



EXAMPLES OF RESEARCH & INFORMATION PRODUCTS OF THE PENN STATE WORKFORCE EDUCATION & DEVELOPMENT INITIATIVE

Contacts:

Rose M. Baker, rmb194@psu.edu, 814.865.9919

Mike Lawrence, mdl15@psu.edu, 814.865.6696

David L. Passmore, dlp@psu.edu, 814.863.2583

The Penn State Workforce Education & Development (WED) Initiative is a partnership between Penn State's College of Education and Penn State Outreach. The mission of the Penn State 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. The memorandum of agreement that charters the WED Initiative is linked at <http://WEDI-MOU.notlong.com>.

A statement of the capabilities, data, and key personnel of the WED Initiative is available as an Adobe PDF file at <http://WDICapabilities.notlong.com>. Provided in another document at <http://WEDITools.notlong.com> is a summary of the data and analysis tools available through the WED Initiative. The economic analysis, modeling, & forecasting activities of the Initiative through 2005 are documented at <http://WEDIAAnalysis2005.notlong.com>. Most of the recent work of the WED Initiative is chronicled at the web site of the Institute for Research in Training and Development at <http://irted.ed.psu.edu>. Provided in the remainder of this document are examples of some recent research and information products of the WED Initiative.

The Economic & Workforce Brief Series

The *Economic and Workforce Development Brief* is a quick response, one-page report from Penn State's WED Initiative about the economic impact of a change in the number of jobs in an industry in a Pennsylvania county or group of counties. Job numbers could change because of a plant opening, due to a plant closing, or as a result of outsourcing, firm expansion, or natural disaster (e.g., a flood, tornado, or fire).

Maybe the job change is in process. Perhaps it might happen in the future. Whatever the timing, Penn State's *Economic and Workforce Brief* offers a way to capture the "big picture" about how regional employment changes affect total regional jobs, worker compensation, and taxes. A description of the *Brief* series, links to Adobe PDF files containing all *Brief* reports released, and a form for ordering a new *Brief* report for any region in Pennsylvania, New Jersey, Delaware, Maryland, and Indiana are provided at <http://PSUBrief.notlong.com>. Currently, *Brief* reports are produced and distributed without charge.





To provide a flavor of the nature of the *Economic & Workforce Brief* series, one *Brief* (available at <http://ChocolatePA.notlong.com>), *Role of Confectionery Manufacturing in the Economy of Dauphin County, Pennsylvania*, was motivated by announcement of plans for workforce reductions by Hershey Foods. The *Brief* notes that other industries in Dauphin County employ an additional 108 workers due to the need to supply the confectionery manufacturing industry. Spending of income earned by confectionery manufacturing employees and by workers in Dauphin County industries that supply confectionery manufacturing on such items as housing, food, health care, and retail goods and services creates an additional 47 jobs in Dauphin County. In short, every 100 jobs in Dauphin County's confectionery manufacturing industry create 255 total jobs county-wide. The "ripple effect" of 100 confectionery manufacturing jobs on employee compensation and property taxes in the region



also is documented in the *Brief*.

Economic & Workforce Information & Analysis

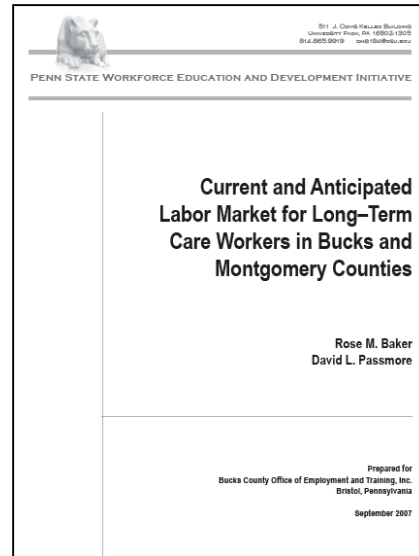
The Penn State WED Initiative leases a highly flexible information and analysis system from Economic Modeling Specialists, Inc. (see <http://www.economicmodeling.com/>) that provides economic and workforce data to the zip code level in Pennsylvania.

One report from the WED Initiative that used this system was *Current and Anticipated Labor Market for Long-Term Care Workers in Bucks and Montgomery Counties* (see <http://LTCMarket.notlong.com>). The report found that the long-term care (LTC) job market will change dramatically in Bucks and Montgomery counties:

- Counties will contain more and a greater concentration of older residents in 2015 and 2007.
- Jobs and earnings in LTC are dependent on spending on services and spending of residents' outside income.
- Counties contain a concentration of jobs in community care facilities for the elderly.
- The LTC industry purchases locally real estate, wholesale goods, power supplies, services to buildings and dwelling, and construction. The LTC industry imports food services, employment services, plastics plumbing fixtures, and legal services.
- Every 100 LTC jobs in the counties creates 140 total jobs. Every dollar earned by an LTC worker creates \$1.48 in earnings for workers in the counties.
- Community care facilities for the elderly and residential mental and substance abuse care are competitive. Residential mental retardation and similar facilities and nursing care facilities lose jobs because they are not competitive.
- Between 2007 and 2015, the number of LTC jobs will increase, especially in community care facilities for the elderly. However, residential mental retardation facilities will lose jobs. Employment of home health aides, orderlies, and attendants will increase. Many LTC occupations require on-the-job training; many do not pay a living wage.
- LTC workers use a wide and varied range of knowledge, skills, and abilities in their jobs.



- Workers in a variety of occupations possess knowledge, skills, and abilities that are compatible with LTC occupations.
- Some institutions in the region provide educational programs leading to entry in LTC occupations, although entry into many occupations involves only on-the-job training.
- LTC employers and employees believe that: (a) managers need communications, performance management, leadership skills, and time management training; (b) direct care workers need IT, communications, and clinical skills training; and (c) all workers require stress management, marketing, cultural expectations, and personal safety training.
- Future trends in provider taxes, intergovernmental transfers, and medicare program funding, disability prevalence, use of assistive devices, socioeconomic status, and use of informal caregivers create uncertainty as well as opportunity in the LTC job market.



This report was supported through a contract between the Bucks County Office of Employment and Training, Inc., Bristol, Pennsylvania

Economic & Workforce Forecasting & Policy Modeling

The Penn State WED Initiative uses a Pennsylvania REMI Policy Insight Model for economic and workforce forecasting and policy modeling. The REMI Model is a structural economic/demographic/employment model that the Initiative lease for projects from Regional Economic Models, Inc, from Amherst, Massachusetts (see <http://www.remi.com>). The Model is organized around the North American Industry Classification System (NAICS) coding system.

One example of use of the REMI Policy Insight Model is in a report, *Forecast Of Employment And Job Openings In Pennsylvania Plastics Manufacturing, 2004–2017* (see <http://paplasticsjobs.notlong.com>). In brief, the report found that, between 2004 and 2017, Pennsylvania is forecast to lose employment and experience declining numbers of job openings in occupations in its plastics manufacturing industry as a result of manufacturing productivity increases and in spite of enjoying advantages relative to the entire US in delivered prices and in costs of production (except fuel). The industry is driven by net exports and by business-to-business sales. Disruptions of the export position of Pennsylvania plastics manufacturing or in increasing competition in Pennsylvania markets for Pennsylvania-manufactured plastics products would further degrade industry and occupational employment in the Pennsylvania plastics manufacturing industry.

