20</sup>**

Event Attendee Spending	# of Total Visitors	% Students (@ \$0)	% Local (@ \$20)	% Non-Local (@ \$200)	Total Spending (\$M)
Athletic Events	44,000	50%	40%	10%	\$1.2
Business and Professional Events	2,000	0%	90%	10%	\$0.1
Cultural and Entertainment Events	9,540	30%	60%	10%	\$0.3
<b>Total Spending (\$M)</b>					<b>\$1.6</b>

*Source: ESPN (2012), Drexel University (2012), Econsult Corporation (2012)*

<sup>20</sup> These estimates are based on all available data provided by Drexel, as well as averages from primary research conducted by other universities.

## 7.7 Economic and Fiscal Impacts from Ancillary Spending

Total ancillary spending sums to about **\$187 million in purchasing each year within the City and Commonwealth**, much of which is coming from out-of-town spenders. Accounting for indirect and induced impacts associated with this ancillary spending, the economic impact in FY 2011 was about **\$290 million in expenditures, supporting about 2,400 jobs and about \$40 million in earnings within the City, and creating about \$3 million in tax revenues for the City**. The economic impact was about **\$380 million in expenditures, supporting about 4,500 jobs and about \$100 million in earnings within the Commonwealth, and creating about \$10 million in tax revenues for the Commonwealth** (see Table 7.6).

**Table 7.6 – Estimated Total Annual Economic and Fiscal Impact Resulting from Ancillary Spending Attributable to Student Spending, Student Visitor Spending, Prospective Student Visitor Spending, Patient Visitor Spending, and Event Attendee and Participant Spending**

	Philadelphia	Commonwealth of
Direct Expenditures (\$M)	\$187	\$187
Indirect Expenditures (\$M)	\$100	\$191
<b>Total Output (\$M)</b>	<b>\$287</b>	<b>\$378</b>
<b>Total Employment</b>	<b>2,361</b>	<b>4,538</b>
<b>Total Earnings (\$M)</b>	<b>\$43</b>	<b>\$98</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$2.6</b>	<b>\$9.9</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*



## 8.0 GLOBAL LEADERSHIP AND LOCAL ENGAGEMENT

### 8.1 Global Perspective, Local Implementation

Drexel has become a sterling example of the credo, “Think Globally, Act Locally.” As an urban institution, it has seized the opportunity to be a partner to the City and to local non-profit and social service organizations, marshaling its institutional commitments and intellectual resources in support of practical solutions to contemporary issues.

John A. Fry, President of Drexel University since 2010, has publicly stated that Drexel’s goal is to be the most civically engaged university in the nation, and has placed neighborhood involvement as a top priority. This commitment is reflected in the formation of six neighborhood goals and the commitment of institutional attention and resources towards their achievement:<sup>21</sup>

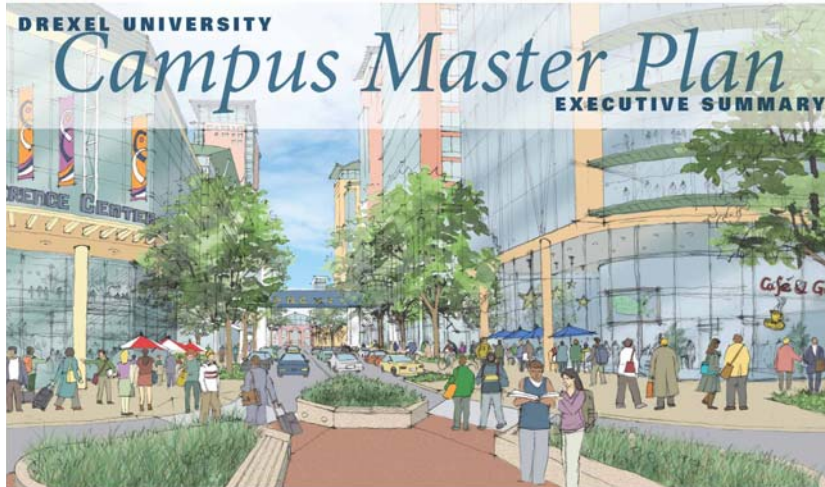


President Fry has set a goal for Drexel to become the most civically engaged university in the nation.

1. Create a **livable, affordable mixed-income** community
2. Promote a **clean, safe and sustainable** neighborhood
3. Improve **economic opportunities** for community residents
4. Create **lively retail corridors** with enhanced arts and culture offerings
5. Enhance **educational options** and learning communities
6. Leverage resources to improve **health and wellness** in the community

<sup>21</sup> See Appendix F for a copy of Drexel’s mission statement and a statement by President Fry on the fulfillment of that mission through the recently released 2012-2017 Drexel University Strategic Plan, and Appendix G for a copy of Drexel’s six neighborhood involvement goals.

Drexel has launched a Community Partnership initiative that is highly regarded for the many resources and services it provides to people and neighborhoods in need within the City. These demonstrations of **local engagement** confer additional benefits on the City and Commonwealth by



Drexel released its Campus Master Plan to its trustees in February 2012 and has been continuing to engage various stakeholders throughout its planning process.

exemplifies its commitment to its immediate surroundings. Students and faculty in each school and college are encouraged to participate in community outreach, develop new approaches, and challenge themselves to solve problems within the City and the Commonwealth. As a result, the full weight of the institution is behind practical approaches to key issues facing the City and the Commonwealth.

drawing worldwide attention to the work of Drexel and by having a positive social and physical effect on Drexel's immediate vicinity. Such impacts are a significant part of Drexel's overall contribution to society and the fulfillment of its mission as a top-tier university.

As an institution with over one hundred programs, Drexel has the ability to engage in numerous and multi-disciplinary ways, and its neighborhood initiative

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## **8.2 Service and Solutions in Action**

Ten initiatives warrant further attention as manifestations of Drexel's engagement at the local and state level:

### **1. Excellence in Health Care Provision**

The 11<sup>th</sup> Street Family Health Services of Drexel University is a comprehensive, nurse-managed health center. In collaboration with the Family Practice and Counseling Network, the College of Nursing and Health Professions works to provide comprehensive health services, with an emphasis on residents of public housing units in the 11<sup>th</sup> Street Corridor. The 11<sup>th</sup> Street Family Health Services serves areas considered underserved with regard to affordable, quality healthcare services.

DUCOM is involved in several volunteer clinics, providing essential treatment to many Philadelphians through its Healthcare Outreach Program (HOP). Drexel physicians and students provide services at the Chinatown Clinic where people without insurance are served, the Salvation Army Rehabilitation Center in Roxborough where adults recovering from substance abuse are treated, and at the Eliza Shirely Homeless Shelter for women and children.

### **2. Social Service Delivery**

Engaging in experience-learning settings, Drexel students have aided in several social service initiatives. In a sociology course focused on poverty, students worked at LIFT, a volunteer program located in five cities including Philadelphia. Students critiqued resumes and aided participants in job and skills training. LIFT clients and volunteers work one-on-one to find jobs, secure safe and stable housing, make ends meet through public benefits and tax credits, and secure health care. Simultaneously, the LIFT experience pushes volunteers to grapple with the nation's most challenging issues related to poverty, race, inequality, and policy.

### **3. Eliminating the Digital Divide**

A collaboration between the Urban Affairs Coalition, the City, and Drexel's College of Engineering, the Freedom Rings Partnership works diligently to bring Internet access, technology, and the necessary training to residents in peripheral communities throughout the City. Working with its partners, students and faculty volunteer their time and engage in the coordination of various trainings.

### **4. Student Civic Service**

President Fry, in his inaugural speech, stated his goal of Drexel becoming the "most civically engaged university in the nation." Drexel's University and Community Partnerships is working to make this goal a reality through both in-class and extracurricular initiatives. The Lindy Center for

Civic Engagement hosts 75 partnerships within the City and organizes over 200 projects annually. Students lead and participate in these projects. Drexel Community Scholars (DCS) are undergraduate and graduate students committed to making a positive impact at a local level. These students work with homeless shelters, food kitchens, public schools, senior homes, and other philanthropic initiatives.

## 5. Youth Empowerment

Drexel established the Philip B. Lindy Inner-City Public School Program (“Lindy Scholars Program”) to provide educational services to public-school students. The program is a collaborative effort between the Pennoni Honors College and the School of Education, with an overarching goal of creating mathematics, writing, and literacy programs for middle school students. There are over 225 6<sup>th</sup> to 8<sup>th</sup> graders currently enrolled in the Lindy Scholars Program.

## 6. Local Employment and Procurement Opportunities

Drexel and the University City District’s West Philadelphia Skills Initiative have teamed to provide training for residents of West Philadelphia to become Certified Medical Assistants. After the completion of the 14-week training program, which includes mentoring by medical professionals and career development coordinators, the participants have the opportunity to be hired by DUCOM.



The Lindy Scholars Program provides inner-city students with the opportunity to engage in a positive culture of learning. Motivated and committed Drexel students volunteer weekday afternoons and Saturday mornings for this initiative.

## 7. Access to Educational Opportunity

The Liberty Scholars Program has been established to provide an opportunity for low-income students who have graduated from a public, private, parochial, charter, or preparatory high school within the City to receive a full tuition and fee scholarship. Fifty incoming freshman are awarded this scholarship. The students live on campus in a learning community and participate in a mentorship program to encourage success throughout their academic career. Liberty Scholars are

also invited to participate in a freshman advanced research program following their freshman year for the duration of the summer, through the STAR Scholars program.

## 8. Co-operative Education

Nearly 50 percent of students at Drexel participate in the co-operative education program (co-op program). Students engage in the City surrounding them, positively contributing to the City through their intellectual talents and civic service. Many find work for non-profits in the Philadelphia region. Employment opportunities range from college counselors in the public school system to involvement in the Food Trust's Healthy Corner Store Initiative. These opportunities extend the reach of Drexel's impact, bringing innovative students to multiple organizations within the City.

## 9. Responsible Campus Development

Drexel's capital plans have been thoughtfully crafted so as to positively impact its immediate environs, with particular emphasis on growing and strengthening ties between the campus and area residents, specifically those of Mantua and Powelton Village. The formation Drexel's 2012-

2017 Strategic Plan included significant participation from representatives of these neighborhoods.



The Drexel Smart House is located on the 34<sup>th</sup> block of Race Street.

One of Drexel's most highlighted projects, the Drexel Smart House, is located in Powelton Village. The Smart House is a student-led, multi-disciplinary project that serves as a "living laboratory" for exploring cutting-edge research and development in the areas of environment, energy, health, and lifestyle.

## 10. Public Safety

Drexel is the only university in the world with both a police department and a public safety communications center accredited by the Commission on Accreditation for Law Enforcement Agencies. The implementation of the Drexel police force in 2009 has led to a 13 percent crime reduction and an 18 percent reduction in violent offenses since 2010.

### 8.3 A Commitment to Continued Engagement

The innovative approach to community development that Drexel is embarking upon truly allows it to extend its reach and impact beyond just the lives of its students. Moreover, engaging the students in such situations enables a higher level of unity and involvement, while aligning Drexel's role as both an economic engine and an academic institution. Drexel's approach to education, experiential problem solving, caters perfectly to this need. Serving in multiple arenas, Drexel



Participants in the LeBow College of Business' Camp Business program.

works with communities to find solutions to social problems. Drexel is routinely partnering with local, city-wide, and national non-profit organizations to these ends.

Drexel's noteworthy impact on the City is not fully reflected by the list above. The strong connection Drexel students, faculty, and staff have with their immediate surroundings leads to many and varied intersections between academic pursuits, research endeavors, and community-

serving opportunities. Moreover, the co-operative education model that Drexel employs expands the impact Drexel makes on its community, directly engaging students in their surroundings to learn and contribute to the City and Commonwealth at large. Drexel truly distinguishes itself through its global leadership, its problem solving approach to education, and its active engagement within the City. Through community partnerships and civic opportunities, Drexel's students, faculty, and staff create positive change, in health care, education, and other realms, strengthening its ties with the City and the Commonwealth and providing invaluable resources and benefits at the neighborhood level.

## 9.0 CONCLUSION

Drexel is a major contributor to the City and Commonwealth economy from a number of important perspectives:

1. **Direct Spending** – Its **capital investments and operating expenditures** induce significant spillover activity and generate high levels of employment within the City and Commonwealth and high amounts of tax revenues for the City and Commonwealth (see Tables 9.1 and Table 9.2).
2. **Human Capital Investment** – The educational resources and academic degrees it confers represent **an investment in human capital** within the City and Commonwealth, and confer a **wage premium** on Drexel alumni that generates further economic stimulus.
3. **Ancillary Spending** – It draws students, visitors of students, visiting prospective students, patients and their visitors, and event attendees and participants, whose **ancillary spending represents an importation of dollars** that support job creation and generate tax revenues within the City and Commonwealth (see Table 9.3).
4. **Local Engagement** – It marshals the full weight of its many departments and programs to engage on **practical solutions to contemporary urban issues** throughout the City and to provide invaluable services and resources at the neighborhood level.



In short, Drexel's impact – on the City and Commonwealth economy and on state and local finances – is significant. Even better, its impact comes from activities that are of utmost importance to the City and Commonwealth and to the world at large: human capital investment, academic and medical research, civic engagement, and neighborhood economic development. It is in these areas that Drexel has distinguished itself at both a local and global level, and its current trajectory suggests continued advancement, for the benefit of the City, Commonwealth, and beyond.

**Table 9.1 - Estimated Total Economic and Fiscal Impact Resulting from Capital Investments Completed or to be Completed by Drexel from 2000 to 2017 (in 2012 \$)**

	Philadelphia	Pennsylvania
Total Output (\$M)	\$1,061	\$1,712
Total Employment	4,490	14,683
Total Tax Revenues (\$M)	\$10.2	\$37.7

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table 9.2 – Estimated Total Annual Economic and Fiscal Impact Resulting from Estimated FY 2011 Operating Expenditures by Drexel**

	Philadelphia	Pennsylvania
Total Output (\$M)	\$1,202	\$1,696
Total Employment	14,973	20,187
Total Tax Revenues (\$M)	\$27	\$51

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table 9.3 – Estimated Total Annual Economic and Fiscal Impact Resulting from Ancillary Spending Attributable to Student Spending, Student Visitor Spending, Prospective Student Visitor Spending, Patient Visitor Spending, and Event Attendee and Participant Spending**

	Philadelphia	Commonwealth of
Total Output (\$M)	\$287	\$378
Total Employment	2,361	4,538
Total Tax Revenues (\$M)	\$2.6	\$9.9

*Source: Drexel University (2012), Econsult Corporation (2012)*



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## APPENDIX A – ECONOMIC AND FISCAL IMPACT MODEL METHODOLOGY

### A.1 Economic Impact Model

The methodology and input-output model used in this economic impact analysis are considered standard for estimating such expenditure impacts, and the results are typically recognized as reasonable and plausible effects, based on the assumptions (including data) used to generate the impacts. In general, one can say that any economic activity can be described in terms of the total output generated from every dollar of direct expenditures. If an industry in a given region sells \$1 million of its goods, there is a direct infusion of \$1 million into the region. These are referred to as *direct expenditures*.

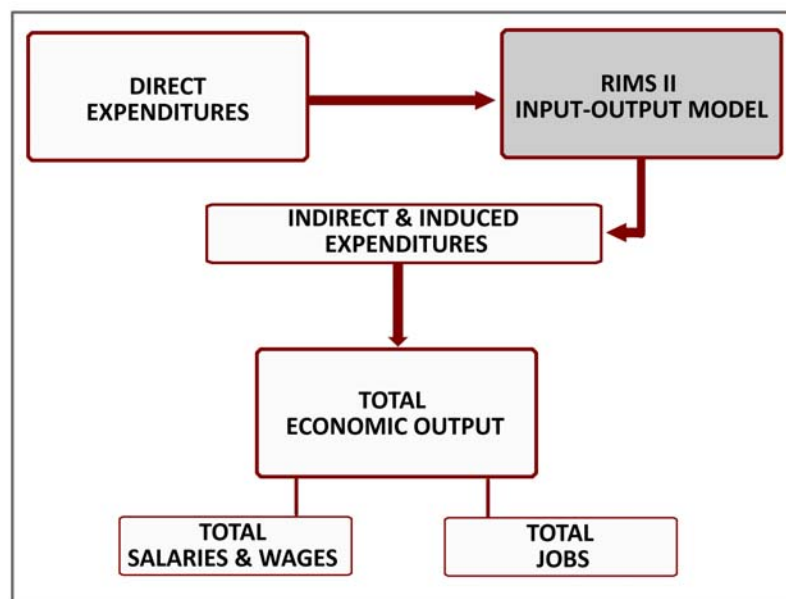
However, the economic impact on the region does not stop with that initial direct expenditure. Regional suppliers to that industry have also been called upon to increase their production to meet the needs of the industry to produce the \$1 million in goods sold. Further, suppliers of these same suppliers must also increase production to meet their increased needs as well. These are referred to as *indirect expenditures*. In addition, these direct and indirect expenditures require workers, and these workers must be paid for their labor. These wages and salaries will, in turn, be spent in part on goods and services produced locally, engendering another round of impacts. These are referred to as *induced expenditures*.

Direct expenditures are fed into a model constructed by Econsult Corporation and based on data provided by the US Department of Commerce's Bureau of Economic Analysis through its Regional Input-Output Modeling System (RIMS II). The model then produces a calculation of the total expenditure effect on the regional economy. This total effect includes the initial direct expenditure effect, as well as the ripple effects described, the indirect and induced expenditure effects (see Figure A.1).

Part of the total expenditure effect is actually the increase in total wages and salaries (usually referred to as earnings), which the model can separate from the expenditure estimates. Direct payroll estimates are fed into the "household" industry of the input-output model. Impacts of this industry are estimated using the personal consumption expenditure breakdown of the national input-output table and are adjusted to account for regional consumption spending and leakages from personal taxes and savings. The direct, indirect, and induced earnings represent a component of the total economic impact attributable to wages and salaries. Finally, the model calculates the total expenditures affecting the various industries and translates this estimate into an estimate of the total labor (or jobs) required to produce this output.

In short, the input-output model estimates the total economic activity in a region that can be attributed to the direct demand for the goods or services of various industries. This type of approach is used to estimate the total economic activity attributable to the expenditures associated with various types of spending in the region (see Figure A.1 and Table A.1).

**Figure A.1 - Flowchart of Input-Output Methodology for Estimating Economic Impact**



*Source: Econsult Corporation (2009)*

## **A.2 Fiscal Impact Model**

The RIMS II model provides estimates of the economic impact of a new project or program on the regional economy. It does not, however, estimate the fiscal impact of the increased economic activity on state and local governments. Econsult has constructed a model that takes the output from the RIMS II model and generates detailed estimates of the increases in state and local tax collections that arise from the new project. Those revenues are in fact a part of the total economic impact of a new project that is often ignored in conventional economic impact analyses.

The RIMS II model provides estimates of direct, indirect, and induced expenditures, earnings, and employment within the defined region. The Econsult fiscal impact model combines the RIMS II output with U. S. Census Bureau County Business Patterns data to produce estimates of the distribution of additional employment and earnings by county. In addition, the 2000 Census

“Journey to Work” data on commuting flows are utilized to estimate income earned by residents of each county within the region, regardless of where they work. The fiscal model can then estimate the increase in earned income taxes by county and for the state as a whole resulting from the new project. For complex cases, like Philadelphia, the model can differentiate between residents and nonresidents and apply the proper wage tax rate. Pennsylvania state business and sales taxes, as well as business taxes in Philadelphia, are estimated based on the most recent data on average sales tax base per employee by major industry, as contained in publications from the Pennsylvania Department of Revenue.

**Table A.1 – Glossary of Terms for Input-Output Models**

<p><b>Multiplier Effect</b> – the notion that initial outlays have a ripple effect on a local economy, to the extent that direct expenditures lead to indirect and induced expenditures.</p> <p><b>Economic Impacts</b> – total expenditures, employment, and earnings generated.</p> <p><b>Fiscal Impacts</b> – local and/or state tax revenues generated.</p> <p><b>Direct Expenditures</b> – initial outlays usually associated with the project or activity being modeled; examples: one-time upfront construction and related expenditures associated with a new or renovated facility, annual expenditures associated with ongoing facility maintenance and/or operating activity.</p> <p><b>Direct Employment</b> – the full time equivalent jobs associated with the direct expenditures.</p> <p><b>Direct Earnings</b> – the salaries and wages earned by employees and contractors as part of the direct expenditures.</p> <p><b>Indirect Expenditures</b> – indirect and induced outlays resulting from the direct expenditures; examples: vendors increasing production to meet new demand associated with the direct expenditures, workers spending direct earnings on various purchases within the local economy.</p> <p><b>Indirect Employment</b> – the full time equivalent jobs associated with the indirect expenditures.</p> <p><b>Indirect Earnings</b> – the salaries and wages earned by employees and contractors as part of the indirect expenditures.</p> <p><b>Total Expenditures</b> – the sum total of direct expenditures and indirect expenditures.</p> <p><b>Total Employment</b> – the sum total of direct employment and indirect employment.</p> <p><b>Total Earnings</b> – the sum total of direct earnings and indirect earnings.</p>
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*Source: Econsult Corporation (2009)*

## APPENDIX B – ADDITIONAL DETAIL ON ECONOMIC AND FISCAL IMPACT OF DREXEL UNIVERSITY’S CAPITAL INVESTMENTS

**Table B.1 – Industry Composition of Estimated Total Expenditure Impact within the City of Philadelphia Resulting from Capital Investments by Drexel from 2000 to 2017 (in 2012 \$M)**

Rank	Industry	Expenditures	% of Total
1	Construction	\$570	53.7%
2	Professional, scientific, and technical services	\$199	18.7%
3	Real estate and rental and leasing	\$47	4.4%
4	Manufacturing	\$44	4.2%
5	Finance and insurance	\$36	3.4%
Other Industries		\$165	15.6%
<b>All Industries</b>		<b>\$1,061</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table B.2 – Industry Composition of Estimated Total Employment Impact within the City of Philadelphia Resulting from Capital Investments by Drexel from 2000 to 2017**

Rank	Industry	Employment	% of Total
1	Construction	2,359	52.5%
2	Professional, scientific, and technical services	723	16.1%
3	Retail trade	251	5.6%
4	Accommodation and food services	185	4.1%
5	Health care and social assistance	173	3.9%
Other Industries		799	17.8%
<b>All Industries</b>		<b>4,490</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table B.3 – Industry Composition of Estimated Total Expenditure Impact within the Commonwealth of Pennsylvania Resulting from Capital Investments by Drexel from 2000 to 2017 (in 2012 \$M)**

Rank	Industry	Expenditures	% of Total
1	Construction	\$575	33.6%
2	Professional, scientific, and technical services	\$235	13.7%
3	Manufacturing	\$222	13%
4	Real estate and rental and leasing	\$106	6.2%
5	Retail trade	\$88	5.2%
Other Industries		\$485	28.3%
<b>All Industries</b>		<b>\$1,711</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table B.4 – Industry Composition of Estimated Total Employment Impact within the Commonwealth of Pennsylvania Resulting from Capital Investments by Drexel from 2000 to 2017**

Rank	Industry	Employment	% of Total
1	Construction	5,387	36.7%
2	Professional, scientific, and technical services	1,775	12%
3	Retail trade	1,462	10%
4	Health care and social assistance	1,072	7.3%
5	Manufacturing	1,027	7%
Other Industries		3,960	27%
<b>All Industries</b>		<b>14,683</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table B.5 – Estimated Total Annual Fiscal Impact Resulting from Capital Investments by Drexel from 2000 to 2017 (in 2012 \$M)**

<b>City of Philadelphia</b>	<b>Past (2000-2011)</b>	<b>LeBow (2011-2014)</b>	<b>Future (2012-2017)</b>	<b>Total (2000-2017)</b>
Wage and Earnings	\$3.2	\$0.8	\$2.3	\$6.4
Sales	\$0.3	\$0.1	\$0.2	\$0.7
Business Privilege	\$1.6	\$0.4	\$1.2	\$3.2
<b>Total Local Tax Revenues</b>	<b>\$5.2</b>	<b>\$1.3</b>	<b>\$3.7</b>	<b>\$10.2</b>
<b>Commonwealth of Pennsylvania</b>	<b>Past (2000-2011)</b>	<b>LeBow (2011-2014)</b>	<b>Future (2012-2017)</b>	<b>Total (2000-2017)</b>
Personal Income	\$8.7	\$2.2	\$6.2	\$17.0
Sales and Use	\$8.3	\$2.1	\$5.9	\$16.3
Corporate Net Income	\$2.2	\$0.6	\$1.6	\$4.4
<b>Total State Tax Revenues</b>	<b>\$19.2</b>	<b>\$4.9</b>	<b>\$13.7</b>	<b>\$37.7</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

## APPENDIX C – GEOGRAPHIC DISTRIBUTION OF RESIDENTIAL LOCATION OF DREXEL UNIVERSITY EMPLOYMENT AND EARNINGS

**Table C.1 – Geographic Distribution of Residential Location of Employment and Earnings**

<b>University</b>	<b>Employment</b>	<b>Distribution</b>	<b>Earnings (\$M)</b>	<b>Distribution</b>
Philadelphia	4,882	52%	\$111	40%
5-County	7,434	79%	\$219	79%
Pennsylvania	7,693	81%	\$223	80%
11-County	8,466	90%	\$262	94%
<b>Total</b>	<b>9,449</b>	<b>100%</b>	<b>\$279</b>	<b>100%</b>
<b>DUCOM</b>	<b>Employment</b>	<b>Distribution</b>	<b>Earnings (\$M)</b>	<b>Distribution</b>
Philadelphia	1,063	50%	\$47	38%
5-County	1,781	84%	\$100	82%
Pennsylvania	1,808	85%	\$101	83%
11-County	2,023	96%	\$118	97%
<b>Total</b>	<b>2,118</b>	<b>100%</b>	<b>\$121</b>	<b>100%</b>
<b>Combined</b>	<b>Employment</b>	<b>Distribution</b>	<b>Earnings (\$M)</b>	<b>Distribution</b>
Philadelphia	5,945	51%	\$158	39%
5-County	9,215	80%	\$319	80%
Pennsylvania	9,501	82%	\$324	81%
11-County	10,489	91%	\$380	95%
<b>Total</b>	<b>11,567</b>	<b>100%</b>	<b>\$400</b>	<b>100%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

## APPENDIX D – ADDITIONAL DETAIL ON ECONOMIC AND FISCAL IMPACT OF DREXEL UNIVERSITY’S OPERATING EXPENDITURES

**Table D.1 – Estimated Total Annual Economic and Fiscal Impact Resulting from Estimated FY 2011 Operating Expenditures by Drexel University Only (in 2012 \$M)**

	Philadelphia	Pennsylvania
Direct Expenditures (\$M)	\$516	\$519
Indirect Expenditures (\$M)	\$334	\$678
<b>Total Output (\$M)</b>	<b>\$849</b>	<b>\$1,197</b>
<b>Total Employment</b>	<b>11,844</b>	<b>15,823</b>
<b>Total Earnings (\$M)</b>	<b>\$379</b>	<b>\$523</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$19</b>	<b>\$37</b>

Source: Drexel University (2012), Econsult Corporation (2012)

**Table D.2 – Industry Composition of Estimated Total Expenditure Impact within the City of Philadelphia Resulting from Operating Expenditures by Drexel University Only (in 2012 \$M)**

Rank	Industry	Expenditures	% of Total
1	Educational services	\$347	40.9%
2	Real estate and rental and leasing	\$105	12.4%
3	Professional, scientific, and technical services	\$103	12.1%
4	Administrative and waste management services	\$99	11.7%
5	Information	\$38	4.5%
Other Industries		\$157	18.5%
<b>All Industries</b>		<b>\$849</b>	<b>100.0%</b>

Source: Drexel University (2012), Econsult Corporation (2012)



**Table D.3 – Industry Composition of Estimated Total Employment Impact within the City of Philadelphia Resulting from Operating Expenditures by Drexel University Only**

Rank	Industry	Employment	% of Total
1	Educational services	6,659	56.2%
2	Administrative and waste management services	2,034	17.2%
3	Professional, scientific, and technical services	791	6.7%
4	Accommodation and food services	417	3.5%
5	Health care and social assistance	335	2.8%
Other Industries		1,608	13.6%
<b>All Industries</b>		<b>11,844</b>	<b>100.0%</b>

Source: Drexel University (2012), Econsult Corporation (2012)

**Table D.4 – Industry Composition of Estimated Total Expenditure Impact within the Commonwealth of Pennsylvania Resulting from Operating Expenditures by Drexel University Only (in 2012 \$M)**

Rank	Industry	Expenditures	% of Total
1	Educational services	\$356	29.7%
2	Real estate and rental and leasing	\$134	11.2%
3	Professional, scientific, and technical services	\$123	10.3%
4	Administrative and waste management services	\$113	9.5%
5	Manufacturing	\$93	7.7%
Other Industries		\$378	31.6%
<b>All Industries</b>		<b>\$1,197</b>	<b>100.0%</b>

Source: Drexel University (2012), Econsult Corporation (2012)

**Table D.5 – Industry Composition of Estimated Total Employment Impact within the Commonwealth of Pennsylvania Resulting from Operating Expenditures by Drexel University Only**

Rank	Industry	Employment	% of Total
1	Educational services	7,200	45.5%
2	Administrative and waste management services	2,173	13.7%
3	Professional, scientific, and technical services	1,097	6.9%
4	Health care and social assistance	926	5.9%
5	Retail trade	926	5.9%
Other Industries		3,500	22.1%
<b>All Industries</b>		<b>15,823</b>	<b>100.0%</b>

Source: Drexel University (2012), Econsult Corporation (2012)

**Table D.6 – Estimated Total Annual Economic and Fiscal Impact Resulting from Estimated FY 2011 Operating Expenditures by DUCOM Only (in 2012 \$M)**

	Philadelphia	Pennsylvania
Direct Expenditures (\$M)	\$215	\$217
Indirect Expenditures (\$M)	\$137	\$283
<b>Total Output (\$M)</b>	<b>\$352</b>	<b>\$499</b>
<b>Total Employment</b>	<b>3,130</b>	<b>4,363</b>
<b>Total Earnings (\$M)</b>	<b>\$187</b>	<b>\$270</b>
<b>Total Tax Revenues (\$M)</b>	<b>\$8</b>	<b>\$14</b>

Source: Drexel University (2012), Econsult Corporation (2012)

**Table D.7 – Industry Composition of Estimated Total Expenditure Impact within the City of Philadelphia Resulting from Operating Expenditures by DUCOM Only (in 2012 \$M)**

Rank	Industry	Expenditures	% of Total
1	Health care and social assistance	\$117	33.2%
2	Real estate and rental and leasing	\$43	12.3%
3	Professional, scientific, and technical services	\$42	11.9%
4	Educational services	\$38	10.8%
5	Administrative and waste management services	\$38	10.8%
Other Industries		\$74	21.0%
<b>All Industries</b>		<b>\$352</b>	<b>100.0%</b>

Source: Drexel University (2012), Econsult Corporation (2012)

**Table D.8 – Industry Composition of Estimated Total Employment Impact within the City of Philadelphia Resulting from Operating Expenditures by DUCOM Only**

Rank	Industry	Employment	% of Total
1	Health care and social assistance	1,235	39.5%
2	Administrative and waste management services	548	17.5%
3	Educational services	513	16.4%
4	Professional, scientific, and technical services	226	7.2%
5	Accommodation and food services	141	4.5%
Other Industries		468	14.9%
<b>All Industries</b>		<b>3,130</b>	<b>100.0%</b>

Source: Drexel University (2012), Econsult Corporation (2012)

**Table D.9 – Industry Composition of Estimated Total Expenditure Impact within the Commonwealth of Pennsylvania Resulting from Operating Expenditures by DUCOM Only (in 2012 \$M)**

Rank	Industry	Expenditures	% of Total
1	Health care and social assistance	\$134	26.8%
2	Real estate and rental and leasing	\$56	11.2%
3	Professional, scientific, and technical services	\$50	10.0%
4	Administrative and waste management services	\$44	8.9%
5	Manufacturing	\$43	8.6%
Other Industries		\$172	34.5%
<b>All Industries</b>		<b>\$499</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table D.10 – Industry Composition of Estimated Total Employment Impact within the Commonwealth of Pennsylvania Resulting from Operating Expenditures by DUCOM Only**

Rank	Industry	Employment	% of Total
1	Health care and social assistance	1,486	37.1%
2	Administrative and waste management services	611	15.2%
3	Educational services	590	14.7%
4	Professional, scientific, and technical services	323	8.0%
5	Retail trade	274	6.8%
Other Industries		723	18.2%
<b>All Industries</b>		<b>4,007</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table D.11 – Industry Composition of Estimated Total Expenditure Impact within the City of Philadelphia Resulting from Operating Expenditures by Drexel University and DUCOM Combined (in 2012 \$M)**

Rank	Industry	Expenditures	% of Total
1	Educational services	\$385	32.0%
2	Real estate and rental and leasing	\$148	12.3%
3	Professional, scientific, and technical services	\$145	12.1%
4	Health care and social assistance	\$139	11.6%
5	Administrative and waste management services	\$137	11.4%
Other Industries		\$247	20.6%
<b>All Industries</b>		<b>\$1,202</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table D.12 – Industry Composition of Estimated Total Employment Impact within the City of Philadelphia Resulting from Operating Expenditures by Drexel University and DUCOM Combined**

Rank	Industry	Employment	% of Total
1	Educational services	5,957	45.1%
2	Administrative and waste management services	2,269	17.2%
3	Health care and social assistance	1,688	12.7%
4	Professional, scientific, and technical services	897	6.8%
5	Accommodation and food services	498	3.8%
Other Industries		1,908	14.4%
<b>All Industries</b>		<b>13,217</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table D.13 – Industry Composition of Estimated Total Expenditure Impact within the Commonwealth of Pennsylvania Resulting from Operating Expenditures by Drexel University and DUCOM Combined (in 2012 \$M)**

Rank	Industry	Expenditures	% of Total
1	Educational services	\$396	23.4%
2	Health care and social assistance	\$196	11.5%
3	Real estate and rental and leasing	\$189	11.2%
4	Professional, scientific, and technical services	\$173	10.2%
5	Administrative and waste management services	\$157	9.3%
Other Industries		\$584	34.5%
<b>All Industries</b>		<b>\$1,696</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table D.14 – Industry Composition of Estimated Total Employment Impact within the Commonwealth of Pennsylvania Resulting from Operating Expenditures by Drexel University and DUCOM Combined**

Rank	Industry	Employment	% of Total
1	Educational services	7,404	36.7%
2	Administrative and waste management services	2,788	13.8%
3	Health care and social assistance	2,753	13.6%
4	Professional, scientific, and technical services	1,426	7.1%
5	Retail trade	1,205	6.0%
Other Industries		4,611	22.8%
<b>All Industries</b>		<b>20,187</b>	<b>100.0%</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

**Table D.15 – Estimated Total Annual Fiscal Impact Resulting from Operating Expenditures by Drexel University and DUCOM Combined (in 2012 \$M)**

<b>City of Philadelphia</b>	<b>Drexel University Only</b>	<b>DUCOM Only</b>	<b>Combined</b>
Wage and Earnings	\$13.8	\$6.8	\$20.5
Sales	\$1.7	\$0.5	\$2.2
Business Privilege	\$3.7	\$1.0	\$4.7
<b>Total Local Tax Revenues</b>	<b>\$19.2</b>	<b>\$8.2</b>	<b>\$27.4</b>
<b>Commonwealth of Pennsylvania</b>	<b>Drexel University Only</b>	<b>DUCOM Only</b>	<b>Combined</b>
Personal Income	\$16.1	\$8.3	\$24.3
Sales and Use	\$16.1	\$4.5	\$20.6
Corporate Net Income	\$4.5	\$1.3	\$5.9
<b>Total State Tax Revenues</b>	<b>\$36.7</b>	<b>\$14.1</b>	<b>\$50.8</b>

*Source: Drexel University (2012), Econsult Corporation (2012)*

## APPENDIX E – WAGE PREMIUM ASSOCIATED WITH HIGHER LEVELS OF EDUCATIONAL ATTAINMENT

Figure E.1 – Median Annual Earnings in the US, by Level of Educational Attainment

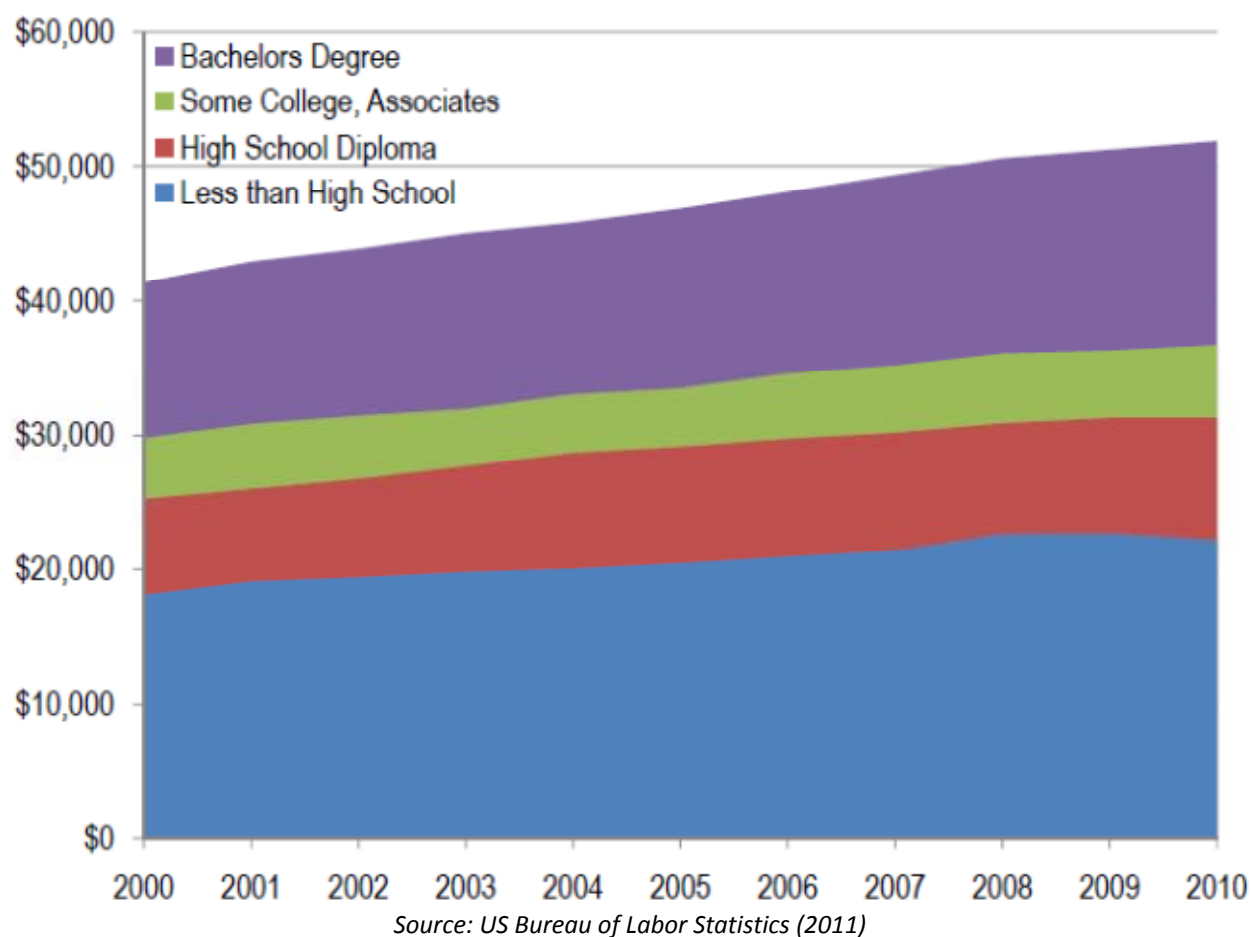


Table E.1 – Difference in Median Annual Earnings in the US between Successive Levels of Educational Attainment

With Each Successive Level of Educational Attainment	2000	2010	% Chg
Between no High School Diploma and High School Diploma	+\$7,150	+\$9,100	27%
Between High School Diploma and Some College or Associates	+\$4,550	+\$5,400	19%
Between Some College or Associates and Bachelors Degree	+\$11,550	+\$15,200	32%

Source: US Bureau of Labor Statistics (2011)



## **APPENDIX F – DREXEL UNIVERSITY MISSION STATEMENT**

To serve our students and society through comprehensive integrated academic offerings enhanced by technology, co-operative education, and clinical practice in an urban setting, with global outreach embracing research, scholarly activities, and community initiatives.

### **The Drexel University Strategic Plan: 2012-2017 - Presidential Update**

The strategic planning process for Drexel University is well underway as we consider how a great urban, comprehensive research university, committed to experiential learning, community partnerships, and global engagement, should fashion itself to best serve its stakeholders over the coming years. While our attention is focused on setting ambitious, yet realistic, goals for Drexel's next five years, we recognize that the steps we take today will shape the path that Drexel takes well into the future.

Our strategic planning team is fundamentally committed to a planning process that is transparent, engaging, and collaborative. Since the start of the process in January, I have held numerous open forums with faculty, professional staff, and students. These informal, interactive discussions have provided me with a unique opportunity to understand Drexel's incredible strengths, our challenges, and how we see ourselves. I want to thank those of you who participated in those discussions for sharing your insights and perspectives. The more we know about where we are the better we can determine where we want to go.

In addition, we recently launched the Drexel University Strategic Planning website. This website provides an overview of the planning process, contact information, links to documents and webcasts elaborating the game-changing forces in higher education, and frequent updates and announcements. In addition, the website invites you to Join the Discussion – with commentaries by Janet Fleetwood, Vice Provost for Strategic Development, and Bob Francis, Vice President for Facilities. The online discussion forum is designed to foster informed conversation among our students, faculty, and professional staff at all our campuses, on co-op, and abroad.

In addition to the open forums, we have now completed the first phase of the planning process. In Phase 1, five separate Strategic Planning Task Forces gathered over six weeks to focus on Quality of Life for Students, Professional Staff, and Faculty; Drexel's Scale; Academic Quality and Innovation; Community Partnerships; and Research. Over sixty faculty, professional staff, and students were engaged in these Task Forces, with a level of informed participation that has never been achieved previously at Drexel. Every Task Force produced an incisive and illuminating White Paper, each of which is available to everyone in the Drexel community through a SharePoint link on the Drexel Strategic Planning website. Comments on the White Papers are welcome on the blog. These White Papers – along with key themes from the online discussion contributions -- informed the discussion at our two-day strategic plan retreat. That two-day retreat, which I attended and which involved over fifty participants from faculty, professional staff, and administration, helped identify our strengths, clarify our aspirations, and create a shared foundation from which to build.

In our next phase of the planning process, faculty, professional staff, and students will continue collaborating on Phase 2 Task Forces to sharpen Drexel's vision, create an agenda for action, determine estimated costs, and identify modes of assessment for our measurable outcomes. Phase 2 Task Forces will complete their work in the early fall. The final plan is scheduled for completion by January 2012.

An important component of the process is the involvement of the Drexel Board of Trustees. Our Board is composed of preeminent Drexel alums and Drexel supporters. It includes entrepreneurs, business leaders, and accomplished professionals – each of whom can contribute a unique perspective and years of expertise to Drexel's Strategic Planning process. Drexel's Board members will be increasingly engaged as the plan evolves, and will be closely involved in shaping the strategic and long-range plans for our university. At the fall Board of Trustees meeting the Board will spend considerable time analyzing a working outline of the strategic plan, and helping us flesh out preliminary strategies.

I hope that you will choose to become involved in Drexel's planning process through participation in one of the open forums, through the online discussion forum, or by volunteering to work on one of our committees. Through hard work and respectful collaboration, we will create a plan that illuminates Drexel's key values, enduring mission, and aspirations. I look forward to engaging in the planning process and to a festive launch of The Drexel University Strategic Plan: 2012-2017.

*President John Fry*

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## APPENDIX G – DREXEL NEIGHBORHOOD INITIATIVE GOALS

### Overview

- **The commitment is comprehensive**, addressing simultaneously clean/safe neighborhoods, affordable housing, strong schools, retail/arts and culture, economic vitality, and a healthy community.
- **The engagement is long-term and multi-generational**: engagement is fundamental to Drexel's mission, its heritage, and its future.
- **Drexel is committed to solving real problems** and making a difference: its efforts lead to change. The community is not a laboratory for research or experiments.
- **The approach is equitable and inclusive**: Drexel's goal is to engage and support the existing community in a way that results in a sustainable diverse mixed-income community.

### Strategies

- Develop more **student housing** near campus and limit student-occupied residences in the neighborhood
- Attract **third-party developers** to strategic development sites
- Attract/leverage **public and private dollars** in Powelton/Mantua
- Align and leverage **administrative investments**
- Extend **economic development opportunities** through Drexel's business operations
- Focus **academic engagement** in Powelton/Mantua
- Engage **local nonprofits** in developing and maintaining affordable housing and retail and providing workforce training
- Engage **community residents** in long-term planning
- Build on **community assets** and strategically address risks

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## **Goals**

1. Create a **livable, affordable mixed-income** community
  - a. Mortgage program for faculty and staff: \$15,000 forgivable loan for home purchase, plus \$4,000 from City HomeBuyNow program
  - b. \$5,000 home improvement/external home renovation forgivable loan for existing employee homeowners
  - c. Workshops on energy efficiency/sustainable home renovations
  - d. Support for diverse homebuyers, through housing/credit counseling, homebuyer clubs, credit repair, wealth building supports
  - e. Partner on HUD Choice Neighborhoods planning grant
  - f. Partnership with non-profit and for-profit developers for mixed-income rental options
  - g. Partnership with community-based home repair organizations
2. Promote a **clean, safe and sustainable** neighborhood
  - a. Extension of security patrol area via UCD
  - b. Investments in public safety/CCTV and emergency phone technology
  - c. Contract for cleaning with MCIC
  - d. Improvements to neighborhood infrastructure
  - e. Campus master plan/greening plan
  - f. Partnership with Philadelphia Parks and Recreation to create green sustainable public spaces
  - g. Partnership with PHS and UC Green for community greening plan
3. Improve **economic opportunities** for community residents
  - a. Supplier diversity program
  - b. Construction inclusion goals
  - c. "Hire Mantua" on-campus employment initiative

- d. Participation in West Philadelphia Skills Initiative and job-training programs
  - e. Expanded youth internship commitment
  - f. Digital training through BTOP grant
4. Create **lively retail corridors** with enhanced arts and culture offerings
- a. Retail development/tenanting plan for Drexel-owned properties
  - b. Partnership with SCI-West/UCD and PEC to support Lancaster Ave retail development
  - c. ReStore Corridors art project
  - d. Third-party mixed-use development on key corridors
  - e. Community planning effort for food co-op
5. Enhance **educational options** and learning communities
- a. **Enhance educational options and learning communities**
  - b. Expanded commitment to Powel and McMichael Schools
  - c. Staff liaison for High School of the Future
  - d. STEM workshops for middle school students
  - e. Child care center for campus and community
  - f. Community-based extension/practicum clinic site
  - g. Mantua computer cluster in development for digital training, job development
6. Leverage resources to improve **health and wellness** in the community
- a. **Leverage resources to improve health and wellness opportunities in the community**
  - b. Exploring neighborhood clinic
  - c. Partnerships to increase healthy food options
  - d. Coordinating afterschool athletics opportunities