

# **THE ECONOMIC AND FISCAL IMPACT OF THE DREXEL INNOVATION NEIGHBORHOOD**

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## TABLE OF CONTENTS

<b>Executive Summary</b>	<b>III</b>
<b>1.0 Introduction</b>	<b>1</b>
<b>2.0 Economic and Fiscal Impact from Upfront Construction</b>	<b>4</b>
<b>3.0 Economic and Fiscal Impact from Ongoing Operations</b>	<b>9</b>
<b>4.0 Aggregate Fiscal Impact Over Time</b>	<b>14</b>
<b>5.0 Creation of Jobs Accessible to Neighborhood Residents</b>	<b>25</b>
<b>6.0 Impact on Neighboring Property Values</b>	<b>31</b>
<b>7.0 Conclusion</b>	<b>34</b>
<b>Appendix A – Economic and Fiscal Impact Model Methodology</b>	<b>A-1</b>
<b>Appendix B – Additional Detail on One-Time Economic Impact from Upfront Construction of the Innovation Neighborhood</b>	<b>A-4</b>
<b>Appendix C – Additional Detail on One-Time Fiscal Impact from Upfront Construction of the Innovation Neighborhood</b>	<b>A-5</b>
<b>Appendix D – Additional Detail on the Assumptions Used to Estimate Aggregate Annual Operating Expenditures for the Drexel Innovation Neighborhood</b>	<b>A-6</b>
<b>Appendix E – Additional Detail on Annual Economic Impact from Ongoing Expenditures of the Drexel Innovative Neighborhood</b>	<b>A-7</b>
<b>Appendix F – Additional Detail on Annual Fiscal Impact from Ongoing Operations of the Drexel Innovative Neighborhood</b>	<b>A-9</b>
<b>Appendix G – Additional Detail on the Tax and Cost Breakdown by Project</b>	<b>A-11</b>
<b>Appendix H – Additional Detail on the Aggregate Fiscal Impact of the Drexel Innovative Neighborhood</b>	<b>A-13</b>
<b>Appendix I – Boundary Map of University City District’s Service Area</b>	<b>A-16</b>
<b>Appendix J – Additional Detail on the Education Levels of Residents of the Innovative Neighborhood’s Immediate Neighborhood</b>	<b>A-17</b>

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## EXECUTIVE SUMMARY



Drexel University seeks to create the Drexel Innovation Neighborhood immediately to the west of 30<sup>th</sup> Street Station in the City of Philadelphia in the Commonwealth of Pennsylvania. The Innovation Neighborhood is anticipated to encompass about 5 million square feet of space and will include commercial office space, research laboratories, student housing, and a hotel.

This development is intended to have a transformative effect on this important section within the City, which connects the University City and Center City sections of the City. It will draw in tenants interested in trading on the site's proximity to 30<sup>th</sup> Street Station and to knowledge centers such as the University as well as the University City Science Center and the University of Pennsylvania.

As this development is being contemplated, it is useful to consider its prospective economic and fiscal impact on the City and Commonwealth. The purpose of this report is to provide a preliminary estimate of the magnitude and composition of these economic and fiscal impacts:

1. Section 2 – Upfront construction of the Innovation Neighborhood will generate new temporary economic activity, supporting construction and other employment and generating City and Commonwealth tax revenues during the construction phase - \$2.8 billion in economic impact supporting 10,000 jobs and \$40 million in tax revenues within the City, and \$4.3 billion in economic impact supporting 32,000 jobs and \$100 million in tax revenues within the Commonwealth (see Table ES.1).
2. Section 3 – Ongoing operations of the Innovation Neighborhood will generate new permanent economic activity, supporting office and other employment and generating City and Commonwealth tax revenues annually – \$2.2 billion in economic impact supporting 13,000 jobs and \$64 million in tax revenues within the City, and \$3.2 billion in economic impact supporting 21,000 jobs and \$84 million in tax revenues within the Commonwealth (see Table ES.2).
3. Section 4 – Over the long term, the aggregate cumulative tax revenue impact for the City and Commonwealth will be significant - \$10 billion over an 80-year period, including \$3.3 billion to the City and \$5.5 billion to the Commonwealth (see Table ES.3 and Figure ES.1).

4. Section 5 – Many jobs directly created by the upfront construction and ongoing operations of the Innovation Neighborhood will be accessible to residents of the Innovation Neighborhood’s immediate neighborhood – 45 percent of temporary construction jobs and 40 percent of permanent operations jobs (see Table ES.4).
5. Section 6 and 7 – The Innovation Neighborhood is also likely to have a positive property value effect on its immediate neighborhood, and to generate additional qualitative benefits to the City and Commonwealth.

**Table ES.1 – Estimated One-Time Economic and Fiscal Impact from Upfront Construction of the Drexel Innovation Neighborhood**

	City of Philadelphia	Commonwealth of Pennsylvania
Total Expenditures (\$M)	\$2,769	\$4,329
Total Employment	9,871	31,654
Total Tax Revenues (\$M)	\$39	\$101

*Source: US Department of Commerce (2009), Drexel University (2012), Econsult Corporation (2012)*

**Table ES.2 – Estimated Annual Economic and Fiscal Impact from Ongoing Operations of the Drexel Innovation Neighborhood upon Full Capacity**

	City of Philadelphia	Commonwealth of Pennsylvania
Total Expenditures (\$M)	\$2,245	\$3,201
Total Employment	12,836	21,360
Total Tax Revenues (\$M)	\$64	\$84

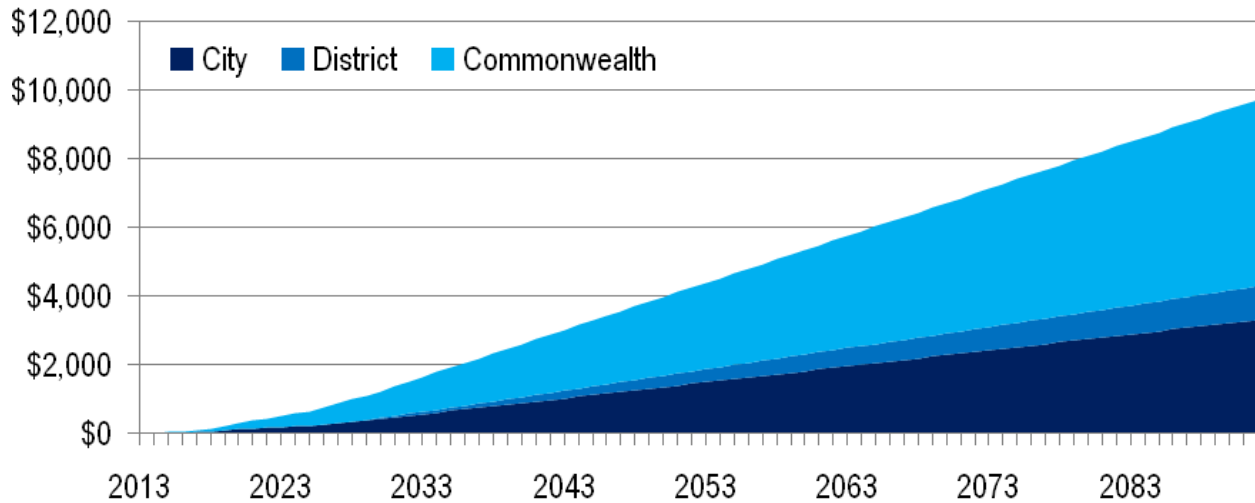
*Source: US Department of Commerce (2009), Drexel University (2012), Econsult Corporation (2012)*

**Table ES.3 – Estimated Aggregate Fiscal Impact of the Drexel Innovation Neighborhood to Various Taxing Jurisdictions from 2013 to 2092 (in \$M)**

Jurisdiction / Tax Type	Aggregate Tax Revenues (\$M)
City	\$3,302
School District	\$971
Commonwealth	\$5,454

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

**Figure ES.1 – Estimated Aggregate Cumulative Fiscal Impact Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions (in \$M)**



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

**Table ES.4 – Estimated Number of Jobs Generated by the Drexel Innovation Neighborhood That Are Accessible to immediate Neighborhood Residents**

Job Level	Jobs Demanded	# Jobs That May Go to Neighborhood Residents	% Jobs That May Go to Neighborhood Residents
Upfront Construction	6,631	3,010	45%
Ongoing Operations	9,575	3,635	40%

Source: EMSI (2012), US Department of Labor Bureau of Labor Statistics (2010), US Census Bureau (2010), Econsult Corporation (2012)

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## 1.0 INTRODUCTION

### 1.1 Project Summary



Drexel University (“the University”) seeks to create the Drexel Innovation Neighborhood (“the Innovation Neighborhood”) immediately to the west of 30<sup>th</sup> Street Station in the City of Philadelphia in the Commonwealth of Pennsylvania. The Innovation Neighborhood is anticipated to encompass about 5 million square feet of space and will include commercial office space, research laboratories, student housing, and a hotel.

This development is intended to have a transformative effect on this important section within the City, which connects the University City and Center City sections of the City. It will draw in tenants interested in trading on the site’s proximity to 30<sup>th</sup> Street Station and to knowledge centers such as the University as well as the University City Science Center and the University of Pennsylvania.

The University envisions a 60-year term that will see private development on University-owned property. This will have the effect of generating new property tax bases and expanding other tax bases, particularly once various qualifying tax abatement benefits expire (e.g. the City’s 10-year property tax abatement program and the Commonwealth’s Keystone Opportunity Zone (KOZ) program).

### 1.2 Economic and Fiscal Impact

As this development is being contemplated, it is useful to consider its prospective economic and fiscal impact on the City and Commonwealth. Upfront construction of the Innovation Neighborhood will generate new temporary economic activity, supporting construction and other employment and generating City and Commonwealth tax revenues during the construction phase. Similarly, ongoing operations of the Innovation Neighborhood will generate new permanent economic activity, supporting office and other employment and generating City and Commonwealth tax revenues annually.

The purpose of this report is to provide a preliminary estimate of the magnitude and composition of these economic and fiscal impacts. First, an economic and fiscal impact model

was constructed to translate estimated direct expenditures associated with the upfront construction and ongoing operations of the Innovation Neighborhood into total economic and fiscal impact estimates, which account not only for these direct expenditures but also for spillover impacts that occur as a result of them.

To determine the scale and composition of economic impact from the Innovation Neighborhood, an economic impact model was constructed that utilized multiplier data from the US Department of Commerce's Regional Input-Output Modeling Systems (RIMS II) to estimate the composition and scale of expenditures, employment, and earnings resulting from the direct expenditures associated with the Innovation Neighborhood. This model estimated two forms of spillover impacts resulting from the direct expenditures of the Innovation Neighborhood:

1. Indirect expenditures are generated as local vendors increase production in response to the initial expenditures. New expenditures on inputs and services (e.g. equipment, materials, professional services) cause suppliers of those inputs and services to ramp up production, and to acquire additional inputs and services from their suppliers, who themselves will do the same. The sum of these economic activities is known as the indirect expenditures, and they support additional employment and earnings beyond the employment and earnings supported by the direct expenditures.
2. Induced expenditures are generated as employees spend their earnings within the local economy. New expenditures on people (i.e. salaries) provide those people with additional spending power. Some of that spending power is exercised within the region, supporting local providers of various goods and services (e.g. food, entertainment, lodging, transportation). The sum of these economic activities is known as the induced expenditures, and they also support additional employment and earnings beyond the employment and earnings supported by the direct expenditures.

These direct, indirect, and induced expenditures support a certain scale and composition of employment and earnings, which can also be estimated using RIMS II multipliers. For the purposes of this report, the units of geography for which estimates were made are the City and Commonwealth.<sup>1</sup>

Fiscal impacts for the City and Commonwealth were also calculated through a fiscal impact model that utilizes "Journey to Work" data available through the US Census Bureau. This model apportions various amounts and kinds of economic activity into specified tax bases for the City

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<sup>1</sup> Initial economic impacts will continue to emanate beyond the City and Commonwealth to surrounding jurisdictions

and Commonwealth. These numbers were then multiplied by the appropriate tax rates to arrive at tax revenues generated within the City and Commonwealth.<sup>2</sup>

### **1.3 Report Overview**

In addition to discussing the economic and fiscal impacts of upfront construction (Section 2) and ongoing operations (Section 3) of the Innovation Neighborhood, this report also provides an estimate of the aggregate fiscal impact from the Innovation Neighborhood to the City, the Commonwealth, and other relevant taxing jurisdictions over the long term (Section 4). Also covered is the extent to which jobs directly created by the upfront construction and ongoing operations of the Innovation Neighborhood are accessible to residents of the Innovation Neighborhood's immediate neighborhood (Section 5), and the extent to which the Innovation Neighborhood will have a positive property value effect on its immediate neighborhood (Section 6). Finally, additional qualitative benefits of the Innovation Neighborhood on the City and Commonwealth are contemplated (Section 7).

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<sup>2</sup> See Appendix A for additional detail on Econsult's economic and fiscal impact model methodology.



## 2.0 ECONOMIC AND FISCAL IMPACT FROM UPFRONT CONSTRUCTION

### 2.1 Overview

Upfront construction of the Innovation Neighborhood represents a significant one-time economic stimulus for the City and Commonwealth. These direct expenditures represent net new infusions of economic activity into the City and Commonwealth, since they would not have taken place without the construction of the Innovation Neighborhood. The economic impact model described in Section 1.2 is used to translate direct expenditures associated with upfront construction of the Innovation Neighborhood into an estimated amount and composition of one-time economic impact (in expenditures, employment, and earnings) within the City and Commonwealth.

### 2.2 Direct Expenditures from Upfront Construction

Based on estimates provided by the University, aggregate project costs for the Innovation Neighborhood will total about \$1.9 billion (see Table 2.1 and Table 2.2). Throughout the report, unless otherwise indicated, dollar amounts are expressed in 2013 terms, for simplicity's sake. In other words, while dollar amounts are expected to rise over time in nominal terms, due to inflation, they are expected to stay the same in real terms, as expressed in constant 2013 dollars. Should construction costs increase at a rate higher than inflation, project costs in constant 2013 terms would be even higher, as would economic and fiscal impacts.

**Table 2.1 – Estimated Direct Construction Expenditures for the Drexel Innovation Neighborhood by Year (in \$M)**

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
Construction Expenditures	\$97	\$53	\$160	\$0	\$150	\$250	\$550	\$450	\$150	\$1,860

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

**Table 2.2 – Estimated Project Detail for Each Proposed Component of the Drexel Innovation Neighborhood**

Building	Use	SF (000)	Project Cost (\$M)	Open Year
Chestnut	Housing, Retail	300	\$97	2013
Hotel	Hotel	100	\$53	2014
Lancaster Housing	Housing, Retail	500	\$160	2015
Market #2	Research	400	\$150	2017
JFK #3	Research	400	\$150	2018
JFK #7	Research	400	\$150	2020
JFK #8	Research	400	\$150	2020
JFK #9	Office	400	\$150	2019
Chestnut #10	Office	1,000	\$400	2019
Market #5	Research	400	\$150	2020
Market #6	Research	400	\$150	2021
Firestone	Housing	300	\$100	2018
<b>Total</b>		<b>5,000</b>	<b>\$1,860</b>	

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

### 2.3 Economic Impact from Upfront Construction

The \$1.9 billion of estimated one-time direct expenditures associated with the upfront construction of the Innovation Neighborhood is estimated to generate a considerable amount of one-time economic impact within the City and Commonwealth (see Table 2.3). Within the City, upfront construction is estimated to generate about \$2.77 billion in total expenditures, supporting about 9,900 jobs and about \$430 million in earnings during the construction period. Within the Commonwealth, upfront construction is estimated to generate about \$4.33 billion in total expenditures, supporting about 31,700 jobs and about \$1.35 billion in earnings during the construction period.<sup>3</sup>

<sup>3</sup> Because the City is contained completely within the Commonwealth, the Commonwealth figures include the City figures, and the difference between the two represents the economic impacts that take place within the parts of the Commonwealth outside of the City.

**Table 2.3 – Estimated One-Time Economic Impact from Upfront Construction of the Drexel Innovation Neighborhood<sup>4</sup>**

	City of Philadelphia	Commonwealth of Pennsylvania
Direct Expenditures (\$M)	\$1,860	\$1,860
Indirect and Induced Expenditures (\$M)	\$909	\$2,469
<b>Total Expenditures (\$M)<sup>5</sup></b>	<b>\$2,769</b>	<b>\$4,329</b>
<b>Total Employment</b>	<b>9,871</b>	<b>31,654</b>
<b>Total Earnings (\$M)</b>	<b>\$435</b>	<b>\$1,355</b>

*Source: US Department of Commerce (2009), Drexel University (2012), Econsult Corporation (2012)*

## 2.4 Industry Distribution of Economic Impact from Upfront Construction

The construction industry will gain the most from the upfront construction of the Innovation Neighborhood, but many other industries will also be positively impacted (see Table 2.4). Within the City, it is estimated that about 46 percent of the expenditure impact and about 47 percent of the employment impact will be in industries besides construction. Within the Commonwealth, it is estimated that about 65 percent of the expenditure impact and about 63 percent of the employment impact will be in industries besides construction.

<sup>4</sup> See Appendix B for additional detail on one-time economic impact from upfront construction of the Innovation Neighborhood.

<sup>5</sup> Throughout the report, totals may not sum exactly due to rounding.

**Table 2.4 – Estimated Industry Distribution of One-Time Economic Impact from Upfront Construction of the Drexel Innovation Neighborhood**

<b>Expenditure Impact within the City of Philadelphia</b>	<b>%</b>	<b>Expenditure Impact within the Commonwealth of Pennsylvania</b>	<b>%</b>
Construction	53.9%	Construction	34.8%
Professional, scientific, and technical services	18.5%	Professional, scientific, and technical services	13.9%
Manufacturing	7.2%	Manufacturing	13.8%
Real estate and rental and leasing	4.6%	Real estate and rental and leasing	6.3%
Finance and insurance	3.3%	Finance and insurance	5.0%
All other industries	12.5%	All other industries	26.3%
<b>Employment Impact within the City of Philadelphia</b>	<b>%</b>	<b>Employment Impact within the Commonwealth of Pennsylvania</b>	<b>%</b>
Construction	52.5%	Construction	37.2%
Professional, scientific, and technical services	16.8%	Professional, scientific, and technical services	13.3%
Retail trade	5.3%	Retail trade	9.3%
Health care and social assistance	3.7%	Manufacturing	6.6%
Food services and drinking places	3.2%	Health care and social assistance	6.3%
All other industries	18.5%	All other industries	27.2%

*Source: US Department of Commerce (2009), Drexel University (2012), Econsult Corporation (2012)*

## **2.5 Fiscal Impact from Upfront Construction**

The temporary expansion in economic activity – through the upfront construction of the Innovation Neighborhood and through the indirect and induced expenditures that result from those direct expenditures – also will expand various City and Commonwealth tax bases. It is estimated that the City will gain about \$81 million in tax revenues and the Commonwealth will gain about \$72 million in tax revenues during the construction period as a result (see Table 2.5).<sup>6</sup>

<sup>6</sup> Because the City and Commonwealth are separate jurisdictions, there is no overlap between the City figures and the Commonwealth figures, as they represent the fiscal impacts to each jurisdiction.

**Table 2.5 – Estimated One-Time Fiscal Impact from Upfront Construction of the Drexel Innovation Neighborhood (in \$M)<sup>7</sup>**

City of Philadelphia		Commonwealth of Pennsylvania	
Wage and Earnings	\$16	Personal Income	\$25
Sales	\$9	Sales	\$68
Business Privilege	\$14	Corporate Net Income	\$8
<b>Philadelphia Tax Revenues</b>	<b>\$39</b>	<b>Pennsylvania Tax Revenues</b>	<b>\$101</b>

*Source: US Department of Commerce (2009), Drexel University (2012), Econsult Corporation (2012)*

<sup>7</sup> See Appendix C for additional detail on one-time fiscal impact from upfront construction of the Innovation Neighborhood.

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## **3.0 ECONOMIC AND FISCAL IMPACT FROM ONGOING OPERATIONS**

### **3.1 Overview**

Ongoing operations of the Drexel Innovation Neighborhood represent a significant annual economic stimulus for the City and Commonwealth. Most of these direct expenditures represent net new infusions of economic activity into the City and Commonwealth, since it is likely they would not have taken place without the operations of the Innovation Neighborhood. The economic impact model described in Section 1.2 is used to translate direct expenditures associated with ongoing operations of the Innovation Neighborhood into an estimated amount and composition of annual economic impact (in expenditures, employment, and earnings) within the City and Commonwealth.

### **3.2 Direct Expenditures from Ongoing Operations**

Annual operating expenditures for the Innovation Neighborhood are not known at this time. However, they can be estimated by using conservative assumptions for employees per 1000 square feet, average annual salaries, and proportion of salaries to total expenditures, as determined from industry averages. Based on this approach, and using conservative assumptions where possible so as not to overstate figures, it is estimated that the Innovation Neighborhood will represent about 9,600 employees, about \$590 million in aggregate salaries, and about \$1.48 billion in aggregate annual operating expenditures upon full capacity (see Table 3.1 and Table 3.2).<sup>8</sup>

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<sup>8</sup> “Full capacity” means all buildings have been completed and are at full occupancy. See Appendix D for additional detail on the assumptions used to estimate aggregate annual operating expenditures for the Innovation Neighborhood.

While dollar amounts are expected to rise over time in nominal terms, due to inflation, they are expected to stay the same in real terms, as expressed in constant 2012 dollars. Should operating costs increase at a rate higher than inflation, operating costs in constant 2012 terms would be even higher, as would economic and fiscal impacts.

**Table 3.1 – Estimated Annual Direct Expenditures Associated with Ongoing Operations of the Drexel Innovation Neighborhood upon Full Capacity**

Usage Type	SF	Employees	Salaries (\$M)	Expenditures (\$M)
Housing	1,020,000	435	\$13	\$43
Hotel	100,000	100	\$3	\$8
Retail	80,000	40	\$1	\$4
Research	2,400,000	4,800	\$360	\$900
Office	1,400,000	4,200	\$210	\$525
<b>Total</b>	<b>5,000,000</b>	<b>9,575</b>	<b>\$587</b>	<b>\$1,480</b>

Source: Drexel University (2012), US Census Bureau (2011), bizstats.com (2011), Econsult Corporation (2012)

**Table 3.2 – Estimated Direct Operating Expenditures for the Drexel Innovation Neighborhood by Year<sup>9</sup>**

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
New Expenditures (\$M)	\$15	\$8	\$25	\$0	\$150	\$158	\$525	\$450	\$150
Cumulative Expenditures (\$M)	\$15	\$23	\$48	\$48	\$198	\$355	\$880	\$1,330	\$1,480

Source: Drexel University (2012), US Census Bureau (2011), bizstats.com (2011), Econsult Corporation (2012)

### 3.3 Economic Impact from Ongoing Operations

The \$1.48 billion in estimated annual direct expenditures associated with the ongoing operations of the Innovation Neighborhood is estimated to generate a considerable amount of annual economic impact within the City and Commonwealth (see Table 3.3). Within the City, ongoing operations are estimated to generate about \$2.24 billion in total expenditures,

<sup>9</sup> For any given year, “New” represents the annual operating expenditures added from components of the Innovation Neighborhood that were built in the previous year. For any given year, “Cumulative” represents the annual operating expenditures of all components of the Innovation Neighborhood that are in operation by that year.

supporting about 12,800 jobs and about \$700 million in earnings each year upon full capacity. Within the Commonwealth, ongoing operations are estimated to generate about \$3.20 billion in total expenditures, supporting about 21,400 jobs and about \$1.02 billion in earnings each year upon full capacity.<sup>10</sup>

**Table 3.3 – Estimated Annual Economic Impact from Ongoing Operations of the Drexel Innovation Neighborhood upon Full Capacity<sup>11</sup>**

	City of Philadelphia	Commonwealth of Pennsylvania
Direct Expenditures (\$M)	\$1,480	\$1,480
Indirect and Induced Expenditures (\$M)	\$765	\$1,721
<b>Total Expenditures (\$M)</b>	<b>\$2,245</b>	<b>\$3,201</b>
<b>Total Employment</b>	<b>12,836</b>	<b>21,360</b>
<b>Total Earnings (\$M)</b>	<b>\$702</b>	<b>\$1,018</b>

*Source: US Department of Commerce (2009), Drexel University (2012), Econsult Corporation (2012)*

### 3.4 Industry Distribution of Economic Impact from Ongoing Operations

The professional services industry will gain the most from the ongoing operations of the Innovation Neighborhood, but many other industries will also be positively impacted (see Table 3.4). Within the City, it is estimated that about 32 percent of the expenditure impact and about 40 percent of the employment impact will be in industries besides professional services. Within the Commonwealth, it is estimated that about 50 percent of the expenditure impact and about 53 percent of the employment impact will be in industries besides professional services.

<sup>10</sup> Because the City is contained completely within the Commonwealth, the Commonwealth figures include the City figures, and the difference between the two represents the economic impacts that take place within the parts of the Commonwealth outside of the City.

<sup>11</sup> See Appendix E for additional detail on annual economic impact from ongoing operations of the Innovation Neighborhood.



**Table 3.4 – Estimated Industry Distribution of One-Time Economic Impact from Ongoing Operations of the Drexel Innovation Neighborhood**

<b>Expenditure Impact within the City of Philadelphia</b>	<b>%</b>	<b>Expenditure Impact within the Commonwealth of Pennsylvania</b>	<b>%</b>
Professional, scientific, and technical services	68.0%	Professional, scientific, and technical services	50.2%
Real estate and rental and leasing	6.9%	Real estate and rental and leasing	7.7%
Finance and insurance	5.0%	Manufacturing	6.4%
Accommodation	2.9%	Finance and insurance	6.4%
Information	2.9%	Health care and social assistance	4.8%
All other industries	14.3%	All other industries	24.4%
<b>Employment Impact within the City of Philadelphia</b>	<b>%</b>	<b>Employment Impact within the Commonwealth of Pennsylvania</b>	<b>%</b>
Professional, scientific, and technical services	59.7%	Professional, scientific, and technical services	47.4%
Accommodation	6.1%	Retail trade	7.3%
Administrative and waste management services	5.5%	Health care and social assistance	7.0%
Food services and drinking places	4.9%	Administrative and waste management services	6.8%
Real estate and rental and leasing	4.5%	Food services and drinking places	4.8%
All other industries	19.2%	All other industries	26.6%

*Source: US Department of Commerce (2009), Drexel University (2012), Econsult Corporation (2012)*

### **3.5 Fiscal Impact from Ongoing Operations**

The permanent expansion in economic activity – through the ongoing operations of the Innovation Neighborhood and through the indirect and induced expenditures that result from those direct expenditures – also will expand various City and Commonwealth tax bases. It is estimated that the City will gain about \$64 million in tax revenues and the Commonwealth will gain about \$84 million in tax revenues each year upon full capacity as a result (see Table 3.5).<sup>12</sup>

<sup>12</sup> Because the City and Commonwealth are separate jurisdictions, there is no overlap between the City figures and the Commonwealth figures, as they represent the fiscal impacts to each jurisdiction.

**Table 3.5 – Estimated Annual Fiscal Impact from Ongoing Operations of the Drexel Innovation Neighborhood, Not Accounting for KOZ Status (in \$M)<sup>13</sup>**

City of Philadelphia		Commonwealth of Pennsylvania	
Wage and Earnings	\$26	Personal Income	\$19
Sales	\$15	Sales	\$58
Business Privilege	\$23	Corporate Net Income	\$7
<b>Philadelphia Tax Revenues</b>	<b>\$64</b>	<b>Pennsylvania Tax Revenues</b>	<b>\$84</b>

*Source: US Department of Commerce (2009), Drexel University (2012), Econsult Corporation (2012)*

These figures represent fiscal impact estimates once all available tax incentive programs expire, such as the Commonwealth's KOZ program. In the ensuing section, fiscal impact estimates are aggregated over the long term, taking into account these tax incentives as well as accounting for additional tax revenue categories for the City, Commonwealth, and other taxing jurisdictions.

<sup>13</sup> See Appendix F for additional detail on annual fiscal impact from ongoing operations of the Innovation Neighborhood.

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## 4.0 AGGREGATE FISCAL IMPACT OVER TIME

### 4.1 Overview

Upfront construction and ongoing operations of the Innovation Neighborhood will generate significant tax revenues to the City and Commonwealth over the long term. Estimating aggregate fiscal impacts to the City and Commonwealth requires making three adjustments to the fiscal impact estimates generated in Sections 2 and 3:

1. First, those fiscal impact estimates must be assigned to their appropriate years. Fiscal impacts from upfront construction of individual components of the Innovation Neighborhood are assumed to take place in the year in which construction is completed.<sup>14</sup> Fiscal impacts from ongoing operations of individual components of the Innovation Neighborhood are assumed to take place every year starting in the year after construction is completed.<sup>15</sup>
2. Second, those fiscal impact estimates must be adjusted to account for the existence of abatements for some tax categories via the Commonwealth's KOZ program. Therefore, it is assumed that 100 percent of the fiscal impact estimates resulting directly from ongoing operations of the Innovation Neighborhood are zeroed out for those tax categories for the years in which KOZ status is in effect.<sup>16</sup>
3. Third, there are additional fiscal impacts over and above those associated with the expansion of business activities and the commensurate expansion of the City's and Commonwealth's personal income, business income, and sales tax bases. The City and the School District of Philadelphia collect property taxes on properties each year, the City and the Commonwealth collect real estate transfer taxes upon initial and

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<sup>14</sup> In other words, fiscal impacts associated with the upfront construction of a building that is estimated to be completed in August 2013 are assigned in full to 2013. In reality, some fiscal impacts may take place in years prior to 2013.

<sup>15</sup> In other words, fiscal impacts associated with the ongoing operations of a building that is estimated to be completed in August 2013 are assigned in full to every year starting in 2014. In reality, some fiscal impacts may take place in years prior to 2014. On the other hand, operations may not reach full occupancy right away, as there may be a phase-in period, which would also mean fiscal impacts would phase in over time.

<sup>16</sup> In other words, fiscal impact estimates represent increases in tax bases from the direct ongoing operations of the Innovation Neighborhood as well as from the indirect and induced expenditures that result from those ongoing operations. Tax abatements associated with KOZ status apply only to that direct activity, so only that proportion of fiscal impact estimates is zeroed out. Note that not all activities within a KOZ automatically receive tax abatements, so it is possible that it is too conservative to completely zero out these tax revenue amounts.

subsequent sale of properties, and the City and the Commonwealth collect hotel taxes on hotel room revenues.

The purpose of this section is to estimate the aggregate fiscal impact of the Innovation Neighborhood, taking into account both upfront construction and ongoing operations, and accounting for the three adjustments described above. As noted above, all dollar amounts are expressed in 2013 terms, for simplicity's sake.<sup>17</sup>

## 4.2 Property Tax Revenue Impact

Estimating property tax revenues requires two sets of assumptions, one related to the property tax base and one related to the property tax rate. Given that it is unknown if and how the City will implement its Actual Value Initiative (AVI),<sup>18</sup> there is even more uncertainty than usual regarding the relevant property tax base and property tax rate for components of the Drexel Innovation Neighborhood.

Therefore, the following assumptions are made. First, it is assumed that the market value of each component of the Innovation Neighborhood is equal to its project cost.<sup>19</sup> Second, it is assumed that the adjusted property tax rate, post-AVI, will be 1.5 percent, with 0.68 percent of it representing the City's portion and 0.82 percent representing the District's portion. Based on these assumptions, it is estimated that the Drexel Innovation Neighborhood will eventually represent about \$28 million per year in property tax revenues to the City and District (see Table 4.1).

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<sup>17</sup> In other words, while dollar amounts are expected to rise over time in nominal terms, due to inflation, they are expected to stay the same in real terms, as expressed in constant 2013 dollars. Should tax bases or tax rates increase at a rate higher than inflation, tax revenues in constant 2013 terms would be even higher, as would economic and fiscal impacts.

<sup>18</sup> AVI will set the assessed value for each property within the City at its current market value, and will then reduce the property tax rate accordingly. Currently, properties are assessed at 32 percent of their market value, and most properties' market value, for property tax purposes, is further understated; hence, adjusting assessed value to current market value requires a commensurate reduction in the property tax rate. The City is likely to implement AVI by the time most if not all the components of the Innovation Neighborhood are constructed.

<sup>19</sup> Should actual assessments vary from this estimate, property tax revenues would be higher or lower.

**Table 4.1 – Estimated Annual Property Tax Revenue Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions**

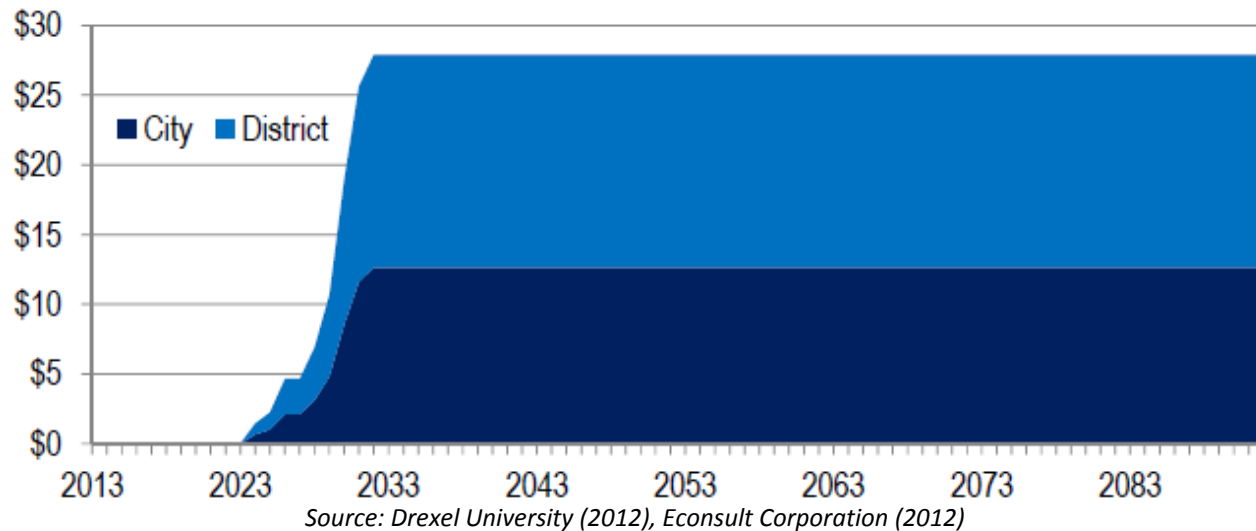
Building	Project Cost (\$M)	Market Value (\$M)	Property Tax Rate (City)	Property Tax Rate (District)	Property Tax Revenue (City) (\$M)	Property Tax Revenue (District) (\$M)	Property Tax Revenue (Total) (\$M)	1st Year Collected
Chestnut	\$97	\$97	0.68%	0.82%	\$0.66	\$0.80	\$1.46	2024
Hotel	\$53	\$53	0.68%	0.82%	\$0.36	\$0.43	\$0.80	2025
Lancaster Housing	\$160	\$160	0.68%	0.82%	\$1.09	\$1.31	\$2.40	2026
Market #2	\$150	\$150	0.68%	0.82%	\$1.02	\$1.23	\$2.25	2028
JFK #3	\$150	\$150	0.68%	0.82%	\$1.02	\$1.23	\$2.25	2029
JFK #7	\$150	\$150	0.68%	0.82%	\$1.02	\$1.23	\$2.25	2031
JFK #8	\$150	\$150	0.68%	0.82%	\$1.02	\$1.23	\$2.25	2031
JFK #9	\$150	\$150	0.68%	0.82%	\$1.02	\$1.23	\$2.25	2030
Chestnut #10	\$400	\$400	0.68%	0.82%	\$2.72	\$3.28	\$6.00	2030
Market #5	\$150	\$150	0.68%	0.82%	\$1.02	\$1.23	\$2.25	2031
Market #6	\$150	\$150	0.68%	0.82%	\$1.02	\$1.23	\$2.25	2032
Firestone	\$100	\$100	0.68%	0.82%	\$0.68	\$0.82	\$1.50	2029
<b>Total</b>					<b>\$12.65</b>	<b>\$15.25</b>	<b>\$27.90</b>	

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

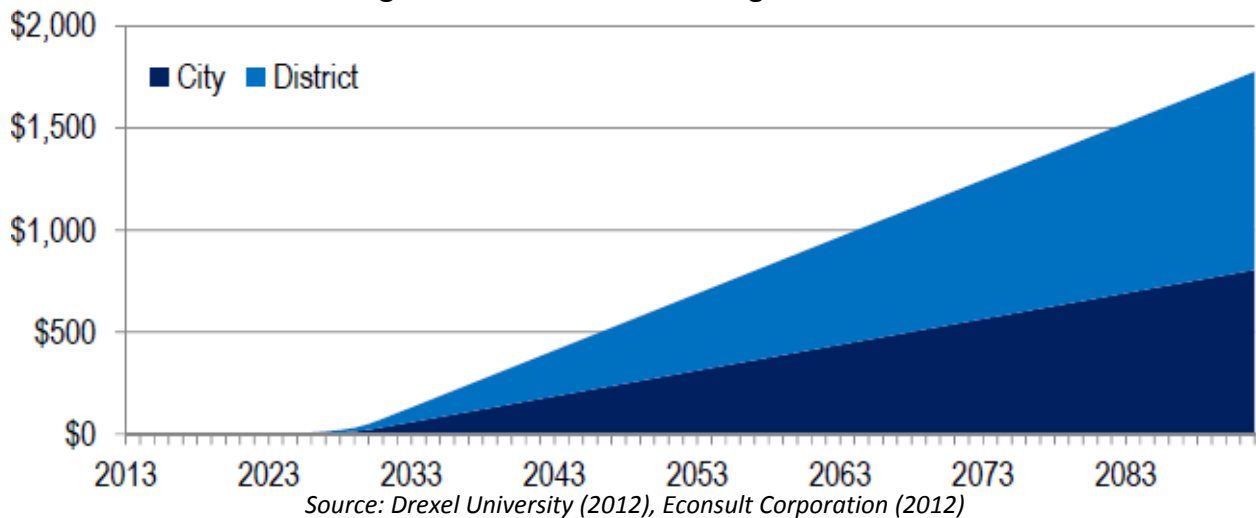
The existence of the City’s 10-year property tax abatement program necessitates an additional adjustment, in that property tax revenues will not be generated until 10 years after each component of the Innovation Neighborhood is completed. This delays the generation of property tax revenues, and is accounted for in the calculations of aggregate tax revenues generated by the Innovation Neighborhood (see Figure 4.1 and Figure 4.2).<sup>20</sup>

<sup>20</sup> “Annual” = the property tax revenues generated in any given year; “Cumulative” = the accumulation of property tax revenues generated from now until that given year.

**Figure 4.1 – Estimated Annual Property Tax Revenue Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions**



**Figure 4.2 – Estimated Cumulative Property Tax Revenue Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions**



### 4.3 Real Estate Transfer Tax Revenue Impact

Real estate transfer tax revenues are generated to the City and Commonwealth when a property is first built and then each time it is subsequently sold. It is assumed that real estate transfer tax revenues are generated when each component of the Innovation Neighborhood is completed, and that there are no subsequent real estate transfer tax revenues generated after

that. Based on this assumption, it is estimated that the Innovation Neighborhood will generate about \$74 million in real estate transfer tax revenues to the City and Commonwealth (see Table 4.2, Figure 4.3, and Figure 4.4).<sup>21</sup>

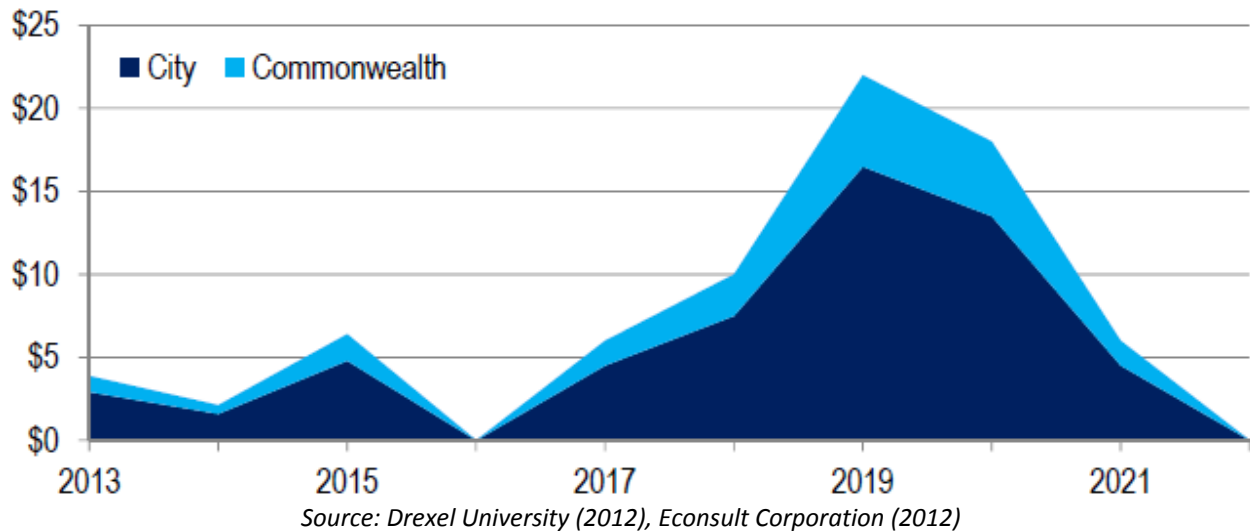
**Table 4.2 – Estimated One-Time Real Estate Transfer Tax Revenue Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions**

Building	Project Cost (\$M)	Market Value	Real Estate Transfer Tax Rate		Real Estate Transfer Tax Revenue (\$M)			Year Collected
			City	Commonwealth	City	Commonwealth	Total	
Chestnut	\$97	\$97	3%	1%	\$2.9	\$1.0	\$3.9	2013
Hotel	\$53	\$53	3%	1%	\$1.6	\$0.5	\$2.1	2014
Lancaster Housing	\$160	\$160	3%	1%	\$4.8	\$1.6	\$6.4	2015
Market #2	\$150	\$150	3%	1%	\$4.5	\$1.5	\$6.0	2017
JFK #3	\$150	\$150	3%	1%	\$4.5	\$1.5	\$6.0	2017
JFK #7	\$150	\$150	3%	1%	\$4.5	\$1.5	\$6.0	2018
JFK #8	\$150	\$150	3%	1%	\$4.5	\$1.5	\$6.0	2019
JFK #9	\$150	\$150	3%	1%	\$4.5	\$1.5	\$6.0	2019
Chestnut #10	\$400	\$400	3%	1%	\$12.0	\$4.0	\$16.0	2019
Market #5	\$150	\$150	3%	1%	\$4.5	\$1.5	\$6.0	2020
Market #6	\$150	\$150	3%	1%	\$4.5	\$1.5	\$6.0	2021
Firestone	\$100	\$100	3%	1%	\$3.0	\$1.0	\$4.0	2018
<b>Total</b>	<b>\$1,860</b>	<b>\$1,860</b>			<b>\$55.8</b>	<b>\$18.6</b>	<b>\$74.4</b>	

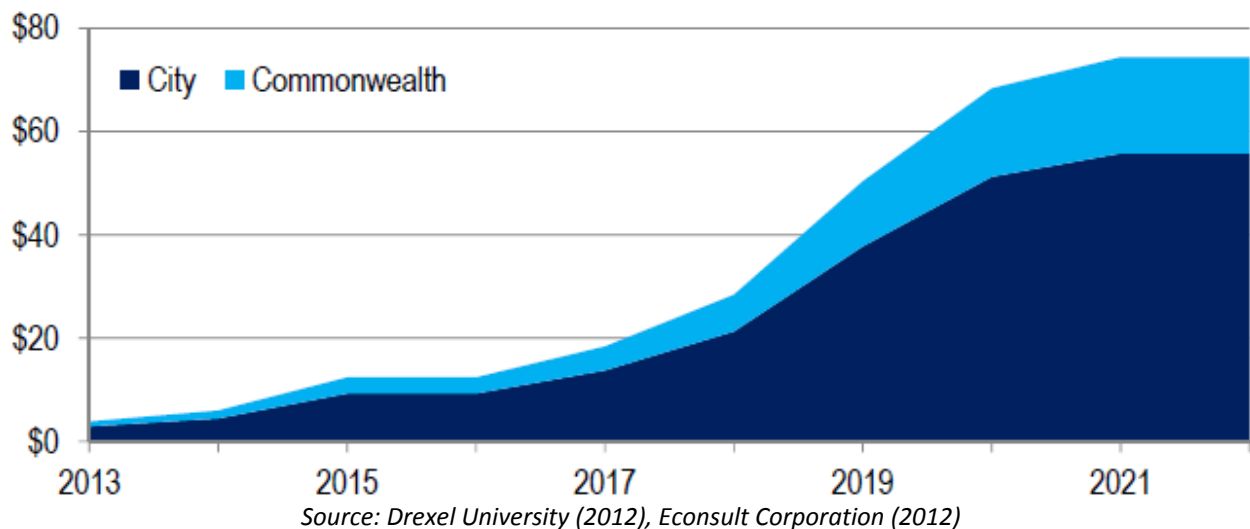
Source: Drexel University (2012), Econsult Corporation (2012)

<sup>21</sup> Because it is assumed that there are no subsequent transactions of properties after their initial construction, there are no real estate transfer tax revenues after 2021, and so those years are not shown in Figure 4.3 and Figure 4.4. “Annual” = the property tax revenues generated in any given year; “Cumulative” = the accumulation of property tax revenues generated from now until that given year.

**Figure 4.3 – Estimated Annual Real Estate Transfer Tax Revenue Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions**



**Figure 4.4 – Estimated Cumulative Real Estate Transfer Tax Revenue Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions**



#### 4.5 Hotel Tax Revenues

The hotel component of the Innovation Neighborhood will generate hotel tax revenues for the City and Commonwealth. Using conservative assumptions based on industry averages, it is estimated that the hotel will generate about \$4 million per year in hotel room revenue, which



translates into about \$600,000 in hotel tax revenues per year for the City and Commonwealth (see Table 4.3).

**Table 4.3 – Estimated Hotel Tax Revenue Generated by Hotel Portion of Drexel Innovation Neighborhood to Various Taxing Jurisdictions**

Hotel Room Revenue		City	Commonwealth
SF (000)	100	Hotel Room Revenue (\$M)	\$4
Rooms per 1000 SF	1	Tax Rate	8.2%
# Rooms	100	<b>Tax Revenue (\$M)</b>	<b>\$0.31</b>
Average Room Rate	\$147		<b>\$0.27</b>
Occupancy	71%		
Days/Year	365		
<b>Hotel Room Revenue (\$M)</b>	<b>\$4</b>		

Source: Greater Philadelphia Tourism Marketing Corporation (2011), Econsult Corporation (2012)

#### 4.6 KOZ Status

KOZ status affords the abatement of certain taxes for qualifying businesses located within the KOZ. For the purposes of this report, it is assumed that KOZ status expires in 2025,<sup>22</sup> and that all activity within the Innovation Neighborhood is KOZ-eligible. As a result, some portion of the fiscal impact estimates from Section 3 need to be backed out for the years prior to 2025. Specifically, the fiscal impact amounts estimated to be derived from the direct operating activities of the Innovation Neighborhood are excluded during those years.

<sup>22</sup> Should the KOZ abatement expire earlier than 2025, tax revenues would be collected sooner and therefore fiscal impacts would be even higher.

#### 4.7 Aggregate Fiscal Impact

Having accounted for all of the aforementioned necessary components and adjustments, the Innovation Neighborhood's aggregate fiscal impact can be estimated. Over an 80-year period, it is estimated that the Innovation Neighborhood will generate an aggregate \$10 billion in tax revenues: \$3.3 billion in tax revenues to the City, \$5.6 billion in tax revenues to the Commonwealth, and \$1.0 billion in tax revenues to the District (see Table 4.4, Figure 4.5, and Figure 4.6).<sup>23</sup>

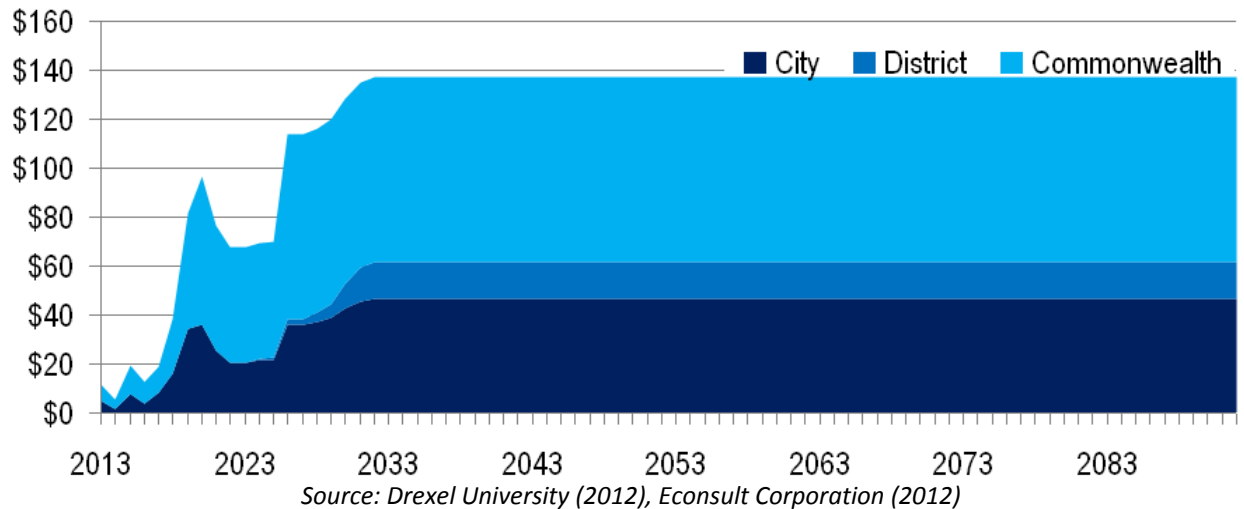
**Table 4.4 – Estimated Aggregate Cumulative Fiscal Impact of the Drexel Innovation Neighborhood to Various Taxing Jurisdictions from 2013 to 2092 (in \$M)**

Jurisdiction / Tax Type	Aggregate Tax Revenues
<b>City of Philadelphia</b>	
Wage Tax Revenues	\$1,057
Sales Tax Revenues	\$575
Business Income and Receipts Tax Revenues	\$788
Hotel Tax Revenues	\$24
Real Estate Transfer Tax Revenues	\$56
Property Tax Revenues	\$806
<b>Total City Tax Revenues</b>	<b>\$3,302</b>
<b>School District of Philadelphia</b>	
Property Tax Revenues	\$971
<b>Total District Tax Revenues</b>	<b>\$971</b>
<b>Commonwealth of Pennsylvania</b>	
Personal Income Tax Revenues	\$1,265
Sales Tax Revenues	\$3,720
Corporate Income Tax Revenues	\$430
Hotel Tax Revenues	\$21
Real Estate Transfer Tax Revenues	\$19
<b>Total Commonwealth Tax Revenues</b>	<b>\$5,454</b>

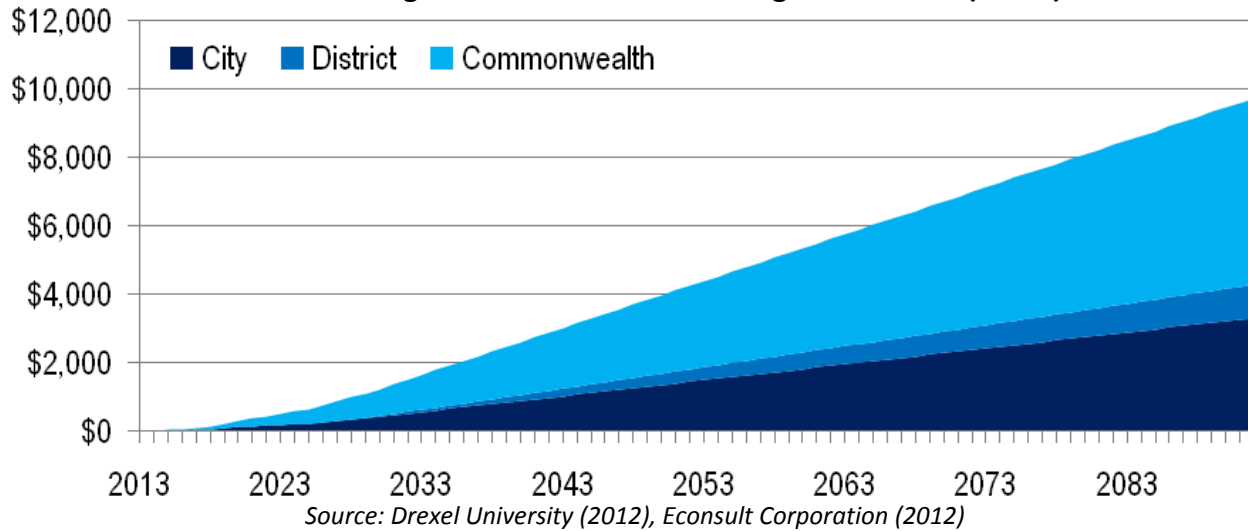
Source: Drexel University (2012), Econsult Corporation (2012)

<sup>23</sup> See Appendix G for additional detail on the aggregate fiscal impact of individual components of the Innovation Neighborhood, and Appendix H for Table 4.4, Figure 4.5, and Figure 4.6 expressed in non-inflation-adjusted terms.

**Figure 4.5 – Estimated Aggregate Annual Fiscal Impact Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions (in \$M)**



**Figure 4.6 – Estimated Aggregate Cumulative Fiscal Impact Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions (in \$M)**



**4.8 Consequences on Aggregate Fiscal Impact of a Longer Construction Timeline**

This report assumes that the Innovation Neighborhood will be completed in full within the next 10 years. Should the Innovation Neighborhood take longer to come into being than initially

anticipated, the estimated cumulative tax revenues generated to the City, District, and Commonwealth will or will not be affected in the following ways:

1. One-time fiscal impacts from upfront construction are unchanged, as they are simply pushed into the future, and if construction costs increase at the rate of inflation, then tax revenues will be the same in real terms.
2. Annual fiscal impacts from ongoing operations, once KOZ status has expired, are unchanged, as they too are simply pushed into the future, and if operating costs increase at the rate of inflation, then tax revenues will be the same in real terms.
3. Annual fiscal impacts from ongoing operations, while KOZ status is still in effect, are changed, because there may be fewer years in which some tax revenues generated by the direct operations of certain components of the Innovation Neighborhood are abated.
4. The cumulative amount of annual fiscal impacts from ongoing operations are changed, if looking at the same 80-year time horizon (2013-2092), since the delayed existence of certain components of the Innovation Neighborhood means fewer years in which those components are generating tax revenues.

Taking these adjustments into account, it is estimated that that a longer construction timeline (specifically, 20 years instead of 10 years) will have some effect on the cumulative tax revenues generated to the City, District, and Commonwealth, but that the cumulative tax revenue amounts are still very large: \$2.8 billion to \$3.1 billion to the City (instead of \$3.3 billion), \$820 million to \$890 million to the District (instead of \$970 million), and \$4.7 billion to \$5.1 billion to the Commonwealth (instead of \$5.5 billion) (see Table 4.5).

**Table 4.5 – Estimated Cumulative Fiscal Impact Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions from 2013 to 2092 Assuming a Longer Construction Timeline (in \$M)**

Year	Original Timeline (10 Years)	Longer Timeline (20 Years)
<b>City of Philadelphia</b>		
Wage Tax Revenues	\$1,057	\$914 - \$986
Sales Tax Revenues	\$572	\$490 - \$531
Business Income and Receipts Tax Revenues	\$788	\$676 - \$732
Hotel Tax Revenues	\$24	\$21 - \$23
Real Estate Transfer Tax Revenues	\$56	\$56
Property Tax Revenues	\$806	\$679 - \$742
<b>Total City Tax Revenues</b>		
<b>Cumulative City Tax Revenues</b>	<b>\$3,302</b>	<b>\$2,836 - \$3,069</b>
<b>School District of Philadelphia</b>		
Property Tax Revenues	\$971	\$819 - \$895
<b>Total District Tax Revenues</b>		
<b>Cumulative District Tax Revenues</b>	<b>\$971</b>	<b>\$819 - \$895</b>
<b>Commonwealth of Pennsylvania</b>		
Personal Income Tax Revenues	\$1,265	\$1,095 - \$1,180
Sales Tax Revenues	\$3,720	\$3,200 - \$3,460
Corporate Income Tax Revenues	\$430	\$370 - \$400
Hotel Tax Revenues	\$21	\$18 - \$19
Real Estate Transfer Tax Revenues	\$19	\$19
<b>Total Commonwealth Tax Revenues</b>		
<b>Cumulative Commonwealth Tax Revenues</b>	<b>\$5,454</b>	<b>\$4,702 - \$5,078</b>

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

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## 5.0 CREATION OF JOBS ACCESSIBLE TO NEIGHBORHOOD RESIDENTS

### 5.1 Overview

Importantly, the Innovation Neighborhood will not only support a significant amount of job creation within the City and Commonwealth, but will also represent a significant number of jobs that are accessible to residents of its immediate neighborhood. By comparing the labor demanded by the upfront construction and ongoing operations of the Innovation Neighborhood with the labor supplied by neighborhood residents, an estimate of the number and proportion of jobs that are accessible to neighborhood residents can be determined.

### 5.2 Defining Job Accessibility

In addition to the broader economic and fiscal impacts described in previous sections, the Innovation Neighborhood strengthens its immediate neighborhood by creating jobs that are accessible to neighborhood residents. This section compares the amount and distribution of labor demanded by Innovation Neighborhood (during upfront construction and ongoing operations) with the amount and distribution of labor that can potentially be supplied by neighborhood residents.

Accessibility of jobs created by the Innovation Neighborhood (labor demanded) to residents of its immediate neighborhood (labor supplied) was proxied by conservatively assigning educational attainment levels needed for various jobs and comparing that with the educational attainment levels of neighborhood residents. Three educational attainment levels were used in estimating how much labor being demanded by the Innovation Neighborhood could be supplied by neighborhood residents:

- “A” – Requiring high school diploma and some college
- “B” – Requiring a bachelor degree
- “C” – Requiring a master or doctoral degree<sup>24</sup>

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<sup>24</sup> These letters represent the intersection of employment demand (jobs required by the Innovation Neighborhood), and employment supply (the labor pool represented by the immediate neighborhood). To be conservative, higher educational attainment levels than are actually necessary were used. This is not done to suggest that the Innovation Neighborhood will be restrictive in its hiring of local residents; rather, it is done to

For this section, it is assumed that the immediate neighborhood is comprised of the boundaries of the University City District, which is a voluntary special service district funded in part by the University and which serves a significant area of residential and commercial development in the West Philadelphia section of the City.<sup>25</sup> Note that the jobs being analyzed in this section are only those directly related to the Innovation Neighborhood (e.g. those directly employed by its upfront construction or its ongoing operations), and not any jobs supported by spillover economic activity resulting from the Innovation Neighborhood.

### 5.3 Labor Demanded (Upfront Construction)

It is estimated that upfront construction of the Innovation Neighborhood will support a total of 9,900 jobs for City residents, and that about 6,600 of those jobs are directly associated with upfront construction of the Innovation Neighborhood (the remainder representing jobs supported by the spillover activity generated by upfront construction of the Innovation Neighborhood). These 6,600 direct construction jobs were apportioned into the educational attainment levels required to fulfill them by assuming that they were of the same proportion as that of NAICS Code 23 (Construction) and NAICS Code 54 (Professional, Scientific, and Technical Services). This yields an estimate of 5,300 "A" jobs, 1,132 "B" jobs, and 199 "C" jobs (see Table 5.1).

**Table 5.1 – Estimate of the Distribution by Educational Attainment Level of Jobs Represented by the Upfront Construction of the Innovation Neighborhood**

Job Level	Upfront Construction Jobs
"A"	5,300
"B"	1,132
"C"	199
<b>Total Jobs Demanded</b>	<b>6,631</b>

Source: EMSI (2012), US Department of Labor Bureau of Labor Statistics (2010), Econsult Corporation (2012)

make the labor supply estimates lower than they probably are, for purposes of being conservative. For example, if a set of jobs does not require even a high school diploma, and the methodology employed here only looks at residents who have a high school diploma and some college, that will have the effect of conservatively underestimating the number of residents for whom that set of jobs is accessible. Results arrived at through such a conservative approach should therefore be considered low-end estimates, with actual amounts likely to be higher.

<sup>25</sup> See Appendix I for a boundary map of University City District's service area, which serves as the definition of the Innovation Neighborhood's immediate neighborhood for the purposes of this section.

#### 5.4 Labor Demanded (Ongoing Operations)

It is estimated that ongoing operations of the Innovation Neighborhood will support a total of 12,800 jobs for City residents, and that about 9,600 of those jobs are directly associated with ongoing operations of the Innovation Neighborhood (the remainder representing jobs supported by the spillover activity generated by ongoing operations of the Innovation Neighborhood). These 9,600 direct operations jobs were apportioned into the educational attainment levels required to fulfill them by assuming that the retail jobs were of the same proportion as that of NAICS Code 44-45 (Retail Trade), the office and research jobs were of the same proportion as that of NAICS Code 54 (Professional, Scientific, and Technical Services), and the hotel jobs were of the same proportion as that of NAICS Code 72 (Accommodations and Food Services). This yields an estimate of 5,145 “A” jobs, 3,096 “B” jobs, and 1,334 “C” jobs (see Table 5.2).

**Table 5.2 – Estimate of the Distribution by Educational Attainment Level of Full-Time Equivalent Jobs Represented by the Ongoing Operations of the Innovation Neighborhood**

Job Level	Ongoing Operations Jobs
"A"	5,145
"B"	3,096
"C"	1,334
<b>Total Jobs Demanded</b>	<b>9,575</b>

Source: EMSI (2012), US Department of Labor Bureau of Labor Statistics (2010), Econsult Corporation (2012)

#### 5.5 Labor Supplied

Residents of the Innovation Neighborhood’s immediate neighborhood who are of working age were classified by their educational attainment levels, using 2010 Census data. This yields an estimate of about 11,195 residents of working age who can perform “A” jobs, about 5,778 residents of working age who can perform “B” jobs, and about 5,643 residents of working age who can perform “C” jobs (see Table 5.3).<sup>26</sup>

<sup>26</sup> See Appendix J for additional detail on the educational attainment levels of residents of the Innovation Neighborhood’s immediate neighborhood.



**Table 5.3 – Estimate of the Number of Residents within the Innovation Neighborhood’s immediate Neighborhood Who Can Perform “A,” “B,” and “C” Jobs**

Job Level	# Residents of Working Age
"A"	11,195
"B"	5,778
"C"	5,643
<b># Residents of Working Age</b>	<b>22,616</b>

*Source: US Census Bureau (2010), Econsult Corporation (2012)*

## 5.6 Job Accessibility

Comparing the composition of jobs demanded by the Innovation Neighborhood (by educational attainment level needed) with the composition of the residents of its immediate neighborhood (by their educational attainment level) gives some sense of the number of jobs demanded by the Innovation Neighborhood that are accessible to neighborhood residents. For “A,” “B,” and “C” jobs, it appears there are many more qualified neighborhood residents than there are available jobs, suggesting that a very large proportion of the jobs demanded are accessible to neighborhood residents (see Table 5.4).

**Table 5.4 – Comparison of the Composition of Jobs Demanded by Avenue North, by Educational Attainment, with the Educational Attainment of the Residents within the Innovation Neighborhood’s immediate Neighborhood**

Job Level	Labor Demanded (Upfront Construction)	Labor Demanded (Ongoing Operations)	Labor Supplied by Qualified Neighborhood Residents
"A"	5,300	5,145	11,195
"B"	1,132	3,096	5,778
"C"	199	1,334	5,643
<b>Total</b>	<b>6,631</b>	<b>9,575</b>	<b>22,616</b>

*Source: EMSI (2012), US Department of Labor Bureau of Labor Statistics (2010), US Census Bureau (2010), Econsult Corporation (2012)*

Educational attainment is admittedly an imperfect proxy for the skills and experiences needed for a particular job. On the labor supply side, neighborhood residents may choose not to apply for these new jobs because they are already gainfully employed or because they are simply not interested in these kinds of jobs. On the labor demand side, the number of direct construction and operations jobs that are accessible to neighborhood residents that actually go to neighborhood residents can be influenced by the amount of outreach that is conducted to make neighborhood residents aware of such job opportunities.

Nevertheless, a rough estimate can be made of the number and type of jobs that are accessible to neighborhood residents. If it is conservatively assumed that 50 percent of “A” jobs, 30 percent of “B” jobs, and 10 percent of “C” jobs will be secured by residents of the Innovation Neighborhood’s immediate neighborhood (the labor supply and labor demand numbers suggest that these proportions are readily achievable), this would mean that about 3,000 direct construction jobs (about 45 percent of the direct construction jobs that will go to City residents) and about 3,600 direct operations jobs (about 40 percent of the direct operations jobs that will go to City residents) may go to residents of the Innovation Neighborhood’s immediate neighborhood (see Table 5.5 and Table 5.6).

**Table 5.5 – Estimated Number of Temporary Jobs Generated by the Upfront Construction of the Innovation Neighborhood That Are Accessible to Residents within the Innovation Neighborhood’s immediate Neighborhood**

Job Level	Jobs Demanded by Upfront Construction	% Jobs That May Go to Neighborhood Residents	# Jobs That May Go to Neighborhood Residents
"A"	5,300	50%	2,650
"B"	1,132	30%	340
"C"	199	10%	20
<b>Total</b>	<b>6,631</b>		<b>3,010</b>
<b>% of All Jobs</b>			<b>45%</b>

Source: EMSI (2012), US Department of Labor Bureau of Labor Statistics (2010), US Census Bureau (2010), Econsult Corporation (2012)

**Table 5.6 – Estimated Number of Permanent Jobs Generated by the Ongoing Operations of the Innovation Neighborhood That Are Accessible to Residents within the Drexel Innovation Neighborhood’s immediate Neighborhood**

Job Level	Jobs Demanded by Ongoing Operations	% Jobs That May Go to Neighborhood Residents	# Jobs That May Go to Neighborhood Residents
"A"	5,145	50%	2,573
"B"	3,096	30%	929
"C"	1,334	10%	133
<b>Total</b>	<b>9,575</b>		<b>3,635</b>
<b>% of All Jobs</b>			<b>40%</b>

Source: EMSI (2012), US Department of Labor Bureau of Labor Statistics (2010), US Census Bureau (2010), Econsult Corporation (2012)

## 5.7 Job Accessibility for Minorities

Diversity in hiring is an important objective for the University in all of its operations. The University intends to carry this mindset into its plans for the Innovation Neighborhood by committing to a hiring goal of 25 percent for minorities. Should it reach those goals, this would represent about 1,600 temporary jobs and about 2,400 permanent jobs for minorities ( see Table 5.7).

**Table 5.7 – Estimated Number of Jobs Generated by the Innovation Neighborhood That Will Go to Minorities if Drexel University Reaches its Hiring Goal of 25 Percent**

Job Level	Jobs Demanded	% Jobs That Will Go to Minorities	# Jobs That Will Go to Minorities
Upfront Construction	6,631	25%	1,658
Ongoing Operations	9,575	25%	2,394

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

## 6.0 IMPACT ON NEIGHBORING PROPERTY VALUES

### 6.1 Overview

In addition to generating economic and fiscal impact to the City and Commonwealth and making jobs accessible to its immediate neighborhood, the Innovation Neighborhood is likely to have a positive effect on the value of neighboring properties. This has the effect of increasing household wealth for property owners as well as property tax revenues for the City.

### 6.2 Components of Property Value Impact

Residential property values change over time for a variety of reasons, including the addition of positive (example: a beautiful park) and negative (example: a smelly landfill) influences nearby. Property values change as a result of these new additions because of the positives and negatives associate with proximity to the new additions. In the case of the Innovation Neighborhood, there are a number of potential positives and negatives for nearby residential properties (see Table 6.1).<sup>27</sup>

Time will tell whether the Innovation Neighborhood will have a positive or negative effect on nearby residential property values, or to be more specific, whether the positive effects as described above will be more impactful than the negative effects as described above. It seems likely that the positive effects will outweigh the negative effects in the case of the Innovation Neighborhood, given the transformative effect the Innovation Neighborhood will have on its immediate neighborhood and on connecting University City and Center City.

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<sup>27</sup> Residential properties are used as the barometer of the value of proximity to a particular location, because they represent a useful measurement of the relative value of proximity to certain locations, since there are tens of thousands of observations each year within the City, each representing a price that a buyer and seller have willingly agreed to for a particular house with particular characteristics in a particular location at a particular point in time. This enables a rigorous assessment of the incremental value of any one aspect of a house, such as (in this case) its proximity to a new development.

**Table 6.1 – Potential Positives and Negatives of the Drexel Innovation Neighborhood to Nearby Residential Properties**

Positives	Negatives
<ul style="list-style-type: none"> <li>• Announcement and subsequent fulfillment of the project may symbolize the market's enhanced assessment of a particular location.</li> <li>• Development may replace under-utilized and unattractive parcels with aesthetically pleasing structures.</li> <li>• Development may include amenities that residents will like being near.</li> </ul>	<ul style="list-style-type: none"> <li>• Site preparation may involve disruption in the form of construction-related noise and congestion.</li> <li>• Development may obstruct views or cast shadows on existing residential properties.</li> <li>• Development may represent additional noise and congestion in the immediate area.</li> </ul>

*Source: Econsult Corporation (2012)*

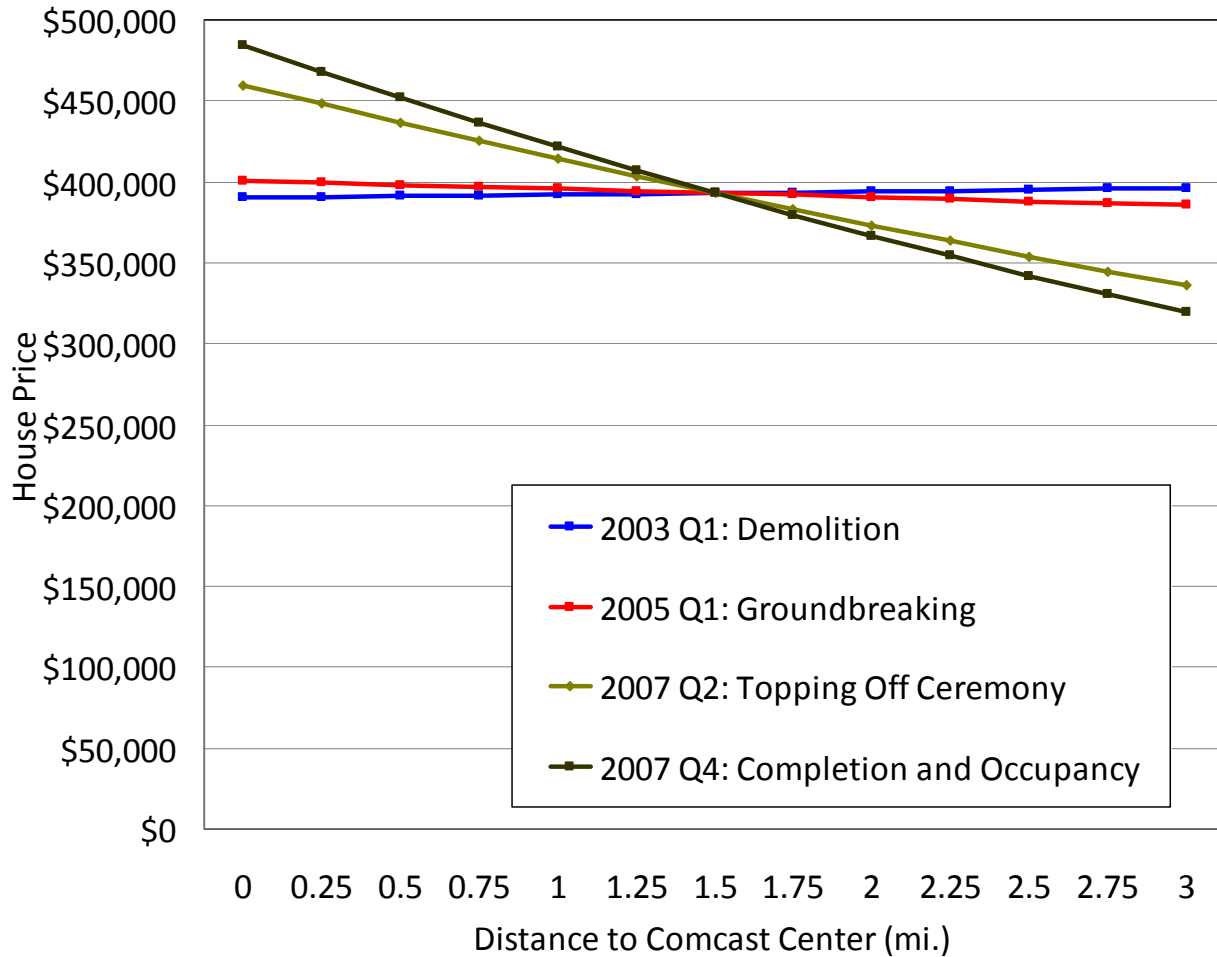
### 6.3 The Example of the Comcast Center

Consider, for example, the somewhat parallel example of the construction of the Comcast Center by Liberty Property Trust, which was completed in 2007. Through the calculation of what are called bid-price gradients, it can be seen that each stage of the development of this office tower resulted in an increase in nearby residential property values (see Figure 6.1).

Bid-price gradients measure property values as a function of proximity to something. In the case of the Comcast Center, bid-price gradients suggest that as the development progressed towards completion, there was an increasing premium attached to being located closer to the Comcast Center.

A completely horizontal line means there is neither advantage nor disadvantage to being located close to something. A line that slopes downward means there is an advantage to being located close to something, and that advantage attenuates as one looks at residential properties further and further away. Since the lines go from horizontal to downward sloping to more steeply downward sloping, this suggests that proximity to the Comcast Center was worth more over time as the project drew closer to completion.

**Figure 6.1 – Bid-Price Gradients to Comcast Center Over Time**



Source: Econsult Corporation (2008)

#### 6.4 Applicability to the Innovation Neighborhood

This is a likely outcome for the Innovation Neighborhood as well. If this is the case, not only will individual homeowners experience wealth gains, but, to the extent that these market value increases are properly accounted for in property value assessments, the City and District will receive more each year in property tax revenues, over and above the property tax revenues from the Innovation Neighborhood itself.

## 7.0 CONCLUSION

The Innovation Neighborhood will be a transformative development for the City and Commonwealth. It will generate significant economic and fiscal impact for the City and Commonwealth from its upfront construction and its ongoing operations. It will generate numerous temporary and permanent employment opportunities that will be accessible to residents of its immediate neighborhood. And, nearby residential properties are likely to increase in value over time as a result of proximity to the Innovation Neighborhood.

Over and above these quantifiable impacts are some additional, more qualitative impacts that are not accounted for in the analyses in the previous sections, but that may prove to be the most impactful results of the development of the Innovation Neighborhood:

1. The increasing connection between University City and Center City strengthens the City as a whole, and solidifies the entire area as a powerful hub of knowledge activity.
2. Continued growth by the University bolsters its status as an elite institution, drawing additional positive attention, intellectual activity, and commerce to the City and Commonwealth.
3. The clustering of research and innovation will likely lead to exponential gains in productivity and other positive outcomes, with returns not only to the University and other involved partners but to society as a whole.
4. Density surrounding 30<sup>th</sup> Street Station, the third busiest train station in the US, strengthens the City's and Commonwealth's connectivity to New York City, Washington, and other urban centers.

This report has endeavored to identify, articulate, and quantify the economic benefits associated with the Innovation Neighborhood. Between the many quantitative and qualitative impacts described in this report, the Innovation Neighborhood presents a compelling case as a transformative development with significant implications for economic growth, job creation, tax revenue generation, and innovation.

## 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, 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.

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.<sup>28</sup>

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.

## **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.

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<sup>28</sup> In the input-output model, the estimate of increased employment will always be in terms of the employment required for a given level of production, usually referred to as *person-years* of employment. As such, these estimates cannot be interpreted as specifying *permanent jobs*.

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

**Multiplier Effect** – 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.

**Economic Impacts** – total expenditures, employment, and earnings generated.

**Fiscal Impacts** – local and/or state tax revenues generated.

**Direct Expenditures** – 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.

**Direct Employment** – the full time equivalent jobs associated with the direct expenditures.

**Direct Earnings** – the salaries and wages earned by employees and contractors as part of the direct expenditures.

**Indirect Expenditures** – 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.

**Indirect Employment** – the full time equivalent jobs associated with the indirect expenditures.

**Indirect Earnings** – the salaries and wages earned by employees and contractors as part of the indirect expenditures.

**Total Expenditures** – the sum total of direct expenditures and indirect expenditures.

**Total Employment** – the sum total of direct employment and indirect employment.

**Total Earnings** – the sum total of direct earnings and indirect earnings.

*Source: Econsult Corporation (2009)*

## APPENDIX B - ADDITIONAL DETAIL ON ONE-TIME ECONOMIC IMPACT FROM UPFRONT CONSTRUCTION OF THE DREXEL INNOVATION NEIGHBORHOOD

**Table B.1 – One-Time Economic Impact from Upfront Construction of Drexel Innovation Neighborhood, by Year**

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
<b>City of Philadelphia</b>										
Direct Expenditures (\$M)	\$97	\$53	\$160	\$0	\$150	\$250	\$550	\$450	\$150	\$1,860
Indirect and Induced Expenditures (\$M)	\$47	\$26	\$78	\$0	\$73	\$122	\$269	\$220	\$73	\$908
<b>Total Expenditures (\$M)</b>	<b>\$144</b>	<b>\$79</b>	<b>\$238</b>	<b>\$0</b>	<b>\$223</b>	<b>\$372</b>	<b>\$819</b>	<b>\$670</b>	<b>\$223</b>	<b>\$2,768</b>
<b>Total Employment</b>	<b>515</b>	<b>281</b>	<b>849</b>	<b>-</b>	<b>796</b>	<b>1,327</b>	<b>2,919</b>	<b>2,388</b>	<b>796</b>	<b>9,871</b>
<b>Total Earnings (\$M)</b>	<b>\$23</b>	<b>\$12</b>	<b>\$37</b>	<b>\$0</b>	<b>\$35</b>	<b>\$58</b>	<b>\$129</b>	<b>\$105</b>	<b>\$35</b>	<b>\$434</b>
<b>Commonwealth of Pennsylvania</b>										
Direct Expenditures (\$M)	\$97	\$53	\$160	\$0	\$150	\$250	\$550	\$450	\$150	\$1,860
Indirect and Induced Expenditures (\$M)	\$129	\$70	\$212	\$0	\$199	\$332	\$730	\$529	\$199	\$2,400
<b>Total Expenditures (\$M)</b>	<b>\$226</b>	<b>\$123</b>	<b>\$372</b>	<b>\$0</b>	<b>\$349</b>	<b>\$582</b>	<b>\$1,280</b>	<b>\$979</b>	<b>\$349</b>	<b>\$4,260</b>
<b>Total Employment</b>	<b>1,651</b>	<b>901</b>	<b>2,723</b>	<b>-</b>	<b>2,553</b>	<b>4,225</b>	<b>9,360</b>	<b>7,658</b>	<b>2,553</b>	<b>31,624</b>
<b>Total Earnings (\$M)</b>	<b>\$71</b>	<b>\$39</b>	<b>\$117</b>	<b>\$0</b>	<b>\$109</b>	<b>\$182</b>	<b>\$401</b>	<b>\$328</b>	<b>\$109</b>	<b>\$1,356</b>

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

## APPENDIX C - ADDITIONAL DETAIL ON ONE-TIME FISCAL IMPACT FROM UPFRONT CONSTRUCTION OF THE DREXEL INNOVATION NEIGHBORHOOD

**Table C.1 – One-Time Fiscal Impact from Upfront Construction of Drexel Innovation Neighborhood, by Year (in \$M)**

Year	2013	2014	2015	2016	2017	2018	2019	2020	2021	Total
<b>City of Philadelphia</b>										
Wage Tax Revenues	\$1	\$0	\$1	\$1	\$1	\$2	\$5	\$4	\$1	\$16
Sales Tax Revenues	\$0	\$0	\$1	\$1	\$1	\$1	\$3	\$2	\$1	\$10
Business Income and Receipts Tax Revenues	\$1	\$0	\$1	\$1	\$1	\$2	\$4	\$3	\$1	\$14
<b>Total Tax Revenues</b>	<b>\$2</b>	<b>\$0</b>	<b>\$3</b>	<b>\$3</b>	<b>\$3</b>	<b>\$5</b>	<b>\$12</b>	<b>\$9</b>	<b>\$3</b>	<b>\$40</b>
<b>Commonwealth of Pennsylvania</b>										
Personal Income Tax Revenues	\$1	\$1	\$2	\$2	\$2	\$3	\$7	\$6	\$2	\$26
Sales Tax Revenues	\$4	\$2	\$6	\$5	\$5	\$9	\$20	\$16	\$5	\$72
Corporate Income Tax Revenues	\$0	\$0	\$1	\$1	\$1	\$1	\$2	\$2	\$1	\$1
<b>Total Tax Revenues</b>	<b>\$5</b>	<b>\$3</b>	<b>\$9</b>	<b>\$8</b>	<b>\$8</b>	<b>\$13</b>	<b>\$29</b>	<b>\$24</b>	<b>\$8</b>	<b>\$107</b>

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

## APPENDIX D – ADDITIONAL DETAIL ON THE ASSUMPTIONS USED TO ESTIMATE AGGREGATE ANNUAL OPERATING EXPENDITURES FOR THE DREXEL INNOVATION NEIGHBORHOOD

**Table D.1 – Conservative Assumptions Used to Estimate Annual Expenditures Associated with  
Ongoing Operations of Drexel Innovation Neighborhood**

Building	Use	SF (000)	Employees /1000SF	# Employees	Average Annual Salary (\$000)	\$ Salaries (\$M)	Salaries as a Percentage of All Expenditures	Expenditures (\$M)
Chestnut	Housing, Retail	300	0.5	150	30	\$5	30%	\$15
Hotel	Hotel	100	1	100	30	\$3	40%	\$8
Lancaster Housing	Housing, Retail	500	0.5	250	30	\$8	30%	\$25
Market #2	Research	400	2	800	75	\$60	40%	\$150
JFK #3	Research	400	2	800	75	\$60	40%	\$150
JFK #7	Research	400	2	800	75	\$60	40%	\$150
JFK #8	Research	400	2	800	75	\$60	40%	\$150
JFK #9	Office	400	3	1200	50	\$60	40%	\$150
Chestnut #10	Office	1000	3	3000	50	\$150	40%	\$375
Market #5	Research	400	2	800	75	\$60	40%	\$150
Market #6	Research	400	2	800	75	\$60	40%	\$150
Firestone	Housing	300	0.25	75	30	\$2	30%	\$8
<b>Total</b>		<b>5,000</b>		<b>9,575</b>		<b>\$587</b>		<b>\$1,480</b>

*Source: Drexel University (2012), US Census Bureau (2011), bizstats.com (2011), Econsult Corporation (2012)*

## APPENDIX E - ADDITIONAL DETAIL ON ANNUAL ECONOMIC IMPACT FROM ONGOING OPERATIONS OF THE DREXEL INNOVATION NEIGHBORHOOD

**Table E.1 – Annual Economic Impact from Ongoing Operations of Drexel Innovation Neighborhood, by Year**

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>City of Philadelphia</b>									
Direct Expenditures (\$M)	\$15	\$8	\$25	\$0	\$150	\$158	\$525	\$450	\$150
Indirect and Induced Expenditures (\$M)	\$9	\$5	\$16	\$0	\$77	\$82	\$269	\$154	\$77
<b>Total Expenditures (\$M)</b>	<b>\$24</b>	<b>\$13</b>	<b>\$41</b>	<b>\$0</b>	<b>\$227</b>	<b>\$240</b>	<b>\$794</b>	<b>\$604</b>	<b>\$227</b>
<b>Total Employment</b>	<b>156</b>	<b>82</b>	<b>260</b>	<b>\$0</b>	<b>813</b>	<b>895</b>	<b>2,845</b>	<b>1,626</b>	<b>813</b>
<b>Total Earnings (\$M)</b>	<b>\$4</b>	<b>\$7</b>	<b>\$50</b>	<b>\$0</b>	<b>\$42</b>	<b>\$44</b>	<b>\$146</b>	<b>\$83</b>	<b>\$42</b>
<b>Commonwealth of Pennsylvania</b>									
Direct Expenditures (\$M)	\$15	\$8	\$25	\$0	\$150	\$158	\$525	\$450	\$150
Indirect and Induced Expenditures (\$M)	\$17	\$9	\$28	\$0	\$175	\$184	\$611	\$349	\$175
<b>Total Expenditures (\$M)</b>	<b>\$32</b>	<b>\$17</b>	<b>\$53</b>	<b>\$0</b>	<b>\$325</b>	<b>\$341</b>	<b>\$1,136</b>	<b>\$799</b>	<b>\$325</b>
<b>Total Employment</b>	<b>289</b>	<b>151</b>	<b>482</b>	<b>\$0</b>	<b>2,386</b>	<b>2,537</b>	<b>8,351</b>	<b>4,772</b>	<b>2,386</b>
<b>Total Earnings (\$M)</b>	<b>\$9</b>	<b>\$5</b>	<b>\$15</b>	<b>\$0</b>	<b>\$116</b>	<b>\$121</b>	<b>\$406</b>	<b>\$232</b>	<b>\$116</b>

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

**Table E.2 – Annual Economic Impact from Ongoing Operations of Drexel Innovation Neighborhood, by Year (Cumulative)**

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>City of Philadelphia</b>									
Direct Expenditures (\$M)	\$15	\$23	\$48	\$48	\$198	\$355	\$880	\$1,330	\$1,480
Indirect and Induced Expenditures (\$M)	\$9	\$15	\$30	\$30	\$107	\$189	\$458	\$612	\$689
<b>Total Expenditures (\$M)</b>	<b>\$24</b>	<b>\$37</b>	<b>\$78</b>	<b>\$78</b>	<b>\$305</b>	<b>\$544</b>	<b>\$1,338</b>	<b>\$1,942</b>	<b>\$2,169</b>
<b>Total Employment</b>	<b>156</b>	<b>238</b>	<b>498</b>	<b>498</b>	<b>1,311</b>	<b>2,206</b>	<b>5,051</b>	<b>6,677</b>	<b>7,490</b>
<b>Total Earnings (\$M)</b>	<b>\$4</b>	<b>\$11</b>	<b>\$61</b>	<b>\$61</b>	<b>\$103</b>	<b>\$147</b>	<b>\$293</b>	<b>\$376</b>	<b>\$418</b>
<b>Commonwealth of Pennsylvania</b>									
Direct Expenditures (\$M)	\$15	\$23	\$48	\$48	\$198	\$355	\$880	\$1,330	\$1,480
Indirect and Induced Expenditures (\$M)	\$17	\$26	\$54	\$54	\$228	\$412	\$1,023	\$1,373	\$1,547
<b>Total Expenditures (\$M)</b>	<b>\$32</b>	<b>\$48</b>	<b>\$101</b>	<b>\$101</b>	<b>\$426</b>	<b>\$767</b>	<b>\$1,903</b>	<b>\$2,703</b>	<b>\$3,027</b>
<b>Total Employment</b>	<b>289</b>	<b>440</b>	<b>922</b>	<b>922</b>	<b>3,308</b>	<b>5,845</b>	<b>14,196</b>	<b>18,968</b>	<b>21,354</b>
<b>Total Earnings (\$M)</b>	<b>\$9</b>	<b>\$13</b>	<b>\$28</b>	<b>\$28</b>	<b>\$144</b>	<b>\$264</b>	<b>\$670</b>	<b>\$902</b>	<b>\$1,018</b>

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

## APPENDIX F – ADDITIONAL DETAIL ON ANNUAL FISCAL IMPACT FROM ONGOING OPERATIONS OF THE DREXEL INNOVATION NEIGHBORHOOD

**Table F.1 – Annual Fiscal Impact from Ongoing Operations of Drexel Innovation Neighborhood, by Year, Not Accounting for KOZ Status (in \$M)**

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>City of Philadelphia</b>									
Wage Tax Revenue	\$0	\$0	\$0	\$0	\$2	\$2	\$5	\$3	\$2
Sales Tax Revenue	\$0	\$0	\$0	\$0	\$1	\$1	\$3	\$2	\$1
Business Income and Receipts Tax Revenue	\$0	\$0	\$0	\$0	\$1	\$1	\$5	\$3	\$1
<b>Total Tax Revenues</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1</b>	<b>\$0</b>	<b>\$4</b>	<b>\$4</b>	<b>\$13</b>	<b>\$8</b>	<b>\$4</b>
<b>Commonwealth of Pennsylvania</b>									
Personal Income Tax Revenue	\$0	\$0	\$0	\$0	\$2	\$2	\$7	\$4	\$2
Sales Tax Revenue	\$1	\$0	\$1	\$0	\$6	\$6	\$20	\$12	\$6
Corporate Income Tax Revenue	\$0	\$0	\$0	\$0	\$1	\$1	\$2	\$1	\$1
<b>Total Tax Revenues</b>	<b>\$1</b>	<b>\$0</b>	<b>\$1</b>	<b>\$0</b>	<b>\$9</b>	<b>\$9</b>	<b>\$29</b>	<b>\$17</b>	<b>\$9</b>

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



**Table F.2 – Cumulative Fiscal Impact from Ongoing Operations of Drexel Innovation Neighborhood, by Year, Not Accounting for KOZ Status (in \$M)**

Year	2014	2015	2016	2017	2018	2019	2020	2021	2022
<b>City of Philadelphia</b>									
Wage Tax Revenue	\$0	\$0	\$0	\$0	\$2	\$4	\$9	\$12	\$14
Sales Tax Revenue	\$0	\$0	\$0	\$0	\$1	\$2	\$5	\$7	\$8
Business Income and Receipts Tax Revenue	\$0	\$0	\$0	\$0	\$1	\$2	\$7	\$10	\$11
<b>Total Tax Revenues</b>	<b>\$0</b>	<b>\$0</b>	<b>\$1</b>	<b>\$1</b>	<b>\$5</b>	<b>\$9</b>	<b>\$22</b>	<b>\$30</b>	<b>\$34</b>
<b>Commonwealth of Pennsylvania</b>									
Personal Income Tax Revenue	\$0	\$0	\$0	\$0	\$2	\$4	\$11	\$15	\$17
Sales Tax Revenue	\$1	\$1	\$2	\$2	\$8	\$14	\$34	\$46	\$52
Corporate Income Tax Revenue	\$0	\$0	\$0	\$0	\$1	\$2	\$4	\$5	\$6
<b>Total Tax Revenues</b>	<b>\$1</b>	<b>\$1</b>	<b>\$2</b>	<b>\$2</b>	<b>\$11</b>	<b>\$20</b>	<b>\$49</b>	<b>\$66</b>	<b>\$75</b>

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

**Table F.3 – Annual Fiscal Impact from Ongoing Operations of Drexel Innovation Neighborhood, Considering KOZ Status During and After (in \$M)**

Jurisdiction/ Tax Type	KOZ	Post-KOZ	Savings from KOZ
<b>City of Philadelphia</b>			
Wage and Earnings	\$26	\$26	\$0
Sales	\$5	\$15	\$10
Business Privilege	\$8	\$23	\$15
<b>Total City Tax Revenues</b>	<b>\$39</b>	<b>\$64</b>	<b>\$25</b>
<b>Commonwealth of Pennsylvania</b>			
Personal Income	\$19	\$19	\$0
Sales	\$31	\$58	\$27
Corporate Net Income	\$4	\$7	\$3
<b>Total Commonwealth Tax Revenues</b>	<b>\$54</b>	<b>\$84</b>	<b>\$30</b>

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

## APPENDIX G – ADDITIONAL DETAIL ON THE TAX AND COST BREAKDOWN BY PROJECT

**Table G.1 – Estimated Annual City Tax Savings Generated by KOZ Status of the Drexel Innovation Neighborhood (in \$M)**

Project	City Tax Revenue Post-KOZ	City Tax Revenue During KOZ	Savings from KOZ
Chestnut	\$2.1	\$1.3	\$0.8
Hotel	\$1.2	\$0.7	\$0.5
Lancaster Housing	\$3.5	\$2.2	\$1.4
Market #2	\$5.7	\$3.5	\$2.2
JFK #3	\$5.7	\$3.5	\$2.2
JFK #7	\$5.7	\$3.5	\$2.2
JFK #8	\$5.7	\$3.5	\$2.2
JFK #9	\$5.7	\$3.5	\$2.2
Chestnut #10	\$14.9	\$9.0	\$5.8
Market #5	\$5.7	\$3.5	\$2.2
Market #6	\$5.7	\$3.5	\$2.2
Firestone	\$2.1	\$1.3	\$0.8
<b>Total</b>	<b>\$64.0</b>	<b>\$39.0</b>	<b>\$25.0</b>

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

**Table G.2 – Estimated Annual Commonwealth Tax Savings Generated by KOZ Status of the Drexel Innovation Neighborhood (in \$M)**

Project	Commonwealth Tax Revenue Post-KOZ	Commonwealth Tax Revenue During KOZ	Savings from KOZ
Chestnut	\$2.8	\$1.8	\$1.0
Hotel	\$1.5	\$1.0	\$0.5
Lancaster Housing	\$4.7	\$3.0	\$1.7
Market #2	\$7.5	\$4.8	\$2.7
JFK #3	\$7.5	\$4.8	\$2.7
JFK #7	\$7.5	\$4.8	\$2.7
JFK #8	\$7.5	\$4.8	\$2.7
JFK #9	\$7.5	\$4.8	\$2.7
Chestnut #10	\$19.5	\$12.5	\$7.0
Market #5	\$7.5	\$4.8	\$2.7
Market #6	\$7.5	\$4.8	\$2.7
Firestone	\$2.7	\$1.7	\$1.0
<b>Total</b>	<b>\$84.0</b>	<b>\$53.9</b>	<b>\$30.1</b>

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

## APPENDIX H – ADDITIONAL DETAIL ON THE AGGREGATE FISCAL IMPACT OF THE DREXEL INNOVATION NEIGHBORHOOD

**Table H.1 – Estimated Aggregate Annual and Cumulative Fiscal Impact Generated by the Drexel Innovation Neighborhood from 2013 to 2092 (in \$M)<sup>29</sup>**

Year	2013-2092	2013	2018	2023	2028	2033
<b>City of Philadelphia</b>						
Wage Tax Revenues	\$3,634	\$1	\$4	\$14	\$14	\$14
Sales Tax Revenues	\$592	\$0	\$1	\$3	\$8	\$8
Business Income and Receipts Tax Revenues	\$857	\$1	\$2	\$4	\$11	\$11
Hotel Tax Revenues	\$24	\$0	\$0	\$0	\$0	\$0
Real Estate Transfer Tax Revenues	\$56	\$3	\$8	\$0	\$0	\$0
Property Tax Revenues	\$806	\$0	\$0	\$0	\$3	\$13
<b>Total City Tax Revenues</b>		<b>\$5</b>	<b>\$16</b>	<b>\$21</b>	<b>\$37</b>	<b>\$47</b>
<b>Cumulative City Tax Revenues</b>	<b>\$3,343</b>	<b>\$5</b>	<b>\$43</b>	<b>\$221</b>	<b>\$373</b>	<b>\$593</b>
<b>School District of Philadelphia</b>						
Property Tax Revenues	\$971	\$0	\$0	\$0	\$4	\$15
<b>Total District Tax Revenues</b>		<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$4</b>	<b>\$15</b>
<b>Cumulative District Tax Revenues</b>	<b>\$971</b>	<b>\$0</b>	<b>\$0</b>	<b>\$0</b>	<b>\$11</b>	<b>\$72</b>
<b>Commonwealth of Pennsylvania</b>						
Personal Income Tax Revenues	\$1,291	\$1	\$5	\$17	\$17	\$17
Sales Tax Revenues	\$3,792	\$4	\$13	\$27	\$52	\$52
Corporate Income Tax Revenues	\$431	\$0	\$2	\$3	\$6	\$6
Hotel Tax Revenues	\$21	\$0	\$0	\$0	\$0	\$0
Real Estate Transfer Tax Revenues	\$19	\$1	\$3	\$0	\$0	\$0
<b>Total Commonwealth Tax Revenues</b>		<b>\$6</b>	<b>\$23</b>	<b>\$47</b>	<b>\$75</b>	<b>\$75</b>
<b>Cumulative Commonwealth Tax Revenues</b>	<b>\$5,554</b>	<b>\$6</b>	<b>\$64</b>	<b>\$416</b>	<b>\$737</b>	<b>\$1,113</b>

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

<sup>29</sup> Selected years shown to conserve space. All years beyond 2033 are the same as 2033.

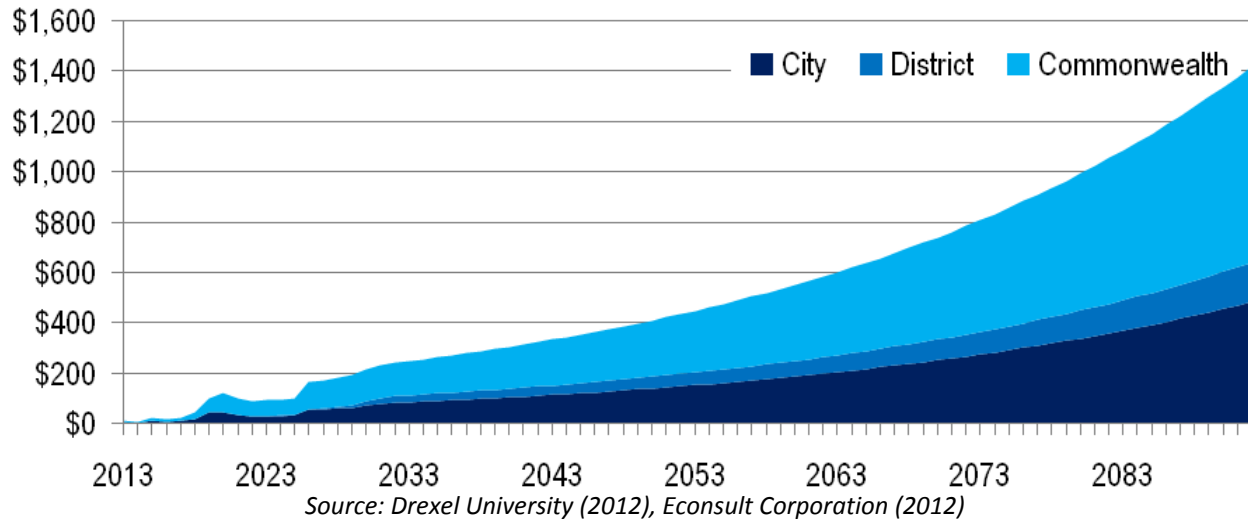
Table H.2, Figure H.1, and Figure H.2 are identical to Table 4.4, Figure 4.5, and Figure 4.6, except that they express fiscal impact estimates in nominal, non-inflation-adjusted terms, assuming an annual inflation rate of 3 percent. All other tables and figures in this report express impact estimates in real, inflation-adjusted terms, assuming an annual inflation rate of 3 percent and then discounting back to the present at an equivalent discount rate of 3 percent (in other words, assuming no growth in real terms).

**Table H.2 – Estimated Aggregate Cumulative Fiscal Impact of the Drexel Innovation Neighborhood to Various Taxing Jurisdictions from 2013 to 2092 (in Non-Inflation-Adjusted \$M)**

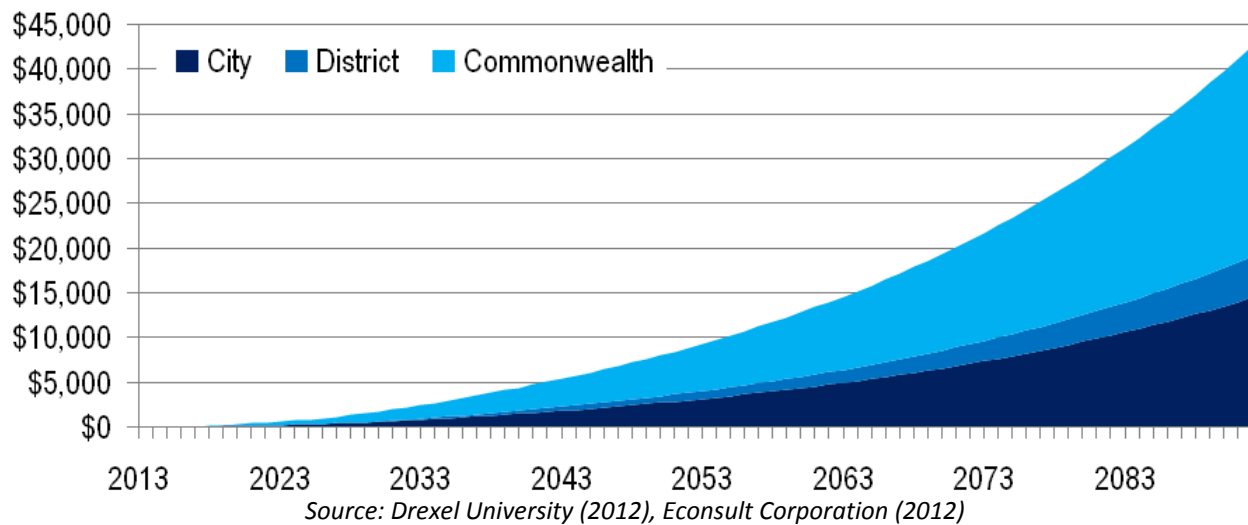
<b>Jurisdiction / Tax Type</b>	<b>Aggregate Tax Revenues</b>
<b>City of Philadelphia</b>	
Wage Tax Revenues	\$4,492
Sales Tax Revenues	\$2,524
Business Income and Receipts Tax Revenues	\$3,478
Hotel Tax Revenues	\$100
Real Estate Transfer Tax Revenues	\$65
Property Tax Revenues	\$3,802
<b>Total City Tax Revenues</b>	<b>\$14,462</b>
<b>School District of Philadelphia</b>	
Property Tax Revenues	\$4,585
<b>Total District Tax Revenues</b>	<b>\$4,585</b>
<b>Commonwealth of Pennsylvania</b>	
Personal Income Tax Revenues	\$5,360
Sales Tax Revenues	\$16,198
Corporate Income Tax Revenues	\$1,870
Hotel Tax Revenues	\$85
Real Estate Transfer Tax Revenues	\$22
<b>Total Commonwealth Tax Revenues</b>	<b>\$23,536</b>

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

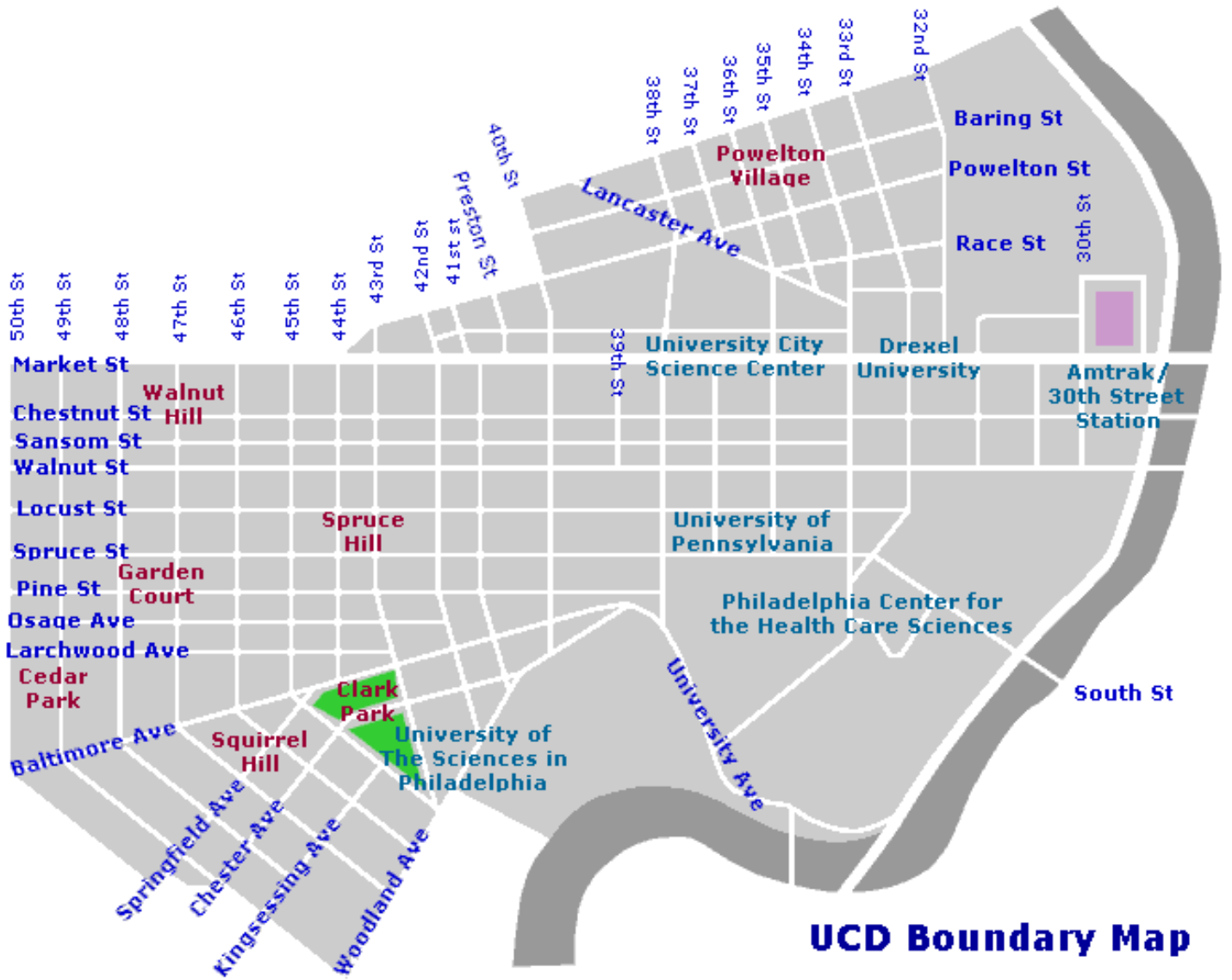
**Figure H.1 – Estimated Aggregate Annual Fiscal Impact Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions (in Non-Inflation-Adjusted \$M)**



**Figure H.2 – Estimated Aggregate Cumulative Fiscal Impact Generated by the Drexel Innovation Neighborhood to Various Taxing Jurisdictions (in Non-Inflation-Adjusted \$M)**



## APPENDIX I – BOUNDARY MAP OF UNIVERSITY CITY DISTRICT'S SERVICE AREA



Source: University City District (2012)

## APPENDIX J – ADDITIONAL DETAIL ON THE EDUCATIONAL ATTAINMENT LEVELS OF RESIDENTS OF THE INNOVATION NEIGHBORHOOD’S IMMEDIATE NEIGHBORHOOD

**Table J.1 – Estimated Number of Residents within the Drexel Innovation Neighborhood’s Immediate Neighborhood Who are Qualified for “A,” “B,” and “C” Jobs**

Highest Educational Attainment Level	University City District
1. Population 25 and over	22,615
2. Less than High School	2,728
3. High School or Associate’s degree	8,479
4. Bachelor’s degree	5,778
5. Graduate or professional degree	5,643
Job Level (Number of Persons)	University City District
"A" (#2 plus #3)	11,195
"B" (#4)	5,778
"C" (#5)	5,643

*Source: US Census Bureau (2010), Econsult Corporation (2012)*