BUILDING THE HUMAN CAPITAL INFRASTRUCTURE OF A PRODUCTIVE AND EQUITABLE 21ST CENTURY ECONOMY: LESSONS FROM PENNSYLVANIA

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ABSTRACT: The Commonwealth of Pennsylvania is at the forefront of state-level efforts within the United States to reinvent employment and training policy to meet the challenges of the 21st century economy. This paper, written by participant-observers of Pennsylvania's reforms, outlines Pennsylvania's new workforce strategy, founded on the creation of "industry (training) partnerships" linked with key industries in the state's many distinct regions. The paper also describes the implementation of this strategy and the quantitative (businesses engaged with partnerships, workers trained, wages, retention) and qualitative (e.g., impacts on competitiveness, work organization and job quality, alignment of educational systems with industry) outcomes to date. The second half of the paper reflects on the challenges of implementation and how to deepen and institutionalize the Pennsylvania strategy. The brief concluding section sketches some goals for national reform of employment and training policy.

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INTRODUCTION

In the United States for most of the last 50 years, policy and political debates about employment and training policies have focused heavily on specific programs designed in the New Deal era. Many of these programs help particular groups of workers (disadvantaged, dislocated, at-risk youth, on food stamps, on welfare, requiring vocational rehabilitation) overcome their unique challenges as workers. This old-economy strategy assumed that a small amount of assistance and training would enable these groups to participate successfully in an overall labor market that had enough “good” (family-supporting) jobs. As the nation cut back on social spending in the Reagan era and again in the last decade, advocates for low-income and trade-displaced workers continued to focus on existing programs, waging defensive battles to contain the fraying of the weak U.S. social safety net.

Outside mainstream U.S. employment policy debates, beginning in the 1990s, new research and practitioner experimentation began to grapple with innovative approaches more attuned to employer and worker needs in today’s economy. One theme running through these new currents is that the United States needs to create new multi-firm workforce coordinating institutions. These “workforce intermediaries” would mediate between the supply and demand sides of regional labor markets, and aim to improve the effectiveness all the human capital institutions on which businesses depend—trainers, educational institutions, referral agencies, and so on. In theory, workforce intermediaries also have the potential to improve the organizational practices of firms themselves, and to promote learning across firms and hence the spread of effective practices and the rate of innovation in regional industries.

To date, most experimentation with workforce intermediaries has been small scale and localized, funded through a mix of private foundation resources, grant programs from the federal government, or small pots of state money. This paper reports on perhaps the largest-scale investment in workforce intermediaries in the United States, within the commonwealth of Pennsylvania. Although its local roots go back to the late 1990s, investment in workforce intermediaries became state policy in 2003, when Governor Edward Rendell began the first of two four-year terms. The strategy reached a larger scale with the passage of the state budget covering the period July 2005 to June 2006. At this larger scale, the Pennsylvania workforce strategy based on investing in Industry Partnerships, as workforce intermediaries are called in the state, is three years old.

The goals of the paper are to reflect on the origins and implementation of the Pennsylvania workforce development reform and to develop recommendations for strengthening this effort within Pennsylvania that may also be relevant to workforce reform in other states.

The third ambition of this paper is to attempt to break open the debate about national employment and training policies in the United States. As of this writing, the U.S. economy is in as precarious a position as it has been in since at least the early 1980s. A faltering economy and a new administration in Washington, D.C. could provide the most fertile ground for transforming and updating U.S. employment and training policies since the 1930s. In this climate, policy debate must rise above the defense of weak and fragmented policies of the past and advance a more compelling vision of a human capital infrastructure that can deliver to employers a highly skilled workforce and to workers’ real security and opportunity.

This paper is co-authored by the Acting Secretary of Labor in Pennsylvania who, as Deputy Secretary for Workforce Development from 2003 to early 2008, was charged by Governor Rendell with responsibility for workforce development programs across multiple agencies. It is also co-authored by researchers for a Pennsylvania economic think tank, the Keystone Research Center, who helped shape the state's workforce strategy and have assisted the state with implementation. (Howard Wial moved from KRC to the Brookings Institution in late 2004.) KRC's mission is to promote a more prosperous and equitable Pennsylvania economy. Among U.S. think tanks concerned about equity, KRC is distinguished by its interest also in promoting prosperity and its research-based conviction that equity and economic performance need not be traded off against one another.

The audiences for this paper are several. They include the authors themselves and the entire leadership team overseeing Pennsylvania's workforce strategy; Pennsylvania workforce practitioners (Local Workforce Investment Board (LWIBs), Industry Partnership coordinators, educators and trainers, etc.) and other workforce stakeholders (including foundation and United Way officials) helping to implement or in positions to align their activities with Pennsylvania's new workforce strategy; other states engaged in sector-based workforce approaches; national workforce development policymakers, practitioner associations, and advocates; and applied researchers. The paper aims to stimulate further discussion about Pennsylvania's efforts at reform, how they might be strengthened, and what might be learned from them by others. Pennsylvania's new workforce development strategy is a large-scale collective exercise in learning-by-doing and very much a work in progress. It was undertaken in the conviction the workforce community and its many partners have an obligation to attempt comprehensive reform: the well-being of Pennsylvania's families, communities, and businesses depends on our success.

THE ORIGINS OF PA'S WORKFORCE DEVELOPMENT REFORM

A new administration and a workforce development czar: When Governor Rendell took office, his Deputy Campaign Manager, Sandi Vito, was given an opportunity to request a position in the new administration. Vito had previously run the successful Pennsylvania campaign of Presidential candidate Al Gore in 2000. She also had experience as a staff member for a state Senator in Harrisburg (the state capital) and in the women's movement as the director of a statewide non-profit. She considered herself an "organizer" by experience and inclination. Having had almost four years of steady campaign work, she asked the Governor for a "substantive policy" position.

The Governor suggested that Vito take responsibility for workforce development programs in the state. The Governor understood workforce development to be a maze of uncoordinated programs producing unknown benefits. This perspective was informed by a "spaghetti diagram" showing all state and local workforce programs. Like an organization chart, the spaghetti diagram showed the main agencies with responsibility for workforce programs (the Departments of Labor and Industry (L&I), Education (PDE), Community and Economic Development (DCED), and Public Welfare (DPW)) and displayed each of the programs overseen by each part of each agency.

The Governor wanted Vito to "do something" with this mess and to "tell me what I'm getting"—develop an accountability plan for measuring the outcomes of workforce development programs. The Governor's interest in workforce programs "doing something" was heightened by his strong interest in job growth and economic development. Somehow workforce programs needed to be part of Rendell's effort to help businesses and kick start Pennsylvania's anemic job growth.

Given the multiple agencies with some workforce responsibility, one key early decision was where Vito would sit within the state bureaucracy. The perennial experience of new administrations in Pennsylvania had been that they would come in with a plan to get workforce programs to work effectively across agencies and that the plan would shipwreck against the rocks of agency allegiances and silos. There was much debate about whether Vito would sit within the administration-wide "Governor's Policy Office," the nerve center for the centralized policymaking process in the Rendell Administration. Rather than sit in the Governor's Policy Office, Vito occupied the Deputy Secretary of Workforce Development position within the Department of Labor and Industry, the single agency with the largest workforce development budget. That decision proved crucial, providing direct control over funds within the Department of Labor and Industry, and greater policy leverage within both this Department and partner agencies.

Shortly after Vito took the reins, at the suggestion of Fred Dedrick, a staff member at a Philadelphia non-profit (The Reinvestment Fund) who first put together the spaghetti diagram, Vito created a small kitchen cabinet. This kitchen cabinet included Dedrick and Stephen Herzenberg of KRC. Soon after, Vito hired Dedrick, who also knew Rendell's Secretary of Policy Donna Cooper well, as Director of the State Workforce Investment Board (SWIB) and KRC as a consultant. Vito also reconstituted the kitchen cabinet as a "core team" that included as well as Dedrick and Herzenberg representatives from the Pennsylvania Department of Education (Don Spangler), the Department of Public Welfare (Kathy Yorkeviecz) and initially, the Department of Community and Economic Development (DCED). One of Herzenberg's roles within this core team was to network Pennsylvania with best-practice practitioners in the national "sector partnership movement." Dedrick and Herzenberg also connected Vito and Pennsylvania to a national foundation effort to invest in partnerships (more on that below). Within a short time, the new PA workforce team had access to the best knowledge and experience nationally about the importance of Industry Partnerships.

Industry Partnerships. Based on the input of the core team and other workforce stakeholders, Vito became convinced early that she wanted to reorient workforce development around the skill needs of local industries and to invest in industry-specific workforce partnerships as the foundation of this reorientation. Among those advising Vito, including workforce development stakeholders, some variation existed in the rationale for investment in partnerships.

The most straightforward rationale was that partnerships could help identify and address the skill needs of key industries, raising the skills of incumbent (employed) workers. This could connect workforce programs to the demand side of the economy, instead of these programs focusing primarily on the 5 percent of workers without jobs. For some, investing in raising workforce skills made sense because many employers faced significant skill gap, including in mid-range jobs that paid well. Moreover, demographic trends and the retirement of older skilled workers, combined with a tendency for skill requirements to increase over time, made raising worker skills increasingly important. The need for incumbent worker training to plug skill gaps was also the highest workforce priority of manufacturing employers convened into a statewide working group by the SWIB.

Another view, articulated most explicitly by Scott Sheely, the Local Workforce Investment Board (LWIB) director in Lancaster, relied on the research of Michael Porter on industrial agglomeration (Porter 1990). (In the United States, money distributed through the federal Workforce Investment Act (WIA) is distributed largely through local entities called LWIBs. These are required to have boards consisting of a majority of private business representatives and a private business chair.) Before Rendell became Governor, Sheely had led a grass-roots movement among LWIBs to map their local industries, convene employers within those clusters, and identify skill gaps. Sheely also had provided technical assistance to help several other WIB regions analyze their regional economies. Sheely further believed that skills training could in some cases directly strengthen unique competitive advantages of clusters and that collaboration on training issues could lead to collaboration on market and technology issues, further strengthening agglomeration economies.

A third view was that Industry Partnerships could be particularly important to low-income workers (see Giloth 2003 for an extended discussion of this view and JFF, no date for a short discussion). As long as social service and training programs ignored the demand side of the economy, they would end up placing workers in the bottom end of a broken labor market, dominated by low-wage, dead-end jobs. To remedy this situation, Industry Partnerships with strong connections to employers with entry-level jobs needed to inform workers and community groups about the requirements of those jobs and to help design and oversee pre-employment and post-employment services that would improve retention and upward mobility. This view of partnerships was also brought into Pennsylvania by national consultants (the National Network of Sector Partners and the Wisconsin Regional Training Partnership) that helped the commonwealth with initial training on workforce partnerships for key PDLI staff and for the 22 LWIBs. Dedrick was familiar with this perspective because of his participation in a foundation-funded project, the Philadelphia Jobs Initiative, in the 1990s.

The last view of workforce intermediaries was rooted in KRC's institutional analysis of the transition from an industrial to a postindustrial service economy (Herzenberg, Alic, and Wial 1998, especially chapter 7). This view highlighted the importance of workforce intermediaries in solving collective action problems in the labor market made more endemic because of increased volatility in the job market. This volatility increases the danger that businesses will under-invest in training (because workers might soon leave to a competitor) which could make them more likely to compete based on low wages and benefits. Increased volatility in the job market also increases the need for collective action to establish support structures that smooth mobility across firms—portable credentials, career paths across organizations, and stronger job matching institutions. KRC also underscored the importance of multi-firm communication networks to promote performance improvement (the key idea here is that a large part of learning and innovation comes interaction within "occupational communities" and that richer, multi-firm occupational communities expand the potential for such learning). A final aspect of KRC's view was that multiple business strategies (along with their divergent organizational and human resource practices) can be found in most industries, and that strong workforce intermediaries are part of an institutional infrastructure necessary to spread business strategies compatible with good jobs and environmental sustainability.

Just before Rendell came into office, KRC sought to popularize its perspective using a grant to conduct workforce research from outgoing Governor Mark Schweiker (Benner, Herzenberg, and Prince, 2003). This report documented a grass-roots workforce movement in several LWIB regions towards convening regional employers in key industries (e.g., health care, manufacturing, financial services) and assessing and meeting their skill needs. KRC quoted extensively from interviews with over 50 WIB directors and other workforce development professionals, and then sought to draw out recommendations that would build on this grass-roots movement to "build the infrastructure of a learning economy." Among these recommendations were that the state invest in regional "Industry Partnerships"—self-organized employer or labor-management groups—that could demonstrate industry engagement and that had developed plans to increase investment in skills, promote the spread of best practice, develop curricula and portable credentials, strengthen multi-firm career ladders, etc. The report for Governor Schweiker recapitulated recommendations that KRC had been making in the wilderness since 1996—but grounded these recommendations in current realities at the local level (for earlier, albeit briefer, recommendations that the state invest in industry partnerships, see Herzenberg and Wial 1998). On one of his last days in office, Governor Schweiker sent the KRC report to his successor along with a generous letter of support. Governor Rendell's campaign manager and director of transition passed it on to his newly appointed workforce czar.

When Vito first met Herzenberg after reading the report written for Governor Schweiker, her first question was, "how do you get employers to the table and keep them there?" His answer: "it's very hard but it's the only thing worth doing." The heart of Pennsylvania's new workforce strategy would focus on building new institutions.

The diverse arguments circulating in favor of Industry Partnerships contributed to challenges that core team members had getting what they termed "the needs statement"—the first outline of the new strategy—down on paper. This thrashing about ultimately helped shape the critical state budget request for more workforce resources (in the first half of 2005). Moreover, extended discussions about how to explain the strategy for broader audiences also helped the core team develop a deeper shared substantive understanding, a foundation for a long-term effort to achieve an ambitious reform.

While a critical mass of leadership groups endorsed the idea of Industry Partnerships, it is worth noting that most workforce practitioners in Pennsylvania were not familiar with them or with the various arguments for workforce intermediaries. This broader community retained a focus on assessing and serving workers separate from or with arm's length relationships to employers. Nonetheless, finding leading WIB directors, her core team, and manufacturing leaders making compatible arguments about how to revamp Pennsylvania's workforce system, Vito was ready to lead an effort to flesh out a reform strategy and win the support of the Governor and the legislature for additional resources.

Operationalizing and selling reform. One challenge to institutional reform efforts is that few U.S. practitioners or policymakers have the time or patience to listen to the case for reform in abstract terms that emphasize broken labor markets or the need to create new institutions. A key skill in building consensus behind systemic reform is the ability to identify concrete first steps that can be communicated and that leave room for more integrated and systemic reform to develop over time. From 2003 to 2005, Vito's ability to identify such concrete steps—as well as her close ties to the Governor—proved vital to achieving broad-based support for Pennsylvania's reforms and accessing additional state resources for Industry Partnerships and training and education delivered through or aligned with those partnerships.

Two early concrete steps sought to communicate the idea that workforce programs needed to connect to the needs of regional industries with good jobs and in which Pennsylvania had some competitive strength. The first of these steps sought to get the mind of policymakers, workforce practitioners, and education and training providers around the idea of connecting programs with regional industries. Vito charged a task force with defining Pennsylvania's "targeted industry clusters." This committee (chaired by Sheely) included data experts from within L&I and leading LWIB directors who already had experience bringing together regional industries to define and meet training needs. The result was the definition of nine industry clusters and eight sub-clusters which represented about 2/3 of the jobs in Pennsylvania. (Retail trade and hospitality and other low-wage sectors without strong supply chain connections to higher-paid sectors were excluded.) (A recent revision of the cluster book increased the number of clusters to 11.) The involvement of people with actual experience trying to organize industries helped ensure that these clusters were grounded in the realities of the Pennsylvania economy as well as consistent with data analysis. The clusters were profiled in a glossy book (that won a U.S. Department of Labor award for having "demand-driven workforce systems") with data on the wages, leading occupations, and major employers in each cluster, and on the strength of each cluster and sub-cluster (number of jobs, location quotient). (This industry cluster book can be found online at http://www.paworkstats.state.pa.us/gsipub/index.asp?docid=407.)

A second step was to define what came to be called "High Priority Occupations"—occupations in targeted industries that pay decently (at least twice the U.S. poverty rate) and in which shortages exist. At the beginning the idea that it would be helpful to define decent-paying occupations that could be the focus of state education and training investment was a gut intuition. Only at the end of an extensive back and forth with L&I and KRC data experts—exchanges partly aimed at understanding what data existed on occupations within clusters—did common-sense numerical screens emerge for defining shortage occupations.[1] Since the data are often poor and out of date, and "real-time" information from actual employers is more reliable, an opportunity was also built in for Industry Partnerships and other economic and workforce stakeholders to suggest changes to the HPO list. The high priority occupations provided a straightforward way for Vito to communicate, to the Governor and to legislators, that the state had a practical way to reorient training and education to filling skill gaps in key industries.

(Parenthetically, there was some impulse within the KRC research team to argue that state training should *not* focus on current shortage occupation, partly because of the time lag between the beginning and end of training (so that by the time trainees graduated, the shortage might go away). A second rationale was that public money should focus on investment in portable skills and educational credentials keyed to the organizational practices and skill requirement of high-performing employers. Even if these arguments have theoretical merit, they couldn't be communicated easily and, focusing on HPOs did not preclude emphasizing more strategic training investment over time.)

Once targeted industries and HPOs were defined, it became easier to explain to broad audiences why Industry Partnerships were necessary. Industry Partnerships could provide an ongoing mechanism for defining the priority skill needs of targeted industries and for validating HPOs. IPs might also attempt more ambitious goals—supporting employers in efforts to improve organizational practices, creating portable credentials and mapping career paths, helping companies innovate and develop business strategies compatible with good jobs and healthy communities. But the focus on validating skill needs in HPOs, and surfacing other needs missed by the number crunching, provided a shorthand for communicating the value of IPs.

Job Ready PA. Vito and Dedrick began investing state discretionary dollars in small grants for organizing Industry Partnerships within a few months of having assumed leadership of Pennsylvania workforce development. To get more resources for a new workforce strategy, they needed to persuade the Governor and the administration, and then the legislature, to invest more state money in their strategy.

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[1]The screens Pennsylvania uses are recent employment and wage trends, the occupational unemployment rate, and the annual ratio of the number of openings to the number of people completing training qualifying them for the occupation. Intuitively, if occupational wage and employment growth are low, the occupational unemployment rate is high, and large numbers of people already being trained for the occupation relative to the number of annual openings then the state shouldn't invest in training more people.

The Governor's appointment of Vito signaled his interest in reform and thus his likely receptivity. She also understood the Governor's interest in helping business and creating more good jobs. To some extent, the Governor (and his Secretary of Policy) were the first (and most important) test audiences Vito had in mind as she sought to craft a reform and budget proposal that would communicate broadly. Vito and Dedrick then used, and sometimes created, a variety of committee structures to get input and to vet what became the Governor's Job Ready PA budget proposal in February 2005. These structures included the State Workforce Investment Board itself. (The SWIB is a statewide analogue to LWIBs, with majority business representation, a business chair, but also educational and labor representation.) Some additional structures, such as the Manufacturing Working Group of the state WIB, were created. Within the administration, a new "human capital committee" was formed of as a subcommittee of the Economic Development Cabinet that Rendell had created in 2003. This committee helped generate interagency support, including from DCED and PDE. Pennsylvania also participated in a National Governors' Association (NGA) Academy focused on ways of improving the affordability of post-secondary education for low-income working adults. This Academy included key legislative and business community leaders. These multiple consultation structures and the more numerous informal ones worked partly because Vito and her team conveyed a sense of credibility. The workforce team had a sense of direction, which was well grounded in an understanding of the economy and the job market. The workforce team also had an ability to listen. It managed to communicate a genuine desire to "figure out what made sense" and to implement a new strategy in a flexible way.

The tag line for Job Ready PA was "Keeping Pennsylvania Competitive, Creating Opportunity." Marketing materials created to sell the Job Ready package of proposals highlighted the co-existence of companies facing skill shortages in good-paying jobs and workers without good jobs. The package positioned the re-orientation of workforce development as a way to address both problems.

Job Ready PA passed largely intact in July 2005 and included four key dimensions:

- *Industry-led training* via $5 million for organizing Industry Partnerships'
- *Enhancing opportunity for Pennsylvania's residents*, including via $15 million for incumbent worker training delivered through IPs and via an increase in funds for community colleges and the realignment of occupational education to High-Priority Occupations. Another program, the Wage Advancement Grants for Education (WAGE), expanded grants for education for part-time working adults.
- *Prepare Youth for the Careers of Tomorrow*. This included high school reform aimed at achieving high academic standards for all students (including vocational students) combined with career awareness and workplace learning opportunities. This also included dual enrollment funding so that students could earn college credits while still in high school.
- *Accountability standards*—the implementation of a performance management approach designed in response to the Governor's original request to know "what am I getting" from workforce programs.

IMPLEMENTING REFORM: THE STORY SO FAR

Pennsylvania is now three years into the scaling up of its workforce reform. What is the status of this implementation?

High Performance WIB Standards: One of the first parts of the state implementation plan, which coincided with Job Ready PA, was the development of a set of standards for WIBs to evaluate and support them in engaging with the state's new workforce strategy. These standards combined common numerical outcomes such as job placement rates, wage levels, and retention rates, with a set of qualitative indicators aimed at encouraging WIBs to reorient their planning and services around the workforce needs and challenges of key local industries. The first time these standards were applied, 10 of 22 WIBs were evaluated as high performance. Since that time, a program of technical assistance has been implemented to help additional WIBs re-orient themselves.

Industry Partnerships. Following the passage of the 2005-06 budget, the commonwealth issued guidelines for potential bidders for IP or IP training grants. The current version of these guidelines (not radically different from the first version, and also online at http://www.paworkforce.state.pa.us/about/lib/about/pdf/skilled_workforce_budget_support/ip_-_final_guidelines.pdf) notes that:

"Effective Industry Partnerships can accomplish the following:

- Develop a deep, thorough and forward-looking understanding of the human capital needs and critical challenges of the industry cluster through the regular interaction of partnership members, trade associations, and industry experts
- Identify the training needs of businesses, including skill gaps critical to competitiveness and innovation;
- Facilitate companies to come together to aggregate training and education needs and achieve economies of scale;
- Help educational and training institutions align curriculum and programs to industry demand, particularly for higher skill occupations;
- Inform and collaborate with PA CareerLinks, youth councils, business-education partnerships, parents and career counselors and facilitate bringing employers together to address the challenges of connecting youth to careers;
- Help companies identify and work together to address common organizational and human resource challenges – recruiting new workers, retaining incumbent workers, implementing high-performance work organization, adopting new technologies and fostering experiential on-the-job learning;
- Identification of barriers to entry level employment for workers and youth and strategies to remediate those barriers;
- Develop new career lattices within and across companies, enabling entry-level workers to improve skills to advance into higher skill, higher wage jobs;
- Develop new industry credentials that give companies confidence in the skills of new hires and workers more mobility and earning potential across firms; and
- Establish communication networks between firms, managers, and workers to promote innovation, potential economies of scale in purchasing and other economic activities, and dissemination of best practices. In some cases, these activities result in the development of new learning collaboratives, Centers of Excellence, or joint economic development activity."

These guidelines convey an advanced notion of IPs that includes solving collective problems for workers and firms in industry-wide labor markets and helping businesses adapt more advanced organizational practices and innovate. (Having said that, the commonwealth has come to more fully appreciate that simply listing an activity as an option for IPs does not mean most or even many IP coordinators will know how to undertake that activity.)

Using these guidelines, the commonwealth has funded approximately 90 Industry Partnerships, the largest number in Advanced Manufacturing and Diversified Materials, followed by Life Sciences (including bio-medical, acute health care, and long-term care), Building and Construction, six other clusters, and now also Energy (including renewable and energy efficiency). Since 2005-06, over 60,000 employees from 6,194 companies have completed, or are currently enrolled in training overseen by IPs. Workers trained at some point in 2005 saw their wages increase on average in four quarters by 6.6% versus 5.2% for all workers in these clusters. Forty-five percent of companies that are in IPs in Pennsylvania did not have any organized training programs before they joined the program. Today, those same companies now participate in training programs that have helped to improve the efficiency and skill levels—and boost the productivity—of their employees. Over 70% of participating companies report increases in productivity, and over 80% of participating report increased retention rates.

Alignment of other training funds with the needs of Industry Partnership employers. In addition to using the "new" money that became available as part of Job Ready to support the Industry Partnership strategy, extensive effort was made to enable and assist local WIBs and Partnerships in leveraging existing resources available through the traditional workforce funding streams. Such efforts include using "Customized Job Training" dollars, funded by DCED, in part through local educational institutions, to augment skill development dollars available to the Partnerships. They also include reorienting individualized training accounts from Workforce Investment Act funds toward training for High Priority Occupations identified by the Industry Partnerships. Pennsylvania's one-stop centers for delivering services to job seekers, branded "CareerLinks," were also given extensive training on how to work with Industry Partnerships in their regions. CareerLinks could, for example, refer workers for entry level openings often vacated when workers move up on a career ladder because of incumbent worker training. They could also provide screening and recruitment services for expanding businesses within Industry Partnerships.

Capacity building, performance improvement and evaluation. To help the state support Industry Partnerships in improving their effectiveness and evaluate that effectiveness, the state has implemented the efforts described below to build the capacity of IPs, help IPs improve their effectiveness, and evaluate that effectiveness. (Benner and Herzenberg 2006 discusses some of these efforts at more length.)

- Training and peer learning for IPs. This has included an initial meeting of the first group of IP grantees, a one-day IP 101 course, peer group meetings for IPs in specific sectors (long-term care, logistics and transportation, and advanced manufacturing) and two rounds of a so-called "IP Academy" for 10 IP teams who had to apply for admission. The IP Academy consisted of four two- or three-day meetings and curricula focused on subjects such as conducting industry research, engaging employers, and evaluation. After the Academy, IP teams had to present a partnership strategic plan to panels of national experts on workforce intermediaries.
- The use of wage records to compare for individuals trained by IPs and other industries in the same cluster, wage levels, wage increases over time, company retention rates, and industry retention rates (more complex analyses—e.g., all employees in IP member firms vs. other employees in the cluster—could be implemented in the future);
- The development of a qualitative Annual Report—the High-Performance IP Standards—that asks IPs to report on their activities and their impact on business and worker outcomes, alignment of

educational institutions (primarily) with industry needs, and "governance and sustainability." IPs must also report whether they are gathering strategic information about the industry, designing interventions based on this information, and measuring the impact of the interventions. This tool is very much a work in progress—it was implemented for the first time in August-September 2007 and has just been substantially redesigned based on feedback from IPs and the first year's experience with digesting and feeding back to IPs the information gathered. A central challenge is make the Annual Report practically helpful to IPs.

- The development of summaries of IP activities by targeted cluster based on the IP annual reports followed by conference calls with IP coordinators to discuss the summaries.
- The completion of a dozen reports, called *Workforce Choices*, that profile High Priority Occupations and career ladders in targeted industry clusters or sub-clusters, and that also summarize industry competitive challenges and workforce challenges, with suggestions for addressing those challenges. One of the aims of this series is to sketch how strategic workforce initiatives, and IP activity, might help each cluster move travel down a higher wage-higher skill path. The title of the series is intended to underscore that the extent to which industries develop along a path that creates good jobs and healthy communities depends on the aggregate impact of the "workforce choices" made by employers, partnerships, LWIBs, educators, trainers, unions, industry associations, etc. To hammer this crucial point further, the idea is to underscore that job and career opportunities in each industry are *not* the result of powerful and uncontrollable market forces but subject to influence by enlightened and informed cooperation to support high-performing businesses.

Industry Partnership Activities and Outcomes: In the future, the implementation and further development of the state's IP evaluation plan should provide more definitive information on the impact of IPs. At this point, our qualitative impressions include the following.

Many IPs have engaged employers at some scale with state-funded workforce programs that those employers find valuable and responsive to their needs. One sign of this engagement was an outpouring of letters, op eds, and phone calls in 2007-08 when state legislators, motivated by partisan political bargaining unrelated to the new workforce strategy, threatened to cut the budgets for Industry Partnerships (to see examples of business support for Pennsylvania's current workforce strategy, go to www.workforcepa.com). Prior to Job Ready PA, it is highly unlikely that Pennsylvania employers would have organized to defend workforce funding to the state legislature in this way.

The emphasis in the initial IP guidelines on "self-organized" groups being eligible to submit proposals probably has increased the number of partnerships that have some degree of genuine engagement and leadership from the private sector. There have certainly been moments when the state wondered if it should have concentrated its investments in fewer, better funded IPs. In fact, some IPs are now choosing to consolidate, for example, across larger geographical areas. A major benefit of having many IPs, however, is that even if some of them are poorly run, and others thin screens for funneling money to companies for training they would have done anyway, a substantial number of IPs are doing high quality work, and trying to do better still. Moreover, since the state is essentially trying to create a "new community of practice" that performs this unfamiliar role of workforce intermediation, the number of IP coordinators, provides a larger pool from which to find, and cultivate, talent. On good days, it feels like a critical mass of IP coordinators are beginning to understand their mission in a deep way, including the balancing act between responding to immediate needs and seeking to help move employer members in higher performing directions. Some IPs go through a maturation process that begins with a focus on the most immediate skill needs but then moves on to the underlying reasons some companies struggle to attract or hold onto qualified workers.

The largest IP activity at this stage is training for incumbent workers to plug immediate skill gaps—in many cases for mid-range jobs which require either a two-year college degree or other post-secondary credential and in which shortages exists. Examples include maintenance workers, welders, bio-medical technicians, nurses, or modular skills workers need to operate the latest software in printing or to qualify buildings for “green building” certification.

A few IPs have also sought to developed new credentials, such as a high-level entry credential for truck drivers aimed at slashing turnover of new workers, and an apprenticeship program for truck drivers.

Several IPs have sought to bring employers together in ways that they might learn from one another. Examples include plant tours organized by a food processing consortium, monthly meetings that bring together IT specialists with peers who serve the same end user industry (e.g., health care IT specialists, manufacturing IT specialists), and efforts by bio-medical companies seeking to get new drugs approved by the Food and Drug Administration to pool experience on bringing new drugs from the development phase, through the approval and production phases. The time it takes to navigate new products through this pipeline is critical to maintaining the pace of innovation and competitiveness of the Pennsylvania industry.

Some labor-management IPs have used union influence to reach inside companies and impact organizational practices. They have set up labor-management committees to help improve labor-management relations and cooperation, for example, within transit agencies and utilities. Labor-management partnerships have also helped diffuse a methodology for conducting “skill gap” analysis with incumbent workers that helps customize training necessary to bring more workers up to the skill levels of the most proficient workers. One IP linked with construction has developed a pre-apprenticeship program to help bring more minorities into the trades and another construction IP is helping plan a local customization of a national best-practice model for placing low-income workers in union jobs in multiple sectors (construction, building services, and hotels).

Four IPs have also participated in Career Pathways pilots that link with existing Partnerships and provide intensive job coaching to a small group of low-income or entry level workers. The Pathways project provides up front development of career planning, initial job placement and job coaching, and additional training and education needed to embark on career advancement. Evaluation data from this pilot project will be forthcoming.

Enabling IPs *as a rule* (as opposed to on occasion) to have an impact on organizational practices or industry competitiveness will require both stronger signals from the state that IPs are expected to take on these roles and more technical assistance in how to do so in a way that strengthens, not undercuts, employer engagement. A typical concern of IP coordinators is that employers will leave the partnership if best human resource practice issues are brought too strenuously to the forefront. More technical assistance is required to give coordinators the confidence to raise issues of job quality, retention, and systemic mechanisms for career advancement, as well as to be willing to allow some low-road companies to leave the Partnership if they are unable to engage on these issues.

Turning to the IP efforts to align local education and training providers with industry needs, high priority occupations have become the focus of occupational education by community colleges. In addition, a fair number of IPs work with youth councils (committees of LWIBs that focus on youth workforce issues) and career and technical schools (vocational schools for students in high school) to help students focus on the in-demand, high-skill jobs of today's global economy. This work has been strengthened through the awarding of Regional Career Education Partnership (RCEPs) grants to youth councils in many regions. In most cases, IPs are critical partners of RCEPS, delivering to them employer connections on a scale far beyond what existed previously. From March 2006 to March 2008, RCEPs, with the assistance of IPs, connected 8,874 employers and businesses who provide career awareness and work-based learning opportunities to approximately 227,700 Pennsylvania students. Such opportunities include about 13,500 paid and unpaid internships. RCEPs are also assisting schools with integrating the academic standards for Career Education and Work with classroom curriculum. Approximately 2,500 teachers and counselors have participated in Education-in-the-Workplace opportunities and most have earned Act 48 credits.

Philanthropic investments in IP efforts to improve careers for low-income workers. Another dimension of the Pennsylvania workforce reform is a joint venture of national foundations, the Commonwealth, and Pennsylvania foundations called the Pennsylvania Fund for Workforce Solutions (PFWF).[2] The PFWS builds on the shared belief of foundations and the commonwealth in the importance to low-income workers of strong workforce partnerships. Philanthropic money will complement state investment in IP infrastructure, providing IPs with resources and technical assistance to help partnership employers find better qualified entry level workers while enabling low-income workers to get better jobs and careers. Pennsylvania has been engaged with the planning stage of what is now the National Fund for Workforce Solutions (NFWS—see the previous footnote) since 2004. Currently, funders' groups from four Pennsylvania regions participate in PFWS—the Philadelphia area, the Pittsburgh area, Erie (in the Northwest corner of the state), and South Central PA—as well as seeking to scale up their regional efforts to help partnerships place and advance low-income workers.

One goal of PFWS is to try to blanket the state with such regional efforts and, in this way, to provide a statewide model for how partnerships can restore opportunity for low-income workers at scale. Foundation engagement through PFWS and could strengthen Pennsylvania workforce reform in several ways. It will engage civic leaders in participating communities in a sustained way with workforce reform—already there is an emerging network of foundation and United Way individuals with a sophisticated understanding of the state workforce strategy and why partnerships are pivotal to reconnecting low-income workers and concentrated poverty communities with better jobs. Second, and related, regional collaborative can play a key role in cementing workforce systems reform in regions already engaged energetically with Industry Partnerships and provide a new source of leadership and

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[2] This collaboration is funded by a grant from national foundations via the National Fund for Workforce Solutions, and matching resources from Pennsylvania foundations and the commonwealth. In September 2007 in Washington, D.C., national foundations and other partners (including United Way of America and the U.S. Department of Labor) unveiled the National Fund for Workforce Solutions (NFWS), a pool of up to $50 million for workforce partnership investments and related capacity building and policy activities. This pool will be used to induce regional groups of foundations and United Way organizations to put their own funds (4 local dollars for each NFWS $) in workforce partnership initiatives that help both low-income workers and employers. Except for Pennsylvania and Rhode Island, all other grantees of the NFWS are cities or metropolitan areas and the current plan of the NFWS is that all future grants will go to sub-state regions.

energy for regions where LWIBs have not yet fully embraced Industry Partnerships. Third, foundation resources will provide an inducement for IPs to support employers in changing their human resource and organizational practices to increase retention and advancement—in essence, copying their best-practice peer businesses. This, in turn, could open IPs to the broader opportunities that exist to change organizational practices above the entry level and to support company shifts to high wage-high skill business strategies. Finally, philanthropic investment provides resources for policy advocacy aimed at increasing state investment in Industry Partnerships and IP training.

DEEPENING PENNSYLVANIA'S REFORM

One of the motivations for writing this paper was the opportunity to reflect on the challenges of implementation of Pennsylvania's workforce reforms and to identify ways, such as those below, to strengthen the implementation.

Dedicate more resources to technical assistance, peer learning, and IP oversight. Currently, at the state level, counting consultants, only a handful of people are responsible for substantive grant oversight and technical assistance to IPs, including programs like the IP Academy and the revising and processing of the annual High Performance IP Standards. (The state is also trying to add to the capacity of LWIBs to support IPs in their regions that are staffed by organizations other than the LWIB itself.) In an era when government strives to remain lean, it is crucial that internal staff not become so anorexic as to undercut state technical and oversight capacity needed to ensure real progress on strategic objectives. In addition to expanding the State WIB, one option for the future would be to support IP coordinators themselves to play the leading role, in consultation with the state and with experts brought in to enrich the learning, in developing programs of continuous improvement and tools for IP self- and collective evaluation. After all, IP coordinators do the actual work of needs assessment and service design in cooperation with member firms while many of those advising them don't. The goal would be to foster the development of a more advanced community of practice able to perform high quality partnership coordination. This could start with a meeting of IP coordinators as soon as the fall of this year, with one purpose being to collectively revise the High-Performance standards.[3]

One part of IP capacity building near term that IP coordinators themselves might assist with is better understanding the skills required by coordinators (or by IP teams) and developing more self-conscious approaches to recruiting as well as training coordinators with the right skills. High-quality IPs require a rich set of skills rarely found in a single person—knowledge of and experience in the industry, the ability to speak the languages of multiple communities with which IPs relate (managers, in some cases, unions, educators, trainers, social service providers, community-based organizations), an organizers' capacity to respond to industry needs and strengthen commitment to the IP but also an appreciation of a long-term vision and an ability to support and nudge the IP towards a more advanced vision.

Applied industry research: advanced IPs require a sophisticated understanding of their industry including an understanding of variations in firms' business strategies and organizational practices. Such

[3] This approach was triggered by conversation with Michael Piore and informed by the suggestions of Suzi Teegarden of Workforce Learning Strategies, who managed the planning and delivery of the two IP Academies done to date. This approach is broadly analogous to an approach being explored to improve the capacity of French government inspectors to improve compliance with labor and other standards and help companies adopt business practices compatible with high standards (Piore 2007).

knowledge is a first step towards designing interventions that could move member firms closer to the high-performance end of the distribution, the end compatible with worker, environmental, and community well-being. Within state government and within higher education in the state, little research capacity to conduct this kind of research exists with PDL&I or the state's universities. Partly because of this, the *Workforce Choices* industry reports took several years to complete. Expanding state research capacity could be done through the creation of and industry research unit in state government and through collaboration with higher education institutions in the state to create an applied industry research center. Wherever this capacity is added, its management will be critical to ensure that it focuses on research related to the practical challenges of helping IPs (and industry cluster economic development initiatives, spawned by IPs or launched independently) help more businesses improve their performance, profitability, and careers.

Invest more in IP building and intermediary activities: in the context of the underfunded American workforce intermediary universe in which funders like to fund direct service, Pennsylvania's annual investment of $5 million entirely for IP coordination looked like gold mine. Now, with $5 million spread over 90 IPs, most IPs have an average of less than 1 FTE responsible for building and staffing them. Short term, one option would be to spend more of the allotment of $20 million from the state annually for the IP coordination function and less for training. After all, while the training money has been critical in getting companies to the table, the most critical function of IPs is coordination. Moreover, effective IP coordination should lead to *more efficient* use of the vastly greater (than $15 million) amount of training and occupational education paid for annually by business, the public sector, and individuals; and to *more* investment in training because companies come to see the wisdom of smart training investments.

Develop credible and transparent means of rationing scarce funds. Initially, IP funds were undersubscribed; virtually any good-faith proposer received funds who demonstrated a willingness to strengthen the project design based on state feedback. Beginning in 2007-08, funds have become oversubscribed leaving an overstretched state staff having to make rationing decisions that, without additional funds, will become more severe. That's not entirely a problem because it will permit the state to demand higher quality from IPs. The challenge, however, is developing practical ways to evaluate IP quality accurately and to avoid rationing based on unclear, inconsistent (who you know), or bureaucratic considerations that threaten IP self-governance and the strength of industry engagement. To conserve state resources, for example, some partnerships in the same cluster (e.g., manufacturing) and region have been forced to merge; a new committee with representation from multiple separate industry groups now divides up training resources available through a single state grant. This may have had the unintended consequence of reinforcing the view that IPs are simply a new way to publicly fund company training. In the polarized construction industry, some partnerships have been pushed to span the union and non-union side of the industry. If IP coordinators are made central players in the development of their own learning and evaluation supports, they should also have a leading role in developing credible and transparent criteria for rationing scarce funds.

Make data collection less burdensome and more transparently beneficial to IP continuous improvement. To justify state investments to the legislature and for evaluation and continuous improvement purposes, the state needs to collect information from IPs and their participating employers. The state has sought to be responsive to employers in designing—and redesigning—data collection (such as the Annual Report) so that it is not burdensome and to help IPs and employers understand that the value of the data to improving IP efforts. There has, however, been a challenge with collecting social security numbers of workers trained. While some workforce programs (e.g., customized job training) have well developed secure systems for collecting this type of information, IPs do not. Moreover, so far, this data is not fed back to the IP and the WIB region so that they can analyze the performance of their IP(s) and region. While a technical fix for submitting wage data may soon be worked out, the example makes the more general, if obvious point, that data collection should aim for a high ratio of actual and perceived value (to IPs and employers and workers) to time required for data collection.

One data option for the future is to get interested IPs to bid for small planning and technical grants to work with their employers to develop benchmarking instruments that capture outcomes of importance to achieving high performance for businesses in whatever cluster the IP is in. IPs could then bid for larger implementation grants that support interventions aimed at improving the benchmark measures and that track the results. Businesses would be required to commit up front to providing the necessary data and to permit public reporting of aggregate performance of the IP. IP coordinators themselves would, once again, be an important sounding board for whether this makes sense at this stage in Pennsylvania's IP strategy.

One last data point: at some point, and sooner perhaps rather than later, it may make sense to de-emphasize the numbers on workers trained with state IP training dollars. While, in general, the state is committed to measuring outcomes of *service providers*, IPs are not a service provider and their purpose is not to deliver training: it is to do coordination work that improves results from training and education generally and that improves industry outcomes and jobs. Constantly emphasizing the number of workers trained with IP dollars, however, refocuses attention on training. As a thought experiment, and leaving aside the question of whether this would be burdensome, imagine a simple change to collecting the number of workers trained and amount of money invested in training for IP firms versus firms in their industry generally, *independent of who paid for the training*. Not only would the number of workers trained be much larger but this would naturally reorient IPs to whether their member firms are investing more in training, a better proxy for the improvement in practices at which IP's should ultimately aim.

Realigning the entire workforce development system. Pennsylvania focused its new strategy initially on building a new set of workforce intermediaries. An ongoing challenge for these workforce intermediaries is to connect other human capital institutions—community colleges, literacy programs, career and technical institutes, welfare training programs, publicly funded "one-stop" centers for job seekers (called CareerLinks in Pennsylvania), and others—to IP strategies to boost skills, opportunity, and growth in key industries.

Accomplishing this requires pooling the knowledge of employers about current and future labor demand, sharing that information with other human capital institutions, and assisting those institutions with adapting their services to the needs of workers and key industry clusters.

At present, federal guidelines, competing missions, and varying cultures all make many human capital institutions less responsive to IPs and less inclined to take full advantage of the knowledge of IPs to assist individuals in embarking on a career path or to achieve other goals. For example, programs offered for low-income or poor individuals, such as TANF training or literacy, often contain performance measures or program directives that impede linkages with Partnership and the jobs and careers that made more transparent by IPs.

At the state level, to address the misalignment of these programs, the commonwealth commissioned a study to make recommendations about the governance of the myriad of workforce programs (Pennsylvania Economy League 2008). The study recommended creating a centralized workforce policymaking body in the Governor's office, as well as moving some programs to other agencies so that implementation better reflects statewide strategic priorities. Not unexpectedly, the recommendations were met with opposition from stakeholders with a vested interest in the status quo. Linking existing programs and services—or reconfiguring them entirely—is an essential component to the success of future intermediary work.

Lack of LWIB buy-in combined with bureaucratic caution—and the need for a clearer long-run vision. Some WIB directors have been enthusiastic supporters of the state's new strategy and sponsored substantial numbers of grants to organize IPs within their LWIB region or to enable other entities in their region to do the same. Other WIB directors have remained on the fence about the innovative approach, seeing it as simply a fad associated with a new gubernatorial Administration and likely to disappear when the next administration arrives. The fact that IP funds have now survived for four budgets, combined with the fact that federal funding for sectoral initiatives has expanded even while other workforce programs have been cut, has probably led a higher proportion of workforce practitioners to accept that this approach may be here to stay.

An overarching challenge—addressing which could help strengthen LWIB buy-in as well as help implementation more generally—is a lack of consensus on the vision of IPs for the long run. This lack of consensus goes back, in part, to the competing understandings of IPs at the beginning of the Rendell Administration. The effective marketing of IP reform meant that groups with distinct views of the problems that IPs could help solve were able to come together. Effective implementation, however, would be helped by a deeper consensus about goals. At present, even the core ideas that distinct business strategies exist in virtually every sector, and that systemic differences in organizational and human resource practices are associated with these strategies, are not widely understood.

A more direct and explicit articulation of the goals of the state's Industry Partnership strategy combined with the aforementioned mechanisms to support Partnerships are required. Articulating these goals can serve as a catalyst for deeper conversations within the state and nationally about talent development and improving job quality.

Fund IPs, training, and other workforce services at levels adequate to today's economy. While a great start, in any long-term sense Pennsylvania's current funds for IPs and IP training are currently laughably inadequate to the real need of a high-skill, high-performing economy. The $5 million currently available for IP building is less than $1 per Pennsylvania worker per year. This is simply not enough for institutions that are supposed to be the missing link between education and the economy or that are supposed to meaningfully influence business strategy and the quality of jobs. How might that be changed?

Understanding one state workforce funding option requires three brief bits of background on U.S. and Pennsylvania training policies to understand. First, most unemployment insurance (UI) benefits in the United States (which provide a weekly cash benefit for qualifying unemployed workers) are funded through taxes on <u>employers</u>. These UI taxes, the details of which vary by state, ordinarily fall <u>on the first part of wages</u> (at least $7,000). Second, a growing number of U.S. states (23 according to one recent count) use a small percentage of <u>taxes collected through the UI tax collection infrastructure (but</u>

segregated from the UI Trust Fund) for job training funds (Jobs for the Future 2007).[4] Third, to help maintain reserve levels, Pennsylvania's UI system imposes a very small tax on employees when the unemployment trust fund balance dips below certain minimums. This employee UI tax in Pennsylvania falls on all wages, not just the first part of wages.

Informed by these precedents, Pennsylvania (and other states) could use a small employer and employee tax on the entire wage base to create a flexible fund for Industry Partnerships and aligned state training initiatives. At full phase in, a tax of up to 0.1 percent of wages on employers and on employers would collect roughly $250 million per year from employers and another $250 million from employees.

[PARAGRAPH ADDED IN 2017: The state created a flexible state training fund in 2011 under Gov. Corbett using a similar, but slightly different, approach. This approach allowed a portion (up to 5%) of existing employee contributions to Pennsylvania's UI Trust Fund to be set aside into a flexible training called the "Reemployment Fund." Unlike employer contributions (see previous footnote), employee contributions are not subject to tight federal regulations requiring them to be used only for unemployment benefits. This provision currently applies only to UI contributions made by September 30, 2017 (and collected by Dec. 31, 2017). This date could, however, be extended and the 5% figure increased.]

With a flexible state training fund in place, a portion of funds available could finance a multi-employer tax credit, e.g., for 50% of qualifying hard cash company contributions to Industry Partnerships that deliver training and other services. With a 50% match, the funds available for Industry Partnership training and related activities would equal twice the amount the state allocates for the credit. Some of the benefits of IP activities cost-shared by contributing employers and taxpayers would extend to other businesses in the sector. These activities also boost Pennsylvania's competitiveness relative to other places. In sum, multi-employer tax credit could become a way to institutionalize more adequate public-private funding for work-relevant education and training, and a way to overcome the collective action problems that leave many business dissatisfied with the education and training system.

If it were substantial enough, this flexible state training fund could also provide resources that help integrate Pennsylvania programs for low-income workers (TANF, literacy, ESL, and GED programs, and programs that higher education for working adults) with the state's career advancement and job quality improvement efforts orchestrated by IPs; and training and services for workers receiving unemployment benefits. Only by providing both training and unemployment benefits will the state make it practical for most displaced workers to participate in the long-term training often necessary to land a good job.

The ultimate result of this additional funding would be a powerful structure of Industry Partnerships providing critical knowledge about skill requirements, job openings, and career paths to educators, trainers, referral agencies (including CareerLinks), and community-based organizations with access to

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[4] Under federal unemployment law, taxes for a flexible state training fund cannot simply be taken out of employer contributions to the UI reserve fund because those must be used exclusively for unemployment benefits. Thus, a separate tax and a segregated pool of funds must be established which can, nonetheless, be collected using the same tax collection infrastructure as used for the UI system. Typically, the segregated state training funds are established at a time when UI reserve funds are flush and employer taxes for UI about to be reduced. At that moment, employer taxes for UI are reduced by a smaller amount and a separate small tax is established to create the training fund. Because of how these funds are created, they are sometimes called "UI diversion funds."

low-income workers. On top of that would be adequately funded training and other services for upskilling incumbent workers, helping low-income workers advance, and helping unemployed workers re-attach to family supporting careers.

NATIONAL POLICY

How can national policy support workforce reform in Pennsylvania? What implications does Pennsylvania's reform have for reform in Washington D.C.? The general answer to both questions is a set of federal reforms consistent with the suggestions at the end of the previous section for reform within Pennsylvania.

The starting point must be to move beyond the fragmentation of workforce programs into separate programs. At present, eight major programs along with many minor programs make up the bulk of federal workforce development programs. (The eight major programs are the Workforce Investment Action (WIA); Adult Basic Education (ABE); welfare (Temporary Assistance for Needy Families (TANF), Perkins, Wagner-Peyser, Vocational Rehabilitation, Senior programs, and Trade Adjustment Assistance (TAA)). Each has a different client base and emphasis, but often the programs have overlapping goals.

New federal workforce policy must focus on four critical goals. First, investments in intermediaries and sectoral strategies must be supported by the federal government. Federal reform must build on state innovations, in Pennsylvania and elsewhere, to "sort through" and aggregate the demand side of the labor market—in ways that can lead, in the long run, to improved human resource practices, job quality, career opportunities, and competitiveness.

Second, institutions that deliver supply side services, starting with education and training, must be made to align with demand and opportunity. Linked with this, silos and turf issues must give way to seamless services and interventions. To help support this focus on the demand side, success must not be gauged by completion of a training program, but rather by full movement to self-sufficiency for low-income workers and higher wages for other workers. For example, increasing an individual's reading level by one tier or grade level might be treated as an interim program success, but real success for the individual is a job that supports her or his family and enables some measure of security.

Third, the federal government must invest significant new dollars in training and education. Education and training must be as long in duration as necessary to enable people to get jobs in demand that support a family (as well as contextualized based on input from intermediaries). Education must be available for skill upgrade throughout the course of an individual's life. As well as income support, unemployed workers must be able to access the training (and other services) necessary to transition to a new career that supports a family. This new investment must, of course, also be made in a way that satisfies the second goal, so that new workforce investment is smart and linked to the sector and intermediary practice pioneered by Pennsylvania and other states.

Finally, a new federal workforce policy must balance the needs of regions to innovate—in fact, promoting regional workforce innovation—while at the same time demanding rigorous accountability to produce outcomes for workers in the form of good jobs[5] and for industries in the form of an available skilled, creative, and adaptable workforce.

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[5] It is important to note that workforce development policy alone will not improve job quality and worker standard of living across the board. Complementary innovation and labor policies must be developed at the federal level to insure both a rising tide and that a rising tide lifts all boats.