

REVIEW PROTOCOL FOR EMPLOYMENT AND TRAINING TOPIC AREA

Highlights

- The objective of this review is to determine the quality of existing causal evidence on the effectiveness of a range of employment and training programs in serving a variety of target populations.
- The review focuses on programs designed to directly improve the employment-related outcomes of their participants, for example by improving participants' knowledge and skills, assisting them with job search, or providing case management and other supports. It does not include programs, such as housing assistance and mental health treatment programs, that might improve participants' labor market outcomes but do not focus on those outcomes as their primary aim.
- This topic area includes causal studies.

Introduction

The mission of the U.S. Department of Labor's Employment and Training Administration (ETA) is "to contribute to the more efficient functioning of the U.S. labor market by providing high quality job training, employment, labor market information, and income maintenance services." These services are delivered primarily through state and local workforce development systems and address the needs of a variety of target populations, including people who are unemployed but looking for work, low-income adults and youth, dislocated workers, and veterans and their spouses. ETA also administers a range of grant programs targeted to youth with disabilities, ex-offenders, at-risk youth, older workers, and many others.¹

This topic area review examines a broad range of employment and training programs funded by ETA and others that encourage basic skills development, educational attainment, completion of training programs and/or acquisition of certificates or credentials, employment, employment retention, and career advancement. The primary outcomes of interest are employment-related, though the review will include other outcomes as appropriate. The domains of interest are:

- **Employment**, including measures such as employment rate, tenure on the job, and consecutive months employed
- **Earnings**, including monthly, quarterly, or annual wages, hourly wages, and cumulative wages over the follow-up period
- **Education and/or training attainment and completion**, such as earning high school diplomas or GEDs, vocational certificates, or associate's degrees, or completing a training program that does not necessarily result in a certificate
- **Public benefit receipt**, including unemployment compensation, Temporary Assistance to Needy Families benefits, and Supplemental Security Income/Social Security Disability Insurance

¹ See <http://www.doleta.gov/etainfo/>.

Eligibility Criteria

CLEAR conducts broad literature searches (see Appendix A for details) to identify all the research papers and reports that use causal designs to examine the effectiveness of programs designed to improve participants' employment-related outcomes. In the course of conducting these searches, CLEAR also identifies literature that is not directly applicable to the topic area. Therefore, the CLEAR team uses the following criteria to screen identified studies to determine eligibility for review under this topic area:

1. **Does it examine a program whose primary aim was to improve the employment-related outcomes of adults?** The review excludes research on programs whose primary aim was to provide services such as substance abuse treatment or stable housing that might have an ancillary effect on employment-related outcomes. The review excludes programs whose primary aim was to serve youth or young adults age 25 or younger.
2. **Does it examine effectiveness?** To meet this criterion, the research must use quantitative methods to assess the effectiveness of a program, policy, or intervention. This includes research using quantitative methods that claimed to identify a causal impact and/or draw policy implications from its findings, even if the study design did not support such claims.
3. **Does it examine an outcome of interest?** The research must examine impacts on outcomes in education and/or training attainment or completion, employment, or earnings. Reviews of studies that include outcomes in these domains may also capture outcomes of interest in the public benefit receipt domain. However, studies that only examine public benefit receipt outcomes are not included in the review.
4. **Was it conducted in a relevant time and place?** To be most relevant to practitioners, policymakers, and other stakeholders, the research must have been conducted in the United States (including the 50 states, the District of Columbia, territories, and tribal entities), and have been released from 2005 through 2014.

The CLEAR team reviews studies that meet these criteria according to the CLEAR Causal Evidence Guidelines, Version 2.0. The full set of guidelines is available at <http://clear.dol.gov>.

CLEAR examines studies in this topic area through a series of subtopics that are defined by types of services or service populations; specific search terms and screening criteria are used for these subtopics. Appendices to this protocol describe the subtopics.

Causal Evidence Guidelines Specific to the Topic Area

Attrition in randomized controlled trials (RCTs). The causal research in this topic area includes studies with both experimental and nonexperimental designs. CLEAR assesses the quality of evidence for RCTs using standards adapted from those of the Institute of Education Sciences' What Works Clearinghouse.² RCTs can receive a high causal evidence rating if there are no obvious confounding factors to the design and if the level of attrition is low. This topic area uses a conservative attrition standard, based on the assumption that attrition in studies of employment and training programs might be linked to participants' labor market or educational outcomes. If CLEAR

² See <http://ies.ed.gov/ncee/wwc/InsidetheWWC.aspx> for details.

determines that an RCT cannot receive a high causal evidence rating, it uses the CLEAR nonexperimental causal evidence guidelines to review the study.

Control variables for nonexperimental designs. CLEAR causal evidence guidelines for nonexperimental studies were developed in consultation with a technical working group of methodological experts. The guidelines cover most nonexperimental designs, including fixed effects, difference-in-differences, instrumental variables, and regressions. Nonexperimental designs and RCTs with high attrition can receive a moderate causal evidence rating if they include adequate controls and can demonstrate or adjust for anticipating the intervention and confounding factors. To meet the requirements for a moderate causal evidence rating, nonexperimental studies and RCTs with high attrition in this topic area must control for the following:

- Age
- Race/ethnicity
- Gender
- A pre-intervention measure of each outcome of interest:
 - **Education.** Must control for pre-intervention (baseline) education level *and* socioeconomic status.³
 - **Employment.** Must control for employment rate *or* earnings *greater than one year before program participation*, to guard against the Ashenfelter dip (see CLEAR Causal Evidence Guidelines, Version 2.0, for a discussion).
 - **Earnings.** Must control for previous earnings *greater than one year before program participation*.
 - **Public benefit receipt.** Must measure pre-intervention (baseline) public benefit receipt *or* socioeconomic status.

Regression methods that incorporate a matching design, which uses statistical methods to create a comparison group that is as similar as possible to the group receiving the program, must match on each of the control variables listed above, or must include them as controls in the regression.

This topic area can also include analyses conducted at the group level (an aggregation of entities, such as institutions, employers, or communities). For group analyses, it is typically necessary to include group-level controls for the same variables as in the individual analyses.

³ Another term for this is degree of financial disadvantage. This criterion is met if measures in at least two of income, benefit receipt, and education domains are included.

APPENDIX A: LITERATURE SEARCH

Literature search terms and procedures differ slightly among subtopics within the employment and training topic area. This appendix describes common search and screening considerations for the employment and training subtopics. Appendices B through E present search terms and considerations relevant to particular subtopics.

For nearly all of the subtopics, CLEAR searches the following electronic citation databases: Academic Search Premier, E-Journals, EconLit, Education Research Complete, ERIC, PsycINFO, ProQuest Dissertations and Theses, SAGE Journals Online, Scopus, and SocINDEX with full text. The low-income adults subtopic review is being conducted in partnership with another systematic review, and thus CLEAR is searching a slightly different list of databases (see Appendix B.1 for details).

For all employment and training subtopics, CLEAR also:

- Restricts its review of employment and training studies to research conducted in the United States.
- Makes selected additions to the literature pool to address gaps in the literature. For example, if the literature search identifies an interim report, the team checks to see if a final report is available.
- Performs keyword searches of research clearinghouses and working paper databases housed on the following publicly available websites: The Campbell Collaboration, NBER Working Papers, RePEc, Self-Sufficiency Research Clearinghouse, and Social Science Research Network.
- Performs a custom Google search of the organizational websites listed below⁴ to identify additional studies. These sources of research are relevant to the review, but they have restrictions on use of date ranges or on certain fields, so the team follows the search guidelines for each subtopic as closely as possible.

For all employment and training subtopics, CLEAR conducts a custom Google search of the following websites. However, the low-income adult topic area review being conducted in conjunction with the Employment Strategies for Low-Income Adults Evidence Review (ESER) is searching a subset of these websites (see Appendix B.1):

- Abdul Latif Jameel Poverty Action Lab
- Abt Associates
- Administration for Children and Families
- American Enterprise Institute
- American Institutes for Research

⁴ Because of its partnership with another systematic review, the low-income adults subtopic is examining a shorter list of websites for the grey literature search. See Appendix B.1 for details.

- Association for Public Policy and Management
- Berkeley Policy Associates
- Booz Allen
- Brookings Institute
- Cato Institute
- Center for Economic Policy and Research
- Center for Law and Social Policy (CLASP)
- Center for Poverty, Work, and Opportunity
- Center for Public Policy and Administration
- Center for Science and Engineering Partnerships
- Center for Study of Urban Poverty
- Congressional Research Service
- Heritage Foundation
- IMPAQ
- Institute for Policy Studies
- Institute for Policy Studies at Johns Hopkins
- Institute for Research on Poverty
- Institute of Policy Research at Northwestern University
- IZA
- Joblessness and Urban Poverty Research Program
- Joint Center for Political and Economic Studies
- Joint Center for Poverty Research
- Massachusetts Budget and Policy Center
- Mathematica Policy Research
- Manpower Demonstration Research Corporation (MDRC)
- Multidisciplinary Program in Inequality and Social Policy
- National Bureau of Economic Research
- National Center for Children in Poverty
- National Center for Health Research
- National Center for Policy Analysis

- National Poverty Center
- NORC
- RAND Corporation
- Pacific Research Institutes
- Public Policy Associates
- Ray Marshall Center
- Resources for the Future
- RTI International
- Social Policy Research Associates
- SRI International
- The Center on Poverty and Inequality at Georgetown University
- The Center on Poverty and Inequality at Stanford University
- University of Kentucky Center for Poverty Research
- Urban Institute
- U.S. Bureau of Labor Statistics
- U.S. Department of Labor
- U.S. Department of Labor Employment & Training Administration Research Database
- U.S. Government Accountability Office

APPENDIX B: LOW-INCOME ADULTS

For this subtopic, CLEAR collaborates with the Employment Strategies for Low-Income Adults Evidence Review (ESER), sponsored by the Office of Planning, Research, and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services (see employmentstrategies.acf.hhs.gov). Therefore, CLEAR is aligning the search strategy for the low-income adults topic area with the strategy for ESER.

ESER used a keyword search (see terms in Table B.1) to examine studies' titles and abstracts, and identified all studies that had at least one search term aligned with each of the eligibility criteria. ESER searched the following electronic citation databases: Academic Search Premier, EconLit, Education Research Complete, E-Journals, ERIC, PsycINFO, ProQuest Dissertations and Theses, Scopus, and SocINDEX with full text. ESER also circulated a call for papers in May 2014, and CLEAR is including any relevant studies submitted in response to that call.

Although ESER restricted its review to publications from 1990 through April 2014, CLEAR is restricting the publication window to begin in 2005. And, CLEAR is doing further searching, using the approach defined by ESER, to identify literature published through the end of 2014.

Table B.1. Keywords used in database search for low-income adults subtopic

Eligibility criteria	Keywords
Design terms	Effect*, causal, impact, implement*, descript*, correlate*, trend*
Outcome terms	Employ*, job, occupation, earning*, wage*, work*
Keyword terms	low-income, disadvantaged, TANF, homeless, ex-offender, disabled

Note: An asterisk indicates a truncation. When used in a search term, all words with the root will be returned. For instance, a search on "effect*" will return citations with the words that have "effect" as the first six letters, including "effect," "effects," "effective," and "effectiveness."

ESER searched the following list of sources for grey literature, which differ from sources in the typical CLEAR search:

- Abdul Latif Jameel Poverty Action Lab
- Abt Associates
- Administration for Children and Families
- Center for Law and Social Policy
- Center on Poverty, Work and Opportunity
- Center for Study of Urban Poverty
- Employment & Training Administration Research Database
- Impaq Associates
- Institute for Research on Poverty

- IZA
- Joblessness and Urban Poverty Research Program
- Joint Center for Poverty Research
- Mathematica Policy Research
- MDRC
- Multidisciplinary Program in Inequality and Social Policy
- National Center for Children in Poverty
- National Center for Health Research
- National Center for Policy Analysis
- National Poverty Center
- NORC
- RAND
- Ray Marshall Center
- RTI International
- Social Policy Research Associates
- The Stanford Center on Poverty and Inequality
- University of Kentucky Center for Poverty Research
- Upjohn Institute
- Urban Institute

ESER applied some additional screening criteria, which CLEAR is also using for this subtopic, with one exception, as follows:

1. **Served low-income adults.** The review considers certain specific groups (homeless people, formerly incarcerated people, and public benefit recipients) to be generally low income. If the study did not focus on these groups, the author must have declared or shown the study sample to be low income for the study to be eligible for review. The review focuses on programs intended to serve individuals age 18 or older at the time of enrollment.
2. **Served individual job seekers.** Studies that examined policies or actions that affected communities, such as enterprise zones, or employers, such as tax credits for hiring disadvantaged workers, are not eligible for the review.
3. **Was a defined, replicable employment program.** Eligible studies articulated the services job seekers received so that others could implement them. Research on a state's welfare-to-work program meet this criterion because such programs typically consist of specific combinations of strategies such as job search assistance and financial incentives that would be replicable. But national studies of "welfare reform" are not eligible because

states had substantial flexibility in implementing welfare reform, so these studies did not examine a defined and replicable program. CLEAR is relaxing this criterion so that important workforce development programs that are not necessarily replicable (such as Workforce Investment Act Adult programs) can be included in the review.

When examining research, reviewers apply CLEAR standards to determine the strength of the causal evidence (including rare instances in which CLEAR and ESER guidelines differ for studies that ESER had reviewed⁵).

⁵ For studies initially reviewed by ESER, CLEAR is examining the outcomes that ESER reported, usually one or two focus outcomes in each domain (see: <http://employmentstrategies.acf.hhs.gov/>). For other studies, CLEAR reviews its usual, wider range of outcomes, such as annual earnings from each follow-up year.

APPENDIX C: JOB SEARCH ASSISTANCE

The CLEAR review of the job search assistance subtopic searches the literature using the keywords in Table C.1, and follows the procedures outlined in this protocol.

Table C.1. Keywords used in database search for job search assistance subtopic

Eligibility criteria	Keywords
Design terms	regression, quasi-experiment, quasiexperiment*, nonexperimental, non-experimental, experimental, cause, causa*, statistical*, random* (w/2 assign*), random* (w/2 trial), correlat*
Impact terms	Efficac*, effect*, impact, benefit, improve*, progress, growth, increase, gain
Outcome terms	Reemploy*, re-employ*, employ*, earning*, wage*, self-sufficien*, job, work*, occupation, pay,
Keyword terms	Job search assistance, job service*, reemployment service, re-employment service, career assessment, interest assessment, soft skills training, resilience training, job matching, job development, job opportunit*, job readiness, structured job search, job search workshop, job club*, job finding club*, job network*, employment plan*, job shadow*, career service*, employment service*, job posting*, labor exchange*

Citations used for snowballing

- Greenberg, D., & Robins, P. (2010). Have welfare-to-work programs improved over time in putting welfare recipients to work? Discussion Paper no. 1388-10. Madison, WI: Institute for Research on Poverty.
- Holzer, H. (2013). Good workers for good jobs: Improving education and workforce systems in the US. Discussion paper no. 1404-13. Madison, WI: Institute for Research on Poverty.
- Holzer, H. (2012). Going, going... gone? The evolution of workforce development programs for the poor since the war on poverty. Retrieved from <http://npc.umich.edu/news/events/war-on-poverty-june-conference/holzer.pdf>.
- Hossain, F. (2015). Serving out-of-school youth under the Workforce Innovation and Opportunity Act (2014). New York, NY: MDRC.
- Klerman, J., Koralek, R., Miller, A., & Wen, K. (2012). Job search assistance programs: A review of the literature. OPRE Report # 2012-39, Washington, DC: Office of Planning, Research and Evaluation, Administration for Children and Families, U.S. Department of Health and Human Services.
- Lerman, R., Acs, G., & Bir, A. (2007). An economic framework and selected proposals for demonstrations aimed at strengthening marriage, employment, and family functioning outcomes. Washington, D.C.: The Urban Institute Center on Labor, Human Services, and Population.

APPENDIX D: ENTREPRENEURSHIP/SELF-EMPLOYMENT

The CLEAR review of the entrepreneurship/self-employment subtopic searches the literature using the keywords in Table D.1, and follows the procedures outlined in this protocol.

Table D.1. Keywords used in database search for entrepreneurship/self-employment subtopic

Eligibility criteria	Keywords
Design terms	regression, quasi-experiment, quasiexperiment*, nonexperimental, non-experimental, experimental, cause, causa*, statistical*, random* (w/2 assign*), random* (w/2 trial), correlat*
Impact terms	Efficac*, effect*, impact, benefit, improve*, progress, growth, increase, gain
Outcome terms	Business owner*, work*, occupation, wage*, self-sufficien*, earning*, employ*, reemploy*, re-employ*, job, business establ*, business creation, persist*, survival, business growth, business expansion, global competitiveness, job creation, patents, layoff aversion, venture capital, technology transfer, innovation
Keyword terms	Entrepreneur*, self-employ*, financing assistance, business counseling, needs assess*, business development, microgrant*, seed capital, microloan, microenterprise, micro-enterprise, enterprise

Citations used for snowballing

Benus, J., Shen, T., Zhang, S., Chan, M., & Hansen, B. (2009). Growing American through entrepreneurship: Final Evaluation of Project GATE. Columbia, MD: IMPAQ International, LLC.

Gale, W. & Brown, S. (2013). Small business, innovation and tax policy: A review. Retrieved from <http://www.brookings.edu/~media/research/files/papers/2013/04/small-business-tax-policy-gale/small-business-tax-policy-gale.pdf>.

Martin, B., McNally, J., & Kay, M. (2013). Examining the formation of human capital in entrepreneurship: A meta-analysis of entrepreneurship education outcomes. *Journal of Business Venturing*, 28(2): 211-224.

APPENDIX E: APPRENTICESHIP/ON-THE-JOB TRAINING

The CLEAR review of the apprenticeship/on-the-job training subtopic searches the literature using the keywords in Table E.1, and follows the procedures outlined in this protocol.

The apprenticeship/on-the-job training subtopic focuses on research about entry-level workers. Therefore, as the CLEAR team members screen literature identified in this topic area, they screen out research that focused on these types of experiences for incumbent workers.

Table E.1. Keywords used in database search for job search assistance subtopic

Eligibility criteria	Keywords
Design terms	regression, quasi-experiment*, quasiexperiment*, nonexperimental, non-experimental, experimental, cause, causa*, statistical*, random* (w/2 assign*), random* (w/2 trial), correlat*
Impact terms	Efficac*, effect*, impact, benefit, improve*, progress, growth, increase, gain
Outcome terms	Credential, certificat*, employ*, job, occupation, earning*, wage*, work*, pay, journeyman, return on investment, completion rate, skilled workforce, skilled worker, career advancement
Keyword terms	Apprentic*, OJT, on the job training, on the job learning, competency based programs, related training instruction, career pathways, industry-driven training, customized training

Citations used for snowballing

Babock, L., Congdon, W., Katz, L., & Mullainathan, S. (2010). Notes on behavioral economics and labor market policy. Retrieved from http://www.brookings.edu/~media/research/files/papers/2010/12/29-behavioral-econ-labor-market-policy/1229_behavioral_econ_labor_market_policy.pdf

Chang, C. (2015). Can apprenticeship help reduce youth unemployment? New York: The Century Foundation.

Greenberg, D., & Robins, P. (2010). Have welfare-to-work programs improved over time in putting welfare recipients to work? Discussion paper no. 1388-10. Madison, WI: Institute for Research on Poverty.

Henry, C., Hill, H., & Leitch, C. (2005). Entrepreneurship education and training: Can entrepreneurship be taught? *Education and Training*, 47(98-111).

Holzer, H. (2013). Good workers for good jobs: Improving education and workforce systems in the US. Discussion paper no. 1404-13. Madison, WI: Institute for Research on Poverty.

Holzer, H. (2012). Going, going... gone? The evolution of workforce development programs for the poor since the war on poverty. Retrieved from <http://npc.umich.edu/news/events/war-on-poverty-june-conference/holzer.pdf>.

- Hossain, F. (2015). Serving out-of-school youth under the Workforce Innovation and Opportunity Act (2014). New York, NY: MDRC.
- Van Horn, C., King, C., & Smith, T. (2011). Identifying gaps and setting priorities for employment and training research. New Brunswick, NJ: John J. Heldrich Center for Workforce Development; Edward J. Bloustein School of Planning and Public Policy.