Diverse and Fragmented High-School-Level Education in Mexico

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igh-school-level education in our country faces many problems, ranging from difficulties in validating course credits from one institution to another in the different systems that offer it, to low graduate achievement levels and high drop-out rates, among others. One of the educational alternatives on this level is high/preparatory school, which originated in Mexico with the foundation of the National Preparatory School in 1867¹ by its first general director, Dr. Gabino Barreda. However, for a very long time, no educational body or authority was in charge of fostering high schools nationwide.²

The prolonged lack of general guidelines for this level of education meant that it grew according to the specific needs of very diverse bodies or institutions. This made it possible, on the one hand, to respond to the specific demand for these educational services, and also contributed, on the other hand, to the existence of a diverse, fragmented series of options created by different public, private, and/or autonomous educational institutions and bodies, all of them called subsystems. Given the specificity of each of their curricula, this makes comparing them and establishing equivalencies difficult.

High schools were originally conceived as preparation for those who wanted to go on to higher education. However, as they developed, other training elements were incorporated with an eye to preparing students for the world of work. In addition, they were not established as an option for everyone. Nevertheless, this perspective changed since it was considered a means for social mobility.



Table 1 shows the huge fragmentation of high-school-level education into different kinds of education and training regulated by bodies that belong to the federal government, universities, and the private sector. Very often, bodies with similar names have curricula that differ significantly. Added to this, the lack of compatibility limits the harmonious, coherent, and effective operation of high-school-level education. The table shows that the existing educational alternatives are managed by different bodies and follow guidelines established by different educational authorities.

These authorities are charged with establishing norms regarding curricula and how they operate on campuses. That is, they define how and which educational option will be offered (see Table 2).

The educational types or approaches can be classified by the structure of the curricula in each institution offering high-school-level education (see Table 3):

 General/preparatory high school. The aim here is to broaden and consolidate the knowledge acquired in middle school and prepare students for higher education in all spheres of knowledge. This kind of education is offered by both public and private institutions.

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TABLE 1
EDUCATIONAL OPTIONS AND FUNDING SOURCES

Type of Funding	Administration	Subsystems
Public	Centralized by the federal government	General Office for High School Education (DGB) General Office for Technological Agricultural Education (DGETA) General Office for Technological Industrial Education (DGETI) General Office for Education in Ocean Science and Technology (DGECYTM)
	Decentralized (semi-autonomous) agencies of the federal government	National School for the Federal District's Technical/Professional Education (Conalep DF) National School for Technical/Professional Education for the State of Oaxaca (Conalep Oaxaca) Center for Technical Industrial Training (CETI) High School of Mexico (Colbach-México)
	De-concentrated agencies of the federal government	National Institute for Literature and the Fine Arts (INBAL) National Polytechnic Institute (IPN)
	Centralized by state governments	High/preparatory schools under each state's Ministry of Public Education (SEP)
	Decentralized (semi-autonomous) agencies of state governments	Schools for Scientific and Technological Studies (CECyTES) State high schools (Cobach) High-School-Level Distance Learning (EMSaD) Comprehensive Community High Schools (BIC) Bilingual Intercultural High Schools (BI) National Technical/Professional High Schools (Conalep) Other decentralized subsystems under the aegis of the state governments
Autonomous	Autonomous	High/preparatory schools belonging to autonomous state universities
Private	Private	High/preparatory schools belonging to private institutions

Source: Developed by the author using data from Instituto Nacional para la Evaluación de la Educación (INEE), *Panorama educativo de México. Indicadores del Sistema Educativo Nacional 2014. Educación básica y media superior*, 2015, p. 60, http://publicaciones.inee.edu.mx/buscadorPub/P1/B/113/P1B113.pdf.

Bodies with similar names have curricula that differ significantly. Added to this, the lack of compatibility limits the harmonious, coherent, and effective operation of high-school-level education.

- 2. General high school with vocational training. This shares the basic objective of general high school but its curriculum is structured to include subjects that prepare the student for the labor market in the hope that the student will have the training required to generally facilitate his/her entry into the productive sector.
- Technological high school. In addition to broadening and consolidating knowledge acquired in middle school and prepar-

ing the student in all areas of knowledge for going on to higher education, this kind of school trains him/her to participate in economic development through industrial, agricultural, fishing, forestry, or service activities. Borrowing from genetics, this is also called "bivalent," meaning that graduates also have training in a technical field, thus facilitating their entry into the labor market.

- Professional technical education combined with high school.
 This is a kind of dual education similar to that of a technical high school.
- 5. Technical professional education without high school. This kind of school offers a specialized education in a great number of mid-level trades or professions. This allows graduates to enter different sectors of production.

But due to their specificity, it remains to be seen where certain other options would fall: military high school, high schools dedicated to the arts and humanities, to bilingual, intercultural studies, or targeting the indigenous population, as well as what has been called "dual education."

As shown, high-school-level education is offered by different kinds of institutions. Classroom-based systems alone offer more than 100 different curricula; creating equivalency norms for these systems can be complicated, making transferring from one kind of school to another very difficult, given

their different educational and training options. In addition, institutions can offer one or several kinds of education simultaneously, operating in one or several educational modes, be of different sizes (both in terms of number of campuses and in the number of students enrolled), and use differently structured curricula and forms of student organization and management.

It should be pointed out that to analyze high-school-level educational subsystems, in addition to taking into account the foregoing aspects, it is important to identify their source

TABLE 2
TYPE OF EDUCATION

Туре	Option	Characteristics
Classroom-based	On-site	Class is given on a campus with fixed schedules and school calendars. It has a teaching staff and follows an established curriculum. It may or may not have digital teaching. The student must take and pass the courses in the curriculum to obtain the corresponding certificate.
	Intensive	In general, this kind of schooling is similar to the on-site option (above); the difference is that the intensive course packs the same curriculum into a shorter period.
Non-classroom Based	Online	Students do not necessarily meet in a common specific space or time. The institution must have specific educational and technological strategies for developing and fulfilling the curriculum. A pre-established curriculum exists. The institution has teaching staff who may work on campus or in other spaces where they have access to information and communication technologies. There is a fixed school calendar with flexible hours. The student must take and pass all the subjects in the curriculum to obtain the corresponding certificate.
Mixed	Self-paced	Schedules and teaching times are flexible. Part of the curriculum is made up of serially numbered courses, while the rest are electives. Teaching services are supplied according to students' needs; however at least 30 percent of learning activities must be supervised by a teacher. Students carry out activities on campus and also under their own supervision. School calendar and times are flexible. Students must take and pass all courses in the curriculum to obtain the corresponding certificate.
	Mixed	This kind of school combines strategies, methods, and resources included in the different options according to the kind of student population, the nature of the academic model, and the conditions of the educational institution. It shares the characteristics of the self-paced option; the difference is that in the mixed option, students must follow a fixed school calendar, although the school day may be pre-established or flexible. At least 40 percent of learning activities must be supervised by a teacher. Students must take and pass all courses in the curriculum to obtain the corresponding certificate.

Source: Diario Oficial de la Federación, "Acuerdo secretarial 445," October 21, 2008, http://dof.gob.mx/nota_detalle.php?codigo=506 4952&fecha=21/10/2008.

TABLE 3
EDUCATIONAL APPROACHES

Educational Model	Educational Type or Approach	
	General high/preparatory school	
General High School	General high school with vocational training	
Technological High School	Technological high school	
Professional Technical School	Technical/Professional education, mixed with high/preparatory school	
	Technical/Professional education without high/preparatory course work	

Source: Developed by the author.

TABLE 4
ENROLLMENT AND CAMPUSES BY EDUCATIONAL MODEL

Educational Model	Enrollment	Campuses*
General High School	2 896 761	11 265
Technological High School	1 706 076	2 699
Professional/Technical School	79 499	668
TOTAL	4 682 336	14 652

*Note: Some campuses provide more than one kind of educational option.

Source: Developed by the author using data from Instituto Nacional para la Evaluación de la Educación (INEE), Panorama educativo de México. Indicadores del Sistema Educativo Nacional 2014. Educación básica y media superior, 2015, p. 60, http://publicaciones.inee.edu .mx/buscadorPub/P1/B/113/P1 B113.pdf.

of funding and the kind of administrative control they are under. This is because these two elements can have a significant impact on the implementation of specific instructions from the federal government or the state governments themselves.

Today, Mexico's high schools are immersed in two different kinds of reforms: one began in 2008 with the application of the Comprehensive Reform of High-School-Level Education (RIEMS). This was based on a competency approach and creating what it calls the common curricular framework, which, given the context of diversity, seeks to perform as a point of convergence. The other process began in 2013 after the implementation of the General Law on Professional Teaching Services, which stipulates the criteria, terms, and conditions that teachers must cover to be hired, promoted, and receive acknowledgements, as well as to remain in service.

Its fragmentation and functioning based on different, particular decisions and its relatively recent incorporation into educational topics of national interest invite us to think about the limits and scope of the reforms on this level of education.

This overview shows that, on the one hand, high-schoollevel education has only recently been included on the national agenda. On the other hand, both the lack of a national curriculum and the conditions and contexts in which each institution has covered the need for this kind of education have made diversity and fragmentation its main characteristics.

Its fragmentation and functioning based on different, particular decisions and actions, as well as its relatively recent incorporation into educational topics of national interest invite us to think about the limits and scope of the reforms this level of education is immersed in. It also suggests the need to explore the vast possibilities for reviewing and analyzing high-school-level education, which exists in its many different forms but is not viewed in a comprehensive, overall way, as a significant element for defining educational policy that will have a great impact on our society and economy.

Notes

- Article 37 of the General Law on Education stipulates that high-school-level education is constituted by high schools and other options for education. In our country, the term "high [or preparatory] school" is specifically used to refer to studies after middle school that prepare the student for university.
- ² In 2002, the General Coordinating Office for Middle Education was created to deal with aspects of high-school-level education until the Viceministry of High-School-Level Education (SEMS) was created in 2005.