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# Teacher Education in México: Higher Expectations, Significant Change, but Still Finite Capacity

Edmund T. Hamann

*University of Nebraska-Lincoln*, ehamann2@unl.edu

Juan Sánchez García

*Escuela Normal "Miguel F. Martínez"*, juan.sanchez@enmf.edu.mx

Yara Amparo Lopez Lopez

amparolopez@adm.edubc.mx

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# Teacher Education in México

**Edmund T. Hamann**

University of Nebraska-Lincoln

**Juan Sánchez García**

Escuela Normal "Miguel F. Martínez"

**Yara Amparo López**

Sistema Educativo Estatal de Baja California

## **Abstract**

While teaching and therefore teacher education in Mexico can, in one sense, be traced back to pre-Conquest Aztec military academies, the first significant expansion of Western-style schooling in Mexico occurred in the early 19th century, while the first substantial national efforts at teacher education date to the *Porfiriato* in the late 19th century. In the 100-plus-year history of teacher education in Mexico, attention has been episodic, has often reflected national refractions of ideas originating elsewhere, and has been centrally intertwined with national governmental efforts to shape what it means to be Mexican. Various, teacher education has been buffeted by attempts to be Catholic, modern, secular, socialist, neoliberal, and globally competitive economically. In all of this, there has been a tension between centralist (focusing on Mexico City) and nationalist impulses, on the one hand (making teaching patriotic work and the teachers' union part of the national government), and attention to regional variations, including Mexico's indigenous populations, rural populations, and economic diversity, on the other. While Mexico's more than two million teachers may all work in the same country, where one is trained (i.e., which *escuela normal*, or normal school), where one works (from public schools in affluent and stable neighborhoods to rural *telesecundarias* where resources are scarce and teachers are not expected to be content area experts), how many shifts one works (it is common for

Mexican educators to work at more than one school to compensate for limited salary), which state one works in (funding varies significantly by state), and what in-service professional development one has access to all mean for variations in teacher preparation and teacher praxis.

**Keywords:** normal schools (*escuelas normales*), basic education (*educación básica*), Mexico, preservice preparation (*formación inicial*), in-service professional development (*formación continua*)

## The Tasks of Mexican Teacher Education: An Introduction

Imagine three Mexican elementary school classrooms on a “typical” contemporary Tuesday morning in October. In one, in a small town of 3,000 along the shores of Michoacan’s Lake Pátzcuaro, a third-year teacher faces 30 youngsters in a concrete-floored classroom with an unused movie screen and projector suspended above the chalkboard on which she busily writes. The lesson is in Spanish, although the school is officially bilingual (Spanish and Purépecha), with students’ Purépecha competence varying from near fluent to less than 30 words. When students leave this school after the *turno matutino* (morning session), they will return home to households variously headed by grandparents, relatives, or one or both parents, as this community is “missing” large portions of its potential population, as large numbers are away working in the United States, while a smaller but still tangible population is missing because of disruptions of Mexico’s drug wars.

In a second classroom, a thousand kilometers to the north, in San Nicolas, Nuevo León (part of the Monterrey metropolitan area), a 20-year veteran educator turns her classroom over to a student teacher from the nearby *Escuela Normal* (teacher training institute). The student teacher’s plan is well developed and detailed, and the students, all sitting at wooden desks in rows, variously write in their notebooks, engage in small-group discussion with neighboring classmates, or respond to teacher questions in a familiar I-RE (inquire, respond, evaluate) discussion pattern in which a teacher seeks “correct” answers related to the topic being investigated.

A third school, in Mexicali Baja California sits on a small hill 1,700 kilometers west and north of San Nicolas and just three blocks south of the steel fence demarcating the U.S.– Mexico border. There, the 35-year-old *maestro* (teacher) knows that all of the 40 children in his

crowded classroom know of the United States. For many, that means direct experience with quick afternoon trips to Calexico, California, in the United States, Mexicali's sister city adjacent to the north. For others it only means views through the fence to television towers, cues of cars, and palm-lined streets. But for almost a fifth, it means sustained time in *el otro lado* (literally, "the other side") and experience attending school in English (in Calexico, Los Angeles, Denver, or even further away).

The charge in each of these classrooms is the same—to help second graders become third graders—yet it seems reasonable to note that the teaching skills needed to achieve this purpose may vary. It is the task of Mexico's teacher education system to assure that the teachers in these three classrooms are ready in terms of both initial preparation and subsequent professional support. More broadly, it is the task of Mexico's teacher education to assure that all teachers in all classrooms are ready to help students learn and advance grade levels.

## Origins

Teacher preparation in Mexico is a reflection of both the country's history and its formally noted educational purposes (Hamann, Vandeyar, & Sánchez García, 2013). In the time before the Spanish Conquest (i.e., pre-1521), there were school-like training programs for the government elite and for warriors in both Aztec and Mayan cultures (Larroyo, 1988). There was also limited schooling during the colonial period (1520–1820), primarily led by Catholic clerics who focused on religious training and preparing the small governing class. The ideological foundation for Mexico's War of Independence (1810–1820) was the Enlightenment, and the 1824 constitution, written after the war was finished, promised public education. However, only limited schooling was available, mainly in Mexico City, that reflected these promises and ideals in the decades after independence (Berger, 1947).

Schooling got more of a boost during Mexico's reform period (which followed the disastrous war with the United States [1845–1848] and its related loss of territory). At that time, newer European thought—notably positivism and liberalism—started to shape educational design.

This continued through the *Porfiriato* (1876–1911), a political period dominated by the Europe-oriented dictator Porfirio Díaz. In this era, French philosophies were influential for both the structure and function of the *Secretaría de Instrucción Pública y Bellas Artes* (Ministry of Public Instruction and Fine Arts).

The rationale of schooling changed significantly during the Mexican Revolution (1910–1920) through the Cardenist period (named for President Lázaro Cárdenas who served from 1934 to 1940), with the right to a free public education formalized in Article 3 of Mexico's 1917 constitution and an active anticlerical emphasis on secularism and then socialism articulated as goals. During this period, schooling expanded greatly, including into rural areas, and was twinned with emancipatory popular education efforts (ranging from murals to cultural missions).

Schooling has continued to grow since then, with an emphasis on supporting economic development, first in what is referred to as the National Unity period (during and after the Second World War) and then in more recent times in reaction to the peso crisis of 1982 and the rise of the *Partido Acción Nacional* (PAN), which wrested the presidency from Mexico's long-time ruling party (the *Partido Revolucionario Institucional*, or PRI) in 2000. During Carlos Salinas de Gortari's 6-year presidency (1988–1994), the purpose of schooling changed to an overt emphasis on globalization (and Mexico's readiness for it) and attending *secundaria* (grades 7–9) became obligatory.

Through the latter two thirds of the 20th Century, the *Sindicato Nacional de Trabajadores de la Educación* (SNTE, or National Education Workers Union) became one of the strongest political entities in Mexico (Latapí Sarré, 2004). In the early 21st century, as neoliberal reforms were introduced—including direct changes to teacher responsibilities, measurement of students' academic progress, and other changes collectively referenced as the *Reformas Educativas* (Education Reforms)—the SNTE was one of the staunchest opponents (Ornelas, 2015). The implementation of these new laws anyway in 2013, during the presidency of Enrique Peña Nieto, illustrates the relative decline of the SNTE's power.

At the end of the 1990s, the themes of teacher preparation and advancement became central to educational reform across Latin America. Typical of this new emphasis, the Organization for Economic

Cooperation and Development (OECD) 2010 report *Mejorar las Escuelas. Estrategias para la Acción en México* (Improving Schools: Strategies for Action in Mexico) argued, “The most important public policy reform that Mexico can make to improve educational outcomes for its youth is to build a solid system for selecting, preparing, developing, and evaluating the best teachers for its schools” (p. 13). In response to this larger trend, since 2013 Mexico’s *Reformas Educativas* have required education professionals with more and more advanced credentials to contribute to the improvement of education quality.

### **A Vantage Point From the End of the Peña Nieto Presidency**

In every historic epoch, the preparation of teachers has reflected the different struggles and goals of Mexican society as filtered through and by the education system. From the vantage point of the end of the Peña Nieto presidency (in 2018), in a world more globalized and interdependent than ever before and in which Mexico was the largest Spanish-speaking country in the world, examining teacher preparation offers a key example of how an important education system imagined the task of forming citizens. Fundamentally and formally, that was the most central task for Mexican teachers and the rationale for the education system’s management by the state.

To meet the challenges of a globalized world in the 21st century and realize the goals of the education system and Mexican society, Mexican education policy rhetoric circa 2018 emphasized that it was crucial to reinforce the professional competence of existing teachers and to have an initial preservice preparation that succeeds at welcoming prepared and capable teachers into the profession. Teachers’ work needed to confront important challenges (e.g., inequality, student mobility) and political rhetoric insisted that it was the responsibility of governmental authorities to assure that teachers could meet their various duties and thereby support Mexico’s continued development.

The factors that determine the quality of education are multiple: some internal to the school, others external. The dominant circa 2018 policy frameworks, reinforced by research by Mexican educational researchers as well as ideas from abroad, assumed that teachers play an essential role in helping children learn and transcend

the challenges of their contexts. Teachers were supposed to have knowledge of academic disciplines, pedagogy, and the ways children learn, as well as the attitudes and values that create supportive classrooms. These were each crucial for the educational success of children and youth.

Studies by Schmelkes, Lavin, Martínez, and Noriega (1996) and López, Corbetta, and Steinberg (2006), among many others, have confirmed that teachers are crucial to students' learning and perseverance through the obstacles of their social contexts. Vargas and Valadez (2016), in empirical work in Mexico, found that better-quality schools had both more equality and lower dropout rates.

A good teacher's instructional point of departure is the needs of her or his students. From there, teachers help students advance as much as possible in content understanding, habits, attitudes, and values—in short, they help students realize their potential. Achieving this is actually a work of great complexity that requires a range of competencies on the educator's part and a responsiveness to the social challenges of students' immediate contexts and of the larger society. Teachers are the social agents who positively (or not so positively) influence the capabilities of students. In this sense, as international evidence confirms, the quality of instruction is a key in-school variable that affects students' school success (Barber & Mourshed, 2008; Cooper & Alvarado, 2006; Musset, 2010; Schwille, Dembélé, & Schubert, 2007; UNESCO, 2015).

All of these claims informed circa 2018 Mexican teacher education. As a perhaps unusual aside for a research article like this, it should be noted here that two of the three authors of this article had responsibilities for in-service teacher professional development in Mexico at the same time they were writing this article. So that these ideas were in circulation in 2018 can be illustrated by the fact that your authors, pursuant to their regular professional responsibilities, saw these ideas as part of their remit.

### **Some Terminology Notes**

Initial teacher preparation (also called preservice teacher preparation) refers to the program offerings from institutions of higher education

that are designed to prepare teachers for *educación inicial* (preschool and kindergarten) and *educación básica* (grades 1–9, available through *primaria* [grades 1–6] and *secundaria* [grades 7–9]). In Mexico, this preparation is usually offered through public *escuelas normales*, although some private institutions do prepare private school teachers. The supervision and regulation of this preparation is conducted by the federal *Secretaría de Educación Pública* (SEP; i.e., the public education ministry).

In-service professional development—the learning support provided to educators already in the classroom—includes graduate programs, seminars, courses, and capacitation workshops that variously (a) attend to gaps or limitations in teachers' current knowledge, (b) develop specializations (both procedural and content-oriented) that augment the capacity of their schools, and (c) support and promote the use of information and communication technology. Since 2016, SEP has maintained a *Catálogo Nacional de Formación Continua* (National Catalogue of Continuing Professional Development) that describes all the teacher education offerings for *educación básica*. As of this writing in 2018, there were a variety of continuing professional development opportunities for teachers. At a national level, teachers were invited to respond to various calls (proposals) for different types of professional development. This often also occurred at more local levels (e.g., workshops organized by state-level departments of education).

### **Teacher Professional Development in Historic Perspective**

One of the first written records from Mexico (then New Spain) that refers to teacher preparation comes from the *Ordenanza de los maestros del nobilísimo arte de leer, escribir y contar* (Teachers Ordinance on the Most Noble Arts of Reading, Writing, and Counting), published in 1600 (Curiel, 2001). Knowing how to implement the ideas from this document was considered a basic requirement for those who became teachers during the colonial era.

One of the first efforts related to teacher preparation after Mexico won its independence in 1820 was the 1822 establishment of the Lancaster Company, which was based on the British system, but modestly adapted for Mexico (Ducoing, 2004). Just before independence,



influenced by the French Revolution (Besson & Sánchez García, 2010), in 1794 Mexico's first normal school was created which was intended to develop professors who could prepare teachers for primary and intermediate education.

For most of the 19th century through the *Porfiriato* (which ended in 1911), teacher preparation in Mexico emulated that which was being developed in Europe. It was strongly influenced by positivism and liberalism. The normal school model became formalized and systematized following pedagogical precepts from the *Escuela Modelo de Orizaba* (Model School of Orizaba) in Orizaba, Veracruz, which was established in 1883 under the leadership of German-born and German-trained Enrique Laubscher (Ducoing, 2004), who later became a consultant to several Mexican normal schools before dying in 1890.

Veracruz state (in its capital Xalapa) in 1886 became home to the *Escuela Normal de Xalapa*, which was considered the first normal school fully formed by and operated by educators. Its creator, Justo Sierra, who was minister of public instruction and beautiful arts, was an important advocate for the professionalization of teaching who thought of education as similar to other professional categories (e.g., medicine, law) that merited a sophisticated apparatus for professional preparation. As Sierra had explained in 1881, "A teacher isn't just a man who knows something, but rather one who knows how to teach it; what is necessary then is not just science [knowledge], but also method" (Ducoing, 2004, p. 45).

Thus, by the time Mexico's Revolution broke out in 1910, the process of converting Mexico's rudimentary normal schools into more advanced centers for creating professional educators was well under way, but it was an almost entirely urban effort with little consequence for the majority of the population who still lived in the rural countryside. The Revolution, which toppled the aged dictator Porfirio Díaz in 1911, but continued until 1920 (if one uses the May 1920 assassination of President Venustiano Carranza to mark its end date), was a massive, decade-long nationwide disruption that, along with death, destruction, and dislocation, meant a major halt in Mexico's development of a national and professional education system. As noted in the section "ORIGINS," however, it was during the Mexican Revolution that the 1917 constitution was written, which promised schooling as a right for all citizens.

In 1921, the *Secretaría de Educación Pública* (SEP) was created as part of the Mexican federal government and, among many charges, was tasked with knitting together a diverse and devastated country. Through public art, cultural missions, literacy campaigns, and, crucially, new often rural schools, the rising generations of Mexicans were to learn what it meant to be Mexican (Rockwell, 1996). The new rural schools were also supported by a new network of rural normal schools. As with the realization of other promises from the 1917 constitution, however, this substantial effort proceeded in fits and starts, with dramatic swings in the available budgets. Nonetheless, with key championing by a new generation of intellectuals, schooling was arguably the most achieved of the reformist goals promised by Mexico's 1917 constitution until Lázaro Cárdenas assumed Mexico's presidency in 1934 (Booth, 1941).

One of these intellectuals was Moisés Sáenz, a graduate of the *Escuela Normal de Xalapa* before the Revolution who had then studied with John Dewey at Teachers College in New York. Sáenz became Undersecretary of Education from 1925 to 1927 and succeeded in getting the American educator to visit Mexico in 1926 (Hamann, 2015). Dewey explained after his visit, "I believe that the brightest spot in the Mexico of today is its educational activity. There is a vitality, energy, sacrificial devotion, the desire to put into operation what is best approved in contemporary theory, and above all, the will to use whatever is at hand" (Brickman, 1964, p. 128).

During the Cárdenas presidency, Article 3 of the 1917 constitution was adapted by adding the word "socialist." Thus Mexico promised that the state would impart an education that was socialist, a stance that continued until 1946 through the presidency of Cárdenas' successor, Manuel Ávila Camacho. But maneuvering at the federal level did not always translate into local practice, and a majority of Mexican teachers in this era did not have any formal training as teachers.

In 1941, the federal government created the *Instituto Federal de Capacitación del Magisterio* (IFCM, or Federal Institute for Teacher Capacity), which offered correspondence courses through which practicing teachers could become certified. The Institute was just one of several professionalization reforms at that time. In 1942, the *Escuela Normal Superior de México* was founded, which offered 4 additional years of university-level training beyond the typical normal school

preparation known as *Normal Básica* (and that, in 2019 terms, was the equivalent of high school).

After the Second World War, economically and demographically, Mexico became one of the fastest growing countries in the world, and increased government monies meant the chance to grow educational programming. In 1960, following the suggestions of the then head of SEP, Jaime Torres Bodet, the *Centros Regionales de Educación Normal* (Regional Centers of Teacher Training) were created to address the ongoing paucity of trained teachers for rural schools. At that time, the Mexican education system included 35,525 schools for *educación básica* (i.e., preschools, elementary schools, and secondary schools [grades 7–9]), which collectively enrolled 5,807,236 students who were led by 133,481 teachers (SEP, 2017B). As preparation capacity was increasing, expanding the proportion of students served by a trained teacher was challenged by concurrent increases in enrollment. (For comparison purposes, by 1990 Mexico had 148,244 schools [preschools, elementary schools, and secondary schools], 21,325,832 students at these levels, and 810,890 teachers. The numbers at these levels for 2013 were 228,205 schools, 25,939,193 students, and 1,201,517 teachers, with the 1990 to 2013 growth reflecting population growth, but also the 1992 decision to make *secundaria* obligatory and the 2002 decision to make the third year of preschool obligatory.)

In 1969, normal school preparation was split, with those preparing to teach *secundaria* [grades 7–9] requiring more preparation than those being prepared to work with earlier grades. In 1984, all normal school training was moved from the *bachillerato* level (a high school diploma) to the *licenciatura* (i.e., college degree). According to Arnaud (2004, p. 11), “This increase in requirements to enroll in a normal school and the elevation of the normal school degree to *licenciatura*, along with the founding of Universidad Pedagógica Nacional (UPN or National Pedagogical University), helped open normal school preparation to the influence of other higher education traditions.” The UPN had been established by presidential decree in 1978. In addition to refining teacher preparation, it was charged with generating education research.

In 1971, the IFCM was changed into the *Dirección General de Mejora Profesional del Magisterio* (General Division for Teacher Professional Improvement). Added to its responsibilities were professional

development for teachers of preschool, elementary school, middle school, and high school. In 1978, the name was tweaked to *Dirección General de Capacitación y Mejoramiento Profesional del Magisterio* (DGCMPM, or General Division for Capacity-Building and Teacher Professional Improvement). In 1979, the licensing required for professors of preschool and elementary education (the training of teacher educators) was transferred and consolidated under the responsibility of the DGCMPM.

By 1980, Mexico had the 10th largest economy by total size in the world and improved schooling had likely played a part. Although Mexico was ahead of India and China, it still lagged behind six countries that were substantially smaller than it (West Germany, France, the United Kingdom, Italy, Canada, and Spain). Perhaps to be competitive with them, it needed an education system more like theirs, at least in terms of professionalization. In 1984, the law was changed from having normal school preparation be the equivalent to high school (enrolling those who had completed ninth grade, or *secundaria*), to making it the equivalent of college (enrolling those who had finished high school or *preparatoria* or *media superior* as it was variously named). Almost overnight this changed the profile of who entered the teaching field and enrollments collapsed. As Patricia Ducoing Watty observed (2014, p. 17), “For *educación básica* (grades 1–9) the changes in enrollment in normal schools were closely linked to the education policies pursued by the state for teacher preparation.”

In 1990, UPN began to offer teaching credentials for teaching preschool and elementary school in indigenous languages, bringing to a new level indigenous education efforts which had first emerged in the 1920s with the *Casa del Estudiante Indígena* and had been pursued intermittently since (Ruiz, 1963). Education of indigenous students in Mexico who came from communities where Spanish was not the first language variously attempted to erase indigenous identities, celebrated them as a kind of frozen ideal (i.e., as fixed homogenous cultures rather than living ones), and embraced bilingual pluriculturalism. The latter is official policy and is supposed to guide the staffing of Mexico’s bilingual public schools, but as Schmelkes (2011) has noted, community poverty, inadequate infrastructure, teacher absenteeism, teachers’ lack of training in how to teach an indigenous language as an academic subject (even if they can speak it), and limited

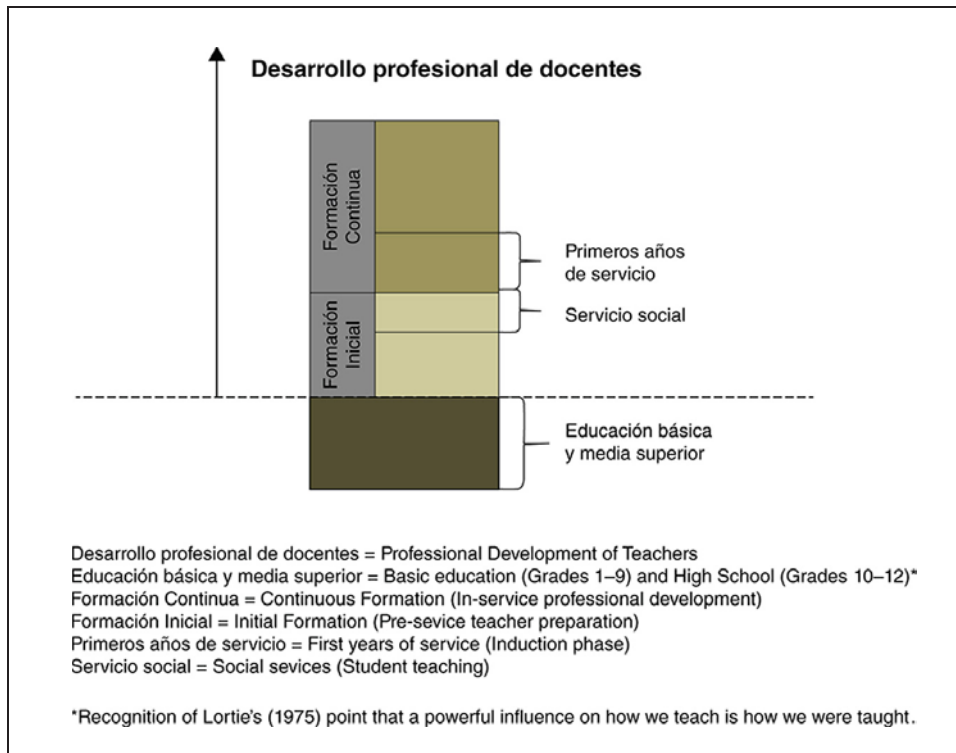
engagement with communities all have conspired into the 21st century to have actual practice fall short of what is promised.

In 1994, with the passage of the *Acuerdo Nacional para la Modernización de la Educación* (National Accord for the Modernization of Basic Education), every state took on the responsibility for administration, planning, and implementation of *educación básica*. But this decentralization was finite, as it remained the case (with modest exception) that what the states were to teach at their schools and what credentials their teachers were to have was officially common across the country. As an example of the continuing relevance of decision making at the national level, 1 year earlier (in 1993) through that year's General Education Law, *secundaria* (grades 7–9) became obligatory, which, among many other things, meant a sudden rise in demand for teachers who could teach at this level.

### **Initial (or Preservice) Teacher Preparation**

In extant Mexican education systems at the end of the Peña Nieto presidency, teacher formation was conceptualized as occurring across much of the lifespan. As Figure 1 illustrates, it commenced before formal entry into a training program and continued to retirement or even after if a retired educator continued any formal or informal involvement with the system. As sociologist David Lortie (2002) noted about teacher preparation in the United States, experience as a student plays a powerful formative influence in what those who become teachers conceptualize for what teaching and school should look like. In Mexico, school experience plays a similar passive but important role in reproducing conceptions of teaching and means that attempts to have new teachers teach in new ways need to surface these underlying and often tacit understandings.

Per the model, after the initial student experience, which often sparked the desire to become a teacher, formal preservice training (*formación inicial*) began after application and acceptance to an *escuela normal*. While normal school preparation was supposed to look similar across institutions, some had much stronger reputations than others, and in a few of these there were emerging expectations for teacher educators to conduct research and publish (as academics).



**Figure 1.** Teacher formation conceptualized across the lifespan.

Still, the main thrust was to support preservice teachers' professional studies (in content areas and pedagogy) and then their social service.

In some countries, preservice teacher preparation transitions into in-service teaching, with support of cooperating teachers and student teaching experiences. As one of the introductory vignettes highlighted, this does occur in Mexico, but not systematically. New teachers were expected to participate in social service while still under the aegis of the normal school, but the supervision of this service could vary significantly. It has not been unprecedented for normal school graduates to immediately be placed in high-need rural and marginal urban environments where induction support is inconsistent and modest. While the social service expectation has attempted to assure educators were present in places of high need, it is also apt to conceptualize this as the most vulnerable students being served by the most novice teachers, a hazard that exists elsewhere in the world too. Once Mexican teachers begin their regular service, ongoing professional development is referred to as *formación continua*. That can continue literally until retirement.

Education research (e.g., OREALC/UNESCO Santiago, 2013) has shown that teacher preparation is a continuous process, but it has not always been conceptualized this way. Thus, practicing teachers have not necessarily been trained mainly or only according to this current paradigm. In general, the paradigm emphasized in the 2013 *Reformas Educativas* has considered what one needs to learn to be a teacher and to reflect on appropriate practices. As of 2018, this has created demand for models and areas of focus that assist learning about how to negotiate various situations, from the routines of classroom management, to the challenges and opportunities created by diverse enrollments, and the role of a school's culture and its shaping of the processes that transpire within it.

In Organization for Economic Cooperation and Development countries (OECD, or OCDE, according to the acronym's Spanish initials), of which Mexico is one, there has not been a single model for initial teacher preparation (Musset, 2010). What has existed instead were ranges of subject area-oriented courses, pedagogy-oriented courses, and observation and practice teaching experiences in schools.

Mexico's system for initial teacher formation has been characterized by its heterogeneity in a number of domains—administrative, organizational, curricular, professional, and expected workload. This heterogeneity was a product of, among other things, the great diversity of actors who participated in the creation, administration, regulation, support, and development of teacher preparatory institutions. These include public normal schools, private universities, and the *Sindicato Nacional de Trabajadores de la Educación* (SNTE). The system's heterogeneity has translated into an asymmetric, unequal system with unequal financial, material, and human resources, impacting training capacity and quality (Arnaut, 2004). It should be noted that since 2013, Mexico's *Ley General para el Servicio Profesional Docente* (General Law for Teachers Professional Service) has established preliminary requirements that must be met before a candidate can enroll in a teacher education program, but it is not clear that this adjustment made the system less heterogeneous.

In 2017, the *Secretaría de Educación Pública* (SEP) directed a large investment toward improving the infrastructure of Mexico's network of normal schools. According to statistics from the *Sistema de Información Básica de Escuelas Normales* (SIBEN or Basic Data System of

the Normal Schools), in the 2016–2017 school year, Mexico had 433 campuses that offered (university-level) certification in early childhood education, preschool education, elementary school education, secondary school education, special education, physical education, arts education, teaching technology, and preschool and elementary intercultural education (with these last two to serve bilingual schools that included schooling in indigenous languages). There were 93,766 students at these schools whose programming was led by 15,373 *normalistas* (teacher educators) and education administrators. Of these instructors and administrators, 3.9% had doctorates as their highest degrees, 31.2% had masters, 55.8% had their *licenciatura* (what U.S. universities would refer to as a bachelor's degree), 1.8% had the *Normal Básica* (the high school equivalent that was phased out as a sufficient credential in 1984), and 7.3% had other statuses less than the *licenciatura* (SIBEN, 2017).

The school background of those going into teaching in Mexico changed in the early 21st century. According to Mexico's 2013 Census of Schools, Teachers, and Students in Basic and Special Education (CEMABE), those entering the profession had a much more extensive educational biography than did those in the generation of teachers that was retiring. While the proportion still was not large, a growing number of teachers had earned graduate degrees, and not all teachers were entering the profession through *escuelas normales* (this was particularly true for preschool teachers).

Excluding the 36,000 young, not-yet-certified educators who were completing their social service (which was required to graduate from an *escuela normal*), the vast majority of those working at all levels of *educación básica* came from the normal school system.

A total of 87% of teachers at the *educación básica* level worked in public schools, and practically all of the teaching capacity in rural and indigenous communities was public. However, at the high school level, which has only been obligatory since 2012 (with a planned full phase in by 2022), only 66% of the teachers counted by CEMABE worked in the public system.



## Continuing (or In-Service) Teacher Preparation

The capacity-building, updating, and improvement of Mexican teachers was a feature of the 20th century. In the final two decades of that century, education systems around the world made major adjustments and expansions to in-service professional development as the idea caught hold that teachers always needed to adapt and hone their skills. Concurrently, the management of formal continuous improvement expanded the size of the administrative workforce and the scope of its responsibilities. Within this general framing, Mexico developed the *Programa Nacional para la Actualización Permanente de los Maestros de Educación Básica en Servicio* (PRONAP, or the National Program for Continuous Improvement of Teachers in *Educación Básica*). Through PRONAP, the processes for the updating and expanding of skills were broadened and placed in a career-spanning framework congruent with social and professional development.

In the new century, at the international level, it became increasingly recognized that teachers' professional qualifications were continuously needing to become more complex, expansive, and formal (Tenti & Steinberg, 2011), as the world, in Thomas Friedman's phrasing, "gets flatter" and negotiates the information revolution enabled by the internet (and other technologies). Previously sufficient skills for students were no longer sufficient. And previously sufficient skills for teachers were also no longer sufficient. This means more resources and time were needed not only to initially certify teachers, but to keep them prepared.

As its national response to these larger trends, in 2007 Mexico began the *Sistema Nacional de Formación Continua y Superación Profesional de Maestros en Servicio* (National System for Continual In-service Teacher Professional Development and Advancement), which was federally funded but managed at the state level. This new model for continuing professional development embedded, according to its creators, the following central principals: the school is at the center; learning is the reason for the program's existence; and it will be divided into two fields as a means for quality assurance (Martínez Olivé, 2010).

At the end of Peña Nieto's presidency (in 2018), Mexico's federal government was still engaged in dramatic structural reforms. Within this larger movement, the *Reformas Educativas* of 2013 were the first

effort that modified the legal framework around Article 3 of Mexico's constitution (the article that promises education for all). Among various implications, this created pressure for changes in educational practice and for innovation with the announced purpose of creating quality education. It was difficult to imagine calls for educational change that were not grounded by the goal of educational improvement, so in that sense this effort was like previous reform attempts. Yet such an interpretation is incomplete to the point of misleading, as the changes—promotion of a logic of competition, calls for additional and alternative vehicles for teacher preparation, calls for establishing new model schools (with external origins for many of these ideas)—concurrently created senses of opportunity and vulnerability among teachers. It was not clear as of 2018 whether these changes would actually improve the quality of Mexican education, but it was clear that they were being disruptive to previous ways of operation.

These changes had implications for both preservice teacher preparation and in-service professional development. Indeed, given that the number of in-service teachers greatly exceeded the number of new teachers in the preparation pipeline and that these practicing teachers, in the middle of their careers, were being pressured (with both carrots and sticks) to change how they taught and how their teaching effectiveness would be measured, it seems apt to say the changes in and expected of continuous teacher professional development were much greater than for those who were still in initial preparation. Still, these two tiers of teacher learning were intentionally linked in the new reforms as part of a conceptualization of teacher professional development occurring across the lifespan that, more controversially, also identified many educators as lacking at least some of the skills they needed to effectively lead classrooms.

Since 1993, the *Carrera Magisterial* (teaching career outline) began functioning as a stimulus system to precipitate teachers' in-service development of better pedagogical skills. Studies by Santibañez (2007) established that educators who participated in this *Secretaría de Educación Pública* (SEP) program gained skills, although the measured impact was not generalizable. Santibañez et al. (2007), in a related publication, did not draw conclusions about whether this improvement was tied to economic incentives for teacher participation (or to something else).

In the early 21st century, continuing professional development for Mexican teachers in *educación básica* was provided primarily through coursework offered at the 534 *Centros de Maestros* (Teacher Centers) and their 40 extensions. From a proximity standpoint, this extensive infrastructure could reach most teachers in most of the country. However, in 2013 (a reasonably typical year), only \$364 pesos per capita (or less than USD\$28 per educator) was available to support continuing education efforts, much less than needed. Moreover, almost half of the centers lacked needed infrastructure, like meeting halls, media centers, and professional libraries. These centers, on average, were to provide learning support to 267 different schools while having staffs of no more than 10 people (INEE, 2015A, p. 159).

In their study *Los docentes mexicanos: Datos e interpretaciones en perspectiva comparada* (Mexican Teachers: Statistics and Analyses in Comparative Perspective), Tenti and Steinberg (2011) identified the qualities that teachers thought should be part of a strong teacher development program and found that in many ways Mexico's extant system was like that of much of Latin America. The most important issues were the interestingness and relevance of training themes, the level of professionalism of training offerings, and the participation level and experiential backgrounds of those who formed the training group.

In their study *Cómo hicieron los sistemas educativos con mejor desempeño del mundo para alcanzar sus objetivos* (How the education systems with the highest performance levels in the world achieved their results), which has had broad circulation in Latin America, McKinsey Consultants Barber and Mourshed (2008) explained that the three most important factors were the following:

1. Find the people with the highest aptitudes and recruit them as teachers.
2. Help them develop into efficient instructors.
3. Guarantee that the system has the capacity to bring the best possible instruction to all students.

These are the kinds of ideas in circulation in Mexico that informed the 2013 *Reformas Educativas*.

As a controversial step that matches the first McKinsey idea, Mexico's 2013 reforms required teacher candidates to take an entrance

exam before joining the profession. As a second, albeit slightly older step, rules for the filling of director, supervisor, sector leader, and teacher union administrative positions were changed to require open competitions. These reforms came from the *Compromiso Social por la Calidad de la Educación* (the Social Compact for Education Quality) of 2002.

Continuous teacher professional development has changed a lot over time (not least in the very fact that it has become a recognized priority). In an ironic echo of the 19th century when Mexico's then much more limited education system borrowed much from Europe, many of the forces in the 21st century informing changes in Mexican teacher education came from an international exchange of ideas (e.g., the comparison to what other OECD countries were doing). As elsewhere, the trend was toward more and more professional requirements.

As of 2018, at all the obligatory levels of education in Mexico—that is, third year of preschool (the equivalent of kindergarten), *primaria* (grades 1–6), *secundaria* (grades 7–9), and, since 2012, *media superior* (grades 10–12)—there existed various differences in the teacher workforce. Teachers varied by the type of teaching they provided (generalist vs. content area specialist and then which content area[s]), by presence or absence of other colleagues with similar expectations (e.g., Did the school have one third grade or three?), by whether they worked with multiple grade levels (as arts and physical education teachers often do) or just one, and by the challenges and opportunities they faced related to the neighborhood or community characteristics that they drew their students from.

Beyond these kinds of differences, teachers varied in terms of how long they had taught, the nature of their professional preparation, and even the number of schools they taught at. In many parts of Mexico, the same physical plant is used to host two different schools with different enrollments, the *matutino* (morning program) and the *vesperino* (afternoon program). Because teacher salaries are often low, it is not uncommon for teachers to work two teaching jobs. These factors too complicate what kinds of continual professional development were relevant to a given school's teaching force. In *educación básica*, in 2015, on average only one in every four schools operated an induction program for new teachers (INEE, 2015A), which suggests, irrespective

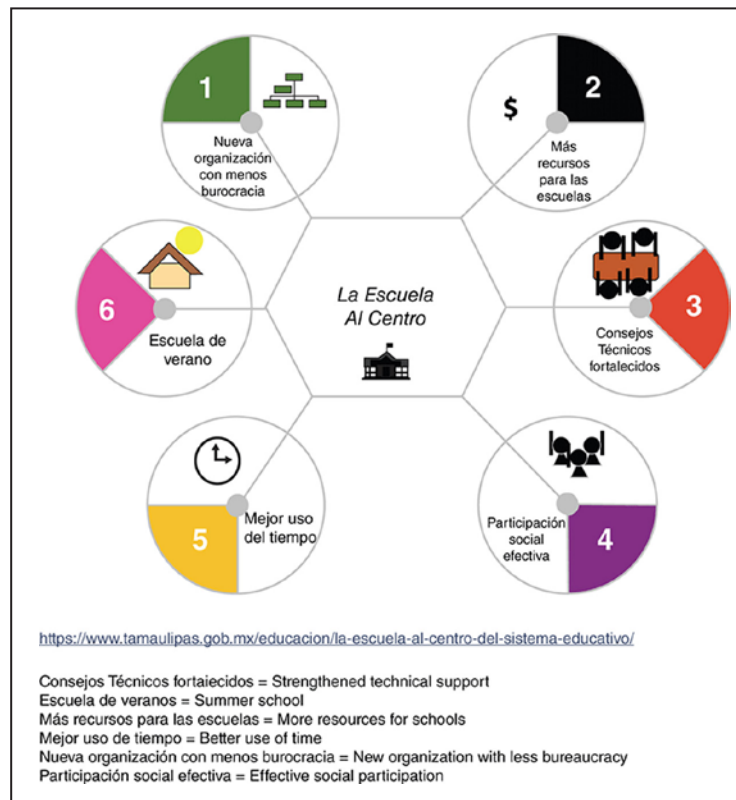
of plans and larger designs, that how new teachers began to participate in continuous professional development varied substantially.

It is crucial that continuing education be pursued in both of two ways. First, it needs to be a relevant vehicle that helps teachers respond to national, state-level, and more local policies, needs, and priorities. For this, the *Centros de Maestros* were viable as off-site locations for needed learning (assuming they were adequately outfitted). However, a second strand of continuous professional development needed to be made available at the school level.

In the first case, the continuing education strategy could attend to the needs and details of the national education model and the various curricula needed by supervisors, assessors, education administrators, and teachers. It could attend to the variations between grade levels and various topic areas. For these issues, the challenge was to have the various learners (i.e., professional educators who were advancing their skills) co-opt the process to find the pieces of it that most pertained to their settings and their needs.

If, in the first case, the content of the learning was top down (originating at a national level and then consumed as relevant more locally), in the second—where a given school would be the locus for its own professional development—the content would be generated in situ. Schools would become learning communities, reflectively diagnosing what they need and then how to get and learn it. Neither mechanism is superior to the other, for coherence and efficiency across the system, there needs to be a guiding larger logic, but it was fair to note school-initiated professional development planning was much less common than the top-down “what every school needs” variety.

The *Servicio de Asistencia Técnica a la Escuela* (SATE), which was created in 2013 as a follow-up to the 2008 *La Ley General del Servicio Profesional Docente* (LGSPD, further described in the section “TEACHER HIRING”), could become a powerful tool supporting teacher professional development, but as of this writing (2018), its impact remained uncertain. As part of its charge, the SATE was to identify and enact ways to improve both individual teacher’s teaching and the collective outcomes at the level of whole schools. These could include processes of tutoring, modeling, and coaching, but also of setting up structures of learning communities. SATE created a new educational position—the *Asesor Técnico Pedagógico* (the Pedagogical



**Figure 2.** The chart shared with Mexican states that shared the new premise of schools at the center.

Technical Advisor). Yet as with so many things, whether those in this role would accomplish the goals of SATE and the improvement of Mexican education depended on how many *asesores* were hired to enact this role, how well supported they were, and how many teachers each were intended to support.

### Teacher Professional Development and Transnational Students—A Case

As Peña Nieto's presidency came to an end, the state of Baja California, which is in the northwestern corner of Mexico and whose capital, Mexicali, abuts the border with the United States, offered an interesting illumination of how some of these national education policies were translating at the state level. Baja California was different from much of Mexico—more than three-fourths of its population of over 3 million lived in just three cities (Tijuana, Mexicali, and Ensenada); it

was one of just six states that bordered the United States; and it had the highest per capita percentage of students with prior experience living in the United States and attending U.S. schools—but it was to attend to just such particularities that giving states autonomy regarding how to govern continuous teacher education funding was intended.

Looking at this model, we can (and should) ask how it translated into practice. At the state level, as Baja California's state department of education considered how it could help with the state having the highest proportion of students previously in the United States—in 2015–2016 Baja California schools enrolled 53,867 students who had been born in another country, or approximately 1 in 12 (Dibble, 2017)—the new discretion for resource allocation meant continuous teacher professional development could attend to these three problems (among others) that were prevalent among transnationally mobile students (Zúñiga & Hamann, 2015):

- Academic adaptation (with the logics of schooling in both countries not fully aligning);
- Vulnerability (related to poverty, limited Spanish proficiency, and various possible traumas related to international relocation); and
- Psycho-pedagogical issues (such as depression, distractibility, and fear).

Teachers also could learn more about the resources of the federal *Programa Binacional de Educación Migrante* (PROBEM, or the Binational Program for Education of Migrants). PROBEM was not an important resource in some Mexican states (e.g., Tabasco, Campeche) that had limited participation in international migration, but it was a hugely important resource for Baja California in the second decade of the 21st century.

The teachers of students with prior transnational experiences usually concurrently also taught students who had led lives that were only in Mexico and largely geographically stable. So those teachers needed to be prepared to meet the needs of both types of learner—the transnational and mono-national—in what, in effect, was a heterogeneous classroom. Teachers needed to be ready to support their Spanish-speaking students, but also those with little or no prior background in academic Spanish (because their previous experience of school was in

English). They needed to build on students' prior experience with various content areas in earlier grades, but they sometimes also needed to discover just what that experience was.

If that is the “what” (in simplified tracing) of what in-service teachers needed to learn how to do, mid-career, there was a concurrent, parallel administrative component as education leaders needed to assure that there was a budget to pay for planning, venues, sufficient trainer expertise, and so on, to offer workshops and then mechanisms that enabled educators to participate in these workshops, gain credit for them, and then deploy their new understandings. In the case of Baja California and the issue of meeting the needs of students previously in the United States, PROBEM officials were able to look across the border to work with the California [United States] Association for Bilingual Education (CABE) and other partners as sources of expertise for Baja California teachers.

### **Teacher Hiring**

Just as Mexico's initial preparation and continuous professional development processes became more sophisticated and formalized, so too did the hiring process (which plays a central role in determining what preservice preparation includes). Before the neoliberal reforms, it was largely discretionary (allowing the hiring of the best connected rather than the most capable, among other hazards), but ostensibly the replacement process was more transparent and impartial. Before 2008, the hiring process was under the control of school officials who often followed the recommendations of the *Sindicato Nacional de Trabajadores de la Educación* (SNTE). Since 2008, however, the *Ley General del Servicio Profesional Docente* (LGSPD) has regulated the hiring, promotion, recognition, and tenure of teachers in public schools. To enter the profession, one must have participated in a competitive hiring process for which other candidates were also eligible. Nonetheless, the probability of becoming a teacher as of 2015 remained associated with demographic variables as well as measures of skill. These included (a) being a woman, (b) earning high grades during initial preparation coursework, (c) being young, (d) having completed one's qualifying preparation recently, and (e) having graduated from a public *escuela normal* (INEE, 2015B, p. 152).



Evaluation formed an integral part of the LGSPD; it was supposed to be seen as an indispensable tool for professional growth as it was supposed to inform teachers about what they should learn next to improve their practice and help their students learn more. This means, however, that the LGSPD has assumed that what students most needed from school was what was measured and tested by achievement exams, as those were the data for the evaluation. The LGSPD also has assumed that what students show they understand is a product of what teachers have or have not taught them (rather than other factors that can enhance or inhibit student learning). These caveats are important, but the point should not be lost that teachers earn salaries because what they do—the environments they shape and the content they share—matters for how students view the classroom and what students learn.

Like the change in the 1980s when moving teacher preparation into the tertiary sector (i.e., undergraduate university-level preparation) negatively impacted the number of individuals entering the teaching field in Mexico, LGSPD has also put downward pressure on the numbers of people seeking to enter the teaching profession. Data from 2014 confirmed that demand for places in *escuelas normales* declined since the new law came into effect. That year, only 72.6% of the normal school system's capacity was being used. Or, to phrase that another way, more than a quarter of Mexico's teaching preparation capacity was idle, which is an acute problem as the number of retirements is exceeding the number of new teachers entering the field (INEE, 2015B, p. 156).

In a study of educator advances in learning levels since the reform process began, Martínez Rizo (2018, p. 174) emphasized that educators' practices were influenced by a number of factors. Among those that were highlighted were "teachers' initial preparation and in-service professional development activities."

## Conclusions

Mexico is not unique in devoting prodigious energy since the end of the 19th century to raising the expected level of professional preparation for its teachers and reconceptualizing teacher learning as a

career-long process, nor is it unique in having many of its educational ideas and policies originate externally. A 21st-century manifestation of this is the measuring of its educational system's quality based on metrics regularly used by other Organization for Economic Cooperation and Development (OECD) countries. Mexican political leaders and classroom teachers, despite their differences in job description and scale of operation, both agree that education has become a primary marker of our integrated world and a central tool in the development of the competencies that contemporary economies and democratic societies both demand. Moreover, education is understood as a crucial mechanism for adapting to the rapid transformations of the world we live in.

As a recent UNESCO declaration asserted about educator preparation and continuous learning:

We need to prepare teachers who can facilitate learning, who understand diversity, who can operate inclusively, and who can develop the competencies that allow us to live together, like protecting and improving the environment. In turn, we need to prepare teachers who are respectful and secure, with sufficient self-esteem and autonomy to engage in multiple educational strategies. Teachers should maintain productive relationships with parents and communities. They need to work with others as part of a team of teachers for the larger good of their schools. They should know their students and their students' parents and be able to link learning in general with what is needed in particular contexts. They should be able to select appropriate materials and use them to support students' acquisition of skills. They should be able to use technology, along with other materials, as instruments for learning. It is advisable to encourage teachers to keep learning and growing professionally.

(UNESCO, 2015, p. 58)

This is quite a long list and one that Mexican educators have circulated and taken seriously. But it is worth noting that it is a UNESCO document rather than a Mexican one. As such, it is a reminder that Mexico's teacher education efforts are co-occurring with other countries' efforts

to improve their teaching forces. In 2018, Mexican educators were being asked to understand and do more than they ever had previously.

Yet, as the list of Mexican teacher tasks gets longer and more complicated, the resources, infrastructure, and efforts needed to assure that the described work can be completed has remained inadequate. The templates for what could and should be have outpaced what existing expenditures can support. While some longstanding limitations in Mexican education have been substantially improved recently (such as the steps that assure that the teachers hired are those who are most qualified rather than most connected), the gaps between vision and resources remain a longstanding challenge in Mexico.

Demographically, as the Peña Nieto presidency was ending, Mexico was facing a slowly developing crisis. Just as the country made high school education obligatory and thereby created a need for more teachers with more skills for more schools, and just as the movement of students from the United States created a presence of students with limited academic attainment in Spanish who needed different supports than their classmates, the number of teachers retiring was higher than the numbers being recruited, prepared, and successfully inducted into the field. The target at which Mexico's teacher education needs to aim has regularly changed, usually becoming more rigorous and complex. Even as both initial teacher preparation and continuous teacher education have both changed dramatically since the formal turn to prepare for globalization, for Mexico to operate the education system it says it wants, there needs to be even more changes and a substantial additional influx of resources for that aspiration to be realized.

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