

Technical and vocational education and training in Latin America and the Caribbean: Socioeconomic impact and financing



UNITED NATIONS



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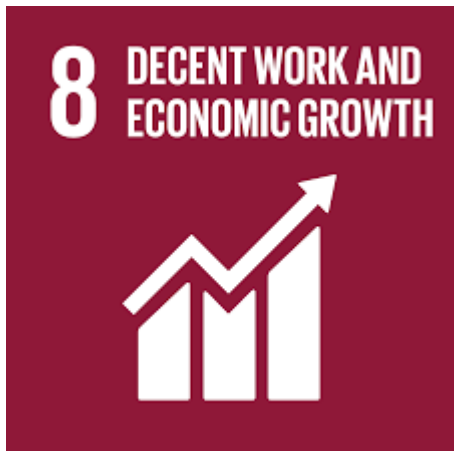
Social Development Division

Economic Commission for Latin America and the Caribbean (ECLAC)

TVET in the Sustainable Development Goals



- **4.3** Ensure equal access for all women and men to affordable quality technical, vocational and tertiary education, including university
- **4.4** By 2030, substantially increase the number of youth and adults who have relevant skills, including technical and vocational skills, for employment, decent jobs and entrepreneurship
- **4.5** By 2030, eliminate gender disparities in education and ensure equal access to all levels of education and vocational training for the vulnerable, including persons with disabilities, indigenous peoples, and children in vulnerable situations



- **8.6** By 2020, substantially reduce the proportion of youth not in employment, education or training

Economic and social rationale for investing in TVET

Social rationale:

- TVET equips individuals with skills necessary to navigate the rapidly evolving world of work, improving their employability
- Especially important to reduce poverty and inequality: facilitates access to decent work by the unemployed, youth, women and disadvantaged groups

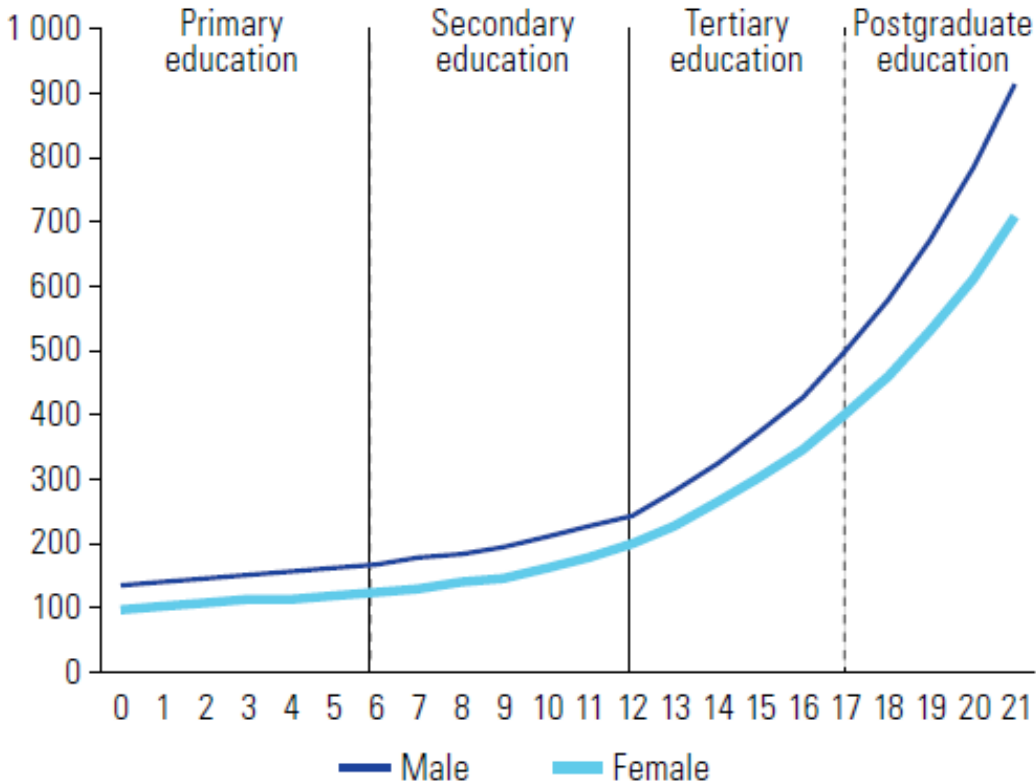
Economic rationale:

- TVET generates benefits that accrue to individuals, firms and the economy as a whole
- In Europe, an additional year of TVET results in a 10% increase in hourly wages for men and 7% for women

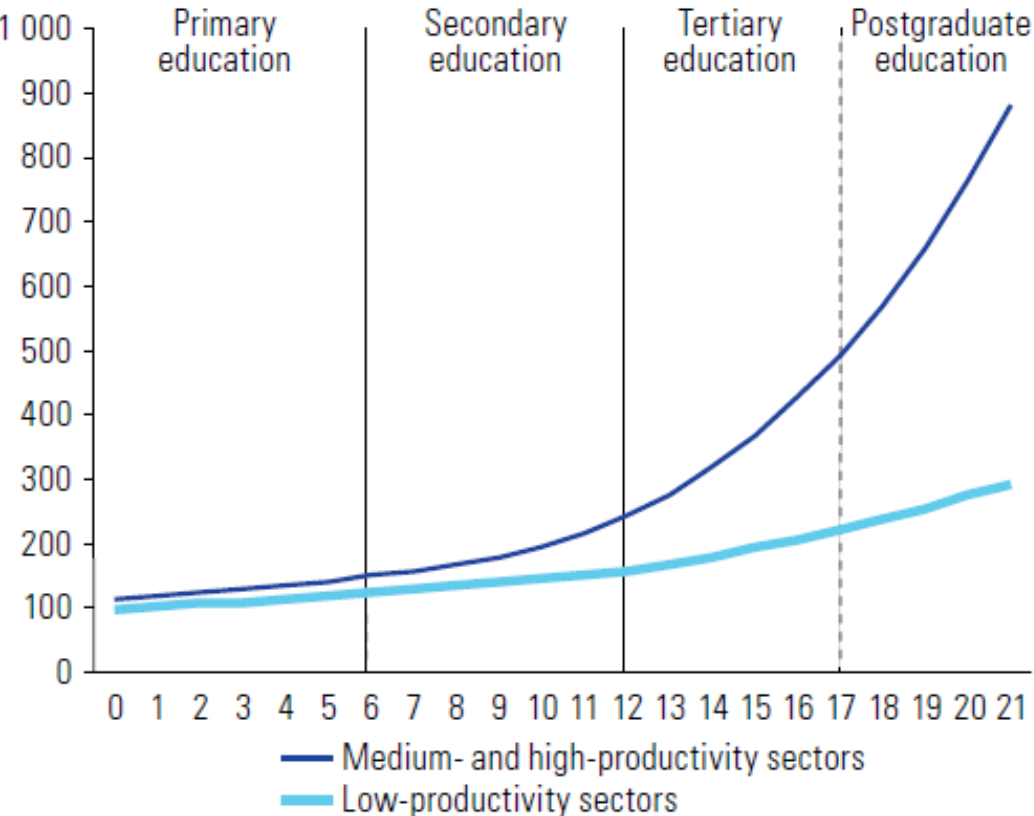
Rates of return on years of education in Latin America: largest jumps in earnings for those completing secondary education and then, more markedly, for tertiary and postgraduate education

LATIN AMERICA (17 COUNTRIES): WAGES OF EMPLOYEES AGED 20 AND OVER WORKING FOR 20 OR MORE HOURS A WEEK, BY YEARS OF EDUCATION, AROUND 2015^a
 (WAGES OF EMPLOYEES WITH ZERO YEARS OF EDUCATION IN THE LOWEST-INCOME COMPARISON CATEGORY=100)

A. Male and female wages



B. Formal and informal sector wages^b



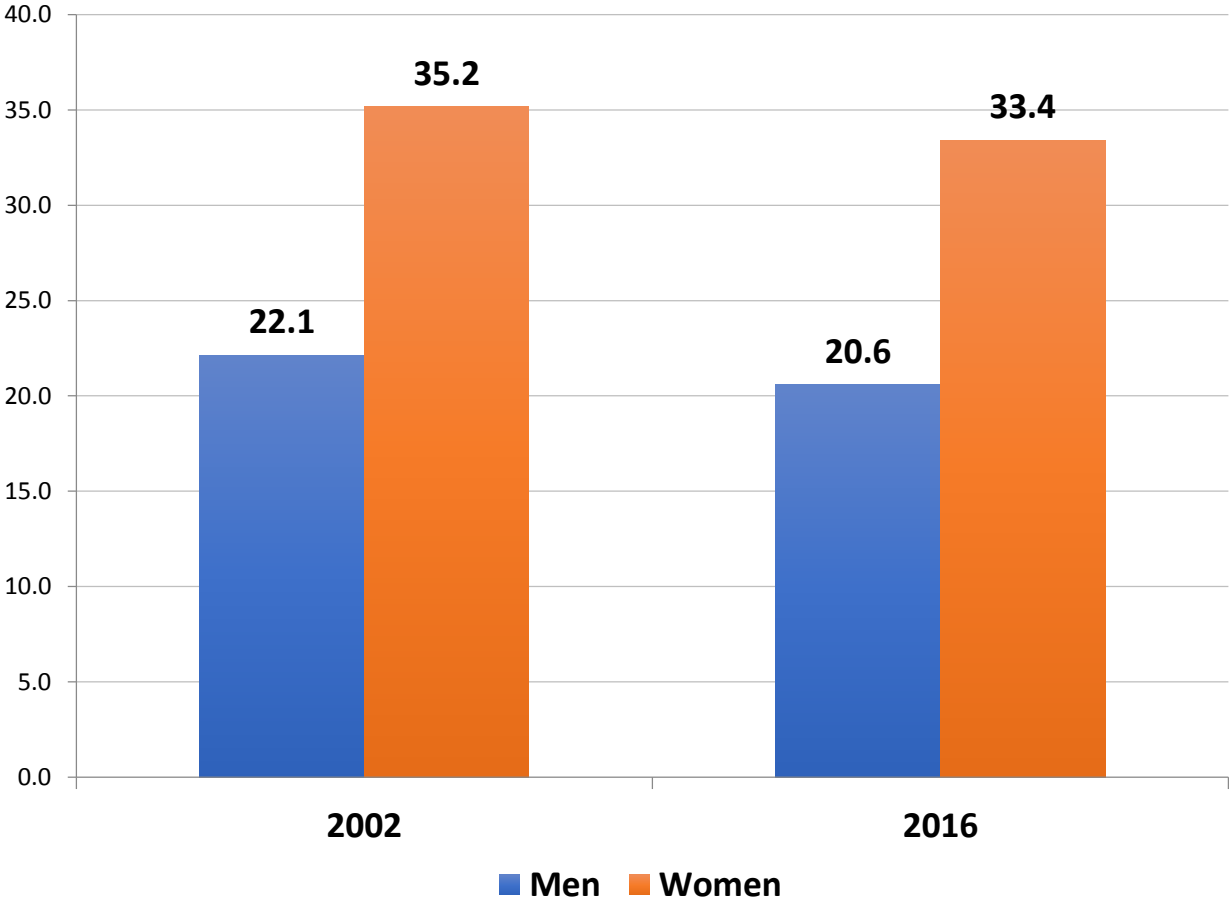
Source: Economic Commission for Latin America and the Caribbean (ECLAC) (2018), The inefficiency of inequality, on the basis of household surveys from the respective countries.
Note: The countries analyzed are Argentina, the Bolivarian Republic of Venezuela, Brazil, Chile, Colombia, Costa Rica, the Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Mexico, Panama, Paraguay, Peru, the Plurinational State of Bolivia and Uruguay.
^a Simple averages of wages for each labour market segment by country. A separate model was used to calculate pay within each segment.
^b "Formal" refers to medium- and high-productivity jobs and "informal" to low-productivity jobs. **Source:** Economic Commission for Latin America and the Caribbean (ECLAC), on the basis of household surveys from the respective countries.

Impacts of education on economic development

- Growth models based on human capital (Mincer, 1958; Schultz, 1961; Becker, 1964) and endogenous growth (Romer, 1986; Lucas, 1988) point to **education** as a **key factor for economic growth**, productivity and technological progress
- Emphasis on **specialized human capital**, which leads to innovation (Aghion and Roulet, 2014)
- Hanushek and Woessmann (2008) analyze trends in the relationship between annual GDP growth rate and education (measured by school years and results in standardized tests) between 1960 and 2000 in 50 countries, controlling for some indicators of economic institutions, and find that **quality of education** is very relevant for growth, especially in lower income countries

Youth face the challenge of transitioning from school to the labour market

THE CARIBBEAN (10 COUNTRIES): UNEMPLOYMENT RATE BY SEX AMONG 15 TO 24-YEAR-OLDS, 2002 AND 2016 ^a
(Percentages)



Source: Economic Commission for Latin America and the Caribbean (ECLAC) (2019), Linkages between the social and production spheres. Gaps, pillars and challenges, on the basis of figures from the World Bank and the International Labour Organization (ILO).

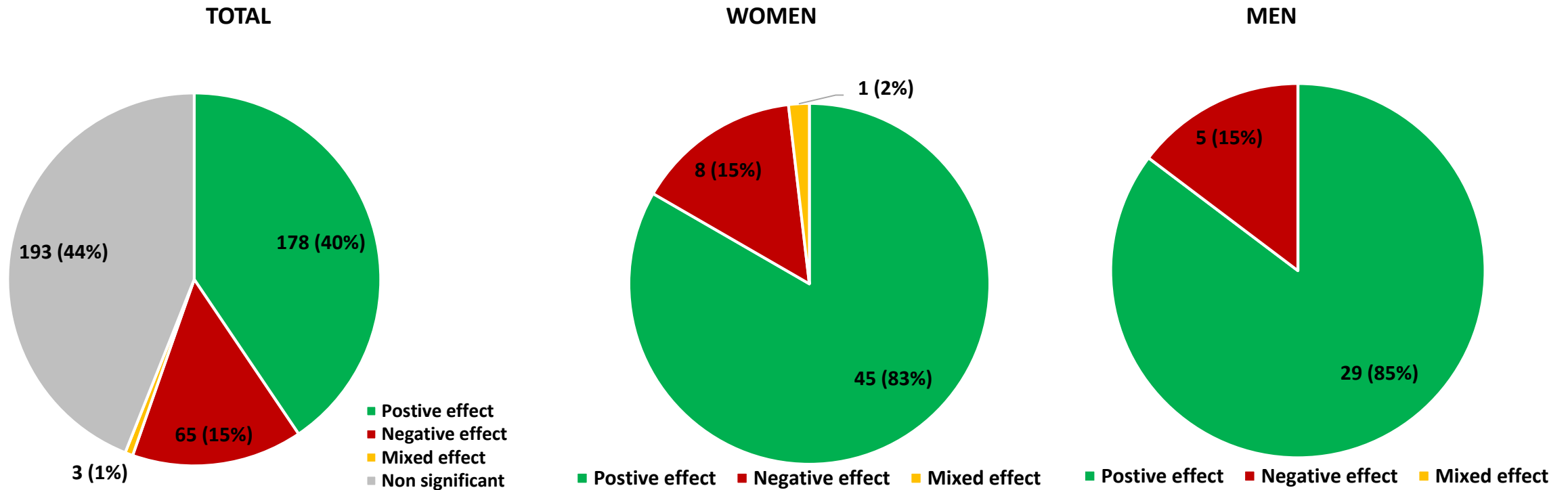
^a Simple average of the following countries: Bahamas, Barbados, Belize, Guyana, Jamaica, Saint Lucia, Saint Vincent and the Grenadines, Suriname and Trinidad and Tobago.

Key action lines to promote youth social and economic inclusion

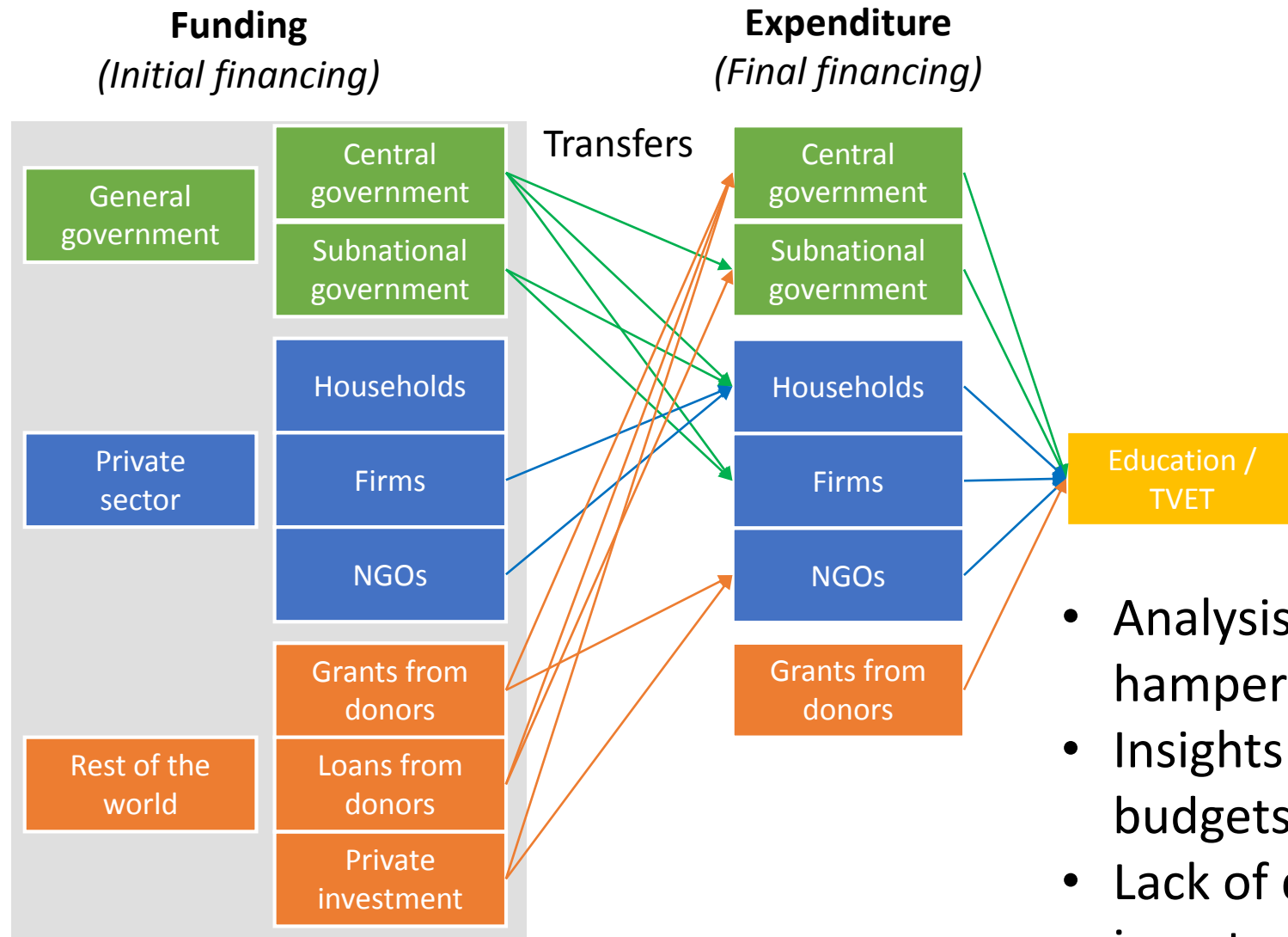
- Promote **conclusion of secondary education**
- Strengthen **TVET**, with emphasis on innovation
- Enhance active labour market policies and **decent work** trajectories
- Promote **balance between study, work and personal life**, especially for young women
- Promote rights of **youth with disabilities**

Labour inclusion impact of technical and vocational training programmes in Latin America and the Caribbean

Latin America and the Caribbean (8 countries):
results of the indicators of the impact of labour and productive inclusion programmes on participants' labour supply and insertion
(numbers and percentages)

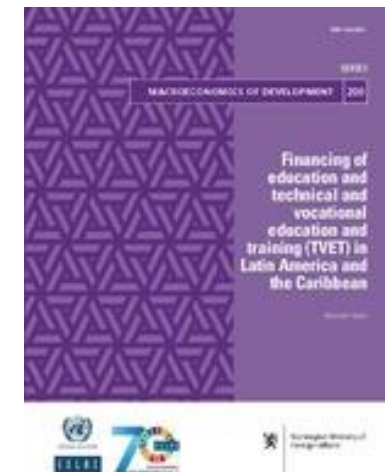
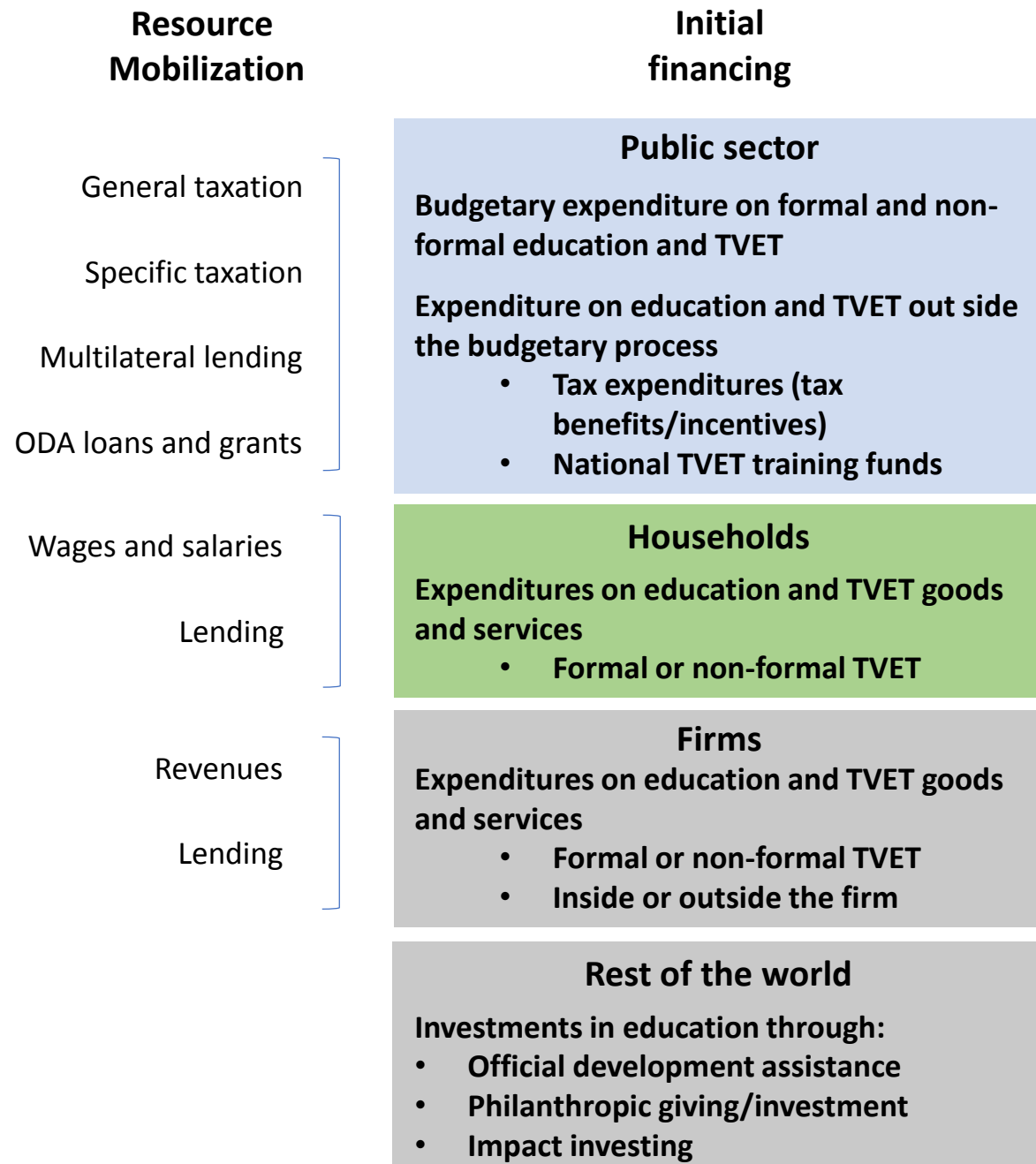


TVET Financing modalities

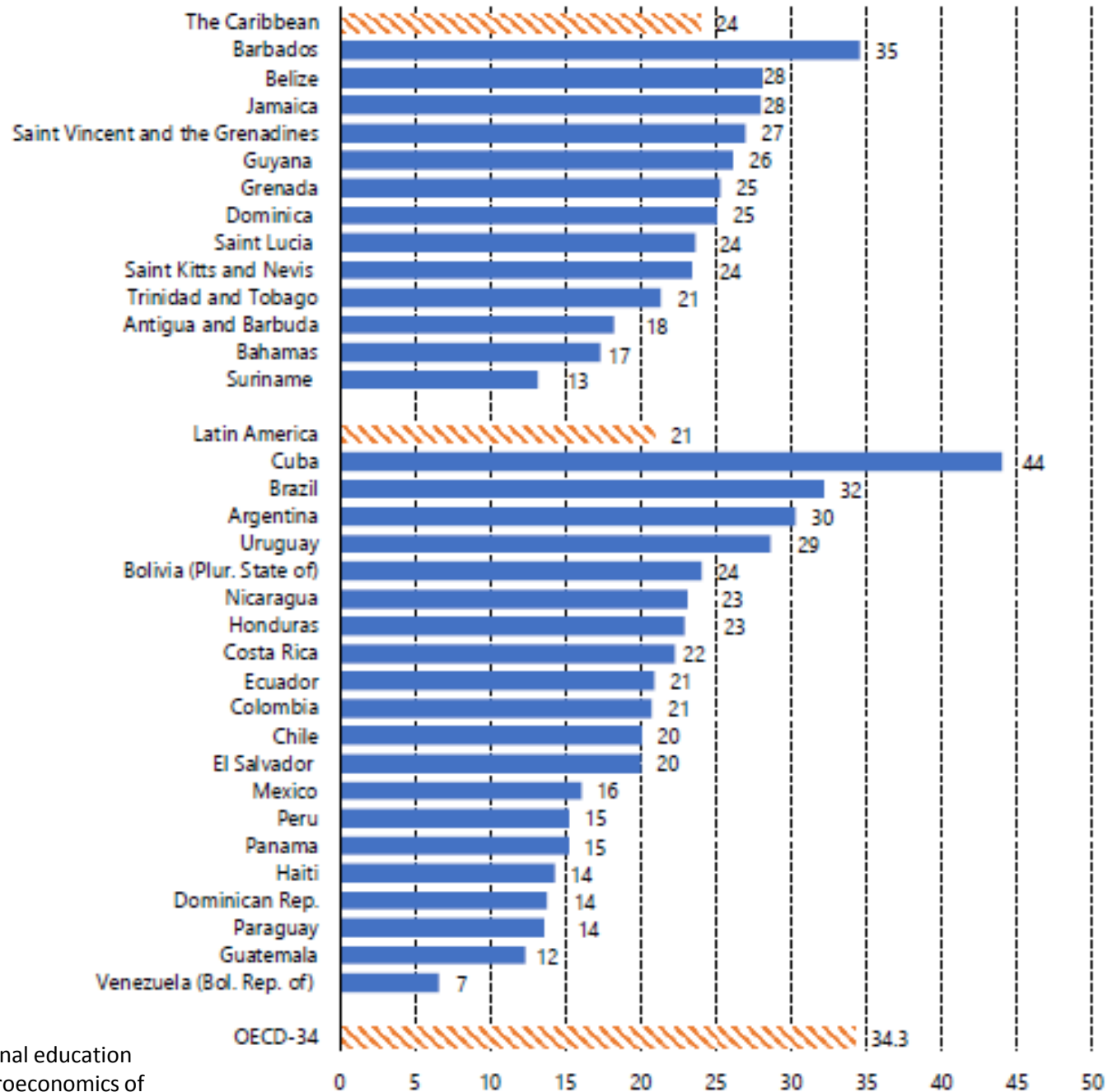


- Analysis of these interactions hampered by a lack of data
- Insights from government budgets
- Lack of data on TVET investments by firms and HHs

Resource mobilization and financing by actor

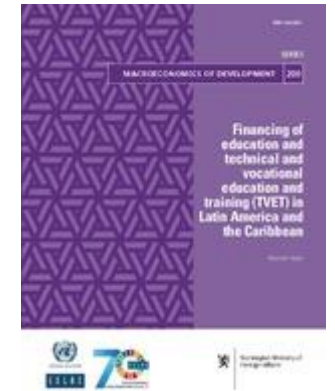
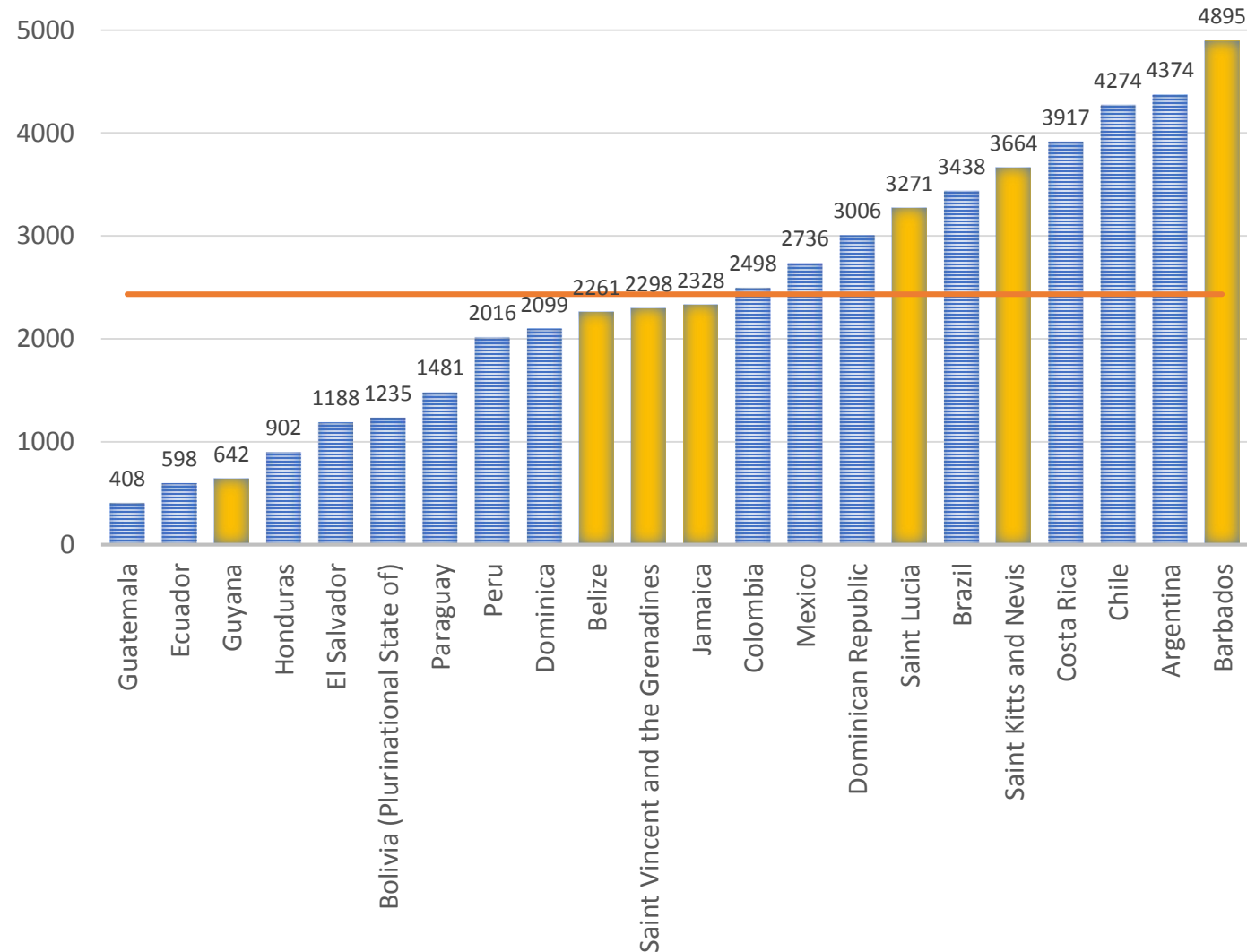


Latin America and the Caribbean: total tax revenues, 2017 (Percentages of GDP)



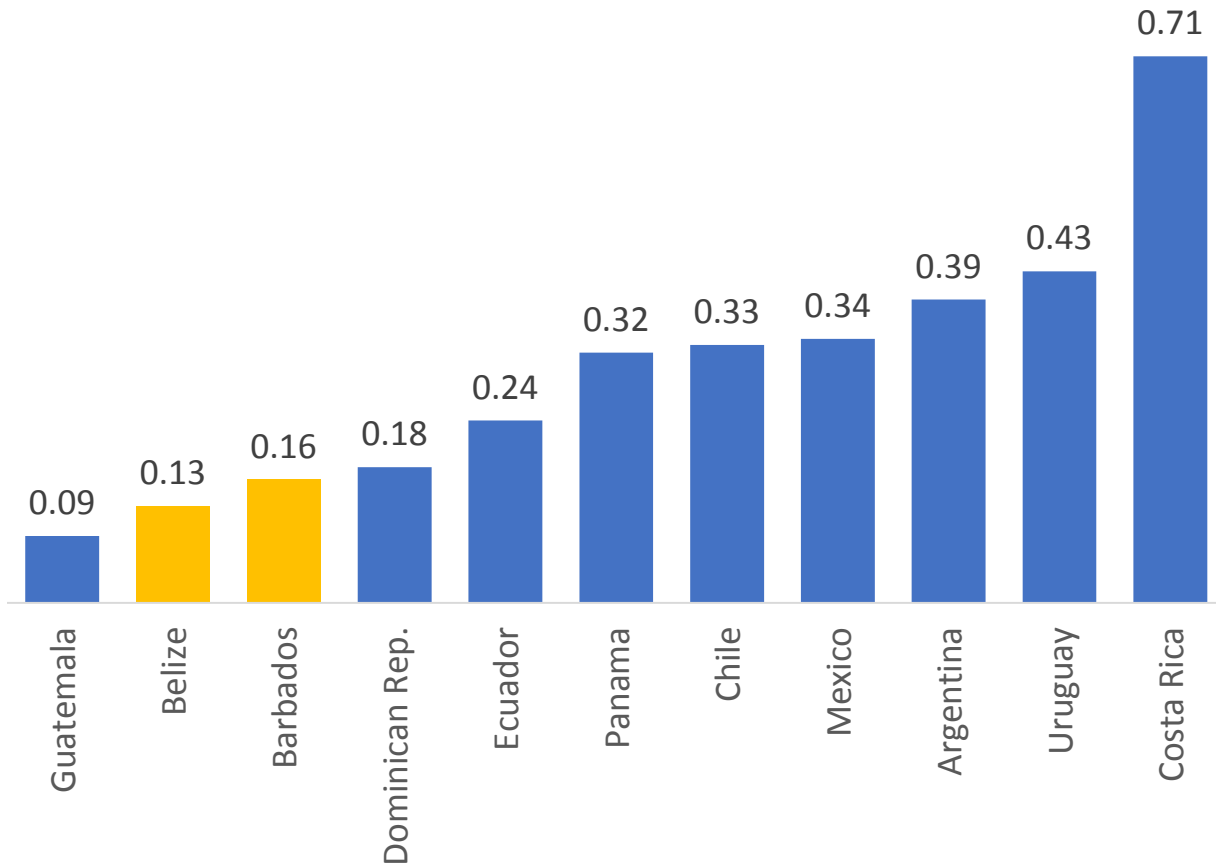
Source: M. Hanni (2019), Financing of education and technical and vocational education and training (TVET) in Latin America and the Caribbean, ECLAC Series Macroeconomics of Development, No 200.

Latin America and the Caribbean: government spending per student in secondary education, 2016 or latest (Constant 2011 international dollars, PPP)

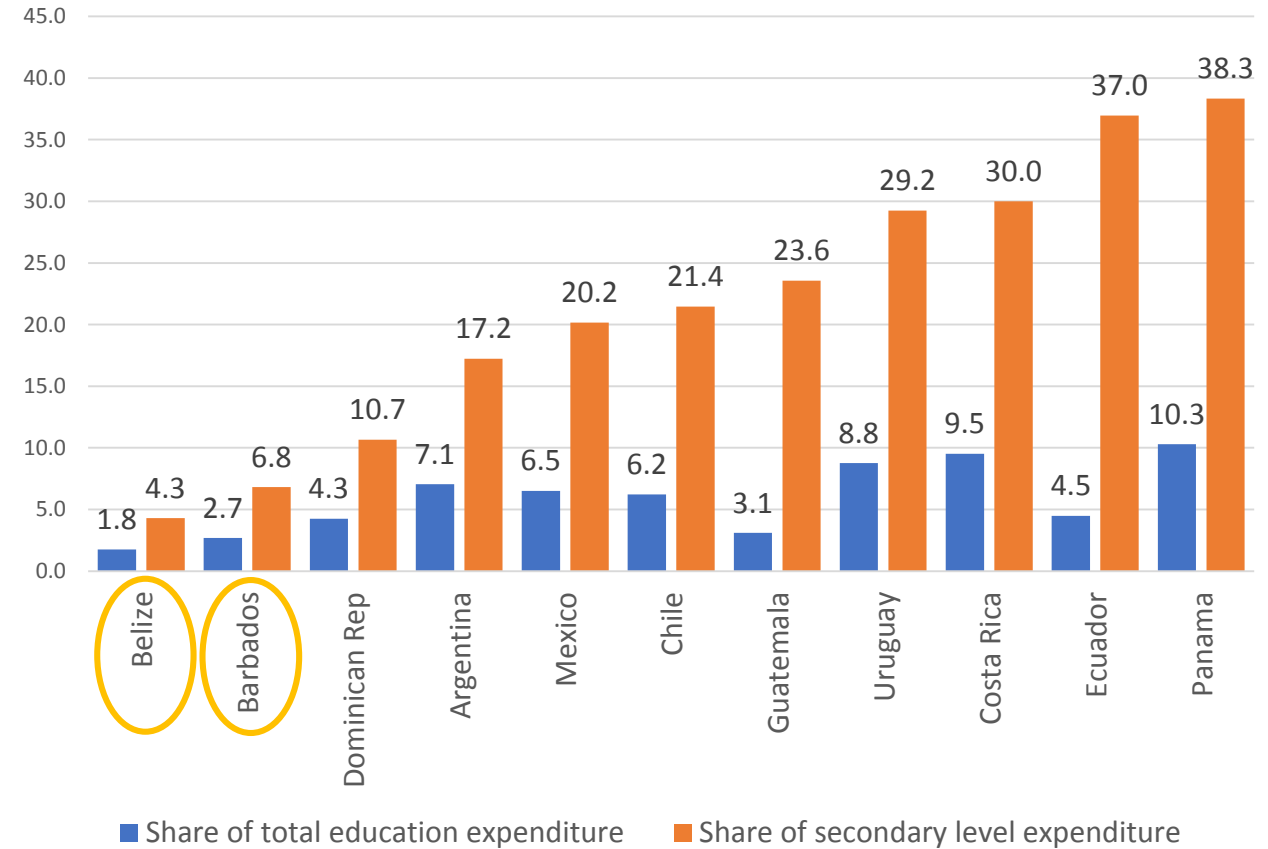


TVET government expenditures at the secondary level, 2017 or latest

Percentages of GDP



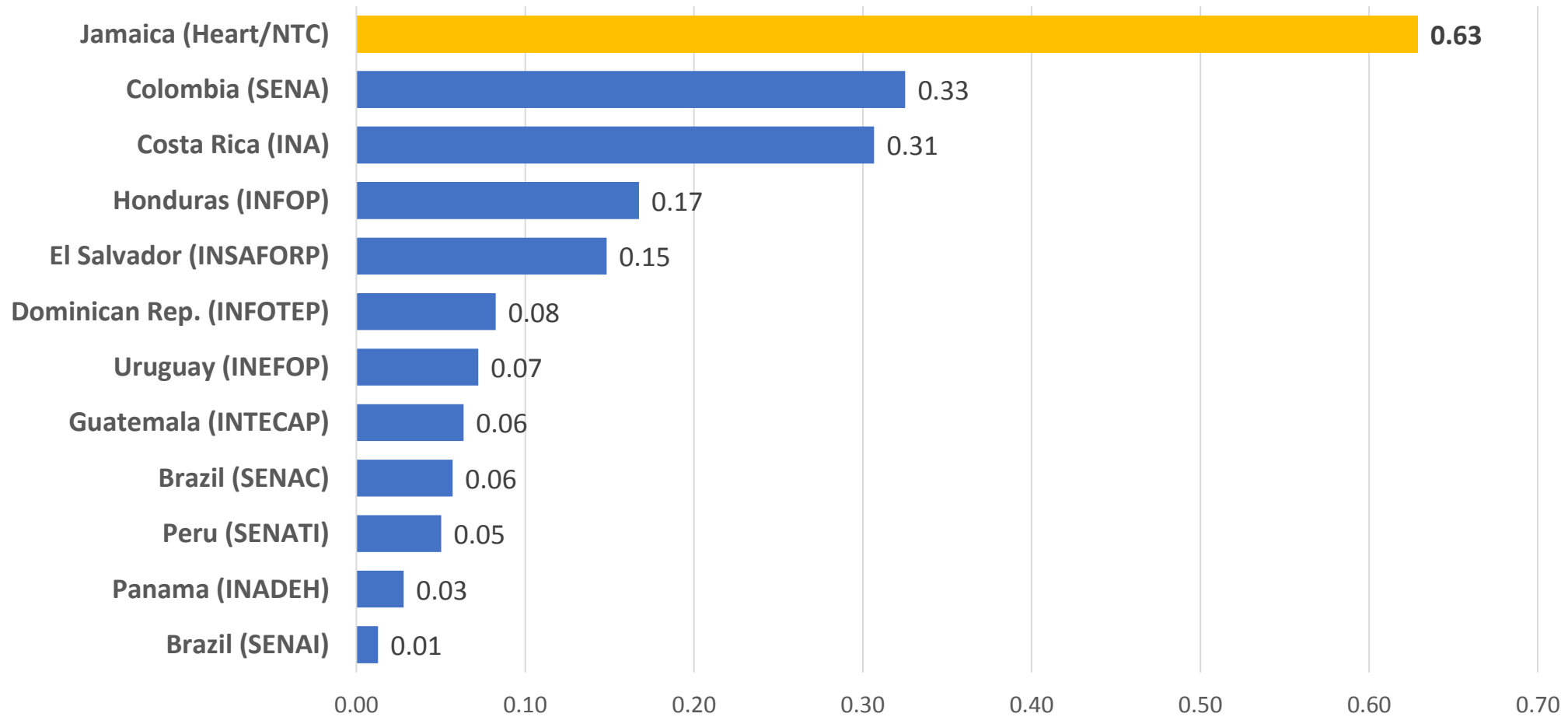
Percentages of expenditures



Source: M. Hanni (2019), Financing of education and technical and vocational education and training (TVET) in Latin America and the Caribbean, ECLAC Series Macroeconomics of Development, No 200.

TVET initial financing by national training institutions, 2017 or latest

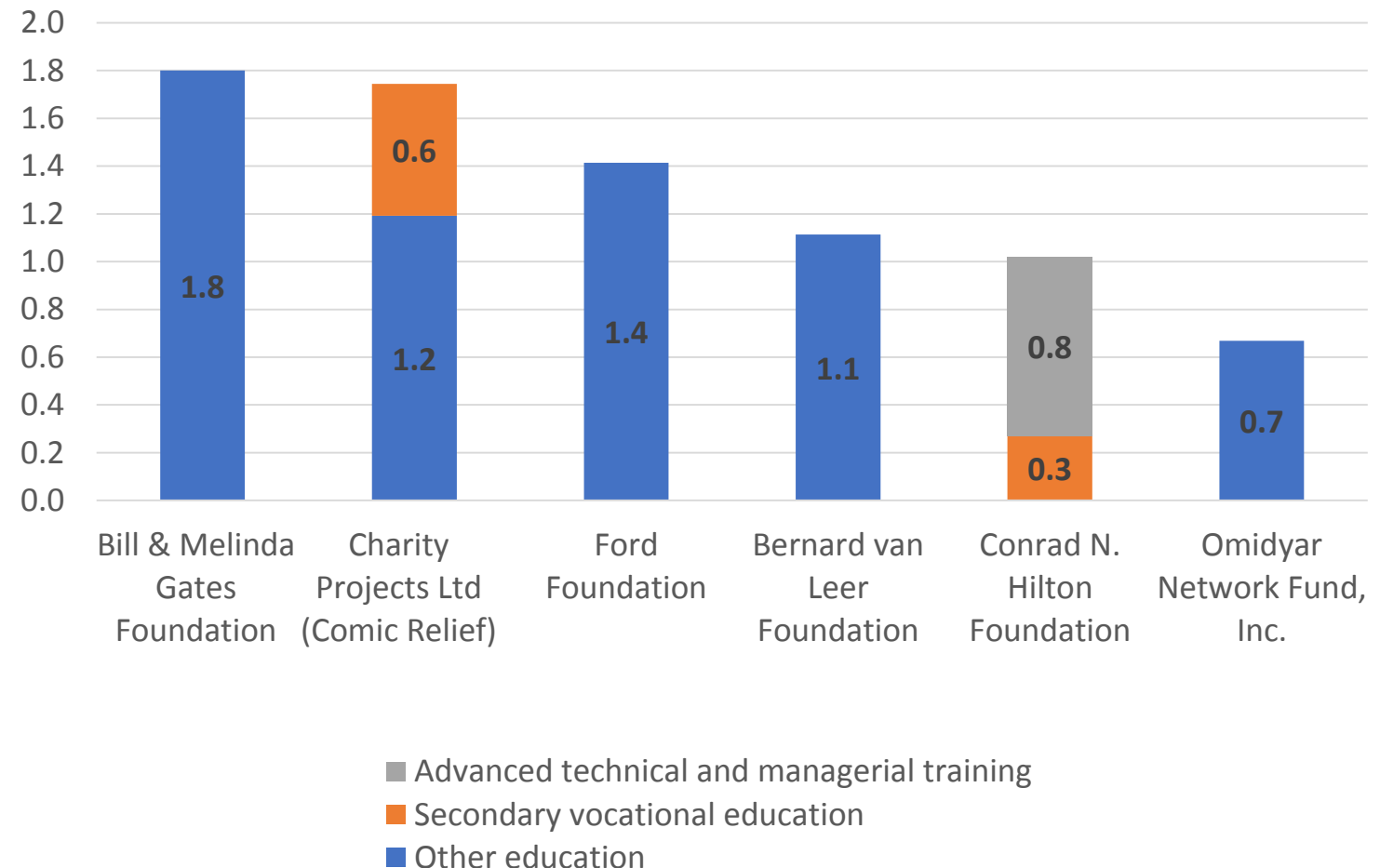
(Percentages of GDP)



Financing by firms, bilateral & multilateral donors and philanthropic organizations

- Investment by firms, mostly through own resources
- Tax benefits to firms: deductions and credits
- Bilateral ODA (targeted to the poorest countries)
- Multilateral ODA (incl. Caribbean Development Bank)
- Philanthropic investing (USD 1.6 million in 2013-2017)
- Potential for impact investing (eg. social impact bonds)

Selected philanthropic organizations: cumulative commitments for education in Latin America and the Caribbean, by educational level, 2013-2017 (Millions of dollars)



Final thoughts

- Investments in **human capacities** —by the public sector, by firms and by households— have a **significant impact on economic performance** as well as individual and social wellbeing
- Investing in education, especially **TVET**, is one of the main **policy responses** to the potential **adverse effects of automation on employment**
- To realize these benefits, however, will require a substantial commitment by governments, households and firms to **finance TVET**
- **State** needs to play a key role in providing the necessary governance of formal and non-formal TVET as well as in mobilizing financing
- Strengthen financing synergies with **firms**: additional sources of financing can and should be mobilized
- Making progress towards the achievement of TVET-related **SDG targets** will require a renewed effort to boost finance for education