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International Centre
for Technical and Vocational
Education and Training



TVET Country Profile

BRAZIL



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Compiled in collaboration with the National Council for the Federal Network of Vocational Institutions (CONIF), Brazil.

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TVETipedia Glossary

In case of further clarification and definitions of terms contained herein, please refer to UNESCO-UNEVOC’s online TVETipedia Glossary, which provides definitions and background information from various trustworthy sources on terms commonly used in the area of technical and vocational education and training. Find out more at www.unevoc.unesco.org/l/68.

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UNESCO-UNEVOC TVET Country Profiles

To find similar information on other countries, please visit the UNESCO-UNEVOC World TVET Database at www.unevoc.unesco.org/l/589.

Statistics¹

General information

Category	Indicator	Statistics
Demographic	Total population ²	209.3 million (2017)
	Population growth ³	0.8% (2017)
	Median age of population	32.1 (2015)
	Population aged 15-24 years	34.2 million (2015)

Socio-economic	GDP growth (annual %) ²	2.4% (2018)
	GDP per capita (current US\$) ²	9,821.4 (2017)
	Unemployment rate (%) ⁴	12.8% (2017)
	Youth literacy rate, population 15-24 years, both sexes (%)	98.8% (2014)

Participation in education by level and by programme orientation (2015)

Category		Gross enrolment ratio (%)		Percentage of students who are female (%)	
Primary education (ISCED 1)		115.3%		48.1%	
Secondary education, all programmes	Lower secondary (ISCED 2)	99.6%	106.3%	52.4%	48.6%
	Upper secondary (ISCED 3)		91.4%		52.6%
Tertiary education, all programmes (ISCED 5-8)		50.6%		57%	

Category		Percentage of students enrolled in vocational programmes, both sexes (%)		Percentage of students in vocational education who are female (%)	
Secondary education, all programmes	Lower secondary (ISCED 2)	11.5%	0.5%	55.3%	55.9%
	Upper secondary (ISCED 3)		8.5%		55.3%
Post-secondary non-tertiary education		10.8%		-	

Indicator	Both sexes (%)	Percentage of students who are female (%)
Percentage of students in tertiary education enrolled in short cycle education (ISCED 5)	7.6%	71.1%

Education finance²

Category	Indicator	Statistics
Expenditure	Government expenditure on education as % of total government expenditure (%)	5.4% (2017)
	Expenditure on secondary and post-secondary non-tertiary vocational education as % of total government expenditure (%)	21.6% (2014)

SDG thematic indicators related to TVET and skills⁵

Category	Indicator	Statistics (2015)
Selected SDG thematic indicators	Participation rate in technical-vocational programmes, 15- to 24-year-olds (%)	5.3%

Type of institutions⁶

Type of institution	Education level	Ministry responsible	Number of institutions
Federal Institutions	Secondary and tertiary	Ministry of Education	41
National Apprenticeship Services	Secondary and tertiary	Ministry of Education	2,789
Private and Public Technical Schools	Secondary	States	1,838
Private Higher Education Institutions	Tertiary	Ministry of Education	2,111

¹ Unless otherwise indicated, all statistics have been gathered from the UNESCO Institute for Statistics (UIS). <http://uis.unesco.org/>

² World Bank. World Development Indicators. <https://data.worldbank.org>

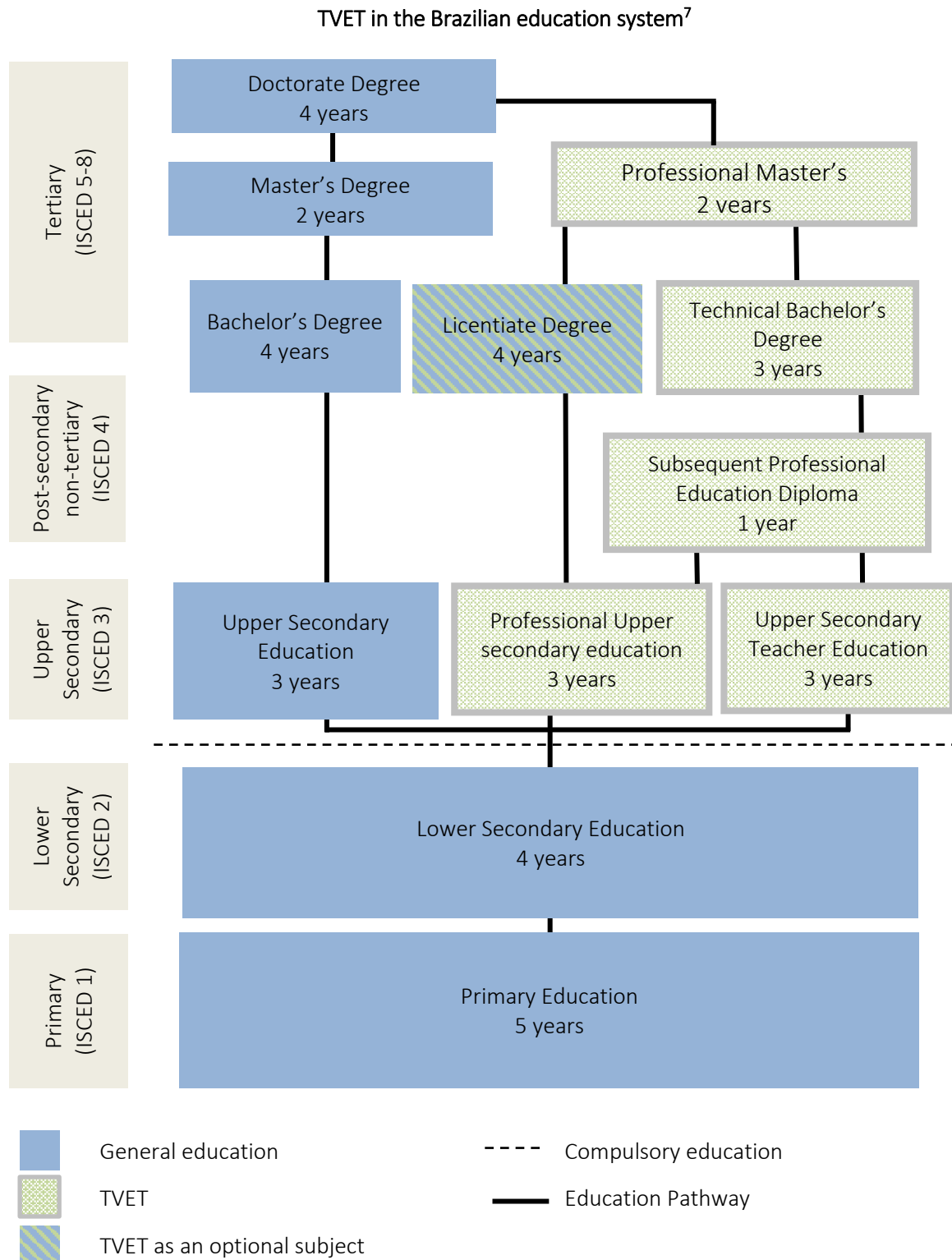
³ UN DESA. World Population Prospects. <https://esa.un.org/unpd/wpp/Download/Standard/Population/>

⁴ International Labour Organization. ILOSTAT - ILO database of labour statistics. www.ilo.org/ilostat

⁵ Other Sustainable Development Goal 4 thematic indicators at <http://sdg4monitoring.uis.unesco.org>

⁶ Data provided by the National Council for the Federal Network of Vocational Institutions (CONIF).

1. TVET systems



⁷ Compiled by UNESCO-UNEVOC International Centre, based on GPS Education - OECD (2017).

Formal TVET system

Technical courses are offered at the upper secondary education level (ISCED 3).	
Duration:	3-4 years maximum
Admission requirements:	Basic education i.e. lower secondary qualifications
Taught in:	Federal Institutes; Centres of Technological Education under the Ministry of Education; State and Municipal Public Schools; Private Schools
<p>Technical Courses provide professional training to students enrolled in secondary school and secondary school graduates. These courses operate in three modalities:</p> <ol style="list-style-type: none"> I. Integrated - Offered to students who want to simultaneously attend Vocational and General Education courses at the same institution. II. Concomitant - Offered to those students enrolled in a General education course elsewhere but want to enrol in a technical course in another institution. III. Sequential - Offered only to those who completed secondary school. <p>With a technical degree, graduates are able to attend TVET programmes at the tertiary education level (ISCED 5-8).</p>	

Courses for subsequent technicians are provided at the post-secondary non-tertiary level (ISCED 4).	
Duration:	1 years
Admission requirements:	Upper Secondary education degree
Taught in:	Federal Institutes; Centres of Technological Education under the Ministry of Education; State and Municipal Public Schools; Private Schools
<p>These programmes are primarily geared towards developing skills relevant to the labour market needs. Following the completion of the training for subsequent technicians, students can proceed to courses at the tertiary level (ISCED 5-8).</p>	

Undergraduate courses for technical and engineering professions and teachers, as well as professional master and doctorates are offered at the tertiary level (ISCED 5-8).	
Duration:	2 to 5 years
Admission requirements:	High school or college degree
Taught in:	Federal Institutes, Centres of Technological Education, public and private universities

Non-formal and informal TVET systems

The Ministry of Education and the Ministry of Labour and Employment offer non-formal TVET programmes. Some examples include:

Programme:	National Programme of Access to Technical Education and Employment (Pronatec)
Ministry/organization responsible:	Ministry of Education
Target audience:	Population that participates in government income transfer programmes
Admission requirements:	N/A
Qualifications received:	Professional qualification in several areas
Programme:	Mulheres Mil
Ministry/organization responsible:	Ministry of Education
Target audience:	Women in situations of socioeconomic vulnerability and prisoners
Admission requirements:	N/A
Qualifications received:	Professional qualification in several areas
Programme:	Escola do Trabalhador
Ministry/organization responsible:	Ministry of Labour and Employment
Target audience:	General population
Admission requirements:	N/A
Qualifications received:	Professional qualification in several areas

In Brazil, recognition and certification of prior formal and non-formal learning is guided by public policies of Professional and Technological Education developed by the National Network of Professional Certification and Initial and Continuing Training (CERTIFIC). This framework allows citizens to validate professional knowledge acquired in the workplace or in formal or non-formal studies which aim to facilitate access to certification for continuation of studies or professional practice. This recognition is conditional upon the enrolment of the individual in continuing education which is obtained through the Inter-institutional Programmes of CERTIFIC.

2. TVET strategy and key policy documents

Technical and Vocational Education and Training (TVET), also called Vocational, Scientific and Technological Education, in Brazil aims to prepare young people and workers for their duties as Brazilian citizens by qualifying them for the workforce.

The following key documents help guide the development of TVET in Brazil:

Name of document	Law 9,394
Date entered into force	20 th December 1996
Website link	http://t1p.de/c95l
Key points and objectives	
Law 9,394 establishes the guidelines and bases for national education.	

Name of document	Law 11,741
Date entered into force	16 th July 2008
Website link	http://t1p.de/rlbe
Key points and objectives	
Law 11,741 demands the resizing, institutionalization and integration of the actions mentioned in Law 9,394 for purposes of technical secondary education, youth and adult education and TVET.	

Name of document	Law 12,513 – National Programme of Access to Technical Education and Employment (PRONATEC)
Date entered into force	26 th October 2011
Website link	http://t1p.de/30qr
Key points and objectives	
PRONATEC consists of five initiatives:	
<ul style="list-style-type: none"> (1) The expansion of the Federal Network of Vocational Education, Science and Technology (2) The establishment of the Bolsa-Formação (Training Scholarship) (3) Brazil Professionalised (4) Rede e-Tec Brazil, which aims to provide professional and technological education through distance education (5) The formulation of a Gratuity Agreement with SENAI and SENAC (<i>Serviço Nacional de Aprendizagem Comercial /Industrial</i> - National Service for Commercial / Industrial Apprenticeship) 	

Name of document	Law 13,415
Date entered into force	16 th February 2017
Website link	http://t1p.de/60fa
Key points and objectives	
Law 13,415 establishes the reform of secondary education.	

Name of document	Decree Number 5,154
Date entered into force	23 rd July 2004
Website link	http://t1p.de/r6cz
Key points and objectives	

Decree 5,154 regulates articles 36 and 39 to 41 of the National Law (LDB) regarding TVET.

3. Governance and financing

Governance

The **Secretariat of Professional and Technological Education** of the **Ministry of Education (SETEC / MEC)** is the national coordinator of the country's professional and technological education policy. Its role is to formulate, implement, monitor, evaluate and induce Professional and Technical Education (EPT) policies, programmes and actions. To this end, it acts in collaboration with other education systems and the various social agents involved in the area of EPT.

It is also responsible for developing and coordinating the quality and organization of professional and technological education. This includes, amongst others: developing and updating national referrals and guidelines for EPT courses to be consistent with the requirements stipulated in the National Education Plan (NPE) 2014-2024, social demands and local productive arrangements; actions for professional certification of workers; and developing teaching, evaluation and management models for TVET institutions.

In addition to the role of national coordinator, SETEC / MEC is responsible for maintaining, supervising and strengthening the institutions that make up the Federal Network of Professional, Scientific and Technological Education (CONIF). CONIF consists of TVET institutions across Brazil focusing on developing professional and technical skills, while also fostering applied research and innovation.

SETEC/MEC conducts its activities through three subordinate entities:

- 1. Directorate of Policies and Regulation of Professional and Technological Education (DPE):**
Responsible for formulating policies and indicating guidelines for the organization of the training programmes and their evaluation, as well as for the regulation and supervision of the offer of technical courses under the federal system education;
- 2. Directorate of Development of the Federal Network of Professional, Scientific and Technological Education (DDR):**
Responsible for the planning, supervision and development of the Federal Network;
- 3. Board of Articulation and Expansion of Professional and Technological Education (DAE):**
Responsible for the articulation between the EPT actors and for the implementation of programmes and actions to promote EFA.

Other actors involved in the development of TVET in Brazil are:

- The **National Institute of Educational Studies and Research (INEP)** conducts assessments to identify challenges in the educational system and to develop and implement educational policies. It also collects and disseminates information and statistics about the Brazilian educational system.
- The **National Commission for Higher Education Assessment (CONAES)** evaluates and supports the development of higher education. It is also responsible for the supervision and coordination of the National System of Higher Education Evaluation (SINAES).

- The **Coordination for Improvement of Higher Education Personnel (CAPES)** is responsible for evaluating graduate programmes.

Financing

The Ministry of Education, the states, the municipalities, as well as federative entities are responsible for the financing of formal and non-formal TVET.

The *Bolsa Formação* (BF) is the main financing mechanism within the PRONATEC programme, an anchor to promote social inclusion. Its innovation lies on providing free training to the vulnerable population previously unable to afford VET. This mechanism is a scholarship: the government sponsors vacancies at professional education institutions which are already well established in the market and encourages students and workers to attend professional qualification and training education. The BF is offered in two modalities: *Bolsa Formação Estudante*, aimed at students enrolled in public secondary level schools and *Bolsa Formação Trabalhador*, targeting primarily low-income individuals.

Up to 2014, there was an accelerated growth of public funding for professional education, which led to the expansion of public and private networks, especially through PRONATEC. However, most recently public funding has been decreasing which has resulted in the growing need for alternative sources of funding.

4. TVET teachers and trainers

According to the Secondary TVET National Curriculum Guidelines, initial training for TVET teachers should be conducted at undergraduate and licentiate programmes or programmes following specific standards set by the National Council for Education. Graduate teachers without a teaching degree can apply for the recognition of their professional knowledge and experience in certification processes.

Educational institutions aiming at training and developing the skills of their secondary TVET teachers are responsible for the establishment of their own training programmes in cooperation with the Ministry of Education and institutions of higher education. However, currently, there are also many training programmes in place such as the Continuing Staff Training Plan, the Languages without Borders initiative, Managers Training courses, as well as several partnerships with countries such as Canada, Finland, the United States, Australia and the United Kingdom.

Teachers in TVET are required to hold a graduate certificate with a teaching degree for all education levels and, additionally, need a subject-specific specialisation at the tertiary education level (ISCED 5-8).

5. Qualification system and quality assurance

National Qualifications Framework (NQF)

There is no National Qualifications Framework in place in Brazil.

Quality assurance

The National Institute of Educational Studies and Research monitors and evaluates two national exams at the secondary level (ENEM) and tertiary level (ENADE) to ensure the quality, relevance and recognition of learning outcomes related to TVET. An important factor in the evaluation is the *Exame Nacional de Desempenho de Avaliação de Estudantes* (ENADE). ENADE is a survey that is conducted every year for students starting university and students finishing their studies. The results lead to the development of quality indicators used for the evaluation. The quality indicators are published by INEP in the *Índices Gerais de Cursos das Instituições* (IGC), the general index for programmes. The outcome is representative for the quality of all programmes offered by an institution. The end results of the evaluation are published annually on the website of the Ministry of Education (MEC).

Additionally, the quality of TVET is partly regulated through the National Technical Courses Catalogue and the PRONATEC FIC Guide. All secondary education institutions are required to register in the National System of Information of Vocational and Technological Education (SISTEC), while tertiary education institutions have to register in e-MEC, an electronic database for higher education institutions.

TVET curriculum

The Ministry of Education develops, updates and ensures the quality of TVET curricula in states, municipalities and private educational institutions by outlining guidelines for the organization of TVET curricula in the National Catalogue of Superior Courses of Technology.

6. Current reforms and policy discussion

Current reforms in Brazil focus on a number of subjects including: (i) languages and associated technologies (E-Learning, MOOCs, OER), (ii) Mathematics and associated technical courses, (iii) natural sciences and associated technologies, (iv) applied human and social sciences and (v) technical and vocational training.

Challenges

According to CONIF, Brazil is facing the following challenges to the TVET system:

Dropout rates and transitions into job markets	While there are many students who begin their studies without completing them, a large number of the graduates is unable to enter the job market with their TVET degree.
Focus on innovation	Innovation in teaching methods and materials needs to be promoted to ensure economic and societal progress.
Focus on entrepreneurship	To facilitate economic growth and innovation, a greater entrepreneurial focus in TVET programmes needs to be integrated.
Applied research	Public policies are needed to increase the number of applied research centres. This is key to finding solutions to problems

social organizations are facing and to enhance the scope of TVET.

Attractiveness of the manufacturing sector

Considering the highly negative perception of manufacturing professions in Brazil, offering these courses at TVET institutions, particularly public ones, remains difficult. Excessive bureaucracy and the lack of policies favouring the sector further increase the problem.

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TVET COUNTRY
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4
QUALITY
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Sustainable
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