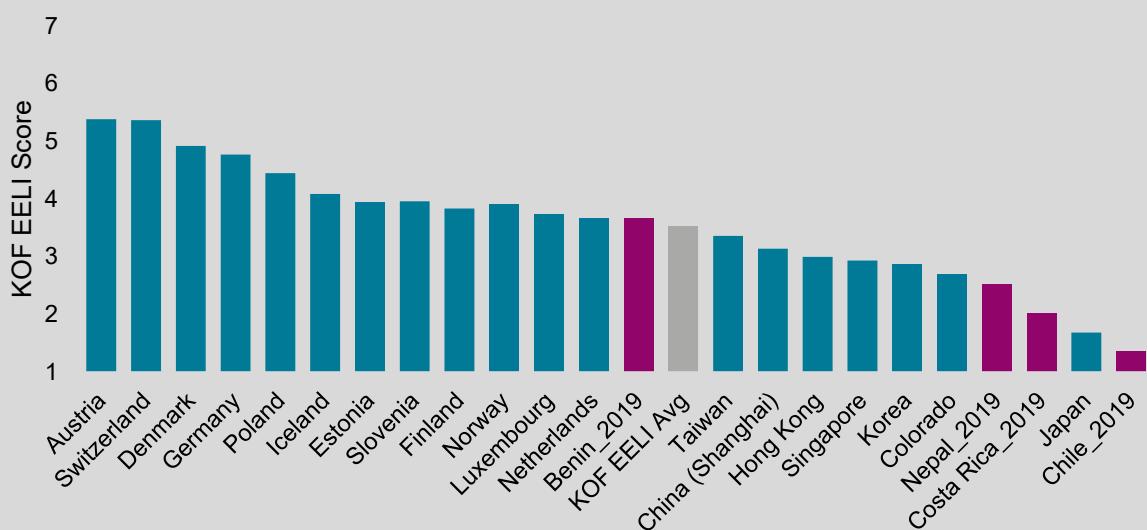


# Meeting in the Middle

## VET Programs' Education-Employment Linkage in Developing Contexts

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# Meeting in the Middle:

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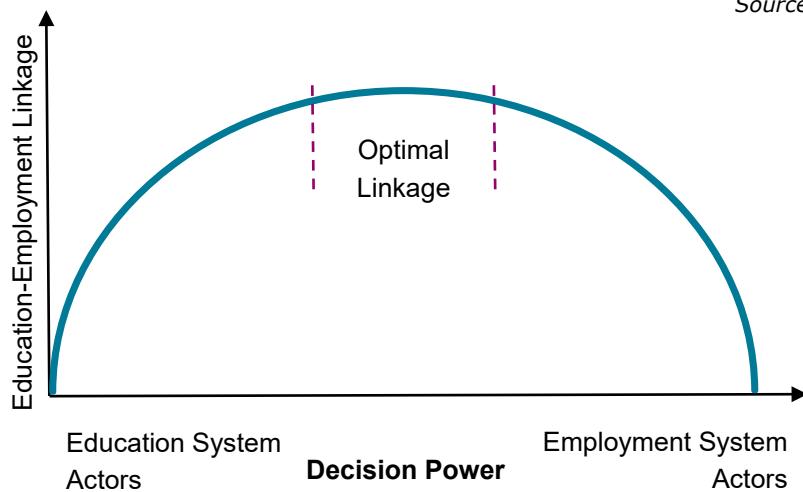
**Technical and vocational education and training (TVET) programs are most successful at supporting youth labor markets when they combine education and employment. We apply the KOF Education-Employment Linkage Index to the largest upper-secondary TVET programs in Benin, Chile, Costa Rica, and Nepal. We find that Benin has relatively high education-employment linkage, while the other three countries score very low. Benin's situation is unique because its TVET program is moving from employer-led to linked, rather than employer integration into an education-based program.**

### Introduction

Successfully linking education and employment within TVET programs appears to contribute to better youth labor market outcomes (Bolli et al., 2018; Bolli, Egg, & Rageth, 2017). Rageth and Renold (2019) use systems theory to formulate education-employment linkage. Linkage is highest when actors share decision power and low when actors from either side hold sway (Figure 1). Bolli et al. (2018) demonstrate a measurement tool, called the KOF Education-Employment Linkage Index (KOF EELI), and show initial evidence that scores correlate to youth labor-market outcomes. As summarized in Figure 1, linkage is highest when actors from the education and employment systems share power related to a given TVET program.

**Figure 1: Education-employment linkage as a function of power equilibrium**

Source: Bolli et al., 2018



### Measuring Education-Employment Linkage

We select the largest formal upper-secondary TVET program in three of the four target countries, and a fast-growing program in Benin on the advice of our partners. These are Chile's *Enseñanza Media Técnica Profesional* (EMTP), Costa Rica's *Colegios Técnicos y Profesionales*

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(CTPs), and Nepal's Technical School Leaving Certificate (TSLC). In Benin, we chose the *Certificat de Qualification Professionnelle* (CQP), which is a dual TVET program.

The KOF EELI measures education-employment linkage in TVET programs. We sent an online survey measuring the KOF EELI to TVET experts from the education, employment, and research sectors in each country. We worked with in-country experts to select the right respondents, and used offline surveys and in-person interview-style surveys to reach experts without internet access. The overall response rate is 62%, with 147 total responses. We follow the analytical procedures and weighting scheme of Bolli et al. (2018) to ensure comparability across countries, and include all countries that have been measured to date for context.

We use focus groups with in-country experts to complement the quantitative data and validate the results. The focus groups are part of an annual summer institute for TVET reform leaders, to which all four participating countries have sent representatives since 2017. We follow Phipps et al.'s (2016) knowledge mobilization logic model, following the path of research>dissemination>uptake>implementation>impact. The focus groups' purpose is to address the dissemination, uptake, and implementation phases of that model.

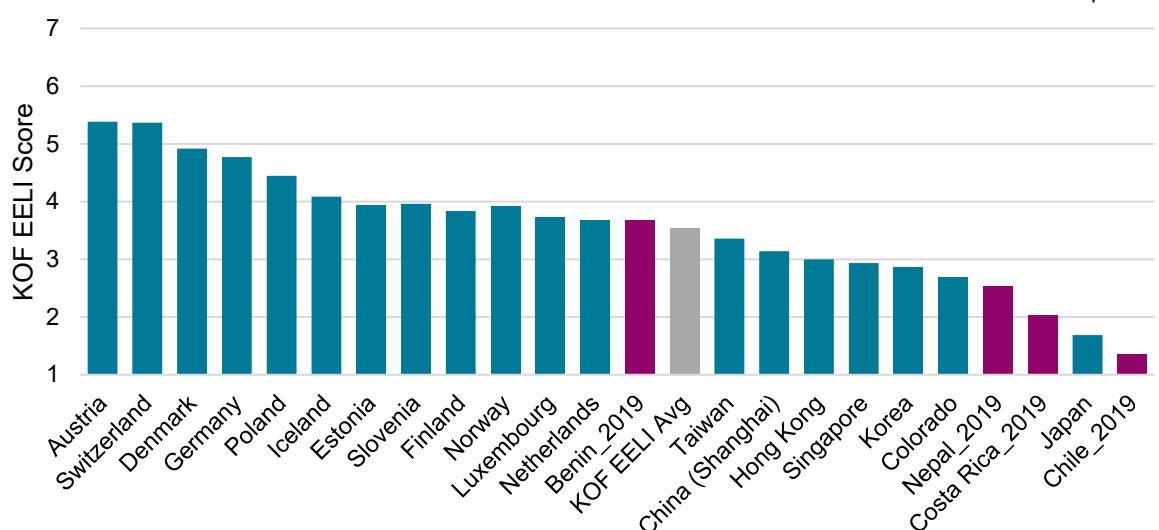
## Results: Low Linkage with One Exception

Figure 2 shows the overall index scores for the four countries we study in comparison to all countries studied using KOF EELI thus far (Renold et al., 2016; Renold et al., 2018). All items, and the total index, are scored on the same one-to-seven-point scale. A score of one out of seven represents total power for the education system, and a seven is somewhere between equal power and more power for employers. Higher scores do not indicate total employer control, rather they indicate balanced power between education-system actors and employment-system actors, possibly with more employer power in the very highest scores.

Chile and Costa Rica, the middle-income countries, score low relative to the field at 1.4 and 2.0, respectively, on a one-to-seven-point scale. Nepal scores slightly higher at 2.5, and Benin scores the highest of these countries and the only one above the overall average, at 3.7.

**Figure 2: Results in international context**

Source: Own depiction.



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In focus group discussions, each team considered the results in relation to ongoing reforms and each country's TVET system overall. Benin's reform team took note of the CQP's KOF EELI results, which are slightly above the other partner countries. Their overall goal is to expand the program to more occupations and larger enrolment so that it becomes the mainstream TVET program. Chile's reform team 2019 had strong industry leadership. The KOF EELI results reinforced their convictions that employers' role in TVET is not sufficient for strong linkage. Costa Rica's 2019 team was also unsurprised by the low KOF EELI score and decided that, without stronger commitment of the industry, there is no way for the Ministry of Public Education to improve outcomes alone. Nepal's reform team 2019 were mainly representative from industry. Their aim is to develop an industry strategy for TVET that allows them to speak with one voice and gain influence throughout the curriculum value chain.

## Discussion & Conclusions

Two clear patterns emerge in these results. Benin, with its dual TVET program, has relatively high scores, especially in important processes. In Chile, Costa Rica, and Nepal, the TVET programs are school-based and the more important processes have low scores while higher scores come from less-important processes. As a result, Benin has high education-employment linkage while the other three countries have very low linkage.

One key question is how Benin came to have the highest linkage, despite an earlier development stage than Chile and Costa Rica and a small formal employment sector. One possible explanation Benin's success lies in the development of its CQP program from traditional employer-led apprenticeships. This reverses the education-to-employment trajectory that the other programs follow. Enabling factors include a large informal labor market, low enrollment in formal education and training at the upper secondary level, and high demand for more training from employers.

Developing countries that do not have strong TVET systems but do have strong demand for training from employers may be able to "skip ahead" by formalizing traditional non-formal apprenticeships into TVET programs. Those with established education systems may have to re-establish links to the employment system in TVET. When possible, the education-integration approach to increasing linkage by targeting employer-led programs is a major opportunity for low-income countries with large informal economies, low formal education and training rates, and demand for education and training among employers.

Education-employment linkage is a key determinant of TVET programs' ability to help young people succeed on the labor market. When we measure linkage in major TVET programs in Benin, Costa Rica, Chile, and Nepal, we find that Benin has relatively high education-employment linkage, while the other three countries score very low. Benin's situation is unique because its TVET program is moving from employer-led to linked, rather than the typical employer integration into an education-based program. Other countries with large informal economies, low formal education and training rates, and existing non-formal employer-led training may be able to implement similar approaches using functionally equivalent institutions.

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<https://r4d.tvet4income.ethz.ch/publications/working-paper-series.html>

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