This section addresses six basic questions about government investment in workforce development:

1) What is government workforce development?
2) What are the benefits and costs of government investment in workforce development?
3) How are decisions on government investment in workforce development made in the face of imperfect information and annual federal budgeting?
4) What is the evidence on government investments in workforce development?
5) What are the capacities of states to evaluate the benefits and costs of workforce development programs?
6) How have states and localities applied evidence and other information on, for example, sector approaches, career pathways and employer involvement to enhance the effectiveness of workforce development programs?

FRAMING THE SECTION

For the purposes of this section, the following terms are used:

- **Government** involves the federal, state, and local governments or some combination of these levels of government. It also can involve nongovernmental organizations such as nonprofit organizations, universities, unions, employers, and research/
consulting firms in partnership with government through grants and contracts.

- **Investment** is spending on a product or service that yields a return in the future. This contrasts with consumption, which only yields utility in the present.

- **Investment in workforce development** increases the productivity of labor. It is measured by increases in remuneration to labor, that is, increases in the earnings and fringe benefits of the beneficiaries of the investment.

The discussion of investment in workforce development is limited by excluding (but not entirely) prekindergarten and elementary, secondary, and postsecondary education. These areas are, however, treated explicitly in other sections. The U.S. Government Accountability Office (GAO) has limited its analyses of such programs to those “that are specifically designed to enhance the specific job skills of individuals in order to increase their employability, identify job opportunities, and/or help job seekers obtain employment” (GAO 2011, p. 2).

The GAO further elaborated that programs excluded from workforce development and funded by the federal government could be grouped into the following categories (GAO 2011):

- Economic development programs that aim to increase job opportunities but do not provide services to individuals to enhance their job skills, identify job opportunities, or find employment

- Programs that aim to achieve broad workforce-related goals, such as increasing educational opportunities for minority individuals in particular fields, or improving the status of and working conditions for wage-earning women, but do not provide employment or training services themselves

- Education programs that fund student loans for educational expenses, initiatives for student recruitment and retention, or other student support services

- Programs that support training for training providers, such as vocational rehabilitation specialists who assist disabled individuals seeking employment
To justify government investment, spending not only should yield a future return, but the present value of current and future benefits should exceed the present value of costs. So, what are the benefits and costs, and how could they best inform government decisions? Government policymakers must consider several investment perspectives to make informed decisions (Hollenbeck and Huang 2016; Hollenbeck and Huang 2017). Table 7.1 summarizes the benefits and costs from the three main perspectives—society, participants, and government.

Society’s benefits and costs are most important, but they often are unknown and can only be estimated well through expensive, multi-year longitudinal studies of randomly assigned participants and non-participants in control groups, and many assumptions must be made. The estimates of program impacts look at the experiences of participants compared to estimates of what would have happened if they had not participated in the program. The latter is called the “counterfactual,” which must be estimated to determine net program impact. Participants must believe the present value of their benefits will exceed the present value of their costs if they are to participate. I use the word believe because they probably will not “know,” although they might know some follow-up information on prior graduates of a particular program. Governments cover some of the costs in their budgets and look for budget savings to offset costs, but they also look, at least in a qualitative sense,

<table>
<thead>
<tr>
<th>Benefits/costs</th>
<th>Society</th>
<th>Participants</th>
<th>Government budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>Increased earnings and fringe benefits</td>
<td>Benefit</td>
<td>Benefit</td>
<td>No effect</td>
</tr>
<tr>
<td>Increased taxes</td>
<td>No effect</td>
<td>Cost</td>
<td>Benefit</td>
</tr>
<tr>
<td>Reduced income transfer payments</td>
<td>No effect</td>
<td>Cost</td>
<td>Benefit</td>
</tr>
<tr>
<td>Foregone earnings and fringe benefits</td>
<td>Cost</td>
<td>Cost</td>
<td>No effect</td>
</tr>
<tr>
<td>Program operating costs</td>
<td>Cost</td>
<td>No effect</td>
<td>Cost</td>
</tr>
<tr>
<td>Capital costs</td>
<td>Cost</td>
<td>No effect</td>
<td>Cost</td>
</tr>
</tbody>
</table>

for the present value of social benefits to outweigh the present value of social costs.

Depending on the perspective, three benefits are most important to such government decision making: 1) increased earnings and fringe benefits, 2) increased taxes paid by beneficiaries (such as payroll and income taxes), and 3) reduced government transfer payments received by beneficiaries (such as unemployment compensation).

Increased earnings and fringe benefits are the most important benefits, both to society and to the participant. These important benefits, however, are not factored into the government budget. Moreover, they usually are unknown, although they are often mentioned by referencing evaluations of comparable programs or potentially correlated program performance measures.

Increased tax payments by participants are an important benefit to government, but they are a cost to participants. They too are often unknown prospectively and not considered explicitly in government budgetary decision making.

Reduced government income transfer payments to participants also are benefits to government, but a cost to participants. And again, in government budgetary decision making, they are often unknown and not explicitly considered.

Neither increased taxes nor reduced government benefit payments are regarded as benefits or costs to society because they are income transfers from beneficiaries to governments or governments to beneficiaries, respectively. Knowing them, however, would at least help decision makers understand the net budget cost of these investments to governments even though they probably only account for the gross cost in their actual budgets.

Depending on the perspective, three costs are most important to government decision making: 1) foregone earnings and fringe benefits, 2) operating costs, and 3) capital costs.

Foregone earnings and fringe benefits are the important costs to society because they reflect lost productivity while individuals don’t work at paid jobs and participate in programs instead. These “opportunity costs” represent the social costs of not working while enrolled in a training program. The costs vary depending on the employability of the beneficiaries during program participation, and they can vary depending on the phases of the economic cycle, with expected foregone
earnings likely to be lower during periods of high unemployment. As a result, a recession period can be a good time to invest more in workforce development programs, particularly if there is a realistic possibility of a robust economic recovery and increased job opportunities for program participants after they leave a program.

Operating costs and capital costs are factored into the government budget. Although they are also costs to society, the cost is not incurred by participants.

Although the benefit-cost framework can help government officials make informed decisions, imperfect information and government exigencies lead officials to focus mainly on possible benefits and actual program operating and capital costs.

In government budgeting, officials usually have some estimates of annual cost per participant and total cost, but only vague information on possible benefits stemming from research studies that might be uncertain and outdated or on performance measures that might or might not be good proxies for benefits. The federal government has an annual current budget and no capital budget. Hence, it practically treats all costs as if they represent consumption. State and local governments have current and capital budgets, but their capital budgets deal with physical capital, such as school buildings, not human capital.

Advocates of workforce development investment face several challenges. Among the most important are:

- **Poor information on benefits.** Even with estimates of net impact from controlled longitudinal evaluations with random assignment between treatment and control groups, policymakers still must deal with uncertainty. The estimates might be three or more years old. The estimates might be based on impacts for only two to five years. The estimates might depend on a critical assumption about short-term impacts lasting the remainder of the participants’ work careers, as much as 40 or more years, a period for which no data have been collected. Estimates are also sensitive to the discount rate used to calculate the present value of benefits, with a relatively low discount rate yielding positive net benefits but a higher rate yielding lower or possibly even negative net benefits (McConnell and Glazerman 2001).

- **Government treatment of investments as consumption.** As much as advocates assert workforce development spending is
an investment, many other programs make the same assertions. Government budgeting probably will continue treating such spending as consumption. Although it will behoove workforce development advocates to continue referencing recent research evaluations and valid performance measures, they need to realize the assessments in government budgeting will most likely continue to emphasize quantitative estimates of costs and qualitative considerations of benefits. Nevertheless, research, evaluations, and performance measures should continue to inform decision making not only about funding, but also about the design and operation of these programs.

- **Uneven state government staff capacity in research and evaluation.** A recent scan of state research and evaluation staff capacity by NASWA’s Center for Employment Security Education and Research revealed 22 percent of state workforce agencies reported their staff capacity is “nonexistent” or “inadequate,” 44 percent reported staff capacity was “fair,” and only 34 percent reported staff capacity was “adequate” or “very adequate” (Chocolaad and Wandner 2017).

To make progress on these challenges, government needs to take several measures. These include:

- **Improve data accessibility.** Quarterly wage data on nearly all workers should be more readily accessible to researchers and evaluators through either the federal database collected mainly for child support enforcement purposes (i.e., the National Directory of New Hires) or the state Wage Record Interchange System (which allows states to share in-state wage data with other states where program participants might have been educated, trained, or employed). This would improve the ability of researchers to estimate changes in wages and key components of benefits and costs. Of course, government and researchers must maintain strict privacy of individual wage records as they are used for research and evaluation.

- **Make wider and more effective use of research and evaluations in government decision making.** Research should be more widely and effectively used in decision making, but we
also need to understand that governments tend to focus on measurable costs. This largely depends on staff keeping up with the accumulation of evidence and making appropriate use of it in government budget processes. The government, in turn, should invest in staff that can conduct and use research and evaluations wisely.

- **Make more government investments in research and evaluation.** More research is needed to support evidence-based policymaking. Rigorously evaluated pilot and demonstration programs would help lead the way.

  Research and evaluation can seem problematic to workforce development programs if the question is framed as, “Do they work?” If the answer is “no,” some would say cut or eliminate investments in the programs. A more constructive question might be, “Do they work under certain circumstances and with certain participants?” or “Can they be improved?” Granted, the evidence on workforce development investments has been mixed to date, but if we focus on the reasons for positive results and improve the programs based on evidence, society could gain additional net benefits beyond our recent experience.

**THE FIVE ESSAYS**

“Results and Returns from Public Investments in Employment and Training,” by Demetra Smith Nightingale and Lauren Eyster, outlines the spending in fiscal year 2016 of 10 federal agencies and 9 major federal programs in some of those agencies. The authors report secondary education yielded net benefits to society and students with training connected to in-demand occupations also benefited society and trainees. They also note mounting evidence that career services also are beneficial to participants (see, for example, Poe-Yamagata et al. [2011]). In addition, the authors say that, even though private investment in workforce development is substantially greater than government investment, the private sector leaves a gap because it focuses on more educated and higher-paid workers. Government helps fill that gap by aiming to help less educated and lower-paid workers.
“Research and Evidence-Building Capacity of State Workforce Agencies,” by Yvette Chocolaad and Stephen Wandner, summarizes their USDOL-funded report from the National Association of State Workforce agencies (NASWA) Center for Employment Security, Education and Research (CESER). The authors find many state agencies lack the funding and staff capacity to engage in robust research and evaluation: Half the surveyed states reported they had two or fewer full-time equivalent staff to conduct research and evaluation. And only half the surveyed states reported producing at most three in-house research and evaluation studies during the five years from 2011 through 2015.

“State Sector Strategies for Talent Pipeline Systems,” by Michael Bartlett and Martin Simon, discusses the development of state talent pipeline systems in education. In general they observe that states are embedding sector strategies into their talent pipeline systems by aligning their elementary, secondary, and postsecondary educational systems with workforce and economic development. The authors say the Workforce Innovation and Opportunity Act of 2014 (WIOA) reinforced the trend toward sector strategies by requiring state plans to describe these strategies. In addition, the Act set aside 15 percent of WIOA funds that can be used by governors in various ways to expand industry sector partnerships and other purposes, such as research and evaluation. In education, they say the Every Student Succeeds Act (ESSA) requires state plans to specify students be provided with work-based learning opportunities with industry professionals and to promote skills attainment needed to fill in-demand jobs.

“Improving Outcomes for Workers and Employers through Mayoral Leadership,” by Kathy Amoroso and Evan Amoroso, summarizes three award-winning city workforce development initiatives in Albuquerque, New Mexico, Birmingham, Alabama, and West Sacramento, California. All three cities provide excellent examples of innovations linking education and workforce development with employers by leveraging the power of partnerships, career pathways, industry clusters, and talent pipelines.

“Employer Engagement Policy: Shifting from Customers to Partnerships,” by Andy Van Kleunen, reports on the strong trend in workforce development away from single-employer advisor arrangements to multi-employer partnerships and the related challenges to further progress. The author notes that in 2016, the USDOL proposed pilot mea-
sures to address this issue, such as: retention with the same employer, repeat business customers, and employer penetration rate (all of which were incorporated into the system in 2017 (USDOL 2017). A major challenge to employer engagement is the need to mitigate employer risks associated with employing unskilled workers who could become more productive employees worth hiring at relatively high wages. Intermediaries employing such workers initially might be an effective way of helping employers partner with the workforce development system without absorbing undue risk of hiring.

References


