## Turmoil on Wall Street: The Impact of the Financial Sector Meltdown On New York's Labor Market

An Economic Report to the Workforce System



June 2009

New York State Department of Labor Division of Research and Statistics Bureau of Labor Market Information

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## Acknowledgements

This study is the result of a group effort. Peter Neenan, Ph.D., Director of the Division of Research and Statistics, New York State Department of Labor, originally convened the Tri-State Region research group to study the economic implications of the recent Wall Street and financial sector meltdown. Rae Rosen, Senior Economist and Assistant Vice President, Federal Reserve Bank of New York, contributed significantly to bringing this project to fruition, helping to coordinate and facilitate the work group. Jen McCormick, Vice President, Policy and Research, Empire State Development Corp., helped the research group acquire a secondary REMI user's license. At REMI, Billy Leung, Vice President, and Mark D'Amato, Ph.D., Senior Economist, provided valuable input and assistance with the economic simulation model developed for this research project.

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### **Executive Summary**

This research initiative was created in order to quantify the economic consequences of the recent meltdown of the financial services sector in general and the securities industry in particular on the greater New York City metropolitan area. Referred to as the "Tri-State Region" in this report, this area includes five labor market regions and parts of three states -- New York, Connecticut, and New Jersey. This report is an outgrowth of that research effort and highlights the projected impacts of the financial sector meltdown on the New York State and New York City economies over a five-year period (2007-2012).

Cumulative <u>direct employment losses</u> in the Tri-State Region's financial sector are projected to peak at just over 125,000 in 2011. Preliminary results indicate that the brunt of the region's financial sector meltdown will be felt in New York City (five boroughs), with the City accounting for the lion's share (over 80 percent) of financial sector losses in the region. In contrast, combined losses at firms located in Connecticut and New Jersey are projected to account for less than 15 percent of Tri-State declines. It is likely that the financial meltdown will, in fact, have a greater effect on these two states via jobs lost by residents of Connecticut and New Jersey, who formerly commuted to jobs in New York City, rather than financial jobs actually lost in those two states.

Projected cumulative peak total employment losses (direct plus ripple effects) due to the financial meltdown for all of New York State are almost 300,000 by 2011, with more than 250,000 occurring in New York City by then. On an industry basis, financial activities is predicted to experience the largest single employment decline of any sector in both the State and City economies, with professional and business services expected to have the second largest set of losses. In terms of impacted occupational groups, expected job losses are focused in the combined sales and related/office and administrative support occupational category, while the next highest set of job losses.

Although a variety of financial sector industries were analyzed for this report, <u>projected</u> <u>employment and wage declines in the securities industry are, by far, the largest contributor to</u> <u>future economic uncertainty in the New York State and New York City economies</u>. Brokerage firms located in New York City are projected to account for about one-half of the direct job declines expected to occur in the Tri-State Region's financial sector by 2011 (year of greatest cumulative job losses).

Finally, the Tri-State Region's financial sector is expected to experience <u>cyclical change</u> over the next few years as financial firms sharply reduce staffing levels. Significant <u>structural change</u> is also projected to occur as firms employ less financial leverage (borrowed money), which will likely reduce both risk and profitability going forward, hence putting downward pressure on industry wage levels. The conversions of storied investment banks Goldman Sachs and Morgan Stanley to bank-holding companies are prime examples of the trend toward less risk taking in the financial sector. Declining wage levels in this sector, which averaged over \$400,000 in 2007 and totaled almost \$33 billion that year, will almost certainly result in significant negative consequences for the economy.

## Introduction

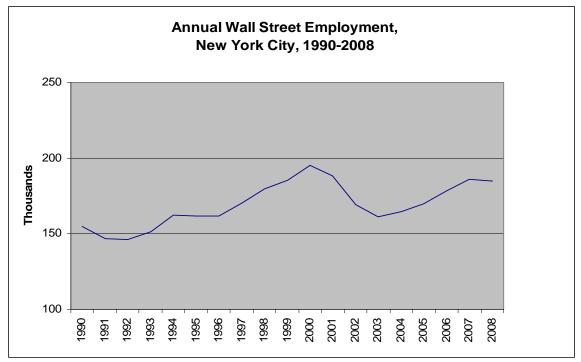
The current U.S. recession, which officially began in December 2007, is now the lengthiest economic downturn in this country since World War II. President Barack Obama has called it "the worst recession since the Great Depression." The economic downturn was precipitated by crises in the nation's housing, credit and financial markets. The U.S. financial crisis, which erupted in August 2007, quickly spread throughout the overall U.S. economy and around the globe. Its rapidity and severity led former Federal Reserve Chairman Alan Greenspan to conclude in October 2008, "We are in the midst of a once-in-a-century credit tsunami. Central banks and governments are being required to take unprecedented measures."

The depth and the scope of the crisis came into focus in September 2008 when it entered a tumultuous new phase, badly shaking confidence in global financial institutions and sending financial markets reeling. This triggered a cascading series of bankruptcies, forced mergers, and radical government interventions -- such as the U.S. government's unprecedented \$700 billion financial rescue plan to purchase or insure "troubled" assets (TARP) -- to stem the fallout. In a single calendar quarter, this country's largest savings and loan, its largest insurance company, its two largest mortgage providers, its largest brokerage firm, and a leading commercial bank were the subject of a takeover, bailout or failure. In addition, storied investment banks Goldman Sachs and Morgan Stanley became bank-holding companies in order to lower their risk profiles, while troubled Citigroup announced that it would split in two under a plan to rebuild a capital base sharply eroded by the credit crisis.

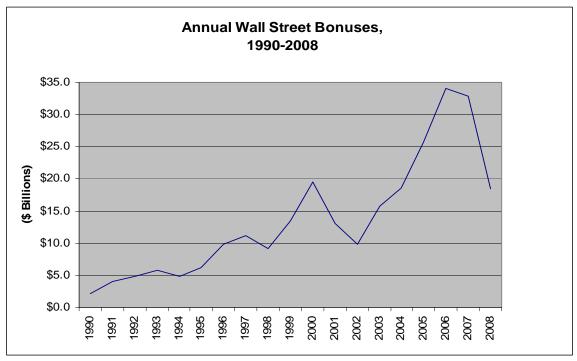
The magnitude of the current crisis in the financial sector is unprecedented. Bloomberg News reported that, as of early May 2009, banks and other financial institutions had taken more than \$1.37 trillion in worldwide write-downs and losses, including \$925.9 billion in the Americas, since the mortgage markets collapsed in 2007. If that larger money figure represented the Gross Domestic Product of a country, it would have been the 12th largest national economy in the world in 2008 (smaller than Canada, but larger than India).

Against this background, it is important to remember that in recent years, Wall Street has been a big winner for the New York City economy. Before the current crisis hit, annual employment in the securities industry in the City grew from 161,300 in 2003 to 186,100 in 2007 (see first graph on page 4), accounting for about 6 percent of the City's private sector employment in 2007. However, Wall Street has never regained its peak employment level, 195,400, set during the "tech bubble" in 2000.

Perhaps Wall Street's greatest contribution to the New York City economy has been the sheer magnitude of the total compensation paid by the industry and its rapid rate of growth. In 2007, it was responsible for almost 30 percent of private sector wages in the City. Between 2003 and 2007, total wages paid on Wall Street more than doubled, increasing from \$35.8 billion to \$73.9 billion. Similarly, average salaries in the industry jumped more than 77 percent over the period to top \$400,000 in 2007; the rate of increase in average wage level was more than three times faster than growth in the rest of the City's private sector wage growth in the City as well as approximately 20 percent of the tax revenue for the state as a whole. In sum, it is difficult to overstate the past importance of Wall Street firms to the State and New York City economies.



Source: New York State Department of Labor



Source: New York State Comptroller's Office

The negative impacts of the national economic downturn have been magnified in New York State by the deepening turmoil on Wall Street and the overall restructuring and consolidation of the financial services sector, which together have resulted in thousands of layoffs. The fallout from this meltdown has been most keenly felt in the greater New York City metropolitan area with its concentration of high-paying financial services jobs. Wall Street's recent reversal of fortune is perhaps most accurately reflected by the drastic turnaround in bonuses paid by brokerage firms. From 2002 to 2007, total cash bonuses paid by Wall Street firms to their New York City employees tripled, climbing from \$10 billion to more than \$30 billion, according to the New York State Comptroller's Office (see second graph on page 4). However, with the subsequent implosion of the financial sector and the onset of the national recession, bonuses dropped precipitously between 2007 and 2008, falling 44 percent to \$18.4 billion.

## **Research Background**

The New York State Department of Labor's Division of Research and Statistics has been at the forefront of researching the economic consequences of the Wall Street meltdown on the State and City economies. The Division is leading the coordination of a three-state research initiative (with New Jersey and Connecticut) that is examining the impact of the crisis in the financial sector on the greater metropolitan New York City area. The Federal Reserve Bank of New York is also participating, helping to coordinate and facilitate the project.

In summer 2008, the Division of Research and Statistics convened a group of labor market analysts (LMAs) from three states covering five regions within the greater New York City metropolitan area ("Tri-State Region"). The specific regions and the counties comprising each are shown in Table 1 below. The group's focus was to discuss potential changes occurring in the Tri-State Region's financial sector over the next few years in light of the unprecedented restructuring in that field.

Initial research findings were presented at a conference -- *Impact of Current Financial Restructuring on the Tri-State Economy* -- held at the Federal Reserve Bank of New York on November 21, 2008. These preliminary research findings from the three-state research initiative were subsequently revised in early 2009 and are presented in this report.

	Table 1: Regions and Component Counties, Tri-State Region
<b>Region</b>	Counties
New York City	Bronx, Kings, New York, Queens and Richmond
Hudson Valley	Dutchess, Orange, Putnam, Rockland, Sullivan, Ulster and Westchester
Long Island	Nassau and Suffolk
Connecticut	Fairfield and New Haven
New Jersey	Bergen, Essex, Hudson, Morris, Passaic and Union

The LMAs forecast annual changes in both employment <u>and</u> average wage levels occurring in their region's financial sector (specific industries are in Table 2 below) between 2007 and 2012. This was done to account for both *cyclical* change (due to lower employment levels) and *structural* change. Structural change reflects a fundamental adjustment in the way many financial companies will conduct business going forward. More specifically, it is expected that

many firms will utilize significantly less financial leverage (borrowed money) in their operations, which will reduce emphasis on high-risk, high-return transactions. While lowering risk, this move will also likely reduce industry profitability, and hence, employee wage levels.

	r	Financial Sector Industries Analyzed
NAICS	NAICS	NAICS Industry Description
Code	Industry	
522*	Credit Intermediation and Related Activities	(1) Lend funds raised from depositors; (2) lend funds raised from credit market borrowing; or (3) facilitate the lending of funds or issuance of credit by engaging in such activities as mortgage and loan brokerage, clearinghouse and reserve services, and check cashing services.
523	Securities, Commodity Contracts, and Other Financial Investments	Primarily engaged in one of the following: (1) underwriting securities issues and/or making markets for securities and commodities; (2) acting as agents (i.e., brokers) between buyers and sellers of securities and commodities; (3) providing securities and commodity exchange services; and (4) providing other services, such as managing portfolios of assets; providing investment advice; and trust, fiduciary, and custody services.
524	Insurance and Related Activities	Primarily engaged in one of the following: (1) underwriting (assuming the risk, assigning premiums, and so forth) annuities and insurance policies or (2) facilitating such underwriting by selling insurance policies, and by providing other insurance and employee-benefit related services.
525*	Funds, Trusts, and Other Financial Vehicles	Legal entities (i.e., funds, plans, and/or programs) organized to pool securities or other assets on behalf of shareholders or beneficiaries of employee benefit or other trust funds. The portfolios are customized to achieve specific investment characteristics, such as diversification, risk, rate of return, and price volatility. These entities earn interest, dividends, and other investment income, but have little or no employment and no revenue from the sale of services.
531	Real Estate	Primarily engaged in renting or leasing real estate to others; managing real estate for others; selling, buying, or renting real estate for others; and providing other real estate related services, such as appraisal services. This subsector includes equity Real Estate Investment Trusts (REITs) that are primarily engaged in leasing buildings, dwellings, or other real estate property to others. Mortgage REITs are classified in NAICS Industry 525, Funds, Trusts, and Other Financial Vehicles.

Source: Online 2007 NAICS Manual <www.census.gov/eos/www/naics> \*The REMI model combines these two industries.

## **Modeling Approach**

The dynamic forecasting model from Regional Economic Models, Inc. (REMI) was used to capture the impact of the forecasted changes in financial sector employment and wages on the Tri-State Region's economy. The REMI model integrates several modeling approaches, including econometric, input-output and computable general equilibrium, to answer "what if...?" questions about the regional economy. More detailed background information regarding the REMI model is available online at **www.remi.com/index.php?page=model&hl=en\_US**.

In particular, the REMI model translated the impact of the forecasted "primary" effects shock (direct drops in financial sector employment and average wages) and the associated "secondary" effects (also known as "spillover" or "ripple" effects) into overall changes ("total" effects) in economic activity (e.g., employment, income) in the greater New York City metropolitan area.

Looked at another way, the total effect is the sum of the direct, indirect and induced effects. These separate employment effects are more fully described in Table 3 below.

It is important to keep in mind that the estimated economic losses presented in this report represent a guide for policy and are the result of a fairly sophisticated simulation of the impacts of the shock to the financial system outlined above. While they are not technically a forecast as they do not explicitly factor in the effects of a recovery in the national economy and/or the effects of the \$789 billion American Recovery and Reinvestment Act of 2009 (federal stimulus package), the term "forecast" is used more generally throughout this report to refer to predicted or estimated changes in various economic variables.

	Table 3: Summary of Types of Employment Effects
Effect Type	Description
Primary Effec	ets
Direct	Refers to loss in employment due to reduction in financial sector employment and/or
	compensation.
Secondary ("S	Spillover or "Ripple") Effects
Indirect	Refers to loss in employment due to reduced purchases made by financial firms from
	supporting industries (e.g., law firms).
Induced	Refers to loss in employment due to reduced spending of employees in the financial
	industry and in supporting industries (e.g., employees at financial firms and law firms
	cut back their spending, resulting in reduced demand for goods and services).
Total Effects	= Primary Effects + Secondary Effects

## **Data Analysis**

#### **Direct Effects**

Appendix Tables 1 and 2 present the specific employment and wage ("direct effects") forecasts made by the LMA group. We project that the financial sector employment declines in New York State that commenced in 2008, will reach a nadir in 2011 with a small subsequent improvement in 2012. Cumulative combined financial sector employment losses in the New York State parts (i.e., New York City, Hudson Valley, Long Island) of the Tri-State Region are expected to reach a maximum of 110,000 by 2011, of which more than 90 percent (102,000) are expected to occur in New York City.

When the impact is examined by specific industry within the financial sector, the majority (58 percent) of the 110,000 "direct" job losses in the financial sector expected to occur by 2011 in New York State will be in the securities industry. Another 18 percent are expected to happen in the combined credit intermediation/funds and trusts category, while 14 percent of the losses will be in real estate and another 10 percent in insurance. It is important to note these projected employment declines only represent "direct" job losses due to the financial sector meltdown and do <u>not</u> take into account any secondary ("spillover" or "ripple") effects.

#### **Total Effects: Selected Macro Variables**

Appendix Tables 3 and 4 present the projected cumulative change in selected macroeconomic variables for New York State as a whole and New York City, respectively, through 2012. At its nadir in 2011, we expect total employment losses (all industries) in all regions of New York State to reach 297,100 of which 253,400 (85 percent) are projected to occur in New York City. These estimated effects <u>do</u> take into account both the "direct" and the "spillover" or "ripple" effects, attributable to the impacts of the financial sector job losses outlined above; they do <u>not</u>, however, take into account additional job losses due to the effects of the national recession.

Our simulations expect labor force levels in New York State and New York City to drop by approximately 162,000 and 105,000, respectively, through 2012. The resident population in New York State is projected to fall about 223,000 due to the effects of the financial sector meltdown. Of this total, about 70 percent of the decline, or 156,000 people, will occur in New York City.

Gross Regional Product (GRP) is also expected to suffer a sizable hit due to the financial sector decline. The REMI model forecasts that between 2007 and 2012, GRP (expressed in fixed 2000 dollars) will drop by \$58.4 billion -- equivalent to the combined economies of the Rochester, Utica-Rome, and Binghamton metropolitan areas in 2006 -- in New York State and \$55.2 billion in New York City. In addition, personal income (nominal) is projected to decline by \$41.6 billion and \$31.3 billion in New York State and New York City, respectively, through 2012. From 2007 to 2012, real disposable personal income (expressed in fixed 2000 dollars) is expected to drop by \$21.6 billion in New York State and \$16.6 billion in New York City.

#### **Total Effects: Impacts on Industries**

Appendix Tables 5 and 6 show the projected cumulative employment decline by major <u>industry</u> sector in all of New York State and New York City through 2012. As noted above, these estimated industry losses do reflect "direct" and "spillover" or "ripple" effects, but <u>only</u> those due to the impact of the financial sector meltdown; no account is made for additional job losses due to the national recession. Not unexpectedly, the financial activities sector is forecast to bear the brunt of employment declines in both the State and City economies between 2007 and 2012. Over this five-year timeframe, financial activities is forecast to shed a total of 110,000 jobs in New York State, or about 39 percent of the total jobs lost in all industries in the state due to the financial sector decline. Losses are projected to occur throughout the economy. Other sectors projected to lose at least 20,000 jobs in New York State through 2012 include: professional and business services (-40,000); trade, transportation and utilities (-36,600); educational and health services (-33,700); and leisure and hospitality (-24,900).

In New York City, the financial activities sector is forecast to register the largest overall employment decline of any single sector, losing a total of about 105,000 jobs from 2007 to 2012; this represents 43 percent of the expected job losses in the City over this period. Other industry sectors expected to register large job losses in the City over 2007-2012 include: professional and business services (-36,300); trade, transportation and utilities (-27,000); educational and health services (-27,400); and leisure and hospitality (-20,000).

The relatively high employment losses predicted for professional and business services in New York State and New York City are not unexpected -- this sector is a large seller of intermediate goods and services (e.g., legal and accounting services) to financial industries.

What is surprising is the fairly sizeable losses forecast for trade, transportation and utilities, educational and health services, and leisure and hospitality. The causality between job losses in financial activities and these other sectors, however, is not intuitively clear. The employment drops predicted for these three sectors are largely the result of steep declines in regional personal income levels, which dampen both consumer demand and employment levels in the affected industries (i.e., induced effects), as well as lower population levels, which also effectively diminish regional demand and employment levels.

#### **Total Effects: Occupational Impacts**

Appendix Tables 7 and 8 show the projected cumulative employment decline in all of New York State and New York City through 2012 for major <u>occupational</u> groups and selected occupational titles. It is important to remember that as with the impacts on the selected macroeconomic variables and the industries outlined above, these estimated occupational losses reflect only "direct" and "spillover" or "ripple" effects attributable to the financial sector meltdown.

We project occupational job losses will be focused in the combined sales and related/office and administrative support occupational category (see Appendix Table 7). This category is expected to account for about 39 percent of the total job losses (109,800) occurring in the State between 2007 and 2012 due to the financial sector meltdown. Within this broad combined occupational category, the specific job titles expected to lose the most jobs over the 2007-2012 period in New York State include: information and record clerks (-23,100); financial clerks (-14,800); retail sales workers (-14,500); and sales representatives (services) (-14,100).

The management, business and financial operations occupational category is expected to experience the second largest set of job losses (-46,200) in New York State through 2012. Within this category, specific job titles projected to have the greatest losses between 2007 and 2012 include financial specialists (-17,900) and business operations specialists (-9,100).

Several other occupational categories are expected to shed at least 10,000 jobs in New York State through 2012. These categories include: food preparation and serving related (-20,200); building and grounds cleaning and maintenance/personal care and service (-15,400); computer, mathematical, architecture and engineering (-14,600); healthcare (-13,400); transportation and material moving (-12,300); construction and extraction (-11,500); and education, training, and library (-10,100).

In New York City, the sales and related/office and administrative support job category also dominates the list of largest job losses due to the financial sector meltdown (see Appendix Table 8). About 97,000 jobs are predicted to be lost in this category, accounting for about 40 percent of the total losses predicted to occur in the City over the 2007-2012 period. The job titles in this category with the greatest projected losses in New York City through 2012 are: information and record clerks (-21,300); sales representatives (services) (-13,600); and financial clerks (-13,400).

The occupational category with the second largest projected aggregate job loss in the City between 2007 and 2012 is management, business and financial operations (-42,500). Financial specialists (-17,100) and business operations specialists (-8,200) are expected to have the largest job losses in this category. Between 2007 and 2012, these occupational categories are also expected to register large job losses in the City: food preparation and serving related (-16,400);

computer, mathematical, architecture and engineering (-13,500); building and grounds cleaning and maintenance/personal care and service (-12,700); and healthcare (-10,600).

## **Concluding Remarks**

The REMI model simulations upon which this analysis is based paint a fairly negative picture of the New York State and New York City economies over the next few years. However, it is possible that things may not turn out as bad as predicted. For example, Securities Industry and Financial Markets Association (SIFMA) member firms reported large gains in taxable income in first quarter 2009, while there has been a deceleration in the recent declines in financial sector employment.

The key unknown, which could greatly affect the results presented in this analysis, is how quickly and robustly the U.S. economy begins to grow as fiscal stimulus measures take effect and credit conditions begin to improve. While some economists are not overly optimistic about the near-term outlook for the national economy, others believe that overall economic conditions should pick up later this year. If economic conditions improve significantly and/or President Obama's fiscal stimulus package takes effect faster than expected, then the estimated losses could prove to be significantly less than indicated by the simulations.

Appendix Tables

## Appendix Table 1: Projected Cumulative Change in Financial Sector Employment by Industry, Tri-State Region, 2008-2012

Region/Industry (NAICS code)	2008	2009	2010	2011	2012
Tri-State Region: Credit Intermediation					
(522)/Funds & Trusts (525)	-6,000	-15,300	-22,300	-24,900	-24,300
Securities & Commodities (523)	-18,100	-51,900	-68,500	-71,600	-67,700
Insurance (524)	-4,300	-9,800	-13,000	-13,300	-12,20
Real estate (531)	-900	-10,000	-14,600	-16,300	-15,00
TOTAL, Tri-State	-29,300	-87,000	-118,400	-126,100	-119,20
NYC+ Hudson Valley+ Long Island:					
Credit Intermediation (522)/Funds &	2 000	11 700	17 200	10.000	20.90
Trusts (525) Securities & Commodities (523)	-3,900 -15,700	-11,700 -46,300	-17,200 -61,700	-19,900 -64,300	-20,80
		-40,300	-9,700	-04,300	-61,80 -10,80
Insurance (524)	-2,800		-		
Real estate (531)	100	-8,500	-12,900	-15,000	-13,80
TOTAL, NYC+HV+LI	-22,300	-73,800	-101,500	-110,000	-107,20
<b><u>NYC</u></b> : Credit Intermediation (522)/Funds & Trusts (525)	-3,000	-10,300	-15,300	-17,800	-18,80
Securities & Commodities (523)	-15,000	-45,000	-60,000	-62,500	-60,00
Insurance (524)	-2,000	-6,000	-8,000	-9,000	-9,00
Real estate (531)	1,000	-7,000	-11,000	-13,000	-12,00
TOTAL, NYC	-19,000	-68,300	-94,300	-102,300	-99,80
Hudson Valley: Credit Intermediation	400	500	700	900	70
(522)/Funds & Trusts (525) Securities & Commodities (523)	-400 -300	-500 -400	-700 -600	-800 -700	-70 -70
	-300	-400	-600 -1,200	-1,300	-70
Insurance (524)	-300	-900	-		-1,30
Real estate (531)			-1,000	-1,100	
TOTAL, Hudson Valley	-1,600	-2,600	-3,500	-3,900	-3,60
Long Island: Credit Intermediation (522)/Funds & Trusts (525)	-500	-900	-1,200	-1,300	-1,30
Securities & Commodities (523)	-400	-900	-1,100	-1,100	-1,10
Insurance (524)	-300	-400	-500	-500	-50
Real estate (531)	-500	-700	-900	-900	-90
TOTAL, Long Island	-1,700	-2,900	-3,700	-3,800	-3,80
Connecticut: Credit Intermediation (522)/Funds & Trusts (525)	-400	-1,200	-2,400	-2,600	-2,60
Securities & Commodities (523)	-100	-1,200	-1,900	-3,200	-3,60
Insurance (524)	-400	-1,200	-1,500	-1,400	-1,30
	-400	-400	-600	-1,400	-1,30
		-3,800	-6, <b>400</b>	-8,400	-9,20
Real estate (531)	-1 200	-3,000	-0,700	-0,700	-3,20
TOTAL, Connecticut	-1,200				
TOTAL, Connecticut	-1,700	-2,400	-2,700	-2,400	-90
TOTAL, Connecticut <u>New Jersey</u> : Credit Intermediation (522)/Funds & Trusts (525)		-2,400 -4,400	-2,700 -4,900	-2,400 -4,100	
TOTAL, Connecticut           New Jersey:         Credit Intermediation	-1,700				-2,30
TOTAL, Connecticut <u>New Jersey</u> : Credit Intermediation (522)/Funds & Trusts (525) Securities & Commodities (523)	-1,700	-4,400	-4,900	-4,100	-90 -2,30 -10 50

## Appendix Table 2: Projected Annual Change in Financial Sector Average Wages by Industry, Tri-State Region, 2008-2012

Region/Industry (NAICS code)			0040	0044	
NYC	2008	2009	2010	2011	2012
Credit Intermediation (522)/Funds & Trusts					
(525)	-5.0%	-5.0%	-5.0%	0.0%	3.0%
Securities & Commodities (523)	-8.0%	-12.0%	-10.0%	-5.0%	0.0%
Insurance (524)	-2.5%	-2.5%	0.0%	3.0%	3.0%
Real estate (531)	0.0%	0.0%	0.0%	3.0%	3.0%
Hudson Valley	2008	2009	2010	2011	2012
Credit Intermediation (522)/Funds & Trusts					
(525)	0.0%	0.0%	3.0%	3.0%	3.0%
Securities & Commodities (523)	-3.5%	-3.5%	-10.0%	5.0%	5.0%
Insurance (524)	-2.0%	-2.0%	0.0%	3.0%	5.0%
Real estate (531)	-3.0%	-3.0%	0.0%	3.0%	3.0%
Long Island	2008	2009	2010	2011	2012
Credit Intermediation (522)/Funds & Trusts	2000	2005	2010	2011	2012
(525)	-4.5%	-4.5%	-5.0%	3.0%	3.0%
Securities & Commodities (523)	-10.0%	-10.0%	-5.0%	4.0%	3.0%
Insurance (524)	-2.0%	-2.0%	0.0%	4.0%	3.0%
Real estate (531)	-5.0%	-5.0%	0.0%	3.0%	3.0%
Connecticut	2008	2009	2010	2011	2012
Credit Intermediation (522)/Funds & Trusts	2000	2003	2010	2011	2012
(525)	0.6%	-1.8%	-1.4%	-3.4%	1.1%
Securities & Commodities (523)	0.3%	5.1%	-2.0%	1.6%	-4.2%
Insurance (524)	0.6%	-1.5%	-2.9%	-1.8%	3.3%
Real estate (531)	3.3%	-3.3%	2.1%	4.1%	-1.9%
New Jacob	2000	0000	0040	0014	0040
New Jersey	2008	2009	2010	2011	2012
Credit Intermediation (522)/Funds & Trusts (525)	-5.0%	-2.5%	-1.0%	1.0%	2.0%
Securities & Commodities (523)	-10.0%	-10.0%	-5.0%	10.0%	5.0%
Insurance (524)	-1.0%	-1.0%	-1.0%	2.0%	2.0%
Real estate (531)	-9.5%	-5.0%	-2.0%	5.0%	2.0%

## Appendix Table 3: Projected Cumulative Change in Selected Macroeconomic Variables, New York State, 2008-2012

Variable	2008	2009	2010	2011	2012
Total Employment	-82,200	-201,700	-278,200	-297,100	-283,200
Total Gross Regional Product (Billions, Fixed 2000 dollars)	-\$12.1	-\$36.6	-\$52.4	-\$58.8	-\$58.4
Personal Income (Billions, Nominal dollars)	-\$12.6	-\$26.8	-\$38.5	-\$42.3	-\$41.6
Real Disposable Personal Income					
(Billions, Fixed 2000 dollars)	-\$ 7.8	-\$15.7	-\$21.6	-\$22.7	-\$21.6
Labor Force	-20,400	-65,800	-110,500	-142,400	-162,300
Population	-22,300	-76,800	-136,600	-185,400	-222,800

## Appendix Table 4: Projected Cumulative Change in Selected Macroeconomic Variables, New York City, 2008-2012

Variable	2008	2009	2010	2011	2012
Total Employment	-65,500	-169,900	-235.200	-253.400	-243,300
	-05,500	-109,900	-235,200	-200,400	-243,300
Total Gross Regional Product (Billions, Fixed 2000 dollars)	-\$10.9	-\$34.3	-\$49.2	-\$55.4	-\$55.2
Personal Income (Billions, Nominal dollars)	-\$9.4	-\$20.1	-\$28.8	-\$31.7	-\$31.3
Real Disposable Personal Income					
(Billions, Fixed 2000 dollars)	-\$ 5.8	-\$11.9	-\$16.4	-\$17.3	-\$16.6
Labor Force	-11,700	-42,600	-71,600	-92,000	-105,200
Population	-13.400	-52.300	-94.300	-128.700	-155,600

Sector	2008	2009	2010	2011	2012
TOTAL, ALL INDUSTRIES*	-82,200	-201,700	-278,200	-297,100	-283,200
Construction	-3,100	-8,300	-12,800	-14,700	-14,600
Manufacturing	-1,800	-3,800	-4,900	-4,800	-4,100
Trade, Transportation & Utilities	-13,700	-28,600	-38,600	-39,700	-36,600
Wholesale & Retail Trade	-12,000	-24,200	-32,600	-33,400	-30,600
Wholesale Trade	-1,900	-3,900	-5,200	-5,300	-4,800
Retail Trade	-10,100	-20,300	-27,400	-28,100	-25,900
Transportation & Warehousing	-1,500	-3,700	-5,000	-5,300	-5,000
Utilities	-300	-700	-1,000	-1,100	-1,000
Information	-1,600	-3,700	-5,000	-5,100	-4,80
Financial Activities	-25,200	-75,100	-103,600	-113,200	-109,90
Finance and Insurance	-23,500	-66,500	-91,200	-99,600	-97,80
Real Estate, Rental & Leasing	-1,600	-8,600	-12,400	-13,700	-12,10
Professional & Business Services	-10,000	-27,700	-38,600	-41,800	-40,00
Professional, Scientific, & Technical Services	-5,100	-13,800	-19,100	-20,600	-19,800
Management of Companies & Enterprises	-500	-1,100	-1,500	-1,400	-1,300
Administrative & Support Services	-4,300	-12,800	-18,100	-19,800	-19,000
Educational & Health Services	-13,200	-26,100	-35,500	-36,300	-33,70
Educational Services	-5,600	-10,800	-14,400	-14,400	-12,80
Health Care & Social Assistance	-7,700	-15,300	-21,100	-22,000	-20,900
Leisure & Hospitality	-9,400	-19,200	-26,000	-26,800	-24,90
Arts, Entertainment, & Recreation	-1,600	-3,300	-4,500	-4,600	-4,300
Accommodation & Food Services	-7,700	-15,900	-21,500	-22,200	-20,60
Other Services	-3,700	-7,500	-10,200	-10,500	-9,70
State & Local Government	-500	-1,700	-3,000	-4,100	-4,90
State Government	-100	-200	-400	-500	-60
Local Government	-400	-1,500	-2,600	-3,600	-4,30
*Figures may not add to total due to rounding.					

# Appandix Table 5:

Sector	2008	2009	2010	2011	2012
TOTAL, ALL INDUSTRIES*	-65,500	-169,900	-235,200	-253,400	-243,300
Construction	-2,000	-5,700	-8,800	-10,200	-10,200
Manufacturing	-1,000	-2,200	-2,900	-2,900	-2,500
Trade, Transportation & Utilities	-9,500	-20,600	-27,800	-29,000	-27,000
Wholesale & Retail Trade	-8,100	-17,000	-22,900	-23,700	-22,000
Wholesale Trade	-1,400	-3,100	-4,100	-4,200	-3,900
Retail Trade	-6,700	-13,900	-18,800	-19,500	-18,100
Transportation & Warehousing	-1,200	-3,100	-4,200	-4,500	-4,200
Utilities	-200	-500	-700	-800	-800
Information	-1,400	-3,200	-4,400	-4,600	-4,300
Financial Activities	-22,700	-71,100	-98,400	-107,700	-104,800
Finance and Insurance	-21,600	-63,300	-87,100	-95,100	-93,600
Real Estate, Rental & Leasing	-1,100	-7,800	-11,300	-12,600	-11,100
Professional & Business Services	-8,500	-24,600	-34,500	-37,600	-36,300
Professional, Scientific, & Technical Services	-4,600	-12,800	-17,800	-19,300	-18,700
Management of Companies & Enterprises	-400	-1,000	-1,300	-1,300	-1,200
Administrative & Support Services	-3,400	-10,800	-15,400	-17,000	-16,400
Educational & Health Services	-10,200	-20,600	-28,100	-29,200	-27,400
Educational Services	-4,300	-8,500	-11,500	-11,700	-10,700
Health Care & Social Assistance	-5,900	-12,100	-16,600	-17,500	-16,700
Leisure & Hospitality	-7,100	-14,900	-20,400	-21,300	-20,000
Arts, Entertainment, & Recreation	-1,100	-2,300	-3,100	-3,200	-3,000
Accommodation & Food Services	-6,000	-12,600	-17,200	-18,100	-17,000
Other Services	-2,800	-5,900	-8,000	-8,300	-7,700
State & Local Government	-300	-1,100	-2,000	-2,700	-3,300
State Government	0	-100	-200	-300	-300
Local Government	-300	-1,000	-1,800	-2,500	-3,000
*Figures may not add to total due to rounding.					

Appendix Table 7: Projected Cumulative Employment Decline by Major Occupational Group and Selected Occupational Titles, New York State, 2008-2012							
Occupational Group	2008	2009	2010	2011	2012		
TOTAL, ALL GROUPS*	-82,200	-201,700	-278,200	-297,100	-283,200		
Management, Business & Financial Operations	-11,700	-31,700	-43,900	-47,600	-46,200		
Business operations specialists	-2,400	-6,200	-8,600	-9,400	-9,100		
Financial specialists	-4,300	-12,200	-16,800	-18,300	-17,900		
Computer, Mathematical, Architecture & Engineering	-3,800	-10,100	-14,000	-15,100	-14,600		
Life, Physical, and Social Science	-600	-1,500	-2,100	-2,300	-2,200		
Community and Social Services	-1,100	-2,300	-3,200	-3,300	-3,100		
Legal	-700	-1,800	-2,400	-2,600	-2,600		
Education, Training, and Library	-3,700	-7,500	-10,300	-10,700	-10,100		
Arts, Design, Entertainment, Sports, and					,		
Media	-1,200	-2,700	-3,700	-3,900	-3,600		
Healthcare	-4,400	-9,300	-13,000	-13,800	-13,400		
Protective Service	-800	-2,000	-2,900	-3,200	-3,100		
Food Preparation and Serving Related	-7,500	-15,500	-21,000	-21,800	-20,200		
Building and Grounds Cleaning and Maintenance/Personal Care and Service	-4,800	-11,300	-15,600	-16,500	-15,400		
Sales and Related/Office and Administrative Support	-31,000	-78,700	-107,800	-115,100	-109,800		
Retail sales workers	-5,400	-11,300	-15,300	-15,700	-14,500		
Sales representatives (services)	-3,700	-10,300	-13,800	-14,700	-14,100		
Financial clerks	-3,600	-9,600	-13,600	-15,100	-14,800		
Information and record clerks	-5,900	-15,900	-22,000	-23,800	-23,100		
Secretaries and administrative assistants	-3,300	-8,500	-11,700	-12,400	-11,700		
Other office and administrative support	-3,800	-9,900	-13,400	-14,400	-13,700		
Farming, Fishing, and Forestry	-100	-200	-300	-300	-300		
Construction and Extraction	-2,500	-6,800	-10,300	-11,700	-11,500		
Installation, Maintenance, and Repair	-2,200	-5,800	-8,200	-8,800	-8,200		
Production	-2,400	-5,300	-7,200	-7,400	-6,700		
Transportation and Material Moving	-3,800	-9,000	-12,400	-13,100	-12,300		
*Figures may not add to total due to rounding.	*		•	*			

Major Occupational Group New York	c City, 2008	•	Dational I	ities,	
Occupational Group	2008	2009	2010	2011	2012
TOTAL, ALL GROUPS*	-65,500	-169,900	-235,200	-253,400	-243,300
Vanagement, Business & Financial Operations	-10,100	-28,800	-40,000	-43,600	-42,500
Business operations specialists	-2,000	-5,500	-7,600	-8,400	-8,20
Financial specialists	-3,900	-11,500	-16,000	-17,400	-17,10
Computer, Mathematical, Architecture &					
Engineering	-3,300	-9,100	-12,700	-13,800	-13,50
Life, Physical, and Social Science	-500	-1,400	-1,900	-2,000	-2,00
Community and Social Services	-900	-1,900	-2,600	-2,700	-2,60
_egal	-600	-1,600	-2,300	-2,500	-2,40
Education, Training, and Library	-2,900	-5,900	-8,200	-8,600	-8,20
Arts, Design, Entertainment, Sports, and Media	-1,000	-2,300	-3,200	-3,400	-3,20
Healthcare	-3,300	-7,300	-10,100	-10,900	-10,60
Protective Service	-600	-1,700	-2,400	-2,600	-2,50
Food Preparation and Serving Related	-5,700	-12,100	-16,600	-17,400	-16,40
Building and Grounds Cleaning and Maintenance/Personal Care and Service	-3,600	-9,100	-12,700	-13,600	-12,70
Sales and Related/Office and Administrative Support	-25,300	-68,200	-93,700	-100,800	-96,90
Retail sales workers	-3,700	-8,000	-10,900	-11,300	-10,60
Sales representatives (services)	-3,400	-9,900	-13,300	-14,200	-13,60
Financial clerks	-3,000	-8,600	-12,200	-13,600	-13,40
Information and record clerks	-5,100	-14,500	-20,000	-21,800	-21,30
Secretaries and administrative assistants	-2,800	-7,700	-10,500	-11,200	-10,60
Other office and administrative support	-3,200	-8,700	-11,900	-12,900	-12,30
Farming, Fishing, and Forestry	-100	-100	-200	-200	-20
Construction and Extraction	-1,700	-4,800	-7,300	-8,400	-8,30
nstallation, Maintenance, and Repair	-1,600	-4,600	-6,400	-7,000	-6,50
Production	-1,600	-3,800	-5,200	-5,400	-5,00
Transportation and Material Moving	-2,900	-7,100	-9,800	-10,400	-9,90
*Figures may not add to total due to rounding.		•		·	·

Appendix Table 8: