Higher Education Systems and Institutions, Mexico



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Background

Before Mexico was the country it is today, its territories were part of New Spain, and prior to that, several Mesoamerican civilizations lived in its current area. These Mesoamerican cultures developed different types of education. The ancient Mexicas created the Calmécac (as it was called in Nahuatl), which was a place where the nobles acquired the knowledge necessary to carry out their future roles as priests, political leaders, astronomers, or musicians (López Austin 1985). Although there were different indications of higher education (HE) in other Mesoamerican cultures, it is clear that the existing concept of universities is European and medieval despite its varying antecedents in documented non-European cultures (Perkin 1991). The concept of having an institution that does research, teaches, and validates its students' knowledge came about with the universities of Bologna and Paris. Because the Spaniards, unlike other

conquistadors, opened universities once they conquered their territories, Mexican institutions for higher education (HEIs) have several colonial predecessors (see Table 1). But since there is not a clear link between these colonial universities and current HEIs, some of the main stages in the history of Mexican HE must be studied in order to observe its peaks and valleys.

Eight stages are suggested which help to organize the evolution of the HE system in the country. These stages center on the establishment of subsystems of HE and, in other cases, on the establishment of universities, some of which later became the flagship universities in their respective states or cities.

After the colonial stage, many institutions were created during the nineteenth century, the so-called civil, scientific, and literature colleges. According to Tünnermann (2003), the new Latin American republics imitated the Napoleonic model of universities. The idea was to create universities to serve the state, to train professionals and citizens, and to separate teaching from research. The third stage in the history of HEIs in Mexico begins with the opening of the National University of Mexico in 1910, at the end of Porfirio Diaz's government, and at the very beginning of the Mexican Revolution. In fact, most of the first public universities of the twentieth century started during that time, though some of their predecessors were the colonial universities, scientific institutes, or the nineteenth-century civil colleges. The fourth stage began with the

Higher Education Systems and Institutions, Mexico, Table 1 Stages in Mexican history of higher education and examples

Stages	Period	Public HEIs and year of foundation	Private HEIs and year of foundation
1. Colonial	1551–1800	School of San Nicolás Obispo (1540)	
		Royal and Pontifical University of Mexico (1551)	
		College of the Society of Jesus (1578)	
		Jesuit College of San Luis Potosí (1623)	
		College of Merida (1628)	_
		Tridentine Seminar in Guadalajara (1771)	
2. Liberal institutions of	1801–1909	Institute of Sciences and Arts of Oaxaca (1827)	
higher education		Literary Scientific Institute of Chihuahua (1835)	
		Veracruz Institute (1845)	
		First Teacher Training School for Men (San Luis Potosí) (1848)	
		Civil College of the State of Durango (1856)	
		Civil College of the State of Nuevo León (1857)	
		Juarez Institute of Tabasco (1879)	
3. First	1910–1934	National University of Mexico (1910)	
universities of the twentieth century		Michoacan University (the first autonomous university, 1917)	
		University of West-Sinaloa (1918)	
		First Rural Teacher Training School (Tacámbaro, Michoacán) (1922)	
		University of San Luis Potosi (1923)	
		University of Nuevo Leon (1933)	
4. Socialist period, transition,	1935–1959	University of Puebla (1937)	First private university (Autonomous University of Guadalajara) (1935)
and first private		National Polytechnic Institute (1937)	University of the Americas (1940)
institutions		University of Colima (1940)	Monterrey Institute of Technology and Higher Education (ITESM) (1943)
		Federal Technological Institutes (the first were in Chihuahua and Durango,	Iberia-American University (IBERO) (1953)
		1948)	Western Institute of Technology and Higher Education (ITESO) (1957)
5. Consolidation of the state	1960–1967	University of Guerrero (1960)	University of the Valley of Mexico (UVM) (1960)
		University of Zacatecas (1968)	Technological University of Mexico (UNITEC) (1966)
			La Salle University (1962)
			Pan-American University (1967)
6. Unrest and growth	1968–1979	University of Aguascalientes (1973)	University of Monterrey (1969), Regiomontana University (1969)
		Autonomous Metropolitan University (UAM) (1974)	Popular Autonomous University of the State of Puebla (1973)
		National School of Professional Studies-UNAM (1974)	Intercontinental University (1976)

(continued)

Higher Education Systems and Institutions, Mexico, Table 1 (continued)

Stages	Period	Public HEIs and year of foundation	Private HEIs and year of foundation
		Public State Universities of Solidarity Support ^a (1978)	North East University (1979)
		National Pedagogical University (UPN) (1978)	
7. Lost decade and diversification	1980–1999	Higher Education Teaching Schools (their status was raised in 1984)	Justo Sierra University Center (1991)
		Technological Universities (first established in Aguascalientes and Tepeji-Tula, 1991)	ICEL University (1994)
		State Technological Institutes (first established in Ecatepec, 1990)	Insurgentes University (1995)
		Autonomous University of Quintana Roo, 1991 (the second-to-last public autonomous university created in the country)	
		Opening of the first separate campi- University of Guadalajara (1994)	
8. Present time: stratification of demand	2000 to present day	Polytechnic Universities (first established in San Luis Potosí, 2001)	Laureate International bought University of the Valley of Mexico (UVM) and the Technological University of Mexico (UNITEC) and the American-Hispanic University (UHA) in 2004; the University of the Northwest (Uno) in 2005; the University of Professional Development (UNIDEP) and the Institute of Superior Culture Valle del Bravo de Reynosa (UVB) in 2007; and the University Pro Development (UniPro) in 2008
		Intercultural Universities ^b (first established in San Felipe del Progreso, State of Mexico, 2004)	The Carlyle group bought the Latin- American University (2008)
		University of Mexico City (2001)	
		Bicentennial Mexiquense University (2009)	
		Bilingual and Sustainable Technology Universities (first established in El Retoño, Aguascalientes, 2012)	
		National Technological Institute of Mexico (it comprises all the technological institutes and other institutions, 2014)	-

Created by authors. Source: official web pages of the HEIs

^aThey are decentralized public higher education institutions that receive subsidies from the federation, the state governments, and the users (students) in form of tuition

^bThe main mission of intercultural universities is to promote the training of professionals committed to the economic, social, and cultural development of Mexican indigenous communities. They are looking to revalue the indigenous knowledge and to encourage the traditional values of these communities (among other goals)

HEIs created as a result of the socialist government of President Lázaro Cardenas: the National Polytechnic Institute (IPN as per the Spanish acronym (All the acronyms are in Spanish.)) in 1937 and the Federal Technical Institutes in 1948. During that time, socialists took a very practical approach to education; they sustained the belief that education was able to produce change and that technical education could contribute to the development of the country. On the other hand, as a consequence of the political situation at the time, the first steps were taken toward the establishment of private universities, since the Mexican elite felt it was necessary to have their "own" institutions for their children.

The fifth stage centered on the construction of the state, its evolution in a period of relative stability, and the growth of public and private universities in some states. By 1960, the states of Aguascalientes, Baja California Sur, Quintana Roo, Tlaxcala, Hidalgo, and Nayarit still did not have any institutions for higher education (Medina Viedas 2005). The sixth stage refers to a period of time that came after the student movement in 1968, which turned into a political revolt and ended to a students' massacre. Once the situation was more stable, the government decided to open more innovative spaces for higher education and high schools. This stage took over two decades.

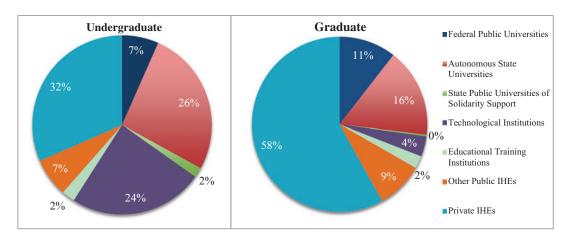
The seventh stage is more focused on the 1990s, since the 1980s was considered the "lost decade" for higher education and education in general in Mexico, except for the fact that the evaluation processes started in 1984 with the establishment of the National System of Researchers (SNI) (a peer review system for researchers). Also, the teachers' training schools (known as "Escuelas Normales") were finally considered part of the higher education subsystem since completing a high school degree was a requirement to be enrolled (before the requirement was secondary school) (Deceano et al. 2004). In this period, there was a significant increase in the establishment of private institutions; they went from 155 (in 1990) to 521 (in 2000) (Izquierdo et al. 2004). Finally, the last stage began in the year 2000 and continues to the present. During this time, student enrollment increased by about 1.5 million students. Furthermore, a new phenomenon regarding private institutions was observed in this stage: the acquisition of family-owned universities by transnational corporations. Finally, in 2017, Arkansas State University opened a campus in the city of Queretaro, Mexico, in what seems to be one of the first steps in developing cross-border HE in Mexico.

Size, Classification, and Types of Institutions

The Mexican educational system is one of the largest in the world. However, the HE system is small in relation to the size of the country and the high demand for HE. The higher education subsystem has four degrees: superior technical university, Bachelor's, specialization, Master's, and Ph.D. From 2016 to 2017, there were 5311 HEIs. There are 3.76 million students (almost evenly divided between women and men) in the school system and about 388,310 professors: 14,730 at teaching training schools (19% private), 315,801 at the undergraduate level (40% private), and 57,779 at the graduate level (43% private) (Gobierno de los Estados Unidos Mexicanos 2017). The students enrolled in the non-schooling HE system are counted separately. The gross enrollment ratio from 2015 to 2016 was 35.1%. But in 2017 the net enrollment ratio was only 23.4%. In comparison with other Latin American countries, these ratios are low. In 2013, the student-faculty ratio was ten students per faculty member in Mexico (Ferreyra et al. 2017, p. 15).

A key aspect in Mexican HE is that the largest number of institutions is private but the largest enrollment is public (see Fig. 1). There are also some differences between undergraduate and graduate education enrollments (see Fig. 1).

By 2016–2017, there were 921 public undergraduate institutions and 2129 private ones. In terms of graduate schools, there are 391 public institutions and 1267 private institutions. The subsystems of public HE are described in Table 2. The most significant aspect is the strong stratification of the Mexican system. This stratification



Higher Education Systems and Institutions, Mexico, Fig. 1 Undergraduate and graduate education enrollment by type of institution (period 2016–2017) (Created by authors. Source: ANUIES (2017) *Anuarios Estadísticos de Educación Superior*)

has to do with history, financing, governance, the legal situation, activities, size, prestige, and demand, among other aspects. Table 2 reflects the complexity of the Mexican higher education ensemble. Particularly the way the system is fragmented since there are some subsystems that were incorporated very recently; for example the teaching schools in 1984 or the Polytechnic Universities in 2001.

There are different ways to classify private HEIs in Mexico. Silas (2005) suggests the following: (1) affiliating with the Mexican Federation of Private Higher Education Institutions (FIMPES), (2) affiliating with the National Association of Universities and Higher Education Institutions (ANUIES), (3) having at least one program certificated and approved by the Council for Higher Education Certification (COPAES), and (4) having at least one international certification. In addition, private HEIs could be classified as traditional, religious, or if they are part of private corporations (such as Laureate International Universities). Finally, they can serve the elite and middle class or be demand-absorbing institutions (Izquierdo et al. 2004).

From 2016 to 2017, there were 450 private teacher training schools, 4285 private HEIs that provide undergraduate education, and 2293 that provide both undergraduate and graduate HE (Gobierno de los Estados Unidos Mexicanos

2017). A clear problem for Mexican HE is the lack of regulation of the thousands of private HEIs and that there is no differentiation between for- and nonprofit institutions, both for the students and their families. However, the last fiscal reform, in 2014, included a change regarding the classification of private institutions. While the Mexican laws do not legally recognize the existence of for-profit educational institutions, the new fiscal rules make a distinction between schools that report revenue and those that do not. In the first case, they are not exempt from taxes (Martínez 2016).

Policy, Governance, and Evaluation

Autonomous institutions make decisions regarding their governance and rules for choosing their authorities. Usually these institutions have collegial bodies with academics, authorities, and student representatives. Some of these bodies are the highest-ranking authorities in the institutions. Also, these universities have Boards of Trustees (Junta de Gobierno) that designate the university president (rector). According to López Zárate et al. (2011), there are three ways to select the rectors in the public sector: electoral process, where students, academic, and employees have the right to vote for rector (7 public universities);

Higher Education Systems and Institutions, Mexico, Table 2 Subsystems of public HEIs (size and financing)

Subsystems	Institutions	Size	Total enrollment (2015–2016)	% of appropriation of the public resources for HE (2015) ^a
Federal public	UNAM	8 campi	229,831	19.0%
Universities	UAM	5 campi	57,042	3.7%
	Chapingo University	9 regional centers	5814	1.3%
	Antonio Narro University	3 units	5371	0.55%
General direction of University Higher Education	Autonomous Universities	34 institutions	1,118,242	
	Solidarity Support State Public Universities	22 institutions	64,571	33.9% (total)
	Intercultural Universities	13 institutions	13,445	
National Technological Institute of Mexico	Federal Technological Institutions, other centers	266 institutions (in 31 states)	555,916	9.46% (total)
General coordination of Technological Universities and Polytechnic Universities	Technological Universities	universities (in 31 states)	229,806	2.4% (total)
	Polytechnic Universities	62 universities (in 28 states)	84,650	
General direction of HE for Professionals in Education	Teaching schools	253 institutions	99,289	0.30% (total)
National Pedagogical University		76 units and	33,363	0.45% (total)
Army University and Air Force		208 suboffices	3220	1.08% (total)
Center for Research and Advanced Studies (CINVESTAV)		6 centers	2698	1.15%
El Colegio de Mexico		1 school	431	0.37%
National Institute of Anthropology and History		3 schools	2843	00.4%
National Polytechnic Institute		26 schools	113,832	8.8%
Open and distance University of Mexico		1 center	91,976	0.16%
Post-graduate college		7 campi	1196	0.69%
Teaching schools in Mexico City		3 schools	3343	0.75%

Created by Authors. Sources: Mendoza Rojas (2017)

election by a university council (16 universities); or election by boards of governors, directors, or distinguish faculty members (15 universities). Other ways to select university presidents are by appointment from the Secretary of Education or President of the Republic or by mixed procedures where voting is combined with the opinion of a

group of distinguish faculty members (invited by authorities or the university council) (Gómez Quintero 2015). The nonautonomous public HEIs mostly depend on the Secretary's Office of Education (SEP), the sub-secretary of HE, and other related general directors. Private HEIs have their own organization and governance, and

^aFederal HE budget. It includes the science and technology budget

almost none has been granted autonomy. Some private HEIs have some types of collegial bodies but others simply function like any other business or company. Yet private HEIs enjoy more managerial autonomy than public institutions since they have less legal restrictions to make changes or to decide over their institutional direction.

In Mexico, there are some organizations that are responsible for evaluating and accrediting, and others provide membership that matters in terms of prestige but also in order to receive additional financing (see Table 3).

The evaluation policies had different purposes at the public sector: to modify a system that had been reluctant to change by taking advantage of the principle of autonomy, to establish new mechanisms of financing, to develop a system of accountability, to improve the accreditation and the regulation of programs and institutions, and to coordinate and regulate the system. In the case of the private sector, their logic responds more to the competition they face when recruiting students and to become more attractive to a not negligible market at all. However, evaluation has created other problems such as simulation or fraudulent and dishonest practices (Díaz Barriga 2005).

Financing

The Mexican constitution establishes that the state (the Federation, Mexico City, and municipalities) has to provide for free preschool, primary, secondary, and high school education. But HE is not included as an obligation of the state. The constitution says that the financing of HE can be public or private. The federation, the states, or the municipalities can provide public financing to He following the decisions from the congress. The autonomous universities are entitled to decide to charge tuition. Historically, HE financing has been increased gradually without further considerations on inflation rates or enrollment growth, although congress has tried to improve the financing formulas in order to take into consideration the inequity among institutions. Still, there is a very different distribution of the budget depending on the subsystems of HE and the institutions (see Table 2).

In 2015, the percentage of the gross domestic product (GDP) dedicated to education in Mexico was 4.3% and the percentage dedicated to research and development, the same year, was 0.53 (OECD 2018). The percentage allocated to higher education and graduate education was 0.67%. If only the public expenditure on science and technology is considered, the percentage was less than 1% of the GDP (Mendoza Rojas 2017).

It is possible to analyze the pattern of subsidies considering the number of students enrolled at the undergraduate level. However, considering that the system is very stratified, the subsidies do not entirely represent the reality of the system. From 2012 to 2018, there was a decrease in the financing per student despite the fact that enrollment increased by 4.9% and the federal budget grew 2.9% (see Table 4).

In the last years, the growth of the public resources financing of HE has decreased to rate of 2.9% per year, while in the previous government, the rate was 6.3% (Mendoza Rojas 2017). Nevertheless, there are also other forms of support focusing the students. The most important program is the former National Program of Scholarships (PRONABES). It was created in 2001 with the purpose of retaining low-income students and helping them to graduate. Currently it is known as "Scholarships for Provision." This program prioritizes indigenous students and students with disabilities (CONEVAL 2013). In 2012, PRONABES awarded 318,655 scholarships, of which women received 56% (CONEVAL 2013). Since more than 20% of HE students in Mexico work, according to a report from the World Bank (Ferreyra et al. 2017, p. 206), one important feature of this program is that it helps students to commit more time and energy to their studies (CONEVAL 2013). For graduate studies, since year 1971, CONACYT provides scholarships to students enrolled in graduate programs in Mexico and abroad. Until 2016, the Council has awarded more than 328,000 scholarships (http:// conacytprensa.mx/).

The Mexican government has also other programs to provide alternative sources of financing

Higher Education Systems and Institutions, Mexico, Table 3 HE organizations in Mexico

Main purpose	Organization	Foundation year	Structure and members	Functions
Membership	National Association of Universities and Institutions of Higher Education (ANUIES)	1950	It is a nongovernmental organization. It has 191 HEIs members (public and private). It includes a Council for Private HEIs (CUPRIA), a Council for Public HEIs (CUPIA), and a Council for Technological HEIs (CITIA)	It coordinates the institutions and works as a HE think tank (http://www.anuies.mx/)
Evaluation	National Council for Science and Technology (CONACYT)	1970	It is a decentralized public body of the Federal Public Administration	It directs the national policies and strategies of science, technology, and innovation. It is in charge of the National System of Researchers (SNI) and the National Program of Quality of Graduate Education (PNPC) (created in 1992) which classifies graduate programs in four groups: recent creation, in development, consolidated, and international excellence (www.conacyt.gob.mx/index.php/el-conacyt and http://svrtmp.main.conacyt.mx/ConsultasPNPC/inicio.php)
Membership	Mexican Federation of Private Higher Education Institutions (FIMPES)	1982	It is a network of 109 HEIs	It promotes coordination among private institutions (http://www.fimpes.org.mx/)
Evaluation	Inter-Institutional Committees of Higher Education Evaluation (CIEES)	1991	It is a body for quality assurance of HE. It is divided by five disciplinary committees	It evaluates public and private HEIs (https://www.ciees.edu.mx/)
Evaluation	National Center for Higher Education Evaluation (CENEVAL)	1994	It is a nonprofit civil association	It serves to design and apply individual tests to measure knowledge and skills; it analyzes and disseminates the results of those tests. It organizes entrance examinations for secondary education applicants and HE applicants, and it certifies studies and evaluates competencies (http://www.ceneval.edu.mx/)
Accreditation	Council of Accreditation in Higher Education (COPAES)	2001	30 accreditation organizations based on disciplines and fields of study	It coordinates the agencies that accredit public and private higher education programs (http://www.copaes.org.mx/)

Created by authors. Source: official web pages

Higher Education Systems and Institutions, Mexico, Table	4 Evolution of the subsidy in higher education per
student	

Year	Subsidies (pesos)	Subsidies (dollars)
2006	50,079	2516
2009	59,294	2979
2015	51,227	2574

Source: Created by authors. Source: Mendoza Rojas (2017)

for public HEIs and students (throughout scholarships or subsidies). These programs are PRO-**EXOEES** (supporting the expansion enrollments at high school and HE), PROFOCIE (enhancing the quality of educational institutions), PROFOCIE (supporting professional development for academics). There are also special programs targeting the financial situation and solving structural problems of state public universities. In order to apply for these extraordinary funds, the universities must fulfill all the requirements and meet the quality control standards that are part of each program.

Private credits and loans are a recent feature in the country's landscape. Since year 2012, there are several credit institutions that offer private loans. However, the number of students who ask for such credits is less than 1% (Vargas 2017). In addition, long-term savings programs to pay for college tuition are becoming more popular among middle class families. Finally, there are a number of national and international foundations that also provide grants to pursue higher education studies, to go abroad temporary or permanently.

Current Trends

Inequity

Mexican HE mirrors the inequity of the country. The access of lower-income students decreased from 2008 to 2014 (Solís 2015). While students from families positioned at the lower quintile in the country's income distribution have very limited access to public institutions, the access to private institutions is even worse. Only among families in the highest quintiles (4 and 5) the percentage of youths enrolled in HE is larger than 28%, considering both public and private

institutions (Ferreyra et al. 2017). As a study by the Inter-American Development Bank points out, when Mexican mothers have studied primary school, there is a 10% chance of their children (born between 1975 and 1989) accessing HE. If the mothers reached secondary school, there is a 30% chance of their children entering tertiary education, but if the mothers themselves have access to HE, then the chances of their children accessing that level are 60% (Dureya and Robles 2017). Other research shows that if the father has access to HE, the probability of his children to access HE is 59%. But if the father has no education at all, this probability goes down to only 5% (Centro de Estudios Espinosa Yglesias 2012). Also, less than 1% of children from indigenous communities have access a HE institution (Schmelkes 2003).

This pattern of inequalities is partially explained by the geographical location of the HEIs. In the case of Mexico, 90% of HE students live in urban areas (Ferreyra et al. 2017). The inequities are also related to receiving public subsidies: in the year 2000, the richer families received 10.4% of the public expenditure in HE, and in the year 2006, the percentage increased to 13% (Álvarez Mendiola 2011). Despite this situation, almost no Mexican HEIs adopt affirmative action policies.

Alternative Modes of Education

A more recent trend in the country is alternative education. There are five types: home schooling, distance education, interactive learning using ICT (information and communications technology), hybrid mode (a mix of distance and face-to-face learning), and face-to-face learning supported by technology (CONACYT 2014). In 2013, distance education represented 12% of total enrollment.

Data from 2015 to 2016 shows that the total enrollment in public and private institutions in these alternative options for education was 595,456 students. Most of them are enrolled at the Bachelor's level (497,646); and some students are enrolled in a graduate program (90,813); others are enrolled in the Superior Technical University Programs (6997) (Rodríguez Gómez 2017). But the largest percentage is enrolled in private HEIs. For example, one private institution, ITESM, has about 170,000 students in approximately 30 countries in its virtual university (Ferreyra et al. 2017, p. 104).

Internationalization

The internationalization process in Mexican HE experienced different impetuses, perhaps the most important being trying to increase student mobility. However, the country faces many challenges. First, the news about insecurity in Mexico has certainly negatively affected the number of international students who want to come to Mexico to study. For example, in 2005-2006, there were 10,022 US students going to Mexico, and by 2014–2015, there were only 4711 students. Meanwhile, the numbers of Mexican students going to the USA have increased. In 2005-2006, there were 13,931 Mexican students going to the USA, and by 2014–2015, there were 17,052 (Farrugia and Bhandari 2016). Within the country, less than 0.5% of Mexican students experienced international mobility (Maldonado-Maldonado et al. 2016). The main international countries of destination of Mexican temporary mobility are Spain and the USA and the United Kingdom of Mexican degree-seeking mobility. The main institutions that promote international mobility are the most prestigious private and public institutions. Although many Mexican HEIs are making a major effort to become more international, competition is fierce, and the position of Mexican institutions in worldwide rankings has not helped to promote Mexico as a host country. Just two Mexican institutions appear in the international rankings apart the QS: UNAM and ITESM. In a World Bank report showing the average ranking for top universities in Latin America and the Caribbean (2015), the only Mexican institution

mentioned is UNAM in position 305. Since prestige matters for promoting internationalization, this affects to what extent universities are promoted and are able to establish exchange programs.

Academic Professions in Mexico

In the last few decades, the academic profession experienced strong changes. The academic labor market in Mexico is now larger and more stratified, following the patterns of stratification in the HE system. Nevertheless, this growth implied new challenges for the system; the labor conditions for most academics are worse than before. since there are fewer positions available and more potential scholars to fill those positions. The academics working at the most prestigious public institutions and research centers receive the best benefits and salaries (Maldonado-Maldonado 2016). Difference between full-time professors and part-time academics (locally known as "taxiacademics"), who need to accumulate hours in different institutions to be able to receive a good salary, produces strong stratification of salaries in the system (Galaz Fontes and Gil Antón 2009). Another problem arises from the fact that, because conditions for retirement are bad, Mexican academics postpone their retirement, which means that there are not enough positions for younger scholars with PhDs.

Is There Actually a System?

A system of HE refers to "the sum of many individual universities, colleges, and institutes, together with such apparent formal machinery as the ministry of education" (Clark Burton 1983, p. 5). Sometimes it includes controllers, organizers, workers, or consumers (legislative educational committees, public executives, trustees, administrators, professors, and students). In this sense, people may speak of a Mexican HE "system." But Mexico does not have a national academic credit system that could allow students to transfer between institutions or subsystems. If a student feels unsatisfied or undecided about the education she is receiving, she does not have the option to move to another institution because the

inflexibility of the system. This should be considered another problem that needs improvement.

A Hazy Future

The social mobility linked to access to HE is still relevant in Mexico, and the returns are high, since the poorer the country, the richer these returns are (The Economist 2015). The returns of HE in highincome countries are 11% and in Latin America 17.6% (Montenegro and Patrinos 2013). There are other data to show the relevance of HE; for example, there is increased productivity of about 4–7% as a result of investments in training for Mexican manufacturing workers (World Bank 2018, p. 154). But this productivity is also affected by the international economic and geopolitical situation, in particular the relations between Mexico and its main partner, the USA. A more important factor will be Mexico's own decisions regarding its HE system. The current President decided to start a basic educational reform but has avoided facing the challenges of reforming higher education. The message should be clear: increasing access to HE would help to maintain more young Mexicans away from the violence of the war on drugs and the siren call of immigration. Education must continue to offer young generations of Mexicans a better life and an improved future.

References

- Álvarez Mendiola, Germán. 2011. El fin de la bonanza. La educación superior privada en México en la primera década del siglo XXI. *Reencuentro* 60: 10–29. http://www.redalyc.org/articulo.oa?id=34017127002.
- Asociación Nacional de Universidades e Instituciones de Educación Superior ANUIES. 2017. Anuarios Estadísticos de Educación Superior. Mexico: ANUIES. http://www.anuies.mx/informacion-y-servicios/informacion-estadística-de-educacion-superior/anuario-estadistico-de-educacion-superior.
- Silas Casillas, Juan Carlos. 2005. Realidades y tendencias en la educación privada mexicana. *Perfiles Educativos* 27 (109–110): 7–37.
- Centro de Estudios Espinosa Yglesias. 2012. La movilidad social intergeneracional en México. En *Movilidad social en México 2013. Imagina tu futuro.* Mexico: Centro de Estudios Espinosa Yglesias.

- Clark Burton, R. 1983. *The higher education system. Academic organization in cross-national perspective.* Berkeley: University of California Press.
- Consejo Nacional de Ciencia y Tecnología (Conacyt). 2014. Fundamentos sobre calidad educativa en la modalidad no escolarizada. Dirección Adjunta de Posgrado y Becas. Dirección de Posgrado. https://www.conacyt.gob.mx/index.php/becas-y-posgrados/pro grama-nacional-de-posgrados-de-calidad/convocatorias-avisos-y-resultados/documentos/924-fundamentos-sobre-la-calidad-educativa-modalidad-no-escolarizada/file.
- Consejo Nacional de Evaluación de la Política de Desarrollo (Coneval). 2013. Informe de la evaluación específica de desempeño 2012–2013. Programa Nacional de Becas y Financiamiento. Subsecretaría de Educación Superior. http://www.coneval.org.mx/Informes/Evaluacion/Especificas_Desempeno2012/SEP/11 S028/11 028 Ejecutivo.pdf. Accessed 19 Dec 2017.
- Deceano, Francisco, Guevara María del Refugio y González, and Laura Elena. 2004. Atraer, formar y retener profesorado de calidad. Reporte sobre la situacion de México. Versión en español. París, OCDE.: https://www.oecd.org/mexico/32023694.pdf.
- Díaz Barriga, Ángel. 2005. Riesgos de los Sistemas de Evaluación y Acreditación de la Educación Superior. Seminario Regional: Las nuevas tendencias de la evaluación y acreditación en América Latina y el Caribe. Comisión Nacional de Evaluación y Acreditación Universitaria (CONEAU)-Instituto Internacional para la Educación Superior en América Latina y el Caribe (IESALCUNESCO). Buenos Aires.
- Dureya, Suzanne, and Marco Robles. 2017. Family legacy. Breaking the mold or repeating patters? Washington, DC: IDB. "Social Pulse in Latin America and the Caribbean 2017".
- Farrugia, Christine, and Rajika Bhandari. 2016. Open doors 2016 report on international educational exchange. New York: Institute of International Education.
- Ferreyra, Martha María, Ciro Avitabile, Botero Álvarez, Javier, Haimovich Paz, Francisco, and Sergio Urzúa. 2017. At crossroads. Higher education in Latin America and the Caribbean. Washington, DC: World Bank.
- Galaz-Fontes, Juan Francisco, and Gil Antón, Manuel. 2009. La profesión académica en México: Un oficio en proceso de reconfiguración. Revista Electrónica de Investigación Educativa, 11(2). http://redie.uabc.mx/ vol11no2/contenido-galaz2.html.
- Gobierno de los Estados Unidos Mexicanos. Presidencia de la República. 2017. 50. Informe de Gobierno 2016–1017. Anexo Estadístico. México: Presidencia de la República.
- Gómez Quintero, Natalia. 2015. Difieren universidades en métodos para elegir rector. El Universal. http://www. eluniversal.com.mx/articulo/nacion/sociedad/2015/08/ 10/difieren-universidades-en-metodos-para-elegir-rector. Accessed 10 Jan 2018.
- Izquierdo, Muñoz, Núñez Carlos, María de los Ángeles, and Marisol Silva Laya. 2004. *Desarrollo y*

- heterogeneidad de las instituciones de educación superior particulares. México: Asociación Nacional de Universidades e Instituciones de Educación Superior.
- López Austin, Alfredo. 1985. La educación de los antiguos Nahuas 1. México: Secretaría de Educación Pública. Ediciones Caballito. Dirección General de Publicaciones.
- López Zarate, Romualdo, Óscar González Cuevas, Javier Mendoza Rojas, and Judith Pérez castro. 2011. Las formas de elección de los rectores. Otro camino para acercarse al conocimiento de las universidades públicas autónomas. Perfiles Educativos XXXIII (131): 8–27.
- Maldonado-Maldonado, Alma. 2016. Pérdida del poder adquisitivo y limitada competitividad internacional: indicios sobre los salarios de los académicos mexicanos a partir de una comparación internacional. Revista Iberoamericana de Educación Superior (RIES) 7 (20): 3–20.
- Maldonado-Maldonado, A., C.I. Cortes Velasco, and B. Ibarra Cazares. 2016. PATLANI. Encuesta mexicana de movilidad internacional estudiantil. 2012/13 y 2013/14. México: ANUIES.
- Martínez, Ulises. 2016. Escuelas particulares sujetas a la obligación del pago del ISR. *Información empresarial*, 36. www.ceiconsultores.com.mx. Accessed 20 Dec 2017.
- Medina Viedas, Jorge. 2005. La ANUIES y la educación superior en México 1950–2005. México: ANUIES.
- Mendoza Rojas, Javier. 2017. Financiamiento de la educación superior en la primera mitad del gobierno de Enrique Peña Nieto: ¿fin del periodo de expansión? *Perfiles Educativos* XXXIX (156): 119–140.
- Montenegro, Claudio E., Patrinos. 2013. Returns to schooling around the world. Background paper for the World Development Report 2013. http://siteresources.worldbank.org/EXTNWDR2013/Resources/8258024-1320950747192/8260293-1320956712276/8261091-1348683883703/WDR2013_bp_Returns_to_Schooling_around the World.pdf. Accessed 21 Dec 2017.
- Neave, Guy. 1998. The evaluative state revisited: 20th anniversary issue of review of trends in higher education. European Journal of Education 33 (3): 265–284.

- Organisation for Economic Co-operation and Development (OECD). 2018. Table 2. Gross domestic expenditure on R&D (GERD) as a percentage of GDP. http://www.oecd-ilibrary.org/docserver/download/942017011 e1t002.pdf?expires=1519436052&id=id&accname=freeContent&checksum=1655111E02F257C24EC55 BD76B272AF1. Accessed 20 Feb 2018.
- Perkin, H. 1991. History of universities. In *International higher education: An encyclopedia*, ed. Phillip Altbach, 169–204. New York: Garland.
- Rodríguez Gómez, Roberto. 2017. Educación no escolarizada en México. Campus Milenio. http://campusmilenio.mx/index.php?option=com_k2&view=item&id=7065:educacion-superior-no-escolarizada-en-mexico&Itemid=140. Accessed 21 Dec 2017.
- Schmelkes, Sylvia. 2003. Educación Superior Intercultural. El Caso de México. Conferencia dictada en el Encuentro Internacional Intercambio de Experiencias Educativas, "Vincular los Caminos a la Educación Superior", organizado por la Ford Foundation.
- Solís, Patricio. 2015. Mayor cobertura educativa, la misma desigualdad social. Distancia por tiempos, Blog de educación de la revista Nexos. https://educacion. nexos.com.mx/?p=55. Accessed 21 Dec 2017.
- The Economist. 2015. The whole world is going to university? Is it worth it? Special Report. *The Economist*, March 28th, April 3rd.
- Tünnermann, Carlos. 2003. La universidad latinoamericana ante los retos del siglo XXI. México: Unión de Universidades de América Latina.
- Vargas, Ivonne. 2017. Los créditos educativos, subutilizados en México. *Expansión. CNN*. https://expan sion.mx/carrera/2017/05/05/los-creditos-educativossubutilizados-en-mexico?internal_source=PLAYLIST. Accessed 20 Feb., 2018.
- World Bank. 2018. Learning to realize education' promise. World development report. Washington, DC: World Bank Group.