

Investing for the Long Term

Priority Skill Needs of Employers in New Jersey's
Finance Industry

A Report of New Jersey's *Ready for the Job* Initiative

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the New Jersey State Employment and Training Commission

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New Jersey's Ready for the Job Initiative: Aligning Workforce Preparation with the Skill Needs of Key Industries

Economic growth in New Jersey requires a highly skilled workforce prepared to meet the evolving demands of the state's global economy. *Ready for the Job* is a key component of Governor Jon S. Corzine's Economic Growth Strategy for New Jersey. The initiative began in 2002 to collect and disseminate information on the workforce challenges and skill needs of the state's key industries and to identify education and training strategies to address these needs. *Ready for the Job* is a partnership among several state agencies and departments led by the State Employment and Training Commission and the New Jersey Department of Labor and Workforce Development.

Five *Ready for the Job* reports, including this document, will be released in 2008, including reports on the life sciences, green jobs in the energy sector, finance, the rise of remote work in New Jersey, and a report on emerging skills that identifies cross-cutting workplace trends and skill needs affecting employers throughout the innovation economy. Including these 5 reports, there have been a total of 17 reports. Past reports focused on the following industries:

Construction	Manufacturing
Emerging Industries	Port Newark/Elizabeth
Finance	Public Health/Disaster Management
Health Care	Retail
Hospitality and Tourism	Transportation
Information Technology	Utilities/Infrastructure

Information provided in the *Ready for the Job* reports is derived from an Industry Workforce Advisory Council for each industry, interviews with key employers and policymakers, focus groups of educational institutions and other stakeholders, a review of available labor market information, and background research on industry trends. Employer feedback collected in this and other *Ready for the Job* reports will be used to inform efforts to prepare individuals for industry jobs, including workforce development initiatives, K-12 education, higher education, and vocational training programs.

Results and reports from the *Ready for the Job* initiative are distributed through the NJNextStop website (www.njnextstop.org). NJNextStop is the State of New Jersey's primary career guidance Internet portal for high school students, counselors, teachers, and parents.

The authors of this report were Jennifer Cleary and Aaron Fichtner, Ph.D. Special thanks go to Charyl Staci Yarbrough, Ph.D., for her formatting and work on earlier drafts of this report; Dan Silva for editing and proofreading; and Robb C. Sewell for editing and formatting.

Table of Contents

Executive Summary	1
Introduction.....	11
Profile of the Finance Industry in New Jersey	15
Industry Trends Affecting the Skill Needs of Finance Employers	21
Priority Cross-Occupational Skill Needs of Finance Employers in New Jersey.....	27
Priority Occupational Skill Needs of Finance Employers in New Jersey	35
Endnotes.....	47
Appendix: Employers and Individuals Consulted for this Study	49

Executive Summary

- Priority Workforce Skill Needs of Finance Industry Employers
- Strategies to Address Industry Workforce Skill Needs
- Priority Action Steps



This report highlights the priority workforce skill needs of New Jersey's finance industry and presents a statewide action plan to better align education and training with these needs.

While the downturn in the U.S. economy and the recent credit crisis will likely affect jobs and near-term growth in the finance industry, the industry will remain a key driver of New Jersey's economy. In 2006, the industry employed over 215,000 workers across the banking and credit, insurance, and securities and commodities sectors (6% of all New Jersey jobs). These workers earned over \$75,000 per year on average in 2006. Industry jobs also grew 4% statewide between 2002 and 2006, with particularly strong growth in the southern region of the state (50% growth, or over 3,000 jobs).¹

Employment in the finance industry is cyclical in nature, subject to peaks and valleys, but the industry performs core economic functions both in the state and globally. In addition, New Jersey has a diverse mix of finance industry jobs that span all sectors and job functions, which may further isolate the industry from dramatic, long-term job losses.

New Jersey's key asset in attracting and keeping high-wage finance industry jobs is its skilled workforce.

According to employers, New Jersey's key asset in attracting and keeping high-wage finance industry jobs is its skilled workforce. To help ensure that the finance industry remains competitive, state agencies and educational institutions at all levels must work together to guarantee that New Jersey residents have access to the education and training needed to meet this sector's evolving skill demands over the long term. State workforce and training systems can also play a key role in helping workers displaced in the current market to transition to other jobs within the industry.

This *Ready for the Job* report, a key initiative of the Governor's Economic Growth Strategy for the State of New Jersey, identifies the changing workforce needs of the finance industry and articulates a statewide plan to address key skill and education gaps. The report is based on feedback from the New Jersey Finance Industry Workforce Advisory Council and interviews with representatives from seven large finance industry employers, as well as discussions with state departments and educational institutions, background research on industry trends, and available labor market information.

Priority Workforce Skill Needs of Finance Employers

Skill requirements in the finance industry are rising in response to broad economic and industry-specific trends that place added demands on finance companies and their workers. These trends include the globalization of the industry and rapid advances in information technology (IT), increasing competition, changing and increasingly complex regulations, new security and privacy threats, and other economic changes that mark the 21st-Century knowledge economy. Together, these changes are leading employers to seek higher levels of skill, product knowledge, and education and training from their workers than ever before. In addition, employers and labor market analysts predict the highest growth among jobs that require the highest levels of skill and education.

Cross-Occupational Skill Needs

While most workers, especially those who have a college degree, have the academic and technical skills needed for entry-level positions, a key concern among employers is that current workers and new hires lack key skills needed to advance to positions of higher authority and responsibility over time. Employers also increasingly seek, but have difficulty finding, students who have had sufficient **hands-on industry experience** as part of their education and training.

Employers identified several skills that are increasingly in demand in nearly all types of jobs, and that are especially important for advancement within the industry. These cross-occupational skills are as follows:

- **Business Skills** (especially project management and basic regulatory and business ethics knowledge)

As management hierarchies in global knowledge industries such as finance become less inclined toward top-down management styles, employers expect frontline workers to assume more responsibility for managing projects independently and looking for ways to improve the company's business position. To do this effectively, all workers, from sales staff to customer service workers, require strong basic business skills, especially project management skills. In an age of well-publicized corporate scandals and resulting reform legislation, employers also especially value workers who have an understanding of how to effectively apply basic accounting standards and business ethics skills effectively.

- **Communication Skills** (especially presentation and writing skills)

The days of technical and analytical workers performing their jobs in isolation are over. To spur innovation across departments within an increasingly competitive—and global—business environment, workers of all types need superior written and verbal communication skills, including the ability to communicate well using technology, such as email, webinars, and teleconferencing. The ability to give presentations to co-workers from other departments is also highly sought after by New Jersey's finance industry employers. For example, IT workers are expected to design and deliver presentations on technical projects to management staff in a format that relates the work back to the company's business goals and that communicates the key aspects of the project clearly to non-technical staff.

- **Teamwork and Leadership Skills**

To handle tasks such as motivating inter- and intra-departmental project groups and managing teams that interact virtually while spread around the globe, workers in the finance industry need strong teamwork and leadership skills. Employers seek workers who can build consensus around group goals, manage diverse team members well, negotiate conflicts effectively, and keep all team members working cooperatively to complete projects.

- **Adaptability and Cognitive Skills** (e.g., problem solving, lifelong learning)

Employers increasingly seek, and have some difficulty finding, workers who have the skills needed to adapt both quickly and effectively to changes in corporate culture, business processes, technology, and other areas that come about as a result of industry trends such as mergers and acquisitions, regulatory shifts, globalization, and IT-related security and privacy threats.

Like other knowledge industries, the pace of workplace change in the finance industry is rapid and often unpredictable. Employers increasingly seek, and have some difficulty finding, workers who have the skills needed to adapt both quickly and effectively to changes in corporate culture, business processes, technology, and other areas that come about as a result of industry trends such as mergers and acquisitions, regulatory shifts, globalization, and IT-related security and privacy threats.

Overall, employers report an increasing demand for industry workers who have a **well-rounded set of skills with strengths in multiple areas**. By this, employers mean a balance of job-specific technical skills, broad knowledge of finance and investing concepts, and “people” skills including basic sales and customer services skills, as well as the communication, teamwork, and leadership skills mentioned above. For example, some IT staff and analytical finance workers may need additional skills in areas such as communication, sales, and teamwork. IT staff may also need further training in business skills and general knowledge of finance and investing. In addition, sales staff are increasingly expected to have strong analytical, business, and math skills, while customer service staff need a basic knowledge of finance and investing and strong IT and cognitive skills to complement their customer service knowledge.

Occupational Skill Needs

In addition to seeking more workers who have the key skills needed to help financial services businesses compete in a global, innovation-driven economy, employers also report difficulty finding and retaining skilled workers for some key jobs.

In addition to seeking more workers who have the key skills needed to help financial services businesses compete in a global, innovation-driven economy, employers also report difficulty finding and retaining skilled workers for some key jobs. These jobs fall across all three functional areas of financial services operations, from back-office support positions, to analytical and corporate jobs in the middle office, to sales and other jobs in front-office retail operations.

These jobs include:

Back-Office Positions: Administrative and Customer Support

- Customer Service Representatives and Managers
- Office Clerks, Bookkeeping and Accounting Clerks, and Securities Clerks

Middle Office Positions: Headquarters and Corporate Operations

- Accountants and Auditors, especially Certified Public Accountants
- Financial Analysts, Financial Examiners (including Financial Quantitative Analysts and Fraud Examiners, Investigators, and Analysts)
- IT Specialists

Front-Office Positions: Retail Sales and Securities Trading

- Securities, Commodities, and Financial Services Sales Agents, Insurance Sales Agents
- Credit Analysts and Loan Officers

The skills that employers demand most within particular occupations generally mirror the priority skills identified in the previous section of this report. That is to say, employers generally do not expect entry-level workers to arrive with high levels of job-specific skills (with certain exceptions, such as Certified Public Accountants). Finance employers can and do provide much technical job training in-house. Employers, however, expect workers to have the correct level of education, experience, or exposure to industry practices, and broad-based skills that will allow them to succeed in on-the-job training and employer-provided training.

Strategies to Address Industry Workforce Skill Needs

To remain competitive in today's fast-paced global marketplace, the finance industry requires continued access to workers who have the education and skills to perform an increasingly complex array of job functions. Workers must be prepared with a new type of "basic skills" to perform well in jobs ranging from administrative and customer support positions in back-office operations, to middle-office jobs such as corporate management, IT, and analytical and mathematical positions, to lenders, sales, management, and other personnel in front-office retail operations.

A number of efforts are underway that begin to address critical skill needs in New Jersey's finance industry. To fully address the education and training needs of workers and employers in the industry, however, more needs to be done. Following are descriptions of current efforts, followed by several priority action steps for strengthening the finance industry workforce.

Current Efforts

Governor Corzine's Economic Growth Strategy for the State of New Jersey established the Innovation Partnership Institute for Financial Services (IPI) and industry-targeted Customized Training. The IPI for Financial Services, led by the New Jersey Institute of Technology and a consortium of employers and other stakeholders, develops curriculum modules that address priority employer skill needs and that can be used in high schools, community colleges, and four-year colleges around the state to enhance existing finance industry-related curricula. Current IPI modules, which will be made freely available to other educational institutions online, include courses on ethics, project management, teamwork, simulated stock trading, and

Current State and Regional Efforts to Address the Skill Needs of New Jersey's Finance Industry

Statewide Efforts of the Governor's Economic Growth Strategy for the State of New Jersey

- The Innovation Partnership Institute for Financial Services develops and disseminates K-16+ curriculum modules that begin to address critical industry skill needs.
- Customized training prioritizes key industries, including finance, to receive matching grants to train existing workers in new skill sets critical to business competitiveness.

Federally Funded Regional Initiatives Aligned with New Jersey's Economic Growth Strategy

- *Northern Regional Economic Innovation Alliance.* Develops training and other supports for key industries in the northern region of the state, including the finance industry. Funded by a \$5 million WIRED (Workforce Innovation in Regional Economic Development) grant from the U.S. Department of Labor.
- *Community-Based Job Training Partnership.* Assists people with disabilities to prepare for and obtain demand jobs in the state's finance industry. Funded by a \$1 million grant from the U.S. Department of Labor.

finance operations. The customized training program, administered by the New Jersey Department of Labor and Workforce Development, provides grants to employers and groups of employers to train existing workers in new skill sets critical to business competitiveness.

Several federally funded regional initiatives are also beginning to fill important gaps in the education and training of finance industry professionals. Funded by a \$5 million WIRED grant from the U.S. Department of Labor, the North Jersey Economic Innovation Alliance is developing training and other supports for key industries in the northern region of the state, including the finance industry. The U.S. Department of Labor also awarded a \$1 million community-based job training partnership grant to Jewish Vocational Services in East Orange to assist people with disabilities to prepare for and obtain demand jobs in the state's finance industry.

Through projects such as the American Diploma Project, New Jersey's K-12 education system is working to incorporate skills that are important for success in the 21st-Century workplace into school curricula. Many of these skills, including communication, problem-solving, and teamwork skills, overlap with the priority skill needs of finance industry employers.

Finally, several colleges, universities, high schools, vocational schools, and workforce investment boards have implemented programs that address some of the skill and occupational needs covered in this report.

Priority Action Steps

If New Jersey is to continue to attract and retain quality finance jobs in the state, state departments must continue efforts to ensure that employers have access to workers with the right types of training and education to meet the changing demands of this global, knowledge-driven industry.

New Jersey departments, agencies, and educational institutions will take the following steps to ensure that finance industry employers have continued access to a highly qualified workforce. These actions are designed to expand and strengthen current efforts to address the skill needs of employers and to help ensure that New Jersey remains a premier state for growing jobs in the finance industry.

To ensure the timely and coordinated implementation of the action steps below, the New Jersey Department of Labor and Workforce Development will establish a finance industry liaison at the Department. The liaison will be responsible for convening meetings of the Industry Workforce Advisory Group to guide efforts. The liaison will also meet with relevant stakeholders, such as educational institutions and other state agencies, to develop implementation plans for key efforts and to monitor the progress of these initiatives.

Step 1: Incorporate Employers' Priority Cross-Occupational Skills into Existing Curricula, Especially at the Two- and Four-Year College Level

Students, job seekers, and workers need access to education that prepares them to succeed in the fast-paced, knowledge-intensive work environment of the finance industry. According to employers, the foundational skills needed for most jobs in the industry are rising. While employers are willing to provide most job-specific training, workers are expected to obtain a broader range of “basic” skills—referred to in this report as “cross-occupational” skills—to perform well in entry-level jobs and to advance to higher positions. To ensure that the finance industry has access to a world-class workforce, the state’s educational institutions must ensure that curricula provides students with the foundational skills that employers need to stay competitive in a global economy.

The state’s colleges and universities will review existing curricula and lesson plans, especially within finance, IT, sales, and customer service disciplines, to identify gaps in addressing employers’ priority skill needs. Particular attention will be paid to ensuring that students develop adequate “cross-over skills” in key areas outside of their primary discipline. Important areas include: project management, presentation, and teamwork and leadership skills across a range of job types.

For vocationally oriented programs at all levels, high schools, colleges, and universities will explore ways to offer students more interdisciplinary courses as needed to address cross-occupational and occupation-based pri-

If New Jersey is to continue to attract and retain quality finance jobs in the state, state departments must continue to ensure that employers have access to workers with the right types of training and education to meet the changing demands of this global, knowledge-driven industry.

ority skill needs. Also, high schools, colleges, and universities will develop additional opportunities to teach priority skills identified by employers in context, using real-world scenarios from the finance industry. Educational institutions will use curriculum modules developed by the Innovation Partnership Institute for the Financial Services Industry as needed to fill critical gaps and work to develop additional exercises, lesson plans, etc., to complement existing curricula.

Step 2: Establish a Finance Industry Talent Development Center

Finance industry employers are concerned about the ability of their current employees to keep pace with the skills needed to adapt to the demands of a fast-changing industry landscape. Current workers need training in the priority skill areas discussed in this report—from business skills to leadership skills—to be able to take on the challenges of assuming advanced positions in the industry.

Colleges and universities in the state should play an expanded role in providing training to individuals already employed in the finance industry.

In order to build institutional capacity at one or several colleges to serve the education and training needs of finance industry employers on an ongoing basis, the New Jersey Department of Labor and Workforce Development, in partnership with the Commission on Higher Education, will use a competitive process to provide funds through the Customized Training Program to a consortia of finance industry employers, led by a two- or four-year college or university. The selected college or university will then be designated as the state's Finance Industry Talent Development Center. The selected college or university will be required to include multiple employers in the partnership who, in turn, will provide their own funds to pay for at least half of the cost of training.

To maximize the program's ability to address industry-wide skill needs, build institutional capacity, and increase linkages between statewide programs to address employer workforce needs, the selected college or university will be encouraged to leverage curricula developed by the finance industry Innovation Partnership Institute, build close connections to workforce investment boards, and include a sustainability plan to leverage other funding sources.

Step 3: Focus One-Stop Career Center Efforts on Meeting the Needs of Finance Industry Employers

One-Stop Centers have access to labor market information and information about the workforce needs of local employers that can be a valuable asset to job seekers and employers alike. To be most effective as intermediaries, One-Stops need to inform job seekers about industries and jobs that are dominant in their regions, becoming familiar with local employer skill needs and data on industry hiring trends.

In areas where finance industry employment is highly concentrated, the New Jersey Department of Labor and Workforce Development will develop and train a subset of One-Stop Career Center staff to become finance industry labor market experts. These experts will be trained to inform job seekers about the types of jobs available, the skills and credentials needed to perform those jobs (including the employers' priority skill needs described in this report), and the educational preparation required. To do this effectively, experts will review labor market data and local job openings for the finance industry, and develop relationships with employers and local training and education providers, including the Finance Industry Talent Development Center, the IPI.

The state will also assist Workforce Investment Boards to develop professional services groups for unemployed or underemployed workers in the finance industry at several One-Stops throughout the state. These groups, which currently exist in some One-Stops, provide professionals with a peer-based forum for job networking. The groups will assist finance workers affected by the recent downturn in the industry to re-enter the industry or transfer their skills to another type of job until the finance industry recovers.

Step 4: Expand/Improve Experiential Learning Opportunities for Students

Employers expressed a clear need for more new workers who have had some hands-on exposure to work in the finance industry. Such exposure provides students with a context for understanding the concepts explored in the classroom. Industry experience obtained during college or high school may also provide students with an understanding of how the priority employer skill needs discussed in this report are used on the job. For example, students may observe how workers apply communication, teamwork, leadership, and IT skills by managing global teams, as well as gain experience implementing newly acquired skills and knowledge in the field.

The state's colleges and universities will also strengthen and expand cooperative education and internship programs at state colleges and at community colleges near concentrations of finance employment to provide students with more opportunities for experiential learning. To support these efforts, the Commission on Higher Education will convene the state's colleges and universities to explore ways to expand experiential learning in the state and to overcome barriers to implementation.

Introduction

- Purpose
- Methods



This report provides a roadmap to understanding and addressing the changing skill needs of employers in New Jersey's fast-changing finance industry.

Finance employers in New Jersey depend on having access to skilled workers in the state. While recent events in the credit market are leading to layoffs and a decrease in the demand for workers in some sectors of the industry, firms in New Jersey still face challenges ensuring that current and prospective workers have the education, skills, and knowledge to help them remain competitive in an increasingly volatile and complex economy.

Overview of Report

This report identifies:

- Broad trends affecting workforce skill needs in the finance industry,
- Priority skill needs of employers,
- Current state and regional efforts to address critical industry skill needs, and
- Needed action steps state departments and other stakeholders will take to more fully address these skill needs statewide.

Purpose

This report provides a roadmap to understanding and addressing the changing skill needs of employers in New Jersey's fast-changing finance industry. The report describes broad trends affecting workforce skill needs in the finance industry and identifies the priority skill needs of employers, both as they occur across a variety of occupations (cross-occupational skill needs) and as they occur within key occupations for which employers have particular difficulty finding and /or retaining skilled workers (occupational skill needs). Finally, the report identifies current state and regional efforts to address critical industry skill needs in finance and outlines the action steps state departments and other stakeholders will take to more fully address these skill needs statewide.

Methods

Several strategies were used to identify the priority skill needs of New Jersey's finance industry employers and the solutions required to address them. These strategies were as follows:

Finance Industry Workforce Advisory Council

The Finance Industry Workforce Advisory Council (IWAC) met in spring 2007 to provide input on industry skill needs, as well as guidance on the development of this report. The Council consists of senior human resources professionals from major financial corporations, officials from state agencies and educational institutions responsible for industry-related education and training, and other stakeholders. For a full list of the individuals who participated on the IWAC, please see the Appendix.

In-Depth Interviews with Finance Companies

In-depth interviews were conducted with human resources executives and staffing managers at seven large New Jersey finance companies. Interviews were used to understand the skill requirements for key occupations and to better understand the workforce challenges facing various types of financial firms in the state.

Discussions with Policymakers and Educators

In fall 2007, higher education institution officials were briefed on employer skill needs in the finance industry. The briefing included a roundtable discussion regarding what schools are currently doing to address these needs, as well as a discussion of the gaps in available solutions. Information on industry skill needs was then shared with Workforce Investment Board directors, One-Stop operators, and state officials in late 2007. Both briefings were used to identify policy solutions to fill gaps in addressing the skill needs of finance industry employers.

Background Research and Analysis of Labor Market Data

The most current available labor market information was used to describe key aspects of the finance industry and its importance to New Jersey's economy. Industry data were obtained from the U.S. Census Longitudinal Employer-Household Dynamics dataset. Occupational information for the industry was derived from industry occupational estimates provided by the New Jersey Department of Labor and Workforce Development for 2004.

Reports and articles describing industry trends and workforce challenges in the finance industry were also used to gain a better understanding of the industry and workplace changes that may be affecting employer skill needs.

Profile of the Finance Industry in New Jersey

- Back Office: Administrative Support and Customer Service Call Centers
- Middle Office: Headquarters and Other Corporate Operations
- Front Office: Retail Offices and the Trading Floor



The banking and other credit intermediation, insurance, and securities and commodities sectors of the finance industry provide over 215,000 jobs in New Jersey and act as key drivers of the state's economy.

With densely populated markets of its own and proximity to large financial centers in New York City and Philadelphia, New Jersey plays a vital role in supporting the region's finance industry. While current events are negatively affecting some parts of the industry, especially banking and securities, the finance industry remains vitally important to New Jersey's economy.

Key Facts Finance Industry New Jersey

- Over 215,000 jobs in Banking and Credit, Insurance, and Securities and Commodities
- 4% job growth 2002-2006.
- \$75,000 per year average wages

Source: U.S. Census
Longitudinal Employer
Household Survey, 2006

In 2006, the industry provided over 215,000 jobs (6% of all New Jersey jobs in 2006).² Prior to the current downturn in employment, jobs in the industry grew 4% between 2002 and 2006.³ Credit woes in financial markets and the nationwide slump in the overall economy are likely to suppress job demand in the industry for some time. But there will always be a need for highly skilled finance workers in the state, and the cyclical nature of the industry indicates that demand for workers will rise again in the future.

New Jersey's finance jobs are among the highest-paying jobs in the state. Finance workers earn over \$75,000 per year in New Jersey on average.⁴ A growing number of these jobs require a high level of skills and education. There are still a large number of entry-level opportunities that require some postsecondary training, but not a four-year degree.

This report focuses on the priority skill needs of employers in three sub-sectors of the finance industry: securities and commodities, banking and other credit intermediation activities, and insurance carriers and related activities.

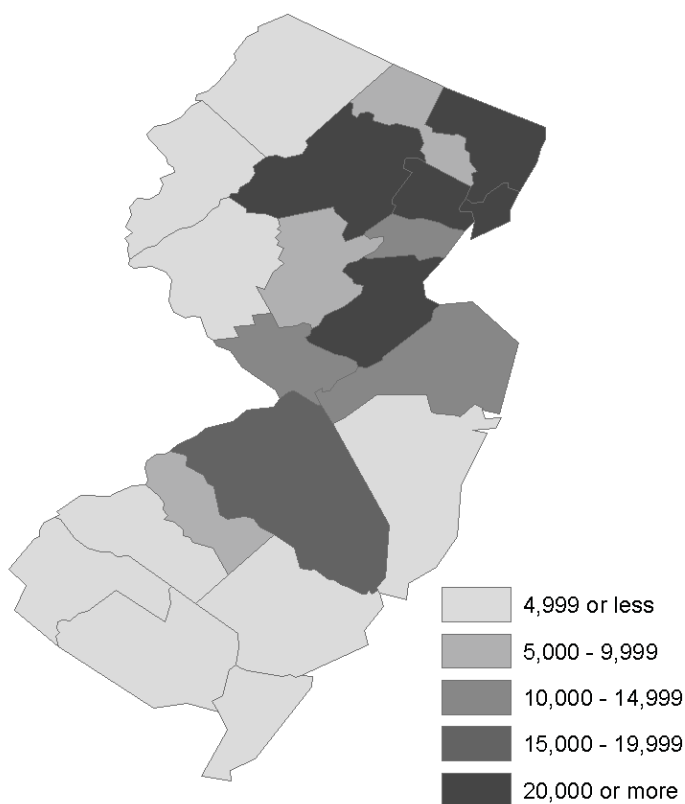
While finance jobs are concentrated in the northeastern part of New Jersey, the southern and central portions of the state also are home to significant employment in the industry.

Over half (56%) of all jobs in the finance industry are located in five northern and central New Jersey counties. Hudson County alone has 30,000 workers, mainly concentrated in Jersey City and other parts of the Hudson River waterfront. Middlesex, Essex, Bergen, and Morris Counties each have over 20,000 finance workers. In the southern region of the state, Burlington County has a large industry presence, with over 15,000 workers employed in the industry.⁵

While employment dipped by 2.5% (3,000 jobs) in the northern region of the state from 2002 to 2006, fast growth occurred between 2002 and 2006 in the southern (51%) and central (11%) regions of the state.⁶ These regions added nearly 18,000 jobs, contributing to a net job gain of 15,000 jobs in the state's economy.⁷ Of course, current economic trends suggest that this high level of growth may not continue in these areas in the near-term future, but recent trends show an important shift in the location of jobs toward areas other than the northeastern portion of New Jersey.

New Jersey FINANCE INDUSTRY

Total Employment in Finance Industry, by County, 2006



- About 6 out of 100 workers in New Jersey are employed by the finance industry.
- Since 2002, the total employment of the finance industry grew by 4% as compared to a 2.5% increase in total employment across all industries in the state.
- The finance industry represents 8.6% of total payroll and 4.2% of new hires in New Jersey.

Jobs (2006)	215,780
Establishments (2005)	12,543
Payroll (2006)	\$16,351,808,400
Average Wage (2006)	\$75,780
New Hires (2006)	100,008

Employment Trends

2000	208,696
2001	203,410
2002	207,441
2003	205,375
2004	205,787
2005	215,332
2006	215,780

Sub-Industry Employment

	2002	2006
Credit Intermediation and Related Activities	75,771	85,342
Insurance Carriers and Related Services	78,175	76,709
Securities, Commodity Contracts, and Other Financial Investments and Related Activities	50,219	50,090
Other Finance Industry Sub-Sectors	3,276	3,639

Sources: U.S. Census, Local Employment Dynamics, New Jersey Department of Labor and Workforce Development

Finance jobs fall into three broad functional areas that provide helpful frameworks for finding related jobs and career ladders.

Jobs in the finance industry are clustered around three broad functional areas, which share some common skill sets or educational requirements. Functional areas provide a useful framework for job seekers, educators, and workforce professionals to understand how employment is structured in most financial services firms. Some functions are also more concentrated in some parts of the state than others. The three functional job areas are:

Three Functional Areas of Finance Industry Employment

Industry jobs fall into three main functional categories:

- Back Office: Administrative Support and Customer Service Call Centers
- Middle Office: Headquarters and Other Corporate Operations
- Front Office: Retail Offices and the Trading Floor

Back Office: Administrative Support and Customer Service Call Centers

New Jersey is home to a significant number of back-office activities, which provide administrative and customer support for financial services companies. Back-office activities include accounting and bookkeeping, administrative support, regulatory compliance, customer support call center operations, and other functions. For example, the back office in an investment firm handles recordkeeping, trade confirmation, trade settlement, and regulatory compliance to support the trading of securities.

Back-office jobs include customer service call center positions, financial and other clerks, secretaries, and other administrative and support positions. The largest back-office jobs in New Jersey in 2004 were: customer service representatives, office clerks, first-line supervisors of office and administrative workers, insurance claims processing clerks, and executive secretaries and administrative assistants. Together, these jobs accounted for over 50,000 jobs, or nearly one-quarter of all jobs in the industry in 2004.⁸

According to employers, many financial services call centers in New Jersey are located in stand-alone facilities, often in suburban locations. Geographically, many other back-office jobs are highly concentrated in Hudson County, especially Jersey City, as well as increasingly in Burlington County.

Middle Office: Headquarters and Other Corporate Operations

The middle office handles corporate functions that are not visible to the customer, but that provide the intelligence, strategy, and infrastructure needed to operate a financial services company. The term “middle office” as it is used in the financial services industry is relatively new and not uniformly defined across companies. Most definitions provided by employers and industry publications agree that the middle office handles corporate management, human resources, IT infrastructure and management, risk management, and advanced financial strategy and analysis.

Middle-office jobs include corporate administration, advanced accounting, auditing and actuarial positions, computer networking and hardware specialists, and others. The largest middle-office jobs in New Jersey in 2004 were: claims adjusters, examiners and investigators, financial managers, insurance underwriters, financial analysts, and accountants and auditors. These jobs make up over 13% of all jobs in the finance industry, providing nearly 30,000 jobs.⁹

Often in corporate headquarters locations and other non-retail establishments, some middle-office jobs are located in the state's larger cities, such as Newark, Trenton, and Jersey City. Other jobs are in more suburban locations within corporate facilities that specialize in analysis or particular facets of management.

Front Office: Retail Offices and the Trading Floor

The front office generates profit for a financial services company. It is generally the retail sales unit of the corporation where direct, face-to-face customer interaction occurs. In the securities and commodities business, it is the trading floor where contracts are directly bought and sold that functions as the front office.

Front-office jobs include sales staff and tellers, retail managers, and credit analysts and lenders in bank branches and other offices that interact directly with customers. The top front-office jobs are: tellers, securities, commodities, financial services sales agents, insurance sales agents, loan managers, and general and operations managers. These jobs make up over one-fifth all jobs in the finance industry, providing nearly 48,000 jobs.¹⁰

Since most front-office operations are retail establishments designed primarily to serve New Jersey residents and businesses, they are located throughout the state, often with higher concentrations in densely populated areas.

Industry Trends Affecting the Skill Needs of Finance Employers

- Industry Trends
- Implications for Workers
- Other Workplace Trends Affecting Skills in the Finance Industry



Competition, globalization, the increasing complexity of IT, a complex regulatory environment, and other broad economic trends are increasing the level of skills required to do nearly every job in the finance industry and contributing to rapid growth among jobs that require the highest levels of skill, knowledge, and education.

Five Key Trends Affecting Workers' Skill Requirements

Trend #1: Mergers and Acquisitions Often Lead to Rapid Changes in Work Requirements

Trend #2: Increasingly Global Business Operations Place New Demands on Workers' Communications Skills

Trend #3: Advances in Information Technology Challenge Workers to Adopt New IT, Communication, and Information Management Skills

Trend #4: Security and Ethics Concerns Raise the Responsibility Levels of All Workers in New Ways

Trend #5: A Shifting Regulatory Environment Increases the Knowledge and Skill Requirements of Finance Workers

Workers need IT skills, including database management and advanced word processing and spreadsheet skills, to perform well in many types of jobs: from administrative assistants to analysts and managers.

Five key trends are having specific effects on the nature of work in the finance industry. These trends are also driving changes in the skill and education requirements for workers across multiple job levels.

Industry Trends

Trend #1: Mergers and Acquisitions Often Lead to Rapid Changes in Work Requirements

Mergers and acquisitions are especially common in the finance industry as companies compete in an increasingly global and deregulated marketplace. These company takeovers can lead to rapid shifts in corporate culture and work processes. Workers need communication, problem-solving, lifelong learning and career management, and critical thinking skills to adapt quickly to new rules, the prospect of layoffs, as well as to what is often a higher set of expectations for performance from new managers.

Trend #2: Increasingly Global Business Operations Place New Demands on Workers' Communications Skills

The advent of global business operations has led to a number of key changes in the industry that affect skill requirements for workers. Workers must lead and/or participate in global teams and project networks, which require workers to use a broader range of communication skills on the job than ever before. Today, an IT manager in New Jersey may need to coordinate the work of computer programmers in Russia, Poland, or India to complete a project. These activities require a higher level of cultural awareness, interpersonal, project management, and sometimes language skills, than in the past.

Trend #3: Advances in Information Technology Challenge Workers to Adopt New IT, Communication, and Information Management Skills

Technology has also has a large impact on worker skill requirements in the finance industry. Firms are adopting an increasingly complex array of knowledge management technology, including relational databases, and a variety of analytical tools.¹¹ In fact, the finance industry is the heaviest user of IT among all industries. Workers need IT skills, including database management and advanced word processing and spreadsheet skills, to perform well in many types of jobs: from administrative assistants to analysts and managers. In addition, workers must be able to adapt to new technological tools quickly and efficiently.

Since many new technologies facilitate virtual communication and/or knowledge gathering, workers must also learn effective ways of interacting with others through email, teleconference equipment, and other technologies. Workers must also become adept at managing and prioritizing the wealth of information that many IT tools, from the Internet to complex databases, make available.

Trend #4: Security and Ethics Concerns Raise the Responsibility Levels of All Workers in New Ways

Employers in the finance industry, like those in many other industries, are becoming increasingly concerned with IT and records security as well as ethical accounting and business standards following disasters such as the terrorist attacks of September 11, 2001, corporate accounting scandals, and high-profile information system security breaches at large corporations. As a result, employers report that management increasingly relies on frontline workers to take more responsibility for ensuring that regulations are followed and information is kept private and secure. In the finance industry, this means that employees from clerks to sales workers now have greater responsibility to detect fraud, to report unethical activity, and to find creative ways to increase profits, all of which require a range of complex cognitive skills.

Management increasingly relies on frontline workers to take more responsibility for ensuring that regulations are followed and information is kept private and secure.

Trend #5: A Shifting Regulatory Environment Increases the Knowledge and Skill Requirements of Finance Workers

Two pieces of federal legislation, one that deregulated the industry and the other that tightened accounting standards, have contributed significantly to the increased skill and knowledge requirements for many jobs in the finance industry:

Federal legislation has contributed significantly to the increased skill and knowledge requirements of many jobs.

Graham-Leach-Bliley Act

Since the passage of the Graham-Leach-Bliley Act in 1999, which deregulated the U.S. finance industry, industry sub-sectors are becoming increasingly integrated. This integration has contributed to increased skill and knowledge requirements for many industry jobs, as workers in each sector must now understand the products, services, and regulations associated with all sectors.

Sarbanes-Oxley Legislation

In the wake of national corporate accounting scandals such as Enron and WorldCom, Congress passed the Sarbanes-Oxley act, which has had far-reaching implications for many workers in the finance industry. In general, employers report that the regulations, which are designed to minimize corporate financial mismanagement, have increased their need to hire well-trained, experienced certified public accountants and auditors. The law has also required that many workers in the industry, from managers to sales workers, gain detailed knowledge of the new regulations and how to apply them within their jobs. In general, many workers now need a higher level of fraud detection skills, basic accounting knowledge, and the ability to effectively apply the regulations in the course of their jobs, which often involves a high level of cognitive skill needed to perform ethical problem solving in a complex financial environment.

Implications for Workers

Despite recent and potential near-term future losses of the numbers of jobs in the industry as a result of the nationwide economic downturn, the forces that are changing the skills needed for jobs that are available and will be available during an economic recovery are marching forward. These industry workforce trends have two key implications for workers and job seekers in the finance industry. First, together these trends are increasing the skills and in some cases, the education, required to perform well in most jobs in the finance industry. Second, while jobs that require moderate levels of skills are still numerous, employment growth is strongest in jobs that require high levels of skills and education.

Implication #1: Increasing knowledge and skill requirements for nearly all jobs

From new technologies to rising security threats and the rise in horizontal management structures, these trends are leading to an overall increase in the level of skill, and sometimes education, required for nearly all industry jobs. For example, as a result of industry deregulation, bank tellers, sales workers, customer service staff, and others now need cross-selling skills and knowledge of additional product lines and the regulations that govern them. For a diverse array of jobs, today's finance workers must adapt to an increasingly complex and demanding work environment that requires them to take more responsibility for ensuring the firm's overall success in addition to performing stated job tasks.

Implication #2: Aggressive growth among jobs that require high levels of skill and/or education

Finance jobs that require limited amounts of educational preparation, such as bank tellers, some customer service representatives, and clerks, are currently among the largest occupations in the industry by employment size, providing nearly 70,000 jobs, or one-third of all jobs in the industry.¹²

Employment projections developed in 2004 and employer opinions, however, suggest that the **strongest employment growth** is expected to occur among jobs that require higher levels of skill and educational preparation, including many middle-office analysts and IT positions, management, sales, and other professional business and financial operations occupations.

In addition, back-office positions that imply high levels of phone-based customer interaction or cognitive skills, such as some call center customer service positions that require knowledge of complex financial services products, are also expected to grow rapidly. Employers agree that these jobs, many of which require a Bachelor's degree and high levels of cognitive, interpersonal, and analytical skills, may be less susceptible to outsourcing than jobs that require fewer skills and/or customer interaction.

Employers' assertions about expected job growth are supported by the New Jersey Department of Labor and Workforce Development's employment projections for 2004-2014. Among occupations in the finance industry with more than 2,500 employees in 2004, those with the highest projected percentage of growth between 2004-2014 are business operations specialists, computer systems analysts, financial analysts, customer service representatives, and accountants. With the exception of the customer service representative occupation, which has variable entry requirements, all of these jobs require at least a Bachelor's degree.

While recent events in financial markets may affect these optimistic growth estimates, the pattern of expected growth among particular types of occupations is still relevant. Overall, the estimates of both employers and labor market economists suggest that workers with higher levels of skill are less easily replaced by advances in technology, and less easily moved to other locations. Therefore, despite a drop in overall demand for jobs in the banking and securities sectors of the finance industry, the demand for workers who have high levels of skills and education is likely to rise faster than the demand for other types of workers as economic recovery occurs.

Other Workplace Trends Affecting Skills in the Finance Industry

Several general workplace trends are contributing to rising skill requirements for jobs in nearly all industries in today's economy. In 2007, the State Employment and Training Commission released a report that identified six broad workplace trends affecting the skill needs of employers in nearly all industries and across many occupational levels. These trends are:

- The increasing competitive advantage of firms that successfully harness knowledge and innovation;
- The decentralization of business operations and management around the globe;
- Expanded reliance on technology in the workplace to improve the quality and efficiency of work processes and to train workers;
- Increasing diversity in the workplace;
- Increasing employer concern over security, privacy, and ethics issues; and
- Business processes changing in response to shifts in regulatory environments, new patterns of regulation, and mergers and acquisitions.

These workplace trends are likely to have ongoing effects on the skill needs of employers in the finance industry, as well. For more information on these trends and the ways that they affect employers' skill needs across a variety of industries, see the report *The Emerging Skill Needs of a Rapidly Changing, Innovation-Driven Economy*, available at www.heldrich.rutgers.edu.

Priority *Cross-Occupational Skill* Needs of Finance Employers in New Jersey

- Key Skill-Related Workforce Challenges Employers Face
- Priority Skill Needs



The fast pace of the global finance workplace requires that workers at all levels of the organization have a high level of competency in a variety of skill areas that may be listed in a job description.

New Jersey's largest asset in attracting and retaining high-wage finance industry jobs is the state's highly skilled workforce. As the finance workplace continues to become more complex in today's competitive, IT-rich, global economy, New Jersey's finance industry workers need to keep pace with the evolving skill needs of employers.

Key Skill-Related Workforce Challenges Employers Face

Common workforce challenges are driving employer skill needs and affecting business competitiveness. These challenges are cross-cutting, affecting many types of workers and job applicants across all business functions and all levels of jobs. Key workforce challenges facing employers are as follows:

- **Employers report that many workers and job applicants need to improve key business, communication, teamwork, leadership, and adaptability and cognitive skills to succeed and advance on the job.**

The fast pace of the global finance workplace requires that workers at all levels of the organization have a high level of competency in a variety of skill areas that may be listed in a job description.

- **Employers are concerned that too many workers lack the skills needed to advance to fast-growing high-skill positions.**

Since most finance employers prefer to hire entry-level workers and train and promote from within the company, the lack of key skills, such as communication, teamwork, and leadership among many entry-level workers, including college graduates, means fewer people are able to complete required training and advance to leadership or high-level technical positions within the organization. As a result, employers expect future skills shortages, especially in the growing number of industry jobs that require a high level of skill, education, and job experience.

- **The finance industry needs analytical and other technical specialists who have sales and communication skills and customer-facing professionals who have business and financial knowledge.**

Interdisciplinary skill sets that span both technical and communication and sales areas are increasingly in demand among finance industry employers. Technical workers must have the skills to communicate well with colleagues, managers, and sometimes directly with customers or suppliers. In addition, customer-oriented staff need to be able to understand, analyze, and communicate complex technical information to customers and others.

- **Some students coming into the field lack the applied skills and knowledge needed to succeed in the complex finance industry workplace.**

Employers indicated that students who lack exposure to industry during their education face difficulty adapting to the complex work environment in the finance industry. Employers expressed a preference for new hires with some experience learning how to apply skills effectively in the fast-paced, global work environment. Some employers preferred to hire students from colleges, many of which were outside New Jersey, that offer simulated work environments in the classroom, well-structured externship and internship or co-operative education programs, and other effective methods.

Priority Skill Needs

As a result of these challenges and other broad economic and industry trends discussed in the previous section, New Jersey's finance industry employers increasingly demand the following key skills of their workers at nearly all levels of employment. These skill priorities represent skill areas that employers report are both increasingly important in the workplace and increasingly difficult to find among both job applicants and current workers.

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Business Skills

Employers agree that workers at all levels are expected to have a basic understanding of business operations in the industry. This is especially true for jobs that require a college degree or above, which comprises a large portion of industry jobs. Specific business skills that employers increasingly look for in their workers are:

Project Management Skills: Employers prefer that applicants and current workers, in jobs ranging from IT positions and analysts to managers and human resources staff, have strong project management skills. In particular, many middle-office jobs require workers to follow through on large, often global projects, using strong project management skills. Some employers report recruiting engineering and architecture students for key jobs that require high levels of project management skills. Employers find that it is easier to train students in-house on finance and IT basics than to train financially trained workers in effective project management skills.

Business Ethics Skills: Workers need to understand the basics of business ethics, as well as how to think through ethical problems in a systematic way to develop a solution. To do this effectively, workers need training in ethical reasoning and decision-making, as well as knowledge of common business situations that are likely to lead to ethical dilemmas.

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Regulation Interpretation Skills: Many finance workers need to not only be familiar with the "letter of the law" with regard to understanding key regulations, but must have a working knowledge of how to apply these regulations

effectively in dynamic business situations relevant to their jobs. While not all workers need to be as familiar with these regulations as others, employers expect most workers to have a general understanding of accounting principles and major regulations affecting industry practices. More advanced workers need scenario-based training to better understand how to apply key regulations in the finance industry workplace.

Other business skills that employers mentioned are important for a wide variety of workers in the industry to have include:

- Basic accounting skills,
- Fraud detection skills, and
- Understanding of basic finance and investing concepts.

Communication Skills

Workers in the finance industry need strong interpersonal communication skills and presentation skills to perform their jobs well and to advance to higher positions. Particular skills that employers have difficulty finding among job applicants and incumbent workers are:

IT and analytical staff are expected to give clear, succinct presentations to management on complex projects.

Presentation Skills: More and more, employers expect workers of various types to create visual, electronic presentations using programs such as Microsoft PowerPoint or Keynote. Workers also need the verbal communication skills to deliver presentations effectively to a variety of audiences. For example, IT and analytical staff are expected to give clear, succinct presentations to management on complex projects. Human resources staff may need to create charts that display new business processes and present these effectively to both workers and managers.

Strong Customer Service and/or Sales Skills: For nearly every job, industry workers are expected to have strong verbal communication and/or customer service skills. For a large number of front-office jobs, such as financial advisors, workers need not only strong technical finance knowledge and skills but also strong customer service and sales/relationship development skills. Some employers report hiring sales workers from sales or customer service positions in other industries. These employers find it easier to train these new workers in finance-specific content than to assist them to develop the “people skills” needed for the job.

Other communication skills that employers prefer workers to have are:

- Business writing, including how to use email appropriately,
- Cultural awareness and foreign language skills for some positions (especially Spanish/English), and
- Interview/negotiation skills.

Teamwork and Leadership Skills

In today's complex workplaces, finance workers are asked to participate in and lead teams to complete projects. Employers also prefer that even entry-level workers have the basic leadership and team-building skills needed to move into higher positions of authority. Specific types of teamwork and leadership skills needed are:

Global Teamwork Skills: As the finance industry becomes increasingly global, workers are expected to interact with team members in other countries, as well as those in the next cubicle. Workers need strong teamwork and leadership skills to effectively motivate a team of workers spread, in some cases, across the world. Using virtual communications technology and communicating across languages and cultures challenges workers to develop their abilities to motivate others, resolve interpersonal conflicts, and negotiate work assignments fairly to complete complex projects on time and within budget.

Motivational Leadership Skills: Especially to advance, but even to manage project teams well, workers need to define, manage, and reward success for all team members. For example, a customer call center manager who is leading a team to improve the efficiency of customer dispute resolution must be able to identify and nurture team members' strengths, encourage everyone to participate in complementary ways that build on members' strengths, limit the impact of poor performers on other team members and outcomes, and provide rewards to team members appropriately as group and individual goals are met.

Other skills related to teamwork and leadership that employers prefer workers to have are:

- Superior listening skills,
- Persuasion skills,
- Conflict resolution skills, and
- Consensus-building skills

Adaptability and Cognitive Skills

In this skill category, employers are especially concerned about the following two skills:

Problem-Solving and Critical Thinking Skills: While problem solving is a critical skill for many aspects of job performance, employers note that, to adapt effectively to workplace change, workers need to apply these skills to understand the implications of new developments on current job roles and company operations.

Workers need strong teamwork and leadership skills to effectively motivate a team of workers spread, in some cases, across the world.

Workers need to continually seek opportunities on their own to develop new skills and knowledge sets that apply to their jobs and career goals.

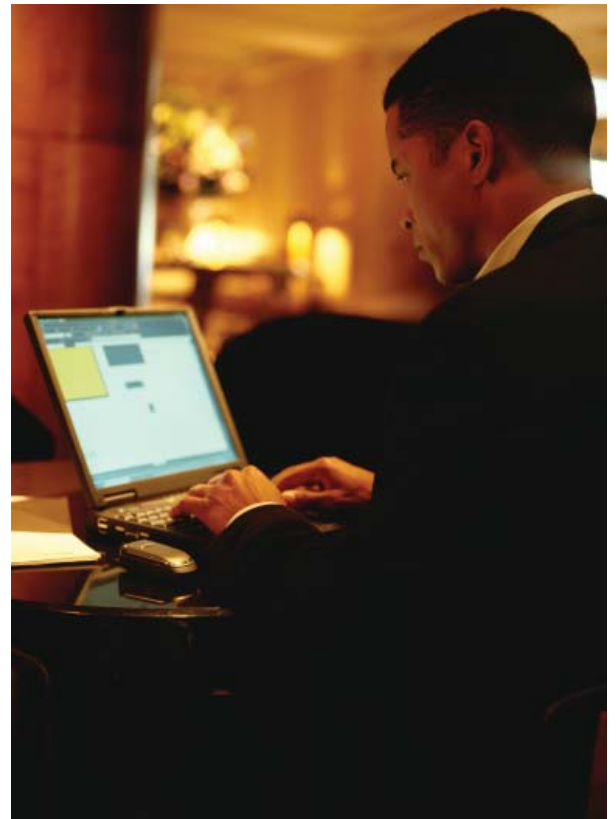
Lifelong Learning Skills: Workers need to continually seek opportunities on their own to develop new skills and knowledge sets that apply to their jobs and career goals. For example, IT workers are expected to understand and adapt to new developments in hardware, software, architecture, programming languages, and other areas. This skill also includes developing online study skills that allow workers to improve their skills using computer-based training methods available within and outside of their firm.

Examples of other important adaptability and cognitive skills are:

- Multi-tasking skills,
- Personal growth/life skills, and
- Flexible role orientation (the ability to take on new and/or additional job duties in response to organizational change and/or to accomplish team or project goals).

Priority *Occupational Skill* Needs of Finance Employers in New Jersey

- Back Office: Administrative and Support Positions
- Middle Office: Corporate, Analytical, and IT Positions
- Front Office: Retail Operations and the Trading Floor Positions



Employers expect workers to have the correct level of education, experience, or exposure to industry practices, and broad-based skills that will allow them to succeed in on-the-job training and employer-provided training.

Occupations New Jersey's Finance Employers Report Difficulty Finding and Retaining Skilled Workers

Back Office: Administrative and Support Positions

- Customer Service Representatives and Managers
- Office Clerks, Bookkeeping and Accounting Clerks, and Securities Clerks

Middle Office: Headquarters and Corporate Operations

Accounting, Compliance, and Analytical Positions, including:

- Accountants and Auditors, especially Certified Public Accountants
- Financial Analysts, Financial Examiners (including Financial Quantitative Analysts and Fraud Examiners, Investigators and Analysts*)
- IT Specialists

Front Office: Retail Offices and Trading

Sales Agents, Managers and Lenders, including:

- Securities, Commodities, and Financial Services Sales Agents, Insurance Sales Agents
- Credit Analysts and Loan Officers

* These jobs have been identified by the U.S. Department of Labor's O*Net Occupational Database as "new and emerging occupations."

The skills that employers demand within particular occupational areas generally mirror the priority skills identified in the previous section of this report. That is to say, employers generally do not expect workers to arrive with high levels of job-specific skills and training. Finance employers can and do provide much of this type of training in-house. Rather, employers expect workers to have the correct level of education, experience or exposure to industry practices, and broad-based skills that will allow them to succeed in on-the-job training and employer-provided training.

This section of the report provides insight into the broad skill sets that employers are experiencing difficulty finding among workers in key job categories. The occupational profiles also provide information about the levels of education and key priority skills that employers are expecting workers in these job categories to possess.

Employers identified seven groups of occupations across all three functional areas of the industry (back office, middle office, and front office) that are difficult to fill with qualified workers. These jobs include customer service call center positions and clerks in back-office operations; accounting, compliance, and analytical positions in the middle office; and sales agents, managers and lenders in the retail front office. The following sections provide an in-depth look at the key trends driving skill needs in each operational area, as well as a description of the particular skill gaps associated with each occupation or group of occupations employers cited.

Back Office: Administrative and Customer Support Positions

The back office of most financial services firms includes administrative and support workers, call center customer service representatives, and basic accounting and financial clerk positions.

Most back-office jobs require workers to interact with the IT systems that support operations in the finance industry, from personnel management software to secure e-commerce software that process sales and purchase transactions and keep vital records organized and updated. For example, in investment banking, back-office IT systems compare the details of a transaction prior to delivering a security product to a customer and processing payment.

Entry-level educational requirements for many back-office jobs are not especially high. Certain jobs, including some customer service and most clerk and administrative support jobs require only a high school diploma. Employers, however, expect these workers to have strong foundational skills in math, IT, and business writing, as well as a high level of attention to detail, problem-solving ability, and good communication, teamwork, and interpersonal skills. Customer service skills are extremely important for call

center customer support positions. Employers report, however, that a college degree is increasingly preferred for certain positions, including some customer service call center positions, supervisory positions, and complex clerk and other administrative positions.

Industry-wide, there is a trend toward outsourcing and off-shoring some low- and moderate-skill back-office positions, especially those requiring low levels of education and interpersonal interaction.¹³ The trend toward globalizing the back office and other business processes is referred to as cross-border business-process outsourcing.¹⁴

Some back-office jobs that require limited skills are also more likely to be replaced or reduced by new technology. For example, advances in IT have reduced the need for secretaries and new software has reduced the need for policy processing clerk positions in the insurance sector.

While some jobs may be at continued risk for being moved overseas or eliminated by technology, large numbers of back-office jobs will remain in the state for many years to come. Several employers reported a reverse trend away from outsourcing or off-shoring positions due to increasing costs in rapidly developing economies. Some positions, such as some high-skill call center customer service jobs, are also likely to remain in New Jersey due to record privacy concerns and the availability of high-skilled workers in the state.

Back-office positions are also likely to be numerous in New Jersey for many years because they account for some of the largest job categories in the industry. For example, customer service positions comprise the largest occupation in the industry in New Jersey next to bank tellers, supplying over 17,000 jobs statewide in 2006. There are also more than 15,000 clerks employed in financial services throughout the state.¹⁵

Priority Back-Office Occupational Skill Needs

Employers identified two priority occupational areas in the back office for which they are having increasing difficulty finding and/or retaining skilled workers:

Priority Occupation #1: Customer Service Representative and Manager

Customer service workers at call centers generally field calls from customers regarding financial products. They may sell financial products, resolve customer complaints, or answer questions regarding products and services.

Employers report increased difficulty finding qualified customer service representatives and administrative supervisors and managers for their call centers. Employers are challenged to recruit people who have the analytical and cognitive skills to handle the complex multi-tasking the job now requires. Though still considered an entry-level position, customer service

Entry-Level Requirements for Back-Office Jobs

Most entry-level jobs in the finance back office require the following types of education and skills:

- High school diploma required
- Some jobs prefer a two- or four-year degree
- Demonstrated attention to detail; strong IT, math, verbal communication, and business writing skills

jobs are changing in ways that are increasing skill and knowledge, and even educational requirements in some cases. Many workers among traditional labor pools for these jobs are not aware of the changes that have occurred and lack the skills needed to perform well and advance to higher positions.

Key Educational and Skill Priorities

Cognitive skills, followed by communication skills, are the largest deficit areas for most candidates, even college graduates, according to employers. Employers report that most candidates, even those with only a high school education, do well on technology tests given by some employers.

For call center operators, employers require anywhere from a high school diploma to support simpler products such as life insurance to a B.A. for those who are servicing annuities customers. Supervisors and managers in call center operations often have a four-year degree. Since many of these workers are promoted from within the company, this is not a universal requirement. Employers prefer that workers also have strong **analytical, multi-tasking, communication, teamwork, leadership, and cognitive skills, as well as basic knowledge of (and ability to learn) finance and investing concepts.**

Some companies test candidates on their cognitive ability, communication skills, and computer/technology skills. According to one employer, their cognitive exam tests for one's ability "to construct knowledge using disparate pieces of data," to "connect the dots," and to "understand what is relevant and what is not."¹⁶ It includes logic and word problems, data interpretation exercises, and other problem-solving and critical thinking tasks. The tests help to screen applicants for the requisite skills needed to perform on the job.

Employers report that current customer service workers increasingly lack the leadership, communication, and cognitive skills needed to advance to higher positions. Cognitive skills, followed by communication skills are the largest deficit areas for most candidates, even college graduates, according to employers. Employers report that most candidates, even those with only a high school education, do well on technology tests given by some employers. Many of these workers are skilled at multi-tasking through use of social networking websites such as MySpace and Facebook, email, and instant messaging, but an increasing number of entry-level workers lack the ability to focus effectively on resolving an issue. Workers need to apply multi-tasking skills in a complex, professional environment with the goal of resolving clients' issues effectively.

Priority Occupation #2: Financial and Office Clerk

While the tasks a clerk performs vary by size and type of the firm, clerks process a variety of financial paperwork. They often use technology to log transactions and perform other recording and administrative duties. Employers report increased difficulty finding qualified clerks to perform a variety of administrative duties.

Key Educational and Skill Priorities

These positions generally require a high school diploma or equivalent, as well as basic accounting skills, an attention to detail, and good communication skills. Since many employers prefer to hire from within and would like clerks and other back-office workers to advance to more complex positions over time, some employers require clerks to have a two- or four-year college degree in accounting or a related discipline, and/or to be enrolled in such a program at the time of, or shortly after hire. Some companies have defined tracks for workers to advance through various supervisory and managerial positions over time through a combination of internal training and degree attainment.

Employers report having difficulty finding applicants who have the attention to detail and communication skills needed for many clerk jobs. Clerks maintain important financial records and are also being increasingly held responsible for more fraud detection and other security-related responsibilities, making high levels of attention to detail even more important than in the past. Clerks also need the communications skills to interact well with not only supervisors and colleagues, but also with vendors, workers from other departments (such as IT and human resources), and sometimes with customers.

Middle Office: Corporate, Analytical, and IT Positions

The middle office of a finance company encompasses many of the functions that occur in the corporate and risk management aspects of the firm. Middle-office jobs include those in business and financial operations occupations, such as actuaries and business operations specialists, as well as those in computer and mathematical occupations, including IT specialists and network administrators. Human resources managers, business operations specialists, and other corporate management positions are also considered part of the middle office.

Entry-level requirements for jobs in the middle office are generally high, with most jobs requiring at least a four-year degree in a finance-related discipline, as well as a high level of technical and analytical, and/or management and leadership skills. **Middle-office workers are also increasingly involved in managing projects through global teams using virtual communications technology.** This requires workers to develop new communication, project management, and cultural awareness skills. Employers increasingly seek workers for middle-office positions who have not only the technical skills needed to perform the job, but also high levels of interpersonal skills, the ability to communicate complex business processes and financial concepts to non-technical audiences, strong project management skills, and strategic management ability.

Employers increasingly seek workers for middle-office positions who have not only the technical skills needed to perform the job, but also high levels of interpersonal skills, the ability to communicate complex business processes and financial concepts to non-technical audiences, strong project management skills, and strategic management ability.

Employers report increased off-shoring of technical work that requires limited interpersonal interaction, such as some types of computer programming. Work is often contracted to workers or companies in countries such as Russia, Belarus, and India, where highly skilled talent can be found at a much lower cost and the work can be performed off-site.¹⁷

Priority Middle-Office Occupational Skill Needs

Employers identified three occupational areas in the middle office for which they are having increasing difficulty finding and/or retaining skilled workers.

Priority Occupation #1: Accountant and Auditor, especially Certified Public Accountant

This group of occupations includes Certified Public Accountants (CPAs), auditors, actuaries, regulatory compliance personnel, and other financial analysts. Many of these positions are the ones that are most responsible for implementing new regulations, especially the Sarbanes-Oxley regulations, which are designed to minimize corporate fraud. They perform a variety of functions within the finance firm, from basic accounting to research services and data analysis. Employers generally grouped these occupations together because they share similar skill and education needs.

While employers reported a high level of demand and difficulty finding skilled workers for all of these positions, several sources noted a growing shortage of CPAs, in particular. According to several employers, demand for CPAs has increased as a result of the Sarbanes-Oxley law and not enough students are pursuing accounting degrees. In addition, opportunities for completing the one-year internship needed for a CPA in one of the major accounting firms has decreased. As one employer noted, what used to be known as the “Big Eight,” the large accounting firms that took on CPA students, has shrunk to the “Big Four” in recent years.

Key Educational and Skill Priorities

Generally, employers require a B.A./B.S. in finance, economics, statistics, or accounting, preferably a Certified Public Accountant. Workers must have strong math, analytical, and IT skills to perform these jobs. Employers, however, report a demand for analytical workers who have the interpersonal, sales, and other communication-related skills to be able to advance to other positions, including lender and credit analyst positions in the finance industry, which require a high level of technical, business, and interpersonal skills.

Many finance jobs require licenses, from CPAs to financial analysts and planners, actuaries, and others. Employers report difficulty finding people who already have the licenses, as well as finding people who have the drive and cognitive skills to get them on the job. The cognitive skills are generally a larger barrier for most workers, compared to motivation. Other knowledge gaps employers report include regulatory knowledge, knowledge about eth-

Entry-Level Requirements for Middle-Office Jobs

Most entry-level jobs in the finance middle office require the following types of education and skills:

- Four-year degree in a finance-related discipline preferred (IT positions require IT degrees and/or demonstrated IT skills)
- Strong communication, project management, cultural awareness, leadership, and business skills

ical problem-solving, interpreting financial regulations, and detecting fraud. Nearly all positions in the company require a basic knowledge of Sarbanes-Oxley regulations and ethical problem-solving. In addition, employers need more workers and applicants to develop the PowerPoint, Keynote, writing, and presentation skills needed to communicate complex information to a non-technical audience.

Priority Occupation #2: Financial Analyst and Examiner

Financial analysts perform complex financial analysis operations, while examiners help to ensure that companies are operating in accordance with regulations. As the nationwide credit crisis continues to unfold, financial examiners are particularly important as advisors to management regarding how to make organizational changes that will increase profitability within the confines of a complex regulatory landscape.

New and emerging occupations in this area cited by the U.S. Department of Labor and confirmed by employers include specialized quantitative financial analysts and fraud examiners. Employers report increased difficulty finding a variety of qualified analysts and examiners in all sectors of the industry.

Key Educational and Skill Priorities

These analytical positions require at least a four-year degree in finance, accounting, math, or a business discipline. In today's age of increased security awareness and Internet-based fraud, analysts need superior attention to detail and cognitive/analytical skills to help protect companies from a variety of threats. Examiners also need these skills, as well as an understanding of how to apply complex and shifting regulations in today's dynamic finance industry workplaces.

Employers report that there are sufficient numbers of applicants with the needed degrees to fill these positions, but workers lack detailed knowledge of recent regulations, as well as practice applying business ethics. While employers generally provide such training, some workers lack the analytical and cognitive skills to succeed in employer-provided training programs or to pass licensing exams.

Analysts who have strong communication and presentation skills are also highly valued for their ability to explain the business effects of identified fraud and other complex issues. In addition, analysts and examiners need strong IT skills to use sophisticated financial analysis software and to keep abreast of regulatory changes via the Internet and other sources.

Priority Occupation #3: IT Specialist

IT specialists support the complex array of technology that the finance industry uses. From computer programmers to those who maintain office networks and desktop computers, IT specialists are vital to the operation of

New Jersey's finance industry. Since the finance industry is a heavy user of IT, and since the industry must compete with nearly every other industry in the state for IT workers, employers report difficulty finding qualified IT specialists, especially network specialists, IT support specialists, and programmers.

Key Educational and Skill Priorities

IT positions in the finance industry generally require at least a four-year degree, preferably in computer science or a related discipline. Skills are considered more important than educational attainment in this field, however. In addition, employers prefer workers who have working knowledge of the finance industry. IT workers often act as part of a team to accomplish a task, or they may build systems for use by finance workers. In either case, IT workers that understand how job tasks relate to the business goals of the company are highly valued. These workers often also have highly prized project management and communication skills needed to organize projects and discuss IT projects with non-IT finance staff and managers.

IT specialists also need strong fraud detection and security awareness skills to be able to build and maintain IT systems that are “hacker-proof,” and generally resistant to security breaches. When security threats and breaches are encountered, as in the case of a discovery that a system has been hacked and customers' personal information has been stolen or mistakenly released, IT workers need the critical thinking and problem-solving skills needed to address the situation quickly and effectively.

Entry-Level Requirements for Front-Office Jobs

Most entry-level jobs in the finance front office require the following types of education and skills:

- Four-year degree in a finance-related discipline preferred for most other jobs. Tellers must have at least a high school diploma
- Strong cognitive, customer service, sales, leadership, interpersonal communication, fraud detection, and business skills needed for most positions.
- Some jobs, such as insurance sales, financial advisors, and others, require specialized industry licenses.

Front Office: Retail Operations and the Trading Floor Positions

Encompassing retail operations in the financial services industry, front-office operations employ workers in bank branches, financial services sales offices, and insurance sales offices. The most numerous and perhaps the most visible workers in the front offices of many financial services companies are bank tellers. Other types of workers that generally occupy the front office include those in sales and related occupations, including securities, commodities, financial services, insurance sales agents, financial advisors, securities traders, as well as other jobs that generate revenue, such as loan officers. The front office also includes workers in retail management occupations, such as general and operations managers, as well as securities traders and lenders. As one employer noted, “Front-office positions include jobs that directly generate money for the industry.”¹⁸

Entry-level requirements for front-office jobs are highly variable. The largest job in the front office, tellers, requires a high school diploma, as well as demonstrated customer services skills, sales ability, and money handling skills. Many other positions in the front office, however, require at least a four-year degree, and many sales positions require special industry training and/or licenses that may be sponsored by the employer. For example, insur-

ance sales agents must obtain a license prior to working in that position, and credit analysts generally receive intensive on-the-job and classroom training sponsored by their employer. Employers report that front-office jobs often act as feeders for key middle-office jobs and back-office management positions. Overall, strong customer service, sales, leadership, and business skills are needed for most positions.

Many employers interviewed for this study consider front-office positions to be an important recruiting source for skilled workers for other, less-visible aspects of the finance industry, including corporate management and technical positions in company headquarters and other non-retail offices. In addition, employers agree that front-office positions are the least vulnerable to outsourcing and off-shoring due to the “high-touch” nature of these jobs and the fact that front-office workers must be located close to their customer base.¹⁹

In general, employers agree that the skills and education required for even entry-level positions in the front office are increasing. Employers now require workers to have a higher level of cognitive, interpersonal, and sales-related skills than ever before, as well as a large amount of industry knowledge and a high level of computer proficiency. For example, employers now require bank tellers to perform some sales functions and to have knowledge of a diverse array of financial products, a responsibility that did not exist 10 years ago. In addition, these workers have increased responsibilities for fraud management and regulations have increased.

Priority Front-Office Occupational Skill Needs

Employers identified two occupational areas in the front office for which they are having increasing difficulty finding and/or retaining skilled workers.

Priority Occupation #1: Sales Agent

Located in the front office of the business, sales agents in the finance industry interact with residential and commercial customers to sell products and services. Employers reported difficulty hiring various types of sales agents, including securities, commodities, and financial services sales agents, and insurance sales agents. According to employers, these workers comprise a “feeder” workforce for front-office management and middle-office jobs in corporate settings.

Key Educational and Skill Priorities

Sales agents are normally required to have a Bachelor’s degree, preferably in finance or business disciplines, as well as demonstrated sales and communication skills. Employers report that some finance and business graduates, however, lack the communications, customer service, teamwork, and sales skills needed to be effective. Some employers hire workers with backgrounds in non-finance fields that develop these “soft skills” such as in retail sales, marketing, and teaching. Once again, many employers opt to

Employers report that front-office jobs often act as feeders for key middle-office jobs and back-office management positions. Overall, strong customer service, sales, leadership, and business skills are needed for most positions.

train workers in the financial skills and knowledge they need, as they agree it is harder to train workers in the communication and sales skills needed for the job.

In addition to a college degree and the skills mentioned above, many sales workers in the finance industry must earn licenses related to the products and services they sell. Some employers report difficulty finding workers who have either earned these licenses prior to hire, or who have the cognitive, math, and persuasion/sales skills needed to complete the tests and training for them.

Priority Occupation #2: Credit Analyst and Loan Officer

Credit analysts review the credit history and other relevant information about loan applicants, while loan officers make final decisions about lending to customers. Employers report difficulty finding workers who have the skills to enter these jobs directly after school. While many large banks provide training, these employers noted that few workers had the skills needed to complete this training.

These workers are generally promoted from within a company. In large institutions, workers attend company-sponsored training programs that teach the higher-level analytical, business, and sales skills needed for these positions. Credit analysts monitor rates and communicate with lenders, while lenders have more customer interaction, but must have a strong technical background as well. These individuals must make quick, independent decisions based on constantly changing data, as well as communicate the complexities of these data to colleagues and customers.

Employers report difficulty recruiting qualified, motivated employees to enter in-house training programs. Poaching of potential candidates by other institutions is a problem. Several employers reported that retention was an issue because of competition for staff among institutions. Many reported that they cannot keep enough staff long enough to prepare them for the credit analyst training. Many workers find it more profitable to make lateral moves among companies to earn higher salaries, than to pursue a difficult course of training in order to move vertically in the same company. When candidates are recruited, often a lack of the adequate cognitive skills, such as problem-solving, critical thinking, and data analysis skills, as well as math skills, are the biggest impediments to success.

Key Educational and Skill Priorities

These jobs generally require at least a four-year degree in a math or finance-related discipline. Employers generally promote those who have at least a B.A. in business or a finance-related discipline, but experience can be substituted if an individual shows aptitude and drive on the job. Candidates need strong analytical, IT, and math skills, as well as strong communication, business, and interpersonal skills.

Employers report difficulty finding workers who have the communication and sales skills needed to interact with customers, as well as the strong math, cognitive, and study skills needed to succeed in advanced training and on the job. The courses workers must pass to become a credit analyst or a lender require high levels of analytical and math ability, and the jobs that they prepare for are demanding and require high levels of interpersonal and sales skills as well as analytical/math skills. This combination of skill sets is difficult to find, especially since lenders are “immersed in numbers for years before interacting with customers,” according to one employer.²⁰

Endnotes

1 U.S. Census Bureau, *Longitudinal Employer-Household Dynamics* (Washington, D.C., 2007).

2 Ibid.

3 Ibid.

4 Ibid.

5 Ibid.

6 New Jersey Department of Labor and Workforce Development Region Definitions.

7 U.S. Census Bureau, *Longitudinal Employer-Household Dynamics*.

8 New Jersey Department of Labor and Workforce Development, *Industry Occupation Matrix* (Trenton, NJ, 2006).

9 Ibid.

10 Ibid.

11 Lynn A. Karoly and Constantijn W.A. Panis, *The 21st Century at Work: Forces Shaping the Future Workforce and Workplace in the United States* (Santa Monica: The RAND Corporation, 2004).

12 New Jersey Department of Labor and Workforce Development, *Industry Occupation Matrix*.

13 Wharton School of Business, *Special Section: The Rush to Send Back-Office Business Overseas—Part 1 and 2* (Philadelphia: University of Pennsylvania, 2002), http://knowledge.wharton.upenn.edu/special_sections/100902_ss.html, accessed February 16, 2008.

14 Ibid.

15 New Jersey Department of Labor and Workforce Development, *Industry Occupation Matrix*.

16 Employer interview, Fall 2007.

17 Ibid.

18 Ibid.

19 Ibid.

20 Ibid.

Appendix: Employers and Individuals Consulted for this Study

Several large finance industry employers and government officials contributed to this report through interviews and participation in New Jersey's Finance Industry Workforce Advisory Council, which met in spring 2007 to discuss the priority skill needs of industry employers and the steps required to address these needs. Convened by the New Jersey Department of Labor and Workforce Development as part of Governor Corzine's Economic Growth Strategy for New Jersey, the Council consists of senior-level human resources managers from the state's leading finance industry employers and officials from state agencies responsible for education and training. The following employers participated in the Council and provided input and guidance on the development of this *Ready for the Job* report and action plan.

Employers

Commerce Bancorp
Rhonda Costello

Chubb Insurance
Michael Marinaro

Heartland Payment Systems
Robert Carr

PHH Mortgage
Peter Au-Yang

Prudential Financial
Sharon C. Taylor

UBS Financial Services
Kathe Kennedy

Wachovia
Susanne Svizeny

Government Partners

Governor's Office of Economic Growth
Gary Rose, Chief

New Jersey Commission on Higher Education
Jane Oates, Commissioner

New Jersey Department of Banking and Insurance
Terry McEwan, Director

New Jersey Department of Labor and Workforce Development
David Socolow, Commissioner

New Jersey State Employment and Training Commission
Henry Plotkin, Ph.D., Executive Director (represented by David Novak,
Policy Analyst)