EMPLOYMENT in New York State

George E. Pataki, Governor | April 2005 | Linda Angello, Commissioner

How Jobs Create More Jobs...

Understanding the Multiplier Effect

Among the most powerful tools used in regional economic analysis are economic multipliers (related story on page 2). However, they are often misused or misunderstood. Recent business news shows these multipliers have been used to estimate the regional economic contributions of everything from the Indian Point Nuclear Plants to artist Christo's exhibit "The Gates" in Central Park.

Multipliers, which measure the interdependence or linkage between industry sectors within a region, provide an estimate of the "ripple effect" due to a local change in economic activity. They connect the initial effect of a change in demand—due to purchases made by households or government or due to foreign trade, but not part of an industrial production process—to the total effect of that change on the regional economy. The total effect is reported here in terms of jobs, but it also could be measured in terms of output, sales, income or value added.

Total effect has three main parts: direct, indirect, and induced effects. Direct effects are the immediate employment impacts associated with a change in demand for a particular industry. For example, a $1 million increase

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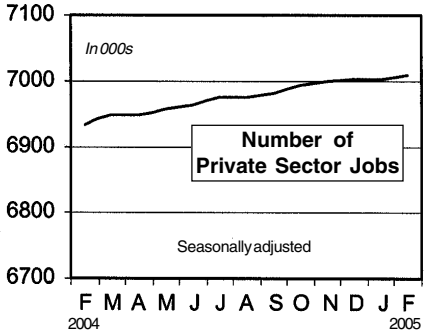
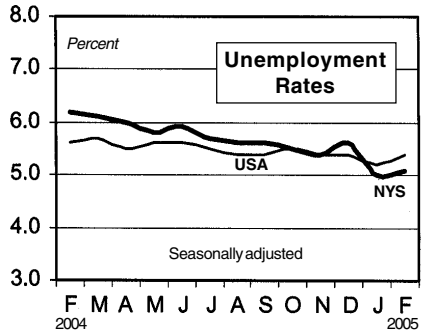
IN FEBRUARY...

...NYS private sector jobs increased



...NYS unemployment rate inched up



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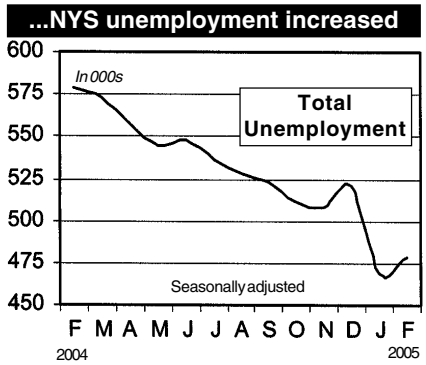
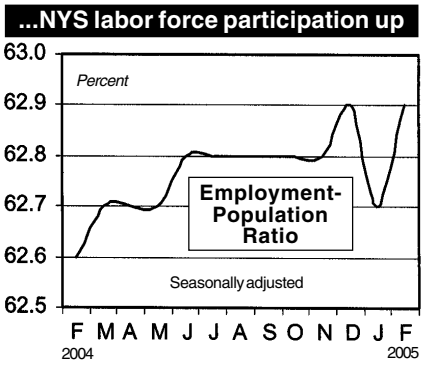


...NYS labor force participation up



At a Glance

In February 2005, New York's seasonally adjusted unemployment rate was 5.1 percent, up from 5.0 percent in January. (The nation's unemployment rate was 5.4 percent in February.) In February 2005, the state had 8,491,200 nonfarm jobs, including 7,009,400 private sector jobs, after seasonal adjustment. The number of private sector jobs in the state increased by 0.1 percent from January. (The nation's private sector job count increased 0.2 percent over the month.) From February 2004 to February 2005, the number of private sector jobs increased by 1.2 percent in the state and increased by 2.0 percent in the nation (not seasonally adjusted.) In addition, New York's employment-population ratio, a measure of labor force participation, increased slightly in February.

Change in Nonfarm Jobs
Feb. 2004 - Feb. 2005

(Data not seasonally adjusted, numbers in thousands)

	Net	%
Total Nonfarm Jobs	81.8	1.0
Private Sector	81.1	1.2
Goods-Producing	-9.1	-1.0
Nat. res. & mining	0.4	8.7
Construction	3.0	1.1
Manufacturing	-12.5	-2.1
Durable gds.	-2.3	-0.7
Nondurable gds.	-10.2	-4.0
Service-providing	90.9	1.2
Trade, trans., & util.	18.1	1.3
Wholesale trade	0.1	0.0
Retail trade	15.5	1.9
Trans., wrhs., & util.	2.5	1.0
Information	0.5	0.2
Financial activities	9.1	1.3
Prof. & bus. svcs.	12.7	1.2
Educ. & health svcs.	25.0	1.6
Leisure & hospitality	19.6	3.2
Other services	5.2	1.5
Government	0.7	0.0

Focus on the Hudson Valley

Hudson Valley Experiences Broad-based Growth

by Sean MacDonald, Labor Market Analyst, Hudson Valley

The Hudson Valley continues to enjoy one of the strongest regional economies in New York State. Contributing to this strength has been the region's burgeoning population, which grew by 122,000, or 3.4 percent, between July 1, 2000 and July 1, 2004, as people with jobs in the New York City area have sought more affordable housing.

Due to redrawn metropolitan statistical area (MSA) boundaries from the U.S. Office of Management and Budget, the Hudson Valley now has two new MSAs: Poughkeepsie–Newburgh–Middletown (Dutchess and Orange counties) and Kingston (Ulster County). In addition, there is one new labor market area (Putnam-Rockland-Westchester) as well as one non-metropolitan county (Sullivan).

Over the 12-month period ending February 2005, the Hudson Valley's private sector job count increased 16,700, or 2.3 percent, to 728,100, a new record for the month. The region's expansion was broad-based with all major industry sectors, except information and manufacturing, adding jobs over the year.

Educational and health services (+5,000) added by far the most jobs, due in large part to expansion of a large number of medical facilities including Crystal Run Health Care (Sullivan County), St. Francis Hospital (Dutchess County), Orange Regional Medical Center, St. Luke's Cornwall Hospital and Wallkill Medical Arts Building in Orange County. Due to ongoing and anticipated demand for health services, the region's local Workforce Investment Boards applied for a federal High Job Growth Training Initiative grant focused on increasing the supply of nursing faculty at area colleges. This is seen as a critical first step to increasing the number of trained nurses in the region. Moreover, White Plains Hospital Center and several other institutions in Westchester County recently received federal and state grants for recruiting and training nurses and physicians.

"Our region's economy is vibrant. During April and May, the Department of Labor is holding five job fairs that will include 700 businesses trying to fill nearly 3,000 job openings. Our job bank includes thousands of current job opportunities."

Frank Surdey, Regional Administrator, Hudson Valley

Over the year, trade, transportation and utilities added 3,000 jobs, driven in large part by robust population growth and the region's close proximity to major population centers. Large chains continue to open new stores throughout the region; for example, Wal-Mart will open in the city of White Plains in the fall of 2005. Overnite Transportation Co., a national trucking company, is building a new facility in the Town of Montgomery (Orange County) that will employ 150 workers when completed later this year.

The region's leisure and hospitality sector also grew by 3,000 jobs over the year, with both Sullivan County and the Putnam-Rockland-Westchester area adding 1,100 jobs due to the opening of a number of hotels and restaurants. While the sector had suffered a prolonged decline in Sullivan County, a newly expanding market for second homes, the recent opening of a ski resort and a new "racino" (video gaming center) at Monticello Race Track herald a turnaround. Additionally, the former Concord and Grossingers properties which were acquired by Empire Resorts, are being renovated and updated.

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Real-World Multipliers

Economic multipliers are used extensively throughout the economic development field to assess the potential employment impacts of a change in final demand on a regional economy.

The value of multipliers vary considerably across industry groups and even among industries within the same broad group. The table shows statewide *total* ("Type II") employment multipliers for selected private sector industry groups in New York. These range in value from a high of 3.41 for information to a low of 1.50 for leisure & hospitality. (Data come from the IMPLAN software package.)

It is instructive to look at an actual economic impact report to see the types of conclusions that may be drawn using multipliers. One such report, recently released by Colgate University, focused on the economic contributions of the Oneida Indian Nation's enterprises to the Central New York economy.

The report's authors, economics professor Jill Tiefenthaler and senior Chris Brown, found that in fiscal year 2004, direct employment by the Oneida Nation totaled 4,215. Data from the *Central New York Business Journal* cited in the report indicate that this made the Nation the third largest employer in the three-county (Onondaga, Oneida and Madison) region, trailing only Upstate Medical Center and Syracuse University.

When a multiplier was factored in, an additional 3,570 jobs in the three-county region were attributable to the Oneidas. As outlined in the report, these additional jobs were specifically due to: the Nation's increased demand for goods and services in the region; spending by employees of the Nation at vendors in the three-county area; and the Oneidas' capital spending budget, which totaled $175 million in fiscal year 2004.

Employment Multipliers, Selected Private Sector Industry Groups, New York State

Industry Group	Multiplier
Information	3.41
Management of Companies	3.16
Financial Activities	3.06
Manufacturing	3.04
Prof., Sci. & Tech. Services	2.25
Construction	2.24
Transportation & Warehousing	2.03
Health Services	1.78
Wholesale & Retail Trade	1.71
Admin. & Support Services	1.64
Leisure & Hospitality	1.50

Source: IMPLAN

Unemployment Rates in New York State

Data Not Seasonally Adjusted

	FEB '04	FEB '05
New York State	**6.7**	**5.6**
Capital	**5.1**	**4.5**
Albany	4.6	4.0
Columbia	5.3	4.5
Greene	6.2	5.4
Rensselaer	5.5	4.7
Saratoga	4.6	4.1
Schenectady	5.0	4.5
Warren	6.7	5.8
Washington	5.8	5.7
Central	**6.3**	**5.6**
Cayuga	6.4	5.5
Cortland	7.3	6.7
Onondaga	5.6	5.0
Oswego	8.8	7.7
Finger Lakes	**6.6**	**5.8**
Genesee	7.3	6.5
Livingston	7.9	6.7
Monroe	6.1	5.3
Ontario	6.7	6.4
Orleans	8.5	7.6
Seneca	6.8	6.0
Wayne	7.5	6.7
Wyoming	9.0	7.3
Yates	5.9	5.6

	FEB '04	FEB '05
Hudson Valley	**4.9**	**4.2**
Dutchess	4.9	4.2
Orange	5.2	4.5
Putnam	4.1	3.6
Rockland	4.5	3.9
Sullivan	6.6	5.7
Ulster	5.5	4.7
Westchester	4.8	4.0
Mohawk Valley	**6.9**	**6.1**
Fulton	6.9	6.5
Herkimer	7.4	6.6
Madison	7.2	6.4
Montgomery	8.0	7.1
Oneida	6.4	5.6
Schoharie	7.3	6.3
North Country	**8.4**	**7.2**
Clinton	7.2	6.1
Essex	7.1	6.6
Franklin	8.4	7.3
Hamilton	8.7	7.6
Jefferson	9.4	8.0
Lewis	10.2	8.9
St. Lawrence	8.6	7.2

	FEB '04	FEB '05
Southern Tier	**6.4**	**5.6**
Broome	6.4	5.6
Chemung	7.3	6.4
Chenango	7.3	6.2
Delaware	5.7	4.9
Otsego	6.2	5.4
Schuyler	7.9	7.3
Steuben	8.2	7.2
Tioga	6.3	6.0
Tompkins	4.0	3.3
Western New York	**6.8**	**6.0**
Allegany	7.7	6.9
Cattaraugus	7.4	6.4
Chautauqua	7.0	5.7
Erie	6.5	5.8
Niagara	7.7	6.6
Long Island	**5.3**	**4.6**
Nassau	5.1	4.4
Suffolk	5.5	4.8
New York City	**7.9**	**6.5**
Bronx	10.3	8.3
Kings	8.5	6.9
New York	6.9	5.7
Queens	7.3	6.0

Hudson Valley... *from page 2*

Job growth in the financial activities (+2,200) sector was fueled by expansion in the sub-prime (higher risk consumers) mortgage industry and at regional banks. The region was further boosted by the 2004 relocation from Manhattan of nearly 2,000 workers from Morgan Stanley and 1,000 from New York Life Insurance Co. Future demand for financial services in the region should be sustained by the Hudson Valley's continued population growth and strong housing market.

The information sector lost 800 jobs over the year. Based on published reports, much of this loss was due to the closing of Verizon's call center in Rockland County. Despite this closing, Verizon plans to compete against cable and satellite providers for the high-speed Internet access market, hiring workers to expand its fiber optic network. At the same time, Westchester-based Bridgecom International has teamed up with Broadview Network Holdings of New York City to increase market share in voice, data and Internet services. Lightpath, a division of Cablevision, has been expanding throughout Westchester County. Additionally, Nokia is moving 300 employees into its permanent new headquarters in Harrison.

Although manufacturing lost 700 jobs over the year, a big bright spot is the opening of IBM's expanded chip fabrication facility later this year. The project may result in the hiring of an additional 500 workers.

Multiplier Effect... *from page 1*

in computer purchases will cause manufacturers to produce $1 million more worth of computers, hiring extra workers in the process. Indirect effects would be hiring by industries that supply goods and services to the expanding computer industry (e.g. chipmakers). Induced effects occur as firms in all sectors of the local economy add staff due to spending of the additional income of employees in the directly (computer) and indirectly (chipmakers) affected industries.

Multipliers based on direct, indirect and induced effects are called total or "Type II" multipliers, and are the ones most often cited in economic impact studies. They are calculated as:

$$\frac{\text{(Direct+Indirect+Induced Effects)}}{\text{Direct Effects}}$$

Using New York data, the $1 million increase in final demand for the computer industry should generate 2.09 jobs in direct effects, 2.56 jobs in indirect effects, and 4.04 jobs in induced effects, making for a total economic impact of 8.69 jobs. Putting these data into the equation above:

$$\frac{(2.09+2.56+4.04)}{2.09} = 4.16$$

Thus, for every direct effects job created in the computer industry due to increased demand, we could see a total of 4.16 jobs created in New York.

Multipliers have some key limitations and certain errors are common. Most importantly, multipliers only measure short-term economic changes. They do not account for long-term impacts on an area's economy. In addition, multipliers assume that surplus economic resources, including labor, are in ready supply—thus not allowing for labor shortages.

A common mistake is to add the direct effect to the total effect; this results in double-counting. Another typical problem involves using the wrong multiplier; you can't count jobs using an income multiplier. A less obvious problem is unrealistic direct effects estimates that result in total economic impacts being overstated.

by Kevin Jack

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Division of Research and Statistics
New York State Department of Labor
Building 12, State Campus
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Director	David J. Trzaskos
Editor	Kevin Jack
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Graphic Design	Kim Hardin
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NORTH COUNTRY
ALAN BEIDECK 518-891-6680

Private sector employment in the North Country region increased over the year by 2,300, or 2.1 percent, to 109,900 in February 2005. The largest gains were in trade, transportation and utilities (+1,300), educational and health services (+800), and natural resources, mining, and construction (+400). Losses were centered in information (-300) and leisure and hospitality (-200).

CENTRAL NY
ROGER EVANS
315-479-3388

Private sector employment in the Syracuse metro area rose 2,900, or 1.1 percent, to 257,700 over the 12-month period ending February 2005. Job creation was concentrated in professional and business services (+1,000), educational and health services (+900), leisure and hospitality (+900), and trade, transportation, and utilities (+700). Manufacturing (-1,000) lost jobs over the year.

MOHAWK VALLEY
MARK BARBANO
315-793-2282

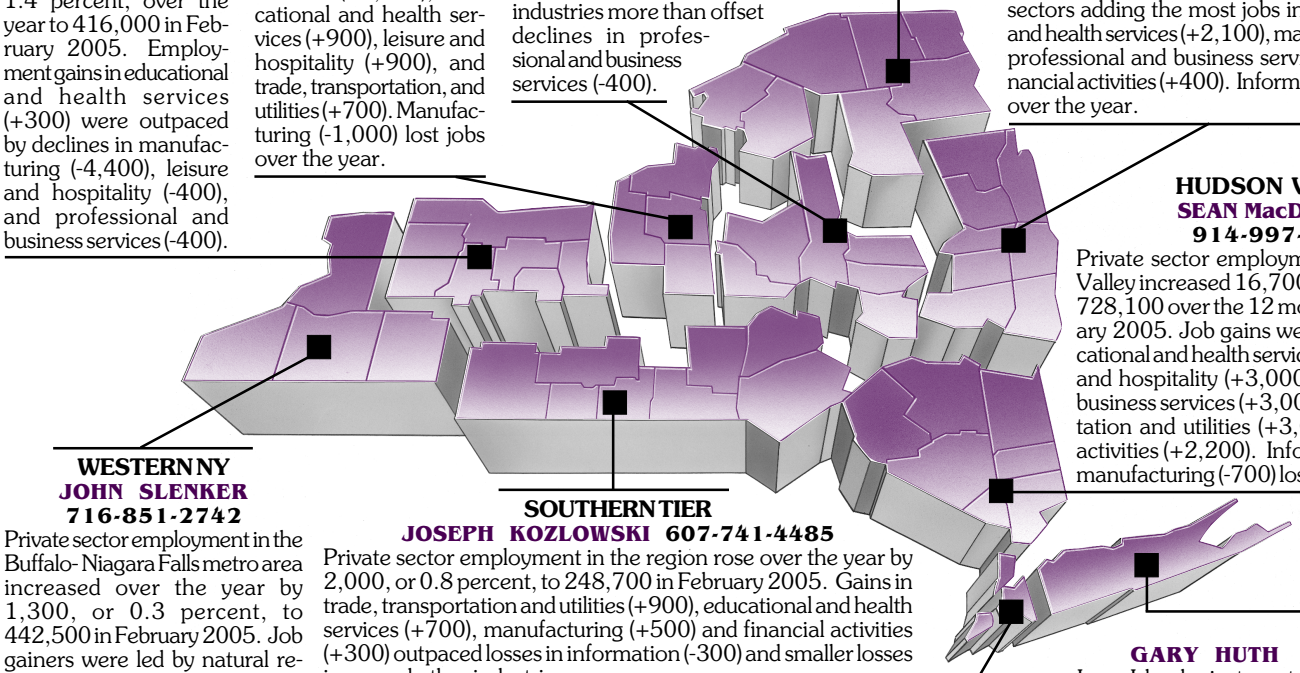
Private sector employment in the Utica-Rome metro area rose over the year by 700, or 0.7 percent, to 97,200 in February 2005. Job gains in educational and health services (+700), manufacturing (+200), and smaller increases in several other industries more than offset declines in professional and business services (-400).

CAPITAL DISTRICT
JAMES ROSS
518-462-7600

From February 2004 to February 2005, the number of private sector jobs in the Albany-Schenectady-Troy area increased by 3,900, or 1.2 percent, to 331,100, a record high for the month. Industry sectors adding the most jobs included educational and health services (+2,100), manufacturing (+700), professional and business services (+600), and financial activities (+400). Information (-400) lost jobs over the year.

FINGER LAKES
WILLIAM RAMAGE
585-258-8870

Private sector employment in the Rochester area declined 6,000, or 1.4 percent, over the year to 416,000 in February 2005. Employment gains in educational and health services (+300) were outpaced by declines in manufacturing (-4,400), leisure and hospitality (-400), and professional and business services (-400).



HUDSON VALLEY
SEAN MacDONALD
914-997-8798

Private sector employment in the Hudson Valley increased 16,700, or 2.3 percent, to 728,100 over the 12 months ending February 2005. Job gains were centered in educational and health services (+5,000), leisure and hospitality (+3,000), professional and business services (+3,000), trade, transportation and utilities (+3,000), and financial activities (+2,200). Information (-800) and manufacturing (-700) lost jobs over the year.

WESTERN NY
JOHN SLENKER
716-851-2742

Private sector employment in the Buffalo-Niagara Falls metro area increased over the year by 1,300, or 0.3 percent, to 442,500 in February 2005. Job gainers were led by natural resources, mining and construction (+700), financial activities (+600), educational and health services (+500), and professional and business services (+400). Manufacturing (-1,300) lost jobs over the year.

SOUTHERN TIER
JOSEPH KOZLOWSKI 607-741-4485

Private sector employment in the region rose over the year by 2,000, or 0.8 percent, to 248,700 in February 2005. Gains in trade, transportation and utilities (+900), educational and health services (+700), manufacturing (+500) and financial activities (+300) outpaced losses in information (-300) and smaller losses in several other industries.

LONG ISLAND
GARY HUTH 516-934-8533

Long Island private sector employment rose over the year by 14,900, or 1.5 percent, to 1,012,100 in February 2005, a record high for the month. Job gains were centered in professional and business services (+3,900), educational and health services (+3,500), leisure and hospitality (+3,500), trade, transportation and utilities (+1,600), natural resources, mining and construction (+900), and other services (+800).

NEW YORK CITY
JAMES BROWN 212-621-9353

The City added 36,700 private sector jobs for the 12-month period ending in February 2005, a gain of 1.2 percent. Three sectors – leisure and hospitality, educational and health services, and trade, transportation and utilities – each added more than 10,000 jobs. The financial activities sector gained strength, while manufacturing was the only sector to lose jobs over the year.

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