



# Regional Report

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## Colleges and Universities in the New York Metropolitan Area: Rapid Growth in Employment and Wages

*Employment and wage data from the BLS Quarterly Census of Employment and Wages are used to examine the labor market impact and contributions of colleges and universities in the New York area economy*



*Photograph courtesy of Fordham University*

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When people think of New York, Wall Street and Broadway theaters come to mind most often, but in fact the New York area is also a major center for higher education. Indeed, the New York metropolitan area<sup>1</sup> is home to more than 240 private colleges and universities employing about 97,000 workers and attracting

students and faculty from around the globe. Utilizing employment and wage data from the Bureau of Labor Statistics (BLS) Quarterly Census of Employment and Wages (QCEW) for the years 1990<sup>2</sup> and 2007, this report analyzes the labor market impact and the influence of these institutions of higher education on the New York area economy.

An analysis of the data reveals that employment and wages in the New York metropolitan area

experienced strong growth over the 1990–2007 period. Job growth in colleges and universities was almost 4 times the rate for total private employment in the area. Furthermore, average annual wages in colleges and universities more than doubled over the 17 years examined. The increasing growth of colleges and universities improves the quality of the labor force and stimulates knowledge-based industries,<sup>3</sup> which in turn attracts more students and better educated employees.

**TABLE 1. Employment and wages in the total private sector and in colleges and universities in the United States, New York State, and the New York-Northern New Jersey-Long Island Metropolitan Statistical Area, annual averages, 1990 and 2007**

| Employment and wages                                         | 1990       | 2007        | Change, 1990-2007 |         |
|--------------------------------------------------------------|------------|-------------|-------------------|---------|
|                                                              |            |             | Number            | Percent |
| <b>United States</b>                                         |            |             |                   |         |
| <b>Employment:</b>                                           |            |             |                   |         |
| Total private employment                                     | 90,855,141 | 114,012,221 | 23,157,080        | 25.5    |
| Colleges and universities, employment                        | 723,107    | 1,060,666   | 337,559           | 46.7    |
| Colleges and universities, share of total private employment | 0.80%      | 0.93%       | ...               | ...     |
| Location quotient                                            | 1.00       | 1.00        | ...               | ...     |
| <b>Wages:</b>                                                |            |             |                   |         |
| Total private average weekly wage                            | \$447      | \$853       | \$406             | 90.8    |
| Colleges and universities, average weekly wage               | \$458      | \$925       | \$467             | 102.0   |
| <b>New York State</b>                                        |            |             |                   |         |
| <b>Employment:</b>                                           |            |             |                   |         |
| Total private employment                                     | 6,674,647  | 7,122,485   | 447,838           | 6.7     |
| Colleges and universities, employment                        | 107,718    | 156,277     | 48,559            | 45.1    |
| Colleges and universities, share of total private employment | 1.6%       | 2.2%        | ...               | ...     |
| Location quotient                                            | 2.03       | 2.36        | ...               | ...     |
| <b>Wages:</b>                                                |            |             |                   |         |
| Total private average weekly wage                            | \$550      | \$1,181     | \$631             | 114.7   |
| Colleges and universities, average weekly wage               | \$515      | \$973       | \$458             | 88.9    |
| <b>New York-Northern New Jersey-Long Island</b>              |            |             |                   |         |
| <b>Employment:</b>                                           |            |             |                   |         |
| Total private employment                                     | 6,490,807  | 7,032,453   | 541,646           | 8.3     |
| Colleges and universities, employment                        | 73,016     | 96,693      | 23,677            | 32.4    |
| Colleges and universities, share of total private employment | 1.1%       | 1.4%        | ...               | ...     |
| Location quotient                                            | 1.41       | 1.48        | ...               | ...     |
| <b>Wages:</b>                                                |            |             |                   |         |
| Total private average weekly wage                            | \$598      | \$1,298     | \$700             | 117.1   |
| Colleges and universities, average weekly wage               | \$506      | \$1,027     | \$521             | 103.0   |

Source: BLS Quarterly Census of Employment and Wages (QCEW).

## Higher Education and Employment, Past and Present

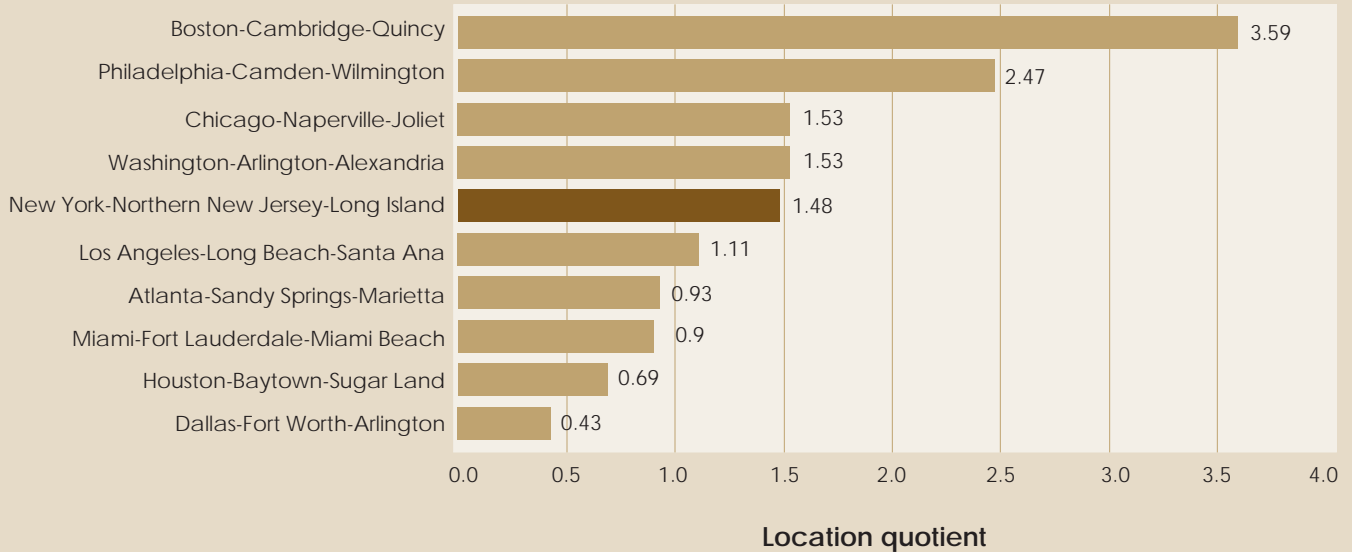
The approximately 2,000 colleges and universities present in the United States in 1990 employed an estimated 723,000 workers. (See table 1.) Nearly 108,000 jobs in New York State existed in the 169 private colleges and universities. One hundred thirty-

three institutions of higher learning employing more than 73,000 workers were found in the New York metropolitan area.

Over the period between 1990 and 2007, the number of colleges and universities, as well as the number of workers employed at such institutions, increased substantially. By 2007, more than 1,060,000 people were

employed in the Nation's nearly 4,400 colleges and universities. That same year, the number of colleges and universities in New York State was just shy of 300, while the number employed in these institutions had grown to more than 156,000. Two hundred forty-three colleges and universities, with about 97,000 jobs, were in the New York metropolitan area.

## CHART 1. Location quotients, for colleges and universities in the 10 largest metropolitan areas (by employment), annual averages, 2007



### Job Growth in Colleges and Universities from 1990 to 2007

Overall job growth in the United States increased by 25.5 percent over the 17-year period examined, while employment in the Nation's colleges and universities grew by 46.7 percent. Employment gains in the colleges and universities of New York State were almost 7 times the overall percentage of growth experienced in the private sector (45.1 percent compared with 6.7 percent). More than 447,000 jobs were added to the New York State economy over the period between 1990 and 2007. Employment gains in colleges and universities amounted to almost 11 percent of total employment growth, or more than 48,000 jobs.

The New York metropolitan area added approximately 24,000 jobs in colleges and universities during the period studied. This increase translates to a growth rate of 32.4 percent for higher education employment, almost 4 times more than the overall increase of 8.3 percent for private industry in the metropolitan area.

### College and University Industry Concentration among the Largest Metropolitan Areas

In 2007, the New York metropolitan area's 243 colleges and universities employed almost 97,000 workers, more than that employed by any other metropolitan area. The closest rival was the Boston metropolitan area,

which employed slightly more than 70,000. Part of the reason for the large difference was that the sheer number of institutions of higher learning found in the New York area dwarfed that of any other metropolitan area. For example, the New York area had almost 3 times as many establishments in this sector as the Boston area, which had 85 colleges and universities in 2007.<sup>4</sup>

A nationwide location quotient<sup>5</sup> comparison among the largest metropolitan areas confirms the significance of higher education employment in New York over the 17-year period. New York ranked third among the largest metropolitan areas<sup>6</sup> in 1990, with a location quotient of 1.41. Seventeen years later, in 2007, the New York metropolitan area

ranked fifth, with a location quotient of 1.48. (See chart 1.) The latter location quotient reveals that employment in the college and university sector was approximately 1½ times more concentrated than the U.S. average. Indeed, the New York metropolitan area had one of the highest concentrations of employment in this industry.

### Colleges and Universities as a Generator of Jobs for the Knowledge-Based Industries

The concentration of institutions of higher learning in the area, coupled with the talent pool drawn by these institutions, has enhanced the skills of the area's labor force. The highly educated workforce attracts knowledge-based industries, including professional and business services, financial activities, and information, which provided approximately 1,254,000, 772,000, and 275,000 jobs, respectively, in 2007.

The idea that the New York area is home to many knowledge-based industries is consistent with New York City's reputation as the chief financial center of the world, with Wall Street, located in Manhattan's financial district, as its focus. In fact, there are 2 times as many jobs in the New York area's financial activities supersector than in the next-highest ranked metropolitan area. Furthermore, financial markets

such as the National Association of Securities Dealers Automated Quotations (NASDAQ), New York Stock Exchange, American Stock Exchange, and Mercantile Exchange are all based in the city.

The concentration of colleges has benefited the New York area by raising the share of the workforce with college degrees. In the United States, 17.4 percent of adults older than 25 years had bachelor's degrees, and 10.1 percent held more advanced degrees, in 2007. In New York State, more than 18.2 percent of adults older than 25 had a bachelor's degree, while 13.5 percent had more advanced degrees. The New York metropolitan area had even higher rates, with 20.8 percent having received a bachelor's degree and 14.2 percent having earned a graduate or professional degree.<sup>7</sup>

The reputation and significance of the area are further strengthened by the fact that more than 35 Nobel laureates were affiliated with colleges and universities in New York State at the time the announcement of the prize was made.<sup>8</sup> In fact, several prestigious universities in the State boast of having had more than 20 Nobel laureates teaching or conducting research at their institutions.

Local prominence in knowledge-based industries also is evidenced by the fact that, among all the

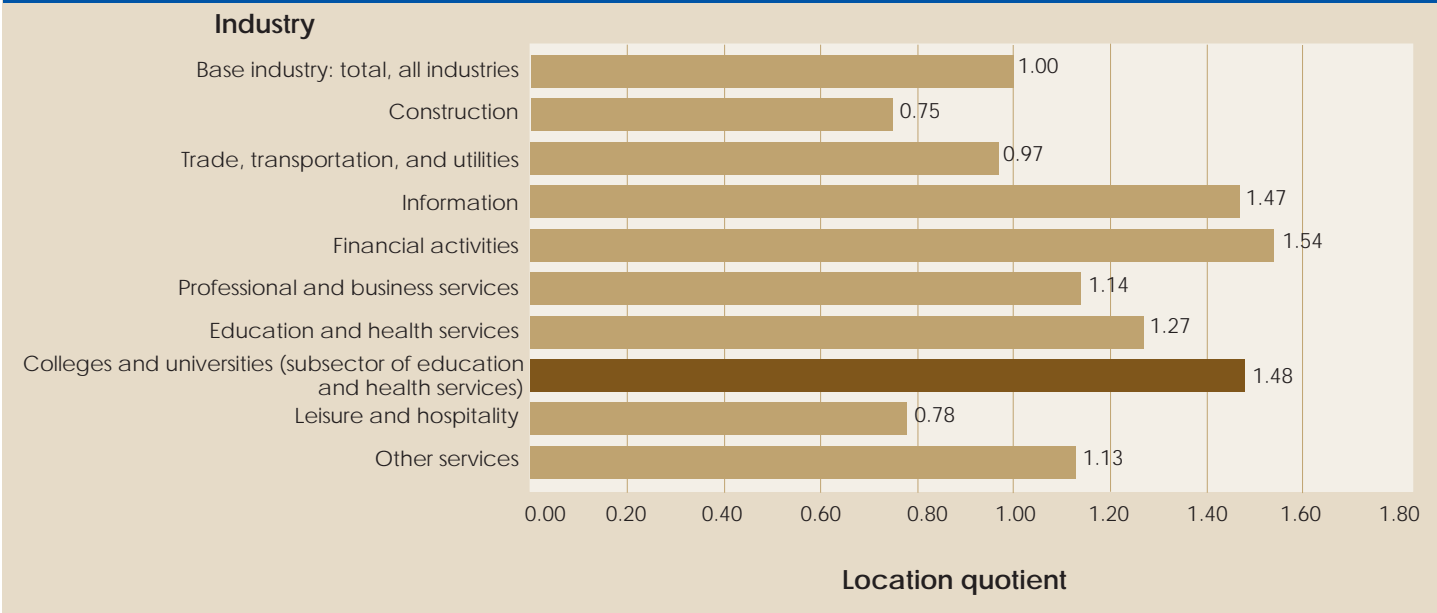
States, New York was granted the second-highest number of patents every year, from when data were first collected in 1977 all the way to 2004.<sup>9</sup> Although Texas took over the number-two spot in 2005, New York State remained competitive, claiming the third-highest number of patents granted every year up to and including the most recent ranking in 2008.

### Supersector Industry Concentration among the Largest Metropolitan Areas

An analysis of the location quotients at the supersector industry level draws attention to those industries which are heavily concentrated in the New York area. In 2007, the education and health services supersector, which includes colleges and universities as well as hospitals, nursing homes, and elementary and secondary schools, ranked third in the New York area, with a location quotient of 1.27. (See chart 2.) In other words, the concentration of employment in this supersector in the New York area was 27 percent higher than the national average.

Other supersectors with a high concentration in the New York area included many industries for which the area is well known, such as financial activities (location quotient = 1.54) and information (location quotient = 1.47). In fact, 9 percent of all the Nation's jobs in information and

## CHART 2. Location quotients, by industry supersector in the New York-Northern New Jersey-Long Island metropolitan area, annual averages, 2007



9.5 percent of all the Nation's jobs in financial activities are found in the New York metropolitan area. In addition to being highly concentrated in New York, these knowledge-based industries have above-average wages. Among other supersectors, construction; leisure and hospitality; and trade, transportation, and utilities ranked below the national average in the New York area.

### Wages in Colleges and Universities, 1990–2007

In 1990, New York State and the New York metropolitan area, with average weekly wages of \$550 and \$598, respectively, were 23 percent and 34 percent above the national average weekly wage, which was \$447 at that time. Among the 50 States, New York State ranked

third highest in average weekly wages. In colleges and universities, the average weekly wage was \$458 nationally, \$515 in New York State, and \$506 in the New York metropolitan area.

By 2007, New York State's average weekly wage had risen to \$1,181, surpassing that of Connecticut and claiming the number-one position for the highest average weekly wage among private-industry workers in the 50 States. Wages for colleges and universities in New York State were \$973. In the New York metropolitan area, college and university wages were \$1,027, or 26 percent lower than the \$1,298 average for all private industry, in which high-paying industries such as finance and information are more concentrated. Private-

industry wage gains from 1990 to 2007 were 91 percent nationally, but 115 percent in New York State and 117 percent in the metropolitan area. Workers in colleges and universities saw an average weekly pay increase of 102 percent nationally, a gain of just under 90 percent in New York State, and an increase of 103 percent in the New York metropolitan area.

In 2007, total private wages in the United States were \$5.1 trillion, of which \$51 billion was generated by colleges and universities. Thus, roughly 1.0 percent of all national wages was earned in colleges and universities. In contrast, total private wages in the State of New York were \$437 billion, of which \$7.9 billion, or 1.8 percent, were earned in higher education.

## Summary

Colleges and universities in New York State and, in particular, those in the New York metropolitan area, play a significant role in local and regional labor market economies. This role is particularly evident in the New York metropolitan area,

where, over the 17-year period analyzed, the industry generated job growth roughly 4 times the rate for total private industry. Colleges and universities also exert a powerful economic impact by enhancing the quality of the labor force. Thus, the New York area's highly educated labor force continues to attract

knowledge-based industries such as information and financial services. These industries usually have high wages, generate jobs faster than overall job growth does, and attract both the talent and much-needed investment required to sustain the area's standing as a center for higher education. ■

## —Notes—

<sup>1</sup> This report presents data for the New York-Northern New Jersey-Long Island Metropolitan Statistical Area. As defined by the U.S. Office of Management and Budget, this area consists of New York City and Nassau, Putnam, Rockland, Suffolk, and Westchester Counties in New York; Bergen, Essex, Hudson, Hunterdon, Middlesex, Monmouth, Morris, Ocean, Passaic, Somerset, Sussex, and Union Counties in New Jersey; and Pike County in Pennsylvania. For convenience, the report refers to this area as the New York area.

<sup>2</sup> The year 1990 was chosen because it was the earliest year that the QCEW used the North American Industry Classification System (NAICS) code 611310, which includes all private 4-year colleges, universities, and professional schools (for example,

business administration, dental, law, and medical schools), as well as theological seminaries, that grant baccalaureate or graduate degrees.

<sup>3</sup> The Organization for Economic Co-Operation and Development (OECD) defines “knowledge-based industries” as “those industries which are relatively intensive in their inputs of technology and/or human capital.” For more information, see OECD Science, Technology and Industry Scoreboard, 1999, on the Internet at <http://www.oecd.org/dataoecd/42/34/2087188.pdf> (visited October 29, 2009).

<sup>4</sup> For the *Regional Report* on the Boston area's colleges and universities, see [http://www.bls.gov/opub/regional\\_reports/200902\\_colleges\\_boston.pdf](http://www.bls.gov/opub/regional_reports/200902_colleges_boston.pdf)

<sup>5</sup> Location quotient analysis quantifies the concentration of

employment in an industry (in this case, colleges and universities) at the State and metropolitan area levels relative to that of the Nation. The national location quotient for each industry is always 1.0.

<sup>6</sup> As measured by annual average employment from the QCEW.

<sup>7</sup> Educational attainment data are from the American Community Survey (U.S. Census Bureau, 2006).

<sup>8</sup> See [http://nobelprize.org/nobel\\_prizes/lists/universities.html](http://nobelprize.org/nobel_prizes/lists/universities.html) (visited May 15, 2009).

<sup>9</sup> U.S. Patent and Trademark Office, “Extended Year Set—Historic Patents By Country, State, and Year: All Patent Types (December 2008),” on the Internet at [http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cst\\_allh.htm](http://www.uspto.gov/web/offices/ac/ido/oeip/taf/cst_allh.htm) (visited May 15, 2009).

