

## Federally-funded Workforce Development

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## Executive Summary

The Workforce Innovation and Opportunity Act (WIOA), which superseded the Workforce Investment Act (WIA) on July 1, 2015, presents a new opportunity to strengthen federally funded workforce development programs and the benefits they generate for workers, employers and the economy and society more generally. A number of new WIOA provisions appear to be based squarely on rigorous evidence of proven and promising strategies, such as incentivizing the development of sectoral training partnerships with Workforce Innovation Funds and Sector Partnerships National Emergency Grants and requiring active coordination across agencies in developing training priorities and strategies to help meet employer needs for middle-skill workers. In addition, WIOA grants states more flexibility to transfer funding between Adult and Dislocated Worker programs, which will enable states to spend more on the Adult programs that produce higher returns on average and to support a more equitable distribution of training opportunities in the economy, as disadvantaged adults are less likely to be offered training on the job from employers.

The implementation of WIOA should also draw on the compelling arguments and evidence for beginning training earlier for youth (in secondary schooling) through approaches that blend vocational and on-the-job training and involve employers as partners in delivering the training. Research and experience to date point the importance of creating high-quality Career and Technical Education (CTE) programs that offer vocational and on-the-job training together in high-growth new fields and facilitate mentoring and support that increases students' attachment to school, and ultimately, to the labor market.

More funding and technical support, such as that provided through the Workforce Data Quality Initiative, are needed to link secondary, postsecondary and workforce development data, assess the value of skills acquired in programs, and better direct job seeker training choices and American Job Center strategies. The addition of common performance measures under WIOA for measuring the receipt of diplomas, postsecondary credentials, and other measurable skills gains toward a credential or employment should considerably enhance the types of analyses that can be conducted to link receipt of specific types of skills training to labor market outcomes. Analyses such as these can also guide the system's focus on training in particular sectors and occupational pathways, given the potential for rapid changes in technology, industries and markets that can sharply alter the value of sector-specific skills in a given labor market.

With improvements in data resources and their availability for research, the Department of Labor (DOL) will be better positioned to develop new or improved performance incentive systems for guiding more effective state and local resource allocations. These should link some portion of total funding (or funding additions) to the performance of training institutions and American Job Centers and should be coordinated across and within education and training programs funded by the DOL and Department of Education. The DOL should also consider making additional federal funding contingent on service levels to disadvantaged adults and youth and on expanded training capacities in high-demand fields and for middle-skill jobs. Finally, the DOL should lend greater financial and institutional support to cross-state research efforts and exchanges that desire to test and evaluate innovative workforce development strategies and suggest refinements to improve workforce development programs and the performance management and incentive system.

## **Introduction**

The federally-funded workforce development system, under the U.S. Department of Labor (DOL), was first established by the Manpower Development and Training Act (MDTA) of 1962 and has since undergone four major reforms.<sup>1</sup> Prior to the MDTA, programs such as the Civilian Conservation Corps, the Works Progress Administration (WPA), the Public Works Administration and the National Youth Administration were viewed as temporary solutions to workforce challenges, with unemployment the primary concern. The Comprehensive Employment and Training Act (CETA) of 1973, which succeeded MDTA, extended the WPA approach in that it sought to provide work for the long-term unemployed and those with low incomes, as well as summer jobs for low-income youth. CETA also aimed to cede more control to state governments in administering employment and training programs, a trend that was advanced under the Job Training Partnership Act (JTPA) of 1982, reflecting the Reagan era of “New Federalism.” Compared to its predecessors, JTPA enlarged the role of the private sector in arranging for and delivering employment and training services and diminished the public sector’s part in directly creating employment opportunities (i.e., public service employment).

The Workforce Investment Act of 1998 (WIA) granted universal access to its core employment services for those seeking work or labor market information. WIA also similarly sought to increase inter-agency cooperation and private sector engagement through One-Stop Career Centers—now known as American Job Centers—that co-locate programs of the DOL, Department of Education, Department of Health and Human Services, and Department of Housing and Urban Development (i.e., employment services, unemployment insurance, vocational rehabilitation, adult education, welfare-to-work, and postsecondary vocational

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<sup>1</sup> See Barnow and Smith (2015) for an in-depth discussion of each of these legislative reforms and the programs they created.

education). Local Workforce Investment Boards, including representatives from business, labor and the community, specify the services to be provided through the one-stop delivery system, including the extent of (or access to) training; how the service and operating costs of the system will be funded; and who is served, along with methods for referral of customers between the one-stop partners. In addition, for those offered training, WIA introduced vouchers (individual training accounts, or ITAs) that allow customers to purchase training services directly from a certified provider of their choice. This has contributed to considerable variation across states and local areas in how programs are organized and how and what services are delivered (D’Amico et al., 2004; Barnow and King, 2005).<sup>2</sup>

The Workforce Innovation and Opportunity Act (WIOA), the fourth major reform since the MDTA, replaced WIA on July 1, 2015. In assessing the role and effectiveness of U.S. workforce development programs in increasing middle-skill employment, this paper will focus primarily on the major workforce development programs under WIA and the changes to the system that are expected to come with the implementation of WIOA. The five (currently) largest WIA programs administered by the DOL’s Employment and Training Administration (ETA) include: WIA Adults, Dislocated Workers, WIA Youth, Job Corps and the Wegner-Peyser Employment Services.<sup>3</sup> It is worth noting, however, that the level of funding (FY 2014) for these core programs *combined* pales in comparison to that of the U.S. Department of Education’s Pell Grant program (at just 23% of the FY 2014 Pell Grant discretionary enacted

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<sup>2</sup> D’Amico et al. (2004, I-12), who studied the implementation of WIA, reported: “...our field researchers were struck by the enormous diversity in WIA service designs and delivery structures across the country. Thus, within the broad constraints of the legislation, local areas vary markedly in their governance and administrative structures, the way local boards operate, the procedures for designating One-Stop operators and the responsibilities with which the operator is charged, the ways partners work together to staff various services, how adult and dislocated workers move through the service levels, how priority for target groups is established, whether or not training is emphasized, caps placed on ITA amounts, and so forth.”

<sup>3</sup> The Wagner-Peyser Act of 1933 established a nationwide system of public employment offices known as the Employment Service; in 1998, it was amended to make the Employment Service part of the One-Stop services delivery system.

appropriations).<sup>4</sup> In general, U.S. government spending on workforce development has averaged less than 0.5 percent of Gross Domestic Product (GDP) in recent decades, shares that are well below most western European countries (Auer et al., 2008), and has not kept pace with inflation.

A focus on publicly-funded workforce development for *middle-skill* employment—i.e., jobs requiring more than a high school degree but less than a bachelor’s degree (Holzer and Lerman, 2008)—is also appropriate in this paper. Research has consistently found that employer-provided training is offered disproportionately to better-educated, more highly-skilled workers and increases with the skill-intensity of the occupation (Lynch, 1994; Lerman et al., 2004; Bassanini et al., 2005; Rivera and Paradise 2006). The increasingly narrow targeting of privately-funded training to the higher skilled enlarges the gap in access to training that related work suggests is worsening inequality between higher- and less-skilled workers (in human capital accumulation and wages) (Gersbach and Schmutzler, 2006; Acemoglu and Autor, 2012; Holzer et al., 2011; Holzer, 2013). In fact, Holzer (2013: 6) questions whether the U.S. would be competing more effectively in the global labor market for “good” (middle-skill) jobs if its public policies were more effectual in increasing human capital. In other words, there is some consensus that we could do more through workforce development to counter the under-supply of workers with the necessary skills and credentials to meet labor demand for well-paying middle-skill jobs (Goldin and Katz, 2008; Autor and Handel, 2009).

The body of this paper begins with a synthesis and discussion of existing evidence on the effectiveness of federally-funded workforce development programs in preparing individuals for middle-skilled jobs and meeting employer needs for skilled workers. This review points to limitations of the research base and describes current and proposed efforts to address these

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<sup>4</sup> 5,161,306,000 for the core WIA/ES-related programs plus Job Corps vs. 22,782,352,000 in Pell 2014 appropriations (see [http://www.nationalskillscoalition.org/resources/events/text/2013\\_01\\_16-fy-2014-approps.pdf](http://www.nationalskillscoalition.org/resources/events/text/2013_01_16-fy-2014-approps.pdf)).

limitations and increase the use of research for workforce development system improvement. Next, evolving administrative and organizational structures of the workforce development system and challenges of coordination and alignment across them and among system partners are described. This is followed by a discussion of strategies for improving coordination and coherence between the workforce development system and its required (co-located) partners, as well as mechanisms for increasing employer engagement in workforce development and with system partners, such as through expanding sectoral partnerships and closer collaboration with secondary and post-secondary education institutions. The paper then turns to examine changes coming under WIOA and the opportunities the new law presents for improving system structures, aligning incentives, and strengthening program coordination and effectiveness. Finally, the paper concludes with a discussion of key insights and recommendations for increasing the effectiveness of federally-funded education and training programs.

### **Evidence on the effectiveness of federally-funded workforce development programs**

Tight budgetary conditions make it increasingly important that spending on workforce development is well-targeted, both in terms of how and for whom it can be most effective, as well as in responding to employer skills needs. The existing evidence on workforce development program effectiveness for guiding workforce investments is limited, however, in both the coverage and representativeness of the populations and programs evaluated and the outcomes measured. Focusing primarily on studies of the two most recent DOL programs, JTPA and WIA, Table 1 presents a summary of the evidence, including basic information on the study designs, the types of programs and policies examined, and findings on program outcomes; it is not intended to be comprehensive, but rather focuses on some of the more rigorous evidence and sources of cumulative knowledge and findings to date (e.g., meta-analyses). Among the seven

U.S.-based studies described, two are ongoing experimental evaluations that will release results in 2016 and later. Table 1 also presents information from six cross-national (or non-U.S. based) research syntheses of employment and training program effectiveness.

The numeric estimates of program impacts reported in these studies are almost exclusively focused on average employment and earnings or wages. Only a few studies monetize other impacts, such as government savings or reductions in welfare and crime, and there is even less discussion or measurement of skills, credentials or qualifications gained through training. The studies also vary in the length of time that they follow program participants after receipt of services, and those studies that have followed outcomes over a longer period provide ample evidence that program impacts may change (grow or decay) over time. Still, some broad generalizations can be gleaned from these studies that appear to hold in a wide range of study samples (as well as in different country contexts).

#### *Evidence on adult employment and training program effectiveness*

Looking at the studies with results for adults, the estimates of average impacts on earnings for JTPA and WIA training programs are within a fairly narrow range of \$320-\$887 *per quarter* for participants, particularly given the varying study samples and methodologies (Andersson et al. 2012; Bloom et al., 2003; Decker, 2011; Heinrich et al., 2008; Hollenbeck et al., 2005; Hollenbeck, 2009). Some of these studies translate program effects into percentage terms, with estimated increases in earnings (for programs in the U.S. and abroad) ranging from 5 to 26% of average earnings (Bloom et al., 2003, 1997; Caliendo et al., 2011; Decker, 2011; Fares and Puerto, 2009; Haelermans & Borghans, 2011; Heinrich et al., 2008; Hollenbeck et al., 2005). Estimated effects of training on the probability of employment are also positive and statistically significant across a majority of studies (and in different countries). These estimates of

employment increases range from about 5 to 29 percentage points (measured monthly or quarterly), with some differences between women and men and by training type and time following program entry (Caliendo et al., 2011; Card et al., 2010; Decker, 2011; Fares and Puerto, 2009; Heinrich et al., 2008; Hollenbeck, 2009; Hollenbeck et al., 2005).

Studies that examine program effects by training type also consistently find that job search assistance is more likely to generate positive impacts *in the short run* that then fade in magnitude with time, in contrast to the impacts of vocational training that take a longer time to mature but then turn positive and grow larger. Unfortunately, a number of studies group together job search assistance and on-the-job training or wage subsidies in analyzing their effectiveness, which makes it challenging to identify their differential impacts or effect sizes.<sup>5</sup> In addition, there has been very little analysis of the effects of different types of vocational or on-the-job training that workers receive through federal workforce development programs. One notable exception is a recent study of U.S. trade adjustment assistance (TAA) programs, which found that dislocated worker trainees fare better after training when they find employment in their training field and when they receive a degree or certificate through training, particularly women who receive training in health care professional fields (Social Policy Research Associates, 2013).

The dim outcomes for participants of subsidized, public sector employment programs are another highly consistent finding across numerous studies. From the early JTPA study results to more recent summaries of evaluation evidence, programs offering subsidized public jobs are least likely to yield positive impacts on employment and earnings (Bloom et al., 2003; Caliendo

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<sup>5</sup> Cross-national studies have done a better job of disentangling the effects of different employment and training strategies than U.S.-based evaluations. Caliendo et al. (2011) find wages subsidies to regular employment to be the most effective approach, with 20 percentage point impacts on monthly employment (vs. 10 percentage points for vocational training). Haelermans and Borghans (2011) also concluded that the returns to on-the-job training are substantially higher (yielding a wage increase of 30 percent, compared to an 8 percent average return to education). In their meta-analysis, Fares and Puerto (2009) distinguished between programs that combine classroom and workplace training and those that offer only one type of training or the other, and they concluded that impacts are larger and positive for those programs that offer these training services together.



et al., 2011; Card et al., 2010). This may explain in part why even with extraordinarily high unemployment rates for working-age adults in the most recent recession, there was little discussion of bringing back programs that offer subsidized public employment.

Alternatively, one of the more promising strategies for workforce development, typically emerging locally and operated through public-private partnerships, targets one or more specific sectors of the labor market in arranging education and training opportunities. These sectoral training programs—which aim to advance basic and occupational skills of participants in sectors with expanding labor market opportunities—are intended to respond to the needs of both job seekers and employers simultaneously (and thereby also reduce labor skills shortages). An experimental evaluation of three sectoral training programs (Maguire et al., 2010), which recruited 1,286 applicants over a two-year period, randomizing half of them to participate in sectoral training and the other half to a control group, found that participants earned, on average, 18 percent more than controls over a 24-month study period and 29 percent more during the second half of the period.<sup>6</sup> In addition, sectoral training participants were significantly more likely to work in jobs that offered benefits and paid a higher wage. For each of these outcomes, the effects did not fade in the second year, suggesting their potential to be enduring as well.

Finally, the evidence on the extent to which training impacts vary by subgroups is largely mixed. For example, some studies find differences in training impacts for men and women, with women generally realizing larger gains from vocational training (Bloom et al., 2003; Decker et al., 2011; Heinrich et al., 2008), while other studies find no gender differences in impacts (Andersson et al., 2012; Card et al., 2011). Alternatively, the evidence base is fairly consistent in finding considerably smaller impacts on employment and little or no impacts on earnings of

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<sup>6</sup> The study, funded by the Charles and Stewart Mott Foundation, focused on three well established sectoral training programs: Jewish Vocational Services (Boston), Per Scholas (the Bronx, New York City), and the Wisconsin Regional Training Partnership (Milwaukee).

training programs targeted toward dislocated workers in the U.S. (Andersson et al., 2012; Decker et al., 2011; Heinrich et al., 2008; Hollenbeck and Huang, 2006; Hollenbeck, 2009; Social Policy Research Associates, 2013). In general, it appears that the “lock-in effects” (or foregone earnings associated with training) are more costly for dislocated workers, who tend to have stronger earnings histories than the average training program recipient.

#### *Evidence of youth program effectiveness*

For publicly-funded youth programs, the evidence base on training impacts is also fairly mixed, reflecting in part their diversity in design and service mix. Research finds smaller average impacts of WIA youth training programs (also accessed through American Job Centers) than those for adults, although experimental results are still pending for the DOL’s YouthBuild program. FY 2014 enacted appropriations for WIA Youth, YouthBuild and Job Corps programs together totaled \$2,586,119,000, which compares closely with the FY 2014 appropriations for adult (WIA Adult, Dislocated Workers and Wegner-Peyser) programs (\$2,652,721,000). The U.S. Department of Education Perkins (Career and Technical Education) State Grants also add \$1,117,598,000 (in FY 2014 enacted appropriations) to the funds available for helping youth more fully develop their academic, career, and technical skills at the secondary and postsecondary level.<sup>7</sup>

Beyond the WIA Youth programs, there has been considerable innovation over time in youth training efforts, and there appears to be a clear trend toward combining classroom and vocational training with career or on-the-job training for youth. Programs like Career Academies and Year Up, for example, directly involve employers to incorporate innovative features such as work-based learning components (e.g., curriculums tightly linked with work/skills training and

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<sup>7</sup> See again [http://www.nationalskillscoalition.org/resources/events/text/2013\\_01\\_16-fy-2014-approps.pdf](http://www.nationalskillscoalition.org/resources/events/text/2013_01_16-fy-2014-approps.pdf).

partnerships with employers to facilitate job-shadowing, on-the-job training, and internships); college-readiness counseling and pre-college course-taking, along with financial incentives for youth to reach educational or career milestones and strong peer supports (Bloom, 2009; Bowles and Brand 2009; Heinrich and Holzer, 2011). Furthermore, there is experimental evidence of their positive impacts on youth and young adults. One year after participation in Year Up, the annual earnings for those who participated were on average 30 percent higher than earnings for control group members (Roder and Elliot, 2011), although the findings of a larger experimental evaluation of Year Up are still pending. And participants in Career Academies realized an 11 percent increase in average annual earnings (\$2,203 per year) that was sustained over an eight-year follow-up period (Kemple and Willner, 2008). Career Academies participants were also 23 percent more likely to be living independently, although the experimental evaluation did not find effects on attainment of postsecondary credentials, standardized test scores, receipt of public assistance, drug use, criminal activity, or health insurance coverage.<sup>8</sup>

Like the Career Academies evaluation, the experimental study of the U.S National Job Corps program (see Table 1) also stands out from other program evaluations in terms of its scope (the broad range of program impacts examined) and its longer-term follow-up (Schochet et al., 2006). Academic and vocational instruction and job training are the core components of the Job Corps program, which aims to help youth attain certificates or credentials and to then place them in jobs that match well with the skills they have acquired. Job Corps is also distinctive, however, in its residential component that is intended in part to remove disadvantaged youth from risky contexts that might otherwise interfere with their progression through the program. Schochet et al. find a number of number of positive impacts of the Job Corps program, including an increase

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<sup>8</sup> In 2012, the Obama administration proposed to award competitive grants to high-need school districts to expand the number of career academies by 3,000 nationwide and increase the number of students served by 50 percent (<https://www2.ed.gov/about/offices/list/ovae/pi/cte/transforming-career-technical-education-expanding.pdf>).

in the receipt of GED and vocational certificates by more than 20 percentage points each; positive earnings impacts beginning in the third year after random assignment that yielded an average earnings gain of about \$1,150 or 12 percent by the fourth year; an increased likelihood of having a job with fringe benefits; significantly reduced welfare receipt and lower arrest, conviction and incarceration rates and reduced criminal activity for all youth subgroups. Still, the estimated impacts on earnings endured through the fifth to tenth years only for 20- to 24-year-olds (who tended to participate in Job Corps longer), and because of the Job Corps program's substantially higher cost per participant, the study authors concluded that despite the multiple dimensions of positive program impacts, the program did not pass a cost-benefit test when the longer-term effects were taken into account.

Lastly, there are also some interesting findings on youth programs in cross-national studies, including those on youth "dual apprenticeship" programs, which combine school-based education with firm-based training and have more slowly emerged as practicable program models in the U.S. Studies by Biavaschi et al. (2012), Eichhorst et al. (2012), and Fares and Puerto (2009) are consistent in finding these dual approaches to be more effective in linking youth competencies with employers' needs; increasing successful youth transitions from school to work; lowering youth unemployment rates and unemployment spells, and increasing youth earnings. Lerman (2013) laments that most European countries blend vocational and on-the-job training in partnerships with employers beginning at much earlier ages than we do in the U.S.; he reports that apprenticeship programs in Germany, Switzerland, Austria, Australia and the United Kingdom are now reaching over 50 percent of young people. Employer investments in training for youth come primarily through these types of public-private partnerships, or private-nonprofit collaborations in programs such as Year Up, given the typical low skill levels of entry-level

private sector jobs that youth are qualified to perform (Heinrich and Holzer, 2011).

*Limitations of the research base and opportunities for improvement*

Reflecting on the research base discussed above, there are a number of limitations to its use for informing U.S. policy to increase middle-skill employment. First, with the exception of the Job Corps program evaluation, the data made available to researchers has not identified the specific types of skills training that individuals receive and the types of jobs they are intended to prepare workers for (and whether or not participants are matched to jobs that give them the opportunity to apply their new skills) to link with data on program outcomes. Thus, it is difficult to provide recommendations about the types of skills training that should be given priority to better prepare job seekers for middle-skill jobs. Researchers also point to problems with idiosyncratic definitions of training; a lack of data on the duration of training, skills acquired and completion of qualifications or credentials; and even scarcer data on productivity and costs that one would need in order to assess and compare rates of return. Even in the largest-scale nonexperimental evaluation of the WIA program (mandated by Congress), researchers were unable to get costs incurred per WIA participant and instead had to rely on data from published sources to estimate average per capita direct expenditures (Heinrich et al., 2008).<sup>9</sup>

Addressing the limited availability and quality of data will be necessary if we are to generate more useful results for policymakers and program administrators. In countries such as Germany, the Netherlands and Denmark, comprehensive, national-level access to administrative databases on active labor market programs has allowed researchers in these countries to undertake considerably richer analyses than are typically possible with administrative data from

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<sup>9</sup> The nonexperimental WIA evaluation (Heinrich et al., 2008) was only able to secure cooperation from 12 states to obtain administrative data, and some only provided those data for part of the period for which they were requested. In addition, there were numerous inconsistencies from one state to another in how those data were recorded and managed, which ultimately placed the burden on researchers to make assumptions about how they should be used.

U.S. states or the DOL (Lechner and Wunsch, 2009; Smith, 2011). Considering this issue from the perspective of employers and what it might take to convince them to engage in sectoral training program efforts, King (2013) notes the lack of data for examining whether these strategies increase worker and firm productivity (either immediately or over time), increase efficiency or lower firm costs, or ultimately affect firms' bottom line (i.e., profits). Existing evaluations have rarely gone beyond the worker as the unit of analysis or the returns to individuals in relatively narrow terms of their employment and earnings. And because we have struggled to get even basic data on program services costs, any type of "bottom-line" calculation is nearly impossible, whether for public entities or private investors in training.

Analyses conducted in recent studies of the returns to different community college programs and course-taking have generated the types of results that we need to better guide resource allocations in our workforce development programs (Backes et al., 2015; Stevens et al., 2015; Jepsen et al., 2014). For example, Backes et al.'s merged administrative data from Florida's secondary and postsecondary public education systems (including detailed data on course-taking) with unemployment insurance (UI) earnings data to follow students from eighth grade through college and into the labor force. Through their analyses, they were able to identify the fields of study that generated larger market returns (in individual earnings), including strong returns (at the sub-bachelor's level) for health, transportation, construction, manufacturing, and security credentials, and in transportation, engineering, business management and health fields (for those with bachelor's degrees or higher). Stevens et al. (2015) used detailed "taxonomy of program" codes to categorize the content of different community college courses in California (including six large disciplinary fields and sub-fields within them) and also found considerable heterogeneity in degree and certificate returns across (and within) fields. Returns in health, for

instance, ranged from -0.08 to 0.50, with larger gains for women earning health-related associate's degrees. Supporting access to similarly detailed data from the workforce development system on job seekers using vouchers (ITAs) to get training from public and private providers could go a long way toward linking the types (and duration) of training provided to employment and earnings in middle-skill jobs, as well as to establishing incentives to improve program performance and labor market outcomes.

### **Coordination and alignment in the public workforce development system**

WIA's stated purpose, "to consolidate, coordinate, and improve employment, training, literacy, and vocational rehabilitation programs in the United States," is pursued through five program titles, with Title I the most centrally important in defining the roles of state and local elected officials and their scope for policymaking and management. State governors have authority over the state departments of workforce development and make appointments to state Workforce Investment Boards (WIB), which, in turn, develop a state plan for operating the system and delivering workforce development services. Under WIOA, states are *required* to develop a single, unified (four-year) strategic plan with three other core programs: the Department of Education, Department of Health and Human Services, and Department of Housing and Urban Development. At the local level, the key mechanisms for planning and coordination are the American Job (or One-Stop) Centers that every local workforce investment area is required to operate, combining more than a dozen of federally funded education, workforce and worker support programs to offer a basic menu of services for individuals seeking training and/or employment assistance. WIOA elevates the expectations for local-level coordination by mandating (rather than simply encouraging) partnerships and co-location with

the Wagner-Peyser Employment Services and Temporary Assistance for Needy Families (TANF) programs, sharing infrastructure as well as resources for service provision.

The ETA at DOL also encourages state and local WIBs to take into consideration ETA's present policy emphases in developing their strategic plans, which are communicated through training and employment guidance letters (TEGLs). These policy priorities tend to reflect the broader objectives of the executive administration, such as the Obama administration's emphasis on the use of evidence-based practice and a new "dual customer" focus. The aim of the dual customer focus is to encourage the workforce system to do more to align its employment and training investments in those seeking work with the skill and workforce needs of employers. Through their greater engagement in the governing of the American Job Centers, employers are expected to communicate their workforce skill needs to the system partners and facilitate the development of sectoral partnerships that create opportunities for worker training and their subsequent transition into jobs in high-demand sectors. Under WIOA, the Obama administration is elevating and incentivizing this priority by requiring states and local governing boards to develop measures of their effectiveness in serving employers and their success in matching employers with qualified workers.

Another key priority of the current ETA is to encourage state and local WIBs to better align their workforce development activities with state and regional economic development plans, so as to ensure that the training and employment services offered are linked to expected industry growth, the related skill competencies required, and anticipated employment opportunities. The DOL is urging state and local workforce development agencies to work toward developing comprehensive regional partnerships to facilitate this alignment, and it could also place a greater emphasis on boosting training for middle-skill jobs in growth industries. One



of the mechanisms for this greater level of coordination and planning is the formation of industry or sector partnerships and corresponding sectoral training programs that, as described earlier, advance the basic and occupational skills of participants in expanding occupational sectors. These efforts are being supported by sectoral training initiatives, first announced in June 2012 by the Secretary of Labor and funded by the \$146.9 million Workforce Innovation Fund. In addition, the DOL recently committed an additional \$150 million in Sector Partnerships National Emergency Grants to provide work-based learning activities for dislocated workers to help them transition back into employment.<sup>10</sup> Although data for tracking the development and evaluating the effects of sectoral partnerships or training initiatives are currently limited, one estimate (Mangatt, 2010) identified approximately 1,000 sectoral training partnerships already operating in the U.S.

*Expanding the role of data in planning and coordination*

State and local WIBs under WIA are also expected to take an active role in shaping the direction of workforce development policy by drawing on the collective expertise of WIB members and engaging in data analysis that contributes to innovative policy making and planning. State workforce investment agencies are required to maintain standardized records for all individuals who receive services or benefits from WIA programs, including information about participant characteristics, program activities and services provided, and outcomes (i.e., employment and job retention, occupational codes, whether the employment was training-related, and credentials and skill attainments). These data are submitted annually to the DOL in September and are validated at the federal level.

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<sup>10</sup> See <http://www.nationalskillscoalition.org/news/blog/dol-announces-sector-partnership-grants>.

Although state and local agencies are encouraged by the DOL to use these data in evaluation studies to promote strategies for continuous improvement, there have been limited efforts to coordinate the sharing and analysis of workforce development system data across state and local jurisdictions. Research efforts and exchanges facilitated by organizations such as the National Association of State Workforce Agencies (NASWA) have also pinpointed inconsistencies from one state to another in how data are recorded and managed. For example, the WIA and WIOA performance accountability provisions indicate that state and local WIBS are held accountable for the outcomes of “participants,” but the statute, including section 116 of WIOA, does not define a participant. A NASWA workgroup that reviewed the new WIOA regulations has asked the DOL to provide further guidance on data collection and to consider only counting individuals who have interaction with the workforce system that is specifically intended to help them obtain, retain, or improve employment, education or skills as *participants* for the purpose of performance measurement.

Recognizing the limitations of the existing workforce development data systems, in 2010, the DOL launched the Workforce Data Quality Initiative (WDQI), which is currently in its fifth round of soliciting and distributing grants to the states to facilitate improvements in their data systems. As of spring 2015, most states (33 of 51) have received at least one WDQI grant. The WDQI has a “sister” initiative at the U.S. Department of Education—the Statewide Longitudinal Data Systems Grant Program—which is intended to work hand-in-hand with the WDQI in supporting the development of and improvements in state education and workforce *longitudinal* administrative databases. More specifically, the goal is to support the integration (matching) of education and workforce data and to improve their quality and breadth, while also generating more “user-friendly” information for consumers that can help them select the training and

education programs that best suit their needs and promote labor market success. If the projects funded under these “sister” initiatives succeed, we should be in a considerably better position to conduct analyses on returns to specific types of training, particularly if greater efforts are made to subsequently release public use datasets to the broader research community.

To date, these state WDQI projects have supported a broad range of activities. Some states (e.g., New Jersey) have utilized their WDQI grants to build multi-program consumer-facing dashboards, while others (e.g., Maryland, Texas) have enhanced existing ones.<sup>11</sup> Such dashboards are designed to provide jobseekers with easy-to-access information about workforce services and their performance to help them make informed choices. A few states (e.g., Texas) have supported analysis of linked workforce and education data to help inform programs about the nature of services and outcomes from these efforts. The National Skills Coalition issued a series of reports demonstrating the uses of enhanced labor market data from the WDQI, and with support from the Joyce, J.P. Morgan Chase and other foundations, is initiating work with four states (California, Mississippi, Ohio, and Rhode Island) to develop three types of data tools—supply-demand analysis, dashboards, and career pathway evaluators—as part of its Strategic Workforce and Education Alignment Project (SWEAP).<sup>12</sup> SWEAP’s goal is to demonstrate how state officials and other policy leaders can use these data tools to make more informed decisions about targeting state and federal resources to the most effective programs (or program combinations) for jobseekers, especially those with low skill levels, and to help them to secure jobs in occupations with demonstrated skilled employment opportunities in their states.

### *Improving coordination for youth services*

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<sup>11</sup> See the USDOL WDQI grantee website (<http://www.doleta.gov/performance/workforcedatagrantaawards.cfm>) and the National Skills Coalition’s Workforce Data Quality Campaign website (<http://www.workforcedqc.org/resources-events/resources/mastering-blueprint-state-progress-workforce-data>) for more information about these grants.

<sup>12</sup> See <http://www.nationalskillscoalition.org/news/press-releases/may-29-2015>.

There is also a greater emphasis coming under WIOA on building stronger partnerships between the U.S. Department of Education and DOL to support education and vocational training efforts at the *secondary* education level. The U.S. spends more heavily on education than its OECD peers but does far less in the provision of high-quality occupational training for young people or in blending vocational and on-the-job training through partnerships with employers while youth are still in secondary education (Lerman, 2013). There is considerable debate currently taking place in the U.S. about whether we have moved too far away from career and technical education (CTE), compounding the skills and labor market disadvantage for youth who are ultimately not college bound (i.e., only about 25 percent of high-school graduates attend a four-year university upon graduation). Although U.S. education policymaking is largely in the purview of state and local educational agencies, new policy directives are encouraging the development of more systemic and comprehensive approaches for educating and training youth, so that fewer of them fall off track (Edelman and Holzer, 2013). For example, WIOA is placing greater emphasis on work-based learning by requiring the Title I youth program to spend at least 20 percent of the funding on work experience, and CTE stakeholders can participate in the development of state plans to ensure that CTE is incorporated into a state’s vision and goals for increasing workforce skills.<sup>13</sup> It is critical to begin these efforts while youth are still in school, because as Edelman and Holzer (2013) point out, once youth have “disconnected” both from school and the labor market, they are more likely to give up on “mainstream” institutions and opportunities, and their prospects for entering the labor market will become increasingly poor.

### **Other changes and opportunities under WIOA**

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<sup>13</sup> See <http://www.nationalskillscoalition.org/resources/publications/file/2015-06-Aligned-by-Design-WIOA-and-CTE.pdf>.

WIOA, the first legislative reform of the U.S. workforce development system to take place in 15 years, maintains (for the most part) the current structure of the WIA system, including the state and local workforce boards under WIA. In fact, there are relatively few dramatic changes in the law (from WIA), although there are some notable features that are worth briefly discussing here. For example, WIOA restores most of the state governors' discretionary funds, which had previously been pulled back to the federal level by Congress and were used to create the Workforce Innovation Fund. State governors are expected to have discretion over 10 percent of the innovation funds, which can be used to incentivize sectoral partnerships, career pathways and other such innovations mentioned above. WIOA also aims to increase flexibility in meeting job seeker needs by eliminating the sequencing of services under WIA and combining WIA's core and intensive services into a career services category that can also be used to develop "sector focused" pathways toward better labor market outcomes for participants.

Along with the requirement for a single, unified state plan covering all core programs, WIOA correspondingly creates a set of common performance measures for adults across all core programs authorized under the law, including both occupational training and adult education programs, and a similar set of common measures across all youth serving programs. New adult measures include receipt of a secondary diploma or recognized postsecondary credential, measurable skills gains toward a credential or employment, and employer engagement, filling in an important hole in existing data collection on skills acquisition. WIOA also adds requirements for performance reporting, expands the use of UI wage records across all programs; requires coordination of state and federal evaluation efforts; and establishes a new Workforce Information Advisory Council. In addition, WIOA requires state boards to establish criteria for use by local

boards in assessing the effectiveness, physical and programmatic accessibility, and continuous improvement of American Job Centers at least every three years.

Another performance management change is the new push toward “Pay for Performance” under WIOA. This feature, also more widely known as “Pay for Success,” aims to incentivize and develop new public-private partnerships to address some of the most difficult programmatic challenges using payment structures that provide funds only to programs that achieve pre-determined outcomes. In effect, it is a performance-based contracting arrangement between government and a service provider (or provider coalition) in which the government only pays when measurable results are achieved within a specified timeframe. To facilitate implementation of this new approach, WIOA creates a permanent authority within the three formula funding streams (Adult, Youth, and Dislocated Workers) to establish Pay for Performance as an eligible use of WIOA funds. Local workforce boards can devote up to 10 percent of funding across all three formula funding streams for Pay for Performance programming. States can also use their WIOA funds to provide technical assistance to help local workforce areas implement Pay for Performance strategies. This will be an important new provision of WIOA to watch, as to date, there is limited evidence of the success of “Pay for Success” strategies themselves.

Finally, Section 101 of WIOA describes a number of existing best practices that the ETA would like to see adopted or expanded under the new law, including: career pathways (integrated with adult basic education, English as a second language, and occupational training); industry or sector partnerships convened or implemented by local WIBs, and an increased focus on the attainment of industry-recognized certificates and credentials linked to in-demand occupations. These provisions are evidence-based and consistent with the longer-term movement toward greater collaboration between business/industry partners, community colleges, community-based

organizations and other system partners to integrate education and training into programming in ways that better target expanding job opportunities and help to meet employer labor needs.

At this time, discourse over the implementation of WIOA provisions continues, and the DOL will continue to draw on the input of a wide variety of workforce system stakeholders, partners and researchers to provide further guidance for the implementation of the law. The National Association of State Workforce Agencies and other stakeholders of the U.S. workforce system—who have been studying the WIOA legislation, reviewing the new provisions section by section, and anticipating challenges in its implementation—have urged the Secretary of Labor and the DOL’s federal program partners to ensure that workforce system partners (and the research community) have flexibility and opportunities through state options, waivers, pilot demonstrations, and other means to learn from state and local innovations and improve on the system design as the new provisions are rolled out. They are also asking the DOL to continue to facilitate the development of evidence and the translation of evidence into policy by writing policy into *guidance documents* rather than relying on more formal regulations, allowing for modifications to the guidance as new knowledge is gained in the work of state and local agencies with their system partners. In effect, flexibility is needed and will be highly valued as federal, state and local agencies and system partners work to identify the best approaches to and measure(s) of effectiveness in serving workers and employers and ensuring continuous performance improvement and increased program and labor market success. The research community, in turn, would like to see expanded efforts to facilitate data sharing and government partnering in experimental and nonexperimental evaluations intended to systemically assess the effectiveness of the WIOA provisions and innovations in improving worker and employer outcomes and to guide future evidence-based policy decision making.

## **Conclusions and recommendations**

Evaluations of federally funded workforce development programs consistently find substantial employment and earnings gains from training for disadvantaged adults, who are also the least likely to be offered training by their employers. This knowledge, combined with employer claims that they have been slow to increase hiring due to their inability to find workers with the requisite skills (Besharov and Call, 2013), suggests the critical role that federal employment and training programs serve in providing vocational and on-the-job training that presumably contributes to productivity gains for workers and employers. However, in the past, we have spent more on the less well-performing WIA dislocated workers and trade adjustment assistance programs than on training for disadvantaged adults. Thus, the new provision under WIOA that will allow states to transfer 100% of funds between Adult and Dislocated Worker funding categories could be a welcome change, if responses to this flexibility are informed by analyses of evidence on training effectiveness. An analysis by LaLonde and Sullivan (2010) suggests that some of the same vocational and technical training strategies that have worked well for WIA adults could be more effective for dislocated workers, but for both groups, we have not targeted resources well within the programs. They offer a number of strategies for improving program effectiveness, such as tying aid for vocational course-taking to past performance (e.g., completion rates) for both individuals and educational institutions, as well as more active use of data by workforce development agencies to identify higher-value training programs. Holzer (2015) similarly suggests a role for states in fostering greater accountability for postsecondary education and training programs that are accessed via vouchers and student subsidies by linking funding to program outcomes, as well as by making additional federal funding contingent on



service levels to disadvantageded students and expanded training capacities in high-demand fields, which could include more preparation for middle-skill jobs.

The arguments for beginning training earlier (in secondary schooling) are also compelling, particularly for approaches that blend vocational and on-the-job training and engage employers in partnerships in their provision. We are currently far behind our European peers in these dual training and apprenticeship programs; about a quarter of German youth engage in on-the-job training alongside of vocational training while completing their secondary education (Caliendo et al., 2011). Contrary to oft-stated concerns in the U.S. about creating separate “tracks” for students that might limit their opportunities for higher education and skills development, the training offered in programs in Germany and elsewhere is not perceived of as lower-grade or an inferior track, but rather is high-quality and career-focused, leading to a certification that youth can take directly to the labor market or on to additional university-level education.<sup>14</sup> Still, acknowledging the historical roots of these concerns in the U.S.—the low-quality of vocational education offered in past U.S. programs that diverted students from college preparatory classes and prepared them for low-paying jobs—Holzer (2015) argues for the development of higher-quality CTE programs. Dougherty’s recent (2015) study of CTE programs in Massachusetts confirms that positive impacts of these programs are contingent on quality. He also identifies some dimensions or attributes that make a difference, such as program offerings in high-growth new technology fields and exposure to the same instructors over multiple years to facilitate mentoring and support that increases students’ attachment to school.

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<sup>14</sup> European approaches to labor market preparation for youth also still struggle with the least advantaged. For example, there is a separate preparatory system for German youth with the lowest educational attainment before they have the opportunity to enter an apprenticeship, and it also takes these youth more time to move from subsidized work experience into employment (Caliendo et al., 2011).

More generally, it is encouraging that a number of the new provisions of WIOA, as well as evolving workforce development policies, appear to be based squarely on existing evidence of both proven and promising strategies, and there are a number of rigorous, federally-funded evaluations of training programs that will soon release results to add to the existing evidence base (U.S. DOL et al., 2014). For example, building on the experimental evidence of the success of some sectoral training partnerships, the DOL is incentivizing their development with Workforce Innovation Funds and Sector Partnerships National Emergency Grants, as well as with provisions in WIOA that require (rather than encourage) active coordination across agencies in developing training priorities and strategies that will help meet employer needs for middle-skill workers. At the same time, policymakers have recognized the need for better data to inform workforce development strategies, such as the recent efforts of the Workforce Data Quality Initiative and the Statewide Longitudinal Data Systems Grant Program (in education) to develop state education and workforce longitudinal administrative databases that are sorely needed to conduct the kinds of basic research on training effectiveness that can better direct job seeker choices and American Job Center strategies. Furthermore, the addition of common performance measures under WIOA for measuring the receipt of diplomas, recognized postsecondary credentials, and other measurable skills gains toward a credential or employment should also considerably enhance the types of analyses that can be conducted to link the receipt of specific types of skills and training to labor market outcomes, and thereby better direct future workforce investments in training. And as Holzer (2015) suggests, we also need further investigation as to what extent we should be focusing on training in particular sectors and occupational pathways, given rapid changes in technology, industries and markets that can sharply change the value of sector-specific skills in a given labor market.

Workforce development resources are lean but unlikely to expand much (if at all) under WIOA, despite recommendations to increase funding, so we will have to be smarter about our future workforce investments. Many of the recommendations offered below (including some that continue recent policy directions) are embedded throughout this paper, so rather than fully reiterating the analysis, reasoning and/or evidence that undergirds them, this paper concludes by presenting them briefly in bullet form:

- We should allocate more of existing workforce development resources to the WIA/WIOA Adult program (vs. Dislocated Workers) as returns, on average, are higher for disadvantaged adults, who are also less likely to be offered training on the job from employers.
- Because of the substantial heterogeneity in the effectiveness of different types of vocational and on-the-job training and in local program administration and labor markets, more analysis of *linked* secondary, postsecondary and workforce development administrative data and labor market information is needed to assess the value of skills acquired and to guide individual and American Job Center choices of training accessed, as well as program implementation. As Reamer (2015) argues, WIOA presents an opportunity (and new infrastructure) for strengthening the national Workforce and Labor Market Information System (WLMIS) by linking administrative data across a larger number of federal agencies and programs involved in education and workforce development, as well as those that generate labor market information. The DOL, Department of Education and other federal agency partners in the American Job Centers should take the lead assembling these data at the national level, linking the data across states and longitudinally, and making them available to the broader research community to spur the types of analyses discussed here and by Reamer (2015).

- The DOL should continue to fund and scale up (as supported by evidence) a variety of innovative work-based learning strategies for youth (i.e., with education curriculums tightly linked with skills training and partnerships with employers to facilitate on-the-job training, apprenticeships and internships), while continuing to fund evaluations that will help to identify elements of higher quality programs that should be replicated.
- The DOL also needs to work on making more data available on training and other program costs that will aid the workforce development system and employers in calculating worker and program efficiency and productivity, and ultimately, the returns to investing in public-private partnerships over time, which will help them better gauge the value of future collaborations and funding commitments in workforce development.
- With improvements in data and their expanded use for research, the DOL will be better positioned to develop new or improved performance incentive systems for guiding more effective state and local resource allocations that could link some portion of total funding (or funding additions) to the performance of training institutions (including postsecondary education institutions that accept ITAs) and/or American Job Centers. The design and use of performance measures and incentives should also be coordinated *across* (as well as within) education and training programs funded by the DOL and Department of Education.
- The DOL should also lend greater financial and institutional support to cross-state research efforts and exchanges facilitated by organizations such as the National Association of State Workforce Agencies that can apply their cumulative knowledge and experience and build upon existing partnerships and networks to test (and evaluate) innovative workforce development strategies and suggest potential refinements to workforce development programs and the performance management/incentive system.

- Greater flexibility in the expenditure of public resources often comes with corresponding expectations for accountability. WIOA’s foray into “Pay for Performance” is one potential model for performance-based contracting that should be carefully and rigorously studied, so that both intended and unintended consequences (e.g., cream-skimming, gaming of measures)<sup>15</sup> can be identified and best practices disseminated, or alternative approaches suggested.

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<sup>15</sup> In a stark example of gaming of performance measures, U.S. Department of Education officials reported that Corinthian Colleges Inc., a large, for-profit (now bankrupt) chain paid temporary help agencies to hire its students upon graduation for as few as two days, so they could count them as employed and boost their placement rates (Mitchell, 2015).

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<b>Table 1: Summary of findings from evidence base on (federally-funded) workforce development program effectiveness</b>			
<b>U.S.-based studies</b>	<b>Sample/methods</b>	<b>Outcomes by different types of programs</b>	<b>Other findings and limitations</b>
U.S. Department of Labor, WIA Adult and Dislocated Worker Programs Gold Standard Experiment	30 sites randomly sampled; 26 + 2 randomly chosen replacement sites=28 experimental sites; approximately 35,000 job seekers randomly assigned between November 2011 and April 2013 to one of three levels of service: core, core + intensive, all services (including training)	Program effectiveness will be measured 15 months after job seekers enrolled, with findings expected to be available in 2016; findings on the longer-term effectiveness of the programs and their benefits and costs are expected to be available in 2017	Because there is no <i>non-participant</i> control group, there will be no estimates of WIA impacts relative to a “no WIA services” state
Andersson, Holzer, Lane, Rosenblum and Smith, 2012, Does Federally-Funded Job Training Work? Nonexperimental Estimates of WIA Training Impacts Using Longitudinal Data on Workers and Firms	Objective: to measure a wider range of impacts on worker outcomes with richer controls; data on WIA participants (WIASRD data) were linked to data on workers, employers and employment outcomes from the Longitudinal Employer Household Dynamics (LEHD) program for two states; workers who received training were matched to workers who only received core or intensive services at One-Stop Centers; inverse propensity score weighting was used to estimate impacts	Earnings differentials tend to be negative during first several quarters after WIA registration for training recipients; earnings impacts become positive around the 6 <sup>th</sup> quarter and grow larger over the next several quarters, peaking at approximately \$400-500 per quarter; estimated annual impacts for adults are \$1250-1700; results are less favorable for dislocated workers (peak lower in one state and do not turn positive over 12 quarters in the other state)  Training appears to increase the probability of switching industries over time and is associated with some measures of firm quality (i.e., may help workers gain employment in higher-paying firms and industries)  Estimated impacts do not differ by gender	Authors suggest that their findings imply that job training efforts should consider the jobs and firms for which workers are being trained (e.g., akin to sectoral approaches) if we are to increase the effectiveness of training
<b>U.S.-based</b>	<b>Sample/methods</b>	<b>Outcomes by different types of programs</b>	<b>Other findings and</b>

studies (cont.)			limitations
Decker, 2011, "Ten Years of WIA Research"	Review of studies on impacts and implementation of Workforce Investment Act (WIA) programs, as well as pre- and post-1995 evidence (MDTA, CETA & JTPA)	<p>JTPA: 15% earnings increase for women, 8% increase for men, and net benefits per enrollee of \$763/quarter for women &amp; \$781/quarter for men; OJT/JSA impacts higher for women; larger long-run earnings effects (over \$5,000 on average)</p> <p>WIA: estimates of \$320-692 per quarter for 4 years <i>after program entry</i> and higher employment, 5-13% per quarter (Heinrich et al., 2008); earnings impacts higher <i>starting at program exit</i> (\$773-887 per quarter over 8 quarters) and employment effects of 10.6% for women &amp; 6.2% for men (Hollenbeck et al., 2005); impacts of training increase over time; JSA effects more immediate but short-lived;</p> <p>Trade Adjustment Assistance (TAA) and Dislocated Worker programs: studies find small and/or statistically insignificant effects; differing estimation approaches suggest forgone earnings costs are high during program participation</p>	JTPA evaluation was experimental but WIA evaluations were nonexperimental; potential for selection bias remains a concern with program impact estimates; study samples are not nationally representative
Hollenbeck, 2009, "Return on Investment Analysis of a Selected Set of Workforce System Programs in Indiana." Report to Indiana Chamber of Commerce Foundation, Indianapolis, IN	Indiana WIA-Adult, Dislocated Worker and Youth programs and TAA and sub-baccalaureate Postsecondary Education (PSE); comparison group of job seekers accessing WorkOne but not receiving training statistically matched with WIA participants; analysis for state fiscal year 2006 (7-1-05 to 6-30-06); program administrative data linked with IWIS data on employment and earnings (2003 Q3-2008 Q1)	Employment rate in 3rd full quarter after exit for individuals in the WIA-Adult program was approx..15 points higher than that for comparison group; WIA-Adult quarterly earnings about \$550 higher than the comparison group average; WIA-Dislocated Workers program and postsecondary education had substantial positive impacts on individuals' likelihood of being employed, but average quarterly earnings impacts faded by the 7 <sup>th</sup> post-exit quarter; no statistically significant net impacts of the WIA-Youth program and a small employment impact but negative earnings impacts in third post-exit quarter	Individual and social ROI are positive except for TAA and highest for WIA-Adults and PSE; impacts calculated from the date of program exit (not entry); opportunity costs of time participating are not accounted for as in other impact studies
<b>U.S.-based</b>	<b>Sample/methods</b>	<b>Outcomes by different types of programs</b>	<b>Other findings and</b>

studies (cont.)			limitations
Heinrich, Mueser and Troske, 2008, Workforce Investment Act Non-experimental Net Impact Evaluation (with IMPAQ International)	Administrative data from 12 states used with propensity score matching methods to evaluate program effects on average earnings and employment for ~160,000 WIA participants up to four years following program entry in the period July 2003-June 2005 (Adult and Dislocated Worker programs); comparison group members drawn from those who filed Unemployment Insurance benefit claims or who participated in U.S. Employment Service program	In almost all states, Adult program impacts are positive—earnings benefits smaller in the first 4-6 quarters than after 2-3 years; average increment in earnings for women was nearly \$2400 per year, about 26% of average earnings, and for men, it is nearly \$1700, about 15% of average earnings; program participation increases employment for women by about 7 percentage points, and for men by about 6 percentage points; increments in annual earnings for dislocated workers were much smaller than for the Adult program, just over \$500 for women and less than \$150 for men (less than 3 percent of average earnings); employment increases greater at 4-5 percentage point increments (a 7-8% increase in employment proportions); adult program benefits estimated to exceed costs for men and women if earnings impacts continue for 2-3 years	Costs incurred in the WIA program were not available; using available data from published sources, average per capita direct expenditures were estimated to be in the range of \$2400-\$2700, with higher costs for Dislocated Workers (\$2800-\$3200)
Schochet, Burghardt and McConnell, 2006, National Job Corps Study and Longer-term Follow-up Study	Random assignment experimental study of eligible applicants from 1994-96, using four years of follow-up survey data and 10 years of administrative data; research sample includes 11,313 youths (6,828 program group and 4,485 control group members) who completed a 48-month interview (response rate =81.5% for the program group and 77.4% for the control group)	Job Corps increased education and job training received both inside and outside the program by ~1,000 hours; 89% received vocational training (ave. of 1,140 hours of academic and vocational instruction); Job Corps substantially increased GED receipt and vocational certificates by more than 20 percentage points each; no effects on college attendance or completion; participants' functional literacy improved; positive earnings impacts beginning in 3rd year after random assignment persisted through end of 4-year follow-up period; in year 4, earnings gain was about \$1,150, or 12% (gains were smaller in administrative records data)	Average program length=8 months, ~ ¼ participated for over a year, and 28 percent for less than 3 months 49% completed a vocational trade or GED (were enrolled for about 11 months on average)
<b>U.S.-based studies (cont.)</b>	<b>Sample/methods</b>	<b>Outcomes by different types of programs</b>	<b>Other findings and limitations</b>

National Job Corps Study and Longer-term Follow-up Study (cont.)	Key questions: Does Job Corps increase educational attainment and literacy, reduce criminal behavior and the receipt of welfare benefits, and improve postprogram employment and earnings? Do impacts differ by subgroups and center characteristics? Do program benefits exceed costs?	Decomposition analysis suggested 2/3 of earnings impact was due to the impact on hours worked and 1/3 due to impact on earnings per hour; employed program participants slightly more likely to hold jobs offering fringe benefits; estimated impacts in years 5-10 for full sample all near zero; 20- to 24-year-olds had earnings gains in years 5 to 10 (remained in Job Corps longer) Job Corps significantly reduced welfare receipt (by \$640) and the arrest rate (by 16% or about 5 percentage points); similar reductions found for conviction and incarceration rates; reductions in criminal activity were found across all youth subgroups	Job Corps costs exceed benefits to society by about \$10,300 per participant (benefits from increased lifetime earnings=\$1,119, reduced use of other programs and services=\$2,186 and reduced crime=\$1,240)
GAO (2007) report on WIA YouthBuild program; MDRC impact evaluation (in progress, see <a href="http://www.mdrc.org/project/youth-build-evaluation#overview">www.mdrc.org/project/youth-build-evaluation#overview</a> )	In 2010, DOL contracted with MDRC to conduct an impact evaluation of YouthBuild (a public and privately funded program) that includes a random assignment design in a representative sample of YouthBuild programs across the country, a costeffectiveness study, and a process study; GAO evaluation included site visits to 20 YouthBuild grantees and cost-effectiveness analyses	GAO reported that a number of smaller-scale evaluations suggested promising findings of increased employment, wages and educational attainment and reduced delinquent behavior or recidivism for those with correctional system involvement; MDRC finds strong fidelity to the YouthBuild model (alternative school for work toward GED or diploma; job training and pre-apprenticeship program; leadership development, civic engagement and community service) but notes that the model is not highly prescriptive and programs can achieve fidelity in varying ways, so that any two programs might operate very differently while still maintaining strong overall fidelity average cost per participant	GAO report also concluded that the non-experimental studies did not have sufficient follow-up data or adequate comparisons (with other programs or nonparticipants) to merit confidence in the results
<b>Cross-national Studies</b>	<b>Sample/methods</b>	<b>Outcomes by different types of programs and/or country</b>	<b>Other findings and limitations</b>
Caliendo, Kunn & Schmidl, 2011,	German active labor market policies for youth; administrative data for	Except for job creation and preparatory training, programs improve probability of regular	Dual apprenticeship program accounts for

<p>Fighting Youth Unemployment: The Effects of Active Labor Market Policies</p>	<p>youth (age 25 or younger) entering unemployment in 2002 (n=51,019) and followed until 2008; quasi-experimental methods applying inverse probability weighting to 7 programs: job search &amp; assessment, short-term training (max=8 weeks), wage subsidies for regular employment, job creation, long-term training (max=approx 1 year), preparatory training (max=1 year); by sample design, majority in job search or short-term training</p>	<p>employment—initial lock-in phase, with impacts stabilizing at around 2 years after entry; 5 to 20 percentage point increase in monthly employment from third year on (varying by program &amp; region); wage subsidies to regular employment most effective (20 percentage point impact); long-term training impacts around 10 percentage points (severe lock-in effects); job creation consistently negative effects; probability to participate in unsubsidized education increased by about 10 percentage points through longer-term training, professional qualifications increased by 20%; preparatory programs prepared youth for entering apprenticeships; no effects for employment programs</p>	<p>half of all vocational training entries each year (in secondary schooling); preparatory system for low education attainment youths; low-education youth most vulnerable—need more time to turn subsidized work experience into employment</p>
<p>Bassanini et al., 2007, Education and Training in Europe,</p>	<p>Use large cross-country datasets available for OECD countries to examine education and training in Europe, theoretically and empirically: i) OECD aggregate training data; ii) Continuing Vocational Training Survey (CVTS); iii) International Adult Literacy Survey (IALS); and iv) European Community Household Panel (ECHP)</p>	<p>Scandinavian countries, France and New Zealand identified as the most training intensive countries (participation rates above 45%, more than 30 hours per employee); US participation rates estimated at 41.4% and 17.9 hours per employee; 80% of vocational training courses paid for or provided by employers, yet few studies on the impact of training on productivity (due to lack of data on productivity); rates of return estimates also scarce because data on costs are even more difficult to find than data on outputs; more research and information needed on externalities and costs, and more methodological checks on existing estimates</p>	<p>Documenting cross-country variation in training is difficult due to idiosyncratic definitions of training in different surveys and country data</p>
<p><b>Cross-national Studies</b></p>	<p><b>Sample/methods</b></p>	<p><b>Outcomes by different types of programs and/or country</b></p>	<p><b>Other findings and limitations</b></p>
<p>Card, Kluge &amp; Weber, 2010, Active Labor Market Policy</p>	<p>Meta-analysis of 97 studies (199 estimates) from 26 countries, 1995 and 2007; classified impact estimates as significantly positive, significantly</p>	<p>Subsidized public sector programs have least favorable outcomes; job search assistance has positive shorter-term impacts; classroom training more positive over medium-term (short-term impact</p>	<p>70% of impact estimates from programs targeting the registered</p>

Evaluations: A Meta-analysis”	negative, or insignificantly different from zero; ordered probit regression with controls for program type and sample and study characteristics to estimate effects on employment, wages, unemployment duration, future unemployment	estimates– measuring effects approximately one year after program completion – and medium-term for approximately 2 years after completion available for about ½ the sample; longer-term 3-year impacts for ¼ of sample); more favorable distribution of outcomes (% significantly positive) over the longer-term; country differences are small after controlling for program type No differential effects for men vs. women Median short-term effect size for probability of employment (when available)=.21; median medium-term effect size on probability of employment=.29	unemployed; in Anglo countries, 15% are from unemployment insurance recipients; cost-benefit analysis or calculation of social returns not feasible
Fares & Puerto, 2009 “Towards Comprehensive Training”	Meta-analysis framework to review findings from 345 studies of training programs in 90 countries (controls for country characteristics), distinguishing in-classroom training (37% of studies), workplace training (15%), classroom+workplace (19%), classroom+workplace+supplemental services (29%); 61% were publicly-financed training programs	41% of 345 interventions found to have positive effects; 18% negative or no effects; 34% insufficient evidence; only 16 studies include cost-benefit analyses Interaction of in-classroom + workplace training increases positive impacts  Youth programs in LAC effective in increasing employment (by 5-21%) and earnings (by 10-35%), although overall, impacts of programs targeting youth have significantly lower impacts (30% lower) than those for adults Training programs more effective in low- and low-middle income countries	Report increasing convergence toward comprehensive active labor market programs; better evidence was not generated until early 1990s (63% of studies in sample 1990 or later); little discussion of outcomes
<b>Cross-national Studies</b>	<b>Sample/methods</b>	<b>Outcomes by different types of programs and/or country</b>	<b>Other findings and limitations</b>
Haelermans & Borghans, 2011, Wage Effects of On-the-Job Training:	Meta-analysis based on 71 estimates of returns to on-the-job training from 38 studies published between 1981 and 2010; only studies that computed the effect of on-the-job	Main finding: average wage effect of on-the-job training is 2.6%, which is larger than the average return to education (reported by Ashenfelter et al., 1999); using estimation techniques that correct for selectivity bias, the age until which an average	Too few studies measure the duration of training, so the authors measured training as a dummy



A Meta-Analysis	training on wages were included	<p>training course is profitable is 55 years; Substantial heterogeneity in wage effects of training courses is also found</p> <p>Comparing the average number of hours spent on on-the-job training with the average number of hours spent on schooling gives a wage increase of 30% for on-the-job training, compared with 8% for the return to schooling</p>	variable; methodology and data quality play a major role in determining the return to on-the-job training
Hendra, Ray, Vegeris, Hevenstone & Hudson, 2011, Employment Retention and Advancement (ERA) demonstration: Delivery, take-up, and outcomes of in-work training support for lone parents	<p>Employment Retention and Advancement program designed to encourage human capital development; personal adviser and financial support for training among low-wage workers and financial incentives (bonuses) for completing training and working full time; targeted lone parents and long-term unemployed in UK</p> <p>Randomized controlled trial with outcomes measured 12 months and 24 months after random assignment; sample sizes of approx. 2,293 and 1,248</p>	<p>Examined course-taking (types) and the completion of qualifications or credentials; ERA increased the likelihood of course-taking and the probability of combining work and training, but there is no evidence yet of an effect of this increased training on qualifications; it also did not affect total time spent in training, but it did increase enrollment in courses relevant to specific occupations</p> <p>Outcomes from training were only analyzed qualitatively in this report; 5-year impact evaluation findings were expected in 2011, but no publication is evident yet</p>	Data suggest that not all of the training was motivated by the ERA financial incentives