Pennsylvania Department of Labor & Industry

High Priority Occupations Policy

September 2010

Purpose

To compete in today's global economy, businesses need a skilled workforce, and our citizens need increasingly higher levels of education and knowledge. In the past, too many workforce education and training programs in Pennsylvania were not aligned with the actual skills required of jobs in our economy. The commonwealth's workforce development strategy works to change that by targeting education and training dollars to High Priority Occupations, or HPOs.

Definition

HPOs are job categories, within selected industry clusters, that are in demand by employers, have higher skill needs and are likely to provide family-sustaining wages. These targeted clusters and HPOs were identified via a three-step process (described in detail in the Background section of this document) developed by the commonwealth's workforce system.

Significant Changes

In order to be more responsive to the current and future economy's needs, the Pennsylvania Department of Labor & Industry has identified new and emerging occupations within the state's targeted industry clusters (Appendix A). Most of these occupations are directly related to American Recovery and Reinvestment Act investments, the green economy movement or health care advances, and may be eligible for training investments through the HPO process.

Because these new and emerging occupations are not adequately covered under the existing Standard Occupational Classification, or SOC system, they are not easily incorporated into the current HPO process. However, they will all be considered for inclusion on local HPO lists.

This policy seeks to address this and other emerging workforce and education issues. It also provides appropriate direction to the workforce and education community regarding needs that fall outside the traditional HPO process. Four goals, now and in the future, are:

- Annually produce the traditional list of HPOs for Pennsylvania and each of the Local Workforce Investment Areas.
- Formulate a process for identifying and including the new, emerging and evolving occupations within the state, including those directly related to the green economy.
- Expand the existing emergency petition process in light of the current economic recession and the harsh effect it has had on Pennsylvania's labor force.
- Continue to assist the educational community as they integrate the HPO process into secondary and post secondary educational systems.

Background

As mentioned previously, the commonwealth's workforce system developed a three-step process to define HPOs:

Step 1...

Industry Cluster Analysis to identify the industry sectors that have the highest potential for growth and could benefit most from strategic workforce investments

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Step 2...

Occupational Data Analysis to create a baseline list of high-demand, higher-wage occupations within each of the targeted industry clusters using the best available labor force data

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Step 3...

Expert Input and Regional Factors to identify occupations likely to emerge based on economic development investment, new labor market trends or business demand, as well as those that are too new or regionally specific to be captured by the data.

Step One (described in more detail in Appendix B) was originally completed in 2004 and resulted in the identification and publication of Pennsylvania's targeted industry clusters. Due to the transformation and evolution of certain industries, this work was updated in 2008 in order to respond to the new economy and introduce Pennsylvania's Energy cluster.

Steps Two and Three of the HPO process are undertaken annually to ensure that public investments keep pace with rapidly changing technology and labor market demand. All public workforce investments are focused on job categories identified as HPOs. For a detailed explanation of Step Two, refer to Box 1 on the following page.

Box 1 Occupational Data Analysis

Annually, the Pennsylvania Department of Labor & Industry prepares a baseline list of HPOs that are in demand by employers, have higher skill needs and are likely to provide family-sustaining wages. This list is created using federal and state labor market data as well as projections based on U.S. Department of Labor models. Occupations are selected based on the following criteria:

1. *Importance to the Targeted Industry Cluster:* Occupations must account for at least one out of every 100 jobs in the cluster ("significance") or at least one out of every five jobs in the occupation must be in the cluster ("dominance").

2. *Annual Job Openings:* The thresholds were set at:
    a. 75 openings within the cluster,
    b. Or at least 1 percent of the total projected openings in the cluster, but not less than
    c. 25 total openings and 250 openings across all industries.

3. *Job Quality,* defined largely based on a self-sustaining wage threshold: HPOs had to pay at least $29,680 in the cluster – 200 percent of the federal poverty level for one adult and one child in 2008.

4. *Additional Screens*: Workforce dollars should be targeted to occupations with shortages of workers, not occupations with excess supply. No single statistic definitively determines whether a workforce shortage exists in a particular area, so additional assessments are made based on the data described below. Occupations with indications of labor market slack are removed from the initial HPO list based on the following standards:
    a. Employment loss: With employment loss greater than 10 percent, experienced dislocated workers would be available to fill job openings. Over the 2004-06 timeframe, average employment across all occupations increased at a rate of 2.2 percent.
    b. Nominal wage decline: Average wage growth across all occupations in the 2006-08 period equaled 8.1 percent. The rate of inflation equaled 7.0 percent. Therefore, nominal wage loss is one indicator of a slack labor market in particular occupations.
    c. Occupational unemployment rates of 10 percent or higher: From 2007-09, the average unemployment rate across all occupations was 5.3 percent. Higher levels of unemployment indicate that unemployed workers should be available for job openings.
    d. Ratio of training completers to job openings: A ratio of training completers to job openings should be a good indication of how well the "supply" of trained workers is meeting industry "demand." However, the completion data is sometimes unreliable and may not capture regional differences. Occupations for which significant evidence exists that the commonwealth is training more people than there are job openings were eliminated from the initial list. The threshold was set at 300 percent, or three trained individuals for every one opening.

Recognizing that data alone does not completely capture workforce trends, the third step of the HPO process aims to refine the initial HPO list based on input from workforce development and other professionals including economic developers, business and labor leaders, and educators. Critical to this effort is the contribution of regional Industry Partnerships, which include the professionals just mentioned, who define immediate and anticipated training needs and other human resource challenges.

It is critical that modifications to the baseline HPO list do not undercut the strategic focus underlying the commonwealth's workforce reforms. Proposed additions to the HPO list must be supported by sound rationale and documented evidence of industry demand and must pay above the current wage threshold. Occupations paying below this level will be included only if (a)

substantial opportunities exist for advancement into higher-level jobs; (b) opportunities exist to invest workforce dollars in ways that improve job quality and/or strengthen career ladders; or (c) regional self sufficiency wages are lower than the current statewide threshold. The Center for Workforce Information & Analysis will calculate weighted self-sufficiency wages for all regions, defined here as Local Workforce Investment Areas.

HPO Additions and Eliminations

All additions to the statewide and regional HPO lists are subject to approval by the Economic Development Cabinet. The mechanisms through which occupations may be added to an HPO list, as described below, will differ slightly for the statewide list as compared to regional lists.

Statewide Mechanisms

A panel of industry experts will review the initial HPO list and make recommendations for additions and eliminations based on their knowledge. The rationale for adding or subtracting HPOs can include:

- Significant investment in a sector that will lead to new demand for a skilled workforce or new skill sets that could not be captured by historic data;
- Evidence that appropriate workforce development investment could substantially improve wage or work environment conditions, or promote the development of career advancement and career lattices;
- Targeted statewide economic development and other financial investments;
- Removal of occupations that are not a good investment of commonwealth funds or do not meet economic development and quality of life goals; and
- Research conducted for special reports such as *The Pennsylvania Green Jobs Report and An Analysis of Allied Health Professions in the Commonwealth* that identify new and emerging occupations in a specific field that are in demand or targeted for workforce investments.

Regional Mechanism

In some cases, statewide statistical analysis and projections can miss differences and dynamics in regional and local labor markets. To ensure that the HPO list has appropriate input from regional businesses, the following petition process was put into place (Appendix C).

1. Local Workforce Investment Boards can petition the Economic Development Cabinet through the Department of Labor & Industry to add HPOs to their regional list (using the petition form found in Appendix C) based on one of three justification options described below. Petitions must be submitted within 60 days after the initial HPO list is released. Occupations successfully added via this petitioning process will appear on the local HPO list for five years.

    a) New Job Opportunities: New economic development or business investment in a certain industry is likely to stimulate job growth in occupations that may not be captured by the historical data. At least three businesses must certify that they will have a total number of openings for the occupation being petitioned for each of the next five years that meets or exceeds the regional openings threshold for the Local Workforce Investment Area (Appendix D).

    b) Industry Partnership Need: State-recognized Industry Partnerships, comprised of at least five employers, demonstrate an unmet need for an emerging occupation in their industry sector sufficient to generate openings for each of the next five years equal to or greater than the regional threshold for their Local Workforce Investment Area (Appendix D).

c) Regional Cluster Openings: Regional openings in an occupation exceed the job openings threshold for the Local Workforce Investment Area (Appendix D) and the occupation(s) has/have a demonstrated importance to one or more regionally targeted industry clusters.

2. Local educational institutions (K-12 and higher education) and economic development agencies can petition Local Workforce Investment Boards to propose adding an HPO. The petitioning organization must provide documented evidence that wage threshold and job openings criteria described in the previous section are met.

3. Appeal process*:* In the event that the Local Workforce Investment Board denies a request from a local educational institution or economic development agency, these entities can appeal directly to the Economic Development Cabinet through the Department of Labor & Industry. The appeal must provide documentation of the demand for the occupation as listed above and will be reviewed by committee.

HPO Exceptions

New and Emerging Occupations

As mentioned on page one, the new and emerging occupations identified in Appendix A are not adequately covered under the existing Standard Occupational Classification, or SOC system, and are therefore not easily incorporated into the current HPO process. However, they will all be considered for inclusion on local HPO lists.

Local Workforce Investment Boards can submit a petition to have these occupations added to their local HPO list following the process described above or the Emergency Petition process defined in the next paragraph. In addition to confirming the need for these workers in their area, Local Workforce Investment Boards are also asked to submit any descriptions of job duties from employers and/or training courses from educational institutions, including the assigned Classification of Instructional Programs, or CIP code. This information will be used to ensure that all relevant training programs are appropriately aligned to new and emerging occupations.

As new training programs are implemented and occupations begin to emerge, Pennsylvania will continue to research this information and modify the list as necessary.

Emergency Petition Additions

New dynamics in a labor market may emerge over the course of the year, after the HPO list has been established. If new information or changed circumstances warrant additions, Local Workforce Investment Boards may petition the Workforce Sub-Committee of the Economic Development Cabinet for additions to the list outside of the initial petition period, so long as appropriate documentation and rationale is included.

Customized and On-the-Job Training

Several workforce programs are designed to fund customized or on-the-job training that results in immediate job placement. The HPO list does not preclude programs from continuing to engage in this type of training, subject to their own program guidelines. Most programs will require that the wage floor established above be met for these training activities.

Pre-employment, basic skills and literacy education

The HPO list does not prevent programs that currently provide pre-employment and basic skills training, or literacy and English as a second language education, from continuing to do so. These education and training activities are governed by individual agency or program policy.

Yearly Changes to the HPO Lists

When the HPO list is released each year, some occupations are new additions and others have been eliminated since the previous year. Below is a brief description of how the departments of Labor & Industry and Education are handling these annual fluctuations in the HPO list, by specific funding program.

*Workforce Investment Act Training (*Department of Labor & Industry*)*
Approved training programs under the Workforce Investment Act for the given funding year are based on current local HPO lists and managed by the Bureau of Workforce Development Partnership within the Department of Labor & Industry. An eligible training provider must offer a program aligned to one of the designated HPOs in their area. This connection is established solely via the CIP-SOC crosswalk tool that aligns education and training programs with the occupations that require those skill sets.

If an occupation has been removed from the HPO list since the previous year, the bureau will ensure that all participants still enrolled in the training are grandfathered through until completion, but that no new enrollees will be accepted. Local Workforce Investment Boards can use the initial petition period to help ensure that programs will continue to be eligible for the upcoming year.

Economic Development Stipend Program (Community Colleges)
The focus of Economic Development Stipend funding is alignment of community college credit programs and non-credit courses with HPOs, as well as other occupations of regional importance.

Each year, the 14 community colleges submit a list of credit programs and non-credit workforce development courses to the Department of Education that they believe align with the most current HPO list. The Departments of Education and Labor & Industry work closely to ensure that all credit programs and non-credit courses that should be eligible for funding are identified. In addition, to approve programs and non-credit courses aligned with regionally-significant occupations that are not currently on the HPO list, the Department of Education has incorporated the Regional Workforce Application process. Closely following the HPO process, under the Regional Workforce Application process, applications are submitted by community colleges and reviewed and approved by the Department of Education in consultation with the Department of Labor & Industry.

Using these two avenues, the HPO process or the Regional Workforce Application process, funding is then distributed based on the number of full-time equivalent students each community college has in credit programs and non-credit courses approved under the Economic Development Stipend program.

Bureau of Career and Technical Education
Each July, the Pennsylvania Department of Labor & Industry provides the Bureau of Career and Technical Education with a final version of the HPO lists for the commonwealth and each of its 22 Workforce Investment Areas. An early notification (prior to the release of this final list) is also provided which allows schools the opportunity to work with their Local Workforce Investment Boards, or LWIBs, to gather documentation to petition for other occupations to be considered for the HPO list at the regional level (An example is provided in Box 2).

Box 2 *Agriculture Education*

The Departments of Agriculture, Education and Labor & Industry have worked together to ensure that agricultural career and technical education programs continue to raise the bar and provide our youth with relevant, rigorous programs of learning in this important sector. The agencies share a goal of giving students the knowledge and abilities needed to compete not just today, but for years to come.

Based on extensive reviews of agricultural education in Pennsylvania and industry career opportunities, the Department of Labor & Industry recognized two additional Standard Occupation Classifications (SOC) as HPOs: Farm & Agricultural Managers and Farm & Forestry Worker Supervisors. To ensure that the programs aligned to these SOCs continue to raise the bar on content covered, all completers must earn agricultural industry certifications approved by the Department of Education. This connection to industry standard certifications is part of the assurance we must give students, parents and industry partners that agricultural education programs lead to success in the classroom and in careers. We thank the Pennsylvania Association of Agricultural Educators (PAAE), Pennsylvania's LWIBs and the agriculture industry for their insight and support in conducting background research that was necessary to make this addition to Pennsylvania's HPO Policy Guidance.

Construction	Energy Engineers*
Business and Financial Services	Loss Prevention Specialists
Energy	Energy Auditors*
Energy	Geothermal Installers*
Energy	Mining & Geological Engineering Technicians*
Energy	Renewable Energy Technicians*
Energy	Solar Panel Installers*
Energy	Water Treatment Plant Operators*
Energy	Wind Technicians*
Energy	Weatherization Installers*
Energy	Weatherization Crew Chiefs
Health Care	Anesthesiologist Assistants
Health Care	Cardiac Technicians
Health Care	Critical Care Nurses
Health Care	Interventional Radiological Technologists
Health Care	Nurse Anesthetists
Health Care	Nurse Practitioners
Information and Communication Services	Computer Security Administrators
Information and Communication Services	e-Commerce Professionals
Information and Communication Services	GIS Specialists*
Information and Communication Services	Search Engine Optimizers
Logistics and Transportation	Logistics Analysts*
Logistics and Transportation	RFID Specialists
Logistics and Transportation	Transportation Planners*
Manufacturing	Mechatronics Engineers*
Manufacturing	Robotics Engineers*
Manufacturing	Robotics Technicians*

* = Designated an emerging green occupation in *The Pennsylvania Green Jobs Report, Part I*

STEP ONE: INDUSTRY CLUSTER ANALYSIS: APPENDIX B

To better align workforce spending with the needs of the economy, Pennsylvania's Workforce Development Task Force redefined the targeted industry clusters. Prior to 2008, there were nine industry clusters with eight sub-clusters, today there are 11 clusters and seven sub-clusters. The Task Force included the departments of Labor & Industry, Community and Economic Development, and Education, as well as economists, the Center for Workforce Information & Analysis, and regional workforce and economic development practitioners.

Each of these clusters consists of a group of industries closely linked by common product markets, labor pools, similar technologies, supply chains and/or other economic ties. The clusters, listed below, were chosen based on the potential for growth or their overall importance to the stability of Pennsylvania's economy.

Pennsylvania's Targeted Industry Clusters

1. Advanced Materials and Diversified Manufacturing
    a. Chemicals, Rubber and Plastics
    b. Electronics
    c. Metals and Metal Fabrication
    d. Printing
    e. Vehicle and Vehicle Equipment

2. Agriculture and Food Production

3. Bio-Medical

4. Building and Construction

5. Business and Financial Services
    a. Business Services
    b. Finance and Insurance

6. Education

7. Energy

8. Health Care

9. Information and Communication Services

10. Logistics and Transportation

11. Lumber, Wood and Paper

Regional High Priority Occupation Petition

1. Date of Application: _____ Workforce Investment Area: _____

2. **Occupation** Code (SOC or O*Net): _____

   Occupation Title: _____

   If applicable, list any CIP codes related to this petition: _____

3. Submitting on behalf of:
   - ☐ Workforce Investment Board
   - ☐ Community College (list) _____
   - ☐ Career & Technical Center (list) _____
   - ☐ Other Training & Educational Institution(s) (list) _____

4. Economic conditions and changing employer expectations have, or will have, an impact on many occupations. Please check any of the following that apply to, or are responsible for this petition being submitted.

   ☐ Green Job ☐ New Occupation ☐ Emerging Occupation ☐ Evolving Skills Set

Justifications

New Job Opportunities: New economic development or business investment in a certain industry is likely to stimulate job growth in occupations that may not be captured by the historical data. List a minimum of three businesses that will have a total number of job openings (**specific to the SOC petitioned**) that meets or exceeds your regional openings threshold **for each of the next five years**. Attach letters of support from each of the employers documenting their business opportunities. Use additional paper as needed.

Business 1:	Number of Projected Openings:
Business 2:	Number of Projected Openings:
Business 3:	Number of Projected Openings:

Industry Partnership Need: PA WIB-recognized Industry Partnership that demonstrates an unmet need for an emerging occupation in their industry sector sufficient to generate openings equal to or greater than the regional threshold **for each of the next five years**. Briefly explain the unmet need. Include a summary of the business opportunities expected/planned that support this need. Use additional paper as needed.

Regional Cluster Openings: Regional openings in an occupation exceed the job openings threshold for the local Workforce Investment Area (LWIA) and the occupations have a demonstrated importance to one or more regional industry clusters. Briefly explain the occupation's importance to the regional industry clusters, including the cluster name. Use additional paper as needed.

Workforce Investment Board Authorization

By submitting this application, I affirm that the facts set forth in it are true and complete

Name (printed)	
Signature	

Check here if this petition is an appeal ☐

This application can be e-mailed to workforceinfo@state.pa.us with the subject *High Priority Occupations* or mailed to the Center for Workforce Information & Analysis, Attn: High Priority Occupations, 651 Boas St., Room 220, Harrisburg, PA 17121

LWIA OPENINGS THRESHOLDS: APPENDIX D

75 openings	*50 openings*	*35 openings*
Montgomery	Berks	North Central
Philadelphia	Bucks	Northern Tier
South Central	Central	Pocono Counties
Three Rivers	Chester	Southern Alleghenies
	Delaware	Southwest Corner
	Lackawanna	Tri-County
	Lancaster	West Central
	Lehigh Valley	
	Luzerne-Schuylkill	
	Northwest	
	Westmoreland-Fayette	