WORKFORCE CONNECTIONS

# Measuring Employment Outcomes for Workforce Development

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***How can the identification and application of appropriate indicators improve data-based decision making for workforce development interventions?***

The purpose of this paper is to frame the current issues around measuring employment/labor market outcomes in the context of workforce development programs to support the Workforce Connections Community of Practice in addressing this question.

The role of the Community of Practice is to build upon the members' significant experience in project implementation to set the agenda for future outcomes measurements, provide recommendations for specific indicators, and develop guidelines/tools for implementation.

The Workforce Connections project promotes evidence-based learning and peer-to-peer knowledge exchange in international workforce development. Funded by the USAID Office of Education and managed by FHI 360, Workforce Connections brings together thinking across relevant disciplines and aims to create an open, inclusive space for all interested stakeholders.

## Introduction

Youth employment has become a priority for international development organizations. However, given the variety of goals, approaches, and actors involved, it is no surprise that a multitude of employment related indicators currently exist. As investment in youth employment interventions continues to increase, it is important to know if those resources are being spent wisely. In response, governments, donors, and Implementers have frequently and openly acknowledged **the need for improved monitoring and evaluation practices through the use of comparable outcome indicators,** yet progress remains slow, particularly with regard to youth workforce development.

Earlier work on this topic includes the *USAID State of the Field Report: Examining the Evidence in Youth Workforce Development*[1] which found that one of the biggest constraints to evaluating the efficacy of workforce development (WFD) programs worldwide is that outcomes are measured differently across projects, and therefore it is difficult to compare results, understand outcomes, and identify best practices.

This paper builds on that work, drawing from a review of over 100 existing measurement-related resources, 43 of which are analyzed in detail in a separate literature review. From this process, we have been able to identify and confirm trends in measuring employment outcomes; most notably that **there is no global agreement or widely accepted best practice** governing the use of indicators to measure outcomes in international workforce development programming.

In addition to the forthcoming literature review there are two annexes to this briefing paper, a Summary Indicator Table (Annex 1) that provides a snapshot of the types of indicators currently in use by donors and implementers, and a Bibliography (Annex 2) of all resources consulted. While these resources do not pretend to have surveyed the entire scope of global workforce development measurement methodologies, the section that follows shows that they do provide a strong foundation of understanding from which the Community of Practice measurements work can be built.

[1] "Knowing what package of workforce development services works best for which populations of youth is crucial, and much of this depends on strong research methods that are set up to measure the achievement of long-term outcomes." *State of the Field Report: Examining the Evidence in Youth Workforce Development*. USAID. February 2013. p. 17.

The review found that there are two major types of employment outcome indicators in use, a set directed at measuring labor market outcomes, and a set aimed at measuring the effectiveness of program activities. Both sets are relevant and necessary for program implementation. However, there is consensus that a project that can 'get right' the program activity measurements (which are often input or output measurements such as number of certificates awarded, number of curriculum developed, number of teachers trained, etc.) can still fail young people if those activities do not lead to new or better employment opportunities over the longer term. Measuring and understanding post-project employment is not something most donors or implementers have yet mastered. This can be seen in the indicators used, as the majority: a) **do not adequately capture labor market outcomes**; b) **do not track outcomes over time**; and c) **are overwhelmingly custom indicators**.

**What Was Found - Understanding Indicators**

It is important that we first clarify the findings on critical terminology, particularly relating to indicators. Donors and implementers use indicators to define and understand progress. In general, indicators are designed to serve two purposes: to **track advancement towards results** (project activities) as defined in an existing framework; and to **deliver objective evidence that change has occurred** (beneficiary outcomes). Indicators are not data; data is gathered to provide a measurement. Rather, indicators are the definitions of the parameters by which change is measured. When applied to projects, indicators typically coincide with the following hierarchy of results: Input → Output → Outcome → System-level (or Impact) Outcome.

There are two main lenses through which workforce development indicators are applied. The first lens focuses on the **performance of a particular workforce program**, and the second reflects the **status of a particular labor market** (typically at the country level). Performance of a program is time-bound and expected to show relatively quick results, whereas the status of a labor market is an overall system-level perspective reflecting cumulative change. Program-level indicators track activities and individuals over time, while system-level indicators tend to be population-level snapshots. Multilateral institutions (e.g. the World Bank, ILO, Asian Development Bank) tend to use indicators relating to labor markets, whereas implementers and bilateral programs tend to use indicators relating to programs. Labor market-level indicators are more useful for understanding the context in which to develop programming, rather than as a specific methodology or tool for measuring program results. Some donors do not have a pre-defined standard indicator framework at any level.

**Labor market systems that work well do so because of the effectiveness of their "connective tissue.".** The most common cause for lack of connectivity are the skewed incentives that link the private and public sectors. More conventional approaches have tended to overlook the importance of understanding, analyzing, and designing interventions around improving the connectedness of these systems. There are emerging methods for understanding a labor market system's strength through social network analysis (SNA) and related tools.

The review highlighted a growing body of research that is redefining how we think about system-level labor market indicators, building upon static indicators such as the ILO's Key Indicators of the Labor Market (e.g. labor force participation rate) and beginning to incorporate **indicators that measure the**

**connectivity of the pieces of the labor market through a systems approach**. Using a systems approach is useful to better understand incremental changes in labor markets at the program level, as labor markets are made up of interconnected institutions embedded in patterns of economic activity with shifting relationships to each other.

**What We Found - Measuring Workforce Development**

There is a **high degree of variability in what is being measured by WFD indicators** both within and between different parts of the system. This disparity begins with terminology. Is the focus on employment or livelihoods? Under what conditions should projects measure wages or income? The lack of consensus regarding terminology further impedes comparison, as does a lack of consistency in the disaggregation of data, particularly in regard to gender, age, and level of vulnerability. A related issue involves the indicators themselves. Should a workforce development project emphasize outputs or outcomes? Quantitative system-level data or qualitative connectivity measurements? System-level outcomes or impact?

**Despite divergence in terminology, we can identify some trends. The most salient of these is that employment status and wages are the most commonly referenced (though not necessarily used) outcome indicators** for determining the outcomes of workforce development programs. However, there are a multitude of types of indicators measuring WFD programs. The Summary Indicator Table (Annex 1) charts the range of indicators typically in use today. To help make sense out of the vast indicator landscape, the table groups commonly-used indicators for WFD into the following main areas:

- **Training** – The organized process of acquiring knowledge or a set of skills required for a particular type of job or profession. For example: enrollment in training; completion of training; achieving competency standards; returning to formal schooling; improving non-cognitive skills; increasing capacity of local training institutions; teacher training; curriculum development; etc.
- **Placement** – Assisting someone in pursuing and securing employment. For example: placement in internships; placement in jobs by program staff; placement in further education; etc.
- **Employment** – Condition of having legal, paid, regular work in either the formal or informal economy and the associated changes in income. For example: employment status (new/better, formal/informal) after 6 months; employment status (new/better, formal/informal) after 12 months; underemployment; number who start an enterprise; quality of employment (ex. Inclusion of benefits, training, flexibility); etc.
- **Wages/Income** – Wages are a fixed regular payment made by an employer to an employee. Income is a wider definition that also includes money earned from any other activity or investment. For example: hourly/ weekly/ monthly/ annual wages; individual income; household income; daily consumption, benefits; etc.
- **Satisfaction** – Worker's level of contentment with services provided and/or current employment situation. Employer's level of contentment with employee's skills and performance. For example: skills delivered match beneficiary's needs; skills delivered match employer's needs; job placement matches the workers skills; etc.

- **Return on investment** – The profitability ratio comparing program expense with program output. Increased co-financing of training. For example: beneficiaries with improved outcomes over dollars spent; percentage of training costs covered by non-donor sources.
- **Market Facilitation** – Linkages between producers and lead firms, improved sales to processors, improved sales to exporters. For example: strengthened relationships, ownership rates, and incentives.

**What We Found - Data Gathering**

**Just as there is broad diversity in the types and sets of indicators for WFD interventions, there are also multiple data gathering methodologies and sources commonly used to track their progress.** These sources include system-level statistical data (both national and international); administrative databases (institution-generated, program-generated); impact evaluations (internal and external); key informant interviews (participant and stakeholder); observation; focus groups; pre- and post-tests; and surveys. Surveys are the most relied-upon measurement tool, and there are many different associated types and methodologies. Tracer surveys are commonly recognized as a highly useful data-gathering tool for workforce development, but are often neglected because of perceived costs and administrative requirements. A further constraint is that many of the surveys use self-reporting as the main methodology, and some would argue that this can be problematic. In places where there are robust population-level data-gathering mechanisms and the information technology available to combine, clean, and match multiple institutional/program databases, outcomes are often tracked by matching administrative data (unemployment records, tax records) with institutional data on program participants.

The overall effectiveness of a WFD intervention is dependent upon the ability of beneficiaries to attain and sustain quality employment. Getting a job is not enough; keeping that job—or moving along a pathway of increasingly stable and/or rewarding jobs—is the key. **Consequently, tracking labor market outcomes over time is critical in evaluating and understanding program impact.** Gathering such data is a particularly **challenging and complex process**, especially in low-income countries where governments can't afford robust data-gathering bureaucracies. The main obstacles to longitudinal data-gathering include expense, expertise, time constraints, poor infrastructure, high levels of participant mobility, and inconsistent measurement methodologies. However, data gathering, frequently through surveys, is often necessary as public data sources are typically limited in terms of scope, timeliness, and reliability. As a result of these factors, **longitudinal outcome indicators are regularly absent from program design and management**, and data often is not consistently collected or analyzed.

Impact evaluations look at the counterfactual, assessing changes that can be attributed to a project, both the intended ones and the unintended ones. They frequently cite a lack of evidence as a critical failure of workforce development programs. However impact evaluations have their own limitations, wherein the search for an 'impact' often means mistaking the forest for the trees.

**Funders' Approaches to Measuring Workforce Development Results**

Many workforce development projects have historically used education indicators. These have tracked "capacity" indicators—mostly input/output based—such as number of partnerships formed, number of curricula developed, or number of young people trained by tertiary institutions. However the emerging consensus is that WFD programs should be tracking employment-related outcome indicators. This tension between capacity/process vs. employment/income calls for a new look at how workforce development is best measured.

Most funders rely on two types of indicators – standard and custom.[2] Standard indicators are used for institutional reporting purposes. For example, at USAID the most relevant standard indicators are the five related to workforce development (see text box to right)[3]. These indicators can be used across projects and/or countries, thereby facilitating both cross-comparison and the aggregation of data-sets. Custom indicators are used when standard indicators cannot capture the necessary dimension of change or the special contextual circumstances that need to be measured. As the use of standard WFD indicators by funders tends to be limited, **reliance on project-by-project custom indicators is common**. This is also the case with the majority of other multi- and bilateral organizations, implementers, and governments.

**Standard USAID WFD Indicators**

- Number of persons receiving new employment or better employment (including better self-employment) as a result of participation in USG-funded workforce development programs.
- Share of women in wage employment in non-agricultural sector.
- Number of workforce development initiatives completed as a result of USG participation in public-private partnerships.
- Person-hours of training completed in workforce development supported by USG assistance.
- Number of days of USG-funded technical assistance in workforce development provided to counterparts or stakeholders.

While custom indicators are useful to implementers on the ground, the resulting data cannot be aggregated like that of standard indicators. Some USAID programs such as EQUIP3[4] have addressed this challenge by attempting to "standardize" their custom indicators, allowing for comparison across the project, the identification of trends, and more informed program adaptations, and several related measurement tools have been created. While this approach has many benefits, it is far from comprehensive, still bound by the limits of the project.

[2] Context indicators are also used, but these are primarily used on the national cross-programmatic level. Contextual indicators measure high-level change, reflect the broader environment in which a program operates, and help to identify potentially impactful externalities.

[3] In addition to the standard WFD indicators, there are those developed for other sectors that may be of use such as higher education indicators, sector-specific training indicators, and enterprise development-related indicators.

[4] The Educational Quality Improvement Program 3 (EQUIP3) was designed to improve earning, learning, and skill development opportunities for out-of-school youth in developing countries. It also provided technical assistance to USAID and other organizations in order to build the capacity of youth and youth-serving organizations.

**Next Steps**

The existence of a multitude of indicator frameworks, the prevalence of custom indicators, and the difficulties associated with classical data-collection methods have limited the effectiveness of comparing the results of different workforce development interventions across projects and countries. In addition to the challenge of coordination across organizations and approaches, there are also issues of indicator relevance, data collection, emphasis on supply-side measurement, and consistency in understanding the systems within which these outcomes are embedded.

The current literature illustrates this fact[5] as much as it aspires to more; it recommends best practices for measuring employment-related outcomes rather than reflecting the current ad-hoc practices. Yet little of this aspirational work has trickled down to actual comparable frameworks and indicators in use today. However, there are existing best practices for understanding and measuring workforce development initiatives that have been implemented in more developed economies from which we can learn lessons. For example, in the US and Europe, the most common method of measuring employment outcomes is to match student records to administrative data (unemployment insurance, tax records, etc.). There are also new technologies that can support data collection and beneficiary tracking such as mobile phones and social networking.

The next step is to build upon this emerging understanding of the difference between what is and what could be, including the use of technologies, to bring indicator frameworks to the point where those designing and managing projects can reliably and realistically understand what happens to young people once they are in the labor market, and where funders and stakeholders can compare different interventions and better understand what works for any particular location or population. Within this Community of Practice, there is the expertise and experience to make this happen.

Similar to the labor market assessment and systems work-streams facilitated by Workforce Connections, this employment outcomes work aims to create a working group that will provide specific insight on how to improve measurement of WFD outcomes. This working group will focus primarily on three main efforts: 1) identifying a core set of indicators for measuring outcomes in WFD; 2) determining the type of guidance and tools necessary to assist donors and implementers in tracking WFD outcomes; and 3) building consensus on best practices for tracking of WFD outcomes. While the funder of this process is USAID, the outputs will be relevant to a broad range of donor and implementers. This is timely input as a range of funders and implementers are considering similar efforts, such as the Youth Employment Funders Group (YEFG), which it is hoped this work will also support.

[5] A more comprehensive literature review has been conducted.

**Annex 1. Summary Indicator Table** ✓ - Represents a different indicator or method of measurement.

| Type of Indicator | Source | Input | Output | Outcome | System Level Outcome |
|---|---|---|---|---|---|
| Training | USG Standard WFD Indicator | ✓ | ✓ | | |
| Training | USG Standard Higher Ed. Indicator | ✓✓✓✓ | | ✓ | |
| Training | Domestic US WFD Indicator (IPI) | | ✓ | | |
| Training | ILO KILM | | | | ✓✓ |
| Training | CEDEFOP VET Indicator | | ✓ | | |
| Training | US DOL WIA | | ✓ | | |
| Training | Equip3 Results Framework | ✓✓ | ✓✓ | ✓ | |
| Training | IDB MIF (RTI) | ✓ | ✓✓✓ | ✓✓✓ | |
| Training | SIDA | ✓✓ | ✓✓ | | |
| Training | BACET (LoL project) | ✓✓ | ✓✓✓ | ✓✓ | |
| Training | FORAS (FHI360 project) | ✓✓ | | | |
| Training | BYEP (EDC project) | ✓ | ✓ | | |
| Training | EIG (Winrock project) | ✓✓✓ | ✓✓✓✓✓✓✓ | | |
| Training (Aspirational) | OECD, WB, ETF, ILO, UNSECO - SKILLS | | ✓✓ | | |
| Training (Aspirational) | OECD, WB, ETF, ILO, UNSECO - TVET | | | | ✓ |
| Satisfaction | Domestic US WFD Indicator (IPI) | | | ✓ | |
| Satisfaction | CEDEFOP VET Indicator | | | ✓ | |
| Satisfaction | US DOL WIA | | | ✓ | |
| Satisfaction | SIDA | | | ✓ | |
| Satisfaction | FORAS (FHI360 project) | | | ✓ | |
| Satisfaction (Aspirational) | OECD, WB, ETF, ILO, UNSECO - SKILLS | | | ✓ | |
| Placement | IDB MIF (RTI) | | ✓✓ | ✓ | |
| Placement | SIDA | | ✓✓✓ | | |
| Placement | BACET (LoL project) | | ✓✓ | | |
| Placement | FORAS (FHI360 project) | | | ✓ | |
| Cost/ ROI | Domestic US WFD Indicator (IPI) | | | ✓ | ✓ |
| Employment | USG Standard WFD Indicator | | | ✓✓ | ✓ |
| Employment | USG Standard Higher Ed. Indicator | | | ✓ | |
| Employment | Domestic US WFD Indicator (IPI) | | | ✓✓✓ | |
| Employment | ILO KILM | | | | ✓✓✓✓✓✓✓✓✓✓✓✓✓ |
| Employment | CEDEFOP VET Indicator | | | ✓ | |
| Employment | ADB KIfAP | | | | ✓✓✓✓ |
| Employment | US DOL WIA | | | ✓✓✓ | |
| Employment | Equip3 Results Framework | | | ✓ | |
| Employment | IDB MIF (RTI) | | | ✓✓✓ | |
| Employment | SIDA | | | ✓✓✓✓✓✓ | ✓✓✓✓✓✓✓✓✓ |
| Employment | BACET (LoL project) | | | ✓✓ | |
| Employment | FORAS (FHI360 project) | | | ✓✓✓ | |
| Employment | BYEP (EDC project) | | | ✓ | |
| Employment | EIG (Winrock project) | | | ✓✓✓✓✓✓✓✓✓ | |
| Employment (Aspirational) | OECD, WB, ETF, ILO, UNSECO - TVET | | | | ✓✓✓✓✓✓✓✓✓✓✓✓✓ |
| Market Facilitation | USG Standard WFD Indicator | | ✓ | | |
| Market Facilitation | SIDA | | | | ✓✓✓✓ |

**Note:** The above table is a representative sample based on available resources. It is collated from a wider literature review that has been undertaken. As new and relevant resources are identified they are included in the literature review and this table as necessary. A full description of all resources reviewed can be found in a separate literature review document. Not all institutions have 'standard, indicators on the program level. For example: World Bank – Has 68 jobs related indicators on the system level. On a project level World Bank (IFC) evaluations use custom indicator lists; IaDB – Undertakes impact evaluations of each program using various methodologies and indicators; and, GIZ – Has a methodology for measurement and evaluation which includes long lists of recommended indicators, but there are only three 'standard' GIZ indicators. The term 'Aspirational' is used to denote where an organization has identified indicators for potential future use, but are not yet incorporated in standard indicator frameworks of that institution.

**USG Standard WFD Indicators:**

- 4.6.3-2 Number of persons receiving new employment or better employment (including better self-employment) as a result of participation in USG-funded workforce development programs
- 4.6.3-7 Share of women in wage employment in non-agricultural sector
- 4.6.3-8 Number of workforce development initiatives completed as a result of USG participation in public-private partnerships
- 4.6.3-9 Person hours of training completed in workforce development supported by USG assistance
- 4.6.3-10 Number of days of USG funded technical assistance in workforce development provided to counterparts or stakeholder

**USG Standard Higher Education Indicators with relevance for WFD:**

- 3.2.2-33 Percent of USG-funded tertiary education and workforce development programs that include experiential and/or applied learning opportunities.
- 3.2.2-36 Number of USG-supported tertiary programs with curricula revised with private and/or public sector employers' input or on the basis of market research
- 3.2.2-37 Percentage of graduates from USG-supported tertiary education programs reporting themselves as employed
- 3.2.2-38 Number of USG-supported tertiary education programs that adopt policies and/or procedures to strengthen transparency of admissions and/or to increase access of underserved and disadvantaged groups
- 3.2.2-39 Number of US-supported tertiary educational programs that develop or implement industry-recognized skills certification
- 3.2.2-41 Number of individuals from underserved and/or disadvantaged groups accessing tertiary education programs

**Other USG Standard Indicators with relevance for WFD: (not a comprehensive list, but indicative of types of indicators that exist)**

- Trade and Investment Capacity
    - 4.2.2-9 Number of firms receiving USG assistance that have obtained certification with (an) international quality control institution(s) in meeting minimum product standards
- Financial Sector Capacity
    - 4.3.2-7 Number of financial institutions receiving USG assistance in extending services to micro and small businesses
- Agriculture
    - 4.5-9 Per capita expenditures (as a proxy for income) in USG-assisted areas
- Economic Opportunity/Strengthen Microenterprise Productivity
    - 4.7.3-6 Number of microenterprises supported by USG enterprise assistance
    - 4.7.3-7 Percent change in value of input purchases by micro entrepreneurs (or smallholders)
- Sector Based Training
    - There are a number of indicators across different sectors that measure training initiatives specific to that sector's skill needs.

## Annex 2. Resources Reviewed

### Monitoring and Evaluation / Indicators


*Indicators of skills for employment and productivity: A conceptual framework and approach for low-income countries*. 2013. OECD and the World Bank in collaboration with ETF, ILO and UNESCO.

*Indicators for Quality in TVET in Europe*. 2007. CEDEFOP

*Proposed Indicators for Assessing Technical and Vocational Education and Training. 2012. Inter-agency working group on TVET indicators. ETF, ILO and UNESCO*

*Measuring Success of Youth Livelihood Interventions: A Practical Guide to Monitoring and Evaluation*. Washington, DC: World Bank. 2012. Hempel, Kevin, and Nathan Fiala.

*Measuring Employability Skills: A rapid review to inform development of tools for project evaluation*. 2012. National Children's Bureau, UK.

*Standard Foreign Assistance Master Indicator List.* Department of State.

*Measuring and Stimulating the Links between Education and the Labour Market: A Desk Study on Lessons Learned and Indicators of Success.* By Bertil Oskarsson. Hifab International AB, October 2012.

*Implementing an Impact Evaluation: Lessons Learned from a Youth Livelihood Program in Kenya*. Globe Partnership for Youth Development. 2013

*Quality Indicators for Review of Competitive Employment Job Outcomes.* 2008. VCU Region III CRP-RCEP

*Creation of Short and Very Short Measures of the Five Cs of Positive Youth Development*. Journal of Research on Adolescence, 24(1), 163–176. 2013. G. J. Geldhof, et al.

*Outcomes Planning and Reporting: Guidance*. CMS.


### Assessment Methodologies


*Measuring Outcomes: Intermediary Development Series*. Compassion Capital Fund.

*Compass to Workforce Development.* Center for Workforce Development. Aring, Monika and Cathleen Corbill

*Key Indicators for Asia and the Pacific, 45th edition. 2014.* Asian Development Bank.

*Measuring Workforce Preparation and Employment Outcomes*. Radwin, David and Laura Horn. RTI. 2014.

*General Education, Vocational Education, and Labor Market Outcomes over the Lifecycle*. 2011. IZA.

*Workforce development initiatives for out-of-school youth—what works? A participatory research with youth and communities in South Philippines*. Washington, DC: USAID. Briones, R. (2011).

*Employment Diagnostic Analysis: A methodological guide*. 2012. International Labour Organization.

*Quality Assurance in TVET*. UNEVOC / UNESCO.

*Cohort Size and Youth Employment Outcomes*. IZA DP No. 8197. May 2014. Newhouse, David and Claudia Wolff.

*Defining and measuring employability.* Centre for Research into Quality, University of Central England. Harvey, Lee.

*How Can Job Opportunities for Young People in Latin America be Improved?* 2012. IDB.

*Measuring and Assessing the Impact of Basic Skills on Labour Market Outcomes.* McIntosh, Steven and Anna Vignoles. 2000. Center for the Economics of Education.


### Assessments


*Testing What Works in Youth Employment: Evaluating Kenya's Ninaweza Program*. International Youth Foundation. 2013.

*Youth Employment Programs: An Evaluation of World Bank and International Finance Corporation Support.* 2012. World Bank.

*Vocational Education in Kenya: Evidence from A Randomized Evaluation Among Youth.* 2013.

*Evaluating the impact of job training programs in Latin America: Evidence from IDB funded operations.* Washington, D.C.: IADB. Ibarraran, P. & Rosas, D. (2008).
*Impact evaluation baseline report: Apprenticeship training program and entrepreneurial support for vulnerable youth in Malawi.* Washington, D.C. World Bank. (2011c).
*The High/Scope Perry Preschool Study Through Age 40*. 2005. ERF.
*Impact evaluation of a labor training program in Panama.* Washington, D.C.: IADB. Ibarraran, P. & Rosas, D. (2007).
*A Thematic Study of the IDB's Multilateral Investment Fund Youth-Related Projects*. RTI International, 2012.
*A Randomized Control Trial of Akazi Kanoze Youth in Rural Rwanda: Final Evaluation Report.* EDC/USAID. October 2014. Alcid, Annie.
*Accounting for Differences in Labour Market Outcomes in Great Britain: A Regional Analysis Using the Labour Force Survey.* IZA DP No. 1501. February 2005. Sloane, Peter J.
*Community College Occupational Degrees: Are They Worth It?* University of Pennsylvania. 2011.
*Key Aspects of the Economics of Technical and Vocational Education and Training (TVET).* 2009. GTZ.
*Scan and Review of Youth Development Measurement Tools.* USAID. 2013. Olenik, Christina, Bicole Zdrojewski, Sharika Bhattacharya.
*A review of interventions to support young workers: Findings of the youth employment inventory* (SP Discussion Paper No. 0715). Washington, D.C.: The World Bank. Betcherman, G., Godfrey, M., Puerto, S., Rother, F. & Stavreska, A. (2007).
*Review of the Youth Worker Training Sub Program in Colombia.* 2006. IADB
*Training disadvantaged youth in Latin America: Evidence from a randomized trial.* New York, NY: The National Bureau of Economic Research. Attanasio, O., Kugler, A., & Meghir, C. (2008).
*The labor market impacts of youth training in the Dominican Republic: Evidence from a randomized evaluation*. Cambridge, MA: National Bureau of Economic Research. Card, D., Ibarraran, P., Regalia, F., Rosas, D., Soares, Y. (2007).
*An evaluation of training of the unemployed in Mexico.* Washington, D.C.: IADB. Delajara, M., Freije, S. & Soloaga I. (2006)
*An evaluation of the Peruvian youth labor training program- Projoven* (Working paper: OVE/WP-10/06). Washington, D.C.: IADB. Diaz, J. & Jaramillo, M. (2006).
*Impact evaluation of PROJoven youth labor training program in Peru.* New York, NY: Office of Evaluation and Oversight at the Inter-American Development Bank. Rosas Shady, D. (2006).
*Addressing Youth Employment: Evidence from Evaluation and Research at the World Bank Group.* September 2013. Presentation by Emmanuel Jimenez.
*A Decade of Promising School-to-Career Partnerships*. Bridge to Employment. FHI360

**USAID Guidance**

*Selecting Performance Indicators*. 2010. USAID.
*Equip3 Lesson Learned: Experiences in Livelihoods, Literacy, and Leadership in Youth Programs in 26 Countries.* USAID/EQUIP3. April 2012.
*State of the Field Report: Examining the Evidence in Youth Workforce Development.* By Christina Olenik and Caroline Fawcett. Washington, D.C.: USAID/JBS International, February 2013. USAID.
*Workforce Development Program Guide*. USAID. Israel, Ron.
*Guide to Cross-Sectoral Youth Assessments*. USAID/EQUIP3. 2009. Bonifaz, Alejandra, et al.
*State of the Field Report: Holistic, Cross-Sectoral Youth Development.* By Nancy Guerra and Christina Olenik. Washington, D.C.: USAID/JBS International, February 2013. USAID.
*Developing a Youth Development Framework.* EQUIP3, USAID. April 2011.

*Research and Evaluation Agenda for Youth Workforce Development and for Cross-Sectoral Youth Development (Presentation).* USAID. October 2013.
*Preparing a Performance Management Plan*. 2010. USAID.
*USAID Education Strategy, Opportunity Through Learning*. 2011. USAID.
*Promising Practices in Youth Workforce Development*. 2014. USAID
*Ensuring Results & Measuring Progress [Presentation]*. USAID
*USAID Youth and Education Research Agenda*. 2014. USAID.

**General**

*World Development Report 2013: Jobs.* Washington, DC: World Bank.
*Good Practice in Technical Vocational Education and Training*. 2009. ADB
*Handbook of TVET Indicators in Jordan.* ETF
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