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**ESTIMATED SHORT-TERM ECONOMIC IMPACT  
OF MONTCLAIR STATE UNIVERSITY  
ON THE STATE OF NEW JERSEY**

Office of Institutional Research

August 2005



**Montclair State University**

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IMPACT OF MONTCLAIR STATE UNIVERSITY  
ON THE STATE OF NEW JERSEY

FISCAL YEAR 2004

*Office of Institutional Research  
Montclair State University*

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## HIGHLIGHTS

### **A. Short-Term Economic Impact of the University on the State of New Jersey *Excluding* Capital Expenditures**

- The total, estimated economic activity generated within New Jersey attributable to the University amounted to nearly \$178.4 million in fiscal year 2004, excluding capital expenditures.
  
- Total statewide jobs attributable to the University numbered 9,616.

University, employee, and student spending on non-capital goods and services resulted in the creation of 6,243 jobs statewide, while an additional 3,373 people were directly employed by the University.

### **B. Short-Term Economic Impact of the University on the State of New Jersey *Including* Capital Expenditures**

- When expenditures on capital projects were included, the total, estimated economic activity generated within New Jersey attributable to the University nearly doubled to approximately \$326.1 million in fiscal year 2004.
  
- With spending on capital projects included, total statewide jobs attributable to the University numbered 14,788.

University, employee, and student spending on both capital and non-capital goods and services resulted in the creation of 11,415 jobs statewide, in addition to the 3,373 people directly employed by the University.

## ESTIMATED SHORT-TERM ECONOMIC IMPACT OF MONTCLAIR STATE UNIVERSITY ON THE STATE OF NEW JERSEY

Universities are integral parts of the socio-economic environments within which they are located. They affect, and are affected by, their surrounding communities in innumerable ways. One material dimension of impact is related to the short-term effects that institutions have on their regional economies. An institution's "short-term economic impact" is measured by examining the magnitude of the direct and indirect contributions, allocable to the institution, that are being made to cash flow through a local economy.

Montclair State University is New Jersey's second largest university. In fall 2004, over 94% of its 15,637 students were New Jersey natives. These students represented every county in the State. A majority (91%) of the University's 3,373 FY04 employees also reside in New Jersey. MSU's employees can be found living in all but the southern-most New Jersey counties. Finally, over 60,000 MSU alumni reside in New Jersey, representing over 78% of all alumni for whom addresses are available. These alumni are found in every county in New Jersey. Clearly, Montclair State University's influence extends statewide. Because of this, we are defining MSU's "local economy" as encompassing the entire State.

### The Short-Term Economic Impact of Montclair State University *Excluding* Capital Expenditures

Short-term economic impact refers to measurable contributions to cash flow through a local economy that are directly or indirectly allocable to the institution. In the case of universities, these measurable contributions come from three sources: the institution, its employees, and its students. In this first analysis, the focus is on routine expenditures for goods and services, excluding capital expenditures (e.g., one-time expenditures for construction projects).

During fiscal year 2004, Montclair State University paid \$26,867,329 to New Jersey vendors for goods and services, excluding capital expenditures. MSU Student Government spent an additional \$300,000 on goods and services related to student activities. Direct, local expenditures allocable to the institution totaled **\$27,167,329**.

The University employed a total of 3,373 people in FY04. Of these, 1,364 worked full-time and 2,009 worked part-time. Ninety-one percent of full-time employees, and 93% of part-time employees, lived in New Jersey. Overall, 92% of the 3,373 employees were State residents.

Employees received over \$91 million in gross, pre-tax wages during FY04, while their net, disposable earnings amounted to more than \$61 million. Full-time employees earned approximately \$43 million in net wages, while part-time employees netted roughly \$18 million.

Three values were summed to calculate total local expenditures by employees: (1) the disposable income of all locally residing employees spent on non-housing items ( $\approx$ \$32 million),<sup>1</sup> (2) rental expenditures by full-time employees residing locally ( $\approx$ \$4.3 million),<sup>2</sup> and (3) expenditures of non-local, full-time employees in the local area on non-housing items (\$242,792).<sup>3</sup> Direct, local expenditures allocable to employees totaled **\$36,506,598**.

The fall 2004 enrollment at MSU was 15,637 students, with 10,370 students enrolled full-time, and 5,267 enrolled part-time. The MSU Financial Aid Office estimated average annual college-related expenses for a full-time student to be \$1,800 (or  $\approx$ \$18.7 million), while the estimate of expenses for a part-time student was \$1,300 (or  $\approx$ \$6.8 million). Direct, local expenditures allocable to students totaled **\$25,513,100**.

While direct expenditures within New Jersey by the University, its employees, and its students totaled \$89,187,027, this figure underestimates the University's true short-term economic impact on New Jersey. To accurately measure short-term economic impact, it is necessary to apply a multiplier to this direct spending figure.<sup>4</sup> For this study, a multiplier of 2.0 is being used.<sup>5</sup> When the multiplier is applied to direct spending, MSU's total short-term economic impact on New Jersey becomes **\$178,374,055**.

Spending also translates into jobs. Direct expenditures of \$89,187,027 yield 6,243 jobs that can be attributed to spending by the University, its employees, and its students.<sup>6</sup> When added to the number of people employed by the University, the total number of New Jersey jobs attributable to the University becomes **9,616**. The table on the following page summarizes MSU's short-term economic impact on the State of New Jersey with capital expenditures excluded.

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<sup>1</sup> A product of: (a) total net income of employees, (b) percent of employees living locally, (c) estimated non-housing expenditures, and (d) estimated in-state expenditures. See methodological note, below.

<sup>2</sup> A product of: (a) total number of full-time employees living locally, (b) percent of people who rent, (c) mean rent, and (d) 12 (months). See methodological note, below.

<sup>3</sup> A product of: (a) total number of full-time employees living outside New Jersey, and (b) \$2,000. See methodological note, below.

<sup>4</sup> The multiplier is used to capture the "ripple effect" that an institution's expenditures have on a local economy as dollars spent are re-spent or reinvested by local businesses. Multipliers generally vary between 1.0 and 3.0, with low multipliers signifying that dollars spent locally are being re-spent elsewhere, and high multipliers indicating that dollars spent locally are being re-spent locally.

<sup>5</sup> While dollars from New Jersey do "leak" to the powerful New York and Philadelphia markets, New Jersey's internal markets are developed enough so that a multiplier of 2.0 is considered to be conservative. This multiplier seems reasonable when compared to economic impact studies from across the country. Recent economic impact studies conducted in New Jersey (e.g., Rutgers University) have relied on a multiplier of 2.0. Recent economic impact studies conducted in New York City have also relied on a similar multiplier (e.g., The Commission on Independent Colleges and Universities used a multiplier of 2.5, while CUNY used a multiplier of 1.9).

<sup>6</sup> A coefficient of 0.00007 is applied to direct expenditures to yield an estimate of jobs created.

**TABLE 1: ESTIMATED SHORT-TERM ECONOMIC IMPACT  
OF MONTCLAIR STATE UNIVERSITY  
ON THE STATE OF NEW JERSEY  
(Excluding Capital Expenditures)**

Local Expenditures by the University	\$27,167,329
Local Expenditures by Employees	\$36,506,598
Local Expenditures by Students	<u>\$25,513,100</u>
Subtotal (Direct Expenditures)	\$89,187,027
Multiplier	<u>x 2.0</u>
<b>Total Expenditures Attributable to University</b>	<b>\$178,374,055</b>
Number of University Employees	3,373
Number of Jobs Created by University Spending	<u>6,243</u>
<b>Total Jobs Attributable to the University</b>	<b>9,616</b>

The estimate of \$178.4 million in economic impact, based upon reasonable and conservative assumptions, may actually underestimate the University's total short-term economic impact. For example, data on out-of-state guests to the campus could be used to build an estimate of visitor spending into our economic impact model. This would require information on audiences attending athletic and cultural events, registrants for academic conferences, and applicants and their families who participate in campus tours.

The Short-Term Economic Impact of Montclair State University *Including* Capital Expenditures

In the second part of this analysis, capital expenditures are considered along with routine expenditures for goods and services. By including capital expenditures, the magnitude of short-term economic impact is much higher than that observed in the first part of this analysis. Major construction projects were underway at the University during FY04, and the impact of facilities expansion is clearly evident.

MSU's FY04 capital expenditures amounted to \$73,877,415. When added to the University's expenditures for routine goods and services (\$26,867,329), the total amount paid to New Jersey vendors totaled \$100,744,744. Adding the \$300,000 spent by MSU Student Government, we find that direct, local expenditures allocable to the institution totaled **\$101,044,744**.

The addition of capital expenditures does not affect our earlier estimates of employee and student spending. As before, direct, local expenditures allocable to employees totaled **\$36,506,598**, while direct, local expenditures allocable to students totaled **\$25,513,100**.

The new total of direct expenditures within New Jersey by the University, its employees, and its students amounts to \$163,064,442. Applying our multiplier of 2.0, MSU's total short-term economic impact on New Jersey becomes **\$326,128,885**.

By including capital expenditures, MSU's impact on New Jersey's labor market expands significantly. Direct expenditures of \$163,064,442 yield 11,415 jobs that can be attributed to spending by the University, its employees, and its students. When added to University employees, the total number of New Jersey jobs attributable to the University becomes **14,788**. The following table summarizes MSU's short-term economic impact on the State of New Jersey, with capital expenditures included.

Local Expenditures by the University	\$101,044,744
Local Expenditures by Employees	\$36,506,598
Local Expenditures by Students	<u>\$25,513,100</u>
Subtotal (Direct Expenditures)	\$163,064,442
Multiplier	<u>x 2.0</u>
<b>Total Expenditures Attributable to University</b>	<b>\$326,128,885</b>
Number of University Employees	3,373
Number of Jobs Created by University Spending	<u>11,415</u>
<b>Total Jobs Attributable to the University</b>	<b>14,788</b>

#### A Note on Methodology

The methodology used to calculate short-term economic impact is commonly referred to as the Ryan/New Jersey model. It represents a modified form of the classic economic impact model developed by Caffrey and Isaacs for the American Council on Education.<sup>7</sup> A number of institutions have relied on the Ryan/New Jersey model over the past two decades, and it has gone through several modifications.<sup>8</sup>

<sup>7</sup> John Caffrey and Herbert H. Isaacs, 1971, *Estimating the Impact of a College or University on the Local Economy*, Washington, D.C.: American Council on Education.

<sup>8</sup> Research and Planning Committee, 1983, *Handbook for Conducting a Study of the Economic Impact of a Community College*, Lincroft, NJ: Council of County Colleges of New Jersey. G. Jeremiah Ryan, 1985, "A Shortcut to Estimating Economic Impact," *Community/Junior College Quarterly* 9:197-214. College Outcomes Evaluation Program, 1989, *Procedures Manual for the Assessment of Community/Society Impact at New Jersey Institutions of Higher Education*, Trenton, NJ: New Jersey Department of Higher Education. College Outcomes Evaluation Program, 1990, *Handbook for Calculating Short-Term Economic Impact at New Jersey's Institutions of Higher Education*, Trenton, NJ: New Jersey Department of Higher Education. G. Jeremiah Ryan and Patricia Malgieri, 1992, *Economic Impact Studies in Community Colleges: The Short Cut Method, Second Edition*, Resource Paper No. 48, National Council for Resource Development.

The major difference between the Caffrey and Isaacs and Ryan/New Jersey models is that the latter substitutes estimated values derived from available data for information collected from surveys of faculty, staff, and students. Many institutions found they needed to make this substitution because survey response rates were often very low due to the sensitive nature of the information being requested.

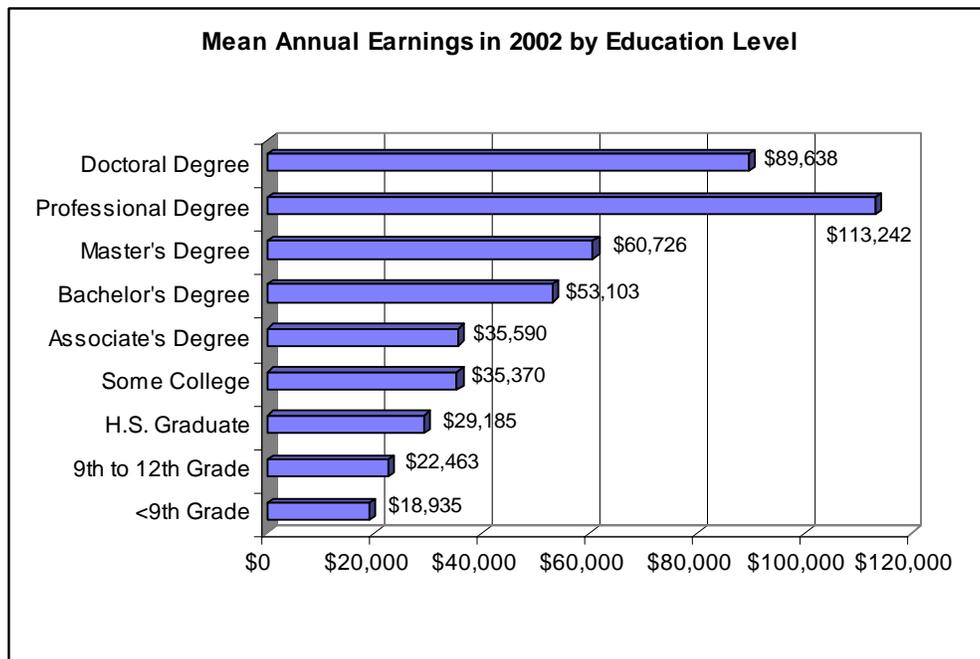
The calculation variables substituted for survey data are: (1) an estimate of non-housing expenditures for an average middle-income family in New Jersey; (2) an estimate of in-state expenditures for employees and students; (3) an estimate of the percent of New Jersey residents who rent; (4) an estimate of the median rent in New Jersey; (5) an estimate of in-state spending on non-housing items by non-local, full-time employees; (6) an estimate of average annual college-related expenditures by full-time students; (7) an estimate of average annual college-related expenditures by part-time students; (8) the coefficient for estimating jobs attributable to University expenditures; and (9) the “multiplier.” The following table presents the calculation variables used in this study, and their sources.

<b>CALCULATION VARIABLES USED IN 2005 ECONOMIC IMPACT STUDY</b>		
Variable	Estimate	Source
Estimate of non-housing expenditures for "complete income reporters" in the New York MSA.	0.75	2002-03 Consumer Expenditure Survey, Bureau of Labor Statistics, U.S. Dept. of Labor (Table 21)
Estimate of in-state expenditures for employees and students.	0.75	2002 Economic Census, U.S. Census Bureau
Estimate of the percent of state residents who rent.	0.33	2003 American Community Survey, U.S. Census Bureau
Estimate of the state-wide median rent.	\$856	2003 American Community Survey, U.S. Census Bureau
Estimate of in-state spending on non-housing items by non-local, full-time employees.	\$2,000	Based on economic impact studies conducted at CUNY and other regional universities
Estimate of average annual college-related expenditures by full-time students.	\$1,800	MSU Financial Aid Office (as reported in 2004-05 Common Data Set)
Estimate of average annual college-related expenditures by part-time students.	\$1,300	MSU Financial Aid Office
Coefficient for estimating jobs attributable to expenditures.	0.00007	Caffrey and Isaacs
Multiplier.	2.0	Based on economic impact studies conducted at Rutgers and other regional universities

## Postscript: The Long-Term Economic Impact of Montclair State University

At Montclair State University, teaching and learning are core activities that prepare students to lead fulfilling and productive lives once they leave the institution. This long-range view of the University's contribution to society can be approached from an economic perspective. From this perspective, the University is engaged in human resource development when it prepares and graduates students who can achieve material, as well as personal, success within an exceedingly complex and rapidly changing world. The University's long-term economic impact, then, is measured by examining the relationship between education and economic success.

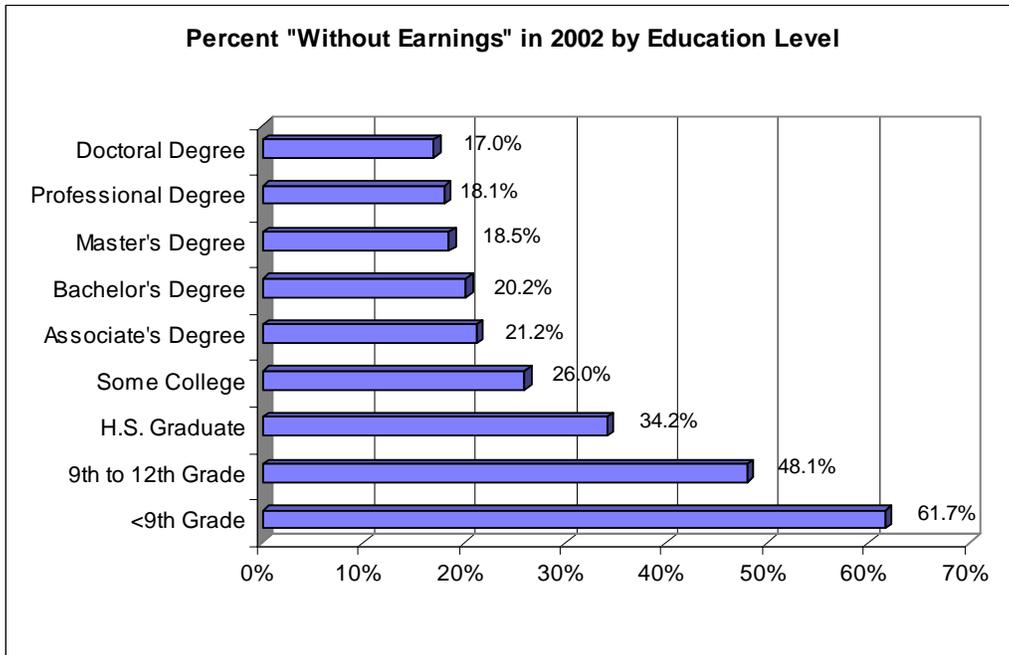
Data from the U.S. Census Bureau clearly demonstrate that a powerful relationship exists between educational attainment and economic success as measured by annual earnings.<sup>9</sup>



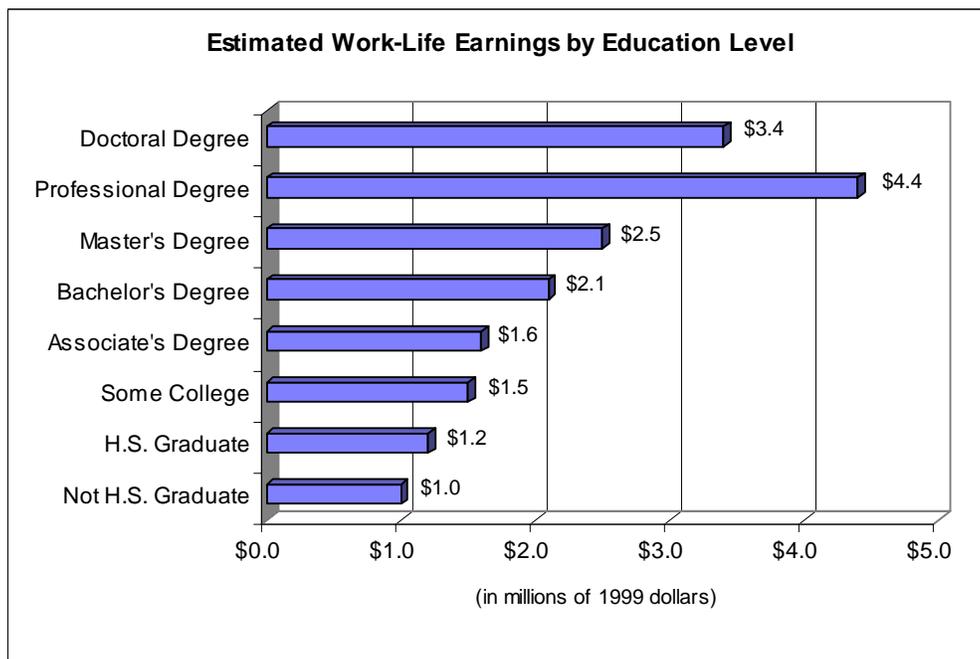
Students who earn associate's degrees have annual earnings 22% higher than the earnings of high school graduates, and bachelor's degree recipients earn 49% more than those holding associate's degrees. Also, as educational attainment rises, fewer people are "without earnings." Over 34% of high school graduates reported no earnings versus 20% for college graduates.

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<sup>9</sup> U.S. Census Bureau, Current Population Survey, 2003 Annual Social and Economic Supplement. Table PINC-03, "Educational Attainment—People 25 Years Old and Over, by Total Money Earnings in 2002, Work Experience in 2002, Age, Race, Hispanic Origin, and Sex."



Over time, disparities in annual earnings mount up, resulting in quite significant differences in lifetime earnings.



The U.S. Census Bureau projects that the work-life earnings of associate's degree earners will exceed the total earnings of high school graduates by approximately \$400,000, and that bachelor's degree

earners can expect to make about \$500,000 more than those holding associate's degree over their lifetimes.<sup>10</sup>

These data clearly show that a university degree translates into higher earnings and lower unemployment. Over a lifetime, university graduates are likely to spend more, save and invest more, and pay more in taxes than their peers who do not have university degrees. With respect to taxes, alone, a CUNY study estimated that each year, New York State and New York City derived approximately \$646 million more in taxes from CUNY's 1970-1995 graduates than had these taxpayers not received a college education.<sup>11</sup>

As noted above, over 60,000 MSU alumni live in New Jersey. This represents 78% of all alumni for whom the University has current addresses. Given Census Bureau findings, it is likely that most of these degree recipients earned more over their working lives than had they not earned a MSU degree.

### Conclusion

Montclair State University has had, and continues to have, an immense impact on New Jersey's economy. In the past year, the short-term economic impact, excluding capital expenditures, was measured at \$178,374,055 and 9,616 jobs allocable to the University. When capital expenditures were included in the analysis, the short-term economic impact was measured at \$326,128,885 and 14,788 jobs allocable to the University. Montclair State University's long-term impact on New Jersey's economy may be even greater. By educating tens of thousands of State residents, the University has boosted the earnings power of New Jersey residents by many millions of dollars.

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<sup>10</sup> U.S. Census Bureau, 2002, *The Big Payoff: Educational Attainment and Synthetic Estimates of Work-Life Earnings*, Washington, D.C.

<sup>11</sup> The City University of New York, 1995, *Return to New York: The CUNY Investment, A Report on the Economic Impact of The City University of New York*.