



**Economic Impact of the University of New Haven
in New Haven County in Fiscal Year 2009**

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Abstract

This paper estimates the economic impact of University of New Haven in the New Haven County for Fiscal Year 2009. Two sets of estimations are done. First one includes overall economic impact of the university on the county. The second one is the economic impact in the county because of the out of county students in the university. The estimated results suggest that the total economic impact of the University of New Haven in the county in 2009 was \$252.7 million. Out of this total economic impact \$184.7 million was because of the out of county students. During the same year the university generated a value added of \$154.5 million in the county out of this \$112.9 million was because of the out of county students. The university's spending in 2009 generated a labor income of \$119.6 million in the county. The contribution of out of county students on labor income during the same year was \$87.4 million. The employment effect of the university in 2009 was 2032.8, out of which an employment of 1486 was generated because of the out of county students. Given the severe economic condition of the nation as well as the region these numbers show a significant economic impact of the university in the county. These numbers also show that the university is operating very efficiently despite the economic hardship of the national as well as the regional economy.

I. Introduction

The University of New Haven is a private, coeducational comprehensive university located in New Haven County in Connecticut that was founded in 1920. It is located in an area of 84 acres in West Haven Township. Including both the graduate as well as undergraduate programs the total number of student is approximately 5700.

There are several benefits of hosting an educational institution in a county. The most significant benefit is providing higher education to the students of the area which is very difficult to quantify and link with the economy of the community. Despite this limitation this report attempts to quantify the economic impact of the University of New Haven in the New Haven County and its community.

Like any other business an educational institution also contributes to the economy of the area in the process of its daily operation. It helps to generate income of the people by providing employment, by purchasing materials and supplies and by developing capital projects. These activities not only generate income of the people who are directly related to the university but also of other people in the community via the multiplier effect.

The purpose of this report is to estimate and analyze the economic impact of the University of New Haven in New Haven County. Specifically, we estimate and analyze both the overall economic impact of the university as well as of the economic impact of the university because of the out of county students.

II. Theoretical Background and Methodology

Spending by a university or college generates economic impact in the region. The total annual economic impact consists of the net change in regional (county) output, value added, labor income and employment due to the spending by the university, its employees, and its students. The total economic impact includes the direct expenditures by the university, and indirect and induced impacts due to a multiplier effect.

Direct spending by an institution generates other two types of spending; (i) indirect spending, and (ii) induced spending. Indirect spending refers to the changes in the inter-industry purchases as a region's industry responds to the additional demands triggered by spending by the institution, its employees and its students. It includes the economic activities that are created when an institution, its employees and its students purchase goods and service from other industries located in the host community. It is, in effect, business-to-business spending. Induced spending is like indirect spending except that it is generated by additional demand that is triggered by spending by region's households as their income increases due to changes in production because of the university's direct and indirect spending.

The total economic effect is the sum of the direct effect, indirect effect and induced economic impact. This is usually expressed in terms of output (sales plus inventories); value added (gross regional product), labor income and employment. Total industry output is defined as the total gross receipts (sales) plus or minus inventories which essentially is the value of production by industry for a given period of time. Total industry output is the most important variable in an economic impact study as it is the largest measure of economic impact.

In any economic impact study the role of multiplier plays an important role. A multiplier measures the response of the local economy to a change in any demand or production. In other words, a multiplier captures the impact of an initial round of spending plus the impacts of successive rounds of spending that has been generated as a result of the initial spending.

In this study the regional economic area is the New Haven County. The effects of expenditures that go to persons, businesses, or any institutes located outside the regions are not included in the value added, labor income, and employment impact estimates.

The estimates of the economic impact of the University of New Haven are based on University data from Fiscal Year 2009. All the data on University revenue and expenditure has been provided by the

Office of the Division of Finance. Using these data, the IMPLAN® Professional Version 3.0 modeling system was used to build regional economic models. SAM (Social Accounting Matrices) multipliers from IMPLAN®¹ modeling system were used to estimate the economic impacts. The multipliers for this study are taken from the most recent data available, the IMPLAN® 2008 data for New Haven County, CT. All the figures are in 2009 dollars.

In order to estimate the overall economic impact of the university in the county the initial total spending by the university in 2009 is used. To estimate the economic impact of out of county students on the county the total spending due to out of county students in 2009 is used as the initial spending.

III. Economic Impact Results

This section reports economic benefit that University of New Haven provided in New Haven County in Fiscal Year 2009. The estimated benefits represent the economic impact of spending by the institution, its employees and its students. Four indicators of impact – total output, total value added, total income and total employment are estimated using the methodology and data described above and the IMPLAN modeling system. All the dollar amount reported are in 2009 dollars. As indicated above two sets of economic impact, the overall impact and out of county student impact, are estimated. The estimated results are reported respectively in Table 1 and table 2.

Table 1: Economic Impact of the University of New Haven (Fiscal Year 2009)

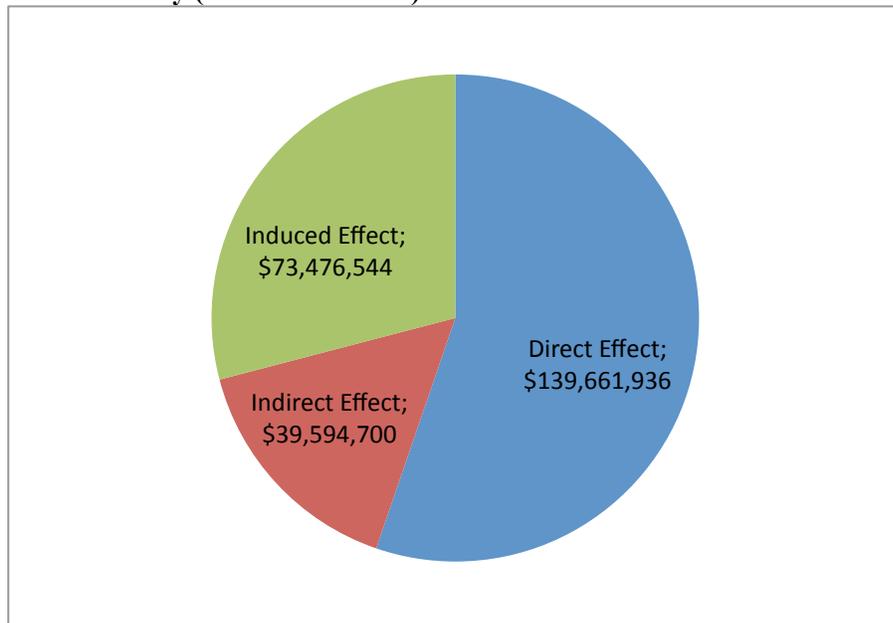
Impact Type	Employment	Labor Income	Total Value Added	Output
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¹ IMPLAN® is a registered trademark of the Minnesota IMPLAN Group, Inc. (MIG, Inc.), a company founded in 1993. IMPLAN® is a widely used economic impact modeling system. IMPLAN® data are compiled from a wide variety of sources including the US Bureau of Economic Analysis, the US Bureau of Labor, and Census. The mode of analysis is based on 1973 Nobel Laureate Wassily Leontief’s input-output model. For a detailed discussion of input-output modeling see, for example, *Input-Output Analysis: Foundation and Extensions* by Ronald E. Miller and Peter D. Blair, 1985, Prentice-Hall, Inc., Englewood Cliffs, New Jersey.

Direct Effect	1301.5	\$82,599,608	\$88,379,392	\$139,661,936
Indirect Effect	187.9	\$11,357,327	\$20,771,584	\$39,594,700
Induced Effect	543.3	\$25,644,864	\$45,361,536	\$73,476,544
Total Effect	2032.8	\$119,601,800	\$154,512,384	\$252,733,184

Source: Estimated using IMPLAN® 2008 New Haven County data, FY 2009 University of New Haven Data

Chart 1: Components of the Economic Impact of the University of New Haven on Output in New Haven County (Fiscal Year 2009)



Source: Table 1

Table 1 reports the overall economic of the University of New Haven in the New Haven County in 2009. In 2009 the university generated a total employment of 2032.8 out of which an employment of 731.2 is generated through indirect and induced effects. Likewise, the university generated a labor income impact of \$119.6 million out of which \$37 million is the sum of indirect and induced effects of the university spending. The total value added impacts in the county is \$ 154.5 million. Out of this amount indirect and induced effects comprise approximately 30% (\$66 million).

Total output impact is the largest measure of all the economic impacts. Total output impacts for Fiscal Year 2009, as reported in Table 1, is \$252.7 million. Given this total output the multiplier value is 1.81. This multiplier value tells that every dollar of initial spending has generated an additional income of

\$0.81 in the county where the university is located. Given the initial spending of \$139.7 million of the university it has generated an additional income of \$113 million in the county.

Table 2: Economic Impact of the University of New Haven because of the Out of County Students (Fiscal Year 2009)

Impact Type	Employment	Labor Income	Total Value Added	Output
Direct Effect	951.4	\$60,380,320	\$64,605,440	\$102,092,872
Indirect Effect	137.4	\$8,302,203	\$15,184,032	\$28,943,722
Induced Effect	397.2	\$18,746,394	\$33,159,360	\$53,711,360
Total Effect	1,486.0	\$87,428,920	\$112,948,736	\$184,747,952

Source: Estimated using IMPLAN® 2008 New Haven County data, FY 2009 University of New Haven Data

Table 2 reports the economic impact of the University of New Haven that has been generated because of the out of county students. The total economic impact because of the out of county students is \$ 184.7 million out of which \$ 102.1 is the direct effect. These figures give us a multiplier value of 1.81 like in previous case. Because of the out of county students 1486 people got employment in the county and an amount of \$87.4 million labor income is generated. Also the total value added in the county has been generated by an amount of \$113 million.

IV. Summary and Conclusion

This paper estimates the economic impact of University of New Haven in the New Haven County for Fiscal Year 2009. Two sets of estimations are done. First one includes overall economic impact of the university on the county. The second one is the economic impact in the county because of the out of county students in the university. The estimated economic impacts of the University of New Haven in the county are as follows:

- \$252.7 million in output ; \$ 184.7 million in output because of out of county students
- \$154.5 million in value added; \$ 112.9 million in value added because of out of county students

- \$119.6 million in labor income; \$87.4 million labor income because of out of county students
- 2,032.8 employment; 1486 employment because of out of county students

Given the downturn of the national, state as well as the regional economy in 2009 these numbers are very significant. These numbers essentially tell us that the University of New Haven has significantly helped to create jobs as well as household and business incomes in the county.