



PENN STATE WORKFORCE EDUCATION AND DEVELOPMENT INITIATIVE

Education & Training Opportunities in the Finance and Insurance Sector in Northeast Pennsylvania

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**Please restrict the distribution and use of this report to Penn State personnel
who are responding to opportunities for research, development, and training
in the finance and insurance sector in northeast Pennsylvania.**

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Focus of this Report

Located strategically near the New York metropolitan area, northeast Pennsylvania is home to 14.9% of the Pennsylvania population. A key logistic attribute of northeast Pennsylvania is its power supply grid. Northeast Pennsylvania and northern New Jersey operate from a different electrical supply than New York Metropolitan Area. In August 2003, massive blackouts in New York cost businesses in the New York City area businesses in excess of \$2 billion. The electrical supply issues provided an even greater impetus than the tragic events of September 11, 2001 for the Finance and Insurance Industry to locate back office and back-up services outside other the New York metropolitan area.

Opportunities are available for Penn State Outreach to contribute to the transformation of the Finance and Insurance Industry in northeast Pennsylvania. This transformation will involve establishing and staffing back-up, disaster recovery, and back-office operations to support critical and vulnerable financial institutions located in the New York metropolitan area. Wall Street West, a not-for-profit partnership of more than two dozen organizations, secured a \$15 million Workforce Innovation in Regional Economic Development (WIRED) grant from the U.S. Department of Labor to facilitate this transformation. The nine counties of Berks, Carbon, Lackawanna, Lehigh, Luzerne, Monroe, Northampton, Pike, and Wayne form the northeast Pennsylvania WIRED region that is the focus of the Wall Street West initiative.

During the spring/summer of 2007, Wall Street West commissioned an analysis of the gap between the current and required workforce and workforce development system necessary to transform the Finance and Insurance Industry in the nine-county Northeast Pennsylvania WIRED region. At the time that this report from the Penn State Workforce Education and Development (WED) Initiative was released, Wall Street West had not released a report of this gap analysis. Requests for proposals for workforce education and development are anticipated from Wall Street West to address identified gaps.

To support Penn State Outreach responses to Wall Street West requests for proposals, provided in the remainder of this WEDI Initiative report are:

- A brief summary of the finance and insurance industry in northeast Pennsylvania;
- A description of a system of classifying knowledge, skills, and abilities of workers derived from a U.S. Department of Labor occupational content model which is useful in identifying and specifying education and training opportunities; and
- Tabulations of knowledge, skills, and abilities for top management, science and computing, and business and financial occupations in the Finance and Insurance Industry.



Finance & Insurance Industry in Northeast Pennsylvania

Information is summarized from Penn State WED Initiative research about the historical, current, and forecasted structure of the Pennsylvania finance and insurance industry. Detailed tabular data from which this summary was written are available to Penn State personnel from the Penn State WED Initiative.

The Industry

The Finance and Insurance Industry comprises establishments primarily engaged in financial transactions (transactions involving the creation, liquidation, or change in ownership of financial assets) or in facilitating financial transactions. Three principal types of activities are identified:

- Raising funds by taking deposits and/or issuing securities and, in the process, incurring liabilities. Establishments engaged in this activity use raised funds to acquire financial assets by making loans and/or purchasing securities. Putting themselves at risk, they channel funds from lenders to borrowers and transform or repackage the funds with respect to maturity, scale and risk. This activity is known as financial intermediation.
- Pooling of risk by underwriting insurance and annuities. Establishments engaged in this activity collect fees, insurance premiums, or annuity considerations; build up reserves; invest those reserves; and make contractual payments. Fees are based on the expected incidence of the insured risk and the expected return on investment.
- Providing specialized services facilitating or supporting financial intermediation, insurance, and employee benefit programs.

In addition, monetary authorities charged with monetary control are included in this sector.

The Finance and Insurance Industry is composed of a number of specific subsectors:

- The *Monetary Authorities-Central Bank* subsector contains establishments that engage in performing central banking functions, such as issuing currency, managing the nation's money supply and international reserves, holding deposits that represent the reserves of other banks and other central banks, and acting as fiscal agent for the central government.
- Industries in the *Credit Intermediation and Related Activities* subsector are composed of establishments that (a) lend funds raised from depositors; (b) lend funds raised from credit market borrowing; or (c) facilitate the lending of funds or issuance of credit by engaging in such activities as mortgage and loan brokerage, clearinghouse and reserve services, and check cashing services.
- Industries in the *Securities, Commodity Contracts, and Other Financial Investments and Related Activities* subsector group include establishments that are primarily engaged in one of the following: (a) underwriting securities issues and/or making markets for securities and commodities; (b) acting as agents (i.e., brokers) between buyers and sellers of securities and commodities; (c) providing securities and commodity exchange services; and (d) providing other services, such as managing portfolios of assets; providing investment advice; and trust, fiduciary, and custody services.
- Industries in the *Insurance Carriers and Related Activities* subsector group establishments that are primarily engaged in one of the following: (a) underwriting (assuming the risk, assigning premiums, and so forth) annuities and insurance policies or (b) facilitating such underwriting by selling insurance policies, and by providing other insurance and employee-benefit related services.
- Industries in the *Funds, Trusts, and Other Financial Vehicles* subsector are comprised of legal entities (i.e., funds, plans, and/or programs) organized to pool securities or other assets on behalf of shareholders or beneficiaries of employee benefit or other trust funds. The portfolios are customized to achieve specific investment characteristics, such as diversification, risk, rate of return, and price



volatility. These entities earn interest, dividends, and other property income, but have little or no employment and no revenue from the sale of services.

Employment

Employment in the Finance and Insurance Industry is expected to grow both in the United States and in Pennsylvania, although the rate of growth in Pennsylvania between 2004 and 2010 is anticipated to be approximately two-thirds as high as the national employment growth rate for the Finance and Insurance Industry. Moreover, Pennsylvania's share of national employment in Finance and Insurance is forecasted to decline.

A large portion of the workforce in the Finance and Insurance Industry in Pennsylvania and the entire nation owes its jobs to sales of financial and insurance products and services to other industries and to local, state, and federal governments. In Pennsylvania, almost one-half of all current and forecasted Finance and Insurance Industry jobs are created because of sales to the rest of the United States.

Nearly 32,000 of the residents in Wayne, Lackawanna, Pike, Monroe, Northampton, Lehigh, Carbon, Luzerne, and Berks Counties currently are employed within the Finance and Insurance Industry. Based on analysis of *Selectory*[®], a proprietary Dun & Bradstreet on-line data base (see <http://selectory.com>), by participants in the Penn State WED Initiative as well as data available through the Center for Workforce Information and Analysis in the Pennsylvania Department of Labor and Industry, major employers, The Guardian Life Insurance Company of America and Sovereign Bank, are among 2,466 employer units in the region. During 2004, Pennsylvania employed 347,800 workers in the Finance and Insurance Industry in part- as well as full-time jobs in the region in firms or as sole proprietors and active partners (not including family members and volunteers).

Performance & Competitiveness

The Pennsylvania Finance and Insurance Industry is relatively high performing, is cost-competitive, and has capacity available to fulfill demand for finance and insurance products and services that are imported currently from outside Pennsylvania. Compensation of workers in the Finance and Insurance Industry is approximately 1.5 times greater than compensation in all Pennsylvania industries. Cost of fuel is relatively higher than the nation for all industries in Pennsylvania, but remarkably lower in the Commonwealth's Finance and Insurance Industry. Compared with all industries in Pennsylvania, the Finance and Insurance Industry is—at times, by a factor of two—less costly in terms of labor, capital, production, and, again, fuel, has lower delivered prices, and uses less labor in production. The Pennsylvania Finance and Insurance Industry fulfills about one-half of Pennsylvania's demand for financial products and services; the remainder of financial products and services purchased in Pennsylvania are imported. Import substitution is one opportunity for growth in the industry.



Talent Potential

Many residents of the nine-county Wall Street West region in northeast Pennsylvania commute to work in the New York metropolitan area. Some of these commuters hold skill sets that could contribute to the growth and development of the Finance and Insurance Industry in northeast Pennsylvania. A major challenge for the Wall Street West initiative is to encourage the pool of human capital, currently commuting its financial and insurance skills to the New York metropolitan area, to contribute to the Finance and Insurance Industry in northeast Pennsylvania.

Analyses of data from 2000 U.S. Census of the Population and Housing conducted by participants in the Penn State WED Initiative revealed that 85% of the 32,090 commuters from Pennsylvania to the New York metropolitan area traveled from three counties—Monroe, Northampton, and Pike—during the reference period for the 2000 Census. Approximately 70% of these commuters from the nine-county northeast Pennsylvania region traveled to New Jersey counties to work, a sub-region within the New York metropolitan area.

Numbers of commuters and patterns of commuting between Pennsylvania and New York certainly could have changed remarkably since 2000 in response to 9/11 events, increases in fuel costs, and fluctuations in the opportunity costs of travel from Pennsylvania counties due to relative economic shifts between the New York metropolitan area and the nine Pennsylvania counties. Unfortunately, no other data set documents commuting patterns more currently and as comprehensively as the 2000 Census data.

Additional Information Available Upon Request

For proposal development by Penn State Outreach personnel, the Penn State WED Initiative can make tabular data available about the employment, performance, competitiveness, and talent pool for the Finance and Insurance Industry in northeast Pennsylvania. Additional technical information, not provided in this report, is available about employment location quotients, shift-share coefficients, and employment multipliers for the Finance and Insurance Industry in northeast Pennsylvania.

Knowledge, Skills, & Abilities in Occupations

*Worker characteristics and requirements in the U.S. Department of Labor O*NET Content Model are described in terms of knowledge, skills, and abilities of the typical worker.*

The U.S. Department of Labor developed the O*NET research program and database to be the nation's primary source of occupational information (see <http://www.onetcenter.org/>). The O*NET Content Model, portrayed in Figure 1, was developed using research on jobs and by organizational analyses conducted by federal agencies such as the Bureau of Labor Statistics. The Model is a classification of the characteristics of occupations and people. The Content Model allows summary of occupational information across jobs, sectors, or industries and within occupations. This occupational information is organized into six major domains—



worker characteristics, worker requirements, experience requirements, occupational requirements, workforce characteristics, occupation-specific information—which allow focus on the key attributes and characteristics of workers and occupations. The Content Model provides a framework that identifies the most important types of information about work and integrates them into a theoretically and empirically sound system.

Figure 1. O*NET Content Model



Source: <http://www.onetcenter.org/image/model/model.jpg>

O*NET database elements from two aspects of the O*NET Content Model provide information about knowledge, skills, and abilities of the typical workers in occupations:

- *Worker characteristics* comprise enduring qualities of individuals that may influence how they approach tasks and how they acquire work-relevant knowledge and skills. Traditionally, analyzing abilities has been the most common technique for comparing jobs in terms of worker characteristics. In addition, interests and values reflect preferences for work environments and outcomes. Work style variables represent typical procedural differences in the way work is performed.
- *Worker requirements* represent developed or acquired attributes of an individual that are related to work performance such as work-related knowledge and skill. Knowledge represents the acquisition of facts and principles about a domain of information. Experience lays the foundation for establishing procedures to work with given knowledge. These procedures are more commonly known as skills. Skills may be further divided into basic skills and cross-functional skills. Basic skills, such as reading, facilitate the acquisition of new knowledge. Cross-functional skills, such as problem solving, extend across several domains of activities.

Three elements of worker characteristics and requirements are tabulated from the O*NET database in the next section of this report for selected occupations in the finance and insurance industry:

- *Knowledge*—Organized sets of principles and facts applied in general domains;
- *Skills*—Developed capacities that facilitate learning or the more rapid acquisition of knowledge and that facilitate performance of activities that occur across jobs; and
- *Abilities*—Enduring characteristics of an individual that influence performance.



Knowledge, Skills, & Abilities in Finance & Insurance

Knowledge, skills, and abilities in top occupations in the Pennsylvania business and finance sector are tabulated. These characteristics and requirements for workers in the business and finance sector provide direction for Penn State Outreach education and training offerings in northeast Pennsylvania.

Benner (2005) listed so-called “top occupations” in the business and financial sector in Pennsylvania. What Benner defined as the business and finance sector closely maps the definition used in this report for the Finance and Insurance Industry. To qualify for Benner’s list of top occupations:

- An occupation must account for at least one out of every 100 jobs in the business and financial sector in Pennsylvania, or
- At least one out of every five jobs in the occupation is included in the business and financial sector in Pennsylvania.

In addition, occupations classified as top occupations must have at least 75 projected annual job openings or at least 1% of the openings in the business and financial sector and at least 250 openings across all industries in Pennsylvania. Benner clustered top occupations into the following nine general job groups: management; business and financial; science and computers; social and legal; personal services; sales; clerical; mechanics and repairers; and transportation.

Penn State Outreach is likely to have program offerings available in some of the nine general job groups. This report limits information to three job groups of interest to Penn State Outreach personnel. Table 1, Table 2, and Table 3 list advanced and expert O*NET knowledge, skills, and abilities described as somewhat important, important, or very important for the typical worker employed in the top occupations in, respectively, management, science and computers, and business and financial job groups in the finance and insurance industry. Coordinate information contained in these tables with Penn State Outreach offerings to develop a matrix of data-driven responses to education and training needs in the finance and insurance industry in northeast Pennsylvania.



Table 1. *Important Knowledge, Skills, and Abilities at Advanced or Expert Levels for Typical Workers in Top Occupations in the Management Job Group in the Business and Financial Sector*

Standard Occupational Classification	Knowledge	Skills	Abilities
<p>11-1021.00 - <i>General and Operations Managers:</i> Plan, direct, or coordinate the operations of companies or public and private sector organizations.</p>	<p><i>Expert:</i> Customer and Personal Service Administration and Management</p> <p><i>Advanced:</i> Sales and Marketing Personnel and Human Resources English Language Mathematics Education and Training Public Safety and Security Law and Government Economics and Accounting Computers and Electronics Production and Processing</p>	<p><i>Expert:</i> Monitoring</p> <p><i>Advanced:</i> Coordination Management of Personnel Resources Management of Financial Resources Active Listening Active Learning Critical Thinking Speaking Management of Material Resources Reading Comprehension Persuasion Judgment and Decision Making Writing Social Perceptiveness Negotiation Time Management Instructing Mathematics Learning Strategies Complex Problem Solving Service Orientation Equipment Selection</p>	<p><i>Advanced:</i> Oral Expression Oral Comprehension Deductive Reasoning Problem Sensitivity Written Comprehension Speech Recognition Inductive Reasoning Near Vision Speech Clarity Fluency of Ideas Originality Written Expression Category Flexibility Mathematical Reasoning Number Facility Information Ordering Visualization Flexibility of Closure</p>
<p>11-3031.02 - <i>Financial Managers, Branch or Department:</i> Direct and coordinate financial activities of workers in a branch, office, or department of an establishment, such as branch bank, brokerage firm, risk and insurance department, or credit department.</p>	<p><i>Expert:</i> Customer and Personal Service</p> <p><i>Advanced:</i> Mathematics Clerical Education and Training Administration and Management Sales and Marketing Computers and Electronics Economics and Accounting Personnel and Human Resources</p>	<p><i>Expert:</i> Instructing Time Management</p> <p><i>Advanced:</i> Monitoring Management of Personnel Resources Active Learning Learning Strategies Active Listening Judgment and Decision Making Service Orientation Critical Thinking Social Perceptiveness Speaking Persuasion Reading Comprehension Writing Negotiation Coordination Mathematics Management of Financial Resources Systems Evaluation Complex Problem Solving Troubleshooting</p>	<p><i>Advanced:</i> Oral Comprehension Oral Expression Written Expression Number Facility Deductive Reasoning Near Vision Written Comprehension Speech Recognition Speech Clarity Mathematical Reasoning Originality Problem Sensitivity Inductive Reasoning Information Ordering Fluency of Ideas Category Flexibility</p>



Standard Occupational Classification	Knowledge	Skills	Abilities
<p>11-1011.00 - Chief Executives: Determine and formulate policies and provide the overall direction of companies or private and public sector organizations within the guidelines set up by a board of directors or similar governing body.</p>	<p><i>Expert:</i> Administration and Management</p> <p><i>Advanced:</i> Customer and Personal Service Economics and Accounting Sales and Marketing English Language Personnel and Human Resources Education and Training Mathematics Law and Government Computers and Electronics Public Safety and Security Clerical</p>	<p><i>Expert:</i> Judgment and Decision Making Management of Financial Resources Coordination Monitoring Negotiation Time Management Management of Material Resources Active Listening Complex Problem Solving Management of Personnel Resources</p> <p><i>Advanced:</i> Persuasion Active Learning Social Perceptiveness Systems Evaluation Critical Thinking Reading Comprehension Learning Strategies Speaking Writing Operations Analysis Instructing Service Orientation Mathematics Systems Analysis Equipment Selection Troubleshooting Technology Design</p>	<p><i>Expert:</i> Speech Clarity Oral Expression Written Comprehension Written Expression Oral Comprehension</p> <p><i>Advanced:</i> Deductive Reasoning Fluency of Ideas Problem Sensitivity Originality Inductive Reasoning Number Facility Mathematical Reasoning Memorization Near Vision Speech Recognition Category Flexibility Information Ordering Speed of Closure</p>
<p>11-2022.00 - Sales Managers: Direct the actual distribution or movement of a product or service to the customer. Coordinate sales distribution by establishing sales territories, quotas, and goals and establish training programs for sales representatives.</p>	<p><i>Advanced:</i> Computers and Electronics Mathematics Sales and Marketing Customer and Personal Service Administration and Management English Language Clerical</p>	<p><i>Advanced:</i> Monitoring Time Management Service Orientation Persuasion Instructing Active Listening Negotiation Social Perceptiveness Coordination Writing Critical Thinking Reading Comprehension Active Learning Judgment and Decision Making Management of Personnel Resources Learning Strategies Complex Problem Solving Speaking Operations Analysis Mathematics</p>	<p><i>Advanced:</i> Oral Expression Written Comprehension Mathematical Reasoning Oral Comprehension Deductive Reasoning Speech Recognition Near Vision Written Expression Fluency of Ideas Originality Speech Clarity Information Ordering Problem Sensitivity</p>



Standard Occupational Classification	Knowledge	Skills	Abilities
<p>11-3011.00 - <i>Administrative Services Managers</i> Plan, direct, or coordinate supportive services of an organization, such as recordkeeping, mail distribution, telephone operator/receptionist, and other office support services. May oversee facilities planning and maintenance and custodial operations.</p>	<p><i>Advanced:</i> Clerical Customer and Personal Service Personnel and Human Resources Mathematics Administration and Management English Language</p>	<p><i>Expert:</i> Coordination</p> <p><i>Advanced:</i> Monitoring Speaking Service Orientation Active Listening Writing Reading Comprehension Active Learning Critical Thinking Management of Personnel Resources Social Perceptiveness Time Management Mathematics Instructing Management of Financial Resources Judgment and Decision Making Learning Strategies</p>	<p><i>Advanced:</i> Near Vision Oral Expression Written Expression Oral Comprehension Written Comprehension Speech Recognition Problem Sensitivity</p>

Source: <http://www.onetcenter.org/>

Note: The Standard Occupational Classification system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data (see <http://www.bls.gov/soc/> for a description of the system; see <http://www.onetcenter.org/taxonomy.html#listings> for system codes and occupational titles).



Table 2. Important Knowledge, Skills, and Abilities at Advanced or Expert Levels for Typical Workers in Top Occupations in the Science and Computers Job Group in the Business and Financial Sector

Standard Occupational Classification	Knowledge	Skills	Abilities
<p>15-1021.00 - Computer Programmers: Convert project specifications and statements of problems and procedures to detailed logical flow charts for coding into computer language. Develop and write computer programs to store, locate, and retrieve specific documents, data, and information.</p>	<p><i>Expert:</i> Computers and Electronics</p> <p><i>Advanced:</i> Mathematics English Language Customer and Personal Service Design</p>	<p><i>Expert:</i> Critical Thinking Active Learning Operations Analysis Programming Complex Problem Solving</p> <p><i>Advanced:</i> Reading Comprehension Learning Strategies Troubleshooting Technology Design Active Listening Systems Analysis Coordination Equipment Selection Instructing Writing Mathematics Monitoring Systems Evaluation Installation Speaking Time Management Persuasion Social Perceptiveness Judgment and Decision Making</p>	<p><i>Advanced:</i> Information Ordering Written Expression Oral Comprehension Written Comprehension Oral Expression Deductive Reasoning Near Vision Inductive Reasoning Originality Problem Sensitivity</p>
<p>15-1041.00 - Computer Support Specialists Provide technical assistance to computer system users. Answer questions or resolve computer problems for clients in person, via telephone or from remote location. May provide assistance concerning the use of computer hardware and software, including programming.</p>	<p><i>Advanced:</i> Customer and Personal Service Computers and Electronics English Language Mathematics Engineering and Technology Clerical Production and Processing Mechanical Education and Training</p>	<p><i>Advanced:</i> Reading Comprehension Writing Active Listening Coordination Critical Thinking Social Perceptiveness Troubleshooting Active Learning Instructing Speaking Learning Strategies Equipment Selection Persuasion Monitoring Complex Problem Solving Repairing Service Orientation Equipment Maintenance Installation</p>	<p><i>Advanced:</i> Written Comprehension Oral Comprehension Inductive Reasoning Oral Expression Deductive Reasoning Near Vision Information Ordering Written Expression Problem Sensitivity Visualization</p>



Standard Occupational Classification	Knowledge	Skills	Abilities
<p>15-1051.00 - Computer Systems</p> <p><i>Analysts:</i> Analyze science, engineering, business, and all other data processing problems for application to electronic data processing systems. Analyze user requirements, procedures, and problems to automate or improve existing systems and reviews computer systems.</p>	<p><i>Expert:</i> Computers and Electronics Customer and Personal Service</p> <p><i>Advanced:</i> Design English Language Education and Training Telecommunications Mathematics</p>	<p><i>Expert:</i> Time Management Quality Control Analysis</p> <p><i>Advanced:</i> Active Learning Reading Comprehension Monitoring Judgment and Decision Making Complex Problem Solving Critical Thinking Coordination Troubleshooting Active Listening Equipment Selection Service Orientation Installation Systems Analysis Learning Strategies Operations Analysis Technology Design Instructing Writing Systems Evaluation Mathematics Social Perceptiveness Persuasion Speaking Operation Monitoring Repairing</p>	<p><i>Advanced:</i> Oral Expression Oral Comprehension Written Comprehension Deductive Reasoning Near Vision Information Ordering Written Expression Problem Sensitivity Inductive Reasoning</p>

Source: <http://www.onetcenter.org/>

Note: The Standard Occupational Classification system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data (see <http://www.bls.gov/soc/> for a description of the system; see <http://www.onetcenter.org/taxonomy.html#listings> for system codes and occupational titles).



Table 3. Important Knowledge, Skills, and Abilities at Advanced or Expert Levels for Typical Workers in Top Occupations in the Business and Financial Job Group in the Business and Financial Sector

Standard Occupational Classification	Knowledge	Skills	Abilities
<p>13-2011.01 - Accountants: Analyze financial information and prepare financial reports to determine or maintain record of assets, liabilities, profit and loss, tax liability, or other financial activities within an organization.</p>	<p><i>Expert:</i> Clerical Mathematics</p> <p><i>Advanced:</i> Economics and Accounting English Language Customer and Personal Service Computers and Electronics Law and Government Education and Training</p>	<p><i>Expert:</i> Judgment and Decision Making</p> <p><i>Advanced:</i> Time Management Monitoring Systems Evaluation Systems Analysis Operations Analysis Coordination Mathematics Active Listening Management of Financial Resources Active Learning Critical Thinking Learning Strategies Complex Problem Solving Reading Comprehension Instructing Social Perceptiveness Speaking Persuasion Negotiation Service Orientation Writing Quality Control Analysis</p>	<p><i>Advanced:</i> Number Facility Deductive Reasoning Near Vision Oral Expression Mathematical Reasoning Written Comprehension Oral Comprehension Written Expression Problem Sensitivity Inductive Reasoning Information Ordering Category Flexibility Flexibility of Closure</p>
<p>13-2011.02 - Auditors: Examine and analyze accounting records to determine financial status of establishment and prepare financial reports concerning operating procedures.</p>	<p><i>Expert:</i> Economics and Accounting</p> <p><i>Advanced:</i> Mathematics Customer and Personal Service Computers and Electronics English Language Education and Training Administration and Management Sales and Marketing Law and Government</p>	<p><i>Advanced:</i> Writing Critical Thinking Time Management Active Learning Mathematics Reading Comprehension Instructing Coordination Speaking Active Listening Monitoring Judgment and Decision Making Complex Problem Solving Service Orientation Management of Financial Resources Persuasion Learning Strategies Negotiation Management of Personnel Resources Social Perceptiveness</p>	<p><i>Expert:</i> Number Facility</p> <p><i>Advanced:</i> Oral Expression Near Vision Written Comprehension Inductive Reasoning Problem Sensitivity Oral Comprehension Deductive Reasoning Mathematical Reasoning Written Expression Flexibility of Closure Information Ordering Category Flexibility Speech Recognition Selective Attention Speech Clarity Perceptual Speed Fluency of Ideas</p>



Standard Occupational Classification	Knowledge	Skills	Abilities
<p><i>13-1031.01 - Claims Examiners, Property and Casualty Insurance:</i> Review settled insurance claims to determine that payments and settlements have been made in accordance with company practices and procedures. Report overpayments, underpayments, and other irregularities.</p>	<p><i>Expert:</i> Customer and Personal Service</p> <p><i>Advanced:</i> Clerical English Language Computers and Electronics Law and Government Education and Training Mathematics</p>	<p><i>Advanced:</i> Judgment and Decision Making Reading Comprehension Critical Thinking Writing Active Listening Instructing Speaking Time Management Persuasion Active Learning Social Perceptiveness Learning Strategies Monitoring Mathematics Complex Problem Solving Coordination Negotiation</p>	<p><i>Advanced:</i> Oral Comprehension Written Comprehension Oral Expression Deductive Reasoning Speech Recognition Problem Sensitivity Near Vision Written Expression</p>
<p><i>13-1031.02 - Insurance Adjusters, Examiners, and Investigators:</i> Investigate, analyze, and determine the extent of insurance company's liability concerning personal, casualty, or property loss or damages, and attempt to effect settlement with claimants. Correspond with or interview medical specialists, agents, and witnesses.</p>	<p><i>Expert:</i> Customer and Personal Service</p> <p><i>Advanced:</i> Clerical Computers and Electronics English Language Mathematics</p>	<p><i>Expert:</i> Reading Comprehension Negotiation Time Management</p> <p><i>Advanced:</i> Persuasion Judgment and Decision Making Critical Thinking Active Listening Speaking Writing Learning Strategies Active Learning Coordination Monitoring Social Perceptiveness Service Orientation Complex Problem Solving Mathematics Instructing Management of Financial Resources</p>	<p><i>Advanced:</i> Near Vision Oral Expression Oral Comprehension Written Comprehension Written Expression Deductive Reasoning Inductive Reasoning Far Vision Speech Recognition Problem Sensitivity Information Ordering</p>
<p><i>13-2072.00 - Loan Officers:</i> Evaluate, authorize, or recommend approval of commercial, real estate, or credit loans. Advise borrowers on financial status and methods of payments.</p>	<p><i>Advanced:</i> Economics and Accounting Sales and Marketing English Language Customer and Personal Service Mathematics Law and Government</p>	<p><i>Advanced:</i> Social Perceptiveness Instructing Speaking Persuasion Coordination Complex Problem Solving Learning Strategies Service Orientation Active Listening Critical Thinking Reading Comprehension Judgment and Decision Making Monitoring Active Learning Time Management Negotiation Writing</p>	<p><i>Advanced:</i> Oral Expression Near Vision Oral Comprehension Written Comprehension Deductive Reasoning Written Expression Speech Recognition Inductive Reasoning Mathematical Reasoning Speech Clarity</p>



Standard Occupational Classification	Knowledge	Skills	Abilities
<p><i>13-1111.00 - Management Analysts:</i> Conduct organizational studies and evaluations, design systems and procedures, conduct work simplifications and measurement studies, and prepare operations and procedures manuals to assist management in operating more efficiently and effectively.</p>	<p><i>Expert:</i> Customer and Personal Service</p> <p><i>Advanced:</i> Clerical Administration and Management Computers and Electronics Personnel and Human Resources English Language Education and Training Sales and Marketing Economics and Accounting</p>	<p><i>Expert:</i> Judgment and Decision Making Monitoring Coordination Reading Comprehension Operations Analysis Systems Evaluation</p> <p><i>Advanced:</i> Critical Thinking Quality Control Analysis Instructing Active Learning Active Listening Service Orientation Time Management Writing Operation and Control Troubleshooting Management of Financial Resources Persuasion Installation Speaking Equipment Maintenance Systems Analysis Negotiation Learning Strategies Complex Problem Solving Social Perceptiveness Management of Material Resources Management of Personnel Resources Equipment Selection Operation Monitoring Mathematics Technology Design Repairing</p>	<p><i>Advanced:</i> Oral Expression Written Expression Oral Comprehension Written Comprehension Deductive Reasoning Inductive Reasoning Near Vision Information Ordering Problem Sensitivity Fluency of Ideas</p>
<p><i>13-2052.00 - Personal Financial Advisors:</i> Advise clients on financial plans utilizing knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, and tax status.</p>	<p><i>Advanced:</i> Economics and Accounting Mathematics</p>	<p><i>Advanced:</i> Active Listening Speaking Reading Comprehension Critical Thinking Service Orientation Judgment and Decision Making Mathematics Writing</p>	<p><i>Advanced:</i> Number Facility Oral Comprehension Oral Expression Problem Sensitivity</p>



Standard Occupational Classification	Knowledge	Skills	Abilities
<p>13-2052.00 - Personal Financial Advisors: Advise clients on financial plans utilizing knowledge of tax and investment strategies, securities, insurance, pension plans, and real estate. Duties include assessing clients' assets, liabilities, cash flow, insurance coverage, and tax status.</p>	<p><i>Expert:</i> Economics and Accounting Mathematics</p> <p><i>Advanced:</i> English Language Administration and Management Education and Training Clerical Customer and Personal Service Computers and Electronics Law and Government</p>	<p><i>Advanced:</i> Management of Financial Resources Judgment and Decision Making Active Learning Monitoring Reading Comprehension Time Management Critical Thinking Complex Problem Solving Active Listening Mathematics Learning Strategies Writing Speaking Persuasion Systems Evaluation Operations Analysis Service Orientation Social Perceptiveness Instructing Systems Analysis Equipment Selection</p>	<p><i>Advanced:</i> Deductive Reasoning Written Comprehension Oral Expression Written Expression Oral Comprehension Near Vision Number Facility Problem Sensitivity Mathematical Reasoning Information Ordering Inductive Reasoning</p>

Source: <http://www.onetcenter.org/>

Note: The Standard Occupational Classification system is used by Federal statistical agencies to classify workers into occupational categories for the purpose of collecting, calculating, or disseminating data (see <http://www.bls.gov/soc/> for a description of the system; see <http://www.onetcenter.org/taxonomy.html#listings> for system codes and occupational titles).

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Benner, C. (2005). *Workforce choices: Pennsylvania business and financial services cluster*. Harrisburg, Pennsylvania: Pennsylvania Department of Labor & Industry and Keystone Research Center.

About This Report

Penn State Workforce Education and Development (WED) Initiative

This report was prepared using the resources and expertise of participants in the Penn State WED Initiative, which is a partnership between Penn State's College of Education and Penn State Outreach. The mission of the WED Initiative is to support the development of the workforce in Pennsylvania primarily through the application of Penn State resources to conduct various types of workforce assessments for employers, industry partnerships, nonprofit organizations, and government entities. In addition to technical research reports, the WED Initiative produces a variety of reports for public use, such as through its *Economic and Workforce Brief* product (see <http://PSUBrief.notlong.com>).

The College of Education's Workforce Education and Development academic program within the Department of Learning and Performance Systems provides the academic home for the WED Initiative through its Institute for Research in Training and Development (IRTD). The Office of Economic and Workforce Development within Penn State Outreach



supplies management for proposals and projects of the WED Initiative through its Workforce Assessment Center. The WED Initiative enhances Penn State's reputation as a key resource for workforce assessments.

For approximately 20 years, the IRTD has been a research unit of Penn State's academic program in Workforce Education and Development, which recently was selected by *U.S. News and World Report* as one of the top-ranked academic programs in its field. Researchers affiliated with the IRTD are members of the faculty of this Penn State academic program.

The Workforce Assessment Center is a relatively new unit within Penn State Outreach that was launched in November 2006. Its mission is to: conduct workforce-related assessments and educational events; develop tools and services; identify funding, university resources, and external partners for workforce development projects; prepare proposals for and manage assessment projects; and establish and maintain communications with clients, partners, and University personnel.

For additional information about the WED Initiative, see <http://WDICapabilities.notlong.com>.

Authors

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Rose M. Baker is Program Manager of Penn State's Workforce Assessment Center, a relatively new unit within the Office of Economic and Workforce Development in Penn State Outreach since November 2006. She also is Assistant Professor of Education associated with the Workforce Education and Development program and a Professional Associate of Penn State Management Development Programs and Services.

Dr. Baker is a certified Project Management Professional through the Project Management Institute. Dr. Baker's current research includes management techniques and statistical applications for operations improvement, economic analysis, occupational forecasting, benchmarking, evaluation of training outcomes, training needs assessment, and job task analysis. Dr. Baker has extensive experience in the analysis, interpretation, and reporting of labor market data. Dr. Baker's MEd degree is in Adult Education Theory and Practice, and her PhD degree is in Instructional Systems, with an emphasis in Training, Technology, and Systems Design and Development. Dr. Baker's full curriculum vitae is available at <http://rosebaker.notlong.com>.

David L. Passmore

David L. Passmore is Professor of Education in the Workforce Education and Development Program at The Pennsylvania State University. He also is Professor of Operations Research in the dual degree, intercollege Operations Research Program, Director of the Institute for Research in Training and Development, and a Professional Associate in Management Development Programs and Services. Passmore is an Adjoint Graduate Faculty Member in Human Resource Development and Technology for the College of Business and Technology at The University of Texas at Tyler.



As a charter member of the Penn State Economic Modeling and Forecasting Project, and continuing with his involvement with Penn State Outreach through Penn State's Office of Economic and Workforce Development, Passmore has studied the regional implications of public policy, economic development, and demographic changes using structural econometric and input-output models and data bases such as REMI Policy Insight (see <http://remi.com>), *Strategic Advantage* (<http://www.economicmodeling.com>), and IMPLAN (<http://www.implan.com>) as well as a variety of other public micro and macro databases such as the National Longitudinal Surveys of Labor Market Experience (<http://nls.bls.gov>) and the LED on the Map product of the U.S. Bureau of the Census (<http://lehdm2.did.census.gov/>).

Passmore earned academic degrees from State University College of New York at Buffalo (BS, 1969), Bowling Green State University (MEd, 1970), and University of Minnesota (PhD, 1973). Passmore's full curriculum vitae is available at <http://davidpassmore.notlong.com>.

Shakoor A. Ward

Shakoor A. Ward serves as a graduate assistant for the 2007-2008 academic year for the Penn State WED Initiative and is assigned by Penn State Outreach to the Institute for Research in Training and Development. Ward is a graduate student in the Workforce Education and Development Program (with an emphasis in Leadership) leading to the doctoral degree at The Pennsylvania State University.

Prior to arriving at Penn State, Shakoor Ward was a Mentoring Coordinator for Community and Family Resource Center in Lafayette, Indiana. Ward also held an adjunct faculty appointment under the Office of Workforce and Economic Development at Ivy Tech Community College in Lafayette, Indiana. Ward has taught commerce and business related courses for two private post secondary schools in Singapore.

Ward earned academic degrees from University of Cincinnati (BBA in Operations Management, minor in Entrepreneurship), and Purdue University (MSEd in Curriculum and Instruction, with an emphasis in Career and Technical Education). Ward's full curriculum vitae is available at: <http://ShakoorWard.notlong.com>.