
A Technical Community College for Northwest Pennsylvania

Project Summary

This document provides a description of a technical community college as proposed by the school districts of Northwest Pennsylvania. The school districts have presented a framework for the community college in a concept paper, *A Technical Community College for Northwest Pennsylvania*.¹ This project summary provides additional details for the operation of the technical community college. As should be noted, any official local plan for a commonwealth community college in Northwest Pennsylvania will fully describe the operational features of the college, as called for in state law.

Northwest Pennsylvania is in a unique and promising position—in terms of conducting workforce development and providing career and technical education. In communities across the country, workforce development and technical education are under-connected activities. Secondary and postsecondary technical education systems, seriously entrenched, have difficulty aligning with current and anticipated workforce development needs. Training programs in these institutions, by design and operation, are difficult to reconfigure to meet workforce needs. Financial constraints and governmental regulations challenge these institutions to keep abreast of workforce changes. Compounding the situation are the different missions these systems tend to have, based on their clientele. It is exceptional to find a technical education system that, through its mission, serves both youth and adults.

In the absence of a community college and the willingness of the school districts to sponsor such through their career and technical education programs, Northwest Pennsylvania is poised to possess workforce development and technical education systems that are in step! The college will develop postsecondary technical education programs that directly address high priority occupations. The design of the educational system will serve the needs of youth and adults—simultaneously. Our ability to design and provide such a system would address all of the issues that legislators and economic and educational leaders are calling for in workforce and economic development.

Below will be found descriptions for the rationale for a regional technical community college, the types of education (both technical and academic) the college intends to deliver, the potential students to be served, the locations or facilities the college will operate at, and a schedule and calendar the college will follow. This document intends to provide insight and invoke dialogue among the stakeholders in Northwest Pennsylvania.

1. Rationale

There are two primary reasons that drive the need for a technical community college in Northwest Pennsylvania. First, by virtue of their design and operation, community colleges provide an educational alternative for many residents. The *affordable tuition* associated with a community college is a distinct advantage to residents when compared to the tuitions of proprietary or baccalaureate institutions. The underwriting of the college's operational costs by the local sponsor (school districts) and the State make possible the affordability. Community colleges are meant to be a local educational resource for residents. Consequently, there is a *convenience* factor associated with attending a community college. The college is near the places where students live and work, enabling them to maintain their personal lives while pursuing their educational objectives.

The second primary rationale for a technical community college is the role it will play in workforce and economic development for the region. Business and industry leaders in the region are concerned with their ability to locate and attract qualified applicants for their technical positions. While the region has a sufficient technical education system based in the high schools, the *demand occupations* sought by employers call for more than a high school technical education. Many of the jobs in the region's workforce require advanced technical skills, attainable only through postsecondary or continuing education.

The absence of a public, postsecondary, technical education institution in Northwest Pennsylvania places the region's employers at a competitive disadvantage to other regions in the State, to other states in the country and to other countries around the globe. Without a sufficiently trained technical workforce, the business community is unable to maintain or expand its capability and productivity. Similarly, the absence of a sufficient technically trained workforce negates the ability of the region to attract new businesses. Early in the location search process, prospective companies assess the quantity and quality of a region's workforce and educational offerings. The prevalence of community colleges in other communities gives them a 'leg up' on Northwest Pennsylvania.

2. *Types of Technical Education*

Career and technical education will be available at the secondary and postsecondary levels. As with any community college, different levels of education and training would be available. The college would offer training on moderate- to longer-term bases, as well as the associate degree programs. As employers and students often seek specific and limited training, the college can also fulfill the need for customized training through non-credit courses.

Programming available to residents would align with industry sectors in the region, particularly high priority occupations and those occupations where employer demand exceeds employee availability. The Pennsylvania Department of Labor and Industry has identified demand occupations in various industry clusters for the State and NWPA (see Table 1). The intent of this proposal is to design and deliver educational programs to fulfill the demand for these occupations. A list of industry sectors with affiliated occupations and educational requirements accompanies this summary.

Today's workforce and the workforce of the future require the proper blend of technical, academic and employability skills. The intent of this proposed college is to offer the academic and employability skills necessary to complement the technical skills. In fact, as employers will attest, the employability and academic skills will dominate the programming.

3. *Potential Students*

The training and education will be available to youth and adults in Clarion, Crawford, Erie, Forest, Mercer, Venango and Warren counties. As a purposely-coordinated technical education system, classes and programming will serve the needs of high school students, out-of-school youth, unemployed adults and incumbent workers. It should be noted, as a commonwealth community college, other Pennsylvania residents would be eligible to attend the college, but at a higher tuition rate. The case would be the same for out-of-state students should they elect to enroll in the college.

Various measures quantify the number of potential students. For one, enrollments at the eight career and technical education centers (vocational schools) in the region totaled 4,336 in 2004-2005.² With the intended design and delivery of the programming, the number of high school students could

increase if part of the high school programming is eligible for credit toward the community college program.

A review of 2000 Census³ data for Northwest Pennsylvania indicates there are 63,038 residents between the ages of 18 and 24. Of this population, 18,935 are high school graduates and 26,947 have some college or an associate's degree. Similarly, for the population 25 years of age and older, there are 421,064 residents. Of that number, 190,183 are high school graduates, 24,077 residents have some college but less than one year, and another 40,130 residents have one or more years of college but no degree. Excluding the high school students, the total available market in the seven-county region is 300,272.

Participation trends at community colleges vary across the country. In 1996-1997, Pennsylvania community colleges served 2.1 percent of the population. In Maryland, they served 4 percent, in Michigan 4.6 percent, New York 2.9 percent, Virginia 4.1 percent, Ohio 3 percent, North Carolina 4.2 percent and Florida 5.2 percent. The highest percentage served in the country was Wyoming with 8.9 percent.⁴ Even at Pennsylvania's rate of 2.1 percent, with its under-developed community college system, the potential student market for the region is 6,305. At a 3 percent rate, the potential market is slightly over 9,000 students.

4. *Locations of College*

The technical community college is designed to operate as a branch campus system. The college would provide technical education and training at the eight existing career and technical education centers operated by the 42 local school districts. If needed, the facilities within the school districts would also be available to provide the academic classes associated with the college. Other resources within the districts like libraries and computer laboratories could also be accessible.

There is the distinct possibility that new facilities may be necessary to meet workforce development needs. Facilities to meet high demand occupations like health care are probably under-sourced in current facilities. With emerging technologies, like nanotechnology and biotechnology, new facilities may also be necessary. As the community college evolves, it will be necessary to consider capital improvements and additions.

5. *Schedule*

The programs and services of the technical community college would be available on a year-round basis. Classes and programs would be available at times that best meet the needs of the students including mornings, afternoons, evenings and weekends. By design, youth and adults could participate on a schedule that meets their needs. School districts could permit high school students to schedule classes in the morning, afternoon or evening. Adults could do the same.

Table 1. Demand Occupations for Northwest Pennsylvania and the Commonwealth⁵

Notations:

Occupation Title Only—Statewide Demand Occupation
Occupation Title with (1)—Northwest PA Demand Occupation
Occupation Title with (2)—Statewide & Northwest PA Demand Occupation

Advanced Materials and Diversified Manufacturing

Chemical Equipment Oprs & Tenders (2)	Moderate-term OJT
CNC Machine Tool Operators, Metal & Plastic (2)	Long-term training
Industrial Engineering Technicians	Associate's degree
Industrial Machinery Mechanics	Long-term training
Machinists (1)	Long-term training
Maintenance & Repair Workers, General (2)	Long-term training
Maintenance Workers, Machinery	Long-term training
Mechanical Drafters	Postsecondary vocational training
Molding & Casting Machine Oprs, Metal & Plastic (2)	Moderate-term OJT
Numerical Tool & Process Control Programmers	Long-term training
Sales Representatives	Moderate-term OJT
Welders, Cutters, Solderers & Brazers (2)	Postsecondary vocational training

Agriculture and Food Production

Veterinary Technologists & Technicians (2)	Associate's degree
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Bio-Medical

Biological Technicians (2)	Associate's degree
Medical Appliance Technicians (2)	Long-term training

Building and Construction

Architectural & Civil Drafters (2)	Postsecondary vocational training
Brickmasons & Blockmasons (2)	Long-term training
Carpenters (2)	Long-term training
Cement Masons & Concrete Finishers (2)	Long-term training
Electricians (2)	Long-term training
Heating, A/C & Refrigeration Mechanics & Installers (2)	Long-term training
Operating Engineers (2)	Moderate-term OJT
Plumbers, Pipefitters & Steamfitters (2)	Long-term training
Sheet Metal Workers (2)	Moderate-term OJT
Stonemasons (2)	Long-term training

Business and Financial Services

Advertising Sales Agents (1)	Moderate-term OJT
Bookkeeping, Accounting & Auditing Clerks (2)	Moderate-term OJT
Claims Adjusters, Examiners & Investigators (2)	Long-term training
Customer Service Representatives (2)	Moderate-term OJT
Executive Secretaries & Administrative Assistants (2)	Moderate-term OJT
Legal Secretaries (2)	Postsecondary vocational training
Paralegals & Legal Assistants (2)	Associate's degree
Sales Representatives (1)	Moderate-term OJT

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Sales Representatives, Technical & Scientific (2)
Secretaries (2)
Travel Agents (2)

Moderate-term OJT
Moderate-term OJT
Postsecondary vocational training

Education

Teacher Assistants (1)

Associate's degree

Health Care

Cardiovascular Technologists & Technicians (2)
Dental Assistants (2)
Dental Hygienists (2)
Dental Laboratory Technicians (2)
Emergency Medical Technicians & Paramedics (2)
Licensed Practical & Licensed Vocational Nurses (2)
Medical & Clinical Laboratory Technicians (2)
Medical Assistants (2)
Medical Records & Health Information Technicians (2)
Medical Secretaries (2)
Medical Transcriptionists (2)
Pharmacy Technicians (2)
Physical Therapist (2)
Radiologic Technologists & Technicians (2)
Registered Nurses (2)
Respiratory Therapists (2)
Social & Human Service Assistants (2)
Surgical Technologists (2)

Associate's degree
Moderate-term OJT
Associate's degree
Long-term training
Postsecondary vocational training
Postsecondary vocational training
Associate's degree
Moderate-term OJT
Associate's degree
Postsecondary vocational training
Postsecondary vocational training
Moderate-term OJT
Associate's degree
Associate's degree
Associate's degree
Associate's degree
Moderate-term OJT
Postsecondary vocational training

Information and Communication

Computer Support Specialists (2)
Telecommunications Line Installers & Repairers (2)

Associate's degree
Long-term training

Logistics and Transportation

Bus & Truck Mechanics & Diesel Engine Specialists (2)

Postsecondary vocational training

Lumber, Wood and Paper

Cabinetmakers & Bench Carpenters (2)
Furniture Finishers (2)
Woodworking Machine Oprs/Tenders (2)

Long-term training
Long-term training
Moderate-term OJT

Printing

Desktop Publishers (2)
Job Printers (2)
Prepress Technicians & Workers (2)
Printing Machine Operators (2)

Postsecondary vocational training
Long-term training
Long-term training
Moderate-term OJT

Works Cited

¹ *A Technical Community College for Northwest Pennsylvania*. Unpublished manuscript. Erie County Technical School, Erie, July 2006. <<http://www.ects.org/Public%20Information/School%20Districts%20Packet.pdf>>.

² Pennsylvania Department of Education, Bureau of Career and Technical Education. (July 2006). *Career and Technical Education, Secondary Programs 2004-2005*. Harrisburg, PA. <<http://www.pde.state.pa.us/k12statistics/lib/k12statistics/0405CTESecProgEntRev2.pdf>>.

³ U.S. Department of Commerce, Economics and Statistics Administration, U.S. Census Bureau. (April 2006). *2000 Census of Population and Housing, Summary 3*. Washington, DC.

⁴ Kent A. Phillippe, ed. and Madeline Patton, *National Profile of Community Colleges: Trends and Statistics*; (Washington, DC: American Association of Community Colleges, 1999), 18-19.

⁵ Pennsylvania Department of Labor and Industry. *2006 Regional High Priority Occupations, Northwest Workforce Investment Area*. Harrisburg, PA. <<http://www.paworkforce.state.pa.us/jobseekers/cwp/view.asp?a=464&q=156621>>.