K4DD Knowledge for Development and Diplomacy

Women's participation in TVET and impact on social and economic development

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Provide an overview of women's participation in Technical and Vocational Education and Training (focused on Middle East North Africa, Sub-Saharan Africa, and Southeast Asia regions) and impact on social and economic development.

Contents

1. Overview

This rapid literature review collates available evidence on women's participation in Technical and Vocational Education and Training (TVET) (focused on Middle East North Africa, Sub-Saharan Africa, and Southeast Asia regions) and impact on social and economic development.

This review is the second in a three-part series, with associated reviews collating data on women's participation rates and socio-economic development indicators and exploring how women's participation in higher education (HE) impacts on social and economic development.

This review draws on three main sources of information including:

- World Bank, International Labour Organisation (ILO) and UNESCO (here after World Bank et al., 2023) report Building Better Formal TVET Systems: Principles and Practice in Low- and Middle-Income Countries UNESCO-UNEVOC TVET Country Profiles.
- OECD (2018). The role of technical and vocational education and training (TVET) in fostering inclusive growth at the local level in Southeast Asia.
- A range of country focused explorations of the impacts of TVET on socio-economic development focussed on Middle East North Africa, Sub-Saharan Africa, and Southeast Asia regions.

The review is structured as follows:

- Section two provides a broad overview of education and TVETs impact on socio-economic development.
- Section three, four and five provide a series of country focussed examples of where TVET (including women's participation in) has delivered impact in terms of socio-economic development.
- Section six concludes with some broad reflections on opportunities and challenges associated with the reform of TVET.

Economists widely agree that there is a positive relationship between education and development with higher levels of education associated with positive economic and social development (for the individual, for firms and for society). Further to this, gender equality is considered essential for the achievement of sustainable development which is considered only attainable through the full involvement and engagement of women. This review highlights that evidence regarding the impact of TVET on economic and social development is limited, mixed and variable. In particular, evidence regarding women's participation in TVET and its impact is challenging to gather, given limited participation rates and the absence of systematically collected data.

- The few rigorous impact evaluations and more numerous observational studies of formal secondary TVET in LICs and MICs suggest that the impacts on graduates'

labour market outcomes can be positive but are often small and almost always highly heterogeneous. A limitation of these studies is that they tend to focus on wage employment and often fail to capture the self-employment and unpaid family work that are common in many countries.

- Within countries, performance can vary considerably by TVET institutions. Institutions, even of the same type and in the same country, can differ highly in their management practices, which may explain some of the variation in returns.
- Technical skills taught in TVET programs need to respond to the reality of the labour markets open to graduates. In the global south, this entails responding to the needs of self-employment and the informal economy but also the transition to more digital and greener economies – this is often not the case.
- With scarce data and a limited evidence base, TVET systems are largely operating in the dark, compared to other parts of the education system. Despite international initiatives, even basic enrolment and completion data are sometimes difficult to find, much less standardise, given the diversity of TVET programs at different levels, which may be governed by different ministries or agencies.

Overall, the existing literature on vocational training programs in the global south has important gaps. The limited evidence and variation of impacts found in available studies across the global south may partly be explained by differences in social, economic, and labour market conditions, existing skill levels of targeted groups, and training program characteristics. Despite these challenges positive impacts have been identified in the following areas:

Impact on poverty: TVET programmes can had a positive impact on participants' employment and wages, especially in LICs and MICs. Impacts of have, in some contexts, been shown larger for youth from disadvantaged backgrounds, young women, and participants younger than 25 years (see sections on Cambodia and Liberia for example).

Impact on inequality: TVET programmes can lead to an improvement in the quality of jobs, for example entry into 'non-traditional' sectors (see section on Ethiopia). It is suggested, however, that female beneficiaries tend to experience larger employment and wage gains than male beneficiaries, while male participants tend to obtain better quality jobs than female participants.

Impact on social exclusion: Well-designed skills training interventions increase young people's economic, social and political engagement and improve their employment outcomes (see Liberia and Cambodia examples). Moreover, simply participating in non-formal TVET has been shown to raise the self-esteem and social standing of marginalised youth in fragile and conflict-affected settings (see Gezie & Iyer, 2022).

2. Education and socio-economic development

Education across all levels is associated with a wide range of benefits to both individuals and society. Education contributes to greater productivity and economic growth. Moreover,

education has spillover effects: human capital is at the heart of innovation, and a more educated workforce fosters innovative ideas leading to more and better jobs (OECD Website)[1]. Human capital theory posits that education and training make individuals more productive, which in turn increases their probabilities of being employed and earning higher wages (OECD, 2018).

In terms of educations economic benefits, data shows that at each additional level of educational attainment there are improved labour market outcomes for individuals. People with higher levels of education are more likely to find employment, remain employed, learn new skills on the job, and earn more over their working life relative to those with lower levels of education. Non-formal and informal learning have also been demonstrated to reduce the costs and time required to acquire formal education, and vocational programmes yield benefits by helping people learn technical, practical skills that are relevant for the jobs available (OECD Website).

Further to the economic benefits, education is considered to contribute to social development. While social mobility is influenced by a range of factors, such as individuals' family and social environment, education that provides equal opportunities for all can help individuals move up the social ladder, and thus help to create more equitable societies. Education also translates into greater levels of civic participation such as voting and volunteering, all of which help to build safer neighbourhoods. Health outcomes are better among people with more education who are likely to live longer and have healthier lives (OECD Website).

It is thus broadly accepted that education has a strong positive impact on individuals' employment prospects, wages and social outcomes. Much research has highlighted the role that secondary education plays in maintaining productive employment in a complex globalised environment. In turn, higher levels of education are linked to improved employment probabilities: for example, on average across OECD countries, 86% of tertiary graduates and 77% of upper secondary and 83% of post-secondary non-tertiary graduates are employed, compared to 59% of individuals who received education to below upper secondary level in OECD countries (OECD, 2023: 84).

2.1 TVET and socio-economic development

Increasing economic opportunities and productivity while supporting sustainable economic transformation is considered to be among the most pressing global challenges. Education and training systems, including TVET, can help equip current and future workforces with the skills they need for productive jobs and entrepreneurship (Oketch et al., 2014).

TVET is broadly conceptualised as skills development in a wide range of occupational fields, production, services, and livelihoods. TVET can also occur at a variety of educational levels secondary (ISCED 2 - Lower Secondary Education and ISCED 3 - Upper Secondary Education), post-secondary (ISCED 4 - Post-secondary non-Tertiary Education), or tertiary

[1] https://gpseducation.oecd.org/revieweducationpolicies/#!node=41761&filter=all

level (ISCED 5 - Short-cycle tertiary education, ISCED 6 - Bachelors degree or equivalent tertiary education level and beyond) as well as including work-based learning and continuing training and professional development that may lead to professional qualifications (UNESCO, 2015)[2].

A significant challenge in terms of TVET provision, is ensuring its relevance in a context of globalisation, technological change, demographic shifts, and climate change, which are disrupting the world of work and the skills deemed essential. Such dynamics increase both the necessity of and potential payoffs from TVET. The World Bank (2019: vii) comment that current and future jobs will require specific skills, a combination of technological know-how, problem-solving, and critical thinking, as well as soft skills such as perseverance, collaboration, and empathy (World Bank et al., 2023).

Findings from across a diverse array of literature (both academic and grey) has highlighted that TVET can deliver impact across the following areas:

- **Productivity**: Better skills, including foundational (or core, transversal) cognitive and socioemotional skills as well as digital and occupation, or job-specific, technical skills can facilitate the shifting of work and economic activity to more productive uses within and across sectors, and thus contribute to structural transformation and economic growth (World Bank, 2018). Technical skills, the focus of TVET programs, have been associated with a higher worker, firm, and aggregate productivity (Asian Development Bank - ADB, 2015). Given the importance of TVET for a range of industries, quality TVET is considered to be a contributory factor to fostering firm-level and aggregate productivity (Ansu & Tan, 2008).
- **Employability**: TVET is often identified as a mechanism for enhancing the employability of youth and adults and addressing skills constraints. The focus on technical and occupation-specific skills, pertinent to the world of work, implies that a well-functioning TVET system can be an important factor in efforts to facilitate school-to-work and labour market transitions (World Bank et al., 2023).
- **Skills**: By providing critical technical and vocational skills, TVET can help address skills shortages and mismatches as well as shape the types of jobs that are created and a country's path of sustainable economic transformation. Because it emphasises building work-relevant skills, TVET can support the alignment of workforce skills with labour market demand (World Bank et al., 2023).
- **Equity**: Skills development, including those provided through TVET, can support making growth more equitable (World Bank, 2018). For example, by providing women and girls opportunities to enter 'male dominated' sector has been shown to improve incomes compared to entry to sectors considered 'female dominated' (Alibhai et al., 2017).

[2] For an overview of International Standard Classification of Education (ISCED) levels see https://datatopics.worldbank.org/education/wRsc/classification

- **Sustainable development**: Well-designed TVET programs have been identified as important to helping countries meet the Sustainable Development Goal (SDG 4) of "ensuring inclusive and equitable quality education and lifelong learning opportunities for all" and (SDG 8) "promoting sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all" (see for example UNESCO Strategy for TVET (2016-2021) – UNESCO, 2016). TVET can also have a significant impact on longer-term development trajectories through its impact on innovation. employers and investments, especially foreign direct investment (see for example Intel's selection of Costa Rica for a factory site, partly based on the availability of middle-skilled and bilingual workers - Monge-González, 2017).

However, despite recurrent broad reference to the importance of TVET, specific evidence on impact is scarce, particularly for LICs and MICs. The measurement of returns on training provision present but one of several challenges. Variables are usually not comparable across studies and datasets often do not allow for an accurate estimation of results (Almeida & de Faria, 2014: 21). Specifically:

- **Few countries routinely or rigorously evaluate TVET systems,** as such there is a shortage of appropriate data from which to draw conclusions (Biavaschi et al, 2012). Reliable evidence on TVET's impacts is particularly scarce for countries in the global south as rigorous evaluation exercises are costly to conduct (Kingombe, 2012).
- In most countries **TVET and general education attract different kinds of learners and have different programme features**, thus introducing biases that need to be corrected to compare returns across the vocational and general educational tracks (Eichhorst et al, 2012). Broadly, TVET students tend to come from lower socio-economic backgrounds and may have "weaker" academic abilities (often referred to as core foundational skills) than general education students. Likewise, general education programmes tend to have a longer duration and involve higher costs than TVET programmes (World Bank et al., 2023).
- **Definitions of TVET and TVET systems vary across countries**, making it difficult to extrapolate results across different kinds of school-based, firm-based and apprenticeship programmes (see box 1 and Hanni, 2019).
- In some instances, **employment and wage outcomes do not reflect education and training quality**, but instead dynamics within the labour market. For example, the availability of jobs may be greater in some fields than in others due to differences in labour intensity, or wages may be lower for some occupations than others, despite requiring higher skills (OECD, 2018).
- **National TVET systems and providers vary significantly in terms of quality and impact**. This often reflects the demands of particular sectors or the strengths of particular institutions.

TVET in LICs and MICs

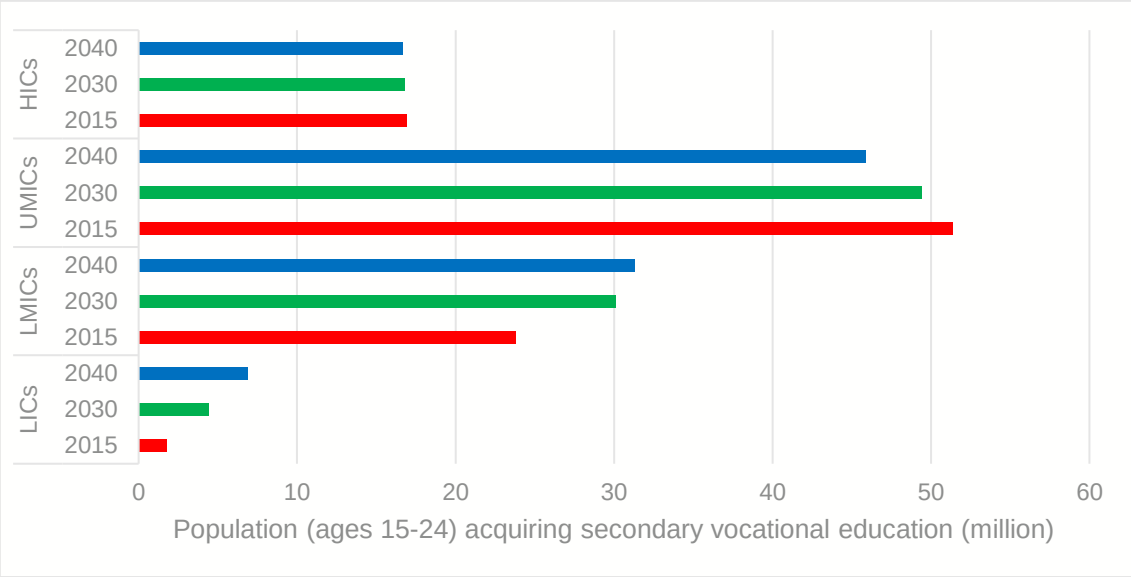
TVET in LICs and MICs enrol relatively few students, both compared to the number in corresponding levels of general education and to TVET enrolment in high-income countries.

It is estimated that over 20% of youth in LICs and MICs are not in education, employment, or training. Among young women in LMICs, this rate rises to almost 40% (World Bank et al., 2023: 24). However, as completion rates at lower levels of education improve, pressure for TVET systems to expand grows (see figure 1).

This is particularly the case for women and girls in a number of contexts. For example, in Angola (a LMIC country), it was estimated that only 2% of the female population aged 25+ had completed a short cycle tertiary degree (ISCED 5 or higher). This can be compared with Singapore where the figure is 20.4% (see Avis, 2024 for comparisons across countries).

Typically, the share of youth in TVET increases with a country's income per capita (World Bank et al., 2023). At all country income levels, upper-secondary vocational students make up the bulk of TVET learners, with lower-secondary and post-secondary non-tertiary TVET students comprising much smaller shares. Moreover, formal TVET learners are concentrated in initial (pre-employment) training, with only a very small proportion of the workforce engaging in continuing formal TVET (CEDEFOP, 2019 – this study focuses on Europe).

Figure 1: Estimates of the population acquiring secondary vocational education (million) 2015-2040[3]



Source: World Bank et al., 2023: 31 reproduced under CC-BY-SA 3.0 IGO

[3] Source: Methodology from Arias et al. 2019.

Note: Barro-Lee data are used for projections of education attainment by country and UNESCO Institute of Statistics data for the share of secondary students in vocational education. The population aged 15–24 acquiring secondary vocational education is calculated as the population with at least secondary education multiplied by the share of vocational students in secondary education. LICs = Low-income countries, LMICs = Lower middle-income countries, UMICs = Upper middle-income countries, HICs = High-income countries.

An important consideration when exploring TVET in the global south, as identified in box 1, is that references to TVET often encompass a range of different forms. In much of the global south, formal school based TVET is considered to be a less prevalent form of skills training than informal apprenticeships, which take place outside the formal education system (Kingombe, 2012). In many LICs and MICs a significant proportion of young people do not complete lower secondary school, often the minimum level for accessing most formal TVET programmes (OECD, 2018).

Box 1: TVET Definitions (Hanni, 2019)

TVET: UNESCO-ILO define vocational and technical education as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life. Depending on context, terms used may differ e.g., apprenticeship training, vocational education, technical and vocational education, occupational education, career and technical education, or workforce development. Umbrella concepts such as competence-based vocational education and training have gained traction because they combine the needs of the labour market and entrepreneurship (including self-employment), the digital economy (including hybrid work and learning), the increasing importance of on-the-job training, and cognitive and socioemotional skills.

Formal TVET: Technical and vocational programs offered within the formal education system that lead to degrees or other certifications. At the secondary level, TVET tracks are typically offered to upper-secondary (ISCED 3) students. However, programs may also exist at the lower-secondary level (ISCED 2). Beyond formal TVET at the secondary level, students can enter post-secondary non-tertiary (ISCED 4) TVET programs that offer access to certifications in specific occupations and skills. While TVET may be provided at the short-cycle tertiary (ISCED 5) level. The main distinction between formal and non-formal programs is that the former are intended to contribute to qualifications that are recognised by national authorities and can provide access to higher levels of education and training.

Non-formal TVET: training and education offered outside the formal educational system. Non-formal TVET is provided by, among others, national training institutes, private institutes, adult and community education providers, and training within firms. Unlike formal TVET, which often leads to a diploma or a certification, nonformal programs may increase skills and employability, but do not necessarily certify the education received.

Informal TVET: skills acquisition through learning-by-doing. Experience derived from practicing a: trade or by working with others can lead to the acquisition of skills that can increase the productivity of the person learning. This form of learning is common in the world of work, especially in entry level and low-skilled jobs.

Informal TVET, provided by micro or small enterprises in the informal sector has been identified as consistent feature of training in the global south. It requires no formal qualifications and avoids the direct and indirect costs of formal schooling, making it the most accessible and cost-effective training route for many young people from poor households (OECD, 2018).

Further developing this point, Kingombe (2012) comments that secondary school graduates across both general and TVET education tracks tend to experience slower school-to-work transitions than their counterparts in the global north, and TVET graduates tend to have lower access to decent formal sector job opportunities than general education graduates. In most LICs and LMICs, job growth in the formal sector is slow, and informal employment rates are high (Kingombe, 2012).

The informal sector thus provides both training for those who have left education early as well as jobs for formal TVET graduates who often work in informal sector jobs given the lack of formal jobs. Further to this, if formal TVET graduates are able to obtain formal jobs, they often end up in semiskilled rather than higher-skilled positions (Kingombe, 2012) highlighting a mismatch between training offered and labour market needs.

Factors that influence the extent to which TVET can support socio-economic development (including how women's participation in TVET impacts socio-economic development) includes:

TVET students often come from lower-income households than peers in general education. Data from the OECD Programme for International Student Assessment (PISA) shows that in most countries, among 15-year-olds taking the test, secondary students from the poorest socioeconomic quintile are more likely to attend vocational or pre-vocational programs than peers from households in the richest quintile (Subrahmanyam & Law, 2020). In Ghana and Kenya, TVET students tend to come from families with lower socioeconomic status than those who attend general education, as proxied by the educational level of their parents (World Bank et al., 2023)

Socioeconomic status can affect the choice of specialisation. In Bangladesh, students in short-term training from the richest income quintile and those with better educated parents were more likely to be enrolled in ICT or computer-aided design trades; students from the poorest quintile and those whose parents were less educated were more likely to choose welding, electric, and auto mechanic courses (World Bank, 2015).

TVET learners may have multiple, interrelated disadvantages. In addition to gender and socioeconomic status, disadvantages may include ethnicity, migration history and disability etc. TVET institutions are often not equipped to enable inclusive access, and teachers are ill prepared and lack materials to cater to the needs of learners with special educational needs. In some countries, like Bangladesh, special TVET institutions exist for learners with disabilities (World Bank et al., 2023). However, Segregated training opportunities may negatively affect learners' integration into regular workplaces. Race and ethnicity may also influence experiences of and outcomes from participating in TVET (see box 2).

Box 2: TVET race and ethnicity in the global south and north (Avis et al., 2023)

The papers in this special issue illustrate divergent approaches to examining TVET, race and ethnicity in the global south and north. The salience of race and ethnicity is apparent in ongoing research taking place in secondary schooling and in particular in analyses of higher education. However, as far as TVET is concerned, there is a limited and uneven discussion taking place that focuses on race and ethnicity. Frequently, race and ethnicity are treated as subordinate or secondary within the political economy of TVET. Narrow definitions can tie TVET to an instrumentalism that places employers' interests centre stage, limiting engagement with questions of social justice, at best, to social democratic sensibilities or, at worst, dominant neo-liberal discourses. While this collection foregrounds race and ethnicity, it seeks to go beyond the rhetorical call for an acknowledgement of the interrelationship of race, ethnicity, class and gender, seeking to foreground critical race approaches to studying race and education. In short, the papers in this special issue, while theoretically diverse, avoid equating issues of race and education with superficial notions of diversity and inclusion.

Variance in labour market returns to TVET highlights quality and relevance challenges. The variance in returns to TVET within fields of study suggests that its quality and relevance depend not only on system-wide factors but also on the quality of providers. The World Bank Training Assessment Project (TAP) that assessed TVET noted marked variation in how institutions manage and carry out a demand-driven approach to training, fulfilling quality standards, creating a teaching experience conducive to learning, and preparing students for the world of work (World Bank et al., 2023).

TVET students may have weak foundational skills. Such skills include basic literacy and numeracy plus socioemotional skills like openness, perseverance, and teamwork. For example, Arias et al., (2019) highlight that secondary TVET graduates in Ghana score almost 4 standard deviations below general secondary graduates on a literacy test (Arias et al., 2019). Arias et al., (2019) assert that this is likely because of both pre-entry differences in foundational skills and general education doing a better job of improving these skills.

In some countries, it is possible to enter TVET at the lower-secondary level. According to UNESCO ISCED mapping, a student can access a vocational track at lower-secondary in most countries in Sub-Saharan Africa. This may be too early in countries where large numbers of students do not acquire strong foundational skills (World Bank 2018). When TVET students lack foundational skills, it undermines their capacity to learn and upgrade

other skills, such as the technical and vocational skills that TVET aims to develop. The failings of basic pre-TVET education to develop adequate foundational skills hurts the employability of graduates but also poses a major challenge to the TVET system.

TVET curricula can be demanding, leading to demotivation and early dropout of learners with weak foundational skills. Because TVET programs are tasked to provide both work-specific skills (through both classroom and practical training) and foundational skills, the curricula can be challenging (World Bank et al., 2023).

Technical skills that TVET students learn are not always well aligned with current and future labour market needs. On the supply side, TVET systems can be slow to increase enrolment capacity in fields that offer better job prospects and reduce it in fields with low returns. This may be due to; lack of information on job prospects, time needed to increase the capacity of teachers and infrastructure, administrative burden imposed by centralised and bureaucratic systems and reform resistance and system inertia. On the demand side, TVET learners may not opt for fields offering the best job prospects. This can occur when learners lack information about labour market outcomes, or when considerations other than job prospects play a stronger role in decision-making, such as individual preferences, perceptions, aptitude, social norms, and costs. Mismatches between skill provision and market needs may lead to (as is the case In Türkiye) (Ozer & Suna, 2020), TVET graduates being employed outside their field of study.

There is broad consensus that the quality and relevance of TVET could be improved if learning, were more experiential. When asked about which areas of their TVET programs need substantial improvement (World Bank et al., 2023).

Managers of TVET institutions may not be sufficiently prepared to carry out their roles. Leaders of TVET institutions need a sound understanding of TVET and labour markets and the capacity to improve the performance of their institutions by, e.g., developing and managing teachers, engaging employers and other stakeholders, and ensuring appropriate training delivery for a diverse student population (World Bank et al., 2023).

Recruitment, development, and management is a challenge. Few countries in the global south have teacher training programs specifically geared to TVET and lack pedagogical certification requirements for TVET teachers (World Bank et al., 2023).

Diversity in terms of teachers. TVET teachers are predominantly male. In 53 of 86 countries for which 2007–11 data on TVET teachers in formal public and private institutions were reviewed, more than half of TVET teachers were men. In some countries, including Chad, Guinea, Mali, Niger, and Togo in Western Africa, the share of female teachers was less than 10%. The 33 countries where more than half of the teachers were women were mostly MICs in Europe and Central Asia and Latin America (Axmann et al., 2015).

TVET quality and relevance are undermined by gaps in physical and digital infrastructure, equipment, and learning materials. Assessments of TVET systems globally routinely document gaps in infrastructure and, especially important for TVET, equipment and materials. (Akanbi, 2017).

Whilst evidence of impacts of TVET is mixed three key contributions can be gleaned from systematic reviews:

Impact on poverty: Systematic reviews of youth-focused active labour market programmes worldwide find that skills training programmes have had a positive impact on participants' employment and wages, especially in low- and middle-income countries.

Kluve et al., (2017) undertook a meta-analysis of 113 impact evaluations representing 107 youth-focused interventions in 31 countries and concluded that both skills training and entrepreneurship promotion initiatives have had a positive and statistically significant impact on participants' employment and earnings, with a higher impact on their earnings than on their employment and with larger programme effects in low- and middle-income countries than in high-income countries (Kluve et al, 2017;).

In a similar vein, ILO (2022) undertook a systematic review to explore the effectiveness of over 170 programmes that have been carried out to improve youth labour market outcomes. The report found that, overall, entrepreneurship promotion and skills training interventions have larger impacts than employment services and subsidised employment programmes. In low- and middle-income countries, entrepreneurship interventions have the largest impacts, followed by employment services and skills training interventions.

The report also found that impacts of active labour market impacts are larger for youth from disadvantaged backgrounds, young women, and participants younger than 25 years, particularly in low- and middle-income countries.

Impact on inequality: Kluve et al., (2017) concluded that skills training programmes have had the greatest positive impacts on the most disadvantaged youth – those from low-income households, with low levels of education and/or exhibiting strong disadvantages in the labour market. It also found that skills training programmes often lead to an improvement in the quality of jobs (as measured by contract and job type) that participants obtain, especially in low- and middle-income countries.). However, the review noted that employment, formality and wage effects differ across subgroups: for example, female beneficiaries tend to experience larger employment and wage gains than male beneficiaries, while male participants tend to obtain better quality jobs than female participants.

Impact on social exclusion: Well-designed skills training interventions increase young people's economic, social and political engagement and improve their employment outcomes (see Liberia and Cambodia examples). Moreover, simply participating in non-formal TVET has been shown to raise the self-esteem and social standing of marginalised youth in fragile and conflict-affected settings (see Gezie & Iyer, 2022). They found that trainees and graduates in TVET programmes report increases in levels of self-confidence, self-esteem and a positive influence of the training on their standing in the community.

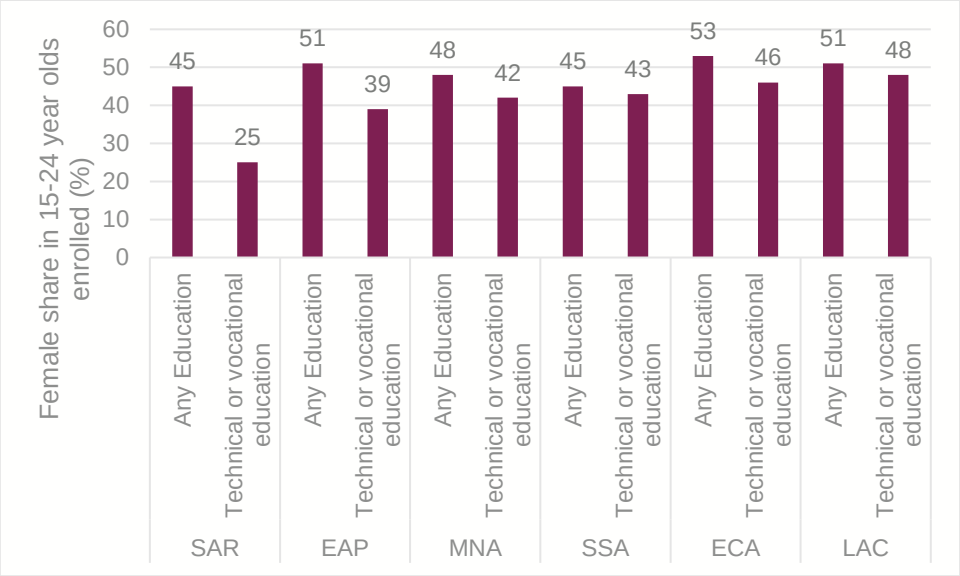
2.2 Women and girl's participation in TVET

TVET has been characterised as one means for supporting broader societal objectives e.g., inclusion, social cohesion, and gender equality, or crisis preparedness and response (World

Bank et al., 2023). TVET can help generate trust, boost social capital, and create institutions that promote inclusion and shared prosperity (World Bank, 2018). TVET is also often considered a viable education route for youths who lack foundational skills. TVET can thus play a role in reducing social and gender inequalities, promoting social mobility, and support lifelong learning (UNESCO, 2018).

Despite the potential for TVET to address gender inequality, sex segregation in formal TVET is endemic in the global south. Broad findings from the literature suggest that female TVET graduates' employment rates and wage levels tend to be lower than those of male TVET graduates (Adams, 2007). In many countries, gender norms, standards and practices limit women's access to traditionally 'male' TVET courses. Self-selection by women into less lucrative TVET programmes, combined with gender-biased labour market practices means that female TVET graduates tend to have slower school-to-work transitions and obtain poorer-quality and lower-paid jobs than male TVET graduates (Adams, 2007). Despite attracting relatively disadvantaged learners, TVET systems thus still exclude many, with women less likely to be enrolled in TVET, and when enrolled, are more likely than men to specialise in fields with lower labour market returns.

Figure 2: Women are Less Likely to Be Enrolled in TVET as Compared to Men[4]



Source: World Bank et al., 2023: 34 reproduced under CC-BY-SA 3.0 IGO

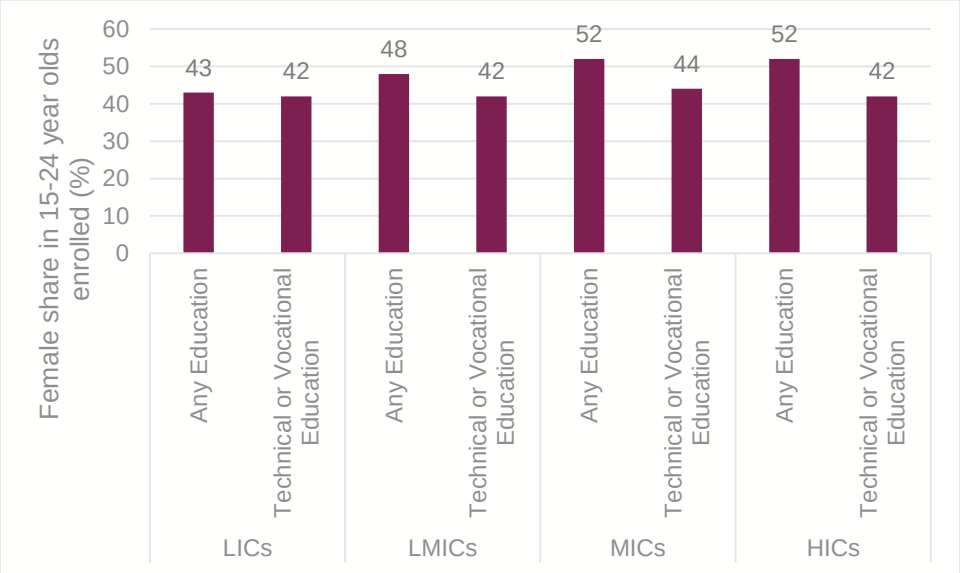
[4] Source: UNESCO Institute of Statistics and ILO Statistics data.

Note: Covers L/MICs with latest available data for the period from 2011 to 2022, excludes HICs. Regions sorted by average adjusted gender parity index. Data points for enrolment in overall education for 110 countries. While the composition of countries in "any education" and "technical or vocational education" differs somewhat for each country group, the conclusion remains the same with the smaller sample of countries that have data for both variables. EAP = East Asia & Pacific, ECA = Europe & Central Asia, LAC = Latin America & Caribbean, MNA = Middle East & North Africa, SAR = South Asia, SSA = Sub-Saharan Africa.

A number of features of women's participation TVET have been identified in the literature. These mediate the wider impacts:

TVET tends to be male dominated, including in contexts where women are more likely to be engaged in education (e.g., in UMICs). Gender gaps are widest in South Asia and East Asia and Pacific. Averages mask variation between countries within income groups. Only 14 MICs (of which 11 are UMICs, predominantly in Latin America and the Caribbean) have a higher female share in vocational than in general education; a number of LICs (Burundi, Ethiopia, and Guinea) also have higher gender parity in vocational than in general education Countries in South Asia have some of the highest gender disparities for participation in vocational education: India has the lowest gender parity index for TVET participation, with women comprising only 10% of the students in vocational education (World Bank et al., 2023: 133).

Figure 3: Female share in 15-24 year olds enrolled (%)[5]



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Gender disparities in TVET are evident in a number of fields of study. In Nigeria a 4:1 male-female enrolment ratio was reported in technical colleges with the gender gap particularly large in architecture, ICT, accommodation or food services, and mechanics all of which were overwhelmingly male-dominated (World Bank, 2015). In Bangladesh, women made up 86% of formal short-term training courses in garments but comprised less than

[5] Source: Data from UNESCO Institute of Statistics and ILO Statistics; latest year available.

Note: Covers L/MICs with latest available data for the period from 2011 to 2022. Data points for enrolment in general education for 147 countries. Data points for enrolment in vocational programs for 142 countries. While the composition of countries in "any education" and "technical or vocational education" differs somewhat for each country group, the conclusion remains the same with the smaller sample of countries that have data for both variables. LICs = Low-income countries, LMICs = Lower middle-income countries, UMICs = Upper middle-income countries, HICs = High-income countries.

10% of those studying electricity, welding, and auto mechanics (World Bank et al., 2023: 133). Whilst Latin American countries report that female participation in TVET is relatively high, women tend to be concentrated in traditionally female trades. In one of Ethiopia's technical and vocational colleges, women made up only 10% of students in manufacturing and 23% in electrical fields versus 75% of students in food preparation and 100% in administrative office fields (Buehren and Salisbury 2017). This misallocation of talent and exclusion of women from TVET fields that are in high demand is considered detrimental to the economy.

Gender differences in TVET stem, in part, from information failures and restrictive gender norms. Gender gaps have been linked to psychosocial factors regarding cultural norms about what women can and should do (Campos et al., 2015). Barriers pushing female learners away from TVET, such as lack of gender-inclusive facilities and risks of gender-based violence and sexual harassment, are likely to be most severe in male-dominated fields and occupations (World Bank 2019a).

Overall, the existing literature on vocational training programs in the global south has important gaps, especially with regard to rigorous evaluations. Few impact evaluations of these programs exist and experimental evidence is limited, particularly in sub-Saharan Africa. The limited evidence and variation of impacts found in available studies across the global south may partly be explained by differences in social, economic, and labour market conditions, existing skill levels of targeted groups, and training program characteristics. In addition, few studies have integrated impact evaluation findings with an implementation analysis to help interpret the estimated impacts.

Those studies that have attempted to measure the positive impact of women's participation in TVET on socio-economic development are limited. Attanasio et al. (2011), found positive results from an experimental evaluation of training program for disadvantaged youth in Colombia, with positive impacts of about 7% on employment and almost 20% on wages for female trainees approximately a year after the program ended. Although there were no significant impacts on these outcomes for men, the program had a significant positive impact on the probability of formal sector employment for both women and men (7% and 5%, respectively). A follow-up study of the same program (Attanasio et al., 2015) found that positive impacts on the probability of formal sector employment persisted up to 10 years after the end of the program, although the impacts for men were no longer statistically significant.

3. Middle East and North Africa (MENA)

In what follows, findings from countries of interest are presented that explored the impact of women's participation in TVET. A number of core findings can be gleaned from these studies (limited examples are drawn from countries outside the specific focus areas – see for example Box # and Mongolia):

- Findings from case studies were mixed across and within fields of study.

- graduates of formal training courses experienced different employment rates after graduation, depending on field of study and type of training provider.
- TVET returns to vary significantly over an individual's working life. TVET learners often have a more successful school to work transition than general education graduates, but their prospects often deteriorate over time, at least in relative terms.

Box 3: Mongolia comprehensive TVET reforms (Field et al., 2019)

From 2008 to 2013 the government of Mongolia undertook comprehensive reforms to improve the quality and relevance of TVET in 28 institutions. The effort incorporated institutional reforms, introduced system-wide skills standards and competency-based curricula for prioritised trades, retrained teachers, installed labour market information systems and career counselling, and upgraded training equipment and physical infrastructure. A randomised impact evaluation of the reforms among trainees entering the reformed TVET institutes in 2010–12 identified positive impacts on employment and higher earnings for women. These positive impacts, which rose over time, are attributed to the acquisition of better skills in specific trades, more hours worked, and increased employment opportunities in high-paying sectors.

3.1 Turkey

In Turkey, possessing a TVET qualification was viewed to offer pathways to employment for women, thereby improving their living conditions. Evidence from Turkey suggests that secondary TVET has a much stronger positive impact than secondary general education on women's labour market participation rates and employment probabilities, although not their wage levels (Tunali, 2003). Nevertheless, women's employment – even at low wages – can improve women's social standing in their households and communities and reduce women's financial dependence on their male partners, making them less susceptible to domestic violence (World Bank, 2012).

Hirshleifer et al., (2015) utilised a randomised experiment to evaluate Turkey's vocational training programmes for the unemployed. A detailed follow-up survey of a large sample with low attrition enabled precise estimation of treatment impacts and their heterogeneity. The authors found that the average impact of training on employment was positive but close to zero and statistically insignificant. Whilst over the first year, training was shown to have had a statistically significant effect on the quality of employment with these positive impacts stronger when training is offered by private providers. However, administrative data showed that after three years these effects dissipated.

In terms of the impacts on women, analysis of sample subgroups found that only males aged 25 and older (versus women of the same age range, younger women and younger men) showed significant treatment impacts on some employment outcomes. Men in this age group assigned to training were found to be 6.9% points more likely to be working, are working 2.9 hours more per week on average and are in a higher average occupational status (although

this captures both the impacts at the extensive margin (working or not) and intensive margin (jobs taken up conditional on working) (Hirshleifer et al., 2015: 2133).

Patrinos et al., (2019) estimates private and social returns to investment in education in Turkey, using the 2017 Household Labor Force Survey and alternative methodologies. The analysis finds that returns to education for females are higher than those for males and those who followed the vocational track in secondary education are higher than those in the general academic track.

4. Southeast Asia

Box 4: Bangladesh TVET Reforms (World Bank, 2019a)

Reforms in Bangladesh have also had notable impacts on course completion and employment. Between 2010 and 2019, the government of Bangladesh supported selected public and private TVET institutions in improving training quality and the employability of trainees through increased financing linked to reform efforts, institutional support for reforms, hiring and training teachers, strengthening links with the private sector, and providing financial support to disadvantaged and female students. The examination pass rates of students in supported institutions improved continuously. The academic performance of students improved, as did student retention. Completion rates in supported short courses, for example, rose from 50% at baseline to 96% at completion. Employment of trainees of short courses within six months of course completion jumped from 30% to 51%. Encouragingly, 82% of local employers reported that graduates whom they had hired over the previous 12 months were good workers with the desired skills (World Bank 2019a). The Bangladesh Skills and Training Enhancement Project (STEP) was able to push up women's enrolment from 5 to over 20% by offering stipends for all female students in supported polytechnics and conducting awareness-raising campaigns (World Bank 2019a).

4.1 Cambodia

The Asian Development Bank (ADB) designed the Strengthening Technical and Vocational Education and Training Project (STVET) with the intended impact of an expanded, employment-ready, national mid-level workforce in rural and urban areas, including both men and women, by 2020.

The project completion report noted that there are many clear gender equality results in participation, access to project resources, and practical benefits. The project promoted strategic changes in gender relations through a number of focused actions. It aimed to ensure equal opportunities for women to enrol in courses in nontraditional sectors, offering better opportunities to earn good salaries in good working conditions. The project designed a social marketing strategy to change perceptions and identify and address barriers that prevent women from accessing TVET, with a specific focus on non-traditional sectors. Women were strongly encouraged to access non-formal training and accounted for 60% of

the nearly 212,000 trainees. According to a 2014 VSTP tracer study the wage employment rate of female VSTP trainees increased from 6% before training to 31% after, the self-employment rate increased from 21% to 40%, and the proportion of women with no income fell from 60% to 20%. Nearly two-thirds (64%) of women respondents said that their lives improved after participating in the VSTP (ADB, 2016: 70-71)

4.2 Indonesia

Newhouse and Suryadarma (2011) examined the relationship between the type of senior high school attended by Indonesian youth and their subsequent labour market outcomes. They highlight four main findings:

- First, the estimated wage premium for vocational graduates, relative to general graduates, is greater for women than men.
- Second, the returns to public vocational school for men have plummeted for the most recent cohort, and male vocational graduates now face a large wage penalty.
- Third, the generally favourable outcomes of public-school graduates can be partly explained by non-random sorting of students with higher test scores and better-educated parents into public schools.
- Finally, these peer effects appear to be particularly important for students with above-average test scores, as men with high scores earn a surprisingly small premium from graduating from vocational or private general school.

These small returns for high-scoring men, as well as the dramatic fall in the earnings premium for all male vocational graduates, raise important concerns about the current expansion of public vocational education and the relevance of the male vocational curriculum in an increasingly service-oriented economy.

4.3 Malaysia and Thailand

Almeida and de Faria (2014: 21-22) quantify the wage return from on-the-job training in Malaysia and in Thailand exploring a unique data set matching workers and firms. Using a matching estimators method to control for the selection bias the authors find returns of 7.7% and 4.5% for Malaysia and Thailand, respectively. In Malaysia, we find that returns are clearly higher for men than for women. Workers that have completed secondary education or more also show higher wage returns, than those who have not completed secondary schooling.

4.4 Philippines

An observational study in the Philippines showed that graduates of post-secondary TVET programs are more likely to be employed and have significantly higher wages than those who completed secondary education or less, but it also shows that those who combined low-level TVET degree with one or two years of tertiary education had lower earnings than those who only completed secondary (Vandenberg & Laranjo, 2020). Regarding the employment effect, TVET graduates have a higher employment rate than all other levels of education.

The difference appears substantial as 94% of those with vocational training were employed, compared to about 90% for the other categories. Men have a higher employment rate than women (Vandenberg & Laranjo, 2020: 9).

4.5 Thailand

In Thailand, Moenjak and Worswick (2003) undertook an analysis of how educational track choice (upper secondary vocational versus general education) influenced earnings, The authors found for both men and women, upper secondary vocational education gave significantly higher earning returns than does upper secondary general education. Indeed, as compared to general education at the same level, upper secondary vocational education gives higher earnings returns by 63.9% for men and 49.4% for women. Possible explanations for such results articulated by the authors include compensating wage differentials as well as increased demand for the skills provided by upper secondary vocational education due to the industrialisation process.

4.6 Thailand and Indonesia

In many developing countries, secondary TVET graduates do not have access to further or higher education and are thus forced to exit the education system earlier than secondary general education graduates, resulting in their lower relative wages. In Thailand, where upper secondary TVET graduates now have equivalent access to tertiary education as upper secondary general education graduates, TVET graduates' wages are now higher than those of general education graduates (Moenjak and Worswick, 2003).

5. Sub-Saharan Africa

A recurrent critique levelled at African VET systems is that have sought to mimic approaches to VET garnered from the global north. Commentators such as McGrath et al., (2020) reflect that these borrowings are often poorly grounded in the realities of the 'donor' systems and are even less relevant to African contexts A number of key themes emerge from McGrath et al. (2020) research that warrant further exploration. These include: The role of policy, systems and institutions in shaping TVET and its outcomes, what constitutes appropriate and useful vocational knowledge, the importance of developing a critical capabilities approach (CCA) to TVET (i.e., moving away from a narrow focus on employability and production), the role VET can play in community development and the centrality of skills to

the SDG agenda (including addressing climate change). Much of this thinking has coalesced around the VET Africa 4.0 initiative (see Box

Box 5: VET Africa 4.0

Policy and practice on VET in Africa have gone through three main post-independence phases, reflecting wider developmental orthodoxies of modernisation, basic needs and neoliberalism. With the latter's decline as both political ideology and development theory, McGrath (et al., (2020) argue that we needed a new theory of skills for development, anticipating the emergence of the SDGs. This research draws together major theoretical strands that have emerged as possible components of such a new theoretical orthodoxy whilst also considering potential new practical approaches to skills for development, which together may constitute a fourth phase: VET Africa 4.0. This reflects the new SDG agenda and the UNESCO drive to ensure that VET strategies consider not only economic aspects but also equity and environmental sustainability. VET Africa 4.0 seeks to answer four research questions:

1. Is there evidence that different emergent approaches to skills for development in Africa are viable, both at the project level and, potentially, at larger scale?
2. What do different stakeholders think works (and doesn't work) in such initiatives, when, where and why, and for whom?
3. To what extent do the different interventions offer a fruitful approach for promoting decent work and sustainable livelihoods for all, with a particular emphasis on meeting the needs of those facing multiple forms of disadvantage? What enables and/or constrains this?
4. Are skills interventions such as these capable of overcoming the old productivist approach so as to address the rising challenges of environmental sustainability?

5.1 Côte d'Ivoire

Crépon and Premand (2019) analyse the impact of subsidised dual apprenticeships based on the randomised control trial of a government program. The authors note that in Côte d'Ivoire, traditional (informal) apprenticeships are common. A subsidised dual apprenticeship program was put in place to expand access to apprenticeship and improve training quality. It combined wage subsidies and a dual training approach. On-the-job training in firms was complemented by theoretical training in vocational training centres. Formal apprenticeship contracts were monitored by counsellors from the national training agency. A certification scheme was also set up.

The authors show that subsidised dual apprenticeships successfully expand access to training, while increasing skills and earnings four years after the start of the experiment. One of their key results is that treated youths have significantly higher earnings approximately 2 years after the end of the intervention. The average increase in earnings is consistent with

gains in productivity. They find that youths are engaged in more complex tasks, including non-routine abstract tasks, a sign they were able to improve their human capital and technical skills. They also find that more youths obtain certification, which suggests that part of the skills acquired are general and transferable (Crépon and Premand 2019).

5.2 Ethiopia

In Ethiopia, Alibhai et al. (2017), show that female-owned enterprises in male-dominated sectors perform better on average than those in female-concentrated sectors, with firms achieving higher profits and having more employees. The descriptive results show that crossovers (i.e., women who enter male dominated sectors) do not necessarily have more education or greater skills than non-crossovers. Rather, women's relationships and networks, especially those provided through male relatives, and being opportunity-driven entrepreneurs appear to influence the likelihood of entering a more-profitable, male-dominated sector.

The authors also highlight that female-owned businesses in male-dominated sectors offer an opportunity to boost the wage labour supply for women because there is evidence that the number of female employees is typically higher in firms with a female than a male top manager (Alibhai et al., 2017). The salary for employees in crossover sectors is approximately double the salary of workers in non-crossover sectors. The authors conclude that programs that train women on the skills needed to operate in male dominated sectors could help them compete for these higher-paying, salaried jobs.

5.3 Kenya

Hicks et al, (2016). assessed the impact of a vocational training programme on out-of-school Kenyan youth aged 17-28 years. Some of the youth received vouchers that could only be used at government-run educational institutions, while others received vouchers that could be used across public or private institutions. The study shows that voucher winners were substantially more likely to enrol in vocational educational institutions. There is some evidence that the programme increased the likelihood of wage employment among those who had been out of school longer. There is however limited evidence that the programme increased earnings. The information treatment encouraged women to choose and ultimately enrol in traditionally male-dominated trades. But this did not affect overall educational attainment for either gender.

5.4 Kenya and Zambia

Rosholm et al., (2007) use firm data from Sub-Saharan Africa to evaluate the effect of on-the-job training on log wages using matching estimators. They find that training tends to improve wages, and that the effect is larger and more well-determined when we focus on long training durations and large firms. Rosholm et al., (2007) estimate that the returns to training are roughly 20% in general. Returns are larger for formal than informal training in Kenya, while the reverse appears to be the case in Zambia. They also find indications that the returns to training increase with the amount of training received and that the returns to

training increase with firm size. Cost–benefit analyses show that the case for training is very good, since the calculated present value is positive under most assumptions.

5.5 Liberia

Liberia launched the Economic Empowerment of Adolescent Girls and Young Women project (EPAG) in 2009, seeking to provide young girls with both in-classroom training (focusing on life and technical skills highly demanded in the market) and follow-up job placement support (to either enter a paying job or start a new business). Adoho et al., (2014: 24-25) examined the impact of the programme and found that it significantly improved participants' lives. The authors found that skills training programs for young women can be effective in increasing employment and incomes, at least in the short term.

Employment and income: The EPAG program, which delivered six months of classroom-based skills training followed by six months of job placement support for either self or wage employment, led to a 47% increase in employment and 80% growth in earnings, relative to a randomly selected control group of non-participants. The program's Business Skills track had markedly higher impacts on employment and earnings than the Job Skills track, which focused on wage employment. These impacts vary somewhat but remain consistently positive and significant across almost all communities, educational backgrounds, and wealth levels. The highest impacts were obtained for those in the middle of the wealth distribution, and for girls with higher educational levels, which is consistent with the program's initial screening for young women with basic literacy who would be able to make use of a classroom-based skills course.

Empowerment: Improvements in various empowerment measures, included access to and control over monetary resources, including savings, where the program led to a sizeable difference of 35 USD in savings between treated and control individuals.

Subjective outcomes: The study also documents significant improvements in a wide range of subjective outcomes including measures of worry, life satisfaction, self-regulation, self-confidence, and self-perceptions of social abilities.

Household-level measures: Consistent with the wide body of literature on the benefits to the household of women's increased resources, the results show a significant improvement in household food security, judged by increased consumption of high-value animal proteins and lowered incidence of food shortages. Beyond food security, the authors found no generalisable impact on household asset holdings, but they dis identify significant improvements in subjective measures of attitudes toward gender responsibilities among the heads of EPAG households. These outcomes provide some evidence that norms are shifting at the household level in ways that may benefit other female household members.

5.6 Mozambique

After the comprehensive reform of the TVET system in Mozambique in the mid-2000s, both graduates' labour market outcomes and employers' satisfaction with hired graduates improved. One element of the reforms that prioritised specific trades resulted in the

development of industry-approved standards and qualifications with multiple exit points, establishing strong new consultation mechanisms in the process. A tracer study in 2015 found that within six months 57% of TVET graduates in institutions implementing the new competency-based training had found a job or created their own job in an area related to their training, compared to 26 percent at the pre-reform baseline in 2007. Moreover, 80% of employers in 2015 reported being satisfied with the system and with graduates, compared to only 25% in 2007 (Arias et al. 2019).

5.7 Namibia

The Millennium Challenge Corporation signed a $304.5 million compact with the Government of the Republic of Namibia in 2009. The compact, which was formally completed in September 2014, included three projects: tourism, agriculture, and education. The education project sought to address the shortage of skilled workers in Namibia and the education system's limited capacity to train such workers. The vocational training activity was one of the key activities under the education project, and focused on expanding the availability, quality, and relevance of vocational education and skills training in Namibia.

The vocational training activity consisted of three sub activities: (1) grants for high-priority vocational skills programs offered by public and private training providers through the Vocational Training Grant Fund (VTGF); (2) technical assistance to establish a National Training Fund (NTF), intended to provide a sustainable source of funding for vocational training programs in Namibia; and (3) improvement and expansion of Namibia's network of Community Skills and Development Centres (COSDECs), which provide vocational training for marginalized populations—primarily out-of-school youth but also low-skilled adults.

Borkum et al., (2017) evaluated the impact of VTGF and estimated that the offer of VTGF funding significantly increased the probability of participation in vocational training. Specifically, about one-third of those who were offered VTGF funding were induced to participate in training purely as a result of the offer. This suggests that a lack of alternative funding sources in Namibia at the time of the VTGF may have been an important constraint to training participation. This is especially true among females, who experienced larger impacts on participation than males.

Despite the large positive impacts of the offer of VTGF funding on training participation, take-up of the offer was far from universal. This suggests that many applicants found other options, such as alternative training opportunities, unskilled employment, or engagement in job search, more attractive than participation in VTGF training. (Because only a relatively small fraction of applicants participated in non-VTGF trainings, alternative training opportunities likely played a more limited role than labour market opportunities).

5.8 Rwanda

Lassibille and Tan (2005) drawing on data from the 1999-2001 Household Living Conditions Survey conducted by the Ministry of Finance and Economic Planning, estimate wage equations for employees in Rwanda, treating the choice of employment sector as an endogenous process and making separate estimates for workers in the modern and

traditional sectors of the economy. The results show that returns to education increase with the level of education and that the returns to higher education is particularly high in Rwanda. The results from this paper suggest that:

- The better educated a worker is the more likely he or she is to work in the wage sector, whether in the formal or informal segments of the economy.
- That an extra year of schooling yields, on average, a return of 17.5%.
- However, primary education and vocational and technical secondary education yield hardly any returns.

5.9 Tanzania

Contrary to patterns observed in developed countries, in developing countries TVET's relative impact on wages does not necessarily increase at higher qualifications levels. A study of returns to TVET in Tanzania from 1997 to 2000 showed that at lower levels of education returns to TVET do not significantly differ from and can sometimes exceed the returns to general education. However, at higher levels of education, returns to general education substantially exceed the returns from TVET (Kahyarara & Teal, 2008).

5.10 Uganda

In Uganda, a study found that women who cross over into male-dominated sectors make as much as men and three times more than women who stay in female-dominated sectors (Campos et al. 2015). However, the most common constraint identified that crossovers mentioned was low technical skills. The authors comment that clients and suppliers acknowledge that female business owners have lower technical skills which, for example, limit the range of products the crossovers can offer.

6. Transforming TVET

Whilst the potential contribution of TVET to socio-economic development is identified in the literature, much attention has focussed on the need to reform TVET in the global south. The World Bank et al., (2023) have identified the following areas that require transformation through reform.

- The need to moving TVET from being perceived as a second-tier education track with limited opportunities to continue learning and suboptimal and highly variable returns to a track that guarantees demand-driven qualifications and equitable acquisition of skills through flexible hands-on instruction based on high-quality inputs. This can be accomplished through the following steps:
    - Focus on both enterprises and learners and be responsive to their needs.
    - Foster a portfolio of skills by prioritising foundational skills both at entry into TVET and within TVET programs, and by imparting the technical skills demanded by the relevant labour market.

    - Promote an integrated ecosystem with flexible pathways between TVET and general education, hands-on approaches including work-based learning, and quality inputs, including teachers, resources, and infrastructure.
- The need to reform the foundations of TVET governance and financing in order to ensure greater autonomy for TVET providers together with better accountability for results, supported by more effective interactions between stakeholders.
    - Find the right balance between autonomy and accountability of TVET providers.
    - Realign the financing of TVET to reward reforms and results while increasing financing in underfunded areas.
- Currently, the TVET system largely operates in the dark, particularly compared to other education subsectors. Building a robust evidence base of effective L/MIC interventions and reforms, and building up systems for collecting, analysing, and using data are essential if TVET is to be improved.
    - Reduce information gaps of learners, enterprises, TVET providers, communities, and policymakers by collecting and publicising detailed data on TVET returns, skills needs and provider inputs and practices.

In terms of efforts to encourage and support female participation in TVET, this can be improved by expanding outreach efforts and using financial incentives (see Box 4). It is also important to address the high occupational gender segregation in many LICs and MICs. Information interventions coupled with mentorship opportunities have been identified as being helpful.

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8.2 Review overview

This review is based on six days of desk-based research. The K4D*D* research helpdesk provides rapid syntheses of a selection of recent relevant literature and international expert thinking in response to specific questions relating to international development.

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