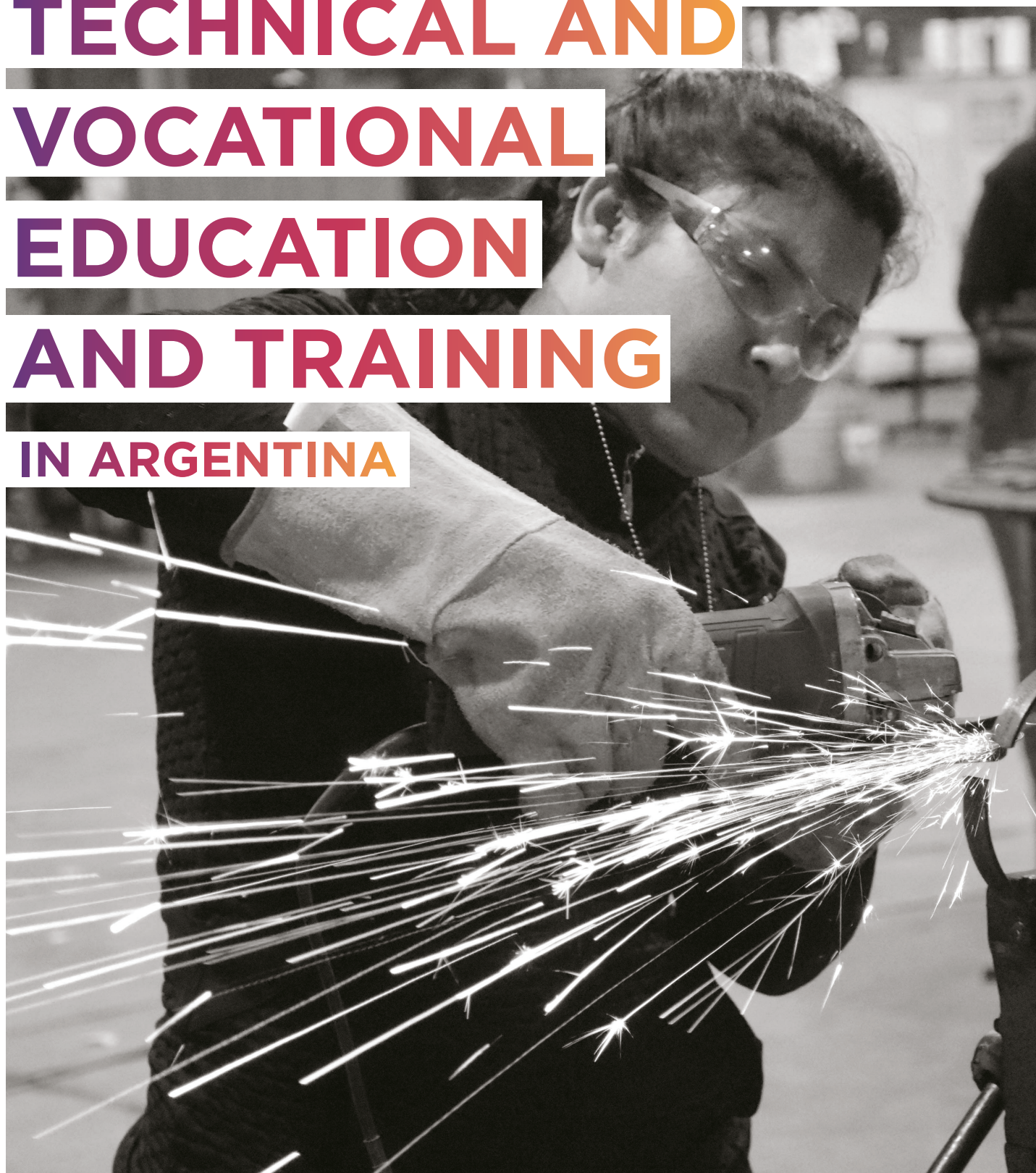


SNAPSHOT OF
TECHNICAL AND
VOCATIONAL
EDUCATION
AND TRAINING
IN ARGENTINA



GAN ARGENTINA



UNIÓN INDUSTRIAL
ARGENTINA

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INTRODUCTION

Contextual framework and goals of Technical and Vocational Education and Training in the Argentine Republic

Technical and Vocational Education and Training (TVET) is strategic to achieving a higher level of social inclusion and equality due to its close association with science and technology, labour and production. TVET promotes the acquisition of skills and abilities that facilitate insertion into the world of work and productivity (Almandoz, 2010).

Traditionally, the Argentinian TVET system had two distinctive features. Firstly, and unlike in other Latin American countries, TVET was functionally dependent on the educational system. Secondly, TVET educational services depended on the National Ministries of Education and decentralised bodies with relative political and budgetary autonomy. The creation of the National Council for Technical Education (CONET, for its Spanish acronym) in the late 1950s is a clear example of the institutional set-up of TVET in Argentina.

Starting in the 1990s, this institutional arrangement was fractured by a process of decentralisation of education, which moved it from the sphere of the federal government to the 24 provinces. The Federal Education Act (1993)¹ and the Education Services Decentralisation Act (1992)² provided the regulatory framework for this education policy strategy. The education system and the TVET modality were impacted by the same policies. This involved a deconstruction process, given the difficulty that many educational jurisdictions faced to guarantee the technical capabilities of the institution to develop policies and management, as well as the sustainable funding of education services (Gallart, 2006).

Following the social and economic crisis that hit the country in the early 2000s, technical training for professional development regained importance. The Technical and Vocational Education and Training Law (LETP for its Spanish acronym)³ was passed in 2005, and one year later the National Education Law (LEN for its Spanish acronym)⁴ was approved, repealing the Federal Education Law.

1 <http://servicios.infoleg.gob.ar/infolegInternet/anexos/15000-19999/17009/texact.htm>

2 <http://servicios.infoleg.gob.ar/infolegInternet/anexos/0-4999/448/norma.htm>

3 Law No. 26.058. Technical and Vocational Education Law. Official Gazette of the Argentine Republic. 8th September, 2005.

4 Law No. 26.206. National Education Law. Official Gazette of the Argentine Republic. 14th December 2006.

The laws aim to achieve greater coordination within the national education system, to guarantee the right to an education, to integrate the federal guidelines with the needs of the different educational jurisdictions and to guarantee strategies that allow for higher levels of educational inclusion and quality (Almandoz, 2010).

In particular, the LETP seeks to improve the quality of the technical and vocational education system through the institutional, curricular and technological upgrading of schools, together with increased funding. The law aims primarily at developing training pathways that facilitate access to the world of work.

Within this framework, the National Institute of Technological Education (INET for its Spanish acronym), the body in charge of coordinating the implementation of public policies related to the development and strengthening of TVET at its three levels (secondary, higher and professional training),⁵ is of special relevance.

The law also creates three regulatory instruments which lay the foundations for ongoing quality improvement: the Federal Register of Technical and Vocational Education and Training Institutions (Registro Federal de Instituciones de Educación Técnico-profesional), the National Catalogue of Degrees and Certificates (Catálogo Nacional de Títulos y Certificaciones) and the accreditation of training pathways.

The Federal Register of Technical and Vocational Education and Training Institutions makes it possible to provide the necessary equipment for institutions providing Technical and Vocational Education and Training, and to give public assurance that these institutions meet the institutional conditions under the federally agreed quality criteria. The data in the Register makes it possible to update the National Catalogue of Degrees and Certificates through the registration of vocational education and training institutions in the database. Because it is a nationwide catalogue, it also provides extremely valuable information about the profile of TVET institutions (location, teaching staff, training offer) which is a key input for educational planning. The present analysis of TVET in Argentina is based on data from the said Registry.

The report is divided into five sections. The first section is a thorough description of Technical and Vocational Education and Training (TVET) in Argentina, detailing the institutions, enrolment and teaching staff. The second section describes the distribution of the training offer by area, professional sector and level of TVET. The third section describes the TVET offered by province and by industry. The fourth one outlines the development of the regulations governing TVET that took place between 2016 and 2019. In the fifth section examines the conceptual and regulatory development related to internships.

⁵ INET is a self-governing entity steered by the Ministry of National.

Section 1

Technical and Vocational Education and Training in Argentina

There are three levels of Technical and Vocational Education and Training (TVET): secondary technical, higher technical (non-university) and professional training. The following section describes each of these levels in detail, as well as their distribution across the country.

1. Areas of Technical and Vocational Education and Training

The Technical and Vocational Education and Training regulatory framework stipulates three levels for this educational modality, with the following objectives:

NATIONAL TECHNICAL AND VOCATIONAL EDUCATION SYSTEM

Specific objectives:

Secondary Technical Education

> To train intermediate and advanced technicians in specific occupational areas, whose complexity requires the acquisition of professional skills that can be developed by way of systematic and prolonged training processes in order to equip individuals with professional skills which form the basis of these abilities.

Higher Technical Education

> To develop systematic training processes that articulate study and work, research and production, theoretical and practical supplementation in training, training in citizenship, general humanities and that which is related to specific vocational fields.

Professional Training

> To develop professionalization pathways that guarantee students access to a basis of professional skills and knowledge that will facilitate their insertion in the world of work, in addition to lifelong learning.⁶

> To prepare, update and develop skills for work, regardless of the individual's initial education situation. This will be achieved by way of processes that ensure the acquisition of scientific-technological knowledge, in addition to basic, professional and social skills.⁷

These three areas of TVET correspond in turn to the institutions that provide them, whether national, provincial or municipal, state-run or privately-run. In addition, there are national universities which offer secondary and higher technical and professional training certificates. It is worth noting that given their autonomy and self-sufficiency, in some cases these universities are not governed by the same parameters and provisions as other TVET educational institutions.

6 Law No. 26.058. Technical and Vocational Education and Training Law. Official Gazette of the Argentine Republic. 8th September, 2005. Art. 7 (<http://www.inet.edu.ar/wp-content/uploads/2012/10/ley-26058.pdf>).

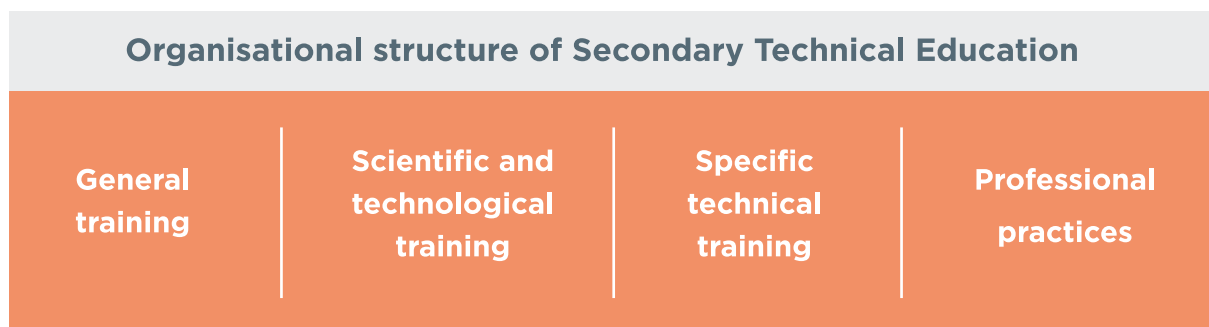
7 Law 26.058 (op cit). Art. 8

1.1. Secondary Technical Education

Institutions offering secondary level technical certifications are characterised by their ability to train competent technicians. This educational modality is constantly searching for teaching and learning opportunities from and in the workplace, and not only preparation for work.

The relationship between education and production lies at the very heart of TVET. Secondary technical education, however, must also ensure that students receive comprehensive training without creating a conflict between general and technical-professional training. On the contrary, it should train high-skilled technicians in their area of expertise who are also committed to the world, the country and the region in which they live.

The training of an intermediate level technician consists of four perfectly distinct and distinguishable areas of training:



The student must be trained in the concepts, procedures, and attitudes of their profession, and of the productive sector to which they belong. They must also be reflexive about their professional performance in relation to the constantly changing technologies.

These particular characteristics are clearly reflected in the institutional infrastructure, which includes classrooms, workshops and laboratories. Some specific training activities also require the institutions to approach companies and industries in the area for students to have access to equipment and production conditions similar to the ones they will face in their future work.

Technical education institutions in general must have a link to the industry for which they train. This connection is essential both for the training of students and the continued development of teachers, as well as for companies to train qualified personnel for their future workforce.

In addition, other institutions of reference in the community (educational institutions,

clubs, development organisations, cooperatives, etc.) regularly use technical schools for all kinds of tasks (e.g. installations, furniture or minor infrastructure repairs). Dialogue and links between TVET and the productive sectors must be encouraged and strengthened by all stakeholders, to meet the needs of both parties.

In a secondary technical institution there is a wide variety of teaching profiles, given the wide scope of training areas: intermediate level technicians with teacher training, technicians who also work in the productive system, university professionals working in specific scientific, technological or technical academic or at production level, humanities teachers, etc.

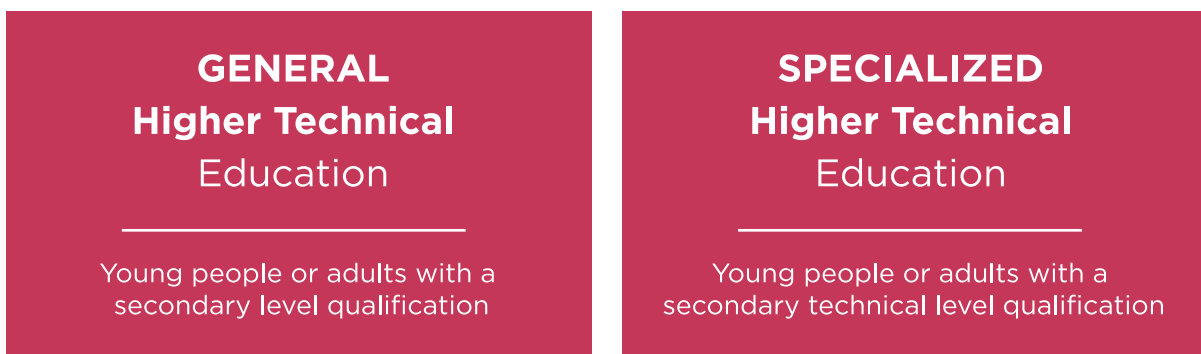
1.2. Higher Technical Education

The higher technical education TVET modality is an option for students who, having completed compulsory secondary education (technical or otherwise), choose to continue higher level studies of a professional nature in specific areas, which require the mastery of knowledge, skills, attitudes and abilities directly related to their future field of work.

The institutions providing this type of training provide teaching, research, development, innovation and technological linkages, which guarantee that their graduates can later be integrated into and grow in a particular professional field.

This training can be diversified or specialized in a specific professional field. Diversified refers to an initial training in a technical profession whose professional profile has a wide occupational spectrum. This type of training is open to young people who have completed their compulsory secondary education.

Young people who have finished their secondary technical education in a related specialisation may access specialised training to further their intermediate level technical training.



1.3. Professional Training

Professional training is training for and in the workplace, aimed at both the acquisition and improvement of qualifications, and the re-qualification of workers. It also includes the specialization and deepening of knowledge and skills at the higher levels of formal education,⁸ and it is based on the principle of continued learning for the exercise of citizenship and work.

The training acquired *“certifies a professional qualification attained by the person who obtains the certificate attesting and publicly recognising that he or she has acquired the scientific and technological capacities, skills, abilities and knowledge required to perform competently in all the functions corresponding to a professional profile in the field of professional training”*⁹ (GAN translation).

Professional training has different forms of entry and development than those offered by formal education. For example, it is possible to combine it with literacy programmes and programmes aimed at the completion of compulsory and post-compulsory education levels.

Such training can be provided by secondary or higher education TVET institutions, or by institutions that have agreements with other stakeholders in the productive sector (trade unions, chambers of commerce, worker’s colleges, etc.).

The field of Professional Training includes:

- **Initial Professional Training (IPT)**
- **Continued Professional Training (CPT)**
- **On the Job Training (OJT)**

Initial Professional Training (IPT) offers three levels of certification:

Qualification Level I: At this level, students obtain certificates that certify that they have learnt the basic technical operational knowledge and skills required for certain occupations. The knowledge acquired allows a person to perform competently in a reduced range of activities, in which standard solutions are applied to problems arising in specific situations.

Qualification Level II: At this level, students obtain IPT certificates that certify the mastery of technical knowledge and operational know-how with a limited scope. Some operative knowledge is related to management,

8 Law No. 26,058. Technical and Vocational Education and Training Law. Official Gazette of the Argentine Republic. 8th September, 2005. Art. 17

9 Res. 13/07- “Títulos y certificados de la Formación Técnico Profesional” – CFE – Ministry of Education.

which is required for certain occupations and it allows a person to perform competently in a moderate range of activities, selecting adequate procedures to solve routine problems.

Qualification Level III: At this level, students obtain certificates that certify the learning of theoretical scientific-technological knowledge specific to their professional field, and the mastery of technical, operational and managerial knowledge used in certain occupations that allow a person to perform competently in a wide range of activities. These involve the identification and selection of potential solutions among a wide variety of alternatives to solve problems of low relative complexity, whose analysis requires professional discernment.¹⁰

1.4. Continued Professional Training (CPT)

This area allows workers to broaden their career path, in line with the needs of the productive sector. It takes the form of a continued learning strategy. It is closely related to each individual's initial training path, continuing it either due to their need to update their knowledge of processes, techniques, regulatory frameworks or to specialise in an aspect of their profession sphere.

This type of training stands out because it is designed and developed based on the individual's prior professional qualification. It implies a coherent link between the initial TVET and the proposed continued professional training, implying a growing professional progression.

The CPT includes:

- **Continued Professional Training aimed at updating;**
- **Continued Professional Training aimed at specialisation**

1.5. On the Job Training (OJT)

The term "On the job training" is used to describe "[...] *training actions aimed at developing skills so that workers can adapt to the demands of a particular job*". They do not require prior professional qualifications. On the job training is not based on professional profiles or educational pathways approved by the Federal Education Board. Although OJT qualifications are included in professional training, they are not structured in levels like IPT.¹¹

¹⁰ Op. cit.

¹¹ Res. 288-16. "Orientaciones y criterios para el desarrollo de la Formación Profesional Continua y la Capacitación Laboral" - CFE - Ministerio de Educación. http://www.inet.edu.ar/wp-content/uploads/2012/10/288-16_01.pdf

**Initial
Professional
Training**

Level of Qualification I
Level of Qualification II
Level of Qualification III

**Continued
Professional
Training**

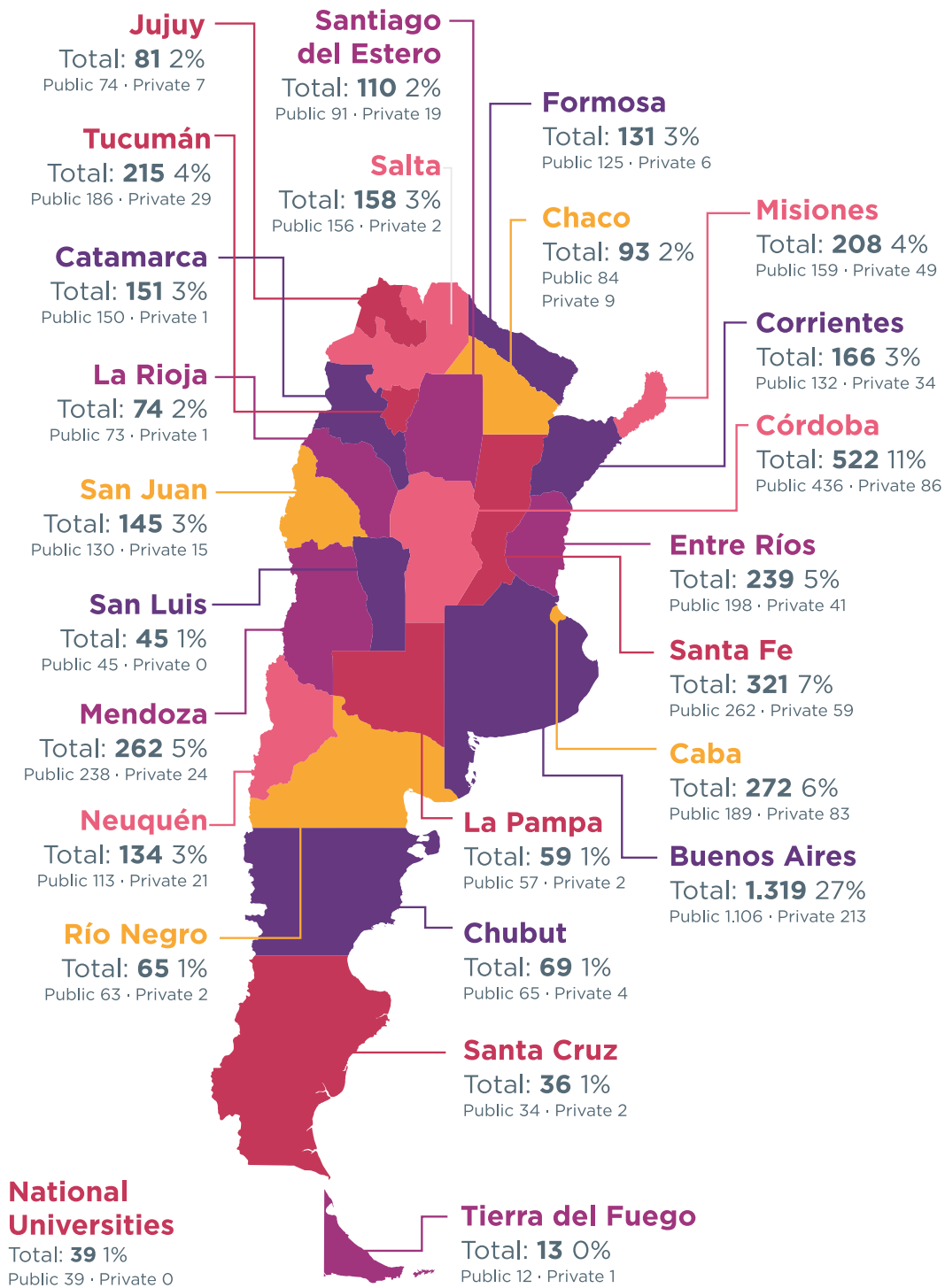
Aimed at specialization

**On the
Job
Training**

2. Distribution of TVET institutions¹²

FIGURE 1

Total number of TVET institutions per province, percentage and management area.¹³



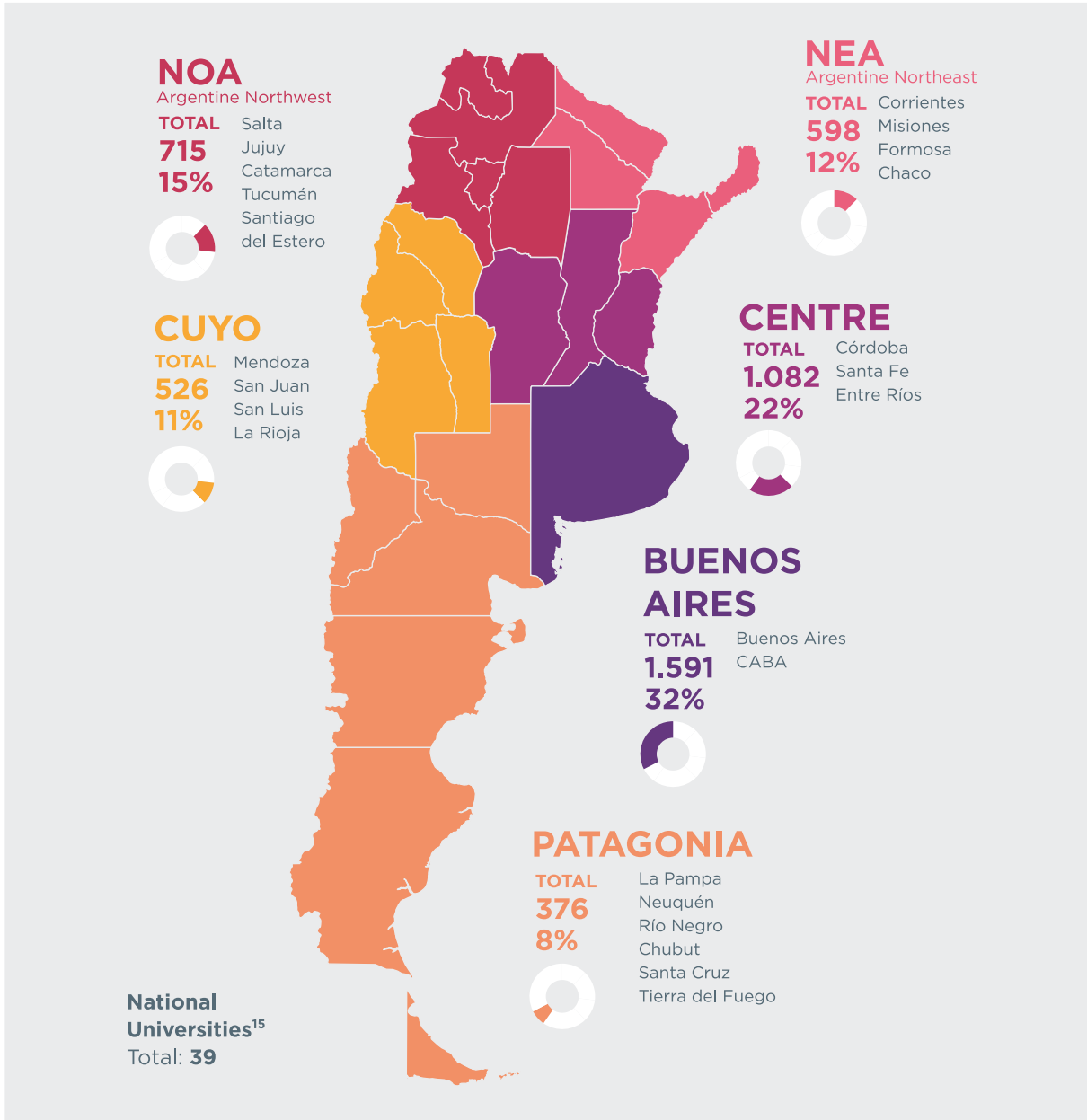
¹² Data taken from the Federal Register of TVET Institutions (RFITVE) – Inet – data as of 11/06/2019.

¹³ The total number of TVET institutions includes: secondary technical level, higher technical level, professional training institutions, and institutions of other levels or modalities.

TVET institutions are concentrated in the main provinces of the country. Nearly one third of all TVET institutions in the country are located in the province of Buenos Aires, followed by the provinces of Córdoba, Santa Fe and the Autonomous City of Buenos Aires. These four provinces account for more than 50 percent of all of the country's TVET institutions.

The distribution of TVET institutions by region is the following:

FIGURE 2
TVET institutions per region.¹⁴

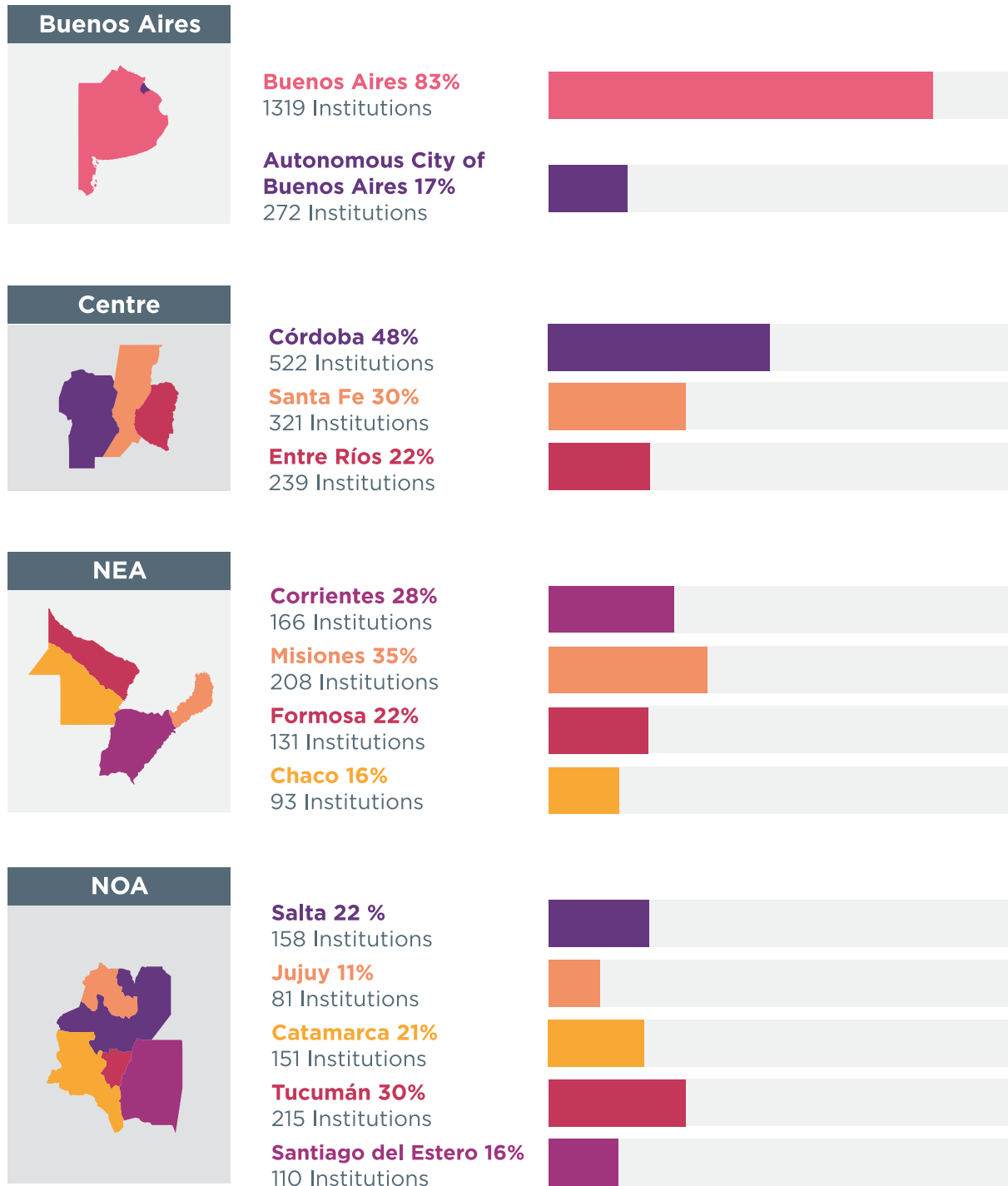


¹⁴ The differentiation by region was taken from the one used by Indec to work by economic regions and from agreements signed by the participating provinces in due time.

¹⁵ National Universities are not included in the analysis by region, given that these 39 institutions are distributed throughout the country and have very little impact within each of them. Therefore, the total number of TVET institutions considered in this regional analysis will be 4,888.

A closer look at each region shows substantial differences within a region, in terms of the number of institutions in each of the region's provinces.

FIGURE 3
TVET institutions by region.



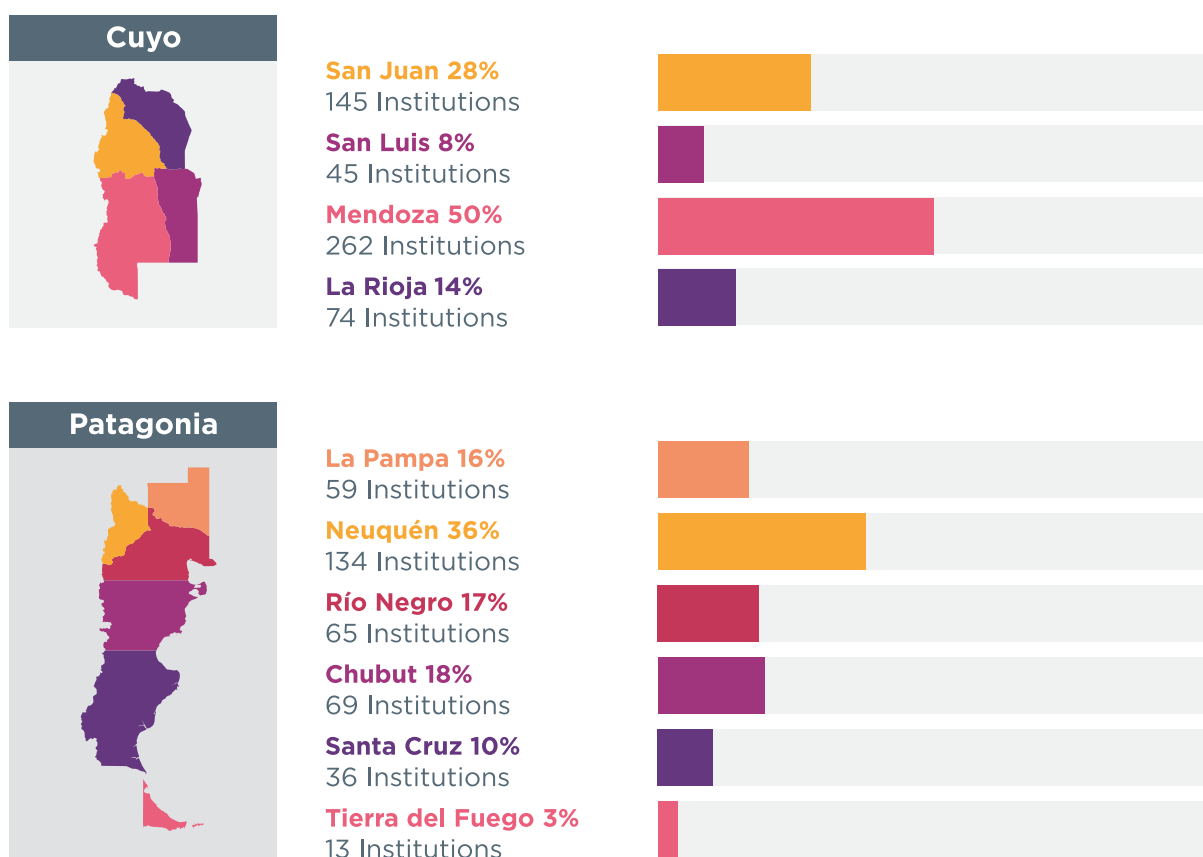


TABLE 1
Total number of TVET institutions by province.¹⁶

Provinces	Secondary Technical Schools	Higher Technical Schools	Professional Training	Other levels/ modalities	Total
Buenos Aires	437	171	412	299	1,319
Catamarca	15	5	17	114	151
Chaco	38	12	34	9	93
Chubut	25	3	28	13	69
CABA	44	107	95	26	272
Cordoba	248	92	34	148	522

¹⁶ Source: INET - Ministry of Education - RFITVE. Data as of 11/06/2019 - There are institutions which offer more than one kind of training. In this case, they will be classified according to their institutional characteristics.

Snapshot of Technical and Vocational Education and Training in Argentina

Corrientes	57	13	40	56	166
Entre Ríos	85	27	35	92	239
Formosa	31	6	18	76	131
Jujuy	27	6	30	18	81
La Pampa	17	2	25	15	59
La Rioja	21	7	7	39	74
Mendoza	82	46	90	44	262
Misiones	75	34	36	63	208
Neuquen	28	19	57	30	134
Rio Negro	36	14	15	0	65
Salta	69	12	29	48	158
San Juan	30	12	100	3	145
San Luis	33	1	8	3	45
Santa Cruz	14	5	12	5	36
Santa Fe	164	54	37	66	321
Santiago del Estero	32	8	57	13	110
Tierra del Fuego	4	4	3	2	13
Tucumán	43	27	41	104	215
National Universities	26	8	1	4	39
Total	1,681	695	1,261	1,290	4,927

FIGURE 4
Percentage of TVET institutions in Argentina, by type.



The range of TVET on offer is relatively balanced at the national level; the secondary technical level being the one with the highest number of institutions, followed by those offering professional training and those belonging to other levels or modalities, which provide some kind of technical education.¹⁷ Finally, those that offer non-university higher technical courses represent 14% of the total.

Table 1 shows the range of professional training courses on offer by level and by type. It is easy to see the difference in the composition of professional training courses offered in each province and between them.

The distribution between secondary technical level and professional training institutions appears somewhat proportional, while the higher level offer is considerably lower. The distribution of institutions at other levels or modalities is erratic and depends on whether they are included in the RFIETP or not.

The most striking cases are:

- the largest number of TVET institutions in the provinces of San Luis and Río Negro, as well as national universities, are geared towards providing secondary education services;
- the professional training offer is predominant among the institutions in the provinces of San Juan, Santiago de Estero, Neuquén and Jujuy;
- nearly half of the institutions in the Autonomous City of Buenos Aires are higher technical institutes;
- an almost non-existent supply of higher technical institutes in the provinces of San Luis, La Pampa, Formosa, Chubut and Catamarca;
- in the province of Córdoba, 50 percent of institutions are Secondary Technical Institutes. It is worth noting that there is a very small percentage of professional training institutions, due to the fact that they are not in the

¹⁷ They include mainly adult education institutions which offer some kind of professional training, schools or professional training centres for people with disabilities that also provide, mainly, on the job training or professional training, middle or higher level art institutes which offer some technical courses (for example: lutherie, stage design, sound, lighting) or intermediate level institutions with specialised baccalaureates that have adopted the CLAN (National on the job training).

sphere of the Ministry of Education but under that of the Ministry of Labour and, therefore, there seems to be a very limited training offer in this area; and

- in the provinces of Catamarca, Formosa, La Rioja and Tucumán, most institutions offer technical training in institutions belonging to a different level or modality.

TABLE 2

Total number of TVET institutions by type and region.

Region	Secondary Technical Schools	Higher Technical Schools	Professional Training	Other levels/ modalities	Total
NEA	201	65	128	204	598
NOA	186	58	174	297	715
Cuyo	166	66	205	89	526
Centro	497	173	106	306	1,082
Patagonia	124	47	140	65	376
Buenos Aires and CABA	481	278	507	325	1,591
National Universities	26	8	1	4	39
Country total	1,681	695	1,261	1,290	4,927

Table 2 shows the distribution of secondary technical education in the different regions compared with the highest percentages in the Central Area and Buenos Aires - City of Buenos Aires.

It should be noted that many national universities have historically offered technical training at the secondary level (e.g. National Universities of Tucumán, Córdoba, etc.). Others, which were established more recently, such as the Technical Schools dependent on the Universities of the Conurbano (Universidad Nacional de San Martín, Avellaneda, Quilmes, General Sarmiento, etc.) as well as technical university schools which depend on the University of Buenos Aires (UBA), have expanded their offer in recent years.

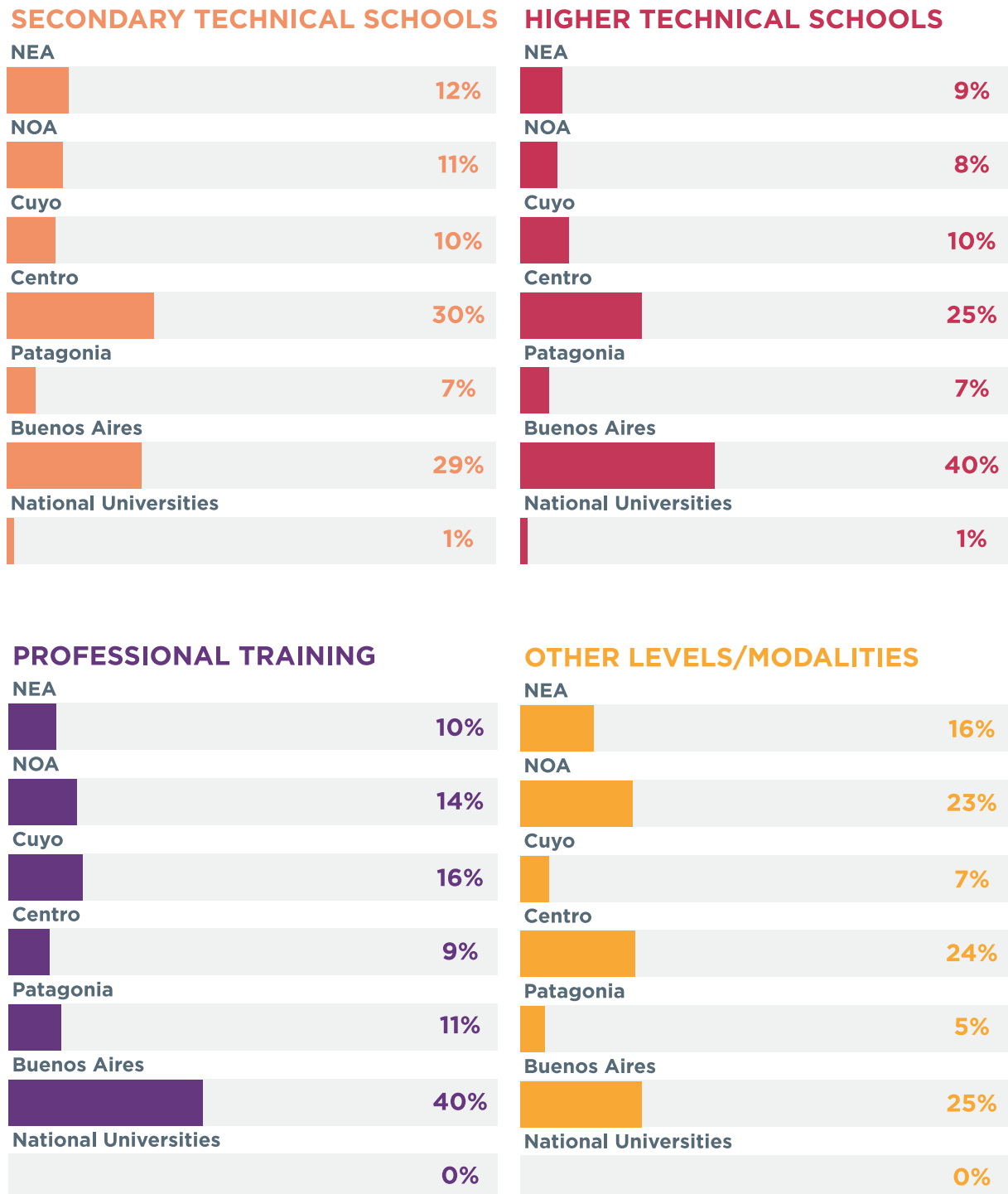
As far as higher technical education is concerned, it is not very representative at the regional level in relation to other types of offers, except for the Central region where it is offered by more institutions than professional training. This is partly due, however, to the fact that professional training institutions in the province of Córdoba depend on the area of work.

The professional training offer is the most heterogeneous at the regional level. There is a historical reason for this. Institutions that were established as professional training centres, dependent on the central government until 1992, converged with on the job training institutions, which cater to diverse student bodies and training objectives, providing a link to the world of work. This network of institutions stems from different historical, political and institutional initiatives at province level.

In the region of Cuyo, professional training is the most common modality, significantly surpassing secondary technical education. In the Northwest, the professional training offer is almost equivalent to that of secondary education. Furthermore, the low proportion of professional training offered in the central region in relation to other types of institutions is significant.

As for the number of institutions of other levels and/or modalities, this same category is very diverse. The fact that institutions offering technical training can be registered with the Federal Register of Institutions, regardless of the type of training they provide, has led to this category being over-represented.

FIGURE 5
Percentage of institutions per level and by region.



3. TVET Institutions by Management Field

Most technical courses in Argentina are offered by state-run institutions. In this respect there are no differences by province or region. This is mainly due to the high cost of creating, opening and maintaining this kind of institutions.

The adequate and necessary infrastructure of classrooms, workshops, laboratories, machinery, equipment and tools needed, as well as their maintenance and upgrade require a constant investment of resources.

It is also necessary to have sufficient and adequate inputs to implement practical training that demands many hours of work as the technical courses progress.

It is common for private technical secondary schools to belong to some religious order (Salesian schools and ORT Schools) and to what are commonly known as "factory schools," which were created specifically to provide on-site training in specific professions for individuals who aspired to be hired by companies (Phillips, Ford, Segba, etc.) running said schools. Despite the fact that some of these companies are no longer operating in the country, they have remained as training institutions.

TABLE 3

Total number of TVET institutions by province, level, and management area.

Authorities	Secondary Technical Schools		Higher Technical Schools		Professional Training		Other levels/ modalities		TOTAL		
	Public	Private	Public	Private	Public	Private	Public	Private	Public	Private	TOTAL
Buenos Aires	374	63	79	92	363	49	290	9	1,106	213	1,319
Catamarca	15	0	4	1	17	0	114	0	150	1	151
Chaco	36	2	11	1	28	6	9	0	84	9	93
Chubut	22	3	3	0	27	1	13	0	65	4	69
CABA	40	4	28	79	95	0	26	0	189	83	272
Córdoba	206	42	49	43	33	1	148	0	436	86	522
Corrientes	39	18	9	4	28	12	56	0	132	34	166
Entre Ríos	79	6	11	16	16	19	92	0	198	41	239
Formosa	30	1	2	4	17	1	76	0	125	6	131
Jujuy	26	1	4	2	29	1	15	3	74	7	81
La Pampa	15	2	2	0	25	0	15	0	57	2	59
La Rioja	20	1	7	0	7	0	39	0	73	1	74
Mendoza	80	2	27	19	87	3	44	0	238	24	262
Misiones	72	3	12	22	32	4	43	20	159	49	208
Neuquén	25	3	8	11	50	7	30	0	113	21	134
Río Negro	34	2	14	0	15	0	0	0	63	2	65
Salta	69	0	11	1	28	1	48	0	156	2	158
San Juan	26	4	5	7	96	4	3	0	130	15	145
San Luis	33	0	1	0	8	0	3	0	45	0	45
Santa Cruz	14	0	4	1	11	1	5	0	34	2	36
Santa Fe	143	21	18	36	35	2	66	0	262	59	321
Stgo. del Estero	25	7	3	5	50	7	13	0	91	19	110
Tierra del Fuego	3	1	4	0	3	0	2	0	12	1	13
Tucumán	37	6	15	12	30	11	104	0	186	29	215
National Universities	26	0	8	0	1	0	4	0	39	0	39
Total	1,489	192	339	356	1,131	130	1,258	32	4,217	710	4,927
Total Country	1,681		695		1,261		1,290		4,927		

TOTAL
86% PUBLIC
14% PRIVATE

3.1. Secondary Level Institutions

The vast majority (88.58 percent) of the secondary technical level courses on offer are state-run. Only 11.42 percent are taught by privately managed institutions.

The proportion is the same, with no significant differences between the provinces. In the province of Corrientes, there is a high number of private schools compared to public ones. This is due to the presence of the Family Agricultural Schools (EFA schools). These institutions offer placements¹⁸ in agriculture, and they are strongly rooted in the province. In other provinces, given the low enrolment in most of these types of institutions due to the rural exodus of young people, they have almost ceased to offer secondary technical education and only continue to offer primary education.

3.2. Higher Technical Institutions

At this training level, the trend seems to be the opposite as that observed at the secondary level. In fact, the number of state-run institutions is slightly lower (48.77 percent) than the number of privately-run institutions (51.23 percent).

There are many provinces where private institutions cover a large part of the offer at this level (City of Buenos Aires, Santa Fe, Santiago del Estero, Formosa and Misiones), and others where they do not exist (La Pampa, La Rioja, Tierra del Fuego, La Rioja and Chubut).

3.4. Professional Training Institutions

About 89.7 percent of professional training institutions belong to the state and only 10.3 percent belong to the private sector. This is due to the fact that most of the institutions that provide intermediate level technical courses have the training environments, equipment, tools and inputs to offer professional training courses. Likewise, there is a substantial presence of institutions, which have agreements with trade unions and business chambers belonging to production sectors aligned with the different qualifications provided.

3.5. Institutions which belong to other levels/modalities

There are practically no private sector institutions offering this type of courses. Only 2.48 percent of the institutions in the country are in this category, while 97.52 percent are run by the state.

¹⁸ The placement system is a schooling modality under which the student alternates between stays in school and stays in socio-productive spaces, usually family-run businesses. Schooling is not interrupted since, when the student returns to their home area, it is the teacher who visits them, supervising their work, and teaching in the work situation.

TABLE 4Non-Technical secondary Institutions¹⁹ and TVET²⁰ by province.

Political-territorial division	Secondary NON-technical + rural ²¹	Secondary Technical School	
		Nº	Percentage
Buenos Aires	4,704	437	9.3%
Catamarca	241	15	6.2%
Chaco	376	38	10.1%
Chubut	170	25	14.7%
CABA	498	44	8.83%
Córdoba	1017	248	24.38%
Corrientes	366	57	15.57%
Entre Ríos	704	85	12.07%
Formosa	343	31	9.03%
Jujuy	247	27	10.93%
La Pampa	174	17	9.77%
La Rioja	199	21	10.55%
Mendoza	470	82	17.44%
Misiones	501	75	14.97%
Neuquén	152	28	18.42%
Río Negro	199	36	18.09%
Salta	431	69	16%
San Juan	333	30	9%
San Luis	292	33	11.3%
Santa Cruz	90	14	15.55%
Santa Fe	966	164	16.97%
Santiago del Estero	422	32	7.58%
Tierra del Fuego	45	4	8.88%
Tucumán	704	43	6.1%
National Universities	-	26	-
Total	13,644	1,655	

TOTAL**89%****Secondary NON-technical + rural****11%****Secondary Technical Institutions**

¹⁹ Source: Anuario estadístico Educativo 2018 – Ministerio de Educación, Cultura, Ciencia y Tecnología

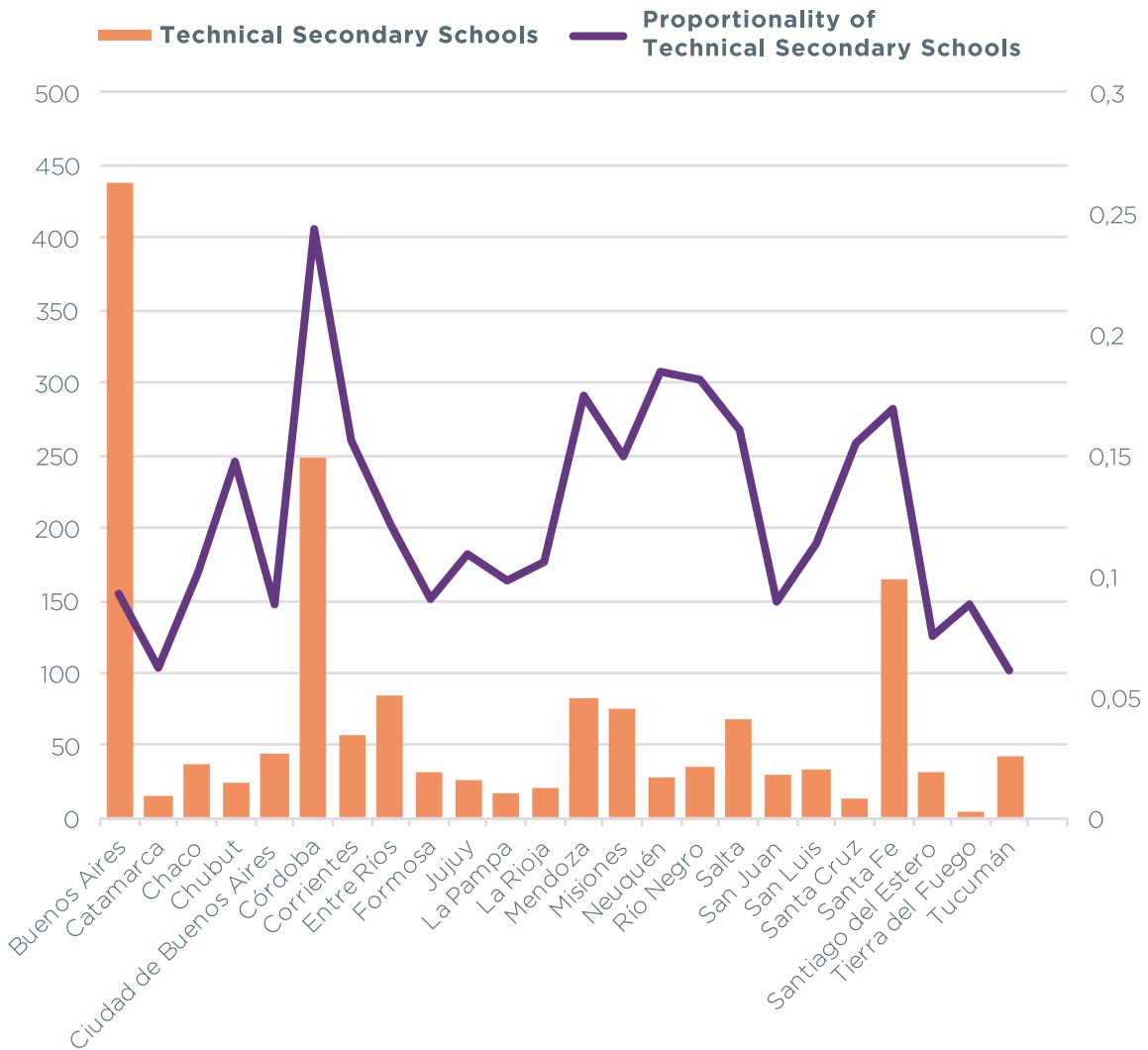
²⁰ Fuente: INET – Ministerio de Educación – RFITVE. Información al 11/06/2019

²¹ According to the data in the 2018 Yearbook. The number of non-technical and rural secondary institutions that are differentiated in the source have been merged. The following have been left out: a) Special modality secondary education institutions, due to the particular characteristics that this level of education takes in these institutions; b) EDJA modality institutions, given that there is no secondary technical education offer for adults in the country.

The proportion of non-technical secondary education (including rural) and TVET institutions varies greatly from one province to the next.

The national average is 11 percent, and the province that comes closest to that average is Tucumán with 6.1 percent, followed by Catamarca with 6.20 percent, and Santiago del Estero with 7.58 percent. The province with the highest proportion of technical secondary schools is Córdoba, where 24.38 percent of secondary schools are in the TVET sphere. It is followed by Neuquén and Río Negro, with 18.42 percent and 18.09 percent, respectively.

FIGURE 6
Percentage of technical and non-technical secondary institutions by province.



4. TVET Enrolment²²

TABLE 5

Enrolment by type of institution.

Jurisdiction	Total Enrolment		Tuition by institution type		
	Nº	%	Secondary Technical Schools	Higher Technical Schools	Professional Training
Buenos Aires	3,945,88	35%	194,406	39,908	160,274
Catamarca	9,354	1%	4,805	305	4,244
Chaco	24,393	2%	12,425	1,118	10,850
Chubut	16,776	1%	12,307	429	4,040
CABA	108,589	10%	34,681	42,203	31,705
Córdoba	107,872	9%	89,840	16,761	1,271
Corrientes	25,961	2%	17,964	2,062	5,935
Entre Ríos	28,540	3%	24,909	2,489	1,142
Formosa	8,534	1%	6,742	208	1,584
Jujuy	22,952	2%	11,411	3,180	8,361
La Pampa	5,009	0%	4,154	368	487
La Rioja	5,603	0%	4,646	866	91
Mendoza	56,120	5%	29,914	10,246	15,960
Misiones	28,396	2%	17,218	5,679	5,499
Neuquén	30,086	3%	14,799	1,908	13,379
Río Negro	18,071	2%	14,025	1,559	2,487
Salta	36,254	3%	26,802	3,009	6,443
San Juan	30,231	3%	13,069	1,119	16,043
San Luis	11,898	1%	11,611	0	287
Santa Cruz	8,833	1%	5,955	742	2,136
Santa Fe	78,433	7%	60,029	11,324	7,080
Santiago del Estero	23,052	2%	9,899	912	12,241
Tierra del Fuego	6,275	1%	3,116	2,049	1,110
Tucumán	37,407	3%	25,964	6,808	4,635
National Universities	14,452	1%	10,760	3,692	0
Total	1,137,679	100%	661,451	158,944	317,284

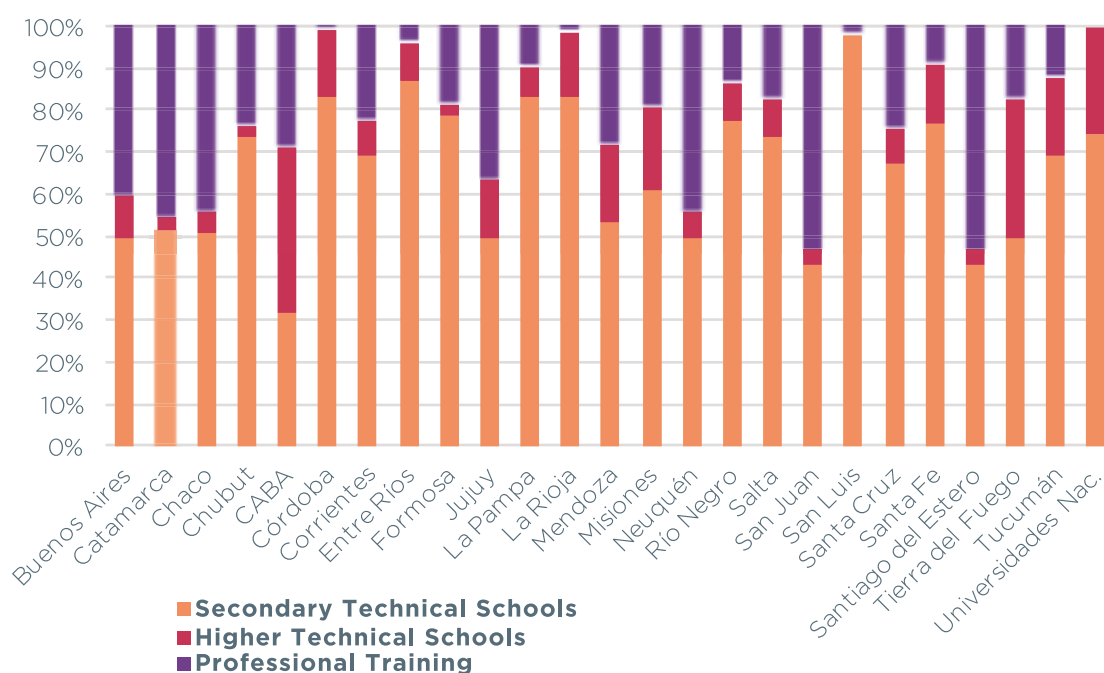
TOTAL



²² Data taken from the 2016 annual survey conducted by the Educational Statistics Directorate (DIEE) of the National Ministry of Education.

FIGURE 7

Enrolment by province and by type of institution.



In some provinces, such as Buenos Aires, Catamarca, Chaco, Neuquén, San Juan and Santiago del Estero, the enrolment at this level is more balanced with that of professional training institutions. This is also the case with the City of Buenos Aires, where it is lower than the enrolment at the higher technical level. In the rest of the country, the proportion of TVET students attending Secondary Technical institutions is much higher.

TABLE 6

 Comparison by total number of institutions, type and enrolment 2017 - 2019.²³

Provinces	Secondary Technical School			Higher Technical Schools			Professional Training		
	2017	Enrolment	2019	2017	Enrolment	2019	2017	Enrolment	2019
Buenos Aires	433	194,406	437	143	39,908	171	395	160,274	412
Catamarca	15	4,805	15	4	305	5	16	4,244	17
Chaco	36	12,425	38	12	1,118	12	32	10,850	34
Chubut	25	12,307	25	3	429	3	25	4,040	28
CABA	43	34,681	44	109	42,203	107	67	31,705	95
Córdoba	248	89,840	248	67	16,761	92	29	1,271	34
Corrientes	56	17,964	57	12	2,062	13	34	5,935	40

²³ Only the number of institutions is compared, and the enrolment data for 2017 are left as reference, for there are no enrolment data for 2019.

Entre Ríos	83	24,909	85	23	2,489	27	20	1,142	35
Formosa	28	6,742	31	5	208	6	16	1,584	18
Jujuy	27	11,411	27	12	3,180	6	26	8,361	30
La Pampa	17	4,154	17	2	368	2	20	487	25
La Rioja	21	4,646	21	9	866	7	10	91	7
Mendoza	79	29,914	82	46	10,246	46	85	15,960	90
Misiones	76	17,218	75	35	5,679	34	40	5,499	36
Neuquén	28	14,799	28	12	1,908	19	57	13,379	57
Río Negro	36	14,025	36	13	1,559	14	17	2,487	15
Salta	69	26,802	69	12	3,009	12	29	6,443	29
San Juan	29	13,069	30	11	1,119	12	95	16,043	100
San Luis	32	11,611	33	0	0	1	7	287	8
Santa Cruz	12	5,955	14	5	742	5	11	2,136	12
Santa Fe	169	60,029	164	55	11,324	54	38	7,080	37
Stgo. del Estero	32	9,899	32	8	912	8	58	12,241	57
Tierra del Fuego	4	3,116	4	4	2,049	4	3	1,110	3
Tucumán	43	25,964	43	25	6,808	27	38	4,635	41
National Universities	24	10,760	26	7	3,692	8	0	0	1
Total	1,665	661,451	1,681	634	158,944	695	1,168	317,284	1,261
	+0.96%			+9.62%			+7.96%		

Based on the number of institutions registered with the Federal Register in the 2017-2019 period, the fastest growing type of institutions is that which provides higher technical education, increasing by 9.62 percent nationwide (see Table 6).

Institutions that provide professional training have registered a growth rate of 7.96 percent. There has been almost no growth in the number of institutions providing secondary technical education (only 0.96 percent more than in 2017).

This is to be expected in a country where employment has been declining and where people are seeking qualifications or retraining in order to improve their competitiveness in terms of access to or insertion in the labour market.

Given the particular interest in secondary technical education, both because it is compulsory and because it has the highest number of enrolments, it has been broken down by type of specialisation provided and the population it serves.

Types of specialisation:

- **Agriculture;**
- **Manufacturing:** Aeronautics, Car Mechanics, Construction, Electromechanics, Electronics, Energy, Electrical Power, Food Industry, Process Industry, Wood and Furniture, Mechanics, Metalmechanics and Metallurgy, Mining and Hydrocarbons, Naval, Textile and Clothing; and
- **Services** Administration, Graphic Design, Multimedia, Computer Science and Tourism.

FIGURE 8

Total enrolment in secondary technical education by area of specialisation.



Students enrolled in industrial specialisations represent three-quarters of enrolment in secondary technical education institutions. These schools have a historical relationship with the manufacturing industry in comparison with the rest of the sectors (see Figure 8).

TABLE 7

Total enrolment in secondary technical education by specialisation and by province.

Provinces	Orientation			Total
	Agriculture	Manufacturing	Services	
Buenos Aires	19,182	157,880	17,344	194,406
Catamarca	841	3,964	0	4,805
Chaco	1,503	8,960	1,962	12,425
Chubut	3,152	6,527	2,628	12,307
CABA	218	28,020	6,443	34,681
Córdoba	19,326	68,413	2,101	89,840
Corrientes	3,837	12,695	1,432	17,964
Entre Ríos	5,543	16,576	2,790	24,909
Formosa	1,886	4,856	0	6,742

Jujuy	2,753	8,071	587	11,411
La Pampa	1,382	2,449	323	4,154
La Rioja	1,503	2,677	466	4,646
Mendoza	7,357	22,557	0	29,914
Misiones	3,449	13,318	451	17,218
Neuquén	1,101	13,300	398	14,799
Río Negro	1,919	10,248	1,858	14,025
Salta	4,905	21,567	330	26,802
San Juan	3,806	6,830	2,433	13,069
San Luis	1,777	6,283	3,551	11,611
Santa Cruz	602	5,353	0	5,955
Santa Fe	5,819	46,916	7,294	60,029
Santiago del Estero	4,163	4,367	1,369	9,899
Tierra del Fuego	432	2,084	600	3,116
Tucumán	4,629	20,007	1,328	25,964
National Universities	3,762	5,815	1,183	10,760
Total	104,847	499,733	56,871	661,451

In Santiago del Estero province 40% of all students are enrolled in the agricultural specialisation. The provinces of Santa Cruz and Neuquén have the highest proportion of students in the industrial specialisation, followed by the provinces of Buenos Aires, Buenos Aires City, Misiones, Salta, Santa Fe and Córdoba. In the province of San Luis, the highest proportion of students are enrolled in the service sector, followed by the provinces of Chubut and CABA (Autonomous City of Buenos Aires). The provinces of Catamarca, Formosa, Mendoza and Santa Fe do not register students enrolled in this type of courses.

TABLE 8

Total secondary technical enrolment by area of specialisation and by region.

Provinces	Orientation			Total
	Agriculture	Manufacturing	Services	
NEA	10,675	39,829	3,845	54,349
NOA	17,291	57,976	3,614	78,881
Cuyo	14,443	38,347	6,450	59,240
Centro	30,688	131,905	12,185	174,778
Patagonia	8,588	39,961	5,807	54,356
Buenos Aires and CABA	19,400	185,900	23,787	229,087
National Universities ²⁴	3,762	5,815	1,183	10,760
Country total	101,085	493,918	55,688	650,691

TABLE 9Students enrolled in TVET per school cycle. Country total. 2003 – 2017.²⁵

School Year	Students enrolment
2003	881,688
2004	865,204
2005	874,445
2006	923,637
2007	943,758
2008	977,442
2009	1,027,725
2010	1,060,129
2011	1,078,774
2012	1,091,412
2013	1,108,649
2014 ²⁶	1,091,412
2015	1,108,649
2016	1,150,485
2017	1,137,679

The total number of students enrolled in TVET institutions has grown at a steady and sustained pace over the years, except for a slight decrease in 2004 and 2005. After the passing of the Law 26.058, the enrolment continued to increase, and it only showed a significant drop again in 2017 (see Table 9).

²⁴ National Universities are not included in the analysis by region, since their institutions are distributed throughout the country and have little impact within each province. Therefore, this regional analysis assumes that the total number of students in secondary technical education in the country is 650,691.

²⁵ Data built from sources: ME - DINIECE RA 2003 - 2013 and INET: TVET in figures years 2014 - 2015 - 2016 and 2017.

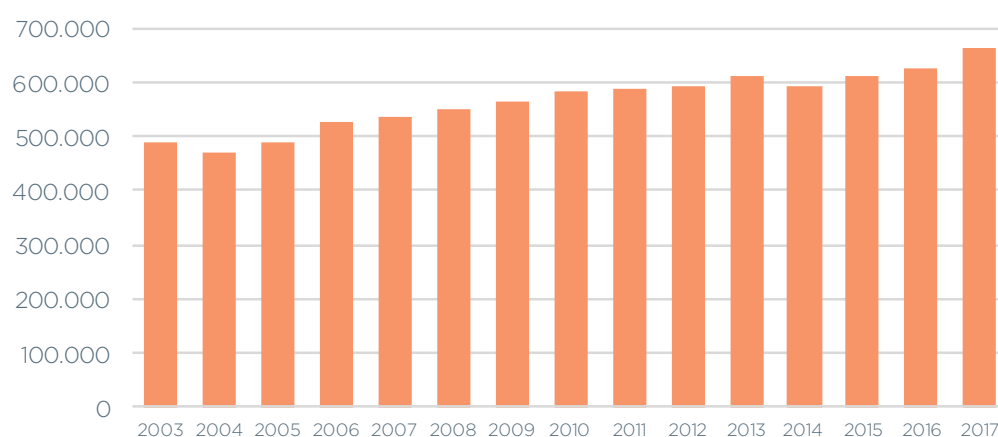
²⁶ INET data for 2014 and 2015 in figures replicate those of DINIECE for 2012 and 2013. They have been left in the form in which they appear in official publications, for it is impossible to reconstruct them based on the sources available.

TABLE 10

 Students enrolled per type of institution and per school year. Country total for 2003 – 2017.²⁷

School Year	Enrolment by institution type			Total
	Secondary Technical Schools	Higher Technical Schools	Professional Training	
2003	488,243	134,828	258,617	881,688
2004	468,213	139,044	257,947	865,204
2005	487,361	142,922	244,162	874,445
2006	525,080	154,549	244,008	923,637
2007	536,274	168,099	239,385	943,758
2008	552,459	166,781	258,202	977,442
2009	564,742	187,588	275,395	1,027,725
2010	583,241	190,103	286,785	1,060,129
2011	590,263	200,798	287,713	1,078,774
2012	594,518	193,112	303,782	1,091,412
2013	611,202	193,856	303,591	1,108,649
2014 ²⁸	594,518	193,112	303,782	1,091,412
2015	611,202	193,856	303,591	1,108,649
2016	623,331	199,311	327,843	1,150,485
2017	661,451	158,944	317,284	1,137,679

FIGURE 9

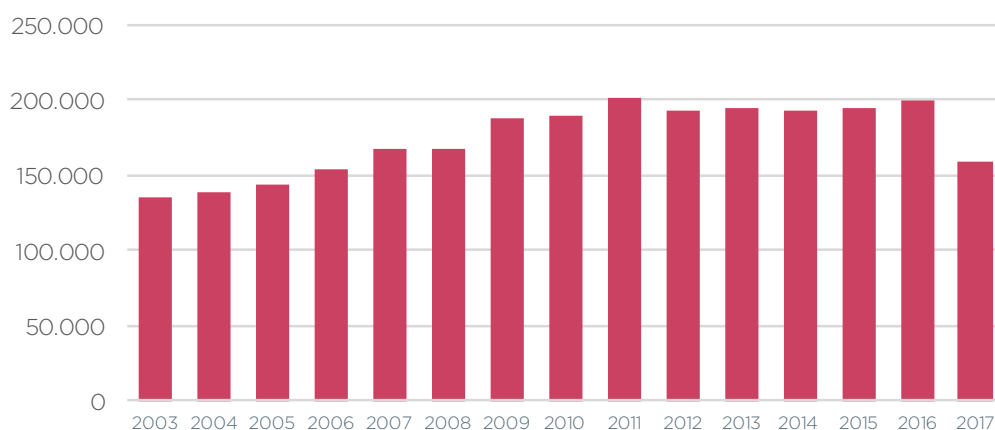
 Students enrolled in technical secondary school per school cycle. Country total for 2003 – 2017.²⁹


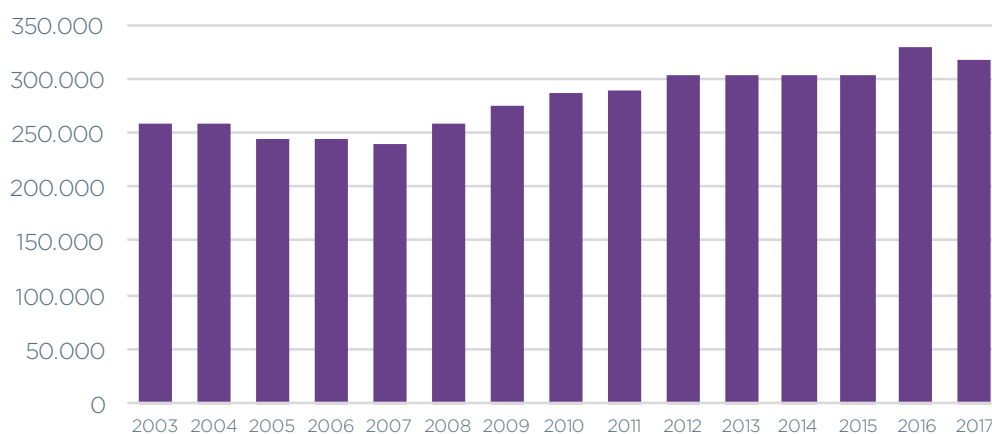
²⁷ Data constructed from sources: ME - DINIECE RA 2003 - 2013 and INET: TVET in figures years 2014 - 2015 - 2016 and 2017.

²⁸ Same as note 2.

²⁹ Data constructed from sources: ME - DINIECE RA 2003 - 2013 and INET: TVET in figures years 2014 - 2015 - 2016 and 2017.

FIGURE 10

 Students enrolled in higher technical school per school cycle. Country total for 2003 - 2017.³⁰

FIGURE 11

 Students enrolled in professional training per school cycle. Country total for 2003 - 2017.³¹


5. Teachers in TVET Institutions

Teachers perform the many and diverse teaching tasks inherent to TVET. This requires a wide variety of teaching profiles, as technical institutions must be responsive to professional development needs and the world of production and services.

TABLE 11

Total teaching positions in TVET institutions according to payroll and by type of position.

Type of position								Total
Permanent Teachers				Temporary Teachers				
Secondary Technical Schools	Higher Technical Schools	Professional Training	Total	Secondary Technical Schools	Higher Technical Schools	Professional Training	Total	
54,365	4,975	9,111	68,551	496	251	199	946	69,497

³⁰ Data constructed from sources: ME - DINIECE RA 2003 - 2013 and INET: TVET in figures years 2014 - 2015 - 2016 and 2017.

³¹ Data constructed from sources: ME - DINIECE RA 2003 - 2013 and INET: TVET in figures years 2014 - 2015 - 2016 and 2017.

TABLE 12
Teaching positions in Secondary Technical institutions.

Provinces	Type of position										Country total
	Institutional Authorities	Coordinators	Teaching Staff/ Teachers	Assistants Teachers	Workshop Teaching Staff	Tutors	Other teaching positions	Psychologists / Educational Psychologists	Librarians	Administrative	
Buenos Aires	1,750	96	902	224	870	117	1,060	161	611	6,844	12,635
Catamarca	53	7	0	36	191	0	84	15	30	188	604
Chaco	98	0	0	282	632	0	81	23	1	39	1,156
Chubut	106	4	564	0	422	116	35	3	48	283	1,581
CABA	660	56	891	408	2,556	286	234	163	108	1,183	6,545
Córdoba	539	10	191	16	1,669	166	434	15	99	2,198	5,337
Corrientes	302	15	340	3	601	134	96	3	62	346	1,902
Entre Ríos	337	3	145	23	566	33	105	12	51	671	1,946
Formosa	79	12	139	1	231	17	117	1	13	121	731
Jujuy	102	3	55	41	319	31	51	3	37	270	912
La Pampa	78	6	2	136	202	29	63	6	12	38	572
La Rioja	59	1	1	5	78	26	35	8	12	187	412
Mendoza	335	13	33	1	904	16	109	28	93	947	2,479
Misiones	137	22	146	2	611	15	65	6	17	324	1,345
Neuquén	181	0	0	17	815	1	240	54	65	534	1,907
Río Negro	175	2	440	1	668	4	92	2	38	434	1,856
Salta	180	7	7	0	64	8	43	16	50	516	891
San Juan	191	14	36	2	371	21	182	8	45	323	1,193
San Luis	93	8	415	4	130	36	26	3	25	274	1,014
Santa Cruz	122	0	0	324	330	0	104	48	27	26	981
Santa Fe	496	43	2,202	148	628	0	139	9	77	1,304	5,046
Santiago del Estero	95	24	251	8	340	30	116	25	54	426	1,369
Tierra del Fuego	29	17	0	0	68	60	98	14	14	109	409
Tucumán	245	4	3	12	1,012	2	209	42	75	534	2,138
National Universities	0	0	0	0	0	0	0	0	0	0	0
Total	6,442	367	6,763	1,694	14,278	1,148	3,818	668	1,664	18,119	54,961

TABLE 13

Teaching positions in higher technical institutions.

Provinces	Type of position										Country total
	Institutional Authorities	Coordinators	Teaching Staff/ Teachers	Assistants Teachers	Teachers Workshop Teaching Staff	Tutors	Other teaching positions	Psychologists / Educational Psychologists	Librarians	Administrative	
Buenos Aires	151	105	17	0	0	0	121	0	67	249	810
Catamarca	3	3	0	0	0	0	0	0	1	7	14
Chaco	6	8	0	0	0	0	5	0	0	42	61
Chubut	2	0	45	0	0	0	2	0	0	7	56
CABA	203	58	337	0	0	0	162	0	28	347	1,135
Córdoba	54	22	275	0	0	0	288	0	15	114	768
Corrientes	10	25	54	0	0	0	31	0	3	29	152
Entre Ríos	28	9	60	0	0	0	32	0	4	49	182
Formosa	4	2	0	0	0	0	0	0	0	6	12
Jujuy	12	5	6	0	0	0	1	0	3	66	93
La Pampa	2	1	4	0	0	0	1	0	1	4	13
La Rioja	12	4	0	0	0	0	6	0	0	33	55
Mendoza	40	27	52	0	0	0	49	0	14	105	287
Misiones	47	6	10	0	0	0	6	0	3	88	160
Neuquén	14	5	93	0	0	0	27	0	3	25	167
Río Negro	9	7	82	0	0	0	28	0	5	16	147
Salta	10	18	35	0	0	0	3	0	1	24	91
San Juan	12	3	8	0	0	0	1	0	1	21	46
San Luis	0	0	0	0	0	0	0	0	0	0	0
Santa Cruz	4	0	1	0	0	0	1	0	2	25	33
Santa Fe	63	2	46	0	0	0	13	0	8	80	212
Santiago del Estero	5	5	92	0	0	0	24	0	3	14	143
Tierra del Fuego	6	3	0	0	0	0	11	0	6	46	72
Tucumán	14	25	0	0	0	0	2	0	1	44	86
National Universities	11	20	316	0	0	0	16	0	10	58	431
Total	722	363	1,533	0	0	0	830	0	179	1,599	5,226

TABLE 14
Teaching positions in higher professional training Institutions.

Provinces	Type of position										Country total
	Institutional Authorities	Coordinators	Teaching Staff/ Teachers	Assistants Teachers	Teachers Workshop Teaching Staff	Tutors	Other teaching positions	Psychologists / Educational Psychologists	Librarians	Administrative	
Buenos Aires	565	5	45	0	126	0	348	2	5	922	2,018
Catamarca	28	5	126	0	123	0	33	0	4	32	351
Chaco	28	0	16	0	411	0	14	0	2	40	511
Chubut	41	0	25	0	117	0	2	0	0	42	227
CABA	133	8	95	0	463	0	59	0	1	133	892
Córdoba	1	0	43	0	18	0	5	0	0	1	68
Corrientes	49	0	41	0	201	0	12	0	2	45	350
Entre Ríos	13	0	11	0	33	0	4	0	0	5	66
Formosa	16	4	17	0	61	0	19	3	0	21	141
Jujuy	29	0	170	0	98	0	15	0	0	17	329
La Pampa	11	0	8	0	36	0	5	0	0	11	71
La Rioja	1	0	0	0	6	0	0	0	0	0	7
Mendoza	91	0	116	0	303	0	8	0	0	14	532
Misiones	37	0	31	0	140	0	9	1	0	16	234
Neuquén	81	0	52	0	393	0	19	0	0	105	650
Río Negro	22	0	70	0	42	0	8	0	1	48	191
Salta	17	2	11	0	78	0	8	0	0	14	130
San Juan	107	1	55	0	639	0	11	3	0	15	831
San Luis	1	1	3	0	6	0	0	0	0	3	14
Santa Cruz	14	0	1	0	41	0	0	1	0	29	86
Santa Fe	33	0	0	0	156	0	18	0	0	28	235
Santiago del Estero	56	0	50	0	533	0	213	0	3	90	945
Tierra del Fuego	7	1	0	0	30	0	4	0	0	15	57
Tucumán	44	0	20	0	232	0	43	0	0	35	374
National Universities	0	0	0	0	0	0	0	0	0	0	0
Total	1,425	27	1,006	0	4,286	0	857	10	18	1,681	9,310

Section 2

Training



The following section describes the main characteristics and the composition of TVET in the whole country, by area of economic activity.

1. Training: TVET modality

Technical and Vocational Education and Training are offered at three levels:



A total of 1,070 titles and certificates are offered nationwide at the three educational levels, distributed as follows:



Secondary Technical Level **10%** of the offer.

Higher Technical Level **21%** of the offer.

Professional Training **69%** of the offer.

In turn, training can be grouped into different areas.

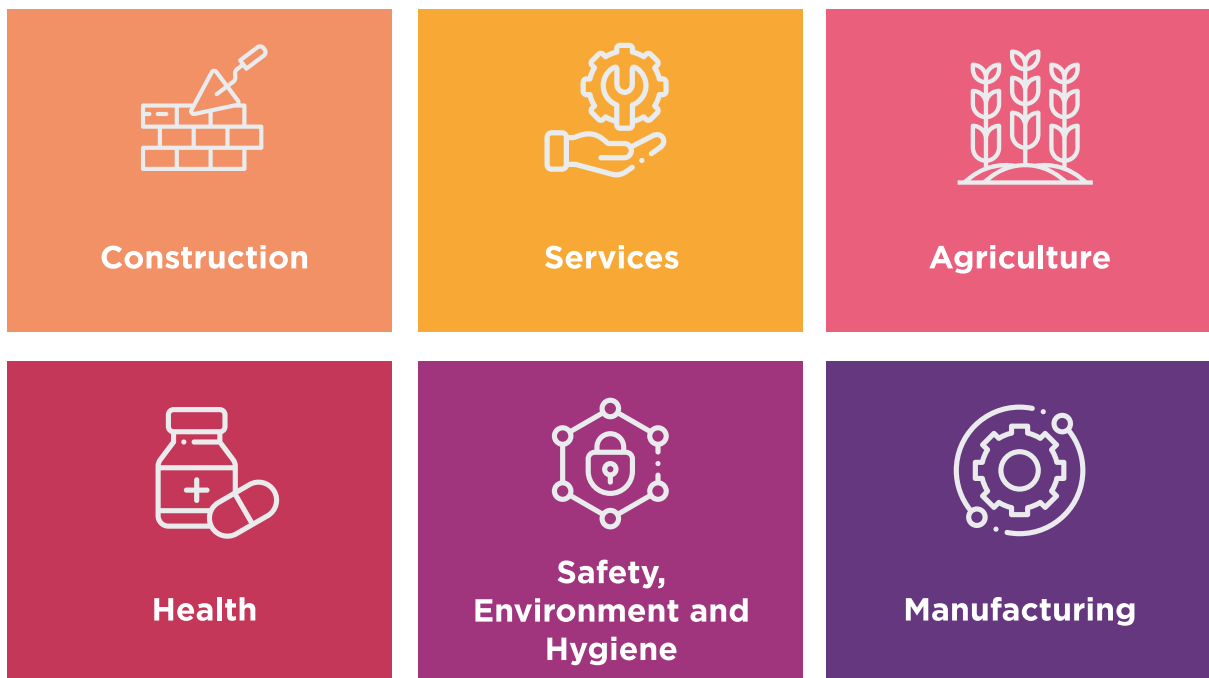


TABLE 15

Number of titles and certificates by area and field of TVET.

AREA	Secondary Technical Qualifications		Higher Technical Qualifications		Professional Training qualifications and certifications		Total qualifications by Economic activity	
	Number	%	Number	%	Number	%	Number	%
Construction	6	6%	2	1%	47	6%	55	5%
Services	12	12%	67	30%	170	23%	249	23%
Agriculture	14	14%	23	10%	82	11%	119	11%
Health	1	1%	30	13%	14	2%	45	4%
Safety, Environment and Hygiene	2	2%	7	3%	9	1%	18	2%
Manufacturing	67	65%	98	43%	419	57%	584	55%
TOTAL	102	100%	227	100%	741	100%	1,070	100%

1.2. Analysis of training by academic field

Sixty-five percent of the **technical secondary level** diplomas offered in the country correspond to the manufacturing area, followed by agriculture (14 percent), the service industry (12 percent), construction (6 percent), the safety, environment and hygiene (2 percent) and health (1 percent).

The highest number of qualifications at the **higher technical level** is concentrated in Manufacturing (43 percent) and Services (30 percent).

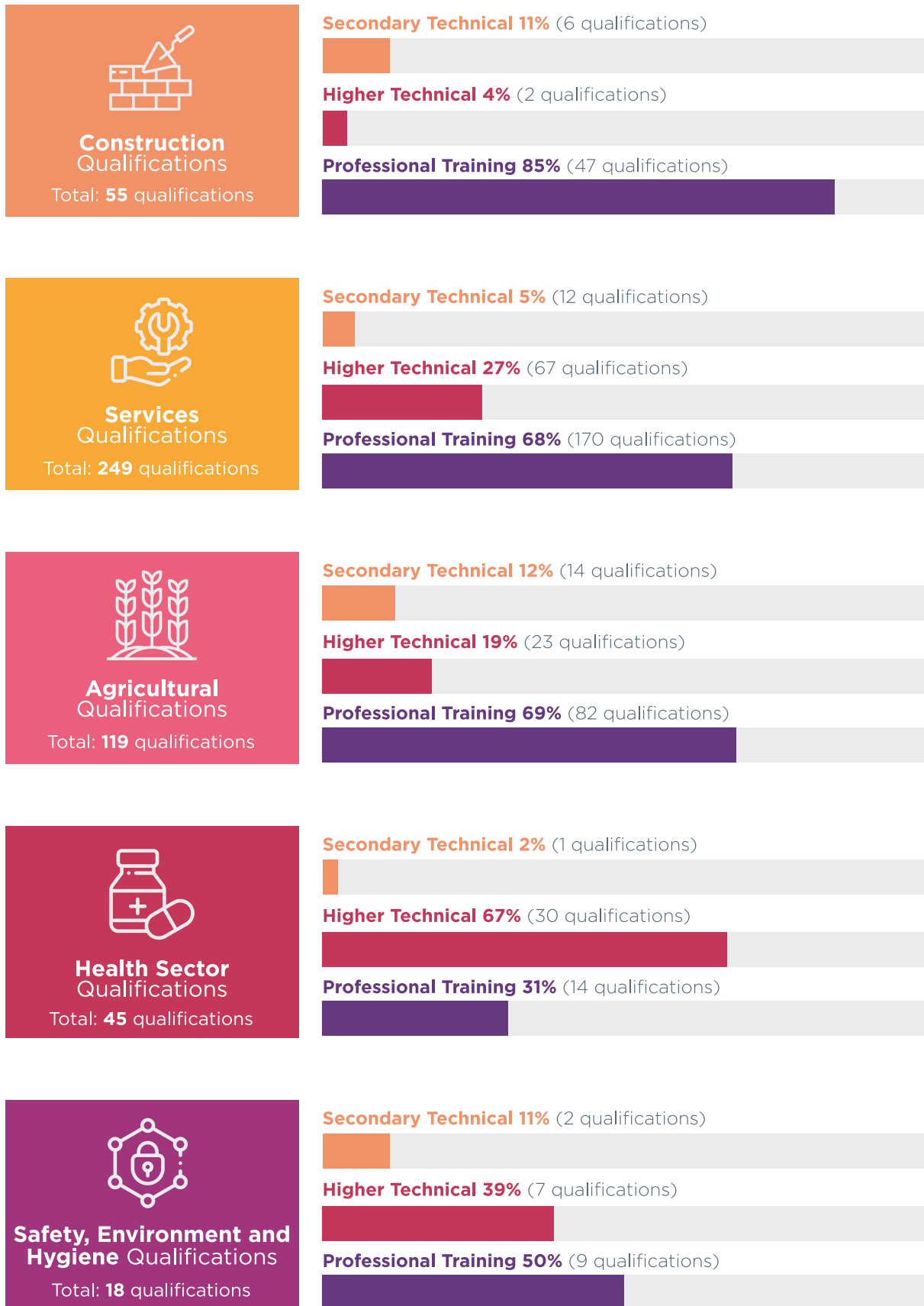
More than half of the titles and certificates in **professional training** (57 percent) are in the manufacturing area, followed by the service industry (23 percent), agriculture (11 percent), and construction (6 percent). There is only a small offer in the areas of Health and Safety, Environment and Hygiene.

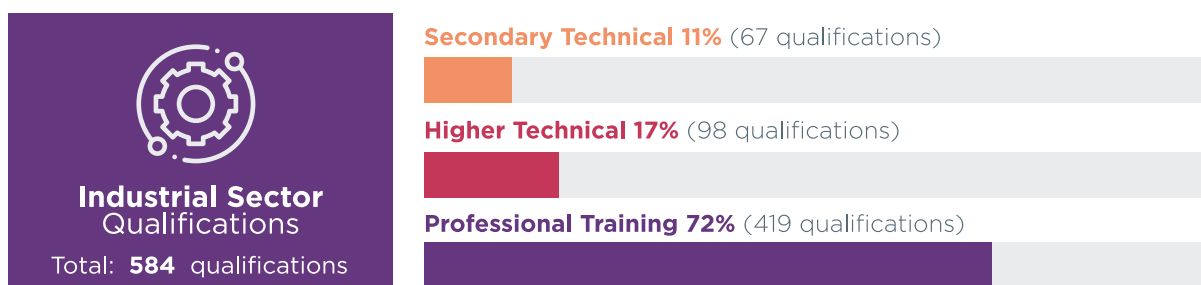
1.3. Analysis of training by qualification area

Of the 55 titles in the construction profession, more than half are in professional training. Most of the courses offered in the services industry are also professional training courses. There is a relative balance between the qualifications in all areas of the agriculture sector, which range between 14 percent and 10 percent. The largest number of titles for the health industry are grouped together at the higher technical level, with almost no offer at the secondary technical level. The offer of safety, environment and hygiene titles and certificates is quite balanced. More than half of the professional training and secondary technical education qualifications as well as the majority at the higher technical level are in the manufacturing industry.

FIGURE 12

Qualifications by industry, and their percentage of representation in each area of TVET.





2. Training per Industry

Training in TVET is available in manufacturing sectors outlined in Table 16.

TABLE 16

Total number of titles and certificates by sector in the Industry area.

Sub-sector	Secondary Technical Level Qualifications	Higher Technical Qualifications	Professional Training qualifications and certifications
Marine and Aviation	7	15	10
Energy and Electric Power	4	6	24
Leather and Footwear	0	0	19
Electromechanical, Mechanical and Automotive	22	12	103
Food, Processes and Chemical Industry	14	18	39
Electronics	7	11	25
Graphic and Multimedia Industry	4	14	39
IT	4	14	29
Wood and Furniture	2	2	25
Mining and Hydrocarbons	2	4	9
Textiles and Clothing	1	2	84
Total	60	98	406

The technical certifications offered nationwide by the Ministry of Education are registered in the National Catalogue of Technical and Vocational Education and

Training Titles and certificates.³² Most of the courses offered are active, although there may be slight differences in the number of training offers or institutions providing them, due to the fact that they may have been discontinued or were a term offer.

2.1. Secondary Technical Level

The qualifications offered at this level are generally traditional most of which focus on the Metalworking and Car Mechanics sectors. There are few updates and additions.

Analysis by province shows that there are specialisation courses, which are mainly taught in the productive sector for the subsequent insertion of graduates into the labour market. For instance, Mining and Hydrocarbons skills are mainly taught in Patagonia and the Northwestern or Cuyo mountain ranges, while Wood and Furniture skills are taught in the Patagonia and Litoral provinces, and Metalworking is commonly taught in the Central area.

Training at this level must be somewhat general within each sector of the manufacturing industry, for its graduates to be able to perform competently in the different professional areas.

Within the Metalworking industry, there are 22 training options. The technical course in Electromechanical Equipment and Installations, which is offered by 463 technical institutions is offered by the highest number of institutions and it is present in the whole country. It is followed by the Food, Processing and Chemical Industry, which offers a wide range of qualifications in its different subsectors, present in most educational jurisdictions.

There are few training opportunities in the Electronics industry and there is very little diversification in the relevant subsectors. The importance of this industry lies in that it cuts through several other areas, and it is dynamic in the development of different industrial applications. Of the seven qualifications offered in this area, only three are offered by province-level institutions. The remaining four are offered by educational institutions run by the Armed Forces. The title of Electronic Technician is the most common one throughout the country, offered in most provinces (21) by 163 institutions.

The Aeronautical industry offers several certifications; the two most relevant ones are Aeronautical Technician and Avionics Technician. The other certificates offered at the intermediate level are awarded by educational institutions belonging to the Armed Forces.

32 Inet Catalogue- <http://catalogo.inet.edu.ar/>

FIGURE 13

Number of Intermediate level qualifications by sector.



2.2. Higher Technical Level

Higher Technical Level, qualifications appear to be an accumulation of certifications obtained after secondary education (whether technical or not) than an offer designed and diversified by modality of the basic secondary degree.

In many cases, the offer of courses imitates the intermediate level. Most study plans do not have a reference framework, making it difficult to match or overlap the skills and competences taught at the two levels of training. A good example of this is the higher technical course in Electromechanical Equipment and Installations or the higher technical course in Car Mechanics Engineering.

In other cases, the qualification goes deeper into some type of specialisation in some subsectors. For example, the higher technical course in food production specialising in dairy products or the higher technical course in industrial chemistry.

Several sectors offer twice as many qualifications as the intermediate level. This is the case in the IT, Graphics and Multimedia, Electronics and Textile and Clothing industries. On the other hand, in the 45 sectors which have a significant number of degrees at the intermediate level (Metalworking and Food, Processing and Chemical industry) this correlation is not found.

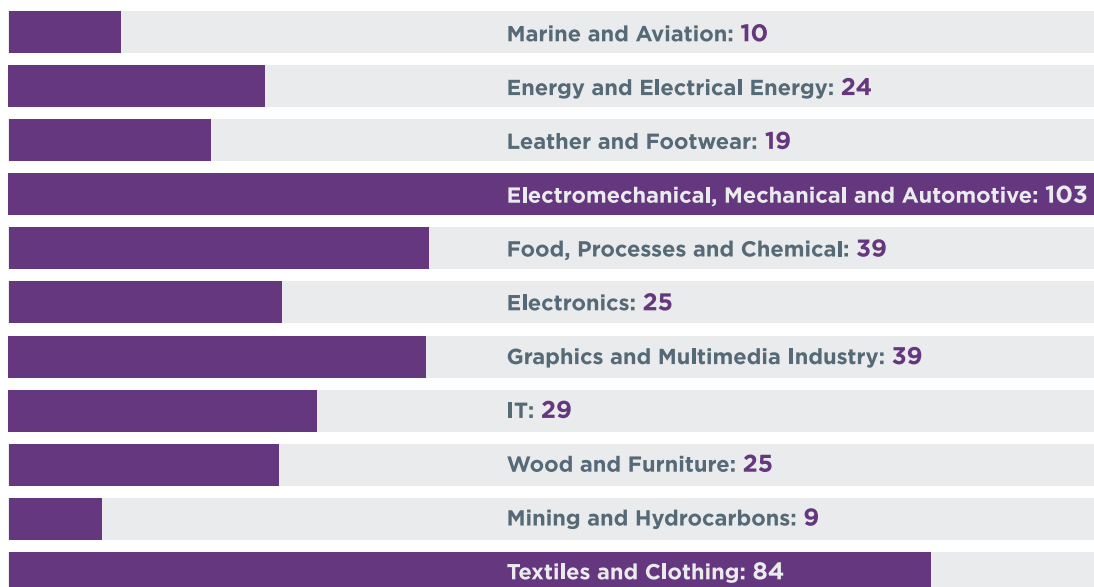
FIGURE 14
Number of higher level certificates by sector.



2.3. Professional Training

Professional training offers a broad range of titles. There is significant overlap, and certificates which are essentially the same have different names. The sectors which offer the largest number of certifications are Electromechanics, Mechanics and Car Mechanics and Textiles and Clothing.

FIGURE 15
Number of professional training certifications by sector.

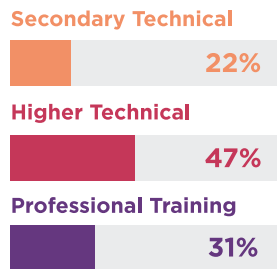


2.4. Certifications by training area/sector



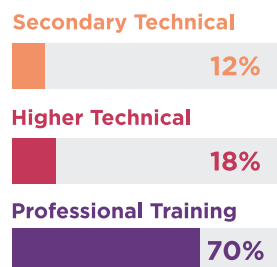
AERONAUTICAL AND NAVAL SECTOR

Most qualifications offered for the Aeronautical sector are at the higher level. Those at the intermediate level are very much influenced by the certificates awarded by the Armed Forces. These professional training certificates are mainly oriented to operational runway services.

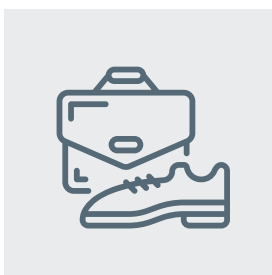


ENERGY AND ELECTRIC POWER SECTOR

There is a high number of professional training certificates in the Energy and Electric Power sector, several of which are oriented towards Electric Power in Buildings and Industry. Certificates in the renewable energy sector are offered at all three levels. The projections show, however, that the training offered will not be sufficient to meet the future demand of the Energy and Manufacturing job market.

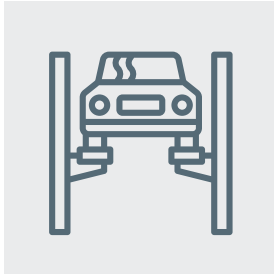


The most widely available intermediate level technical course in the country's institutions and provinces is that of Electrical Technician, which is offered by 41 institutions in nine provinces. The offer of higher technical courses is insignificant, while professional training is concentrated in the Use of Electric Power in Buildings and Industry subsector.



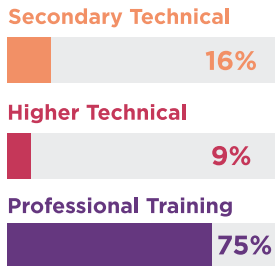
FOOTWEAR AND LEATHER SECTOR

This sector offers learning at the professional training level and is present in most provinces.



ELECTROMECHANICAL, MECHANICAL AND CAR MECHANICS SECTOR

Within the Metal-Mechanical sector, the Intermediate Level certificate offered by the largest number of institutions in the country is that of Technician in Electromechanical Equipment and Installations, given in 463 technical institutions.



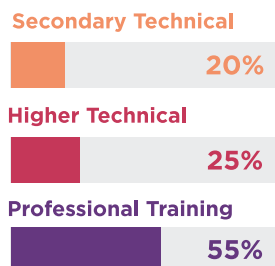
The Car Mechanics technical course is offered in 13 provinces by 69 institutions, while the technical course in Mechanics is offered in 13 provinces by 66 institutions.

Most higher education titles are focused on Industrial Equipment, with certificates in Industrial Maintenance available in seven provinces and 24 higher technical institutes. 103 professional training certificates are offered in this sector, a number of which are in the Maintenance and Repair of Internal Combustion Engines, Metalworking by Forming, and Welding subsectors.



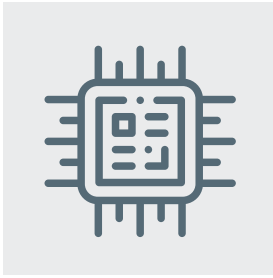
FOOD INDUSTRY, PROCESSING AND CHEMICAL SECTOR

At the intermediate level, the Food Industry Technician certificate is offered by 43 institutions in five provinces, although 39 of them are in the province of Córdoba. The Food Technology qualification is offered by 55 institutions in 11 provinces, 29 of which are located in the province of Buenos Aires. The Process Industry technical course is offered in 14 provinces and 61 educational institutions, and the Technical course in Chemistry is offered in 18 provinces by a total of 97 institutions.

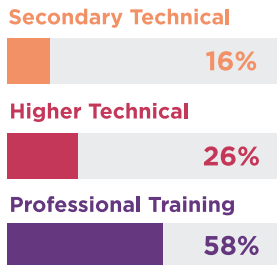


At the higher technical level, there is a wide variety of degrees in several subsectors but there are no particularly dominant ones either in number of institutions or in coverage by province. The only one that is slightly dominant is the higher technical course in Clinical Analysis Laboratory in the Chemical subsector, which is taught in six provinces by 24 institutions.

Among professional training certificates, the Food Processing subsectors are highly dominant, and they offer certifications throughout the country; as well as the Food Processing and Preservation subsector.



ELECTRONICS SECTOR



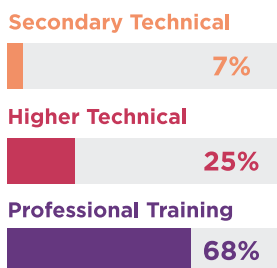
The Electronic Technician specialisation is the most widespread one, taught by 163 institutions in 21 provinces. However, the offer is insufficient because, except for Buenos Aires, Córdoba, Santa Fe, Buenos Aires City and Salta, several provinces have a low coverage regarding their potential influence on the performance of this industry (for example, Mendoza or Tierra del Fuego where this course is offered by only one institution).

The higher level offer is more diverse and it has great potential. There are provinces, however, where the offer is limited to only one institution. This is the case for the higher technical course in Microelectronics, taught by only one institution in Santa Fe; the higher technical course in Biomechatronics, which is taught in one institution in Santa Fe and one in Mendoza; the higher technical course in Mechatronics, taught in two institutions in Salta and Mendoza and in one in Santa Fe; and the higher technical course in Robotics, taught in only two institutions in Santa Fe. Strikingly, in provinces such as Buenos Aires and Córdoba, where the manufacturing sector is very relevant, no courses are offered in said area.

Professional training certifications are focused on historical subsectors, such as Audio, TV and Video Repair and Assembly, and PC Assembly and Maintenance, which are offered in most provinces.

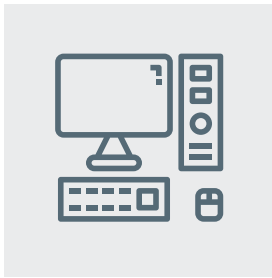


GRAPHIC AND MULTIMEDIAL INDUSTRY SECTOR



This sector has an adequate training offer at the level of higher technical courses and professional training certificates. However, at the intermediate level, only four titles are offered in very few provinces. The most present one is that of Multimedia Technician, which is offered by only 13 institutions in the province of Buenos Aires.

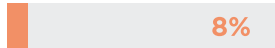
Fourteen higher level certificates are offered, mostly in CABA. The computer science courses are mainly offered in the city. The higher technical course in Graphic Design is the most diversified one in the province. Professional training certificates in this sector are mainly focused on the computer science subsector (related to the Graphic and Multimedia Industry) and the Printing subsector.



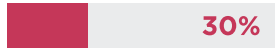
INFORMATION TECHNOLOGY SECTOR

This sector offers only four certifications at the intermediate level, of which the Professional and Personal Computer Technician certificate is offered in 21 provinces by 226 institutions. It is followed by the Programming Technician certificate in five provinces and 35 educational institutions.

Secondary Technical



Higher Technical

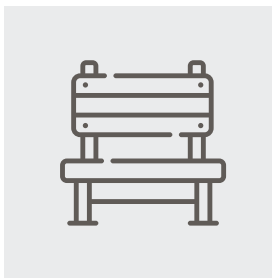


Professional Training



The Higher Technical Course in Systems Analysis and Programming is the most common one, available in most provinces, followed by the Computer Network subsector.

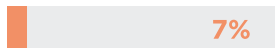
The offer of professional training certifications is very broad but specifically concentrated in the Users subsector, with 21 different certifications offered in all the provinces of the country, and available from a large number of institutions.



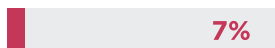
WOOD AND FURNITURE SECTOR

The Wood and Furniture industry offers two intermediate level technical courses: Wood and Furniture Industrialization (in 28 institutions in eight provinces), and Wood Technician (in only one institution in the province of Chaco). At the higher level, the higher technical course in Wood Construction prevails (in three institutions in three provinces).

Secondary Technical



Higher Technical



Professional Training



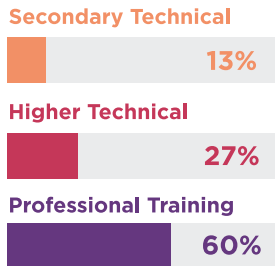
The offer of certifications in this sector at the professional training level is wide-ranging, with 25 certifications in the different subsectors. The Carpenter certificate is awarded by 35 institutions in 13 provinces, the Furniture Remodeller and Restorer certificate is awarded by 85 institutions in three provinces (among which 74 institutions are located in the province of Buenos Aires), and the Craft Furniture and Decorative Objects certificate in 47 institutions in three provinces (among which 38 institutions are located in the province of Buenos Aires).



MINING AND HYDROCARBONS INDUSTRIES

The offer is limited. At the intermediate level, the most common certificate is that of Mining Technician, awarded by 11 institutions in five provinces, whereas only three institutions in two provinces offer Petroleum Technician certificates.

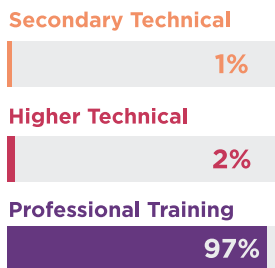
This lack of intermediate level courses is partly set off by the number of higher technical courses in Petroleum, offered by 10 institutions in four provinces, and by the higher technical courses in Hydrocarbons and Gas and in Mining. The professional training offer is limited to just a few provinces.



TEXTILES AND CLOTHING INDUSTRY

The offer of certifications by area in this sector is strongly concentrated in the professional training sector. At the intermediate level, there is a technical course in Clothing and Textile Clothing Products, which is offered by a total of 15 institutions in nine provinces.

At the higher level, there are two technical courses: higher technical course in Clothing Design and Production, with a greater offer (in eight provinces and 16 institutions), and a higher technical course for the Textile and Clothing Industry (taught in only three provinces by five institutions). Professional training certifications are concentrated in the Textile Clothing Design subsector, which includes 52 certificates. The most common ones are Tailoring - Dressmaking (in 16 provinces through 214 institutions) and Dressmaking (in 17 provinces, 130 institutions).



Section 3

TVET in the Manufacturing Industry

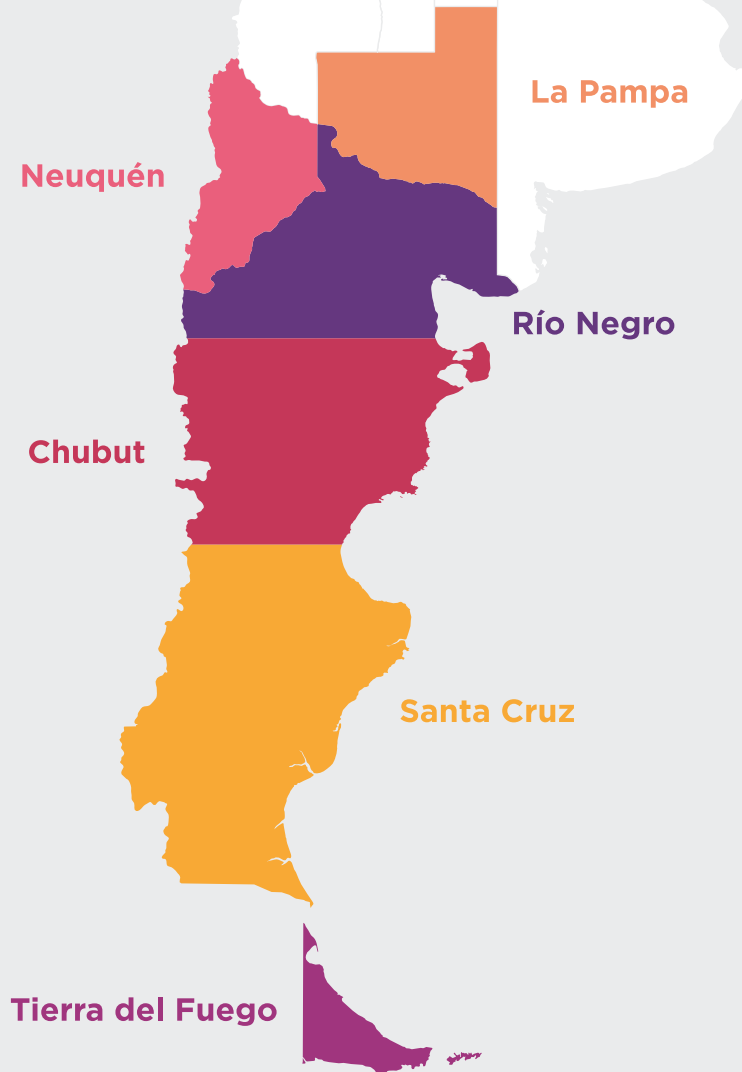
The aim of this section is to systematise the information available regarding TVET for the Manufacturing Industry in each of the provinces. The 24 provinces have been grouped into five regions (Patagonia, Cuyo, NW, NE, Centre).

Information is provided about TVET training opportunities for each province. The information is organized in the form of a descriptive synthesis.

The main source of information used for this section was INET's nomenclature of certificates and titles.

1. Region:

PATAGONIA



Tierra del Fuego

Region: Patagonia



TOTAL NUMBER OF QUALIFICATIONS:

18

22%

Secondary Technical Level

Number of degrees
4

6%

Higher Technical Level

Number of degrees
1

72%

Professional Training

Number of degrees
13

Training in Tierra del Fuego is mainly geared to the Metalworking and IT sectors. There is no diversity of certificates or offers.

Contrary to what one may think, the electronics sector or its subsectors are not preponderant over the others. There is only one secondary level technical course offered by one single institution in the whole province. There are no higher technical courses or professional training offers directed at training students for career profiles in the sector's industries.

DOMINANT AREAS

Training in the Metalworking and IT sector is dominant at the secondary level and it is the only option offered at the higher technical level (Industrial Maintenance).

Professional training is not very diverse and the most traditional or historical training offered is in the metal-mechanics (including cars), computing, carpentry and textile industries.

LACKING AREAS

There are no TVET offers in a key sector such as the Food, Processing and Chemical Industries. Nor is there any training for the Graphic and Multimedia Industry sector. There are no higher level certificates in Electronics and IT and, in the case of the former, there is not a single professional training offer.

TABLE 17

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	-	-	3
Leather and Footwear	-	-	-
Electromechanical, Mechanical and Automotive	1	1	3
Food, Processes and Chemical Industry	-	-	-
Electronics	1	-	-
Graphic and Multimedia Industry	-	-	-
IT	2	-	2
Wood and Furniture	-	-	2
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	-	-	3

TABLE 18

Qualification	TVET Scope	Number of Institutions	MR
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	2	Yes
Electronics Technician	Secondary Technical Schools	1	Yes
Programming Technician	Secondary Technical Schools	1	No
IT Technician	Secondary Technical Schools	1	Yes
Advanced Industrial Maintenance Technician	Higher Technical Schools	2	No
Real Estate Electrician	Professional Training	1	Yes
Home Electrical Installation	Professional Training	2	No
Industrial or Plant Electrical Installer	Professional Training	1	No
Basic Welding Assistant	Professional Training	1	No
Basic Welder	Professional Training	3	Yes
Assistant Gas Engine Mechanic	Professional Training	1	Yes
Computer Animation Systems Operator	Professional Training	2	No
Office IT operator	Professional Training	2	No
Bench Carpenter	Professional Training	1	No
Basic Handicrafts and Furniture Assistant	Professional Training	2	No
Dressmaking	Professional Training	1	No
Clothing Design	Professional Training	1	No
Handmade Textile Production	Professional Training	1	No



TOTAL NUMBER OF QUALIFICATIONS:

35

26%

Secondary Technical Level

Number of degrees
9

6%

Higher Technical Level

Number of degrees
2

68%

Professional Training

Number of degrees
24

Santa Cruz

Region: Patagonia

The offer at the three levels of TVET could be considered balanced and well adapted to the economic needs of the province.

Secondary level certificates are offered in most sectors. With the exception of the Graphic and Multimedia Industry, the rest of the sectors in which no certifications are offered cannot be considered out of step with the economic reality of the province (Wood and Furniture, and Textiles and Clothing sectors).

The higher technical certifications available could perhaps be considered insufficient but the two that are currently on offer are geared towards the Energy sector, which is a key sector for the province. The higher technical course in Renewable Energies, in turn, shows a certain level of updating regarding the certifications on offer.

The offer of professional training certificates is clearly focused on the Electromechanics, Mechanics and Motor Car sectors. In the rest of the sectors, the offer is quite balanced. There is a lack of offers in the Food, Processing and Chemical industries.

DOMINANT AREAS

The dominant area is the Energy and Electrical Energy sector, which offers certifications at the three levels of TVET, and in the areas of Electromechanics, Mechanics and Car Mechanics. It is also worth noting that the secondary level Technical Studies in Renewable Energies are already being offered in this province.

There is training in the Mining and Hydrocarbons industries, which are key for the region, both at the Secondary Technical level (two institutions offer the Petroleum Technical certificate) and in Professional Training (Mining Activities Assistant).

LACKING AREAS

The most manifest lacking areas are those related to training in the Food Industry, Processing and Chemical sector. It is a key sector related to the Fishing and Oil Industry, and it offers great potential advantage to the whole area due to the mobility of the graduates.

Another sector in which the offer is also poorly structured and developed is the field of Electronics. Despite the fact that two institutions offer intermediate level technical courses, there is an obvious lack of professional training certificates. Only one institution offers PC repair and assembly, which also shows the little diversity there is at the subsector level.

TABLE 19

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	2	-	-
Energy and Electrical Energy	1	2	2
Leather and Footwear	-	-	-
Electromechanical, Mechanical and Automotive	2	-	10
Food, Processes and Chemical Industry	1	-	-
Electronics	1	-	1
Graphic and Multimedia Industry	-	-	3
IT	1	-	3
Wood and Furniture	-	-	1
Mining and Hydrocarbons	1	-	1
Textiles and Clothing	-	-	3

TABLE 20

Qualification	TVET Scope	Number of Institutions	MR
Aviation Technician	Secondary Technical Schools	1	Yes
Marine Electromechanics Technician	Secondary Technical Schools	1	No
Electrical Technician	Secondary Technical Schools	2	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	7	Yes
Automotive Technician	Secondary Technical Schools	1	Yes
Processing Industry Technician	Secondary Technical Schools	1	Yes
Electronics Technician	Secondary Technical Schools	2	Yes
Professional and Personal IT Technician	Secondary Technical Schools	2	Yes
Petroleum Technician	Secondary Technical Schools	2	No
Advanced Electrical Energy Technician	Higher Technical Schools	1	No
Advanced Renewable Energies Technician	Higher Technical Schools	1	No
Assistant Industrial Electrician	Professional Training	2	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Household/Industrial Electricity Assistant	Professional Training	1	No
Assistant Mechanic	Professional Training	1	No
Turner	Professional Training	1	Yes
Blacksmith	Professional Training	3	Yes
Machinery and Tools Operator	Professional Training	2	Yes
Basic Welding Assistant / Arc Welding Assistant	Professional Training	3	No
Welder	Professional Training	1	Yes
Basic Welder	Professional Training	1	Yes
Diesel Engine Mechanical Assistant	Professional Training	3	Yes
Assistant Gas Engine Mechanic	Professional Training	2	Yes
Automotive Electrician	Professional Training	1	Yes
Assembly and Repair of PCs	Professional Training	1	No
Digital Printing	Professional Training	1	No
Graphic Design	Professional Training	1	No
Web Designer	Professional Training	1	No
IT/Computing	Professional Training	1	No
Basic PC Operator	Professional Training	1	No
Office IT Operator	Professional Training	1	No
Assistant Carpenter	Professional Training	1	No
Mining Activities Assistant	Professional Training	1	No
Assistant Dressmaker	Professional Training	1	No
Assistant Dressmaker	Professional Training	1	No
Patternmaker	Professional Training	1	No

Chubut

Region: Patagonia



TOTAL NUMBER OF QUALIFICATIONS:

58

12%

Secondary Technical Level

Number of degrees **7**

7%

Higher Technical Level

Number of degrees **4**

81%

Professional Training

Number of degrees **47**

Training in Chubut is mostly concentrated in professional training; more than 80 percent of its qualifications are offered at this level.

Secondary Technical courses are clearly oriented towards the Food Industry, Processing and Chemical sector, with four of seven certificates offered in the province. Only one certificate is offered in the area of Electromechanics and Mechanics, one in the Electronics sector and the rest in the Information Technology sector.

Among the higher technical courses offered, there is a certificate in Electromechanics but it is geared towards Industrial Organisation and Management; there is another certificate in Multimedia, Wood Construction and one in Petroleum.

DOMINANT AREAS

Professional training is predominant in Chubut. There is a significant offer of certificates in the Electromechanical, Mechanical and Car Mechanics sectors, totalling 17 certificates. The second largest offer is in the Textile and Clothing industry, followed by the Wood and Furniture industry, which has a great impact on the economy of the province.

The Energy and Electrical Energy sector offers traditional professional training courses, and so does the Food, Processing and Chemical industry with a clear focus on the Food Processing and Preservation subsector (of great importance in the development of regional products, in the many areas of tourist interest). The offer of Secondary Technical courses is also geared towards the latter area.

LACKING AREAS

It is interesting to note that there is little or no training available in the area of Energy and Electrical Energy (with great potential in the region) or in the Electromechanical, Mechanical and Car Mechanics sector, with only one training programme (the most traditional one) for Electromechanical Equipment and Installations Technicians, which is offered by eight institutions throughout the province.

The Mining and Hydrocarbons industries also lack training, offering only one higher technical course, but no secondary or professional training.

TABLE 21

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	-	-	4
Leather and Footwear	-	-	2
Electromechanical, Mechanical and Automotive	1	1	17
Food, Processes and Chemical Industry	4	-	4
Electronics	1	-	2
Graphic and Multimedia Industry	-	1	3
IT	1	-	4
Wood and Furniture	-	1	5
Mining and Hydrocarbons	-	1	-
Textiles and Clothing	-	-	6

TABLE 22

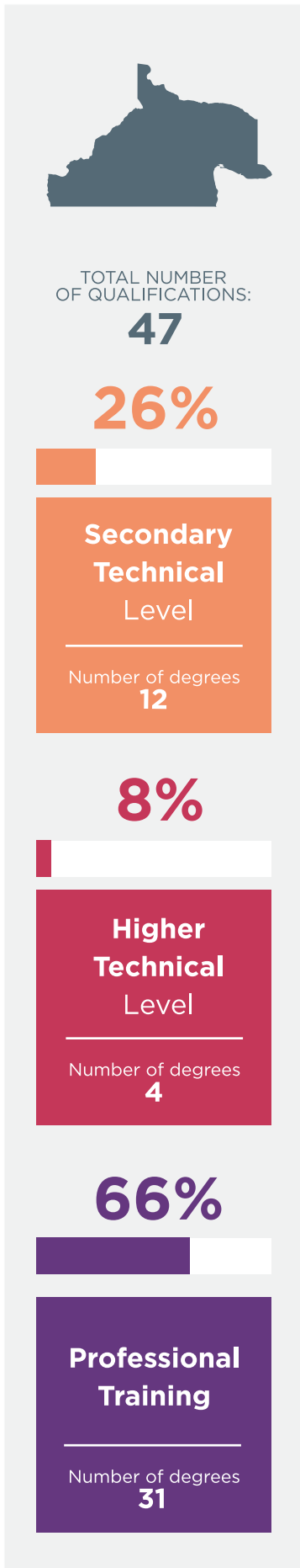
Qualification	TVET Scope	Number of Institutions	MR
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	8	Yes
Food Technology Technician	Secondary Technical Schools	2	Yes
Process Industry Technician	Secondary Technical Schools	1	Yes
Process Industry Technician - Bromatology	Secondary Technical Schools	1	No
Chemical Technician	Secondary Technical Schools	1	Yes
Electronics Technician	Secondary Technical Schools	4	Yes
IT Technician	Secondary Technical Schools	4	Yes
Advanced Industrial Organization, Management and Quality Production Technician	Higher Technical Schools	1	No
Advanced Multimedia Technician	Higher Technical Schools	2	No
Advanced Wooden Construction Technician	Higher Technical Schools	1	No
Advanced Petroleum Technician	Higher Technical Schools	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Real Estate Electrician	Professional Training	4	Yes
MBT Systems Installer	Professional Training	1	No
Assistant Industrial Electrician	Professional Training	3	Yes
Industrial or Plant Electrical Installer	Professional Training	1	No
Tanner	Professional Training	1	No
Saddlery and Leatherworking	Professional Training	1	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	1	No
Refrigeration Equipment and Systems Installer and Repairer	Professional Training	1	No
Assistant Mechanic	Professional Training	1	No
Wood modeller	Professional Training	1	Yes
Blacksmith	Professional Training	3	Yes
Machinery and Tools Operator	Professional Training	1	Yes
Metallurgy	Professional Training	2	No
Basic Welder	Professional Training	8	Yes
TIG - MIG - MAG Welder	Professional Training	2	No
2 and 4 Stroke Engine Mechanic	Professional Training	1	No
Automotive Mechanical Assistant	Professional Training	1	No
Diesel Engine Mechanical Assistant	Professional Training	1	Yes
Assistant Gas Engine Mechanic	Professional Training	9	Yes
Internal Combustion Engine Mechanic	Professional Training	4	Yes
Ignition and Power System Mechanic	Professional Training	3	Yes
Automotive Steering and Suspension Systems Mechanic	Professional Training	2	Yes
Assistant Automotive Electrician	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Pasta Manufacture and Production	Professional Training	2	No
Production of handmade sweets and preserves	Professional Training	1	No
Preparation and conservation of meats and charcuterie	Professional Training	1	No
Obtaining Essential Oils for the Elaboration of Cosmetics	Professional Training	1	No
Computer Equipment Maintenance and Repair	Professional Training	6	No
Radio Operator	Professional Training	1	No
Web Designer I	Professional Training	1	No
Computer Aided Graphic Design	Professional Training	2	No
Multimedia IT Services Programming	Professional Training	3	No
Computer Network Installation, Administration and Maintenance	Professional Training	1	No
IT/Computing	Professional Training	1	No
Basic PC Operator	Professional Training	7	No
Database/Word Operator	Professional Training	1	No
Wood production machinery and tool operator	Professional Training	7	No
Assistant Carpenter	Professional Training	2	No
Bench Carpenter	Professional Training	6	No
Carpenter (wood)	Professional Training	4	No
Licensed Carpenter	Professional Training	3	No
Tailor - Dressmaker	Professional Training	5	No
Dressmaking	Professional Training	5	No
Industrial Sewing	Professional Training	1	No
Patternmaker	Professional Training	3	No
Handmade Weaving	Professional Training	1	No
Loom Weaving	Professional Training	1	No



Río Negro

Region: Patagonia

The province of Río Negro has a wide and balanced educational offer in line with its economy.

There is a clear predominance of training, both at the levels of secondary technical and professional training, in the Energy and Electric Power, Electromechanical, Mechanical and Car Mechanics sectors as well as in the Food, Processing and Chemical sectors.

As in other provinces, there is a technical course in renewable energies, which has great potential for the region.

The secondary and higher level certificates appear to supplement each other. In other words, if there are secondary level certificates in areas of strategic importance for the province, they are not offered in the form of higher level certifications.

In other cases where there are no secondary level certificates, such as the case of the Wood and Furniture and Mining and Hydrocarbons industries, they are offered as higher level certifications.

At the professional training level, most sectors offer some kind of training.

DOMINANT AREAS

The Metalworking and Energy industries offer the largest number of titles, and they are provided by the largest number of educational institutions.

As in the rest of the country, the Technical course in Electromechanical Equipment and Installations is the one with the greatest presence in the province, offered by 10 institutions.

In the Food, Processing and Chemical industry, there is the classical training (Food Industry Technician, Process Industry Technician and Chemical Technician) and a new certification that was launched two years ago: Agro-industrial Technician.

Most of the professional training certificates offered in the Metalworking industry correspond to the Mechanics, Metalworking by Shaping, Metalworking by Chip Removal, Welding and Car Mechanics Maintenance and Repair subsectors.

LACKING AREAS

There are no noticeable lacking areas.

TABLE 23

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	3	-	4
Leather and Footwear	-	-	-
Electromechanical, Mechanical and Automotive	2	-	16
Food, Processes and Chemical Industry	4	-	2
Electronics	1	-	1
Graphic and Multimedia Industry	-	-	1
IT	2	1	2
Wood and Furniture	-	1	3
Mining and Hydrocarbons	-	2	-
Textiles and Clothing	-	-	2

TABLE 24

Qualification	TVET Scope	Number of Institutions	MR
Electrical Technician	Secondary Technical Schools	1	Yes
Renewable Energy Technician	Secondary Technical Schools	1	Yes
Electrical Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	10	Yes
Mechanical Technician	Secondary Technical Schools	2	Yes
Food Industry Technician	Secondary Technical Schools	1	No
Food Technology Technician	Secondary Technical Schools	1	Yes
Agroindustrial Technician	Secondary Technical Schools	1	No
Chemical Technician	Secondary Technical Schools	2	Yes
Electronics Technician	Secondary Technical Schools	3	Yes
IT Technician	Secondary Technical Schools	1	No

IT Technician	Secondary Technical Schools	2	Yes
Advanced Information Technology Infrastructure Support Technician	Higher Technical Schools	2	No
Advanced Wooden Construction Technician	Higher Technical Schools	1	No
Advanced Petroleum Technician	Higher Technical Schools	1	No
Advanced Mining Technician	Higher Technical Schools	1	No
Renewable Energy Electrical Systems Installer	Professional Training	1	No
Home Electrical Installation	Professional Training	3	No
Household and Industrial Electricity	Professional Training	1	No
Industrial or Plant Electrical Installer	Professional Training	2	No
Refrigeration Equipment and Systems Installer and Repairer	Professional Training	2	No
Machine and Tool Mechanics	Professional Training	1	No
Agricultural Mechanic	Professional Training	1	No
Turner	Professional Training	2	Yes
Basic welding assistant/Arc Welding assistant	Professional Training	1	No
Oxyacetylene Welder - Autogenous	Professional Training	2	No
Moped/Motorcycle Mechanic	Professional Training	1	No
Automotive Mechanical Assistant	Professional Training	1	No
Assistant Motorcycle Mechanic	Professional Training	1	No
Automotive Mechanics	Professional Training	4	No

Bodywork and paint	Professional Training	1	No
Assistant Gas Engine Mechanic	Professional Training	1	Yes
Ignition and Power System Mechanic	Professional Training	1	Yes
Automotive Steering and Suspension Systems Mechanic	Professional Training	1	Yes
Assistant Automotive Electrician	Professional Training	1	No
Automotive Electrician	Professional Training	1	Yes
Production of handmade jams and preserves	Professional Training	1	No
Assistant Pharmacy Technician	Professional Training	1	No
Basic Electronics	Professional Training	1	No
Graphics/Printing Operators	Professional Training	1	No
IT Processing Technology	Professional Training	1	No
Basic PC Operator	Professional Training	3	No
Wood Turner	Professional Training	1	No
Assistant Carpenter	Professional Training	1	No
Carpenter (Wooden Furniture)	Professional Training	2	No
Dressmaking	Professional Training	1	No
Clothing Design	Professional Training	1	No



TOTAL NUMBER OF QUALIFICATIONS:

122

13%

Secondary Technical Level

Number of degrees **16**

8%

Higher Technical Level

Number of degrees **10**

79%

Professional Training

Number of degrees **96**

Neuquén

Region: Patagonia

The educational offer in Neuquén Province shows an oversupply of degrees in the same manufacturing sector.

The secondary technical level offer is concentrated in the areas of Energy and Metalworking, and the higher technical level offer is focused towards the Computer Science and Mining and Hydrocarbons industries.

The professional training offer is concentrated in the Textile and Clothing industry, with a clear focus on the Textile, Clothing Design and Weaving sectors.

There are also many professional training courses in the Metalworking industry with a focus on the following sectors: Metalworking by Chip Removal, Metalworking by Forming, Welding and Motor Car Maintenance and Repair.

There are many training offers in the Wood and Furniture industry, and in their corresponding sectors: Carpentry, Furniture and First Transformation.

Those geared towards the Food, Processing and Chemical industry focus on Fermented Beverages and Wines and Food Preservation, thus corresponding to the main needs of the fruit industry and tourism, which are relevant areas for the economy of the province.

DOMINANT AREAS

There is a predominance of certifications geared towards the Metalworking and Energy industries, the Mining and Hydrocarbons industries, and the Food, Processing and Chemical Industries.

LACKING AREAS

In principle, there are no noticeable training lacking areas, except in the Mining and Hydrocarbons industries. Here, there is a particular void at the the professional training level for courses on non-conventional hydrocarbon exploitation.

TABLE 25

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	4	1	7
Leather and Footwear	-	-	4
Electromechanical, Mechanical and Automotive	5	-	21
Food, Processes and Chemical Industry	2	-	9
Electronics	3	-	4
Graphic and Multimedia Industry	-	1	5
IT	1	4	7
Wood and Furniture	-	-	11
Mining and Hydrocarbons	1	3	1
Textiles and Clothing	-	1	27

TABLE 26

Qualification	TVET Scope	Number of Institutions	MR
Energy Technician	Secondary Technical Schools	1	No
Electrical Technician	Secondary Technical Schools	2	Yes
Renewable Energy Technician	Secondary Technical Schools	1	Yes
Electrical Technician	Secondary Technical Schools	2	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	2	Yes
Mechanical and Electrical Technician	Secondary Technical Schools	6	No
Mechanical Technician	Secondary Technical Schools	3	Yes
Agricultural Mechanics Technician	Secondary Technical Schools	1	No
Automotive Technician	Secondary Technical Schools	1	Yes
Food Technology Technician	Secondary Technical Schools	1	Yes
Chemical Technician	Secondary Technical Schools	2	Yes
Electronics Technician	Secondary Technical Schools	2	Yes
Electronics Technician with Telecommunications Orientation	Secondary Technical Schools	1	No

Electronics Technician with an Automation and Industrial Control orientation	Secondary Technical Schools	1	No
Programming Technician	Secondary Technical Schools	1	No
Petroleum Technician	Secondary Technical Schools	1	No
Advanced Renewable Energies Technician	Higher Technical Schools	1	No
Advanced Graphic Design Technician	Higher Technical Schools	1	No
Advanced IT Technician	Higher Technical Schools	1	No
Advanced Systems Analysis Technician	Higher Technical Schools	1	No
Advanced Administrative Systems Analysis Technician	Higher Technical Schools	1	No
Advanced Network Technician	Higher Technical Schools	1	No
Advanced Gas Technician	Higher Technical Schools	1	No
Advanced Hydrocarbons and Gas Technician	Higher Technical Schools	1	No
Advanced Petroleum Technician	Higher Technical Schools	7	No
Advanced Multimedia Design Technician	Higher Technical Schools	1	No
Systems Installer	Professional Training	1	No
Three-Phase Motor Winding Assistant	Professional Training	1	No
Machine Winder	Professional Training	1	Yes
Real Estate Electrician	Professional Training	6	Yes
Electrician	Professional Training	11	No
Industrial Electrician	Professional Training	2	Yes
Home and Industrial Electrical Installations	Professional Training	2	No
Leather Crafting	Professional Training	2	No
Tanner	Professional Training	2	No
Leatherworking	Professional Training	2	No
Saddler	Professional Training	1	No
Pneumatics and Hydraulics	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

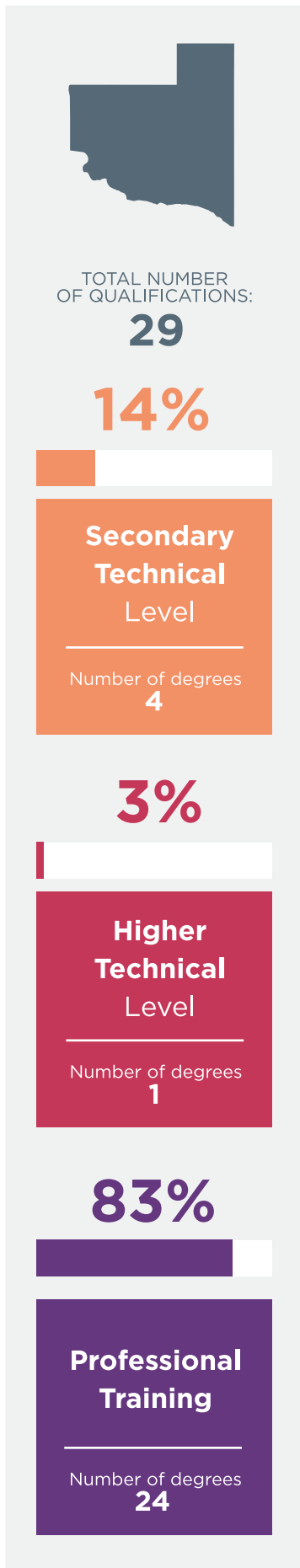
Agricultural Equipment Mechanic	Professional Training	1	No
Turner	Professional Training	3	Yes
Turner / Miller	Professional Training	1	No
Blacksmith	Professional Training	3	Yes
Blacksmith Welder	Professional Training	2	No
Metallurgy	Professional Training	2	No
Basic welding assistant/ Arc Welding assistant	Professional Training	4	No
Welder	Professional Training	7	Yes
Basic Welder	Professional Training	4	Yes
Specialized Welder	Professional Training	1	No
MIG - MAG Welder	Professional Training	2	No
Oxyacetylene Welder - Autogenous	Professional Training	1	No
TIG Welder	Professional Training	1	No
Electricity and Automotive Electronics	Professional Training	1	No
Automotive Mechanical Assistant	Professional Training	2	No
Assistant Motorcycle Mechanic	Professional Training	1	No
Automotive Mechanics	Professional Training	2	No
Assistant Diesel Engine Mechanic	Professional Training	1	Yes
Assistant Gas Engine Mechanic	Professional Training	3	Yes
Automotive Electrician	Professional Training	1	Yes
Wine Production	Professional Training	2	No
Production of Fermented Beverages	Professional Training	4	No
Food Preservation	Professional Training	3	No
Production of handmade sweets and preserves	Professional Training	2	No
Production of Preserved Fruits and Vegetables	Professional Training	6	No
Preparation and Preservation of Meats and Charcuterie	Professional Training	1	No
Food Handling	Professional Training	4	No

Snapshot of Technical and Vocational Education and Training in Argentina

Production of Dairy Products	Professional Training	2	No
Obtaining Essential Oils for the Elaboration of Cosmetics	Professional Training	3	No
Assembly and Repair of PCs	Professional Training	2	No
Computer Equipment Maintenance and Repair	Professional Training	1	No
Assistant Industrial Automation by Programmable Logic Technician (PLC Assistant)	Professional Training	1	No
Radio Operator	Professional Training	1	No
Silk-screen printing	Professional Training	1	No
Graphic Design	Professional Training	5	No
Binding	Professional Training	1	No
Computer Aided Graphic Design	Professional Training	4	No
Web page Design and/or Programming	Professional Training	1	No
Computer Network Installation, Administration and Maintenance	Professional Training	3	No
IT/Computing	Professional Training	7	No
Basic PC Operator	Professional Training	10	No
PC Operator with Administration Tasks	Professional Training	1	No
PC Operator Level I	Professional Training	1	No
Spreadsheet / Excel Operator	Professional Training	2	No
Word Processing Operator	Professional Training	1	No
Fretwork and Wood Carving	Professional Training	3	No
Joinery	Professional Training	1	No
Wood Turner	Professional Training	2	No
Wood production machinery and tool operator	Professional Training	1	No
Assistant Carpenter	Professional Training	7	No
Joiner	Professional Training	4	No
Bench Carpenter	Professional Training	12	No
Carpenter (wood)	Professional Training	3	No

Snapshot of Technical and Vocational Education and Training in Argentina

Carpenter (Wooden Furniture)	Professional Training	2	No
Furniture Renovator and Restorer	Professional Training	2	No
Use and Maintenance of Woodworking Machinery	Professional Training	1	No
Mining Activities Assistant	Professional Training	1	No
Embroidery and Lingerie	Professional Training	1	No
Bag and backpack manufacturing	Professional Training	1	No
Tailor	Professional Training	12	No
Linen manufacturer	Professional Training	1	No
Clothing Manufacturer	Professional Training	4	No
Textile Manufacturer	Professional Training	1	No
Dressmaking	Professional Training	11	No
Winter clothing manufacturing	Professional Training	1	No
Children's clothing manufacturing	Professional Training	3	No
Workwear and Uniform Machinist	Professional Training	1	No
Textiles and garments	Professional Training	1	No
Garment Machinist	Professional Training	2	No
Dressmaking Operator	Professional Training	1	No
Patternmaker, Lingerie and Corsetry	Professional Training	1	No
Handmade Textile Production	Professional Training	2	No
Garment Recycler	Professional Training	1	No
Upholsterer	Professional Training	3	No
Crochet	Professional Training	5	No
Spinning, Weaving and Dyeing	Professional Training	1	No
Weaving	Professional Training	1	No
Hand weaving	Professional Training	2	No
Hand and machine weaving	Professional Training	1	No
Machine Weaving	Professional Training	2	No
Handmade Weaving	Professional Training	1	No
Frame Weaving	Professional Training	1	No
Loom Weaving	Professional Training	5	No
Mapuche loom weaving	Professional Training	3	No



La Pampa

Region: Patagonia

The training offer in La Pampa province is not very diverse, and it basically consists of professional training courses.

Three of the four qualifications offered at secondary level are in the Metalworking industry, and the remaining one corresponds to the IT sector.

There is only one higher technical level qualification offered in that same IT sector. Half of the professional training offer is in the Metalworking industry.

The rest of the industries are represented by one or two traditional options.

DOMINANT AREAS

There is a clear dominance of the Metalworking industry among the secondary level and professional training certificates.

LACKING AREAS

There is a dearth of training opportunities at the three levels of TVET and in most of the industries.

It is striking that sectors such as Energy, Food, Processing and the Chemical industry, Electronics, Clothing and Textiles are either under-represented or have no training offer at all.

TABLE 27

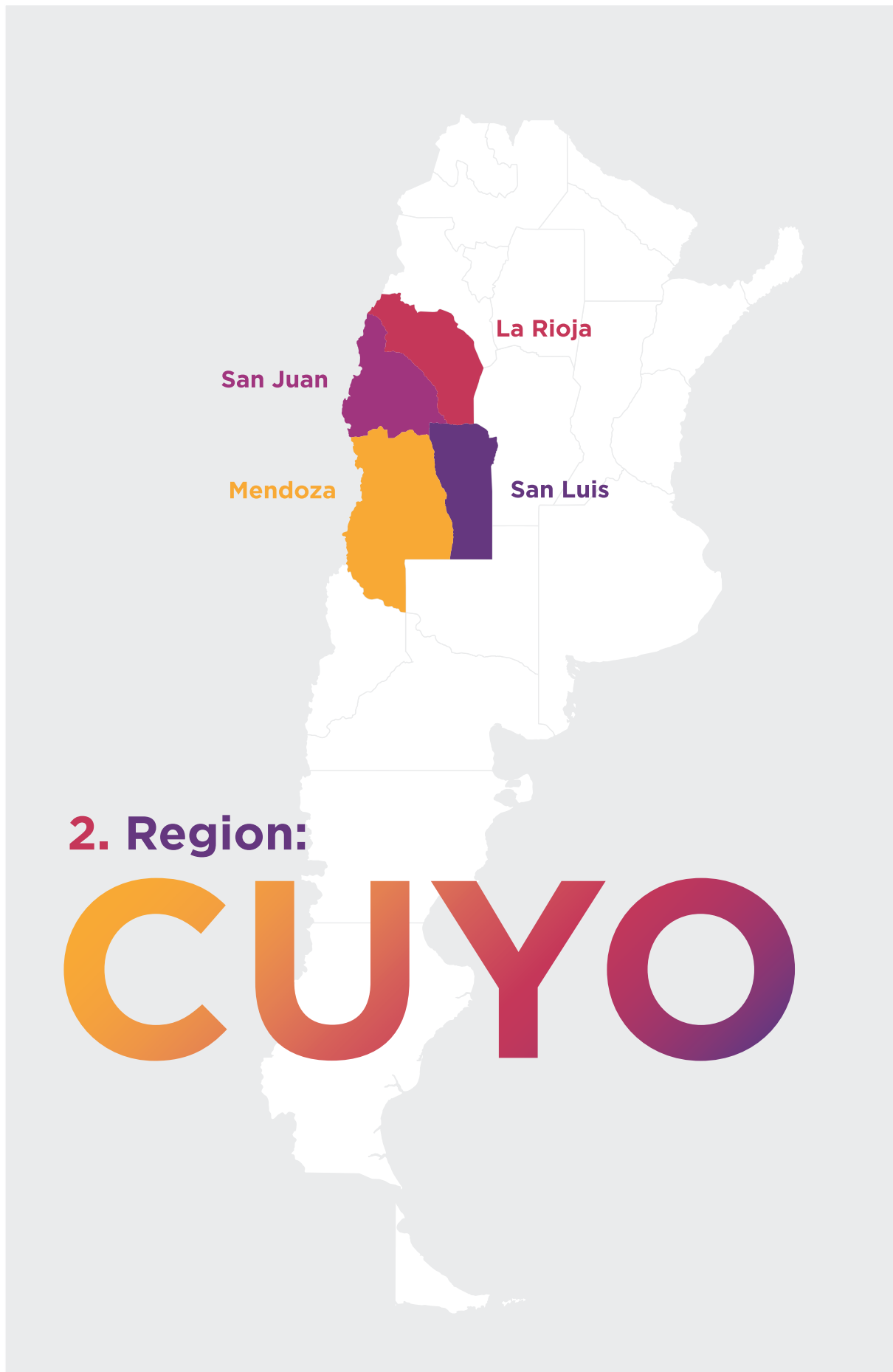
Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	-	-	4
Leather and Footwear	-	-	-
Electromechanical, Mechanical and Automotive	3	-	12
Food, Processes and Chemical Industry	-	-	1
Electronics	-	-	-
Graphic and Multimedia Industry	-	-	-
IT	1	1	2
Wood and Furniture	-	-	2
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	-	-	3

TABLE 28

Qualification	TVET Scope	Number of Institutions	MR
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	6	Yes
Machining Technician	Secondary Technical Schools	3	Yes
Automotive Technician	Secondary Technical Schools	1	Yes
IT Technician	Secondary Technical Schools	1	Yes
Advanced Software Development Technician	Higher Technical Schools	1	No
Medium and Low Voltage Distribution Networks Electrician	Professional Training	1	Yes
Circuit Installer	Professional Training	1	No
Electrician	Professional Training	3	No
Industrial Electrician	Professional Training	1	Yes
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Refrigeration Equipment and Systems Installer and Repairer	Professional Training	1	No
Turner	Professional Training	2	Yes
Blacksmith	Professional Training	1	Yes
Welder	Professional Training	2	Yes
Basic Welder	Professional Training	5	Yes
Motorcycle Mechanical Assistant	Professional Training	1	No
Motorcycle Mechanic	Professional Training	1	No
Assistant Diesel Engine Mechanic	Professional Training	2	Yes
Assistant Gas Engine Mechanic	Professional Training	4	Yes
Ignition and Power System Mechanic	Professional Training	1	Yes
Automotive Electrician	Professional Training	1	Yes
Food Handling	Professional Training	1	No
Computer Network Installation, Administration and Maintenance	Professional Training	1	No
Office IT operator	Professional Training	1	No
Bench Carpenter	Professional Training	1	No
Carpenter (Wooden Furniture)	Professional Training	3	No
Tailor - Dressmaker	Professional Training	5	No
Patternmaker	Professional Training	2	No
Upholsterer	Professional Training	1	No





TOTAL NUMBER OF QUALIFICATIONS:

181

11%

**Secondary
Technical
Level**

Number of degrees
20

12%

**Higher
Technical
Level**

Number of degrees
22

77%

**Professional
Training**

Number of degrees
139

Mendoza

Region: Cuyo

The province of Mendoza offers training in most industries and sectors, with a marked dominance in the Food, Processing and Chemical industry, in line with the economy of the province.

The offer of secondary technical courses includes specific certifications in this sector, which are not found in other provinces; for example, Process Industry Technician with a focus on the Oil and Petrochemical sectors or Process Industry Technician with a focus on the Food Industry.

In the Metal-Mechanical industry, 12 institutions provide the most popular technical course in the country (Electromechanical Equipment and Facilities) and ten offer a technical course in Mechanics.

The Electronics sector has three offers at the secondary level and three at the higher level.

The most innovative certifications are offered in the form of higher technical courses, aimed at reaching the highest levels of specialisation necessary to upgrade some sectors (for example: Higher Technician in Biomechatronics or Higher Technician in Mechatronics). In this sense, the specific certifications in applied electronics have the greatest potential impact on the different industry-related areas and the different areas of production.

Higher technical courses are offered mainly in sectors that do not have intermediate level qualifications (Graphic and Multimedia Industry and Computer Science).

The professional training offer covers all sectors, with the exception of the Aeronautics and Naval industries, and there is a significant number of courses in the Textile and Clothing (49 courses) and Metalworking (37 courses) industries.

TABLE 29

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	1	-	-
Energy and Electrical Energy	2	1	9
Leather and Footwear	-	-	7
Electromechanical, Mechanical and Automotive	3	3	37
Food, Processes and Chemical Industry	7	2	5
Electronics	3	3	9
Graphic and Multimedia Industry	-	5	3
IT	1	5	9
Wood and Furniture	1	-	10
Mining and Hydrocarbons	1	2	1
Textiles and Clothing	1	1	49

TABLE 30

Qualification	TVET Scope	Number of Institutions	MR
Aviation Technician	Secondary Technical Schools	1	Yes
Electricity Technician	Secondary Technical Schools	7	Yes
Electrical Technician	Secondary Technical Schools	2	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	12	Yes
Hydraulic Technician	Secondary Technical Schools	2	No
Mechanical Technician	Secondary Technical Schools	10	Yes
Food Industry Technician	Secondary Technical Schools	1	No
Processing Industry Technician with Food Technology orientation	Secondary Technical Schools	1	No
Food Technology Technician	Secondary Technical Schools	6	Yes
Process Industry Technician	Secondary Technical Schools	7	Yes
Agricultural produce processing technician	Secondary Technical Schools	1	No
Processing Industry Technician with Petroleum and Petrochemical Orientation	Secondary Technical Schools	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Chemical Technician	Secondary Technical Schools	6	Yes
Electronics Technician	Secondary Technical Schools	1	Yes
Electronics Technician with Telecommunications Orientation	Secondary Technical Schools	2	No
Electronics Technician with an Automation and Industrial Control orientation	Secondary Technical Schools	4	No
IT Technician	Secondary Technical Schools	1	Yes
Wood and Furniture Industrialization Technician	Secondary Technical Schools	1	Yes
Mining Technician	Secondary Technical Schools	1	Yes
Clothing and Textile Technician	Secondary Technical Schools	2	Yes
Advanced Renewable Energies Technician	Higher Technical Schools	1	No
Advanced Bioelectromechanics Technician with orientation in agriculture	Higher Technical Schools	2	No
Advanced Industrial Technician with orientation in Electricity and Automation	Higher Technical Schools	2	No
Advanced Organization, Management and Quality of Industrial Production Technician	Higher Technical Schools	1	No
Advanced Laboratory Technician	Higher Technical Schools	1	No
Advanced Clinical Laboratory Technician	Higher Technical Schools	3	Yes
Advanced Biomechanics Technician	Higher Technical Schools	1	No
Advanced Mechatronics Technician	Higher Technical Schools	2	No
Advanced Telecommunications Technician	Higher Technical Schools	2	No
Advanced Photography and Professional Photography Technician	Higher Technical Schools	2	No
Advanced Design Technician	Higher Technical Schools	2	No
Advanced Graphic Design Technician	Higher Technical Schools	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced Multimedia Design Technician	Higher Technical Schools	1	No
Advanced Advertising Graphic Design Technician	Higher Technical Schools	5	No
Advanced IT Technician	Higher Technical Schools	1	No
Advanced Systems Analysis Technician	Higher Technical Schools	5	No
Senior Analysis and Programming Technician	Higher Technical Schools	4	No
Advanced IT Networks Technician	Higher Technical Schools	3	No
Advanced IT Technician	Higher Technical Schools	1	No
Advanced Petroleum Technician	Higher Technical Schools	1	No
Advanced Mining Technician	Higher Technical Schools	1	No
Advanced Multimedia Design Technician	Higher Technical Schools	4	No
Electricity/Electronics	Professional Training	1	No
Electric Machine Winder	Professional Training	1	Yes
Basic Electronics	Professional Training	9	No
Electrical Circuit Installer	Professional Training	4	No
Home Electrical Installation	Professional Training	4	No
Household/Industrial Electricity Assistant	Professional Training	3	No
Household and Industrial Electricity	Professional Training	9	No
Industrial Electrician	Professional Training	1	Yes
Home and Industrial Electrical Installations	Professional Training	14	No
Leather and Footwear	Professional Training	1	No
Shoe Repairs	Professional Training	2	No
Leather Crafting	Professional Training	5	No
Leather Goods Assistant	Professional Training	1	No
Tanning and Leatherworking	Professional Training	1	No
Leatherworking	Professional Training	2	No
Saddler	Professional Training	1	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	8	No
Refrigeration Equipment and Systems Installer and Repairer	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Assistant Mechanic	Professional Training	1	No
Machinery and Tool Mechanic	Professional Training	1	No
Turner	Professional Training	1	Yes
Turner / Miller	Professional Training	3	No
Artistic Blacksmithing Assistant	Professional Training	3	No
Metal and PVC carpentry	Professional Training	8	Yes
Artistic Blacksmithing	Professional Training	6	No
Blacksmith	Professional Training	1	Yes
Machinery and Tools Operator	Professional Training	1	Yes
Folder	Professional Training	1	Yes
Sheet Metal Stitching and Processing	Professional Training	3	No
Basic welding assistant/Arc Welding assistant	Professional Training	14	No
Welder	Professional Training	4	Yes
Basic Welder	Professional Training	10	Yes
Moped Maintenance Assistant	Professional Training	1	No
Moped/Motorcycle Mechanic	Professional Training	4	No
Electricity and Automotive Electronics	Professional Training	2	No
Basic Automotive Mechanics	Professional Training	6	No
Automotive Mechanics	Professional Training	2	No
Automotive Bodywork	Professional Training	1	No
Automotive Painting and Coatings	Professional Training	1	No
Engine Assembly	Professional Training	2	No
Assistant Gas Engine Mechanic	Professional Training	6	Yes
Assistant Ignition and Power Systems Mechanic	Professional Training	1	No
Electronic Injection	Professional Training	6	No
Carburetor and Ignition Mechanic	Professional Training	1	No
Internal Combustion Engine Mechanic	Professional Training	3	Yes
Gas Engine Mechanic	Professional Training	5	No
Ignition and Power System Mechanic	Professional Training	1	Yes

Fuel Injection Electronic Systems Mechanic	Professional Training	1	No
GNC Equipment Installation Mechanic	Professional Training	1	Yes
Assistant Automotive Electrician	Professional Training	1	No
Winding of Inductors, Rotors and Stators of Automotive Starter Dynamos and Alternators	Professional Training	2	No
Automotive Starter and Alternator Electrician	Professional Training	2	No
Automotive Electrician	Professional Training	5	Yes
Food Industry	Professional Training	1	No
Pasta Manufacture and Production	Professional Training	3	No
Production of handmade sweets and preserves	Professional Training	1	No
Cartoner	Professional Training	1	No
Electronics Assistant	Professional Training	5	No
Basic Electronics	Professional Training	5	No
Microcontroller Programming	Professional Training	2	No
Assembly and Repair of PCs	Professional Training	1	No
PC Maintenance and Repair Assistant	Professional Training	1	No
Computer Equipment Maintenance and Repair	Professional Training	2	No
Basic Electronics applied to Telecommunications	Professional Training	1	No
Audio, Radio and TV Equipment Repairer	Professional Training	3	No
Electronic Security Systems Installer and Repairer	Professional Training	2	No
Photography	Professional Training	1	No
Pre-press	Professional Training	1	No
Web page Design and/or Programming	Professional Training	2	No
Computer Tools for Image Digitization	Professional Training	1	No
IT/Computing	Professional Training	7	No
Advanced PC Operations	Professional Training	3	No
Basic PC Operator	Professional Training	11	No
Office IT operator	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

PC Operator with Administration Tasks	Professional Training	3	No
PC Operator Level I	Professional Training	13	No
PC Operator Level II	Professional Training	6	No
PC Operator Level III	Professional Training	1	No
Fretwork and Wood Carving	Professional Training	3	No
Joinery	Professional Training	1	No
Wood and Furniture Polisher	Professional Training	1	No
Wood Turner	Professional Training	3	No
Assistant Carpenter	Professional Training	6	No
Bench Carpenter	Professional Training	11	No
Carpenter (wood)	Professional Training	3	No
Carpenter (Wooden Furniture)	Professional Training	2	No
Furniture Renovator and Restorer	Professional Training	9	No
Moulding Operator	Professional Training	1	Yes
Mining Activities Assistant	Professional Training	2	No
Embroidery Assistant	Professional Training	1	No
Embroidery	Professional Training	6	No
Hand and machine embroidery	Professional Training	3	No
Machine embroidery	Professional Training	2	No
Embroidery and Lingerie	Professional Training	1	No
Haute Couture	Professional Training	2	No
Fashion	Professional Training	2	No
Tailoring Assistant	Professional Training	1	No
Assistant Dressmaker	Professional Training	2	No
Clothing Assistant	Professional Training	11	No
Moulding Assistant	Professional Training	1	No
Shirtmaker	Professional Training	4	No
Tailor - Dressmaker	Professional Training	12	No
Linen manufacturer	Professional Training	1	No
Clothing Manufacturer	Professional Training	15	No
Textile Manufacturer	Professional Training	1	No
Dressmaking	Professional Training	20	No

Skirt making and alterations	Professional Training	2	No
Children's clothing manufacturing	Professional Training	1	No
Women's Clothing Manufacturing	Professional Training	1	No
Party Dress Manufacturing	Professional Training	3	No
Workwear and Uniform Machinist	Professional Training	7	No
Industrial Sewing	Professional Training	1	No
Textiles and garments	Professional Training	2	No
Manual and machine labor	Professional Training	1	No
Patternmaker	Professional Training	2	No
Moulding	Professional Training	4	No
Garment Machinist	Professional Training	1	No
Pattern and Baby garment manufacturer	Professional Training	5	No
Patternmaker, Lingerie and Corsetry	Professional Training	2	No
Pattern and Jacket Maker	Professional Training	3	No
Clothing and Textile Accessories Recycling	Professional Training	5	No
Garment Recycling	Professional Training	2	No
Textiles	Professional Training	4	No
Upholstery Assistant	Professional Training	3	No
Upholsterer	Professional Training	3	No
Woven Garment Manufacturing	Professional Training	3	No
Manufacture of woven garments for babies	Professional Training	1	No
Crochet	Professional Training	10	No
Manual and machine labor	Professional Training	5	No
Macramé	Professional Training	1	No
Tapestry	Professional Training	2	No
Weaving	Professional Training	2	No
Hand weaving	Professional Training	2	No
Hand and machine weaving	Professional Training	1	No
Machine Weaving	Professional Training	3	No
Handmade Weaving	Professional Training	1	No
Decorative Homeware Textiles	Professional Training	1	No
Loom Weaving	Professional Training	4	No



TOTAL NUMBER OF QUALIFICATIONS:

69

17%

Secondary Technical Level

Number of degrees
12

3%

Higher Technical Level

Number of degrees
2

80%

Professional Training

Number of degrees
55

San Juan

Region: Cuyo

The province of San Juan has good coverage of intermediate level certifications in the main sectors that make up its economy.

It has a limited offer of higher technical level certifications but an interesting training offer by qualification and by sector, covered by professional training.

DOMINANT AREAS

The TVET areas are clearly dominated by secondary level and professional training courses, which cover a wide range of the main economic sectors of the province.

There are three technical qualifications in the Metal-Mechanic industry. The most widespread course is that of technician in Electromechanical Equipment and Installations, offered by three institutions, while the other two certifications (Hydraulic Technician and Car Mechanics Technician) are offered by only one institution.

This is not the case of the three certificates in the Food, Processing and Chemical industry, which are offered by more than nine institutions in the province.

It is worth noting that the most recent certificate in the Energy sector (Renewable Energy Technician) is offered by two institutions.

Professional training covers most of the traditional sectors and titles (but no courses are offered in the Aeronautics and Naval, and the Mining and Hydrocarbons industries).

The largest offer is concentrated in the Textile and Clothing industry, followed by the Metalworking and Energy industries.

LACKING AREAS

There is almost no offer of higher technical level certifications.

TABLE 31

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	2	-	7
Leather and Footwear	-	-	3
Electromechanical, Mechanical and Automotive	3	1	10
Food, Processes and Chemical Industry	3	-	3
Electronics	2	-	5
Graphic and Multimedia Industry	-	-	4
IT	1	1	5
Wood and Furniture	-	-	4
Mining and Hydrocarbons	1	-	-
Textiles and Clothing	-	-	14

TABLE 32

Qualification	TVET Scope	Number of Institutions	MR
Renewable Energy Technician	Secondary Technical Schools	2	Yes
Electrical Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	3	Yes
Hydraulic Technician	Secondary Technical Schools	1	No
Automotive Technician	Secondary Technical Schools	1	Yes
Food Technician	Secondary Technical Schools	1	No
Food Technology Technician	Secondary Technical Schools	3	Yes
Chemical Technician	Secondary Technical Schools	5	Yes
Electronics Technician	Secondary Technical Schools	1	Yes
Electronics Technician with an Automation and Industrial Control orientation	Secondary Technical Schools	1	No
IT Technician	Secondary Technical Schools	5	Yes
Mining Technician	Secondary Technical Schools	1	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced Industrial Organization, Management and Quality Production Technician	Higher Technical Schools	1	No
Advanced Software Development Technician	Higher Technical Schools	2	No
Electric Motor Winding Assistant	Professional Training	2	No
Machine Winder	Professional Training	2	Yes
Electrician	Professional Training	2	No
Electrical Assistant	Professional Training	23	No
Household and Industrial Electricity	Professional Training	6	No
Industrial Electrician	Professional Training	1	Yes
Electrical Installations	Professional Training	1	No
Footwear and leather goods assistant	Professional Training	1	No
Leatherworking and Shoemaking	Professional Training	1	No
Leather Crafting	Professional Training	1	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	2	No
Metallurgy	Professional Training	1	No
Assistant Turner	Professional Training	2	No
Assistant Blacksmith	Professional Training	3	No
Blacksmith	Professional Training	1	Yes
Automotive Mechanical Assistant	Professional Training	5	No
Automotive Mechanics	Professional Training	6	No
Engine Assembly	Professional Training	1	No
Internal Combustion Engine Mechanic	Professional Training	1	Yes
Automotive Electrician	Professional Training	2	Yes
Assistant Food Industry Technician	Professional Training	32	No
Food Industry	Professional Training	20	No
Industrial Chemical Assistant	Professional Training	3	No
PC Maintenance and Repair Assistant	Professional Training	1	No
Assistant Radio and Television Assembly and Repair Technician	Professional Training	12	No

Electronic Audio Systems and Radio Receiver Repairs	Professional Training	1	No
Audio, Radio and TV Equipment Repairer	Professional Training	2	No
TV Repairer	Professional Training	1	No
Photography	Professional Training	1	No
Graphic Design	Professional Training	1	No
Binding	Professional Training	1	No
Advertising Drawing	Professional Training	4	No
IT/Computing	Professional Training	5	No
Basic PC Operator	Professional Training	9	No
PC Operator with Administration Tasks	Professional Training	1	No
Windows Operator	Professional Training	1	No
Word Processing Operator	Professional Training	1	No
Assistant Carpenter	Professional Training	15	No
Bench Carpenter	Professional Training	2	No
Carpenter (wood)	Professional Training	14	No
Carpenter (Wooden Furniture)	Professional Training	1	No
Embroidery	Professional Training	1	No
Hand and machine embroidery	Professional Training	7	No
Tailoring Assistant	Professional Training	1	No
Dressmaking	Professional Training	2	No
Dressmaking and handiwork	Professional Training	64	No
Industrial Sewing	Professional Training	1	No
Manual and machine labor	Professional Training	1	No
Moulding	Professional Training	1	No
Clothing Industry Cutting Operator	Professional Training	1	No
Garment Machinist	Professional Training	1	No
Upholsterer	Professional Training	1	No
Weaving	Professional Training	1	No
Hand and machine weaving	Professional Training	26	No
Handmade Weaving	Professional Training	2	No



TOTAL NUMBER OF QUALIFICATIONS:

26

42%

Secondary Technical Level

Number of degrees
11

0%

Higher Technical Level

Number of degrees
0

58%

Professional Training

Number of degrees
15

San Luis

Region: Cuyo

The training offer in the province of San Luis consists mostly of secondary technical certifications. It does not offer higher technical certifications and the professional training offer is scarce with traditional and basic qualifications for each sector. It should be noted that this is mainly due to the fact that professional training in this province is provided by three different bodies: the Ministry of Labour, the University of Crafts and Trades and Technical and Vocational Education and Training.

Secondary level certificates are directed to the Metalworking and Food, Processing and Chemical industries.

The secondary level courses offered in the Metalworking industry are: the most traditional qualification in Electromechanical Equipment and Installations given by three institutions throughout the province, followed by Agricultural Mechanisation in two institutions. There is also a Technical certificate in the Process Industry offered by four institutions and a Technical certificate in Personal and Professional Computing that is only offered by one institution.

Within the Food, Processing and Chemical industry, this last technical course is the most widely offered by educational institutions.

LACKING AREAS

There are important sectors for which no professional training is offered, such as the Food, Processing and Chemical industry, the Graphic Industry and IT.

Likewise, the offer in other industries is very limited, but there is great diversity of certifications in the different subsectors, such as Electrical Energy, Metal Mechanics, Electronics, and Textiles and Clothing.

The offer of qualifications from the other stakeholders mentioned above who also provide professional training, should be looked into.

TABLE 33

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	1	-	-
Energy and Electrical Energy	1	-	2
Leather and Footwear	-	-	-
Electromechanical, Mechanical and Automotive	3	-	6
Food, Processes and Chemical Industry	3	-	-
Electronics	1	-	1
Graphic and Multimedia Industry	1	-	-
IT	1	-	-
Wood and Furniture	-	-	2
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	-	-	4

TABLE 34

Qualification	TVET Scope	Number of Institutions	MR
Aviation Technician	Secondary Technical Schools	1	Yes
Renewable Energy Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	3	Yes
Agricultural Machining Technician	Secondary Technical Schools	2	Yes
Automotive Technician	Secondary Technical Schools	1	Yes
Process Industry Technician	Secondary Technical Schools	1	Yes
Process Industry Technician - Bromatology	Secondary Technical Schools	1	No
Chemical Technician	Secondary Technical Schools	3	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Electronics Technician	Secondary Technical Schools	2	Yes
Multimedia Communication Technician	Secondary Technical Schools	1	No
Professional and Personal IT Technician	Secondary Technical Schools	4	Yes
Household and Industrial Electricity	Professional Training	2	No
Industrial Electricity	Professional Training	1	Yes
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	1	No
Turner	Professional Training	1	No
Welder	Professional Training	1	Yes
Light Automotive Mechanics	Professional Training	1	No
Assistant Gas Engine Mechanic	Professional Training	1	Yes
Automotive Electrician	Professional Training	2	Yes
Basic Electronics	Professional Training	1	No
Carpenter (wood)	Professional Training	1	No
Licensed Carpenter	Professional Training	1	No
Dressmaking	Professional Training	1	No
Patternmaker	Professional Training	2	No
Garment Machinist	Professional Training	2	No
Upholsterer	Professional Training	1	No



TOTAL NUMBER OF QUALIFICATIONS:

25

12%

**Secondary
Technical
Level**

Number of degrees
3

24%

**Higher
Technical
Level**

Number of degrees
6

64%

**Professional
Training**

Number of degrees
16

La Rioja

Region: Cuyo

It is striking that in the province of La Rioja there is a very limited offer of secondary level certificates for the manufacturing industry.

There are only three technical courses available in the province.

It is also worth noting that the number of higher technical level certifications doubles the number of intermediate level certifications, and that there are industries which are completely lacking in training offers of any kind. This is the case of the Energy and Electric Energy industry, as well as the Electronics industry, where no TVET is provided at all.

The professional training offered covers traditional, basic level ones, and there is little diversity by sector.

TABLE 35

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	-	-	-
Leather and Footwear	-	-	-
Electromechanical, Mechanical and Automotive	1	1	6
Food, Processes and Chemical Industry	1	2	1
Electronics	-	-	-
Graphic and Multimedia Industry	-	-	-
IT	1	3	2
Wood and Furniture	-	-	1
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	-	-	6

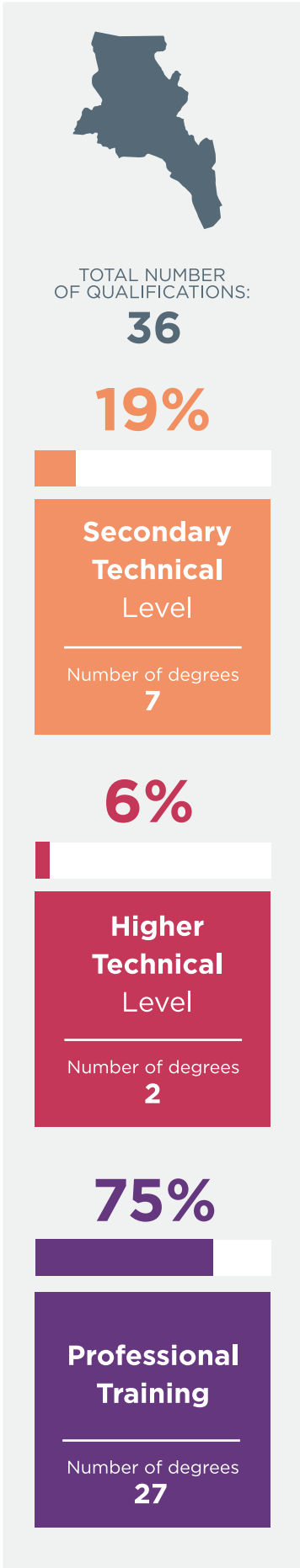
TABLE 36

Qualification	TVET Scope	Number of Institutions	MR
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	3	Yes
Process Industry Technician	Secondary Technical Schools	4	Yes
Personal and Professional IT Technician	Secondary Technical Schools	1	Yes
Advanced Industrial Maintenance Technician	Higher Technical Schools	1	No
Advanced Food Technology Technician	Higher Technical Schools	1	No
Advanced Bromatology Technician	Higher Technical Schools	1	Yes
Advanced Administrative / Business Informatics Technician	Higher Technical Schools	1	No
Advanced Information Technology Infrastructure Support Technician	Higher Technical Schools	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced IT Technician	Higher Technical Schools	1	No
Assistant Blacksmith	Professional Training	1	No
Blacksmith	Professional Training	1	Yes
Welder	Professional Training	1	Yes
Basic Welder	Professional Training	1	Yes
Assistant Motorcycle Mechanic	Professional Training	1	No
Assistant Gas Engine Mechanic	Professional Training	1	Yes
Artisan wine production	Professional Training	1	No
Programmer	Professional Training	1	No
IT/Computing	Professional Training	2	No
Assistant Carpenter	Professional Training	1	No
Embroidery	Professional Training	1	No
Tailoring Assistant	Professional Training	1	No
Clothing and Textiles Assistant	Professional Training	1	No
Dressmaking	Professional Training	1	No
Overlock Machine Operator	Professional Training	1	No
Handmade Weaving	Professional Training	1	No





Catamarca

Region: Argentine Northwest

In the province of Catamarca, the training offer in response to the needs of the industrial sectors is scarce and it is mainly concentrated in the Metal-Mechanic industry.

Thus, four of the seven certificates offered at the intermediate level are in this sector; the Electromechanical Equipment and Facilities technical course is offered by six institutions, followed by one institution offering each one of the following technical courses: Mechanics, Mechanical-Electrical and Car Mechanics.

The presence of the Mining Technician certificate is relevant to the economy of the province.

Of the two courses offered at the higher level, one is in Renewable Energies.

LACKING AREAS

Training needs to be developed for the Food Industry and the Electronics industry, which cuts across several of the other training and production areas.

It may be necessary to diversify the training offered at the professional training level. The current offer is traditional with a low level of complexity. There are only nine qualifications in the Electromechanics, Mechanics and Car Mechanics sectors, and this offer could be much more diverse.

TABLE 37

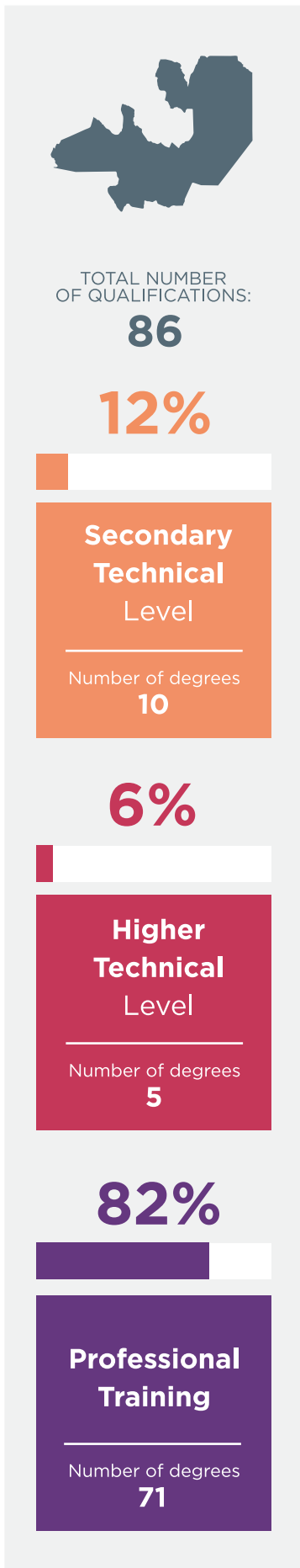
Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	-	1	3
Leather and Footwear	-	-	4
Electromechanical, Mechanical and Automotive	4	1	9
Food, Processes and Chemical Industry	1	-	-
Electronics	-	-	-
Graphic and Multimedia Industry	-	-	1
IT	1	-	2
Wood and Furniture	-	-	2
Mining and Hydrocarbons	1	-	-
Textiles and Clothing	-	-	6

TABLE 38

Qualification	TVET Scope	Number of Institutions	MR
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	6	Yes
Mechanical and Electrical Technician	Secondary Technical Schools	1	Yes
Mechanical Technician	Secondary Technical Schools	1	No
Automotive Technician	Secondary Technical Schools	1	Yes
Process Industry Technician	Secondary Technical Schools	2	Yes
Professional and Personal IT Technician	Secondary Technical Schools	3	Yes
Mining Technician	Secondary Technical Schools	2	Yes
Advanced Renewable Energies Technician	Higher Technical Schools	1	No
Advanced Industrial Organization, Management and Quality Production Technician	Higher Technical Schools	1	No
Electrician	Professional Training	2	No
Assistant Industrial Electrician	Professional Training	1	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Power Systems Circuit Board Assembler	Professional Training	1	Yes
Tanning and Leather Goods Assistant	Professional Training	3	No
Tanner	Professional Training	1	No
Tanning and Leatherworking	Professional Training	1	No
Saddlery and Leatherworking	Professional Training	1	No
Refrigeration Equipment and Systems Installer and Repairer	Professional Training	2	No
Artistic Blacksmithing	Professional Training	1	No
Blacksmith	Professional Training	2	Yes
Welder	Professional Training	7	Yes
Basic Welder	Professional Training	7	Yes
Moped/Motorcycle Mechanic	Professional Training	1	No
Motorcycle Mechanic	Professional Training	1	No
Assistant Gas Engine Mechanic	Professional Training	4	Yes
Ignition and Power System Mechanic	Professional Training	1	Yes
Advertising signage	Professional Training	2	No
IT/Computing	Professional Training	1	No
Basic PC Operator	Professional Training	1	No
Licensed Carpenter	Professional Training	1	No
Carpenter (Wooden Furniture)	Professional Training	5	No
Tailoring Assistant	Professional Training	7	No
Assistant Dressmaker	Professional Training	1	No
Tailor - Dressmaker	Professional Training	4	No
Dressmaking	Professional Training	1	No
Assistant Weaver	Professional Training	4	No
Handmade Weaving	Professional Training	1	No



Salta

Region: Argentine Northwest

The training offer in Salta is quite balanced.

It has a number of secondary level technical courses in several sectors of the economy, and the number of certificates offered in the area of Electromechanics, Mechanics and Car Mechanics is balanced with those of the Food, Processing and Chemical industries.

At the higher technical level, there are technical courses in Electronics and Mechatronics, which are very relevant not only to the sector but to the entire NW region, since this is the only province where they are taught.

The professional training certificates on offer are quite numerous, and there is a wide variety of certifications in each sector.

DOMINANT AREAS

The province has a varied and adjusted training offer in each area and in each manufacturing industry.

There is a preponderance of the Metalworking industry together with the Electronics and Textile and Clothing industries—the latter being important for the economy of the province.

The three certificates offered by secondary level institutions in the Metalworking industry have a good, but perhaps slightly unbalanced coverage at the province level. The certificate of Technician in Electromechanical Equipment and Installations is offered by 15 institutions throughout the province, while the Metallurgical Technician and Car Mechanic certificates are only offered in one and two institutions, respectively.

The Food, Processing and Chemical industry is better represented: the Processing Industry Technician certificate is offered by eight institutions, while the Chemical Technician and Food Industry Technician certificates are offered by four and three institutions, respectively.

It is worth noting that the Electronic Technician training is quite widespread, taught by 11 institutions in the province.

LACKING AREAS

It might be necessary to consider improving the training offer at the secondary or higher level in the area of Energy and Mining and Hydrocarbons.

TABLE 39

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	1	-	-
Energy and Electrical Energy	-	-	7
Leather and Footwear	-	-	5
Electromechanical, Mechanical and Automotive	3	1	21
Food, Processes and Chemical Industry	3	-	2
Electronics	1	2	5
Graphic and Multimedia Industry	-	-	2
IT	1	-	5
Wood and Furniture	-	-	4
Mining and Hydrocarbons	-	1	-
Textiles and Clothing	1	1	20

TABLE 40

Qualification	TVET Scope	Number of Institutions	MR
Aviation Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	15	Yes
Metallurgical Technician	Secondary Technical Schools	1	No
Automotive Technician	Secondary Technical Schools	2	Yes
Food Technology Technician	Secondary Technical Schools	3	Yes
Process Industry Technician	Secondary Technical Schools	8	Yes
Chemical Technician	Secondary Technical Schools	4	Yes
Electronics Technician	Secondary Technical Schools	11	Yes
Professional and Personal IT Technician	Secondary Technical Schools	5	Yes
Clothing and Textile Product Technician	Secondary Technical Schools	3	Yes
Advanced Industrial Maintenance Technician	Higher Technical Schools	1	No
Advanced Electronics Technician	Higher Technical Schools	1	No
Advanced Mechatronics Technician	Higher Technical Schools	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced Mining Technician	Higher Technical Schools	1	No
Advanced Textile and Clothing Industry Technician	Higher Technical Schools	1	No
Electricity/Electronics	Professional Training	1	No
Basic Electronics	Professional Training	4	No
Real Estate Electrician	Professional Training	1	Yes
Home Electrical Installation	Professional Training	10	No
Household/Industrial Electricity Assistant	Professional Training	3	No
Household and Industrial Electricity	Professional Training	1	No
Home and Industrial Electrical Installations	Professional Training	7	No
Leatherworking and Shoemaking	Professional Training	1	No
Shoe Repairs	Professional Training	1	No
Leather Crafting	Professional Training	7	No
Tanner	Professional Training	1	No
Leatherworking	Professional Training	4	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	1	No
Refrigeration Equipment and Systems Installer and Repairer	Professional Training	3	No
Pneumatics and Hydraulics	Professional Training	1	No
Assistant Mechanic	Professional Training	1	No
Turner	Professional Training	3	Yes
Turner / Miller	Professional Training	1	No
Metal and PVC carpentry	Professional Training	1	Yes
Artistic Blacksmithing	Professional Training	3	No
Blacksmith	Professional Training	3	Yes
Welder	Professional Training	2	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Basic Welder	Professional Training	6	Yes
Moped/Motorcycle Mechanic	Professional Training	2	No
Electricity and Automotive Electronics	Professional Training	1	No
Automotive Mechanics	Professional Training	1	No
Motorcycle Mechanic	Professional Training	3	No
Assistant Diesel Engine Mechanic	Professional Training	3	Yes
Assistant Gas Engine Mechanic	Professional Training	3	Yes
Automotive Gasoline Injection	Professional Training	1	No
Engine Mechanic	Professional Training	1	No
Diesel Engine Mechanic	Professional Training	1	No
Automotive Electrician	Professional Training	1	Yes
Production of handmade sweets and preserves	Professional Training	2	No
Production of Preserves	Professional Training	1	No
Basic Electronics	Professional Training	2	No
Assembly and Repair of PCs	Professional Training	3	No
Computer Equipment Maintenance and Repair	Professional Training	1	No
Audio, Radio and TV Equipment Repairer	Professional Training	2	No
Radio Operator	Professional Training	1	No
Computer Aided Graphic Design	Professional Training	1	No
Multimedia Operator	Professional Training	1	No
Programmer	Professional Training	3	No
IT/Computing	Professional Training	8	No
Advanced PC Operations	Professional Training	1	No
Office IT operator	Professional Training	5	No

Snapshot of Technical and Vocational Education and Training in Argentina

PC Operator with Administration Tasks	Professional Training	1	No
Fretwork and Wood Carving	Professional Training	1	No
Bench Carpenter	Professional Training	1	No
Carpenter (wood)	Professional Training	8	No
Carpenter (Wooden Furniture)	Professional Training	1	No
Embroidery	Professional Training	4	No
Hand and machine embroidery	Professional Training	1	No
Embroidery and Lingerie	Professional Training	1	No
Tailor - Dressmaker	Professional Training	6	No
Industrial Textile Manufacturer	Professional Training	1	No
Tailoring with Industrial Orientation	Professional Training	1	No
Dressmaking	Professional Training	20	No
Children's clothing manufacturing	Professional Training	1	No
Clothing Design	Professional Training	11	No
Textiles and garments	Professional Training	4	No
Handmade Textile Production	Professional Training	2	No
Textiles	Professional Training	1	No
Upholsterer	Professional Training	4	No
Assistant Weaver	Professional Training	1	No
Weaving	Professional Training	10	No
Hand weaving	Professional Training	1	No
Hand and machine weaving	Professional Training	6	No
Machine Weaving	Professional Training	3	No
Handmade Weaving	Professional Training	2	No
Loom Weaving	Professional Training	6	No



TOTAL NUMBER OF QUALIFICATIONS:

63

19%

**Secondary
Technical
Level**

Number of degrees
12

5%

**Higher
Technical
Level**

Number of degrees
3

76%

**Professional
Training**

Number of degrees
48

Jujuy

Region: Argentine Northwest

The province of Jujuy offers degrees at the three levels of TVET.

The training offer at the secondary level is balanced for all sectors, with a clear and traditional dominance of the Metalworking industry. There are five technical courses on offer: Electromechanical Equipment and Installations (taught in six institutions), Mechanics (in two institutions), Car Mechanics (in one institution), Agricultural Mechanization (in one institution), and Electrical Mechanics (in one institution).

Two higher technical courses are also available in this area, i.e. one in Mechanics, Car Mechanics and Thermal Machines, and the other in Car Mechanics.

DOMINANT AREAS

The training offer at the secondary level is adequate and balanced.

There professional training for most of the relevant socio-productive sectors of the province. There are many training offers in the Mining and Hydrocarbons industries (not found in other provinces), Textile and Clothing with a strong focus on the Weaving sector (important for artisan and industrial production), and Metalworking and Energy.

LACKING AREAS

Reinforcing the training offer in higher technical courses for the following key sectors could be an option: Mining and Hydrocarbons, the Food, Processing and Chemical industry, which is arguably the most underrepresented sector in the technical and vocational training offered in the province.

TABLE 41

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	1	1	6
Leather and Footwear	-	-	1
Electromechanical, Mechanical and Automotive	5	2	11
Food, Processes and Chemical Industry	1	-	1
Electronics	1	-	4
Graphic and Multimedia Industry	-	-	1
IT	2	-	4
Wood and Furniture	-	-	2
Mining and Hydrocarbons	1	-	8
Textiles and Clothing	1	-	10

TABLE 42

Qualification	TVET Scope	Number of Institutions	MR
Electrical Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	6	Yes
Mechanical and Electrical Technician	Secondary Technical Schools	1	No
Mechanical Technician	Secondary Technical Schools	2	Yes
Agricultural Machining Technician	Secondary Technical Schools	1	Yes
Automotive Technician	Secondary Technical Schools	1	Yes
Chemical Technician	Secondary Technical Schools	2	Yes
Electronics Technician	Secondary Technical Schools	3	Yes
IT Technician	Secondary Technical Schools	2	No
Professional and Personal IT Technician	Secondary Technical Schools	2	Yes
Mining Technician	Secondary Technical Schools	2	Yes
Clothing and Textile Product Technician	Secondary Technical Schools	1	Yes
Advanced Design, Control and Electrical Drive Technician	Higher Technical Schools	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced Automotive Technician	Higher Technical Schools	1	No
Advanced Mechanics, Automobiles and Thermal Machines Technician	Higher Technical Schools	1	No
Real Estate Electrician	Professional Training	6	Yes
Electrician	Professional Training	4	No
Electrical Assistant	Professional Training	1	No
Household and Industrial Electricity	Professional Training	4	No
Industrial Electrician	Professional Training	1	Yes
Home and Industrial Electrical Installations	Professional Training	1	No
Leatherworking	Professional Training	2	No
Assistant Turner	Professional Training	1	No
Artistic Blacksmithing	Professional Training	1	No
Blacksmith	Professional Training	2	Yes
Welder	Professional Training	1	Yes
Basic Welder	Professional Training	1	Yes
Automotive Mechanics	Professional Training	4	No
Automotive Bodywork	Professional Training	1	No
Automotive Painter	Professional Training	1	Yes
Assistant Diesel Engine Mechanic	Professional Training	1	Yes
Assistant Gas Engine Mechanic	Professional Training	2	Yes
Automotive Electrician	Professional Training	6	Yes
Industrialization of Farm Products - Fruits	Professional Training	1	No
Electronics Assistant	Professional Training	1	No
Basic Electronics	Professional Training	5	No
Computer Equipment Maintenance and Repair	Professional Training	3	No
Audio, Radio and TV Equipment Repairer	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Silk-screen printing	Professional Training	1	No
IT/Computing	Professional Training	2	No
Internet	Professional Training	1	No
Basic PC Operator	Professional Training	6	No
Office IT operator	Professional Training	1	No
Carpenter (wood)	Professional Training	5	No
Basic Handicrafts and Furniture Assistant	Professional Training	1	No
Geology and Sampling Assistant	Professional Training	1	No
Chemical Laboratory Assistant	Professional Training	1	No
Assistant Driller	Professional Training	1	No
Management and Maintenance of Electronic and Electromechanical Equipment	Professional Training	1	No
Management and Maintenance of Hydraulic and Pneumatic Equipment	Professional Training	1	No
Front loader operator	Professional Training	1	No
Jumbo Operator	Professional Training	1	No
Operator, Milling, Grinding and Flotation	Professional Training	1	No
Dressmaking	Professional Training	1	No
Tailor - Dressmaker	Professional Training	1	No
Dressmaking	Professional Training	13	No
Workwear and Uniform Machinist	Professional Training	1	No
Upholsterer	Professional Training	2	No
Weaving	Professional Training	4	No
Hand weaving	Professional Training	1	No
Hand and machine weaving	Professional Training	5	No
Handmade Weaving	Professional Training	2	No
Loom Weaving	Professional Training	1	No



TOTAL NUMBER OF QUALIFICATIONS:

75

14%

Secondary Technical Level

Number of degrees
11

7%

Higher Technical Level

Number of degrees
5

79%

Professional Training

Number of degrees
59

Tucumán

Region: Argentine Northwest

There is a clear concentration of qualifications at the secondary level in the Metalworking, Car Mechanics and Food, Processing and Chemical industries, which are, in principle, in line with the economy of the province.

At the higher technical level, there are two courses in the Energy sector, one is in Renewable Energy; in the Food, Processing and Chemical industry, one course is in Bromatology and the other one in Laboratory Analysis.

The professional training offer is wide, it includes traditional certifications for the various sectors, and there is a predominance of the Metalworking and Textile industries.

DOMINANT AREAS

Among the secondary level certificates offered for the Metalworking industry, 17 institutions in the province offer the technical course in Equipment and Electromechanical Installations. The only certificate for the Computer Science sector (Professional and Personal Computer Technician) is offered by seven institutions, while the Electronic Technician certificate is offered by six institutions.

As for professional training, the most traditional certifications are offered in the Metalworking, Energy and Textile industries (with emphasis on the Weaving sector). In the Electronics industry there is a newly-created title in Robotics.

There are two certifications for the Mining and Hydrocarbons industries, and one in Paper Preservation in the Processing sector, which are in line with the economy of the province.

LACKING AREAS

It is necessary to strengthen the Food, Processing and Chemical industry and the Electromechanical and Mechanical sector at the higher technical level.

TABLE 43

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	-	2	5
Leather and Footwear	-	-	3
Electromechanical, Mechanical and Automotive	4	-	21
Food, Processes and Chemical Industry	4	2	2
Electronics	1	-	8
Graphic and Multimedia Industry	-	-	3
IT	1	1	1
Wood and Furniture	-	-	4
Mining and Hydrocarbons	-	-	2
Textiles and Clothing	1	-	10

TABLE 44

Qualification	TVET Scope	Number of Institutions	MR
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	17	Yes
Mechanical and Electrical Technician	Secondary Technical Schools	2	No
Agricultural Machining Technician	Secondary Technical Schools	1	Yes
Automotive Technician	Secondary Technical Schools	2	Yes
Food Technology Technician	Secondary Technical Schools	1	Yes
Process Industry Technician	Secondary Technical Schools	2	Yes
Agroindustrial Technician	Secondary Technical Schools	1	No
Chemical Technician	Secondary Technical Schools	1	Yes
Electronics Technician	Secondary Technical Schools	6	Yes
Professional and Personal IT Technician	Secondary Technical Schools	7	Yes
Clothing and Textile Product Technician	Secondary Technical Schools	1	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

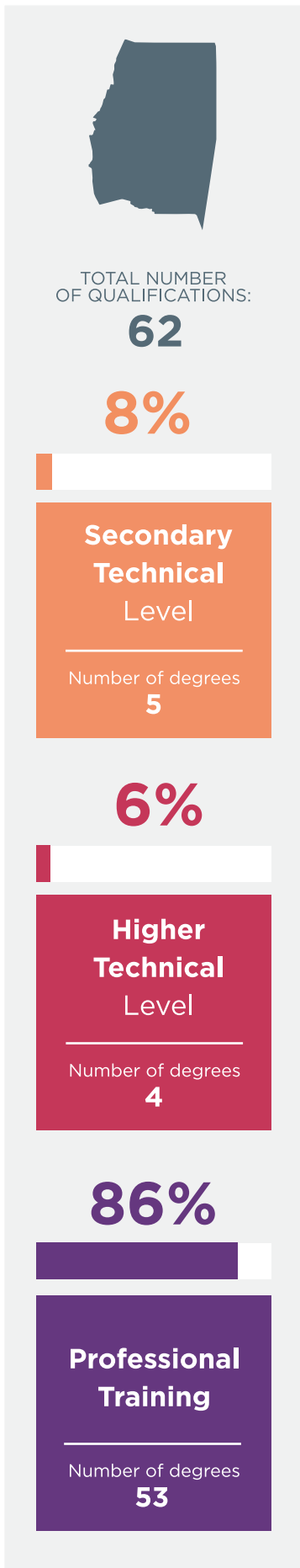
Advanced Design, Control and Electrical Drive Technician	Higher Technical Schools	1	No
Advanced Renewable Energies Technician	Higher Technical Schools	1	No
Advanced Bromatology Technician	Higher Technical Schools	1	Yes
Advanced Clinical Laboratory Technician	Higher Technical Schools	2	Yes
Advanced Software Development Technician	Higher Technical Schools	1	No
Real Estate Electrician	Professional Training	2	Yes
Home Electrical Installation	Professional Training	1	No
Assistant Industrial Electrician	Professional Training	1	Yes
Household/Industrial Electricity Assistant	Professional Training	3	No
Industrial or Plant Electrical Installer	Professional Training	1	No
Leatherworking and Shoemaking	Professional Training	1	No
Tanning and Leatherworking	Professional Training	1	No
Leatherworking	Professional Training	2	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	1	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	5	No
Hydraulic Systems Mechanics and Equipment	Professional Training	2	No
Equipment and Pneumatic Systems Mechanics	Professional Training	2	No
Assistant Turner	Professional Training	2	No
Turner	Professional Training	2	Yes
Blacksmith	Professional Training	13	Yes
Heat Treatment Furnace Operator	Professional Training	1	Yes
Machine and Instrument Operator	Professional Training	1	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Basic Welding Assistant	Professional Training	1	No
Welder	Professional Training	6	Yes
Basic Welder	Professional Training	12	Yes
Automotive Electricity and Mechanics	Professional Training	1	No
Automotive Mechanical Assistant	Professional Training	2	No
Assistant Motorcycle Mechanic	Professional Training	1	No
Motorcycle Mechanic	Professional Training	4	No
Assistant Gas Engine Mechanic	Professional Training	1	Yes
Internal Combustion Engine Mechanic	Professional Training	1	Yes
Ignition and Power System Mechanic	Professional Training	2	Yes
Transmission Mechanic	Professional Training	1	Yes
Automotive Electrician	Professional Training	2	Yes
Preparation and Preservation of Meats and Charcuterie	Professional Training	1	No
Paper Conservation	Professional Training	1	No
Basic Electronics applied to Telecommunications	Professional Training	1	No
Telephony	Professional Training	1	No
Assistant Industrial Automation by Programmable Logic Technician (PLC Assistant)	Professional Training	1	No
Assistant Radio and Television Assembly and Repair Technician	Professional Training	1	No
Electronic Audio Systems and Radio Receiver Repairs	Professional Training	1	No
Audio, Radio and TV Equipment Repairer	Professional Training	1	No
TV Repairer	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Robotics	Professional Training	1	No
Multi-printing	Professional Training	1	No
Graphic Design	Professional Training	1	No
Advertising Drawing	Professional Training	1	No
Computer Network Installation, Administration and Maintenance	Professional Training	1	No
Assistant Carpenter	Professional Training	2	No
Bench Carpenter	Professional Training	5	No
Basic Handicrafts and Furniture Assistant	Professional Training	1	No
Handmade Furniture and Decorative Items	Professional Training	8	No
Chemical Laboratory Assistant	Professional Training	1	No
Management and Maintenance of Electronic and Electromechanical Equipment	Professional Training	1	No
Embroidery	Professional Training	3	No
Tailor - Dressmaker	Professional Training	11	No
Industrial Clothing Manufacturer	Professional Training	7	No
Industrial Sewing	Professional Training	1	No
Textile Printing	Professional Training	3	No
Patternmaker	Professional Training	3	No
Garment Machinist	Professional Training	2	No
Handmade Textile Production	Professional Training	10	No
Handmade Weaving	Professional Training	1	No
Loom Weaving	Professional Training	3	No



Santiago del Estero

Region: Argentine Northwest

Education in Santiago del Estero is very traditional and not very diverse.

Five of the traditional TVET certificates are offered at the secondary technical education level. In the Metal-Mechanic industry, the Technical certificate in Electro-mechanical Equipment and Installations is offered by only six institutions in the whole province. Likewise, there are only two training offers in the Food, Processing and Chemical industry in a total of three institutions. The technical course in Electronics is offered by one institution only.

At the higher technical course level, the certifications offered are mainly in the IT sector with three training offers in the Programming and Networking subsectors.

Regarding professional training, the province offers certifications in most sectors, with a strong focus on the Textile and Clothing and Electromechanical, Mechanical and Motor Car industries. These are traditional certifications, present in every institution; this is why titles such as Dressmaking are offered by 34 institutions, or Basic Electricity by 25.

DOMINANT AREAS

There are no dominant areas in secondary and higher technical education.

The professional training offer is concentrated in the Electromechanical, Mechanical and Car Mechanics sectors, and in the Textile and Clothing industry.

LACKING AREAS

There is a need for greater diversity in sectors where there is no offer at the secondary level, and in the TVET offer in Electromechanics and Mechanics, in particular Energy.

Some TVET courses could also be considered for the Food, Processing and Chemical industry.

TABLE 45

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	-	-	7
Leather and Footwear	-	-	3
Electromechanical, Mechanical and Automotive	1	-	15
Food, Processes and Chemical Industry	2	1	-
Electronics	1	-	3
Graphic and Multimedia Industry	-	-	2
IT	1	3	2
Wood and Furniture	-	-	3
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	-	-	18

TABLE 46

Qualification	TVET Scope	Number of Institutions	MR
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	6	Yes
Processing Industry Technician	Secondary Technical Schools	2	Yes
Chemical Technician	Secondary Technical Schools	1	Yes
Electronics Technician	Secondary Technical Schools	1	Yes
Professional and Personal IT Technician	Secondary Technical Schools	4	Yes
Advanced Laboratory Technician	Higher Technical Schools	1	No
Advanced Systems Analysis Technician	Higher Technical Schools	1	No
Advanced IT Infrastructure Technician	Higher Technical Schools	1	No
Advanced Information Technology Infrastructure Support Technician	Higher Technical Schools	1	No
Electricity/Electronics	Professional Training	2	No
Rural Electricity and Farm Buildings	Professional Training	1	No
Machine Winder	Professional Training	1	Yes

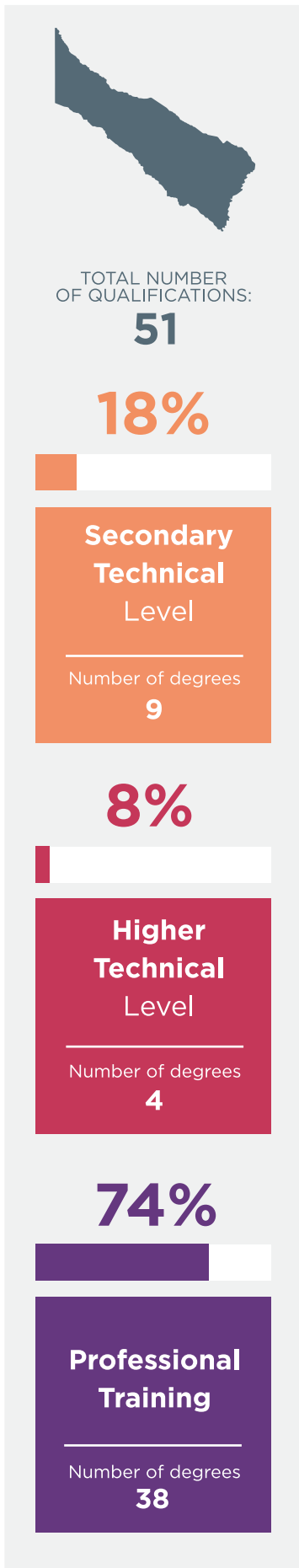
Snapshot of Technical and Vocational Education and Training in Argentina

Basic Electronics	Professional Training	25	No
Real Estate Electrician	Professional Training	2	Yes
Home Electrical Installation	Professional Training	5	No
Electrical Assistant	Professional Training	1	No
Tanner	Professional Training	1	No
Tanning and Leatherworking	Professional Training	3	No
Leatherworking	Professional Training	1	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	2	No
Machinery and Tool Mechanic	Professional Training	1	No
Agricultural Equipment Mechanic	Professional Training	1	No
Turner	Professional Training	1	Yes
Blacksmith	Professional Training	11	Yes
Welder	Professional Training	1	Yes
Basic Welder	Professional Training	1	Yes
Moped/Motorcycle Mechanic	Professional Training	5	No
Automotive Mechanical Assistant	Professional Training	1	No
Assistant Motorcycle Mechanic	Professional Training	1	No
Motorcycle Mechanic	Professional Training	1	No
Automobile Mechanic	Professional Training	9	
Licensed Automotive Mechanic	Professional Training	2	No
GNC Equipment Installation Mechanic	Professional Training	1	Yes
Automotive Electrician	Professional Training	3	No
Basic Electronics	Professional Training	1	No
Audio, Radio and TV Equipment Repairer	Professional Training	6	No
Radio Operator	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Computer Aided Graphic Design	Professional Training	1	No
Advertising Drawing	Professional Training	2	No
Programmer	Professional Training	1	No
Basic PC Operator	Professional Training	2	No
Assistant Carpenter	Professional Training	1	No
Carpenter (wood)	Professional Training	3	No
Licensed Carpenter	Professional Training	21	No
Hand and machine embroidery	Professional Training	1	No
Embroidery and Weaving Painting	Professional Training	1	No
Assistant Dressmaker	Professional Training	2	No
Assistant Dressmaker	Professional Training	1	No
Dressmaking	Professional Training	1	No
Tailor - Dressmaker	Professional Training	3	No
Dressmaking	Professional Training	34	No
Textiles and garments	Professional Training	1	No
Patternmaker	Professional Training	3	No
Moulding	Professional Training	1	No
Licensed Dressmaker	Professional Training	1	No
Clothing Industry Cutting Operator	Professional Training	1	No
Patternmaker, Lingerie and Corsetry	Professional Training	1	No
Upholsterer	Professional Training	9	No
Weaving Assistant	Professional Training	1	No
Licensed Hand and Machine Weaving	Professional Training	6	No
Weaving	Professional Training	3	No
Hand and machine weaving	Professional Training	3	No





Formosa

Region: Argentine Northeast

The secondary technical education offer in the province of Formosa is similar to what is traditionally offered in most educational jurisdictions.

Four certifications are offered for the Metal-Mechanic industry. The technical course in Electromechanical Equipment is offered in three institutions, followed by Mechanics in two, and by Rural and Automotive Mechanical Technician in one.

The higher technical certifications offered are concentrated in the IT sector only, and the professional training certificates offered are geared towards the Metalworking industry.

The professional training options offered are the traditional and historical ones.

DOMINANT AREAS

The Electromechanical, Mechanical and Automotive sector is slightly dominant in the field of professional training, as compared to the rest of the training offer.

LACKING AREAS

There is little diversity of training at the higher level and it could be geared towards sectors such as Energy or Electronics in specific areas to respond to the needs of the different productive sectors.

Likewise, new professional training courses could be added.

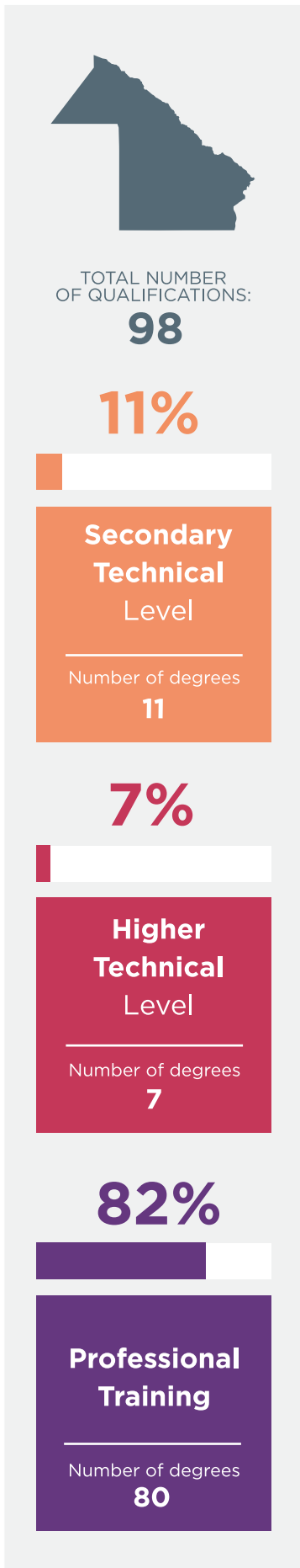
TABLE 47

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	-	-
Energy and Electrical Energy	-	-	3
Leather and Footwear	-	-	1
Electromechanical, Mechanical and Automotive	4	-	15
Food, Processes and Chemical Industry	2	-	3
Electronics	1	-	2
Graphic and Multimedia Industry	-	-	2
IT	2	4	3
Wood and Furniture	-	-	3
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	-	-	6

TABLE 48

Qualification	TVET Scope	Number of Institutions	MR
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	3	Yes
Mechanical Technician	Secondary Technical Schools	2	Yes
Agricultural Machining Technician	Secondary Technical Schools	1	Yes
Automobile Mechanics Technician	Secondary Technical Schools	1	No
Food Technology Technician	Secondary Technical Schools	1	Yes
Chemical Technician	Secondary Technical Schools	1	Yes
Electronics Technician	Secondary Technical Schools	1	Yes
Programming Technician	Secondary Technical Schools	1	Yes
Professional and Personal IT Technician	Secondary Technical Schools	2	Yes
Advanced IT Technician	Higher Technical Schools	1	No
Advanced Software Development Technician	Higher Technical Schools	1	No
Advanced IT Networks Technician	Higher Technical Schools	1	No
Advanced IT Technician	Higher Technical Schools	1	No
Electrician	Professional Training	5	No
Assistant Industrial Electrician	Professional Training	1	Yes
Home and Industrial Electrical Installations	Professional Training	1	No

Leather Crafting	Professional Training	1	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	2	No
Turner	Professional Training	2	Yes
Turner / Miller	Professional Training	1	No
Assistant Blacksmith	Professional Training	2	No
Blacksmith	Professional Training	3	Yes
Welder	Professional Training	4	Yes
Basic Welder	Professional Training	10	Yes
Moped/Motorcycle Mechanic	Professional Training	1	No
Electricity and Automotive Electronics	Professional Training	1	No
Automotive Mechanical Assistant	Professional Training	1	No
Motorcycle Mechanical Assistant	Professional Training	3	No
Motorcycle Mechanic	Professional Training	3	No
Automotive Bodywork	Professional Training	1	No
Assistant Gas Engine Mechanic	Professional Training	2	Yes
Internal Combustion Engine Mechanic	Professional Training	1	Yes
Production of handmade sweets and preserves	Professional Training	1	No
Production of Preserved Fruits and Vegetables	Professional Training	1	No
Production of Dairy Products	Professional Training	1	No
PC Maintenance and Repair Assistant	Professional Training	1	No
Basic Electronics applied to Telecommunications	Professional Training	1	No
Editorial Design	Professional Training	1	No
Multimedia Product Development	Professional Training	1	No
IT/Computing	Professional Training	1	No
Basic PC Operator	Professional Training	1	No
Office IT operator	Professional Training	1	No
Joinery	Professional Training	1	No
Assistant Carpenter	Professional Training	2	No
Carpenter (Wooden Furniture)	Professional Training	3	No
Dressmaking	Professional Training	1	No
Tailor - Dressmaker	Professional Training	2	No
Patternmaker	Professional Training	1	No
Garment Machinist	Professional Training	2	No
Garment Recycling	Professional Training	1	No
Handmade Weaving	Professional Training	1	No



Chaco

Region: Argentine Northeast

The Technical and Professional Education training in the province of Chaco is wide-ranging and aligned with the economy of the province, covering most of the sectors of the manufacturing industry. The only one for which no qualifications are offered (Mining and Hydrocarbons) is irrelevant to the economy of the province.

There are one or two secondary level certificates in all sectors including Aeronautics, Wood and Furniture and Metalworking.

At the higher level, there are also qualifications in most sectors, and this is the case for professional training too.

DOMINANT AREAS

The traditional sectors of Metalworking, Processes and Electronics are adequately represented in the range of certifications available in the province.

The certifications available at the three levels of training in the Aeronautical sector are distinctive, with two intermediate level certificates (Aeronautical and Avionics Technician), one higher level certificate (Civil Aviation Administration Technician) and five professional training certificates. The case of the Wood and Furniture industry is similar.

At the professional training level, there is also a wide range of courses available in the different subsectors of the Textile and Clothing and Metalworking and Automotive industries.

LACKING AREAS

There is a lack of higher TVET opportunities in the areas of Wood and Furniture, Electronics, Energy and Electrical Energy, and Textiles and Clothing, which shows the lack of coordination with the province's manufacturing sectors.

TABLE 49

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	2	1	5
Energy and Electrical Energy	1	-	5
Leather and Footwear	-	-	3
Electromechanical, Mechanical and Automotive	2	1	18
Food, Processes and Chemical Industry	1	2	4
Electronics	1	-	8
Graphic and Multimedia Industry	-	1	4
IT	1	2	7
Wood and Furniture	2	-	5
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	1	-	21

TABLE 50

Qualification	TVET Scope	Number of Institutions	MR
Avionics Technician	Secondary Technical Schools	1	Yes
Aviation Technician	Secondary Technical Schools	1	Yes
Electrical Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	17	Yes
Mechanical Technician	Secondary Technical Schools	2	Yes
Process Industry Technician	Secondary Technical Schools	2	Yes
Electronics Technician	Secondary Technical Schools	3	Yes
Computer Technician	Secondary Technical Schools	5	Yes
Woodwork Technician	Secondary Technical Schools	1	No
Wood and Furniture Industrialization Technician	Secondary Technical Schools	1	Yes
Clothing and Textile Product Technician	Secondary Technical Schools	1	Yes
Advanced Civil Aviation Administration Technician	Higher Technical Schools	1	No

Advanced Electromechanical Equipment and Installations Technician	Higher Technical Schools	1	No
Advanced Food Technology Technician	Higher Technical Schools	1	No
Advanced Bromatology Technician	Higher Technical Schools	1	Yes
Advanced Multimedia Communication Technician	Higher Technical Schools	1	No
Advanced Software Development Technician	Higher Technical Schools	2	No
Advanced Information Technology Infrastructure Support Technician	Higher Technical Schools	1	No
Aircraft Dispatcher	Professional Training	1	No
Meteorologist	Professional Training	1	No
Ramp Service Operator	Professional Training	1	No
Airfield Signaler	Professional Training	1	No
Ramp Supervisor	Professional Training	1	No
Machine Winder	Professional Training	3	Yes
Real Estate Electrician	Professional Training	3	Yes
Home Electrical Installation	Professional Training	4	No
Household/Industrial Electricity Assistant	Professional Training	1	No
Industrial Electrician	Professional Training	1	Yes
Shoemaker	Professional Training	1	No
Leatherworking	Professional Training	4	No
Saddlery and Leatherworking	Professional Training	1	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	9	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	7	No
Assistant Mechanic	Professional Training	1	No
Turner	Professional Training	2	Yes
Blacksmith	Professional Training	9	Yes
Basic welding assistant/ Arc Welding assistant	Professional Training	1	No
Welder	Professional Training	1	Yes
Basic Welder	Professional Training	8	Yes
Electricity and Automotive Electronics	Professional Training	1	No

Assistant Motorcycle Mechanic	Professional Training	5	No
Automotive Mechanics	Professional Training	2	No
Motorcycle Mechanic	Professional Training	5	No
Automotive Painting and Coatings	Professional Training	1	No
Assistant Diesel Engine Mechanic	Professional Training	2	Yes
Assistant Gas Engine Mechanic	Professional Training	4	Yes
Internal Combustion Engine Mechanic	Professional Training	2	Yes
Ignition and Power System Mechanic	Professional Training	2	Yes
Automotive Electrician	Professional Training	4	Yes
Pasta Manufacture and Production	Professional Training	1	No
Food Preservation	Professional Training	1	No
Production of Preserves	Professional Training	1	No
Production of Dairy Products	Professional Training	1	No
Electronics Assistant	Professional Training	2	No
Assembly and Repair of PCs	Professional Training	4	No
PC Maintenance and Repair Assistant	Professional Training	3	No
Computer Equipment Maintenance and Repair	Professional Training	3	No
Assistant Industrial Automation by Programmable Logic Technician (PLC Assistant)	Professional Training	1	No
Control and Automation	Professional Training	1	No
Audio, Radio and TV Equipment Repairer	Professional Training	2	No
TV Repairs	Professional Training	1	No
Photography	Professional Training	2	No
Binding	Professional Training	2	No
Multimedia Operator	Professional Training	2	No
Advertising Graphic Design	Professional Training	1	No
Network Installation, Administration and Maintenance	Professional Training	1	No
Advanced PC Operations	Professional Training	3	No

Snapshot of Technical and Vocational Education and Training in Argentina

Basic PC Operator	Professional Training	7	No
Database Operator/Access	Professional Training	1	No
Office IT operator	Professional Training	2	No
Spreadsheet / Excel Operator	Professional Training	1	No
Word Processing Operator	Professional Training	1	No
Assistant Carpenter	Professional Training	5	No
Bench Carpenter	Professional Training	8	No
Carpenter (wood)	Professional Training	2	No
Licensed Carpenter	Professional Training	3	No
Carpenter (Wooden Furniture)	Professional Training	1	No
Embroidery	Professional Training	3	No
Shirtmaker	Professional Training	1	No
Dressmaking	Professional Training	3	No
Tailor - Dressmaker	Professional Training	16	No
Linen manufacturer	Professional Training	1	No
Informal and Sportswear Manufacturer	Professional Training	2	No
Industrial Clothing Manufacturer	Professional Training	1	No
Dressmaking	Professional Training	2	No
Blouse making and alterations	Professional Training	1	No
Children's clothing manufacturing	Professional Training	1	No
Textiles and garments	Professional Training	2	No
Patternmaker	Professional Training	2	No
Tailor	Professional Training	1	No
Clothing Industry Cutting Operator	Professional Training	2	No
Garment Machinist	Professional Training	3	No
Patternmaker, Lingerie and Corsetry	Professional Training	2	No
Upholsterer	Professional Training	3	No
Crochet	Professional Training	2	No
Hand weaving	Professional Training	4	No
Loom Weaving	Professional Training	2	No
Production project in clothing	Professional Training	1	No



TOTAL NUMBER OF QUALIFICATIONS:

92

13%

Secondary Technical Level

Number of degrees

12

20%

Higher Technical Level

Number of degrees

18

67%

Professional Training

Number of degrees

62

Misiones

Region: Argentine Northeast

In Misiones, training at the three levels is wide-ranging, including the most traditional certifications but also more recent ones.

The certifications correspond to the productive needs of the province, specifically in all the areas related to the Food, Processing and Chemical industry, and the Wood and Furniture industry.

In turn, the province has a significant number of institutions that offer the different certifications. The offer of higher level certifications exceeds that of secondary level certificates.

As in most provinces, the technical course in Electro-mechanical Equipment and Installations is the most commonly offered one, taught in 24 educational institutions in the province, followed by the technical course in Professional and Personal Computing, taught in 10 institutions.

The training offer in the field of higher technical courses is wide-ranging, basically oriented to Industrial Maintenance, Graphic Design, Systems and Networks and those specific to the Wood sector.

DOMINANT AREAS

The professional training offer is predominantly for the Electromechanical, Mechanical and Automotive sector and in the Textile and Clothing industry.

LACKING AREAS

There are no noticeable training lacking areas that impact the province.

TABLE 51

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	1	-	-
Energy and Electrical Energy	1	1	9
Leather and Footwear	-	-	-
Electromechanical, Mechanical and Automotive	3	2	21
Food, Processes and Chemical Industry	3	3	1
Electronics	1	2	6
Graphic and Multimedia Industry	-	3	2
IT	1	4	3
Wood and Furniture	1	2	9
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	1	1	11

TABLE 52

Qualification	TVET Scope	Number of Institutions	MR
Aviation Technician	Secondary Technical Schools	1	Yes
Renewable Energy Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	24	Yes
Agricultural Machining Technician	Secondary Technical Schools	3	Yes
Automotive Technician	Secondary Technical Schools	5	Yes
Food Technology Technician	Secondary Technical Schools	3	Yes
Process Industry Technician	Secondary Technical Schools	4	Yes
Chemical Technician	Secondary Technical Schools	1	Yes
Electronics Technician	Secondary Technical Schools	2	Yes
Professional and Personal IT Technician	Secondary Technical Schools	10	Yes
Wood and Furniture Industrialization Technician	Secondary Technical Schools	3	Yes
Clothing and Textile Product Technician	Secondary Technical Schools	1	Yes

Advanced Electrical Energy Technician	Higher Technical Schools	1	No
Advanced Industrial Maintenance Technician	Higher Technical Schools	1	No
Advanced Electromechanical Equipment and Installations Technician	Higher Technical Schools	3	No
Advanced Industrial Maintenance Technician	Higher Technical Schools	1	No
Advanced Food Enterprise Technician	Higher Technical Schools	1	No
Advanced Bromatology Technician	Higher Technical Schools	1	Yes
Advanced Bakery Industry Technician	Higher Technical Schools	1	No
Advanced Electronics Technician	Higher Technical Schools	1	No
Advanced Telecommunications Technician	Higher Technical Schools	1	No
Advanced Graphic Design Technician	Higher Technical Schools	1	No
Advanced Advertising Graphic Design and Visual Communications Technician	Higher Technical Schools	1	No
Advanced Advertising Graphic Design Technician	Higher Technical Schools	1	No
Advanced Technician in IT and Communications Technology	Higher Technical Schools	1	No
Advanced Systems Analysis Technician	Higher Technical Schools	3	No
Senior Analysis and Programming Technician	Higher Technical Schools	2	No
Advanced Network Technician	Higher Technical Schools	2	No
Advanced Wooden Construction Technician	Higher Technical Schools	1	No
Advanced Wood Company and Industry Technician	Higher Technical Schools	1	No
Advanced Multimedia Design Technician	Higher Technical Schools	2	No
Renewable Energy Electrical Systems Installer	Professional Training	1	No
Basic Electronics	Professional Training	1	No
Real Estate Electrician	Professional Training	1	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Home Electrical Installation	Professional Training	7	No
Assistant Industrial Electrician	Professional Training	2	Yes
Household/Industrial Electricity Assistant	Professional Training	1	No
Household and Industrial Electricity	Professional Training	2	No
Industrial Electrician	Professional Training	1	Yes
Home and Industrial Electrical Installations	Professional Training	1	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	2	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	6	No
Turner	Professional Training	5	Yes
Assistant Blacksmith	Professional Training	1	No
Artistic Blacksmithing	Professional Training	1	No
Blacksmith	Professional Training	1	Yes
Blacksmith Welder	Professional Training	1	No
Machine and Instrument Operator	Professional Training	1	Yes
Welder	Professional Training	4	Yes
Basic Welder	Professional Training	3	Yes
Moped/Motorcycle Mechanic	Professional Training	1	No
Assistant Motorcycle Mechanic	Professional Training	2	No
Automotive Mechanics	Professional Training	1	No
Motorcycle Mechanic	Professional Training	3	No
Diesel and Petrol Engine Maintenance Assistant	Professional Training	1	No
Assistant Diesel Engine Mechanic	Professional Training	4	Yes
Assistant Gas Engine Mechanic	Professional Training	6	Yes
Ignition and Power System Mechanic	Professional Training	3	Yes
Diesel Fuel Injection Systems Mechanic	Professional Training	1	Yes
Assistant Automotive Electrician	Professional Training	1	No
Automotive Electrician	Professional Training	2	Yes
Production of preserves	Professional Training	1	No
Basic Electronics	Professional Training	2	No
Assembly and Repair of PCs	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

PC Maintenance and Repair Assistant	Professional Training	1	No
Computer Equipment Maintenance and Repair	Professional Training	2	No
Telephony Assistant	Professional Training	1	No
Assistant Radio and Television Assembly and Repair Technician	Professional Training	1	No
Computer Graphic Design	Professional Training	1	No
Web page Design and/or Programming	Professional Training	1	No
Programmer	Professional Training	3	No
Computer Network Installation, Administration and Maintenance	Professional Training	4	No
Basic PC Operator	Professional Training	9	No
Wood production machinery and tool operator	Professional Training	1	No
Bench Carpenter	Professional Training	3	No
Carpenter (wood)	Professional Training	2	No
Carpentry/Qualified Worker	Professional Training	1	No
Carpenter (Wooden Furniture)	Professional Training	4	No
Main Sawmill Machine Operator	Professional Training	1	No
Moulding Operator	Professional Training	1	No
Grinding Room Operator	Professional Training	2	No
Management and Maintenance of Electronic and Electromechanical Equipment	Professional Training	1	No
Embroidery and Weaving Painting	Professional Training	1	No
Tailoring Assistant	Professional Training	1	No
Shirtmaker	Professional Training	1	No
Tailor - Dressmaker	Professional Training	13	No
Dressmaking	Professional Training	2	No
Industrial Sewing	Professional Training	1	No
Clothing Design	Professional Training	1	No
Tailor	Professional Training	1	No
Garment Machinist	Professional Training	1	No
Garment Recycling	Professional Training	1	No
Weaving	Professional Training	1	No



TOTAL NUMBER OF QUALIFICATIONS:

53

19%

Secondary Technical Level

Number of degrees

10

7%

Higher Technical Level

Number of degrees

4

74%

Professional Training

Number of degrees

39

Corrientes

Region: Argentine Northeast

The education offer in the province is concentrated at the secondary and professional training levels. Higher level certifications are scarce and not very diverse. Three of the four certificates offered are for the IT sector.

Secondary level training offers are present in most sectors and have good coverage throughout the province.

The technical course in Electro-Mechanical Equipment and Installations is taught in 12 institutions, as well as the technical course in Professional and Personal Computers, followed by the technical course in Electricity, all of which are of strategic importance for the province. Corrientes is the only province to offer a technical course in Port Construction and Waterways in the country. The professional training certificates offered are concentrated in the most traditional and historical sectors.

DOMINANT AREAS

Professional training is predominant in the Electromechanical, Mechanical and Automotive sectors.

LACKING AREAS

Little training exists for the Energy and Electrical Energy industry, which is key to the province. It is interesting to note that there are still no certifications in the field of Renewable Energy at any training level, with the exception of the higher level. Of the four higher technical courses offered, three belong to the IT sector.

There are no courses at the professional training level for important sectors such as Food, Processing and Chemistry, and IT.

Certifications for the Textile and Clothing industry could be strengthened, specifically in the embroidery and clothing subsector, given the needs of the cultural industry related to the the local carnival.

TABLE 53

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	1	-	-
Energy and Electrical Energy	1	-	6
Leather and Footwear	-	-	-
Electromechanical, Mechanical and Automotive	4	-	17
Food, Processes and Chemical Industry	1	1	-
Electronics	1	-	8
Graphic and Multimedia Industry	-	-	-
IT	1	3	-
Wood and Furniture	1	-	4
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	-	-	4

TABLE 54

Qualification	TVET Scope	Number of Institutions	MR
Port Construction and Waterways Technician	Secondary Technical Schools	1	No
Electricity Technician	Secondary Technical Schools	5	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	12	Yes
Mechanical Technician	Secondary Technical Schools	2	Yes
Agricultural Machining Technician	Secondary Technical Schools	2	Yes
Automotive Technician	Secondary Technical Schools	1	Yes
Chemical Technician	Secondary Technical Schools	2	Yes
Electronics Technician	Secondary Technical Schools	3	Yes
Professional and Personal IT Technician	Secondary Technical Schools	12	Yes
Wood and Furniture Industrialization Technician	Secondary Technical Schools	6	Yes
Advanced Clinical Laboratory Technician	Higher Technical Schools	1	Yes
Advanced Software Development Technician	Higher Technical Schools	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced IT Infrastructure Technician	Higher Technical Schools	4	No
Advanced Information Technology Infrastructure Support Technician	Higher Technical Schools	2	No
Assistant Medium and Low Voltage Distribution Networks Electrician	Professional Training	1	Yes
Electric Machine Winder	Professional Training	3	Yes
Real Estate Electrician	Professional Training	4	Yes
Assistant Industrial Electrician	Professional Training	4	Yes
Household/Industrial Electricity Assistant	Professional Training	3	No
Industrial Electrician	Professional Training	1	Yes
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	12	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	6	No
Miller	Professional Training	2	Yes
Turner	Professional Training	5	Yes
Assistant Blacksmith	Professional Training	1	No
Metal and PVC carpentry	Professional Training	1	Yes
Blacksmith	Professional Training	10	Yes
Welder	Professional Training	5	Yes
Basic Welder	Professional Training	18	Yes
Moped/Motorcycle Mechanic	Professional Training	5	No
Automotive Electricity and Mechanics	Professional Training	1	No
Motorcycle Mechanic	Professional Training	8	No
Assistant Diesel Engine Mechanic	Professional Training	3	Yes

Assistant Gas Engine Mechanic	Professional Training	6	Yes
Internal Combustion Engine Mechanic	Professional Training	1	Yes
Ignition and Power System Mechanic	Professional Training	1	Yes
Automotive Electrician	Professional Training	3	Yes
Electronic Equipment Repair and Maintenance	Professional Training	2	No
Assembly and Repair of PCs	Professional Training	9	No
PC Maintenance and Repair Assistant	Professional Training	1	No
Computer Equipment Maintenance and Repair	Professional Training	1	No
Electronic Control and Automation by Programmable Logic	Professional Training	1	No
Industrial Electronics	Professional Training	1	No
Electronic Audio Systems and Radio Receiver Repairs	Professional Training	1	No
Audio, Radio and TV Equipment Repairer	Professional Training	3	No
Bench Carpenter	Professional Training	19	No
Sawmill Assistant	Professional Training	3	Yes
Moulding Operator	Professional Training	3	Yes
Grinding Room Operator	Professional Training	1	Yes
Tailor - Dressmaker	Professional Training	26	No
Patternmaker	Professional Training	6	No
Clothing Industry Cutting Operator	Professional Training	4	No
Garment Machinist	Professional Training	21	No



5. Region:

CENTRE



Entre Ríos

Region: Centre

Education options in the province are balanced. There is a very good coverage of technical courses by sector at the secondary level, as well as a significant number of institutions that offer them throughout the province. The most represented sector is Metalworking and Car Mechanics industry, with eight secondary level certificates and 23 professional training certificates.

At the secondary level, unlike most other provinces where the technical course in Electromechanical Equipment and Installations is the most widely offered one, the most widespread course is the Mechanical and Electrical Technician certification (awarded by 12 institutions). Electromechanical Equipment and Installation Technician certifications are offered by eight institutions, followed by Mechanical Technician certificates, offered by five institutions.

The professional training certificates offered in this sector are, for the most part, in the Welding and Automotive Maintenance and Repair subsectors.

The Processing, Food and Chemical Industry also offers several qualifications at the three levels of TVET. Fifty percent of the higher technical certifications offered are in the Laboratory Analysis subsector.

At the secondary level, three degrees are also offered for the Aeronautical and Naval industry.

This province offers four higher level training courses for the Graphic and Multimedia Industry.

A significant number of professional training courses are offered in the Textile, Wood and Furniture, Electric Energy and Electronics areas.

DOMINANT AREAS

Qualifications at professional training level are predominantly for the Electromechanical, Mechanical and Automotive sectors and the Textile and Clothing industry.

LACKING AREAS

In principle, there are no noticeable training lacking areas.

However, there is a certain lack of higher education opportunities in the energy and electricity sector, the electronics sector and the Wood and Furniture industry. In addition, there is a lack of secondary technical education in the graphics and Multimedia industry.

TABLE 55

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	3	-	-
Energy and Electrical Energy	2	-	6
Leather and Footwear	-	-	4
Electromechanical, Mechanical and Automotive	8	1	23
Food, Processes and Chemical Industry	3	4	2
Electronics	1	-	5
Graphic and Multimedia Industry	-	4	3
IT	1	2	4
Wood and Furniture	1	-	6
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	1	1	10

TABLE 56

Qualification	TVET Scope	Number of Institutions	MR
Aerial Surveying Technician	Secondary Technical Schools	1	Yes
Aviation Technician	Secondary Technical Schools	1	Yes
Shipbuilding Technician	Secondary Technical Schools	1	No
Electricity Technician	Secondary Technical Schools	1	Yes
Electrical Technician	Secondary Technical Schools	3	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	8	Yes
Mechanical and Electrical Technician	Secondary Technical Schools	12	No
Hydraulic Technician	Secondary Technical Schools	1	No
Mechanical Technician	Secondary Technical Schools	5	Yes
Agricultural Machining Technician	Secondary Technical Schools	1	Yes
Agricultural Mechanics Technician	Secondary Technical Schools	1	No
Automotive Technician	Secondary Technical Schools	2	Yes
Agricultural Mechanics Technician	Secondary Technical Schools	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Food Industry Technician	Secondary Technical Schools	1	No
Productive Microenterprises Technician	Secondary Technical Schools	1	No
Chemical Technician	Secondary Technical Schools	1	Yes
Electronics Technician	Secondary Technical Schools	4	Yes
IT Technician	Secondary Technical Schools	4	No
Wood and Furniture Industrialization Technician	Secondary Technical Schools	2	Yes
Advanced Industrial Maintenance Technician	Higher Technical Schools	2	No
Advanced Food Technology Technician	Higher Technical Schools	1	No
Advanced Bromatology Technician - Environmental Sanitation	Higher Technical Schools	1	No
Advanced Laboratory Technician	Higher Technical Schools	2	No
Advanced Clinical Laboratory Technician	Higher Technical Schools	1	Yes
Advanced Graphic Design Technician	Higher Technical Schools	1	No
Advanced Advertising Graphic Design and Visual Communications Technician	Higher Technical Schools	1	No
Advanced Digital Design Analytics Technician	Higher Technical Schools	2	No
Advanced Advertising Graphic Design Technician	Higher Technical Schools	2	No
Advanced Administrative Systems Analysis Technician	Higher Technical Schools	1	No
Advanced Software Development Technician	Higher Technical Schools	4	No
Advanced Multimedia Design Technician	Higher Technical Schools	1	No
Medium and Low Voltage Distribution Networks Electrician	Professional Training	1	Yes
Electric Machine Winder	Professional Training	2	Yes
Real Estate Electrician	Professional Training	2	Yes
Home Electrical Installation	Professional Training	2	No
Household/Industrial Electricity Assistant	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Home and Industrial Electrical Installations	Professional Training	1	No
Footwear Design and Manufacture	Professional Training	4	No
Shoe Repairs	Professional Training	3	No
Leather Crafting	Professional Training	1	No
Leatherworking	Professional Training	1	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	6	No
Equipment and Pneumatic Systems Mechanics	Professional Training	1	No
Assistant Turner	Professional Training	1	No
Miller	Professional Training	1	Yes
Turner	Professional Training	7	No
Assistant Blacksmith	Professional Training	1	Yes
Blacksmith	Professional Training	4	Yes
Blacksmith Folder	Professional Training	1	No
Basic welding assistant/ Arc Welding assistant	Professional Training	1	No
Welder	Professional Training	8	Yes
Basic Welder	Professional Training	8	Yes
Specialized Welder	Professional Training	1	No
Assistant Motorcycle Mechanic	Professional Training	1	No
Motorcycle Mechanic	Professional Training	1	No
Automotive Upholsterer	Professional Training	1	No
Electronic Ignition and Fuel Injection Systems Assistant	Professional Training	1	No
Assistant Gas Engine Mechanic	Professional Training	6	Yes
Automotive Gasoline Injection	Professional Training	1	N
Ignition and Power System Mechanic	Professional Training	1	Yes
Fuel Injection Electronic Systems Mechanic	Professional Training	1	No
Brake Systems Mechanic	Professional Training	1	Yes
Automotive Steering and Suspension Systems Mechanic	Professional Training	1	Yes
Assistant Automotive Electrician	Professional Training	1	No
Production of handmade sweets and preserves	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Biochemical/Laboratory Assistant	Professional Training	1	No
Electronic Equipment Repair and Maintenance	Professional Training	1	No
Assembly and Repair of PCs	Professional Training	4	No
Assistant Industrial Automation by Programmable Logic Technician (PLC Assistant)	Professional Training	2	No
Audio, Radio and TV Equipment Repairer	Professional Training	1	No
TV Repairer	Professional Training	1	No
Graphics operator / printer	Professional Training	1	No
Silk-screen printing	Professional Training	1	No
Graphic Design	Professional Training	1	No
IT/Computing	Professional Training	1	No
Advanced PC Operations	Professional Training	1	No
Basic PC Operator	Professional Training	1	No
Office IT operator	Professional Training	1	No
Assistant Carpenter	Professional Training	7	No
Bench Carpenter	Professional Training	5	No
Carpenter (wood)	Professional Training	1	No
Licensed Carpenter	Professional Training	1	No
Carpenter (Wooden Furniture)	Professional Training	4	No
Handmade Furniture and Decorative Items	Professional Training	1	No
Bag and backpack manufacturing	Professional Training	1	No
Tailor - Dressmaker	Professional Training	10	No
Dressmaking	Professional Training	3	No
Bag making and alterations	Professional Training	1	No
Upholsterer	Professional Training	1	No
Manual Labor	Professional Training	1	No
Weaving	Professional Training	2	No
Hand weaving	Professional Training	2	No
Machine Weaving	Professional Training	1	No
Loom Weaving	Professional Training	4	No



TOTAL NUMBER OF QUALIFICATIONS:

108

14%

Secondary Technical Level

Number of degrees
15

18%

Higher Technical Level

Number of degrees
20

68%

Professional Training

Number of degrees
73

Santa Fe

Region: Centre

The Technical and Vocational Education and Training courses in the province of Santa Fe exist for almost all levels and sectors, and are diversified within each one of them. These correspond to the economic activities dominant in the province and take into account future needs. Three levels of training are available.

Training for the Electronics sector, so underestimated in other provinces, cuts across all productive sectors. Two secondary level certificates are offered in this sector: Electronics Technician (taught in 16 institutions) and Electronics Technician with a focus on Industrial Automation and Control (in one institution). At the higher level there are six titles with different specialisations: Analyst in Microelectronics, Biomecatronics, Electronics, Mechatronics, Digital Techniques and Robotics—important for industrial areas. Professional training certificates corresponding to the sector, in addition to the traditional and basic ones of Basic Electronics and PC Assembly and Repair, also cover Microcontroller Programming and Security Systems Installer and Repairer.

Training in the Metalworking and Automotive industry is also diversified at the three levels, with a strong prevalence of the Electromechanical Equipment and Installation technical course (which is offered by 73 institutions throughout the province). Technical courses in Mechanics and Car Mechanics complete the secondary level training offer for this industry. Higher technical courses are offered in the Mechanical Manufacturing and Industrial Processes sectors. The professional training certificates offered are in the Welding and Automotive subsectors.

This province also offers four secondary technical courses in the Food, Processing and Chemistry sector, including a specific one in the Process Industry with a focus on Dairy Industries, an important sector in the province. Higher technical courses, cover Industrial Processes, Plastics and Elastomers and Industrial Chemistry. Two secondary level technical courses and professional

training certificates cover the Energy sector.

DOMINANT AREAS

Training is strongly geared towards IT, Textiles and Clothing and Electromechanics, Mechanics and the Automotive industry.

LACKING AREAS

There are no noticeable training lacking areas.

TABLE 57

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	1	-	-
Energy and Electrical Energy	2	-	6
Leather and Footwear	-	-	1
Electromechanical, Mechanical and Automotive	3	2	18
Food, Processes and Chemical Industry	4	3	2
Electronics	2	6	6
Graphic and Multimedia Industry	1	3	6
IT	1	5	9
Wood and Furniture	-	-	6
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	1	1	19

TABLE 58

Qualification	TVET Scope	Number of Institutions	MR
Marine technician	Secondary Technical Schools	1	Yes
Renewable Energy Technician	Secondary Technical Schools	2	Yes
Electrical Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	73	Yes
Mechanical Technician	Secondary Technical Schools	8	Yes
Automotive Technician	Secondary Technical Schools	5	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Food Technology Technician	Secondary Technical Schools	4	Yes
Processing Industry Technician with Dairy Industry orientation	Secondary Technical Schools	1	Yes
Process Industry Technician	Secondary Technical Schools	10	No
Chemical Technician	Secondary Technical Schools	9	Yes
Electronics Technician	Secondary Technical Schools	16	Yes
Electronics Technician with an Automation and Industrial Control orientation	Secondary Technical Schools	1	No
Multimedia Communication Technician	Secondary Technical Schools	6	No
IT Technician	Secondary Technical Schools	41	Yes
Clothing and Textile Product Technician	Secondary Technical Schools	2	Yes
Advanced Mechanical Manufacturing Technician	Higher Technical Schools	1	No
Advanced Technician in Industrial Processes	Higher Technical Schools	1	No
Advanced Plastics and Elastomers Technician	Higher Technical Schools	1	No
Advanced Chemical Technician	Higher Technical Schools	2	No
Advanced Industrial Chemical Technician	Higher Technical Schools	1	No
Advanced Microelectronics Technician	Higher Technical Schools	1	No
Advanced Biomechanics Technician	Higher Technical Schools	1	No
Advanced Electronics Technician	Higher Technical Schools	1	No
Advanced Mechatronics Technician	Higher Technical Schools	1	No
Advanced Digital Techniques Technician	Higher Technical Schools	1	No
Advanced Robotics Technician	Higher Technical Schools	2	No
Advanced Photography and Professional Photography Technician	Higher Technical Schools	1	No
Advanced Graphic Design Technician	Higher Technical Schools	2	No
Advanced Multimedia Technician	Higher Technical Schools	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced IT Technician	Higher Technical Schools	1	No
Advanced Systems Analysis Technician	Higher Technical Schools	6	No
Advanced Administrative Systems Analysis Technician	Higher Technical Schools	1	No
Senior Analysis and Programming Technician	Higher Technical Schools	1	No
Advanced IT Technician	Higher Technical Schools	2	No
Advanced Multimedia Design Technician	Higher Technical Schools	2	No
Electric Motor Winding Assistant	Professional Training	2	No
Real Estate Electrician	Professional Training	12	Yes
Home Electrical Installation	Professional Training	6	No
Industrial Electrician	Professional Training	2	Yes
Home and Industrial Electrical Installations	Professional Training	1	No
Industrial or Plant Electrical Installer	Professional Training	1	No
Leather Crafting	Professional Training	5	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	2	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	2	No
Electropneumatics/ Hydraulics	Professional Training	1	No
Operator of CNC (Computer Numerical Control) Machines for chip starting	Professional Training	1	Yes
Turner	Professional Training	5	Yes
Blacksmith	Professional Training	13	Yes
Blacksmith Welder	Professional Training	1	No
Welder	Professional Training	8	Yes
Basic Welder	Professional Training	10	Yes
Automotive Mechanics	Professional Training	1	
Light Automotive Mechanics	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Operator in Automotive Mechanics	Professional Training	1	No
Assistant Diesel Engine Mechanic	Professional Training	4	Yes
Assistant Gas Engine Mechanic	Professional Training	10	Yes
Gas Engine Mechanic	Professional Training	1	No
Ignition and Power System Mechanic	Professional Training	2	Yes
Automobile Air Conditioning Systems Maintenance	Professional Training	1	No
Automotive Electrician	Professional Training	3	Yes
Preparation and Preservation of Meats and Charcuterie	Professional Training	1	No
Production of Dairy Products	Professional Training	1	No
Basic Electronics	Professional Training	3	No
Microcontroller Programming	Professional Training	1	No
Assembly and Repair of PCs	Professional Training	1	No
Computer Equipment Maintenance and Repair	Professional Training	1	No
Audio, Radio and TV Equipment Repairer	Professional Training	1	No
Electronic Security Systems Installer and Repairer	Professional Training	2	No
Photography	Professional Training	1	No
Graphics/Printing Operators	Professional Training	1	No
Graphic Design	Professional Training	1	No
Binding	Professional Training	1	No
Computer Graphic Design	Professional Training	1	No
Advertising signage	Professional Training	1	No
Programmer	Professional Training	2	No
IT/Computing	Professional Training	1	No
Internet	Professional Training	1	No
Advanced PC Operations	Professional Training	2	No
Basic PC Operator	Professional Training	7	No

Snapshot of Technical and Vocational Education and Training in Argentina

Office IT Operator	Professional Training	2	No
Spreadsheet/Excel Operator	Professional Training	1	No
Windows operator	Professional Training	1	No
Word Processing Operator	Professional Training	1	No
Joinery	Professional Training	1	No
Wood Turner	Professional Training	1	No
Carpentry Assistant	Professional Training	1	No
Agricultural carpentry	Professional Training	1	No
Carpenter (wood)	Professional Training	3	No
Carpenter (Wooden Furniture)	Professional Training	6	No
Embroidery	Professional Training	3	No
Hand and machine embroidery	Professional Training	3	No
Machine embroidery	Professional Training	1	No
Dressmaking	Professional Training	2	No
Tailor - Dressmaker	Professional Training	21	No
Dressmaking	Professional Training	3	No
Weaving Chromography	Professional Training	3	No
Textile Printing	Professional Training	1	No
Textiles and garments	Professional Training	1	No
Patternmaker	Professional Training	7	No
Moulding	Professional Training	2	No
Garment Machinist	Professional Training	9	No
Upholsterer	Professional Training	1	No
Crochet	Professional Training	4	No
Macramé	Professional Training	1	No
Weaving	Professional Training	1	No
Handmade Weaving	Professional Training	1	No
Loom Weaving	Professional Training	2	No
Knitted Weaving	Professional Training	2	No



TOTAL NUMBER OF QUALIFICATIONS:

66

26%

**Secondary
Technical
Level**

Number of degrees

17

30%

**Higher
Technical
Level**

Number of degrees

20

44%

**Professional
Training**

Number of degrees

29

Córdoba

Region: Centre

In the province of Córdoba, like in the province of San Luis, professional training is provided by the Ministry of Labour; this means that the certificates awarded by the Ministry of Education are minor and residual.

The secondary and higher levels are mainly oriented to the Metal-Mechanical and the Food, Processing and Chemical industries, in response to the prevailing economy of the province.

The Aeronautical sector is also covered, with two offers at the secondary level: Avionics and Aeronautics. At the higher level: Aeronautical Electronics and Aeronautical Mechanics.

In the Metalworking and Automotive sector, technical courses in Electromechanical Equipment and Installations are predominant, being offered in 44 institutions. The Mechanical Technician (20 institutions) and the Automotive Technician (16 institutions) certificates are also common.

As for the higher technical courses, in this sector they are oriented towards Industrial Management, Industrial Maintenance and Equipment and Facilities.

The higher level courses offered in the Food, Processing and Chemistry sector are diverse and relevant to the industry; some examples of these are the higher level Food Technician certificate with a focus on Bromatology and Food Science (the largest offer in five institutions) and certificates in the Food industry with a focus on Dairy and Biotechnology. The secondary level offers traditional courses and the full array of courses in the Food, Processing and Chemical industry.

The higher technical courses offered in the IT sector are wide and varied—aimed at the Analysis and Programming of IT Systems and Networks subsectors.

DOMINANT AREAS

There are no dominant offers in any particular sector or area.

LACKING AREAS

No courses are taught for the Graphic Design and Multimedia industries at any of the three levels.

TABLE 59

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	2	2	-
Energy and Electrical Energy	2	-	5
Leather and Footwear	-	-	1
Electromechanical, Mechanical and Automotive	4	3	9
Food, Processes and Chemical Industry	3	6	1
Electronics	1	2	2
Graphic and Multimedia Industry	-	-	-
IT	3	6	2
Wood and Furniture	1	-	3
Mining and Hydrocarbons	1	-	-
Textiles and Clothing	X	1	6

TABLE 60

Qualification	TVET Scope	Number of Institutions	MR
Avionics Technician	Secondary Technical Schools	2	Yes
Aviation Technician	Secondary Technical Schools	2	Yes
Electricity Technician	Secondary Technical Schools	15	Yes
Electrical Technician	Secondary Technical Schools	2	Yes
Machinery and Electromechanical Installations Technician	Secondary Technical Schools	44	Yes
Mechanical Technician	Secondary Technical Schools	20	Yes
Agricultural Machining Technician	Secondary Technical Schools	8	Yes
Automotive Technician	Secondary Technical Schools	16	Yes
Food Industry Technician	Secondary Technical Schools	39	No
Process Industry Technician	Secondary Technical Schools	13	Yes
Chemical Technician	Secondary Technical Schools	8	Yes
Electronics Technician	Secondary Technical Schools	26	Yes
Programming Technician	Secondary Technical Schools	10	No
IT Technician	Secondary Technical Schools	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

IT Technician	Secondary Technical Schools	16	Yes
Wood and Furniture Industrialization Technician	Secondary Technical Schools	12	Yes
Mining Technician	Secondary Technical Schools	5	Yes
Advanced Aviation Electronics Technician	Higher Technical Schools	1	No
Advanced Aviation Mechanics Technician	Higher Technical Schools	1	No
Advanced Industrial Management Technician	Higher Technical Schools	3	No
Advanced Industrial Maintenance Technician	Higher Technical Schools	4	No
Advanced Electromechanical Equipment and Installations Technician	Higher Technical Schools	1	No
Advanced Food Technology Technician	Higher Technical Schools	3	No
Advanced Food Technician with Bromatological Orientation	Higher Technical Schools	1	No
Advanced Bromatology Technician	Higher Technical Schools	5	Yes
Advanced Food Production Technician with an orientation in Dairy	Higher Technical Schools	1	No
Advanced Biotechnology Technician	Higher Technical Schools	1	No
Advanced Chemical Technician	Higher Technical Schools	2	No
Advanced Telecommunications Technician	Higher Technical Schools	3	No
Advanced Image Sensor Technician	Higher Technical Schools	1	No
Advanced Internet Services Technician	Higher Technical Schools	1	No
Advanced Systems Analysis Technician	Higher Technical Schools	7	No
Advanced Software Development Technician	Higher Technical Schools	7	No
Advanced IT Infrastructure Technician	Higher Technical Schools	1	No
Advanced IT Networks Technician	Higher Technical Schools	4	No
Advanced Information Technology Infrastructure Support Technician	Higher Technical Schools	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced Multimedia Design Technician	Higher Technical Schools	1	No
Renewable Energy Electrical Systems Installer	Professional Training	1	No
Real Estate Electrician	Professional Training	1	Yes
Home Electrical Installation	Professional Training	1	No
Assistant Industrial Electrician	Professional Training	3	Yes
Household/Industrial Electricity Assistant	Professional Training	4	No
Leather Goods Assistant	Professional Training	1	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	1	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	1	No
Assistant Turner	Professional Training	1	No
Miller	Professional Training	1	Yes
CNC (Computer Numerical Control) Machine Operator	Professional Training	1	Yes
Turner	Professional Training	2	Yes
Artistic Blacksmithing	Professional Training	1	No
Basic Welder	Professional Training	6	Yes
Assistant Motorcycle Mechanic	Professional Training	1	No
Process Industry Operator	Professional Training	1	No
Assembly and Repair of PCs	Professional Training	2	No
Assistant Industrial Automation by Programmable Logic Technician (PLC Assistant)	Professional Training	1	No
IT/Computing	Professional Training	6	No
Office IT Operator	Professional Training	1	No
Joinery	Professional Training	1	No
Assistant Carpenter	Professional Training	4	No
Bench Carpenter	Professional Training	1	No
Tailoring Assistant	Professional Training	1	No
Assistant Dressmaker	Professional Training	1	No
Dressmaking	Professional Training	1	No
Garment Machinist	Professional Training	2	No
Handmade Textile Production	Professional Training	1	No
Assistant Upholsterer	Professional Training	1	No



6. Region:

BUENOS AIRES



TOTAL NUMBER OF QUALIFICATIONS:

173

10%

**Secondary
Technical
Level**

Number of degrees

18

19%

**Higher
Technical
Level**

Number of degrees

33

71%

**Professional
Training**

Number of degrees

122

Autonomous City of Buenos Aires (CABA)

Region: Buenos Aires

The training offer in the Autonomous City of Buenos Aires is wide and varied; the only lacking area is in the Mining and Hydrocarbons industries (which is consistent with the economy of the province).

The most represented sectors at the secondary technical education level are Electromechanical, Mechanical and Automotive and Electrical Energy, with six and three titles, respectively.

It should be noted that the most widely offered certificate is that of Mechanical and Electronic Technician, awarded by 11 institutions, followed by Computer Technician by 10, Chemical Technician by seven and Mechanical Technician by five institutions.

The offer of higher technical courses is also wide and varied, and it is dominated by the Multimedia industry—especially in the most innovative sectors such as Design and Development in Programming (Game Developer, for example), Multimedia Design, Cartoon Making, Design and Programming of Virtual Simulators, etc.

The offer of the IT sector, which is directed to the Systems area, is also interesting; Systems Analysis is taught in 17 higher level Institutions in the City. The offer of the Electronics sector is also worth mentioning, with higher level certificates in Digital Techniques, Automation, Control and Robotics taught in three institutions.

As far as professional training certificates are concerned, the Metal-Mechanical, Electrical and Multimedia industries are predominant. In the Metal-Mechanical sector, the Automotive area leads the market, both regarding the diversity of the offer and the coverage at the level of the institutions that provide it.

In the field of Energy, there are two qualifications in line with the significant training needs of the Alternative Energies sector: Installer of Biodigesters and Installation of Systems for the use of Solar Energy.

The certifications offered in the IT sector are clearly directed towards the Users subsector with courses aimed at the different design and operation programmes.

The qualifications offered in the Processing sector are oriented towards the new needs arising from the recycling and plastic processing industry. The qualifications of the Electronics sector are also diversified and oriented towards the new needs of the sector: Electronics Applied to Telecommunications, Optical Fibre, Robotics or PLC Programming Assistant.

DOMINANT AREAS

At the professional training level there is a certain dominance of the Electromechanical, Mechanical and Automotive sector.

LACKING AREAS

There are no noticeable training lacking areas.

TABLE 61

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	-	1	-
Energy and Electrical Energy	3	2	15
Leather and Footwear	-	-	2
Electromechanical, Mechanical and Automotive	6	2	29
Food, Processes and Chemical Industry	2	4	13
Electronics	1	4	13
Graphic and Multimedia Industry	2	11	20
IT	2	6	16
Wood and Furniture	1	-	4
Mining and Hydrocarbons	-	-	-
Textiles and Clothing	1	2	10

TABLE 62

Qualification	TVET Scope	Number of Institutions	MR
Electricity Technician	Secondary Technical Schools	3	Yes
Renewable Energy Technician	Secondary Technical Schools	1	Yes
Electrical Technician	Secondary Technical Schools	1	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	1	Yes
Mechanical and Electrical Technician	Secondary Technical Schools	11	No
Refrigeration and Air Conditioning Technician	Secondary Technical Schools	1	No
Mechanical Technician	Secondary Technical Schools	5	Yes
Metallurgical Technician	Secondary Technical Schools	1	No
Automotive Technician	Secondary Technical Schools	3	Yes
Food Industry Technician	Secondary Technical Schools	1	No
Chemical Technician	Secondary Technical Schools	7	Yes
Electronics Technician	Secondary Technical Schools	11	Yes
Visual Arts Technician - Graphic Communication	Secondary Technical Schools	2	No
Advertising Design and Promotion Technician	Secondary Technical Schools	3	No
Information and Communication Technology Technician	Secondary Technical Schools	1	No
IT Technician	Secondary Technical Schools	10	No
Wood and Furniture Industrialization Technician	Secondary Technical Schools	1	Yes
Clothing and Textile Product Technician	Secondary Technical Schools	1	Yes
Advanced Civil Aviation Administration Technician	Higher Technical Schools	1	No
Advanced Energy Technician	Higher Technical Schools	2	No

Advanced Design, Control and Electrical Drive Technician	Higher Technical Schools	1	No
Advanced Mechanics, Automobiles and Thermal Machines Technician	Higher Technical Schools	1	No
Advanced Physics and Applied Physics Technician	Higher Technical Schools	1	No
Advanced Biotechnology Technician	Higher Technical Schools	1	No
Advanced Laboratory Technician	Higher Technical Schools	3	Yes
Advanced Clinical Laboratory Technician	Higher Technical Schools	2	No
Advanced Chemical Technician	Higher Technical Schools	1	No
Advanced Electronics Technician	Higher Technical Schools	2	No
Advanced Digital Techniques Technician	Higher Technical Schools	1	No
Advanced Telecommunications Technician	Higher Technical Schools	1	No
Advanced Radio and TV Studio Operation/Transmitter Plant Technician	Higher Technical Schools	1	No
Advanced Automation, Control and Robotics Technician	Higher Technical Schools	3	No
Advanced Photography and Professional Photography Technician	Higher Technical Schools	4	No
Advanced Integral Special Effects Production Technician	Higher Technical Schools	1	No
Advanced Visual Arts Technician with Orientation in Graphic Design	Higher Technical Schools	1	No
Advanced Graphic Design Technician	Higher Technical Schools	4	No
Advanced Advertising Graphic Design and Visual Communications Technician	Higher Technical Schools	1	No
Advanced Game Development Technician	Higher Technical Schools	2	No
Advanced Virtual Simulators Design and Programming Technician	Higher Technical Schools	1	No

Advanced Web Design Technician	Higher Technical Schools	1	No
Advanced Cartoon Technician	Higher Technical Schools	3	No
Advanced Multimedia Design Technician	Higher Technical Schools	4	No
Advanced Advertising Graphic Design Technician	Higher Technical Schools	1	No
Advanced IT Technician	Higher Technical Schools	2	No
Advanced Systems Analysis Technician	Higher Technical Schools	17	No
Advanced Administrative Systems Analysis Technician	Higher Technical Schools	1	No
Advanced Information Technology Infrastructure Support Technician	Higher Technical Schools	1	No
Advanced Teleinformatics Technician	Higher Technical Schools	1	No
Advanced IT Technician	Higher Technical Schools	2	No
Advanced Multimedia Design Technician	Higher Technical Schools	3	No
Advanced Textile and Clothing Industry Technician	Higher Technical Schools	1	No
Electricity/Electronics	Professional Training	2	No
Networking and Distribution of Electrical Energy	Professional Training	1	No
Biodigester Installer	Professional Training	1	No
Solar Energy Systems Installer	Professional Training	3	No
Networking and Distribution of Electrical Energy	Professional Training	1	No
Basic Electronics	Professional Training	4	No
Real Estate Electrician	Professional Training	12	Yes
Electrical Circuit Installer	Professional Training	18	No
Home Electrical Installation	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Assistant Industrial Electrician	Professional Training	2	No
Household/Industrial Electricity Assistant	Professional Training	2	No
Household and Industrial Electricity	Professional Training	1	No
Industrial Electrician	Professional Training	3	Yes
Home and Industrial Electrical Installations	Professional Training	3	No
Power Systems Circuit Board Assembler	Professional Training	1	Yes
Shoe Repairs	Professional Training	1	No
Leatherworking	Professional Training	3	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	3	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	10	No
Pneumatics and Hydraulics	Professional Training	2	No
Assistant Mechanic	Professional Training	1	No
Artistic Blacksmithing	Professional Training	2	No
Basic Welder	Professional Training	2	Yes
Specialized Welder	Professional Training	1	No
Oxyacetylene Welder - Autogenous	Professional Training	2	No
Organization and Administration of Automotive Workshops	Professional Training	1	No
Motorcycle Electricity	Professional Training	1	No
Electricity and Automotive Electronics	Professional Training	1	No
Automotive Electricity and Mechanics	Professional Training	1	No
Electronic Engine Starter	Professional Training	1	No
Automotive Mechanical Assistant	Professional Training	5	No
Assistant Motorcycle Mechanic	Professional Training	2	No
Automotive Mechanics	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Assistant Ignition and Power Systems Mechanic	Professional Training	1	No
Internal Combustion Engine Mechanic	Professional Training	6	Yes
Ignition and Power System Mechanic	Professional Training	4	Yes
Diesel Fuel Injection Systems Mechanic	Professional Training	2	Yes
GNC Equipment Installation Mechanic	Professional Training	1	Yes
Brake Systems Mechanic	Professional Training	1	Yes
Automobile Air Conditioning Systems Maintenance	Professional Training	1	No
Alignment and Balancing	Professional Training	2	No
Wheel balancing technician	Professional Training	1	Yes
Automotive Steering and Suspension Systems Mechanic	Professional Training	3	Yes
Transmission Mechanic	Professional Training	1	Yes
Assistant Automotive Electrician	Professional Training	2	No
Automotive Electrician	Professional Training	2	Yes
Assistant Food Industry Technician	Professional Training	2	No
Specialist Technical Assistant in Food Technology	Professional Training	8	No
Continuous TVET education: Food Technology	Professional Training	3	No
Quality Management I (ISO 9000)	Professional Training	1	No
Process Industry Operator	Professional Training	1	No
Food Preservation	Professional Training	1	No
Food Handling	Professional Training	10	No
Industrial Ceramics Assistant	Professional Training	1	No
Plastic Recycling Assistant	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Extruder	Professional Training	1	No
Plastic Injection Machine Operator	Professional Training	1	No
Thermoplastic Welder	Professional Training	1	No
Assistant Pharmacy Technician	Professional Training	1	No
Electronics Assistant	Professional Training	1	No
Assembly and Repair of PCs	Professional Training	10	No
Computer Equipment Maintenance and Repair	Professional Training	9	No
Basic Electronics applied to Telecommunications	Professional Training	1	No
Copper Cable Measurement and Linking	Professional Training	1	No
Fiber Optic Cable Measurement and Linking	Professional Training	1	No
Telephony	Professional Training	1	No
Power Electronics Assistant	Professional Training	1	No
Assistant Industrial Automation by Programmable Logic Technician (PLC Assistant)	Professional Training	3	No
Assistant Radio and Television Assembly and Repair Technician	Professional Training	1	No
Electronic Audio Systems and Radio Receiver Repairs	Professional Training	1	No
Robotics	Professional Training	1	No
Electronic Security Systems Installer and Repairer	Professional Training	1	No
Digital Audio Editing	Professional Training	1	No
Video Editing	Professional Training	3	No
Photography	Professional Training	7	No
Radio Operator	Professional Training	1	No
Digital Printing	Professional Training	3	No

Snapshot of Technical and Vocational Education and Training in Argentina

Silk-screen printing	Professional Training	6	No
Editorial Design	Professional Training	2	No
Graphic Design	Professional Training	1	No
Web Designer I	Professional Training	12	No
Web Designer II	Professional Training	9	No
Web Designer III	Professional Training	2	No
Computer Aided Design	Professional Training	7	No
Computer Aided Graphic Design I	Professional Training	12	No
Computer Aided Graphic Design II	Professional Training	10	No
Computer Aided Graphic Design III	Professional Training	8	No
Computer Aided Graphic Design IV	Professional Training	6	No
Computer Aided Design	Professional Training	1	No
Web page Design and/or Programming	Professional Training	3	No
Computer Tools for Image Digitization	Professional Training	3	No
Multimedia Product Development	Professional Training	5	No
Multimedia IT Services Programming	Professional Training	1	No
Visual Language Programming	Professional Training	2	No
Programmer	Professional Training	4	No
Computer Systems Programmer	Professional Training	3	No
Computer Network Installation, Administration and Maintenance	Professional Training	9	No
Presentation Generator	Professional Training	1	No
IT/Computing	Professional Training	36	No
Internet	Professional Training	3	No
Basic PC Operator	Professional Training	3	No

Snapshot of Technical and Vocational Education and Training in Argentina

Database/Word Operator	Professional Training	15	No
Database Operator/Access	Professional Training	1	No
Office IT Operator	Professional Training	3	No
PC operator - Graphics Environment	Professional Training	1	No
Spreadsheet / Excel Operator	Professional Training	2	No
Word Processing Operator	Professional Training	8	No
Computer Security	Professional Training	2	No
Wood production machinery and tool operator	Professional Training	2	No
Carpentry Assistant	Professional Training	1	No
Bench Carpenter	Professional Training	5	No
Carpenter (wood)	Professional Training	3	No
Dressmaking	Professional Training	10	No
Textile Printing	Professional Training	1	No
Moulding	Professional Training	5	No
Overlock Machine Operator	Professional Training	1	No
Garment Machinist	Professional Training	1	No
Dressmaking Operator	Professional Training	1	No
Pattern and Baby garment manufacturer	Professional Training	1	No
Upholsterer	Professional Training	1	No
Hand and machine weaving	Professional Training	1	No
Loom Weaving	Professional Training	3	No



TOTAL NUMBER OF QUALIFICATIONS:

318

9%

Secondary Technical Level

Number of degrees

28

15%

Higher Technical Level

Number of degrees

49

76%

Professional Training

Number of degrees

241

Buenos Aires

Region: Buenos Aires

Given the density and variety of titles and certificates offered in Buenos Aires, and the number of institutions and students enrolled in the TVET system in the province, it provides almost half of the training of the whole country.

The range of qualifications on offer is wide, and it covers the whole spectrum of industrial sectors. Despite having a total number of 27 secondary level certificates, a significant number of these courses are taught in institutions that respond to the needs of the Armed Forces.

The most widely taught secondary technical course is the one in Electromechanical Equipment and Installations (in 175 institutions throughout the province), followed by the technical course in Professional and Personal Computing (in 98) and Electronics (in 60). As for the offer in higher technical courses, there is also a large number of degrees offered by institutions under the Armed Forces; particularly in the Aeronautical and Naval sectors.

There is also an interesting and diversified training offer in the Metalmechanical sector: Industrial Maintenance, Railway Transport, Industrial Maintenance, Mechanical Manufacturing, Engines, etc.

The Food, Processing and Chemistry industry offers degrees in Biotechnology, Bromatology, Food and Processes, but there is a remarkable increase in the number of institutions that offer the higher technical course in Clinical Analysis Laboratory.

Regarding the professional training modality, there is a very wide range of certifications in all sectors—dominated by the Metalworking industry, which offers 72 titles throughout all its subsectors, followed by 35 titles in the IT and Textile sectors.

In the Food, Processing and Chemistry sector, the training covers the diversity of the production in the province and, therefore, there are certifications available for each of the Food industry sectors: canned food, red meat, fish and dairy products. Furthermore, in the Processing sector, certifications are offered relevant to the plastic and cardboard recycling industry, the same as in CABA.

Similarly, the Electronics sector offers the most traditional certifications in the sector together with the most innovative ones related to new technologies, as well as in CABA.

DOMINANT AREAS

There is a strong presence of professional training in the Textile and Electromechanical Apparel, Mechanical and Automotive, IT, Food, Processing and Chemical industry.

LACKING AREAS

The most relevant lacking area is the Energy sector, and within it, the Renewable Energies subsector, where there is a scarce supply of certifications (only at the secondary level; there are no higher level or professional training certificates on offer).

TABLE 63

Sector	Secondary Technical Schools	Higher Technical Schools	Professional Training
Marine and Aviation	3	13	5
Energy and Electrical Energy	2	4	16
Leather and Footwear	-	-	10
Electromechanical, Mechanical and Automotive	10	8	72
Food, Processes and Chemical Industry	4	8	24
Electronics	5	4	16
Graphic and Multimedia Industry	1	4	12
IT	2	5	36
Wood and Furniture	1	-	15
Mining and Hydrocarbons	-	1	-
Textiles and Clothing	-	2	35

TABLE 64

Qualification	TVET Scope	Number of Institutions	MR
Avionics Technician	Secondary Technical Schools	2	Yes
Aviation Technician	Secondary Technical Schools	6	Yes
Shipbuilding Technician	Secondary Technical Schools	3	No
Renewable Energy Technician	Secondary Technical	1	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Electrical Technician	Secondary Technical Schools	5	Yes
Electromechanical Equipment and Installations Technician	Secondary Technical Schools	175	Yes
Electromechanical technician with Electrical Energy Orientation	Secondary Technical Schools	2	No
Military Technician in Permanent Installations	Secondary Technical Schools	1	No
Military Light Weapons Technician	Secondary Technical Schools	1	No
Military Artillery Technician	Secondary Technical Schools	1	No
Military Ammunition and Explosives Technician	Secondary Technical Schools	1	No
Military Technician in Optics and Precision Devices	Secondary Technical Schools	1	No
Military Technician in Engineering Equipment and Machinery	Secondary Technical Schools	1	No
Mechanical Technician	Secondary Technical Schools	5	Yes
Automotive Technician	Secondary Technical Schools	26	Yes
Food Technology Technician	Secondary Technical Schools	29	Yes
Process Industry Technician	Secondary Technical Schools	4	Yes
Chemical Technician	Secondary Technical Schools	41	Yes
Military Ammunition and Explosives Technician	Secondary Technical Schools	1	No
Electronics Technician	Secondary Technical Schools	60	Yes
Military Field Equipment Technician	Secondary Technical Schools	1	No
Military Technician in Permanent Installations	Secondary Technical Schools	1	No
Military Technician with IT Orientation	Secondary Technical Schools	1	No
Military Technician w/ Radar Orientation	Secondary Technical Schools	1	No
Multimedia Technician	Secondary Technical Schools	13	No
Programming Technician	Secondary Technical Schools	22	Yes
Professional and Personal IT Technician	Secondary Technical Schools	98	Yes
Wood and Furniture Industrialization Technician	Secondary Technical Schools	2	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced Aviation Mechanics Technician	Higher Technical Schools	1	No
Advanced Electromechanical Technician in Underwater Weapons	Higher Technical Schools	1	No
Advanced Electronic Artillery Technician	Higher Technical Schools	1	No
Advanced Electronic Shooting Control Technician	Higher Technical Schools	1	No
Advanced Electronic Radar Technician	Higher Technical Schools	1	No
Advanced Electronic Radiocommunications Technician	Higher Technical Schools	1	No
Advanced Sound Electronics Technician	Higher Technical Schools	1	No
Advanced Hydrographic Technician	Higher Technical Schools	1	No
Advanced Meteorology Technician	Higher Technical Schools	1	No
Advanced Oceanographic Technician	Higher Technical Schools	1	No
Advanced Chemical Technician in Explosives and Ammunition	Higher Technical Schools	1	No
Advanced Naval Construction Technician	Higher Technical Schools	3	No
Advanced Marine Gas Turbine Technician	Higher Technical Schools	1	No
Advanced Energy Technician w/ Industrial orientation	Higher Technical Schools	1	No
Advanced Electrical Energy Technician	Higher Technical Schools	1	No
Advanced Design, Control and Electrical Drive Technician	Higher Technical Schools	1	No
Advanced Nuclear Reactor Technician	Higher Technical Schools	1	No
Advanced Industrial Maintenance Technician	Higher Technical Schools	13	No
Advanced Railway Transport Technician	Higher Technical Schools	2	No
Advanced Electromechanical Equipment and Installations Technician	Higher Technical Schools	3	No
Advanced Industrial Maintenance Technician	Higher Technical Schools	13	No

Advanced Industrial Technician with orientation in Electricity and Automation	Higher Technical Schools	2	No
Advanced Mechanical Manufacturing Technician	Higher Technical Schools	1	No
Advanced Light Vehicle Mechanic	Higher Technical Schools	2	No
Advanced Engine Technician	Higher Technical Schools	1	No
Advanced Food Quality Analysis Technician	Higher Technical Schools	2	No
Advanced Food Technician	Higher Technical Schools	1	No
Advanced Food Technology Technician	Higher Technical Schools	1	No
Advanced Technician in Industrial Processes	Higher Technical Schools	1	No
Advanced Bromatology Technician	Higher Technical Schools	1	No
Advanced Assistant Laboratory Technician	Higher Technical Schools	1	No
Advanced Biotechnology Technician	Higher Technical Schools	1	No
Advanced Clinical Laboratory Technician	Higher Technical Schools	15	Yes
Advanced Electronics Technician	Higher Technical Schools	2	No
Advanced Computer Systems Installation and Maintenance Technician	Higher Technical Schools	3	No
Advanced Radio and TV Studio Operation/Transmitter Plant Technician	Higher Technical Schools	1	No
Advanced Automation, Control and Robotics Technician	Higher Technical Schools	6	No
Advanced Photography and Professional Photography Technician	Higher Technical Schools	1	No
Advanced Graphic Design Technician	Higher Technical Schools	1	No
Advanced Multimedia Communication Technician	Higher Technical Schools	2	No
Advanced Advertising Graphic Design Technician	Higher Technical Schools	2	No
Advanced IT Technician	Higher Technical Schools	1	No
Advanced Applications Analysis, Development and Programming Technician	Higher Technical Schools	5	No

Snapshot of Technical and Vocational Education and Training in Argentina

Advanced Systems Analysis Technician	Higher Technical Schools	31	No
Senior Analysis and Programming Technician	Higher Technical Schools	1	No
Advanced IT Networks Technician	Higher Technical Schools	3	No
Advanced Mining Technician	Higher Technical Schools	1	No
Advanced Multimedia Design Technician	Higher Technical Schools	2	No
Advanced Textile and Clothing Industry Technician	Higher Technical Schools	4	No
Aviation structures	Professional Training	1	No
Aviation Services Production Processes	Professional Training	1	Yes
Aviation Control Technology	Professional Training	1	No
Operation and Maintenance of Drive Trains with Alternative Engines	Professional Training	1	No
Marine carpentry	Professional Training	2	No
Electricity/Electronics	Professional Training	3	No
Networking and Distribution of Electrical Energy	Professional Training	3	No
Solar Energy Systems Installer	Professional Training	9	No
Assistant Network Electrician	Professional Training	1	Yes
Medium and Low Voltage Distribution Networks Electrician	Professional Training	5	Yes
Networking and Distribution of Electrical Energy	Professional Training	3	No
Electric Machine Winder	Professional Training	10	Yes
Basic Electronics	Professional Training	2	No
Electrical Circuit Installer	Professional Training	1	No
Home Electrical Installation	Professional Training	199	No
Assistant Industrial Electrician	Professional Training	4	Yes
Household/Industrial Electricity Assistant	Professional Training	2	No

Snapshot of Technical and Vocational Education and Training in Argentina

Household and Industrial Electricity	Professional Training	4	No
Industrial Electrician	Professional Training	69	Yes
Home and Industrial Electrical Installations	Professional Training	11	No
Industrial or Plant Electrical Installer	Professional Training	6	No
Leather and Footwear	Professional Training	1	No
Shoe rack Assembly and Finishing	Professional Training	18	No
Footwear Stitching (Machine)	Professional Training	2	No
Cutter (footwear)	Professional Training	7	No
Shoe Repairs	Professional Training	1	No
Footwear Repairs (sole)	Professional Training	5	No
Leather Crafting	Professional Training	1	No
Leather Goods Assistant	Professional Training	8	No
Leatherworking	Professional Training	27	No
Rope Sales	Professional Training	4	No
Refrigeration Equipment Maintenance and Repair Assistant	Professional Training	18	No
Installer and Repairer of Refrigeration Equipment and Systems	Professional Training	62	No
Electropneumatics/ Hydraulics	Professional Training	1	No
Hydraulic Systems Mechanics and Equipment	Professional Training	2	No
Equipment and Pneumatic Systems Mechanics	Professional Training	4	No
Pneumatics and Hydraulics	Professional Training	1	No
Quality Control in Metallurgy	Professional Training	1	No
Mechanical Bench Installer/Technician	Professional Training	2	No
Roadbuilding Machinery Mechanic	Professional Training	3	No
Machinery Assembling Mechanic	Professional Training	3	No
Agricultural Equipment Mechanic	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Metallurgy	Professional Training	1	No
Assistant Turner	Professional Training	1	No
Miller	Professional Training	8	Yes
CNC Miller	Professional Training	5	Yes
Operator of CNC (Computer Numerical Control) Machines for Chip Starting	Professional Training	2	Yes
Programmer of CNC (Computer Numerical Control) Machines for Chip Starting	Professional Training	1	Yes
Turner	Professional Training	47	Yes
Turner / CNC Programmer (Computer Numerical Control)	Professional Training	8	No
Turner / Miller	Professional Training	2	No
Metal and PVC carpentry	Professional Training	17	Yes
Blacksmith	Professional Training	5	Yes
Machine and Instrument Operator	Professional Training	1	Yes
Tools Operator	Professional Training	1	Yes
Sheet Metal Stitching and Processing	Professional Training	10	No
Spelter works	Professional Training	4	Yes
Industrial pipefitter	Professional Training	3	No
Basic welding assistant/ Arc Welding assistant	Professional Training	12	No
Welder	Professional Training	10	Yes
Basic Welder	Professional Training	47	Yes
Specialized Welder	Professional Training	2	No
MIG Welder	Professional Training	41	No
MIG - MAG Welder	Professional Training	2	No
Oxyacetylene Welder - Autogenous	Professional Training	3	No
TIG Welder	Professional Training	24	No
TIG - MIG - MAG Welder	Professional Training	1	No

Oxyacetylene or Plasma Cutting Welding	Professional Training	1	No
Welding (varied)	Professional Training	61	No
Organization and Administration of Automotive Workshops	Professional Training	11	No
Moped/Motorcycle Mechanic	Professional Training	26	No
Electricity and Automotive Electronics	Professional Training	3	No
Automotive Electronics Mechanic	Professional Training	2	Yes
Automotive Mechanical Assistant	Professional Training	30	No
Motorcycle Mechanical Assistant	Professional Training	2	No
Basic Automotive Mechanics	Professional Training	1	No
Automotive Mechanics	Professional Training	6	No
Automobile and Moped Mechanic	Professional Training	4	No
Motorcycle Mechanic	Professional Training	1	No
Auto Locksmith	Professional Training	1	No
Automotive Bodywork	Professional Training	6	No
Automotive Painter	Professional Training	1	Yes
Automotive Painting and Coatings	Professional Training	5	No
Diesel and Petrol Engine Maintenance Assistant	Professional Training	2	No
Assistant Diesel Engine Mechanic	Professional Training	15	Yes
Assistant Gas Engine Mechanic	Professional Training	41	Yes
Assistant Ignition and Power Systems Mechanic	Professional Training	3	No
Automotive Gasoline Injection	Professional Training	1	No
Electronic Injection	Professional Training	1	No
Carburetor and Ignition Mechanic	Professional Training	2	No
CNG Ignition, Carburetion and Calibration Mechanic	Professional Training	1	No
Internal Combustion Engine Mechanic	Professional Training	1	Yes

Snapshot of Technical and Vocational Education and Training in Argentina

Gas Engine Mechanic	Professional Training	1	No
Ignition and Power System Mechanic	Professional Training	15	Yes
Diesel Fuel Injection Systems Mechanic	Professional Training	1	Yes
GNC Equipment Installation Mechanic	Professional Training	2	Yes
Brake, Suspension, Alignment and Balancing Systems Assistant	Professional Training	2	No
Brake Systems Mechanic	Professional Training	17	Yes
Automobile Air Conditioning Systems Maintenance	Professional Training	4	No
Wheel balancing technician	Professional Training	2	Yes
Automotive Steering and Suspension Systems Mechanic	Professional Training	15	Yes
Transmission Mechanic	Professional Training	18	Yes
Assistant Automotive Electrician	Professional Training	1	No
Automotive Electrician	Professional Training	33	Yes
Agribusiness	Professional Training	1	No
Liquor Production	Professional Training	10	No
Regional / handmade alfajores production	Professional Training	31	No
Production of soya-based products	Professional Training	2	No
Production of Artisan Cheeses	Professional Training	10	No
Noodle manufacture and production	Professional Training	62	No
Food Preservation	Professional Training	45	No
Production of handmade sweets and preserves	Professional Training	13	No
Production of Preserves	Professional Training	6	No
Production of Preserved Fruits and Vegetables	Professional Training	36	No
Preparation and Preservation of Meats and Charcuterie	Professional Training	30	No
Quality Control Assistance in the Meatpacking Industry	Professional Training	1	No

Quality Control in the Meatpacking Industry	Professional Training	1	No
Fish Manufacturing Control	Professional Training	1	No
Food Handling	Professional Training	94	No
Production of Dairy Products	Professional Training	12	No
Industrial Ceramist	Professional Training	6	No
Brick and Cement Production	Professional Training	2	No
Cartoner	Professional Training	18	No
Extruder	Professional Training	1	No
Plastic Injection Machine Operator	Professional Training	2	No
Practical Qualification in Fiberglass Reinforced Plastic	Professional Training	2	No
Thermoplastic Welder	Professional Training	3	No
Biofertilizer Producer	Professional Training	9	No
Technical English (Electronics - Telecommunications)	Professional Training	1	No
Electronic Equipment Repair and Maintenance	Professional Training	7	No
Assembly and Repair of PCs	Professional Training	68	No
PC Maintenance and Repair Assistant	Professional Training	3	No
Computer Equipment Maintenance and Repair	Professional Training	63	No
Fiber Optic Cable Measurement and Linking	Professional Training	1	No
Assistant Industrial Automation by Programmable Logic Technician (PLC Assistant)	Professional Training	19	No
Electronic Control and Automation by Programmable Logic	Professional Training	14	No
Industrial Electronics	Professional Training	7	No
Industrial Instrumentalist	Professional Training	1	No
HMI Operating Panel Programmer	Professional Training	1	No

Electronic Audio Systems and Radio Receiver Repairs	Professional Training	12	No
Audio, Radio and TV Equipment Repairer	Professional Training	4	No
TV Repairer	Professional Training	5	No
Robotics	Professional Training	2	No
Electronic Security Systems Installer and Repairer	Professional Training	3	No
Video Editing	Professional Training	1	No
Photography	Professional Training	25	No
Audiovisual Media	Professional Training	2	No
Radio Operator	Professional Training	1	No
Multi-printing	Professional Training	38	No
Digital Printing	Professional Training	1	No
Printing	Professional Training	1	No
Photomechanical Operator	Professional Training	2	No
Silk-screen printing	Professional Training	29	No
Graphic Design	Professional Training	4	No
Binder	Professional Training	2	No
Sign Painter	Professional Training	5	No
Computer Graphics	Professional Training	1	No
Web Designer I	Professional Training	14	No
Computer Aided Graphic Design	Professional Training	2	No
Computer Aided Graphic Design I	Professional Training	2	No
Computer Aided Graphic Design II	Professional Training	2	No
Computer Graphic Design	Professional Training	8	No
Computer Systems Graphic Design Level I	Professional Training	110	No
Computer Systems Graphic Design Level II	Professional Training	78	No
Computer Systems Graphic Design Level III	Professional Training	1	No

Snapshot of Technical and Vocational Education and Training in Argentina

Computer Aided Design	Professional Training	86	No
Advanced Computer Aided Design	Professional Training	43	No
Web page Design and/or Programming	Professional Training	69	No
Computer Animation Systems Operator	Professional Training	21	No
Multimedia Product Development	Professional Training	1	No
IT Processing Technology	Professional Training	1	No
Multimedia IT Services Programming	Professional Training	14	No
Graphical Interface Systems Programming	Professional Training	7	No
Database Systems Programmer	Professional Training	20	No
Computer Systems Programmer	Professional Training	4	No
Computer Network Installation, Administration and Maintenance	Professional Training	81	No
IT/Computing	Professional Training	13	No
Internet	Professional Training	1	No
Advanced PC Operations	Professional Training	7	No
Basic PC Operator	Professional Training	24	No
Database/Word Operator	Professional Training	4	No
Office IT Operator	Professional Training	132	No
PC operator - Graphics Environment	Professional Training	30	No
PC operator - Graphics Environment - Level I	Professional Training	178	No
PC operator - Graphics Environment - Level II	Professional Training	109	No
PC operator - Graphics Environment - Level III	Professional Training	2	No
PC operator - Graphics Environment - Various Levels	Professional Training	8	No
PC Operator with Administration Tasks	Professional Training	14	No
PC Operator Level I	Professional Training	4	No
PC Operator Level II	Professional Training	3	No

Snapshot of Technical and Vocational Education and Training in Argentina

Spreadsheet/Excel Operator	Professional Training	2	No
Word Processing Operator	Professional Training	30	No
Joinery	Professional Training	12	No
Wood and Furniture Polisher	Professional Training	30	No
Marquetry	Professional Training	9	No
Wood Turner	Professional Training	11	No
Wooden Furniture and Kitchen Utensils Carpenter	Professional Training	1	No
Agricultural carpentry	Professional Training	6	No
Bench Carpenter	Professional Training	30	No
Licensed Carpenter	Professional Training	1	No
Carpentry/Qualified Worker	Professional Training	3	No
Basic Handicrafts and Furniture Assistant	Professional Training	1	No
Assistant Furniture Restorer	Professional Training	1	No
Carpenter (Wooden Furniture)	Professional Training	1	No
Office furniture carpenter	Professional Training	42	No
Handmade Furniture and Decorative Items	Professional Training	38	No
Furniture Renovator and Restorer	Professional Training	74	No
Embroidery and Lingerie	Professional Training	3	No
Haute Couture	Professional Training	10	No
Clothing and Textiles Assistant	Professional Training	1	No
Pocket Maker	Professional Training	36	No
Shirtmaker	Professional Training	13	No
Bag and backpack manufacturing	Professional Training	39	No
Tailor - Dressmaker	Professional Training	67	No
Linen manufacturer	Professional Training	18	No
Informal and Sportswear Manufacturer	Professional Training	57	No
Industrial Textile Manufacturer	Professional Training	1	No

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Tailoring with Industrial Orientation	Professional Training	18	No
Skirt making and alterations	Professional Training	6	No
Hand and machine sewer	Professional Training	64	No
Workwear and Uniform Machinist	Professional Training	29	No
Clothing Design	Professional Training	18	No
Patternmaker	Professional Training	2	No
Tailor	Professional Training	1	No
Collareta Machine Operator	Professional Training	17	No
Overlock Machine Operator	Professional Training	27	No
Garment Machinist	Professional Training	2	No
Pants manufacturer	Professional Training	9	No
Pattern and Baby garment manufacturer	Professional Training	27	No
Patternmaker, Lingerie and Corsetry	Professional Training	32	No
Pattern and Jacket Maker	Professional Training	17	No
Handmade Textile Production	Professional Training	1	No
Mender	Professional Training	4	No
Assistant Upholsterer	Professional Training	1	No
Upholsterer	Professional Training	24	No
Manufacture of Shawls, Purses and Woven Bags	Professional Training	1	No
Spinning, Weaving and Dyeing	Professional Training	8	No
Knitwear Patternmaker and cutter	Professional Training	12	No
Knitwear Reviewer and Finisher	Professional Training	5	No
Hand weaving	Professional Training	1	No
Handmade Weaving	Professional Training	2	No
Loom Weaving	Professional Training	35	No

Section 4

Regulatory Development of TVET 2016-2019

The following section examines the set of regulations created by the National Institute of Technological Education (INET, for its Spanish acronym) between 2016-2019 and approved by the Federal Education Board (CFE for its Spanish acronym). This chapter is organised according to the scope and aim of each regulation. The different areas considered are professional training, secondary technical education and higher technical education. The chapter covers the topics of curriculum policy and planning, infrastructure, financing, training environments, initial and continued teacher training and coverage.

1. Regulatory Framework for TVET 2016- 2019

Resolutions on Technical and Vocational Education and Training (TVET) address issues related to teacher training, TVET quality, infrastructure and facilities improvement, procurement of goods, and funding.

Resolution No. 307 (Teacher Development and Training in Renewable Energies) favours the development, promotion and addition of professional skills in the field of renewable energies, setting out purpose, goals, funding and lines of action.

Resolution No. 283 (Integral Improvement of the Quality of Technical Vocational Education) established a National Fund to improve the quality of TVET with a federal and systemic character, taking explicit actions to design national education policies, government actions and investment planning.

Resolutions No. 279 and No. 305. Resolution No. 279 (Ongoing Improvement of the Physical Infrastructure of Educational Institutions) sets out contracting criteria for public or private tenders. Resolution No. 305 (Integral TVET Units) proposes funding the construction of facilities to create new institutions or to replace buildings that are in bad condition.

Resolution No. 306 (Provision of Textbooks for Technical and Vocational Education and Training Institutions) calls for providing schools with teaching material for each vocational sector to be used by teachers and students alike. In addition, it provides a list of books organised by specific professional sector.

Resolution No. 309 refers to procurement. It regulates the procurement of tools regardless of any potential additional purchases made through the Institutional Improvement Plans under Resolution No. 283/16. It specifies that procurement should be planned pursuant to input mechanisms (Resolutions No. 213/14 and No. 238/14) and minor repairs (Resolution No. 237/14); and that it does not overrule the possibility given by Resolution No. 283/16 Section IV.

In 2017, Resolution No. 328 (Standard qualification model) set out to standardise qualifications at secondary and higher levels, and clarifies the modification of the formats of the certificates of completion of studies. It also set forth that the 2018 certificates would also be digital; and that as of November 2019 they would only be issued in this format.

In 2018, Resolution No. 344 (Accreditation of Professional Training Knowledge in TVET) set forth the validation and certification of learning regardless of whether they were completed or obtained in a formal, non-formal or informal environment. It

proposed the creation and definition of criteria and procedures to develop a system that recognised experiential professional knowledge acquired in the world of work.

In 2016, Resolution No. 288 (Guidelines for Initial and Continued Professional Training), organised the current offer of initial professional training at different levels, differentiating it from job training and continued professional training.

Resolution No. 287 (Curriculum Guidelines for Professional Training) focuses on "Curriculum policy," stating that the uniqueness of the professional training area must be considered. It also regulates curriculum development at the federal level.

Resolution No.308 (TVET-EDJA Articulation) develops the institutional and pedagogical dimensions for the coordination with youth and adult education; and sets forth the capacities, contents, accreditation, qualification and certification required.

Resolution No. 278 (On the Job Training Programme - CLAN for its Spanish acronym), seeks to strengthen specialised secondary education, with 500 courses in all the provinces and the yearly evaluation of the programme.

Resolution 289, (Framework of Reference for the Initial Professional Training of the degree of Programmer Level 3) makes explicit the approval of the documents that constitute the frameworks of reference of the training offer, its design and the standardisation of the qualifications.

Resolution No. 304 (Federal Programme for Mobile Workshop Classrooms for Professional Training (ATMETP for its Spanish acronym) aims to bring professional training closer to communities which are located far from urban centres, and to address the infrastructure needs of existing institutions.

In 2018, Resolution No. 335 (Curriculum Design of the Training Pathway for Continuing Professional Training of the Installer of Solar Thermal Systems for Sanitary Hot Water) provided the framework of reference and the scope of qualifications. It introduced the occupational area, the entry requirements for the CPF specialisation, the characteristics and components of curriculum design and the training pathway of the installer of thermal systems for sanitary hot water.

Resolution No. 336 (Framework of Reference of the Installer of Electrical Systems of Renewable Energies (ISEER) for Initial Professional Training) contains the curriculum policy for professional training. This resolution sets forth that provinces will have a two-year period to initiate the standardisation process of the certification process and the relevant curricula. It identifies the certification, the scope of the professional profile, the functions, the occupational area, the training pathway, the minimum workload and the entry requirements for this training. It also considers issues related

to the training environment and to internships.

In 2019, Resolution No. 351 (Training Pathway for the Continued Professional Training of web programmer, mobile device programmer and videogame programmer) was passed. It contains the framework of reference, the scope of the qualification, the functions, the occupational area, the curriculum design, the training pathway, internships, and the curriculum pathway. It adds minimum standards for the training environments of the three specialisations in sanitary hot water.

Resolution No. 353/19 (Framework of Reference for the Initial Professional Training of Professional Profiles: automation systems installer, cheese maker, frozen product manufacturer level III, firefighter level I) sets forth the certification, professional profile, training path, entry requirements, internships and the training environment. In addition, design and simulation workshops are proposed for the profile of the Automation Systems Installer. The frozen product manufacturer training includes management functions for the management of a production establishment and direct production work. In the case of the firefighter profile, units of achievement are proposed to be considered for the configuration of training spaces.

In 2019, Resolution No. 355 (Professional Training with secondary education for young people between 15 and 18 years of age) proposed a rationale, a purpose, the characterisation of the target subject, the pedagogical and institutional dimensions, questions about the degree and the qualification, and the institution's responsibilities.

In the field of **secondary technical education**, in 2016 initial teacher training was addressed in Resolution No. 296 (National Initial Teacher Training

Programme for TVET). The resolution sets forth the goals, objectives, target groups, funding, and the application and validity of qualifications at the national level.

Resolution No. 297/16 (Professional profile of secondary level TVET teachers) refers to two dimensions. It considers the "Initial teacher training" dimension when it presents activities and performance criteria for different functions of teaching. And it addresses the "curriculum design" dimension by setting out the aim of pedagogical-didactic training, the profile of the graduate, the scope of the qualification, the entry requirements, the organisation of the curriculum design, with a detailed presentation of the skills and content involved.

In 2018, Resolution No. 341 (Guidelines for Innovation in Secondary-Level TVET) was approved. It proposes the organisation of the institutions and refers to the curricular spaces, listing the capacities to be developed in the first cycle, and the criteria for the organisation of learning in the second cycle. This resolution is considered as Annex III to Resolution No. 330/17.

In the case of **higher technical education**, the resolutions passed between 2016 and 2019 address the proposed training and the curriculum policy.

Resolution No. 295 (Curricular and Institutional Guidelines for Higher Technical Education) was passed in 2016. It sets forth the curriculum policy, determining the possibility of initiating and continuing internships with a strong connection between academic training and the requirements of the productive sector. Also, in 2016, a "training proposal" was introduced through Resolution No. 290 (National Nursing Programme PRONAFE), which provides for the creation of the programme that must report the results to the Federal TVET and CFE Committee.

The 2019 Resolution No. 352 (Frameworks of Reference for the Specialisations in Data Science and Artificial Intelligence, Design and Development of Mechanical Products; Mechatronics and Management of Renewable Energies at the Higher Level) defines the training and the processes of accreditation of higher technical certifications. It includes the identification of qualifications, the professional profile, the training pathway, and issues related to the accreditation of knowledge obtained through other training pathways in other areas of TVET. It distinguishes between general training, basic training with contributions from different fields, specific training and internships.

Resolution No. 354 (Framework of reference for the speciality of Public Security –Senior Police Officer III) determines the scope of the professional profile, the functions, sub-functions, the occupational area, the training pathway, internships in different environments and the minimum standards of the training environment.

2. Summary

There are a number of tendencies related to the regulations that govern the TVET policy.

The first part of the professional training regulatory period was dominated by the following activities:

- the drafting of regulations to organise the development and strengthening of the professional training for its deployment at local and federal levels (planning and curriculum policy aspects);
- the drafting of Professional Profiles and Frameworks of Reference based on lacking areas and technoproductive progress, as well as professional qualification levels which require more complex training (for example, Programmer, Installer of Renewable Energy Systems, Solar Thermal Installer, Installer of Automation Systems, among others);

- the strengthening of professional training through the coordination with other modalities in the education system (secondary education and youth and adult education), consolidating the link between training and work, and improving the coverage of professional training. This implied the acknowledgement of professional knowledge built outside the training system.

In the second period, the regulations were focused on the preparation of profiles and frameworks of reference for the higher level of TVET. They were developed for national strategic industry areas, such as Software, Embedded Systems and the Internet of Things, Biotechnology, Mechatronics, Mechanical Design, Artificial Intelligence, Renewable Energies sectors, among other sectors.

The teacher training policy focused on secondary technical education, with the goal of:

- approving a new initial teacher training methodology;
- developing a continuous training programme with a strong focus on secondary technical education.

A second aspect in the area of secondary technical education, was the development of regulations for institutional and curricular innovation in the first cycle, with the aim of improving attrition, repetition and drop-out indicators. Likewise, steps were taken to include digital knowledge in first cycle technology areas (Robotics, Computational Thinking, Design and Digital Manufacturing).

In the case of TVET as a modality, the regulations focused on funding and infrastructure, within a framework of very limited investment in the TVET continuous improvement fund.



Section 5

Internships: Conceptual and Regulatory Development

This section focuses on internships as part of Technical and Vocational Education and Training. Two dimensions are addressed; the first is conceptual and the second is regulatory.

1. General characteristics of internships

The Technical and Vocational Education and Training Law No. 26.058 includes internships as part of the training methods in TVET, making them compulsory. Internships must be included in the curriculum structure, at the different levels of implementation and as part of the training offered to all students in the twenty-four educational jurisdictions. As part of a broader curriculum structure, internships should be combined with other forms of training.

Since the inclusion of internships in curricula, there have been many training experiences throughout the provinces. These experiences vary in their development, in the levels of interaction of institutional stakeholders with each other and with the environment, and in the assignment of responsibilities, among other factors. The implementation of internships is both a requirement and a challenge for educational institutions, as they must address the different elements that come into play: on the one hand, institutional and curriculum organisation and, on the other hand, the school's links with the broader world.

1.1. What are Internships?

According to Resolution No. 229/14 of the CFE:

“are understood as strategies and training activities that, as part of the proposed curriculum, are intended for students to consolidate, integrate or expand the skills and knowledge relevant to the profession in which they are being Internships trained. They are organised and coordinated by the educational institution, they take place inside or outside the institution, and are related to work situations” (GAN translation).

As they are part of the proposed curriculum, internships share characteristics with another set of training strategies and activities. Therefore, it is possible to state that internships:

- favour a progressive approach to the occupational field towards which the training is oriented and require a permanent articulation between action and reflection;
- put students in different situations and problems specific to a professional

field, as well as with the set of technical, technological, scientific, cultural, social, economic or legal processes that may be involved in the diversity of social and productive situations; and

- include activities that require action and reflection in real work situations, aimed at integrating academic training with the emerging requirements of the productive, community, scientific and technological sectors.

1.2. Internships: Study of the Current Regulatory Framework

The rules that provide guidance for apprenticeships profiling and development are:

National Education Law No. 26.206, Article 33:

"The jurisdictional authorities shall encourage the connection between secondary schools and the world of production and work. Within this framework, they may implement educational internships in the schools, in companies, state agencies, cultural organisations and civil society organisations, which allow students to use technology or provide an experience that is adequate to their training and vocational orientation. In all cases, these internships shall be of an educational nature and shall not generate or replace any contractual or employment relationship. Students of all modalities and orientations of secondary Education, over 16 years of age, may take part in these activities during the school term, for a period not to exceed six months, with the accompaniment of teachers or pedagogical authorities designated for such purpose. In the case of technical and agricultural-technical schools, the connection between the institutions and the productive sector shall be in accordance with the provisions of Articles 15 and 16 of Law No. 26.058". (GAN translation)

Technical and Vocational Education and Training Law No. 26.058:

Chapter II, Articles 15 and 16:

- set forth the guidelines that should govern the link between educational institutions and the productive sector for the development of internships;
- determine that the business sector will favour the implementation of internships prior to signing any collaboration agreements with the education authorities; and
- provide that the number of students that may go to a company for an Internship must be in accordance with its size and operational capacity; as long as it is a learning process and never an employment relationship, the Internship is the educational institution's responsibility, and in no case

may students substitute, compete or take the place of workers.

Chapter IV, Article 22

- sets forth that the CFE: “*shall approve (...) the basic criteria, minimum parameters and minimum workloads for technical courses, in relation to the professional profile and the scope of degrees, certifications and curricular structures (...)—among which the internships*” (GAN translation).

Decree 1374/11:

Sets forth the general internship framework in secondary education for the National Education System. Article 5 grants powers to INET regarding the conditions that internships must fulfil in order to be considered internships.

Resolution No. 229/14 of the Federal Education Board:

It characterises and regulates the internships, establishing a minimum workload of 200 clock hours. Its section No. 54, sets forth that:

“In the second cycle, internships are one of the core features and, at the same time, a cross-cutting axis of the training, which gives meaning and completeness to the set of knowledge and skills that make up the training oriented to a professional profile and is expressed in a Technical certificate. This implies the necessary combination of the knowledge acquired in the different curricular spaces included in the second cycle. Therefore, internships require specific curricular spaces to be developed during the second cycle and not only at the end of the training pathway” (GAN translation).

2. Features of Internships

Internships:

- are a compulsory component of curricula for the training of technicians;
- are aligned with the profession profile for which they are intended, and must be relevant to its functions, sub-functions and scope;
- have particular characteristics in terms of their goals, teaching methodology and evaluation, which makes it impossible for them to be a duplication or mere application of other areas of knowledge;
- must be coordinated with other areas in order to provide students with a comprehensive technical education;

- are part of the training process and are compulsory for all students;
- are part of the responsibilities that concern the province and educational institutions;
- take place during the second cycle and are implemented gradually;
- include activities that require action and reflection in real work situations; and
- have a minimum duration of 200 hours.

3. Implementation of Internships

The implementation of internships in their different formats requires educational institutions to link up with a variety of stakeholders:

- from the socio-productive sector: companies, public organisations, business chambers, technical colleges, small-scale producers, cooperatives, etc.;
- from the community sector: public organisations, civil society organisations, trade unions, cooperatives, other educational institutions, etc.; and
- from the scientific and technological sector: universities, industrial and agricultural research institutes, INTA, INTI, CONEA, teacher training institutes, etc.

Internships can take on different formats; namely:



A. Work Experience:

This format allows students to experience, for a limited period of time, a workplace (private, public or non-governmental). This experience is implemented according to a plan agreed upon between the educational institution and representatives of the counterpart. The organisation, control, supervision and evaluation of the internship is

the responsibility of the relevant educational institution.

These placements should facilitate the transition from the educational environment to the professional world by providing students with the experience and learning acquired specific to work. In this way, work experience:

- fosters the students' familiarisation with the work environment in sectors or areas related to their studies;
- favours the review, consolidation and acquisition of skills in the training process, in a particular work context;
- promotes the integration of students in human groups and work situations that allow them to strengthen their capacity for teamwork while identifying hierarchical relationships and complying with the rules and standards of achievement; and
- creates opportunities to meet and to give and obtain mutual feedback between organisations in the productive and/or community sector and the educational units.

Decree 1347/11 sets forth the following guidelines for work experience:

- interns must be at least 16 years of age at the time they begin;
- the only relationship they should establish for the intern is that of a student attending an educational unit;
- the number of interns per establishment is limited and depends on the number of workers;
- internships are formalised through Framework Cooperation Agreements between national or province educational authorities and entities offering work experience;
- they are carried out during the school year, as long as the interns maintain their status as regular students;
- they may be implemented during the last two years of secondary education;
- they last a maximum of six months with a maximum workload of 20 hours per week; and
- interns will have an instructor or a company tutor and a teacher in charge of the planning, organisation, supervision and evaluation.

Example:

Internship in a company

The internship project of the Speciality

Metalmechanical Production

Company

Tecnomatic S.A., a company that produces Metal-Mechanics and auto parts

The professional activities proposed are tasks that a secondary level technician in mechanics and/or electromechanics should be able to perform with a relative degree of autonomy. Therefore, they are organised around the integral management of the production process of a productive organisation: recognising the production areas of a metal-mechanical company; operating basic technologies and new technological advances; drawing up the organisation chart of a metal-mechanical company; managing and organising production data and documents; participating in production, maintenance and quality processes; handling the logistics of materials and tools; handling the administrative tasks of production processes, and submitting reports.

The activities are agreed upon with the company instructor, who chaperones the students in all the relevant tasks.

The students are assessed jointly by the company instructor, the Internship teacher and the students themselves, following previously agreed criteria.

Hours to be credited: 80 clock hours, including the reflection time.

Schedule: Monday to Friday, 4 hours per day.

Study visits to companies, industrial plants or other work environments, and training or potential refresher lectures for students, may be useful for their training, but cannot be considered work experience per se. These activities can be part of a broader project, complementing other internship projects of a more comprehensive nature, providing greater insertion in the working context.

B. Projects:

This internship format is carried out by students in groups under the coordination of teachers and aims to respond to a specific need or demand related to the professional field for which they are being trained.

Projects require an interdisciplinary approach that makes it possible to bring into play basic skills, basic professional skills and specific professional skills.³³

³³ See Annex IV.

There are two types of projects:

- 1. productive projects of goods and/or services; and**
- 2. learning-productive institutional projects.**

Productive projects of goods and/or services are aimed at satisfying specific demands for the production of goods or services.³⁴ In order for institutional learning-productive projects to be considered internships, they must follow particular criteria, both in terms of planning, and in the organisation of student participation. As a general criterion, the proposed activity should go beyond the mere reference to a productive learning environment, combining different contexts through management or production activities.³⁵

Examples:

- designing and manufacturing tools and machinery required by local producers (agricultural, industrial, construction-related, etc.) that are difficult or costly to obtain, optimising their design, reducing their costs, etc.;
- offering installation, maintenance and repair services for machinery in small and medium-sized enterprises in the area, based on a survey of needs within organisations of this type; and
- organising a service centre at the educational institution to assist small and medium-sized enterprises that require services specific to the technical training offered by that institution (electromechanics, electronics, mechanics, construction, etc.).

3. Community projects or outreach activities

These projects and activities are designed to satisfy the demands and the needs of the community. In this case, students must participate in the whole development process: from the planning and feasibility analysis, to the implementation, assessment and evaluation of achievements.

Examples:

- providing technical assistance and training to agricultural producers to improve the productivity of their farm, based on a problem or interest

³⁴ This type of project would include the Technological Projects developed by the different institutions which on many occasions take part in instances and technological exhibitions of educational and technological interest, such as *Técnicamente*, *Feria de Ciencias*, *Innovar*, etc. Technological projects are those oriented towards research, experimentation or the development of goods or services, and which introduce some improvement with respect to existing ones.

³⁵ The case of productive-learning shifts may be a suitable setting

brought forward by the producer, and according to economic, financial, ecological, legal, social-environmental criteria, among others.

- refurbishing educational institutions, health centres and recreational areas by construction students, based on identified needs or on a request by the institutions or the municipality; and
- advising industrial producers, entrepreneurs and artisans who need to make technical improvements in areas such as after sales service and information dissemination.

4. Internships and Professional Profiles

The reason why Internships are compulsory is because students must experience first hand the productive processes and their logic, as well as the codes and procedures of the relevant professional field.³⁶

For an Internship to be considered as such it must be connected to the relevant professional profile, and it must include a wide range of functions and activities in its design and development. The professional profile and the Framework of Reference, are key guides for the design and implementation of internships.

A professional profile contains a systematically organised, verifiable and comparable set of functions, activities and skills that a professional can perform at work. The profile includes the functions, sub-functions, activities and performance criteria. The purpose of Internships is to help students attain the relevant competence.

4.1. What skills are students expected to obtain from internships?

In general, the goal of internships is for students to be able to:

- incorporate and transfer learning acquired throughout the school-based training process;
- understand and, eventually, resolve situations of uncertainty and conflict of values;
- recognise the differences between solutions based primarily on technical reasons and complex problems that exceed them;
- reflect critically on their future professional life, its objective outcomes and their impact on society;

- understand the relevance of an efficient organisation and administration of time, space and production activities;
- become familiar with and used to current production processes and professional practice standards;
- recognise and value work situations in decent work contexts and conditions, within the framework of the fundamental rights of workers and according to the health and safety conditions in which they must take place;
- recognise the specific nature of a given process of production of goods or services according to the purpose and characteristics of each activity;
- gradually gain autonomy and acquire responsibilities relevant to the professional profile; and
- recognise the different work logic and labour relations offered by various employers such as micro-enterprises, associative enterprises, cooperatives, etc.

4.2. Internship characterisation and implementation

Main features of internships

Internships are linked to professional profiles and allow students to master relevant skills.

Based on regulation guidelines and the previous description, internships are characterised by:

- being a particular type of training strategy implemented or referring to real work situations, conditions and contexts³⁷ aimed at achieving an increasing degree of autonomy on the part of the student with respect to their professional responsibilities and performance;
- providing a substantial part of training in the final years of the educational pathway and ensuring coherence with respect to previous training instances;
- creating an institutional commitment between stakeholders of the productive and community sectors; and
- formalising through projects:
 - > the consolidation, integration or expansion of skills that are at the

basis of the professional profile, through fostering a closer approach or a first insertion in the specific occupational field;

> the design and formulation of all dimensions and components of internship implementation.

Internship design criteria

For a placement to qualify as an internship, it should meet the following criteria, among others:

- be part of the overall training process and considered as an institutional responsibility;
- be relevant to the professional profile and the skills and knowledge on which this profile is based;
- be oriented towards work processes specific to the relevant specialisation, i.e. be related to the future environment and work practice of the technician and match the functions that make up the profile;
- contribute to the professionalisation of the students, allowing them to acquire greater levels of autonomy and complexity in their performance, as well as a more comprehensive approach;
- develop students' abilities in specific curricular spaces where the specific technical training is addressed in full, in the final years of the training pathway;
- provide spaces to reflect critically on their work experience, before, during and after its implementation;
- become a protected learning environment
- combine different formats, within the framework of a general plan, in order to respond to the different capacities, interests and possibilities of students and teachers, and the specificity of the field or technical-professional area, among others; and
- through a regular multistakeholder evaluation review achievements, difficulties and gaps in the training.

Internships are feasible when relevant to the to the secondary technical institutions through a solid, permanent and suitable relationship with the productive world, giving students the opportunity to experience different conditions and problems in potential professional situations.

5. Summary

Internships are:	Internships are not:
<ul style="list-style-type: none"> > part of training and considered to be the responsibility of an educational institution. > relevant to the professional profile > of different formats, and it is impossible to reduce them to a single one. > a tool by which there can be a review of achievements, difficulties and gaps in training, based on their evaluation from different points of view. > a way to incorporate and transfer learning acquired throughout the training pathway. > a way to promote professional socialisation of the future technician. > have implications for the institutional evaluation of the quality and relevance of the training provided. 	<ul style="list-style-type: none"> > dissociated from the institutional project, implemented by an isolated teacher and aimed only at a group of students. > Practical training focused solely on the specific demands of the school or local authority for a good or service. > Practical training reduced to occasional visits, informative talks or intensive training.

5.1. Current regulatory framework for internships

A. Provincial regulatory and normative framework

The following matrix lists the provinces that have developed their own regulatory frameworks for the development of internships. The regulations in force are also specified:

Province	Regulation/Norm
Buenos Aires	Resolution No. 2343-17 Provision No. 42-18 Virtual platform: http://copret.com.ar/practicas_formativas/practicas-profesionalizantes/
CABA	Resolution No. 1548-19 -MEIGC Resolution No. 106-18-SSCPE
Córdoba	Internships Agreement
Corrientes	Resolution No. 612-11
Entre Ríos	Resolution No. 1277-10
La Pampa	Resolution No. 0130-17 Provision No. 034-17
Mendoza	Resolution No. 00141
Neuquén	Resolution No. 1862
Salta	Decree No. 3507-12
San Juan	Resolution No. 5750-ME-17
Santa Fe	Decree No. 1446-11
Tierra del Fuego	Resolution No. 3354-17

It must be noted that in the case the province where the institution is located has its own regulations, the applicable regulatory framework is that of the province. The following provinces have issued their own legislation or have adhered to national regulations:

- Buenos Aires (Province):

Internships—as well as work experience—are regulated by Res. N° 2343-17 on Training Practices and must also be processed through the COPRET virtual platform.

- Ciudad de Buenos Aires

- Córdoba

- Entre Ríos

- Santa Cruz

- Santa Fe

- Tucumán

In provinces that do not have their own regulations, **Decree 1374-2011 of the National Executive Power applies.**

http://copret.com.ar/practicas_formativas/pasantias-educativas

B. Federal and national regulations of the education system for internships

- INET Document on internships - 2007

- Resolution No. 47-08 of the Federal Education Board

C. Nationwide regulations on internships

- Decree 1374-2011 of the National Executive Power.

In 2019, the Simplification of Registration of the Federal Administration of Public Revenue (AFIP) was amended to include the modality of "Contract 10" under the following description: internships - Decree 1374/11. Work experience without social security. This measure responds to a long-standing demand from companies which were discouraged from taking part in training internships in the Work Environment programme due to the requirement that they recognise and register students during internships, as work experience with a non-employment relationship.



Conclusions

Technical and Vocational Education and Training (TVET), which has a strong and long-standing tradition in Argentina, has shown progress in comparison with other education modalities. TVET encourages a culture of work; it transfers technological knowledge to the productive sector (particularly in its relationship with SMEs); increases the number of educational opportunities available to disadvantaged socio-economic groups; gives graduates better work management skills; increases their possibilities of insertion in the labour market; and proposes social dialogue with the participation of several stakeholders.

In addition to a long tradition in TVET, Argentina has a dense institutional network (3,000 institutions) with an unequal distribution of socially relevant knowledge in productive and work-related knowledge, and sustained public funding. On the other hand, TVET in Argentina exposes several critical points when it comes to giving adequate responses to its purposes and to the expectations and requirements of the different social stakeholders.

The central public policy agenda regarding TVET must be based on a strategy that changes the productive matrix, and reinvents itself to provide meaningful educational opportunities that meet the expectations, needs and living conditions of young people and adults. These opportunities, in turn, must be aligned with industry requirements, regularly updated to account for scientific and technological innovation, and inserted within the framework of public policies related to social development, work and economic growth.

Reflection on this agenda requires contextualisation and flexibility in response to the changes in the labour market, in the structure of work, in the emergence of new occupations and professional profiles, and in the unequal development and technological differentiation between sectors.

GLOSSARY

> **Occupational field:** Potential area of work for a technician or professional. It can also be understood as a work space in which technicians and professionals trained in different disciplines work together towards the same productive or service goal. It is a way of organising and grouping jobs that require similar tasks, knowledge, skills, and abilities.

> **Basic skills:** The skills that underlie any performance and are therefore of value in general training.

> **Professional skills:** Complex knowledge that enables the combination of concepts, information, techniques, methods and values to act and interact in specific contexts. They are a combination of thought processes, the underlying content and practice.

> **Basic professional skills:** They are at the very centre of the technician's training. They are general matters common to any technician regardless of their specialisation. They include: interaction and communication, programming and organisation, critical analysis, information processing, problem solving, control, action.

> **Specific professional skills:** Skills that allow the person who has developed them to apply them in a professional setting. They match the relevant Professional Profile, and they are at the core of Vocational and Technical Education and Training.

> **Vocational family:** A comprehensive set of occupations that, because they are associated with the production process of a good or service, share a particular affinity in terms of employment. This affinity is based on the recognition of a common core of basic professional abilities and skills, of similar training, and of a common core of professional aptitudes, abilities and skills), which provide similar work contexts. A group of professions thus recognises figures or profiles that, depending on the qualification level attained through professional training, are capable of performing a variety of tasks with different levels of autonomy.

> **Framework of reference:** (Resolution CFCyE No. 261/06) it sets out the basic criteria and standards that define and characterise the substantive aspects to be considered in the process of accreditation of qualifications or certificates and their corresponding training, providing the necessary elements to conduct the analysis and undertake comparative evaluation actions.

> **Professional profile:** (Resolution CFCyE No. 261/06) it contains a systematically organised, verifiable and comparable set of functions, activities and skills that a professional can perform at work. It allows for the definition of a worker's professional skills by describing the set of activities that they can carry out, their field of application and their requirements. A professional profile thus refers to the set of professional achievements that a person can demonstrate in the array of work situations specific to their occupational area, and it is a fundamental reference, although not the only one, for the training process. A professional profile also informs the different actors in the productive sector what competent performance is expected of a given professional, serving as a means of communication between the educational system and the productive system.

> **Accreditation process:** (Resolution CFCyE No. 261/06) it consists of the analysis of curricula related to technical certifications or professional training certificates and their evaluation compared with a set of basic criteria and standards indicated as a reference for each (reference framework), for the purpose of creating connections. The favourable opinion of the accreditation process authorises the administrative proceedings known as National Validity in the relevant department of the Ministry of Education.



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Team



Author

Ricardo De Gisi

Work team

Anna Zongollowicz

Mercedes Vitale

Paola Cleri

Silvia Rossini

Design

Danila Kübler

Technical and Vocational Education and Training is one of the modalities of the Argentine educational system, and it plays a strategic role in achieving a higher level of social inclusion and equality due to its close contact with the fields of science and technology, labour and production. This **Snapshot of Technical and Vocational Education and Training in Argentina** provides detailed information in simple language, on the way in which TVET is implemented in our country.

A timely record of its institutional framework has been prepared with a historical perspective, details of the current institutional network, with a thorough description of the educational offer, its distribution by region, by economic area, areas of dominance and lacking areas, among other variables, a systematic study of the set of associated regulations and observations of regulatory trends, as well as relevant aspects of the relevant internships.

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