

June 2009

**ASSESSMENT OF THE POTENTIAL NEED FOR A PROJECT
LABOR AGREEMENT COVERING THE SCI BENNER TOWNSHIP
PRISON IN CENTRE COUNTY, PA**

**PREPARED FOR
The Pennsylvania Department of General Services
Project No. D.G.S. 571-31**

**By
Stephen Herzenberg and Mark Price
Keystone Research Center
412 N. Third St.
Harrisburg, PA. 17101
717-255-7181
www.keystoneresearch.org**

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EXECUTIVE SUMMARY

This report assesses the appropriateness of a Project Labor Agreement ("PLA") for the new SCI Benner Township Prison. It finds that a PLA could help ensure the project is completed in a timely and cost effective manner.

- In Pennsylvania, public-sector PLAs have been found to be legally valid and not in violation of the Pennsylvania competitive bid statutes.
- A PLA may not be necessary to access skilled labor if the current downturn deepens and persists. A PLA, however, could help ensure a sufficient pool of skilled labor if the economy rebounds in 2010 and 2011 led in part by federal government investments in non-residential construction projects with skilled labor requirements that overlap those of the SCI Benner Township Prison project.
- If the economic slowdown deepens and persists, a PLA agreement could facilitate access to sufficient numbers of skilled trades to accelerate completion of the project. Accelerating the project (so that more of it is conducted near the trough of the recession) would have the additional benefit to the commonwealth and to participating contractors and workers of helping to counter the recession.
- A PLA can help ensure ongoing investment in high-quality apprenticeship training in a slow economy. This investment could also be used to help strengthen the industry pipeline to qualified members of diverse demographic groups. This would help the industry deal with a long-term skill labor shortage stemming from an aging workforce and declining interest among the industry's traditional demographic groups in careers in construction.
- In this region, labor disruptions on major projects that increase costs and jeopardize timely completion are uncommon. Nonetheless, a PLA would provide an additional guarantee of labor harmony and more insurance against disruptions. Because the Pennsylvania Department of Correction prison system is currently over capacity the commonwealth has an overriding interest in avoiding delays.
- A PLA would help cut costs through standardization of contract terms, work rules and work practices, and by promoting collaboration across contractor and trade lines.
- African-Americans make up only a small part of the population and construction workforce in central Pennsylvania. Nonetheless, since this project is likely to draw in contractors from throughout Pennsylvania, including Philadelphia, a PLA could expand opportunities for African-Americans. In the state as a whole, African-Americans make up to more than twice as much of the unionized blue-collar workforce in the construction industry as the non-union workforce.

A. Introduction

The report considers whether a Project Labor Agreement would contribute to achieving the following objectives of importance to the Department of General Services on the construction of the SCI Benner Township Prison in Benner Township, Centre County, PA.

- Ensure a sufficient pool of skilled labor necessary to complete the project in a safe, efficient and timely manner.
- Maintain an expedited and uninterrupted construction schedule to ensure completion and occupancy on or before the construction deadline. Provide for economic savings through standardization of contract terms, work rules and practices.

- Provide that all phases of construction be open to both union and non-union contractors.
- Ensure labor peace and harmony through a no-strike, no-lock-out commitment by all involved personnel/entities in order to meet the construction deadline and to preserve the affordability of the project for the Commonwealth.

B. Project Labor Agreements: History and Experience in Pennsylvania and Beyond

Project Labor Agreements are pre-hire, collective bargaining agreements which set the terms and conditions of employment on a construction project. PLAs are typically used on large projects of a long duration in both the private and public sector. While there have been legal challenges to the use of PLAs in the public sector the courts have generally upheld their use on projects where factors such as the size and complexity of the project, the nature of the local labor environment and total costs savings that could be generated by a PLA agreement were used to evaluate whether to use a PLA. In Pennsylvania, the Luzerne and Berks County Convention center PLAs were found to be valid and not in violation of the Pennsylvania competitive bid statute. Similarly, the Forest County State Prison Construction PLA (a Department of General Services project) was found by the courts to be valid.

The Department of General Services (DGS) most recently used a PLA on the Philadelphia convention center project. As of May of this year, the project was on schedule and on budget. While there have been a few informational pickets, there has been no disruption on the project due to labor strife.

Similar to the SCI Benner Township Prison project, the Forest County PLA was for a prison being built in a rural region. The Forest County project ran over budget and was not completed on time. One industry source suggested that these problems resulted from the PLA. The source most familiar with the project, however, suggested that the problems on the project stemmed from other issues and the PLA did not make or break the project. A more important problem on the Forest County prison project was that there were 30 or more prime contractors, which created major coordination problems. There were also challenges on the project with the construction manager, the architect, and the site—as well as with some of the individual contractors.

Other industry sources pointed to problems on two large-scale construction projects in Centre County—the Beaver County Stadium and the Bryce Jordan Center at Pennsylvania State University—which these sources felt could have been averted if those projects had a PLA. The problems reported on these projects included a lack of skilled labor, including iron workers, project delays, and rework. These sources said a PLA would have provided access to additional skilled labor, as well as drug testing and background tests that help ensure workforce quality.

Interviews indicate that unionized and non-union contractors bid for work on many projects governed by PLAs in Pennsylvania and neighboring New Jersey. On a substantial number of projects both non-union and union contractors win work on PLA projects.

There are situations when a PLA may not be necessary for project success. For example, in 1996, a New Jersey municipality retained James O'Neill to perform an analysis and report on possible use of a PLA for a project involving new construction and rehabilitation of several schools. Based upon the project size, complexity, labor pool, and lack of time constraints together

with a reading of the latest New Jersey Supreme Court decision regarding PLAs, O'Neill recommended that a PLA not be utilized on that project.

C. Evidence on the Impact of PLAs on Project Outcomes

To date there has been no systematic effort to collect data on the characteristics of public and private sector PLAs in Pennsylvania and their impact on project outcomes like cost and on-time delivery. We must therefore rely upon research conducted in other jurisdictions to evaluate competing claims on the effectiveness of PLAs.

In October of 2001, a comprehensive survey of PLAs was produced for the California legislature.¹ Based on a review of 82 PLAs, 59 of them private sector agreements, the study found (p. 59) that "Owners increasingly want PLAs in order to meet their speed-to-market demands and to ensure against delays that can be caused by worker shortages, work stoppages, or collective bargaining negotiations." The study also concluded that, "from a contractor's point of view, a PLA can provide the stable, uniform labor-management foundation on which to build methodical planning and scheduling on a project." It added that "Contractors that use PLAs maintain that on complex, long-term projects, a PLA fosters positive communication channels to address worker concerns, grievances or disputes and resolve them quickly, thereby creating continuity and stability of the work force at the job site." Ken Hedman, Principal Vice President, Labor Relations, Bechtel Construction Company, maintains that, in his experience, he has "never seen anything to indicate that a PLA was the cause of increased costs or delays."

In interviews with construction industry participants in Pennsylvania, two opposed views of the likely impact on project costs were articulated. One perspective held that a PLA would reduce the number of bidders on a project because fewer non-union firms would bid and this reduction would drive up project costs—potentially in the range of 7-20%. A second perspective suggested that a PLA would increase the number of responsible bidders because the PLA eliminates concerns about low bids from contractors that cut costs by circumventing state laws (e.g., prevailing wage and benefit laws) and that this increase could drive down costs.

One recent statistical study estimated the impact of PLAs on the number of bidders—and thus potentially on cost—in California school districts.² The study capitalized on a natural experiment that existed because neighboring school districts in California had a PLA in some cases and did not have a PLA in the other. Controlling also for other factors (such as the business cycle) that might influence the number of bidders, Belman, Bodah, and Phillips (BBP) found no statistical relationship between the presence of a PLA and the number of bidders in their sample of school construction projects.

¹ Kimberly Johnston-Dodds, *Constructing California: A Review of Project Labor Agreements* (Sacramento: California Research Bureau, California State Library, October 2001), CRB 01-010.

² Dale Belman, Matthew M. Bodah, and Peter Phillips, *Project Labor Agreements* (Bethesda: MD, ELECTRI International, January 2007), Chapter 1. See also Dale Belman, Kenneth A. Frank, Richard Kelso, Russell Ormiston, and William Schriver, "The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts," *Industrial Relations*, forthcoming; and Dale Belman, Russell Ormiston, William Schriver, and Richard Kelso, "The Effect of Project Labor Agreements on the Cost of School Construction," Sloan Industry Studies Working Papers, 2005 Number WP-2005-01; online at <http://www.industry.sloan.org/industrystudies/workingpapers/index.php>.

Sources interviewed for this feasibility study suggest that ensuring a sufficient number of bidders is not a major issue now compared to when the construction market was stronger. In the last four or five months, companies are bidding on public work that have not done so before and that in some cases had vowed not to bid for state work.

There is a larger body of research on the effects of PLAs but much of this research is plagued by a lack of adequate data and poor statistical modeling.³ A general challenge for researchers is the difficulty of identifying a sample of projects covered by a PLA and a "comparable" control group. Several studies by the Beacon Hill Institute (BHI) at Suffolk University in Boston, for example, only control for size of project, whether the project was new construction or a renovation, the number of stories, and whether the project was an elementary or high school. Without adequate controls the authors attribute cost differences to PLAs that are really the result of missing controls such as whether project was in an urban area. Without controls for whether a project is urban, if PLAs are more commonly used in urban areas and costs are usually higher in urban areas, statistical analysis will attribute what is really an urban effect to using a PLA. BBP replicated BHI's work with a study of 108 school construction projects in New England but include 30 controls. They find no relationship between the presence of a PLA and construction costs.⁴

D. The Project: SCI Benner Township Prison

The project for which a PLA is under consideration consists of a new 2,000 bed prison in Benner Township, Centre County. Although the new prison is being built on the grounds of the existing SCI Rockview Prison the construction site will be separate from the existing prison. The project will also include the construction of a transportation hub for prisoners being moved across the state.

The project manager estimates that the cost of construction will range from \$178 to \$190 million and has a legislative maximum cost of \$200 million. The project will take two to three years to complete with a projected opening in the fall of 2011 at the earliest, but possibly in 2012. The project manager estimates the project will require 1.1 million person hours to complete (Table 1). Approximately half of those person hours will be required for Mechanical, Plumbing, Electrical, and Utility work.

The project is design-build with a single prime contractor, and will be covered by Pennsylvania's prevailing wage statute.

The SCI Benner Township is one of several new prisons the Commonwealth plans to build over the next few years. As of the end of 2008 the existing prison system was already 8% overcapacity and the Commonwealth expects the prison population to grow another 21% by 2012. The timely completion of the SCI Benner Township Prison project is critical to meeting the state's prison capacity needs.

³ Belman, Bodah, and Phillips, *Project Labor Agreements*; Belman et. al., "The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts," and Belman, et. al., "The Effect of Project Labor Agreements on the Cost of School Construction."

⁴ For similar results, see Belman et al, "The Effect of Project Labor Agreements on the Cost of School Construction in Massachusetts," and Belman, et al., "The Effect of Project Labor Agreements on the Cost of School Construction."

Table 1.	
Estimated Total Hours by Type of Work on SCI Benner Township Prison	
Description of Work	Total hours
Sitework	99,532
Pillings	-
Landscaping	3,624
Site Utilities	78,292
Concrete Work	49,707
Structural Precast Concrete	67,953
Masonry	63,117
Structural Steel/Metal Deck	26,990
Miscellaneous Metals	17,184
Moisture Protection	39,288
Doors, Frames & Hardware	9,935
Windows & Curtainwall	8,485
General Trades	30,895
Ceramic Tile	983
Flooring	1,591
Painting & Wall Covering	11,190
Specialties	10,649
Kitchen Equipment	6,774
Equipment	64,588
Mechanical-Building	239,998
Plumbing-Building	80,074
Fire Protection-Building	29,138
Electrical-Building	160,532
Total	1,100,518
Source: Gilbane Construction Company	

E. Analysis of Local Construction Industry and Labor Environment

An analysis of the current area labor market and labor environment has been undertaken. In addition to government labor market data, available via the internet, informants included industry experts.

The US economy as of the April 2009 is in the middle of the worst recession since the Great Depression. The epicenter of this downturn was the residential housing market which has shed a million jobs since its peak in February 2006. Non-residential construction employment continued to grow in 2006 and 2007 before peaking in January 2008. Since then non-residential construction employment has fallen by half a million jobs.

One factor that spread the economic contraction beyond the residential housing market where it began was a severe credit shortage.⁵ The credit crunch nearly led to the collapse of world financial markets in the 4th quarter of 2008. Combined with the effects of the on-going recession, the credit crunch also constrained access to credit for private non-residential building projects, leading to reports of delays in project starts across the country.⁶

Between the first quarter of 2007 and the first quarter of 2009 Pennsylvania shed 18,433 construction jobs, a decline of 7% (Table 2), versus 14% in the same period nationally. Analysis of another data source—the Quarterly Census of Employment and Wages (QCEW)—which is only available through the third quarter of 2008 indicates that most of the employment loss in the Commonwealth's construction labor market was concentrated in residential construction. Interviews with industry participants indicate that non-residential employment in Pennsylvania has declined since the third quarter of last year.

Drilling down to sub-state construction employment data, two issues must be considered: from what geographical area will this project draw; and, second, what data are available for the relevant sub-state region. Interviews indicate that specialized contractors for projects of this scale in Centre County regularly come from as far away as Philadelphia and Pittsburgh—suggesting that statewide data can be considered. In terms of the availability of data, the most up-to-date employment source is not available at all for the four Metropolitan areas nearest to Benner Township—State College (Centre County), Altoona, Johnstown and Williamsport. The closest sub state region with construction employment data is the Harrisburg-Carlisle metropolitan area. In this region employment in construction (plus natural resources, and mining⁷) shows that a fall of 1,233 (8%) jobs since the first quarter of 2007—virtually identical to the statewide trend.

Somewhat older data from the QCEW—again through the third quarter of 2008—indicate that overall construction employment in a 29-county region⁸ that surrounds Centre County actually *increased* by 5,867 jobs (12%) since the first quarter of 2007. Interviews indicate that construction activity has contracted less in the region than in other parts of the state but it is unlikely that construction has remained as strong since the third quarter of last year.

At this time it is unclear if the fall off in construction demand will continue through the end of this year and next, or if new construction spending funded by the American Reinvestment and Recovery Act (ARRA) will lead to a retightening of labor demand. (The White House currently projects economic growth at 3% next calendar year.) One way to evaluate the potential for a rebound or for further erosion of the construction market or is to compare the drop off in non-residential construction output with the total annual spending on construction due to the ARRA. While construction output has fallen since its March 2006 peak by \$236 billion, most of this drop off has been in residential construction. *Nonresidential construction* output peaked in September 2008 and has declined by \$48 billion since then.

⁵ A credit shortage occurred when nervous investors withdrew funds from financial institutions which they feared had significant proportions of bad debt, for example in the form of securities backed by subprime mortgages. Financial institutions, in turn, had less money available to lend for business, consumer, or public investment and consumption.

⁶ "Private-Buildings Sector Reels As Projects Are Postponed," *Engineering News-Record*, March 23, 2009.

⁷ Employment in the construction industry typically accounts for 90% of the employment in the aggregate of employment in construction, natural resources, and mining in Pennsylvania.

⁸ These twenty-nine counties include - Adams, Bedford, Blair, Cambria, Cameron, Centre, Clearfield, Clinton, Columbia, Cumberland, Dauphin, Elk, Franklin, Fulton, Huntingdon, Jefferson, Juniata, Lebanon, Lycoming, McKean, Mifflin, Montour, Northumberland, Perry, Potter, Snyder, Somerset, Union, and York.

How do these declines compare with ARRA construction spending? According to an analysis of stimulus spending by the National Network of Sector Partners (NNSP) (www.insightcced.org/uploads/nnspr/Recovery%20Act%20by%20Sector.xls), the national economic stimulus will result in \$133.7 billion in construction spending over two years including

- \$27.5 billion in highway infrastructure investment to states
- \$22 billion for qualified school construction bonds.
- \$25 billion for Recovery Zone economic development bonds
- \$9.3 billion for rail transportation
- \$8.4 billion to states or urbanized areas for transit capital improvements
- \$7.2 billion for broadband
- \$10 billion for Housing and Urban Development including \$4 billion for public housing capital fund, \$2.25 billion for tax credits for affordable housing, \$2 billion for neighborhood stabilization, and \$1 billion for community development block grant
- \$6.4 billion for military and DOD construction
- \$4.6 billion for Army Corps of Engineers
- \$4 billion for public housing capital fund

This \$133.7 billion over two years amounts to \$67 billion per year, somewhat more than the \$48 billion drop off from the peak in non-residential construction output. Keeping in mind that the Pennsylvania construction industry has fallen off less drastically than the national one, it seems likely that the overall non-residential construction market—barring a further substantial deepening of the economic recession—may return to conditions similar to 2006 and 2007 by 2010.

The discussion above suggests that the SCI Benner Township project could face a substantially tighter labor market a year from now than it faces today. Even today, according to industry sources, it remains difficult to access sufficient electrical and mechanical trades, particularly on public projects. Roughly half of the 1.1 million person hours required to complete the SCI Benner Township Prison will be in these trades. Moreover, some local excavating companies in the project area are reportedly winning the bids for ARRA road work from PennDOT and are becoming stretched in terms of their volume of work. If the labor market in non-residential construction does tighten the region could again confront labor shortages in skilled trades, making a PLA more valuable for accessing the labor necessary to complete the project on time and on budget.

In residential construction, the slump in employment is likely to continue through this year and beyond. The skill mix in residential construction, however, particularly on single-family homes, makes it unlikely that dislocated residential construction workers would be qualified to work on the SCI Benner Township project.

If, notwithstanding the ARRA, the fall in non-residential construction employment persists through 2010 and 2011, it may be easier to access the skilled labor needed on the prison project. This scenario, however, raises another danger for the construction industry and the commonwealth—that investment in apprenticeship programs will be eliminated or sharply curtailed during the downturn. Disinvestment in apprenticeship in the slow economies of the early 1980s and early 1990s are major reasons for the skill shortages in the industry during the 2002-2007 expansion. Interviews with Pennsylvania apprenticeship coordinators in the state indicate that project delays since the third quarter of 2008 have led to unemployment among current apprentices. This in turn led some apprenticeship programs to cancel entirely or shrink

enrollment for new apprentices. If this disinvestment continues, when the national and regional economy come out of recession the construction industry could face a half decade in which there

Area	1st Quarter					2009 as pct of 2007
	2005	2006	2007	2008	2009	
Statewide ¹	228.4	239.6	239.6	237.8	221.1	92%
A-B-E ² , PA-NJ	15.2	15.9	15.3	14.8	14.0	92%
Altoona, PA	Data Not Available					
Erie, PA	3.9	3.9	4.0	3.8	3.6	89%
Harrisburg-Carlisle, PA	11.7	12.1	12.2	11.9	10.9	90%
Johnstown, PA	Data Not Available					
Lancaster, PA	16.0	16.9	16.4	16.4	15.5	95%
Philadelphia, PA Metropolitan Division	73.3	77.9	77.1	76.8	66.0	86%
Philadelphia City, PA	10.8	12.0	11.4	11.9	10.4	91%
Pittsburgh ³ , PA	46.1	49.4	50.5	50.5	49.4	98%
Reading ⁴ , PA	7.8	8.4	8.4	8.4	8.1	96%
Scranton-Wilkes-Barre, PA	9.1	9.7	9.9	10.2	9.2	92%
State College, PA	Data Not Available					
Williamsport, PA	Data Not Available					
York-Hanover, PA	11.0	11.5	11.9	11.7	11.2	94%
Area	1st Quarter					2009 as pct of 2007
	2005	2006	2007	2008	2009	
Statewide ¹	4.1%	4.2%	4.2%	4.1%	3.9%	93%
A-B-E ² , PA-NJ	4.6%	4.7%	4.5%	4.4%	4.2%	93%
Altoona, PA	Data Not Available					
Erie, PA	3.0%	3.0%	3.0%	2.9%	2.8%	90%
Harrisburg-Carlisle, PA	3.7%	3.7%	3.7%	3.6%	3.4%	91%
Johnstown, PA	Data Not Available					
Lancaster, PA	6.9%	7.3%	7.0%	7.0%	6.7%	96%
Philadelphia, PA Metropolitan Division	3.9%	4.1%	4.1%	4.0%	3.5%	87%
Philadelphia City, PA	1.6%	1.8%	1.7%	1.8%	1.6%	93%
Pittsburgh ³ , PA	4.1%	4.4%	4.5%	4.5%	4.4%	98%
Reading ⁴ , PA	4.7%	5.0%	4.9%	4.8%	4.8%	99%
Scranton-Wilkes-Barre, PA	3.6%	3.8%	3.9%	3.9%	3.6%	94%
State College, PA	Data Not Available					
Williamsport, PA	Data Not Available					
York-Hanover, PA	6.3%	6.5%	6.6%	6.4%	6.3%	95%

would be few graduates from high quality apprenticeship programs. The industry could, as a result, face a yet more severe shortage of skilled labor. The best way to avoid this scenario is to maintain substantial investment in apprenticeship programs during any economic slowdown. A PLA on this project could be used to help ensure the maintenance of investment in apprenticeship.

Current and Potential Shortage of Skilled Labor. According to the most recent Pennsylvania Department of Labor and Industry data, 14 construction occupations have been classified as "High Priority Occupations" for 29 counties⁹ in the central portion of the Commonwealth, indicating the availability of unfilled job openings (see Table 3 below).¹⁰ Occupations with substantial numbers of annual openings in the region include many of the most pivotal construction crafts: carpenter; electrician; operating engineer; and plumber, pipefitter, steamfitter.

Table 3.			
2008 High Priority Blue-Collar Construction Occupations in Four Workforce Investment Areas In and Near Centre County, Pennsylvania			
SOC Title	Estimated 2004	Projected 2014	Percent Change
Supervisors - Construction Trades & Extraction Workers	4,280	4,580	7%
Brickmasons & Blockmasons	1,680	1,850	10%
Stonemasons	120	140	17%
Carpenters	11,350	12,400	9%
Cement Masons & Concrete Finishers	900	960	7%
Operating Engineers	5,180	5,410	4%
Electricians	4,660	4,990	7%
Painters, Construction & Maintenance	2,060	2,230	8%
Plumbers, Pipefitters & Steamfitters	3,180	3,500	10%
Roofers	1,680	1,900	13%
Sheet Metal Workers	1,370	1,540	12%
Structural Iron & Steel Workers	610	660	8%
Helpers-Brick, Block & Stonemasons and Tile & Marble Setters	950	1,050	11%
Heating, A/C & Refrigeration Mechanics & Installers	2,390	3,240	12%
Note. High priority occupations in the Central Workforce Investment Area (WIA), North Central WIA, Southern Alleghenies WIA and the South Central WIA. These four WIA's include the following counties - Adams, Bedford, Blair, Cambria, Cameron, Centre, Clearfield, Clinton, Columbia, Cumberland, Dauphin, Elk, Franklin, Fulton, Huntingdon, Jefferson, Juniata, Lebanon, Lycoming, McKean, Mifflin, Montour, Northumberland, Perry, Potter, Snyder, Somerset, Union, and York.			
Source. Pennsylvania Department of Labor and Industry			

Before the current downturn, there was general agreement among all industry stakeholders about the existence of a skill shortage. For example, the Philadelphia Regional Construction Industry Education Partnership, which has close ties to the Associated Builders' and Contractors, has noted that the upcoming retirement of "baby boomers" will increase the need for replacement

⁹ These 29 counties are part of the Central Workforce Investment Area (WIA) which includes Bermer township plus three nearby WIA's - the Southern Alleghenies WIA, the South Central WIA and the North Central WIA. See Table 3 for a complete list of the counties.

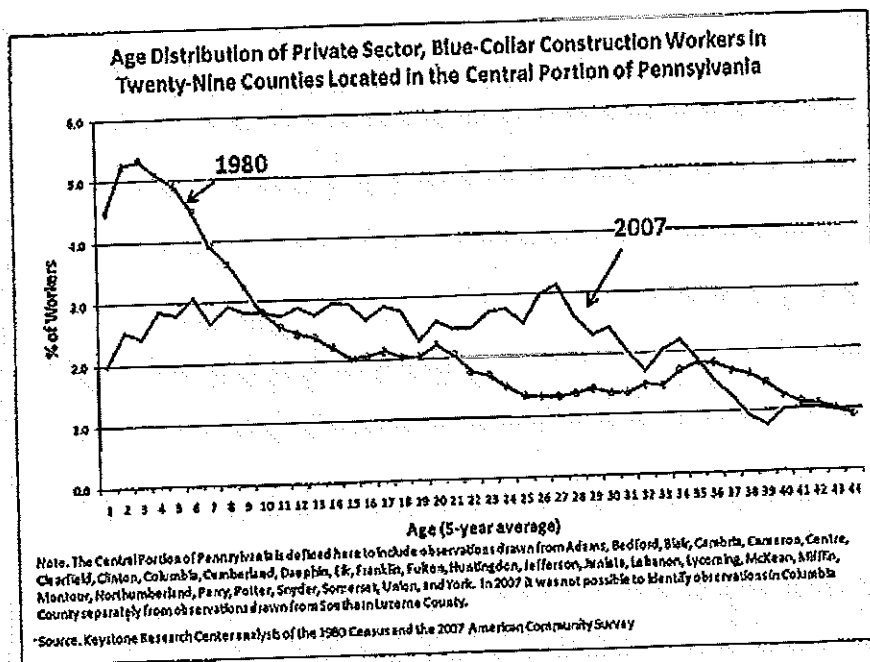
¹⁰ High Priority Occupations (HPOs) are defined based on three criteria: the existence of a significant number of annual job openings, wage levels (HPOs must pay above \$26,000 and/or offer career advancement opportunities), and HPOs must have shortages as determined by unemployment rates, recent wage and employment growth, and ratios of individuals completing training for the occupation to the number of unfilled job openings.

workers. This Industry Partnership—and other industry sources—also note that, with society's emphasis on "college" after high school rather than trades, the number of youth who are exploring construction-related training is declining. (For a power point on the industry put together by this Industry Partnership, see <http://www.paconstruction-ed.org/>).

Skill shortages are likely to become more severe because of the aging of the construction industry workforce. In 1980, 32 percent of blue-collar construction workers in the 29 counties in the central portion of Pennsylvania were 40-64 years old. By 2007, that share had grown to 43 percent (see Figure below).¹¹ Moreover, the Figure underestimates the aging of the non-residential construction industry because a large number of young workers joined the residential construction industry during the housing boom. While we cannot separate residential from non-residential construction using this data source, we can separate union from non-union in the most recent period. As well as enabling us to look separately at the age of the union workforce, the union workforce also serves as a proxy for the non-residential workforce as a whole, since unions represent almost no workers in residential construction. Table 4 shows the results of our analysis of the age of the union vs. non-union construction workforce in the state and reveals that 45% of the union workforce is now over 40 (versus 34% of the non-union). The bottom line: the non-residential construction industry does face a severe challenge because of its aging workforce and that challenge will get substantially worse if the industry does little or no apprenticeship training in the next several years.

Table 4.				
Union Membership Among Blue-Collar Construction Workers Living in the Pennsylvania, 2003-2008				
	Union		Non-union	
	Count	%	Count	%
16 to 30	13,626	27%	65,733	40%
31 to 40	13,717	27%	42,238	26%
41 to 50	11,495	23%	31,994	19%
51 to 54	4,739	9%	8,701	5%
55 and older	6,321	13%	15,928	10%
<i>Note.</i> Sample limited to private sector blue-collar workers employed in the construction industry				
<i>Source.</i> Keystone Research Center analysis of the Current Population Survey				

¹¹ Author's analysis of the public use micro-data from the 1980 Census and the 2007 American Community Survey (ACS). The central portion of Pennsylvania is defined here to include observations drawn from the following counties Adams, Bedford, Blair, Cambria, Cameron, Centre, Clearfield, Clinton, Columbia, Cumberland, Dauphin, Elk, Franklin, Fulton, Huntingdon, Jefferson, Juniata, Lebanon, Lycoming, McKean, Mifflin, Montour, Northumberland, Perry, Potter, Snyder, Somerset, Union, and York. In the 2007 ACS it was not possible to identify observations in Columbia County separately from observations drawn from Southern Luzerne County. In the 2007 ACS observations are also drawn from the Southern portion of Luzerne County which could not be identified separately from those drawn from Columbia County.



Most apprenticeship training takes place through labor-management programs. Official U.S. Department of Labor statistics show that most construction industry apprenticeship training in Pennsylvania takes place through joint labor-management programs.¹² Joint programs had 10,163 active apprentices in 2002, compared to 1,731 in employer-only programs. Since more training takes place via joint labor-management programs, this reinforces the likelihood that skilled workers will be more accessible via hiring halls and a PLA. When the industry faced shortages in the second half of the 1990s, joint labor-management apprenticeship programs also responded more to the industry need for labor than employer-only apprenticeship programs.

In light of the importance of labor-management apprenticeship programs to the industry's long-term skill base, it is also important that these not scale sharply down in the event of a recession. As noted, that could leave the industry even more short of skilled labor when the economy rebounds. A PLA on a project of this scale can help maintain a steady level of investment in joint apprenticeship in the region even with a continuing economic slowdown. PLAs can be used to ensure that contractors working on major projects pay into apprenticeship programs. Moreover, apprentices after their first year and up to their 2nd-to-last-year can be very profitable for contractors because they are paid less than their actual productivity. PLA's may also allow expanded apprentice ratios and/or for better enforcement of the ratios in union contracts. According to industry sources, the last six or seven PLA agreements in the Philadelphia region have included specific language to incorporate apprentices. The use of similar language for the SCI Benner Township PLA could both be a source of cost savings and address the need for expanded apprenticeship opportunities in the central portion of the Commonwealth.

¹² David Bradley and Stephen Herzenberg, *Construction Apprenticeship and Training in Pennsylvania*, (Harrisburg: Keystone Research Center, 2002). On several occasions, the federal Department of Labor office in Harrisburg which provided the data for this report has been asked for updated data so that the report can be updated. So far, however, the Department has indicated that a change in the data base and software used to store the data make it impossible to access updated information.

Local labor disputes. In some areas, protection against labor disputes is an important benefit of PLAs. In central Pennsylvania, industry sources indicate that labor disputes are a less common problem. According to one experienced project manager, union and non-union contractors work harmoniously together on large projects in central Pennsylvania. Nonetheless, a PLA would provide an additional guarantee of labor harmony and more insurance against disruptions.

Reliance on local labor. A PLA, through reliance on union hiring halls, will also guarantee first opportunities for employment to local labor. Hiring halls only reach out beyond the local area if workers with the requisite skills are not available locally and rarely need to rely on out-of-state labor.

The Commonwealth's Long-Term Interest in Training. The Construction Users Roundtable, an association representing private building owners (many of them large manufacturers), issued a report in 2004 calling for more investment in training by contractors.¹³ As the report states, "Like safety, training is both essential and cost-effective long term." It is cost effective long term because a more skilled workforce will raise productivity and quality in the future. The Commonwealth also has a long-term interest in investing in training because training of workers today will yield lower costs on future Commonwealth projects. In general, PLAs include provisions encouraging the use of apprentices, helping to ensure a more skilled future workforce.

Access for women and minorities to apprenticeship. A collateral benefit from the use of a PLA could be the provision of increased opportunities for women and minorities through joint apprenticeship programs. Official statistics show that the overwhelming majority of women and minorities in Pennsylvania who participate in apprenticeship programs do so through joint programs. In 2001, joint labor-management programs in Pennsylvania registered 319 additional male minorities and 76 female apprentices.¹⁴ This compares with 33 male minorities and five women in non-union apprenticeship programs. The relative success of jointly sponsored apprenticeship programs also shows up in data on union membership by race and ethnicity in Pennsylvania (see Table 5). African-American's in particular account for a higher share of the union workforce (7%) than of the non-union workforce (3%) in the Pennsylvania.

It should also be noted that, in Pennsylvania, concern over the aging workforce has spawned new efforts to expand recruitment, training, and retention of minorities and women to the construction trades. One such new effort is the a new "labor-management clearinghouse" in Pittsburgh which will recruit and place workers in four industry sectors—building services, hotels and hospitality, utilities, and construction. Diverse demographic groups will have opportunities to enter the building trades by meeting apprenticeship entry standards right off the bat or by working first in entry-level service jobs (e.g., as janitors and housekeepers) and then by taking tests and participating in interviews required to enter apprenticeship).

A mismanaged slowdown in the economy that ripples into the construction industry could undercut new efforts at recruitment and workforce diversification. The collapse of such efforts could also engender mistrust that makes recruitment efforts among diverse demographic groups more difficult to start up again when the economy and industry rebound. A better approach would be to maintain such programs at a modest scale, and work out the kinks, during a period of more

¹³ Construction Users Roundtable, *Confronting the Skilled Construction Workforce Shortage*, June 2004.

¹⁴ Bradley and Herzenberg, *Construction Apprenticeship and Training in Pennsylvania*, op. cit.

Table 5.			
Union Membership Among Blue-Collar Construction Workers Living in Pennsylvania, 2003-2008			
	Union (Count)	Non-Union (Count)	Percent Union
Overall	49,898	164,595	23%
White	43,535	148,500	23%
Black	3,540	4,363	45%
Hispanic	1,677	9,920	14%
Other	1,146	1,811	39%
<i>Note.</i> Sample limited to private sector blue-collar workers employed in the construction industry.			
<i>Source.</i> Keystone Research Center analysis of the Current Population Survey			

modest construction demand. That would enable such programs to expand to meet industry needs once the economy expands.

A PLA on the SCI Benner Township could help maintain new recruitment and workforce diversification efforts, especially if it has an economic opportunity plan in the agreement. According to industry sources, it is common for PLAs in the state to include language related to an economic opportunity plan. Some have included specific targets for diversity among apprentices. According to industry sources, a PLA is the only vehicle for enforcing these kinds of targets.

Access for minority contractors. Recent experience in Philadelphia indicates that PLA's are also compatible with ensuring minority contractors access to business opportunities on major projects. On the Philadelphia convention center, 30-40% of contractors were minority- or women-owned. Since Pittsburgh is the closest major metro area, an effort could be made to build into a PLA provisions for enabling minority contractors to access work on the Rockview project. Pittsburgh foundations have in recent years made a major effort to support and grow a group of minority contractors and an effort on the Rockview prison project could build on this foundation-funded effort.

F. Survey of Collective Bargaining Agreements

As many as 19 local building trades are likely to be involved in a project as large and complex as the SCI Benner Township Prison project. The collective bargaining agreement of each of the local trade unions or councils was reviewed. The most pertinent terms and conditions of those agreements were compared against each other and with the project characteristics and requirements.

PLAs, in general, encompass terms and conditions necessary to complete the project within the schedule while addressing the unique requirements and characteristics of the project; adhering to the legal tests set forth by the courts; and achieving Commonwealth goals by:

- (a) avoiding potential strikes, slowdowns, walkouts, picketing, hand billing and any other disruptions or interference with work on a project where "time is of the essence;" and promoting labor harmony and peace for the duration of the project;
- (b) standardizing terms and conditions governing the employment of labor on the project;
- (c) permitting wide flexibility in work scheduling and shift hours and times;
- (d) providing comprehensive and standardized mechanisms for the settlement of work and jurisdictional disputes;
- (e) ensuring a reliable source of skilled and experienced labor;

A more detailed discussion of PLAs in relation to the goals of the project follows.

1. Strikes and Lockouts

PLAs, in general, provide that there shall be no strikes, lockouts, work stoppages, or other disruptive activity during or as a result of re-negotiations of local agreements during the term of the project.

The expiration of the collective bargaining agreements covering the 19 different craft unions involved in this project occur depending on the craft in 2010, 2011 or 2012. The expiration of these agreements during construction of the project would, absent a PLA, have the potential for resulting in a lawful strike that could substantially delay the project construction and completion.

2. Hours of Work, Premium Payments, Shifts and Holidays

i. Hours of Work

There is diversity among local agreements in terms of the start and quit time and whether work starting outside the standard work day requires premium pay.

PLAs, in general, provide for a standard workweek with uniform start and quit times. Since time is of the essence in maintaining the construction schedule and completion prior to a certain date.

ii. Shifts

Local agreements also vary in the rules governing the establishment of additional shifts outside the standard work day. In general, PLAs harmonize the rules governing the use of additional shifts.

iii. Holidays

Depending on the trade between 6 and 9 paid holidays are observed in local agreements.

It is quite common in the normal course of construction that any given trade will require the support and/or assistance of one or more other trades in the performance of routine work. It is imperative, therefore, that for efficient scheduling and cost control purposes, the contractor can depend upon the entire work force being on the job on the same days. In general, PLAs provide for a uniform number of holidays across all the trades.

3. Disputes/Grievances/Arbitration

i. Jurisdictional Disputes and Work Stoppages

Procedures for dealing with jurisdictional work assignments and consequential disputes are not uniform and consistent. Agreements vary, with regard to costs, binding effect of award, and work disruption pending decisions.

Most importantly, there is no existing method, means, or procedure to ensure that there will be no strike, lockout, work stoppage or other work disruption pending resolution of such a dispute.

In general, PLAs set forth the procedures dealing with construction work assignments on the project and consequential jurisdictional disputes that might arise. This provision establishes that there will be no strike, work stoppage or other disruptive activity pending resolution of the dispute.

ii. Disputes and Grievance Resolution.

Though local labor-management grievance procedures exist, they vary among specific crafts and contractors associations. No standardized, binding forum exists with authority over all respective parties. Some agreements provide for work stoppages upon default.

PLAs sets forth a standardized procedure for resolution of grievances or disputes arising from a claimed violation of this agreement or from disputes between or among signatories to this agreement other than jurisdictional disputes or alleged violations of the "No Strike, No Lock Out" provisions.

4. Management Rights

Many of the existing agreements do not contain a Management's Rights clause. Those that exist are either ambiguous or inadequate to provide the contractor with the authority and/or flexibility required for necessary control and management of the project work.

A comprehensive Management Rights clause applicable to all contractors and all unions is a standard feature of PLAs. It enumerates the powers and exclusive authority of the contractors for management and control of project operations including: direction of work force (numbers and qualifications); assignment and schedule of work (regular hours and overtime), promulgation of work rules and; determination of and choice of equipment, materials, techniques, methods and technology utilized on the project, regardless of their source.

5. Apprentices

In an effort to meet the need to maintain continuing supportive programs designed to develop adequate numbers of competent workers in the building construction trades, PLAs encourage contractors to utilize apprentices and other appropriate classifications. The use of apprentices also lowers labor costs.

6. Work Rules

Few of the existing local agreements contain any work rules which employees are obligated to observe.

PLAs provide that the Construction Manager and the Contractors establish reasonable project rules as appropriate for the good order of the project.

7. Open to Both Union and Non-Union Contractors

In general, PLAs provide access to union hiring halls and thus a secure supply of skilled workers. PLAs can also include flexible provisions permitting Contractors to employ applicants from any available source if the Union is unable to fill an opening. Contractors are also typically allowed to utilize their existing employees in the positions of project manager, project superintendent and project foreman.

G. Conclusion

Based on the analysis above, we find that a PLA would facilitate successful completion of the SCI Benner Township Prison in Centre County. A PLA is particularly warranted because of the scale of the project.

Even if the economic rebounds in 2010 and 2011 based partly on federal investments in large-scale, complex construction projects, the proposed PLA should ensure access to the large pool of skilled, experienced labor that will be required for this project.

A PLA can also help maintain investment in high-quality apprenticeships that will benefit the Department of General Services, the commonwealth, other construction owners, and major construction contractors for the long term.

A PLA, further, can also help ensure access to prevailing wage construction employment, and to high quality construction apprenticeship, for a diverse workforce.

A PLA generates cost savings through standardization of contract provisions, which provide the Construction Manager with tight control of the project schedule and the labor component of the project.

In addition, PLAs typically include provisions which standardize holidays and pay, and thus create direct cost savings.

Because this project is intended to help the Commonwealth address a prison system which is overcapacity, the state has an overriding interest in taking steps such as the use of a PLA to help insure the on-time completion of the project.

The combination of guaranteed no-strike or work disruptions, cost savings, management flexibility and a continued supply of skilled labor that make a PLA valuable for a project of this magnitude and complexity.