

OBSTETRICS AND THE EMERGENCE OF WOMEN IN MEXICO'S MEDICAL ESTABLISHMENT*

L*a medicina científica* was a popular journal read by Mexican doctors at the end of the nineteenth century. Each edition contained articles on the latest research and developments in the profession and also medical news from around the world of potential interest to subscribers. An excerpt from a February 1889 entry noted that Carolina Schultze had recently passed her medical oral exams in France. One of the evaluators acknowledged her obvious skill and “the great service she will perform to society.” But the article’s focus, and the probable reason for its inclusion in this Mexican journal, quickly turned to whether or not other women could match her talent. The author presumed that she was, in fact, unique. “The female doctor,” he said, “neither has been nor is nor ever will be more than an exception, as there are exceptional women in all fields of knowledge, art, science, and literature.” Even more suggestive about late nineteenth-century bias were the reasons why he thought that female doctors, if they must exist, should only specialize in the illnesses of women and children: “when women enter into the practice of a profession appropriate only to the strong sex, they are never satisfied with a secondary role and always want to shine in the front row.”¹

Scholars of midwifery, aided by sexist statements from the male medical establishment, frequently emphasize that physicians in the nineteenth century attempted to masculinize this traditional female occupation and frustrate efforts by women to become medical practitioners.² Luz María Hernán-

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¹ “La mujer médico en el siglo XIX,” *La medicina científica* 2 (February 1, 1889), p. 46. An 1889 edition of this same journal noted that there were a total of 16 female doctors in France by that date. Schultze officially received her degree on December 13, 1888. See “Mujeres médicas,” in *La medicina científica* 2 (May 1, 1889), p. 144. All translations by author.

² There is no doubt that the professionalization of medicine in nineteenth-century Mexico ended midwife dominance in the birthing chamber, especially since colonial surgeons “appear to have disdained

dez Sáenz suggests that surgeons in colonial Mexico clamored for social prestige, and that “their ultimate goal would not be achieved until well into the nineteenth century when women were finally excluded from recognized obstetrical practice and replaced by qualified male practitioners.” Ana María Carrillo states that “Mexican doctors methodically promoted the training of certified midwives in the nineteenth century [but only] as a means to eliminate their profession altogether—an objective they realized in the twentieth century.”³ Their investigations complement certain scholarship on midwifery in the United States, Britain, and Spain. Janet Bogdan, for example, contends that doctors in the United States intentionally usurped “the midwife’s traditionally exclusive place at the bedside of childbearing women.” Jean Towler and Joan Bramall claim that the British medical profession “became highly organized and attempted to take over midwifery.” Teresa Ortiz notes that Spain witnessed “the transformation of the art of midwifery into a male dominated activity.”⁴

This paper is concerned firstly, and most importantly, with the development of obstetrics medicine in nineteenth-century Mexico City and secondly with women’s participation in the professional medical establishment.⁵ Research indicates that the U.S., British, and Spanish model of midwifery is not helpful when analyzing developments in Mexico.⁶ The school records,

engaging in [midwifery] and hence relegated it to the hands of midwives.” See Nicolás León, *La obstetricia en México: Notas bibliográficas, éticas, históricas, documentarias, y críticas de los orígenes hasta el año 1910* (Mexico City, 1910), p. 207.

³ Luz María Hernández Sáenz, *Learning to Heal: The Medical Profession in Colonial Mexico, 1767-1831* (New York: Peter Lang, 1997), p. 205; Ana María Carrillo, “Profesiones sanitarias y lucha de poderes en el México del siglo XIX,” *Asclepio* 5:2 (1998), p. 167.

⁴ Janet Bogdan, “Care or Cure? Childbirth Practices in Nineteenth Century America,” *Feminist Studies* 4 (1978), p. 97; Jean Towler and Joan Bramall, *Midwives in Society and History* (London: Croon Helm, 1986), lx-x; Teresa Ortiz, “From Hegemony to Subordination: Midwives in Early Modern Spain,” in Hilary Marland, ed. *The Art of Midwifery: Early Modern Midwives in Europe* (London: Routledge, 1993), p. 95.

⁵ Evidence for this work is gathered from medical archives in Mexico City and comes from the following sources in order of importance: Archivo Histórico de la Facultad de Medicina, Mexico City, (hereafter AHFM); Archivo Histórico, Mexico City, (hereafter AH); Archivo Histórico: Centro de Estudios Sobre la Universidad, Mexico City, (hereafter AH: CESU); Archivo Histórico, Mexico City, (hereafter AH); and Archivo General de la Nación, Mexico City, (hereafter AGN). Each state licensed its own professionals according to local regulations and needs. For the names of medical establishments outside of Mexico City that offered courses in professional midwifery after independence, see Ana María Carrillo, “Nacimiento y muerte de una profesión: Las parteras tituladas en México,” *Dynamis* 19 (1999), pp. 170, 175; and Anne Staples, “La Constitución del Estado Nacional,” in *Historia de las profesiones en México*, Francisco Arce Gurza, et. al., eds. (Mexico City: Colegio de México, 1982), pp. 93-111.

⁶ In her study of birth practices in Braunschweig from 1750 to 1850, Mary Lindemann suggested that “the tyranny of an Anglo-Saxon model” had been imposed on midwife studies. See her, “Professionals? Sisters? Rivals? Midwives in Braunschweig, 1750-1800,” in Marland, *Art of Midwifery*, p. 176. For another study that demonstrates the inappropriateness of applying a British and U.S. model of midwifery

syllabi, and grades of women who took classes in obstetrics at Mexico's School of Medicine from 1842 to 1898 demonstrate that obstetrics was incorporated into the medical training of both doctors and midwives. Midwives slowly gained respect, assumed key positions in hospitals, and were perceived as professionals by government officials and tax assessors. A registry book of female students at the School of Medicine from 1890 to 1928 confirms that classes in obstetrics continued to be offered into the twentieth century, and that a few women began to distinguish themselves as surgeons, pharmacists, and dentists. Continuous success by females in the rigorous obstetrics program, therefore, challenged male professors to be more tolerant of women in other medical specialties. Finally, graduation statistics from Mexico's medical universities from 1945 to 2000 indicate that some women continued to study obstetrics and that others entered areas of medicine previously reserved for men. These sources suggest that midwifery survived and thrived in the nineteenth century and in fact offered women an avenue into other medical professions.⁷

The Royal and Pontifical University of Mexico offered classes in medicine beginning in the sixteenth century and throughout the colonial period. University students generally approached the study of medicine philosophically by memorizing the classical works of Hypocrites and Galen. The *Protomedicato* was the medical board that regulated practitioners of medicine such as doctors, surgeons, pharmacists, phlebotomists, dentists, and midwives during the colonial period and until 1831. It was usually comprised of three certified doctors who gave examinations and granted licenses to men who sought entrance into the profession and had the requisite time and money to attend university. Women were prohibited from practicing medicine, but could technically seek certification in midwifery. They needed to demonstrate "*pureza de sangre*," acquire three years of practical training under the direction of a surgeon or a certified medical practitioner, and pay a fee.⁸ But Juan María Rodríguez failed to find even one case of a certified

to non-Anglo countries, see Nadia Maria Filippini, "The Church, the State and Childbirth: The Midwife in Italy during the Eighteenth Century," in Marland, *Art of Midwifery*, pp. 152-175.

⁷ These same school records do not detail the socio-economic backgrounds of the students themselves, though it is likely that a degree in obstetrics attracted the daughters of financially secure families. As such, obstetrics did not open the path to a medical career for all midwives. Untitled midwives undoubtedly continued to provide medical attention to the majority of pregnant women. For information on untitled Mexican midwives and their activities during the colonial period, see Lee M. Penyak, "Midwives and Legal Medicine in Mexico, 1740-1846," *Journal of Hispanic Higher Education* 1:3 (2002), pp. 251-266. For the activities and contributions of modern-day untitled midwives in Mexico, see Pilar Alicia Parra, "Midwives in the Mexican Health System," *Soc. Sci. Med.* 37:11 (1993), pp. 1321-1329.

⁸ *Pureza de sangre* implied that someone was of pure Spanish and Catholic 'blood' and free of Jewish, Moorish, and African ancestry. Martha Eugenia Rodríguez provides an overview of Mexican

colonial midwife to include in his 1869 medical thesis on the history of obstetrics medicine. Hernández Sáenz successfully located two certified midwives in her important 1997 study of colonial Mexican medicine.⁹ Clearly, the Protomedicato safeguarded its monopoly on scientific learning at the expense of the general population and purposely stifled female participation in the medical establishment.

Leaders in early-national Mexico, in keeping with the republican ideals of the new state, viewed education as a vehicle to ensure an enlightened citizenry and an improved standard of living. Physicians and politicians strove to professionalize the establishment and educate all medical practitioners including midwives. As early as 1822, surgeon José Miguel Muñoz petitioned members of Iturbide's imperial congress to combine the separate studies of medicine, surgery, and botany into one comprehensive medical program to better serve the interests of the populace.¹⁰ Politicians at the beginning of the republican period also promoted change in medical programs and institutions. Lucas Alamán (1792-1853), the conservative politician and historian, was also an advocate for improving Mexico's medical profession, a cause he may have first embraced after being appointed Secretary of Public Health by Viceroy Apodaca during the waning years of the colonial period. As Minister of the Interior in 1830 he unsuccessfully proposed the foundation of a medical college.¹¹ Valentín Gómez Farías (1781-1858), a promoter of liberal policies, practiced medicine in Aguascalientes before beginning his political career in Mexico City. As Vice-President in 1833, he founded the Scientific Medical Establishment, which later became the School of Medicine.¹² The School of Medicine, unlike the Protomed-

medical training in "Escuela Nacional de Medicina," in *Encyclopedia of Mexico: History, Society & Culture*, vol. I, Michael S. Werner, ed. (Chicago: Fitzroy Dearborn Publishers, 1977), pp. 458-461. For descriptions of the responsibilities of the Protomedicato, see John Tate Lanning, *The Royal Protomedicato: The Regulation of the Medical Professions in the Spanish Empire*, John Jay TePaske, ed. (Durham: Duke University Press, 1985); and Hernández Sáenz, *Learning to Heal*, pp. 2-3, 21-54. Colonial certification for midwives is discussed in Francisco de Asis Flores y Troncoso, *Historia de la medicina en México desde la época de los Indios hasta la presente [1886]*, vol. II (Mexico City: Instituto Mexicano del Seguro Social, 1982), p. 361.

⁹ Juan María Rodríguez, "Breves apuntes sobre la obstetricia en México: Tesis sostenida por Juan María Rodríguez como candidato para la plaza de adjunto a la cátedra de clínica de obstetricia de la Escuela de Medicina" (Mexico City: Imprenta de José M. Lara, 1869), p. 6. Hernández Sáenz, *Learning to Heal*, pp. 206-207, 225(n.71). This writer found an additional midwife certified by the Protomedicato in 1828. See AHFM, Protomedicato, leg. 13, exp. 24 (María Atanacia Recuero).

¹⁰ Staples, "La Constitución del Estado Nacional," p. 98; Antonio Escobar Olmsted, "Education: 1821-89," in *Encyclopedia of Mexico: History, Society & Culture*, vol. I. (Chicago: Fitzroy Dearborn Publishers, 1997), p. 438.

¹¹ AHFM, Escuela de Medicina y Alumnos, leg. 188, exp. 4, fol. 123.

¹² The official name of the medical establishment changed frequently during the nineteenth century: Protomedicato until 1833, Scientific Medical Establishment from 1833 to 1834, Medical College from

icato, encouraged women to take classes in the new field of obstetrics. As the nineteenth century progressed, hundreds of women received schooling and certification in midwifery.

Their welcome into professional medicine, however, was coupled with frequent criticism of their abilities. Physicians denigrated midwives in their attempt to promote their own status and importance. Manuel Hurtado de Mendoza, a doctor of medicine and surgery in Spain, included a diatribe against midwives and their lack of experience in his influential 1823 medical dictionary. Among other negative comments, he noted that midwives spent too few hours taking classes from trained specialists in obstetrics, and that they were “superficially” examined and certified by doctors. As a consequence, he claimed that the “woman who gave birth, the child, or both became the victims of the inexperienced midwife.”¹³ Similar criticism came from Mexican doctors well into the nineteenth century. In his 1869 thesis on obstetrics, Rodríguez lambasted “incompetent women” who worked as midwives. He asked: “How many victims would be able to rise from the grave and appear as irrefutable witnesses [about] . . . how difficult the art of midwifery was in Mexico before men of true knowledge took charge and elevated it to the height that its importance demands?”¹⁴ Rodríguez later became a professor of obstetrics at the School of Medicine and made his own book on obstetrics practices a required textbook for all medical students including midwives.¹⁵ Journalists also condemned midwives. The Mexican newspaper *El mosquito mexicano*, in an editorial published on May 7, 1841, passed judgment on “the ignorance and inexperience of intrusive women in the art of midwifery who, because of characteristic presumption and lack of knowl-

1834 to 1842, School of Medicine from 1842 to 1854, and National School of Medicine from 1842 to 1914. Even after 1854, however, many doctors continued to refer to this institution as the School of Medicine and that usage was adopted as a standard in this article. The medical school has been known as the Faculty of Medicine since 1914. See Rodríguez, “Escuela Nacional de Medicina,” p. 460. *Diccionario Porrúa de historia, biografía y geografía de México*, 6th ed. (Mexico City: Editorial Porrúa, 1995), pp. 79-80, 1506-1507. The first director of the school was Casimiro Liceaga. The first director of Operations and Obstetrics was Pedro del Villar. AHFM, *Escuela de Medicina y Alumnos*, leg. 188, exp. 4, fol. 123.

¹³ Manuel Hurtado de Mendoza, *Suplemento al diccionario de medicina y cirugía*, vol. III (Madrid: Imprenta de Brugada, 1823), pp. 239-240.

¹⁴ Rodríguez, “Breves apuntes,” p. 5.

¹⁵ AH: CESU, Escuela Nacional de Medicina, caja 6, exp. 1, fols. 1-2. Mexican doctors throughout the nineteenth century made blatantly misogynistic statements. Flores y Troncoso’s four-volume work published in 1886 is filled with sexist comments against women in general and midwives in particular. He describes colonial midwives as “ignorant and vulgar” and states that Mexican women were especially inept at practicing medicine because of their exaggerated imagination and emotional state; he suggests instead that they dedicate their efforts to the arts and the household. See Flores y Troncoso, *Historia de la medicina en México*, vol. II, pp. 359-60 and vol. III, p. 265.

edge, sacrifice with impunity the existence of not a few unfortunate [women] who resort to them.”¹⁶

For civic, professional and selfish reasons, therefore, “men of true knowledge took charge” at the School of Medicine and incorporated obstetrics into the curriculum for both male students of medicine and female students of midwifery beginning in the 1830s. This development prompted Nicolás León, Mexico’s celebrated obstetrics professor and the author of a 1910 book on childbirth, to aptly refer to those years as “a period of transition” in Mexican medicine.¹⁷ Male students began to study obstetrics as one of eleven subject areas in their five-year program. Females were barred from the upper echelon of medical practice as they had been during the colonial period, but they were now actively encouraged to seek certification in a separate obstetrics program that included two years of course work, yearly examinations, and a final exam that took place before at least three professors of medicine. Professors of obstetrics taught male students of medicine and female students of obstetrics separately for the same amount of time per week. Textbooks, course guidelines, and school memoranda make it possible to analyze the growing importance of obstetrics medicine and the continual incorporation of midwives into the medical establishment.

Two obstetrics manuals at the School of Medicine dominated the curriculum from the 1850s to the 1890s—a text by Paulin Cazeaux and a practical guide by Rodríguez. Cazeaux’s work was the most respected and frequently cited textbook for Mexican obstetrics students. It abandoned the question and answer format employed by previous authors and instead the 1,178 page medical textbook was divided into eight parts, which included information on anatomy, pregnancy, delivery, practical-theory, and hygiene. Rodríguez’s guide served as a complement to Cazeaux’s work. The former, a nine-chapter, 174-page text, provided a concise compilation of obstetrics knowledge at the time, and included additional information on the proper application of anesthesia.¹⁸

¹⁶ AH: Fondo Salubridad Pública, Sección: Ejercicio de la Medicina, caja 1, exp. 32. *El mosquito mexicano* 9:37 (May 7, 1841), p. 1. Male doctors who dedicated their efforts to obstetrics also lamented that the “study of this part of science has been viewed by many with the greatest contempt.” See Jesús Villagrán, “Breves consideraciones sobre los principales cuidados que deben suministrarse a la mujer durante el parto y el puerperio: Tesis que para el examen general de medicina, cirugía (sic) y obstetricia presenta al jurado calificador” (Mexico City: José María Sandoval, Imp., 1881), p. 7.

¹⁷ León, *Obstetricia en México*, p. 233.

¹⁸ Paulin Cazeaux, *Tratado teórico y práctico de obstetricia*, 9th ed. (Madrid: Imprenta de los Señores Rojas, 1876); Juan María Rodríguez, *Guía clínica del arte de los partos*, 3rd ed. (Mexico City: Imprenta de Francisco Díaz de León, 1885), pp. 261-64; Professors also required students at the School of Medicine to read the 1835 work of Jules Hatin. See his *Cours complet d'accouchements et de maladies des*

Porfirian statutes in the 1890s provided course objectives that articulated standards of learning. Midwives were to bring a urinary tract catheter, a tube to clear the throat of the newborn, a thermometer, a stethoscope, a package of aseptic gauze and copies of the statutes to the deliveries in which they assisted. The statutes demonstrated an overwhelming concern for hygiene, placing emphasis on “antiseptic practices during childbirth.” Midwives were instructed to wear perfectly clean dresses and aprons, to wash bed sheets in boiling water before delivery, and to disinfect hands, nails, and arms with soap and a brush for at least two or three minutes before submerging their hands in a solution of dichloride mercury. The mother and child were to be cleaned with disinfectant solution.¹⁹ Course outlines during the 1890s provided more than lists of required books: they included measurable objectives and specific skills and concepts that students of obstetrics should acquire by the end of a given course. Course objectives for 1895 and 1899 obstetrics classes are listed in appendixes 1 and 2 respectively.²⁰

Midwife manuals, School of Medicine guidelines, and governmental decrees established the types of activities that midwives were prohibited from performing. Midwives were always instructed not to operate unless the woman’s life was in danger and a physician could not be called. An 1854 document from the School of Medicine emphasized the restrictions that midwives faced during and after delivery:

Midwives are limited to receiving the infant, giving it first aid in case of asphyxia, cutting the umbilical cord, and advising the parties concerned when there is need of a professor [of medicine]. They are not permitted to apply remedies of any type to the woman who has just given birth, nor may they do any other procedure except . . . break the water bag when the labor has been delayed and only if there has been great resistance presented by the membranes that comprise the said bag of water [or] . . . if the child is born with a very abundant flow of blood to the extent that it is feared that the woman who

femmes et des enfants, 10th ed. (Paris: Librairie de Crochard, 1835); AHFM, Escuela de Medicina y Alumnos, leg. 117, exp. 7, fols. 36, 38; AHFM, Documentos Rescatados, caja única, exp. 85, fol. 3.

¹⁹ Romero Rubio, “Secretaría de Estado y del Despacho de Gobernación: Sección Primera,” 24 March 1892, Art. 2; M.A. Mercado, “Instrucciones para la práctica de la antisepsia en los partos, a las que deberán sujetarse las parteras en el ejercicio de su profesión,” March 1892, pp. 5-8. For an overview of obstetrics practices during the final decades of the nineteenth century, see Flores y Troncoso, *Historia de la medicina en México*, vol. III, pp. 561-628.

²⁰ The 1890s continued to be a decade of important change in the field of obstetrics. An 1898 issue of *Revista de la instrucción pública mexicana* proposed adding a third year to midwife studies preceded by a two-year preparatory program. See “Proyecto de plan de estudios para la profesión de parteras,” *Revista de la instrucción pública mexicana* 3:3 (April 15, 1898), pp. 66-67, in AH: CESU, Escuela Nacional de Medicina, caja 18, exp. 7, fols. 114-115. The curriculum in 1898 included a third year of obstetrics. See AH: CESU, Escuela Nacional de Medicina y Asuntos de Alumnos (Sección II), caja 61, exp. 261, fol. 84.

gave birth might die due to the excessive liquid and a doctor can not be immediately found [or] . . . when after the extraction of afterbirth dangerous hemorrhaging continues and a doctor has not arrived.²¹

In an 1892 decree, the Department of the Interior, following this long-established tradition, forbade midwives from assisting in complicated births. Midwives resented the continual curtailment of their professional activities and sent a letter of protest to President Porfirio Díaz. They stated that their training in obstetrics was equal if not superior to that of medical students and that they should be permitted to assist women during all childbirth procedures. The true motive of doctors and surgeons, they argued, was “to take away the lucrative part of our profession.” The Secretary of Justice responded that current restrictions were consistent with previous statutes, and the decision stood. Dr. Andrés A. Quijano took the additional step of publishing a letter in *La medicina científica*, Mexico’s medical journal, in which he countered the claim that midwives were superior obstetrics practitioners and that doctors were mostly concerned with making money. Portions of the letters written by the midwives and Quijano are included in appendixes 3 and 4.²²

Grade books and memorandums from the School of Medicine detail the steps involved in becoming a certified midwife and reveal the serious approach taken by administrators in determining the norms for the granting of degrees. A record book provides information on 216 women who took final examinations from 1842 to 1898.²³ With the exception of the 1880s, more women became certified in obstetrics from 1840 to 1900 with each succeeding decade.²⁴ Four of the last twelve entries in the record book are recorded as “midwife” exams, which clearly demonstrates the link between midwifery and obstetrics. The school year usually began in May and yearly exams would be administered sometime in the three months before May of the following year.²⁵ A student would have to repeat the entire school year if she received more failing than passing grades. Students who had passed

²¹ AHFM, Protomedicato, leg. 31, exp. 30, fol.2; AHFM, Protomedicato, leg. 31, exp. 30, fols. 4-5.

²² Penal codes also prohibited midwives, doctors, phlebotomists, and other health care workers from participating in abortions, euthanasia, and infanticide. See, for example, *Código penal del estado libre y soberano de Hidalgo* (Mexico City: J. Gaspar de Alba, 1895), Arts. 531-557. Some midwives probably performed medical services that exceeded the limits placed upon their profession. In a 1781 trial, for example, a witness testified that Bárbara Rojas cut a small tumor from the lip of a patient. See AGN, Consejo Superior de Salubridad, leg. 15, exp. 19, fols. 1, 3, 8.

²³ AHFM: Protomedicato, *Libro de las actas de los exámenes de obstetricia verificados en la Escuela de Medicina de México con arreglo al ordenamiento publicado por la excelentísima junta departamental en 12 de enero de 1842: Libro 41* (hereafter Libro 41).

²⁴ AHFM: Protomedicato, Libro 41, fols. 1-120.

²⁵ Registration for obstetrics classes in 1872 began as early as December “for students of medicine as well as for women who desire to dedicate themselves to the study of obstetrics.” See AHFM, Escuela

their yearly examinations were then required to solicit a letter of recommendation from a certified doctor attesting to the midwife's previous supervised assistance during deliveries. When all of these prerequisites had been met, the student was permitted to file a petition to take the final comprehensive examination and obliged to pay a testing fee.²⁶ Eighty-eight percent of obstetrics candidates passed unanimously, eight percent by majority vote, and four percent failed. Faculty members gave grades of A (approved), B (good), M, (fair), R (fail) or 0 (zero).²⁷ A random sample of the 216 obstetrics students who were examined by professors at the School of Medicine from 1842 to 1898 is included in Table 1.²⁸

The low rate of failure to receive certification was likely due to the fact that students had already taken obstetrics classes three days a week during two school years, and had previously passed their yearly examinations given by the same professors who later administered the final exam.²⁹ For some of the women who failed, a few more months of study were required before they re-took and passed the examination; for others their hope for certification ended. Continued perseverance yielded positive results for Luisa O'Horan and Soledad Cortés. On April 20, 1894, the former "failed by two votes and was given eight months to take another exam," which she unanimously passed on July 16, 1895.³⁰ The latter received only one out of three votes on

de Medicina y Alumnos, leg. 234, exp. 6, fols. 8, 60. Registration from 1868 and 1870 took place in the month of May. See AHFM, Escuela de Medicina y Alumnos, leg. 135, exp. 37, fol. 10 and AHFM, Escuela de Medicina y Alumnos, leg. 137, exp. 33, title page. Beginning in the 1890s the school year went from January to October. See AH:CESU, Escuela Nacional de Medicina, caja 18, exp. 7, fol. 117.

²⁶ Grades received in obstetrics classes are located in the following AHFM, Protomedicato documents: leg. 33, exp. 4, fol. 10 (Gutiérrez); leg. 33, exp. 20, fol. 7 (Guardiola); leg. 33, exp. 6, fol. 4 (Ortiz); leg. 33, exp. 12, fol. 7 (Roldán); leg. 34, exp. 16, fol. 8 (Tello); leg. 34, exp. 15, fol. 8 (Deses); leg. 37, exp. 5, fol. 6 (Rivera); leg. 37, exp. 9, fol. 5 (Legorreta); leg. 37, exp. 26, fol. 2 (Barrientos); leg. 38, exp. 4, fol. 2 (Zuleta); leg. 39, exp. 10, fol. 5 (Rodríguez); leg. 39, exp. 12, fol. 8 (Castillo); leg. 39, exp. 13, fol. 9 (Córdoba); leg. 40, exp. 10, fol. 6 (Varas). The grades and the dates on which midwives took their examinations at the School of Medicine can be located in AHFM, Protomedicato, Libro 41. The cost of examinations varied: 4 pesos in 1844, 21 pesos in 1845, and 14 pesos in 1866. Students paid smaller fees for their yearly examinations. See AH:CESU, Escuela Nacional de Medicina y Asuntos de Alumnos (Sección II), caja 4, exp. 10, fols. 19,46; AHFM, Escuela de Medicina y Alumnos, leg. 110, exp. 2, fol. 54 and AHFM, Protomedicato, leg. 39, exp. 10, fol. 2.

²⁷ Documentation did not reveal a standardized grading policy for midwives. However, the grades that male medical students received were sometimes spelled-out, such as "bueno" rather than "B," and this writer assumed that the same abbreviations were used for midwives. See AHFM, Protomedicato, leg. 56, exp. 47, fol. 5 and AH:CESU, Escuela Nacional de Medicina y Asuntos de Alumnos (Sección II), caja 28, exp. 106, fol. 3.

²⁸ AHFM: Protomedicato, Libro 41, fols. 1-120. The names of students listed in Table 1 were selected according to the "random start method" beginning with the 8th, followed by the 16th, 24th, etc.

²⁹ AHFM, Documentos Rescatados, caja única, exp. 289, fol. 1; AHFM, Documentos Rescatados, caja única, exp. 247, fol. 1.

³⁰ AHFM, Protomedicato, Libro 41, fols. 89, 98.

TABLE 1
RANDOM SAMPLE OF THE 216 CERTIFICATION EXAMINATIONS IN OBSTETRICS GIVEN BY THE SCHOOL OF MEDICINE
IN MEXICO CITY, 1842-1898

<i>Student</i>	<i>Date</i>	<i>Name of Exam</i>	<i>Location of Exam</i>	<i>Grade Given by Medical Examiners</i>
María Montaña	January 5, 1853	Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Manuela Guardiola	May 27, 1858	Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Teresa Carrero	May 26, 1862	Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Dolores García	April 28, 1865	Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Elizabeth Feldthircher				
de Cugnet	October 17, 1867	Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Carolina Díaz	July 31, 1869	Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Cayetana García de Orozco	January 19, 1872	Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Perdigón Garay	November 26, 1872	Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Antonia Orozco	March 5, 1874	Practical Obstetrics	School of Medicine	Unanimous Pass (3 out of 3 votes)
Dolores González	January 8, 1876	General Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Guadalupe Galván	January 8, 1878	General Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Antonia Vargas	January 22, 1879	General Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Ester Rosulo de Orozco	April 27, 1880	General Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Ignacia Romero de Zendejas	December 10, 1880	Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Anguiana (?) Mariana	January 26, 1884	Practical Theory Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
María de la Luz Prado	February 27, 1885	Practical Theory Obstetrics	Maternity Hospital	Fail (2 out of 3 rejected her candidacy)
Brigada Simons	June 20, 1886	Practical Theory Obstetrics	Casa de Maternidad	Pass (2 out of 3 accepted her candidacy)
María Muñoz Ledo	June 12, 1888	Practical Theory Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
María Barrera	September 7, 1889	Practical Theory Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Ángela García	March 8, 1892	Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Luz Egén	May 13, 1893	Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Luisa O'Horan	April 20, 1894	Obstetrics	Casa de Maternidad	Fail; (2 out of 3 rejected her candidacy)

TABLE 1 (continued)

<i>Student</i>	<i>Date</i>	<i>Name of Exam</i>	<i>Location of Exam</i>	<i>Grade Given by Medical Examiners</i>
María Ramírez e Ybaraba	March 5, 1895	Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Rosario Manzano	June 19, 1895	Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Soledad Cortés	April 8, 1896	Obstetrics	Casa de Maternidad	Fail; (2 out of 3 rejected her candidacy)
Josefa Arroyo de Ruiz	April 3, 1897	Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)
Agusta Barret	March 23, 1898	Obstetrics	Casa de Maternidad	Unanimous Pass (3 out of 3 votes)

Source: Derived from AHFM, Protomedicato, Libro 41.

April 8, 1896, when she failed her exam, but unanimously passed eleven months later.³¹ María de la Luz Prado was less fortunate. On February 27, 1885, “the aforementioned Señorita failed by two votes and [it was stipulated] that she take another exam within six months.” She failed again seven months later, and a third time on February 4, 1887. She declined the faculty offer for a fourth chance.³²

Some obstetrics examinations were given in the homes of doctors during the 1830s and 1840s due to constant political upheaval and the lack of funding for proper school facilities. The case of María Loreta de Jáuregui, however, suggests some physicians may have had additional reasons for giving examinations outside of school. In January 1836, Jáuregui wrote a letter to the medical board stating that she had successfully completed her coursework, and that she now wanted to take the final examination. She forwarded five letters of recommendation written on her behalf. Antonio Gutiérrez, Professor of Medicine in Mexico City, wrote that she had accompanied him for the last ten years to help deliver babies, and that she had assisted “poor persons as well as median ones, and in all of them had demonstrated the necessary knowledge of the art of obstetrics as her gender permits.” Juan Luis Chobert further noted that the applicant had “not only assisted in simple deliveries but was also capable of foreseeing and determining those serious accidents that present themselves.” The president decided to give the examination in his own home rather than at the medical school “in order to avoid the publicity that they have in this establishment of medical science . . . and to avoid jeering and laughter.” Apparently, the younger medical students had trouble controlling themselves when confronted with female health issues, and propriety and modesty dictated that the exam be given elsewhere. She passed the exam with the unanimous approbation of three doctors. As the field of obstetrics matured, so too did the attitude of male students; almost all females took their exams in the School of Medicine (31%) or the Casa de Maternidad (67%) after 1846.³³

³¹ AHFM, Protomedicato, Libro 41, fols. 102, 109.

³² AHFM, Protomedicato, Libro 41, fols. 64, 67, 71.

³³ AHFM, Protomedicato, leg. 19, exp. 27, fols. 1-6. Examinations continued to take place in the homes of doctors in the 1840s. See AHFM, Protomedicato, leg. 27, exp. 15, fol. 8 and AHFM, Protomedicato, leg. 27, exp. 16, fol. 8. Leading physicians ultimately pooled their own resources in 1854 and purchased the ex-Inquisition building, which would serve as the medical school for the next one hundred years. Professors were not allowed to tutor students from their own classes. See AHFM, Escuela de Medicina y Alumnos, leg. 290, exp. 1, fol. 12. Administrators sometimes complained about absenteeism by professors. See, for example, AHFM, Escuela de Medicina y Alumnos, leg. 149, exp. 28, fol. 3. Other examinations took place in the home of the Director of the Medical Board (1.8%) and the operating room at San Andrés Hospital (0.5%). The Faculty of Medicine was moved from the ex-Inquisition building to the campus of the National University in 1954. See Rodríguez, “Escuela Nacional de Medicina,” p. 460.

Medicine and academia were prestigious and lucrative enterprises in Mexico, and a rigorous selection process took place to fill all coveted faculty positions including obstetrics.³⁴ Generally speaking, there was one full-time professor for each subject area, one or two assistant professors, and an aid.³⁵ A typical search to find qualified obstetrics professors stipulated that applicants were to provide proof of citizenship, a statement of intent, their diploma in medicine and surgery, and letters of recommendation attesting to their professional and personal reputations. Supplemental materials usually included a copy of the candidate's published medical thesis.³⁶ The selection of professors proved to be a political process, as demonstrated in 1895 when a "riot" and "scandal" occurred at the School of Medicine over the appointment of Dr. Manuel Barreiro to the obstetrics department instead of Dr. López Hernández. Ten professors, including two from the obstetrics department, signed a petition of protest. *El universal*, one of Mexico City's leading daily newspapers, noted that students also demanded the dismissal of the school's director. The decision stood, the director remained, and disillusioned faculty and students pursued no further action.³⁷

The thorough incorporation of obstetrics into the curriculum was further demonstrated in textbook orders and memoranda generated by faculty members. In 1862, José Ignacio Durán, director of the medical school, requested that professors provide him with a list of book orders for the following school year. Each was to sign his name to the memo with either a 'yes' or 'no,' thus indicating if he planned to use the same text as the previous year.

³⁴ Salaries for obstetrics professors were commensurate with other medical faculty, and obstetrics instructors received the same salary whatever the gender of their students. See AHFM, Escuela de Medicina y Alumnos, leg. 188, exp. 4, fol. 130.

³⁵ Professors received the titles of *catedrático*, *catedrático adjunto*, and *ayudante*. Professors typically gave the obstetrics course during the fifth and final year of medical school along with a course in legal medicine. For examples of course listings, professors, required books and class scheduling for medical students, see AHFM, Documentos Rescatados, caja única, exp. 59 (1856); AHFM, Documentos Rescatados, caja única, exp. 248 (1860); AHFM, Documentos Rescatados, caja única, exp. 268 (1861); AHFM, Documentos Rescatados, caja única, exp. 247 (1873). AHFM, Escuela de Medicina y Alumnos, leg. 188, exp. 4, fol. 130 demonstrates that course requirements were amplified in the 1890s and included new subject areas such as bacteriology, public hygiene, and therapeutics. For a complete list of faculty members at the School of Medicine in 1878 and their respective positions and home addresses, see AHFM, Documentos Rescatados, caja única, exp. 275, fols. 1-4.

³⁶ AHFM, Escuela de Medicina y Alumnos, leg. 218, exp. 7, fols. 2-15; AHFM, Escuela de Medicina y Alumnos, leg. 209, exp. 8, fol. 2. For an examination of the hiring process for professors as well as written observations on the strengths and weaknesses of different candidates, see AHFM, Escuela de Medicina y Alumnos, leg. 210, exp. 3, fols. 1-7, 9-12, 19.

³⁷ No specific reasons were provided for faculty and student discontent. AH: CESU, Escuela Nacional de Medicina, caja 6, exp. 11, fol. 22. See AH: CESU, Escuela Nacional de Medicina, caja 6, exp. 10, fols. 20-21; and "El Ministerio de Justicia y la Escuela de Medicina: Triunfo de la tenebrosa," *El universal* 12:106 10 May 1895), p. 1.

In the event of a new selection, a general faculty meeting would be called to review the proposed text. None of the thirteen professors in the department of medicine indicated that there would be any changes.³⁸ An 1869 government decree formally regulated textbook adoption procedures: it stated that an individual professor might propose textbooks for his specific subject area, but that colleagues would ultimately vote to determine the book's appropriateness. In the event that a book was rejected by majority vote, another would have to be proposed following the same guidelines.³⁹ Colleagues disagreed with the proposed textbook selected for obstetrics classes prior to the 1879 academic school year. Students were originally supposed to purchase and study a text by Hermann Franz Naegele and Woldemar Ludwig Greaser. But Professor of Obstetrics Ignacio Torres claimed that this work was unavailable in Mexican bookstores, and that Cazeaux's text would be used instead. This decision sparked a debate, as one colleague insisted that copies of the former were available, and that its supposed unavailability "was not the motive for changing" the book selection. Durán decided that Cazeaux's text would be adopted.⁴⁰ Book selection in different subject areas of medicine, therefore, was a faculty-wide decision and not an individual professor's prerogative.

The efforts of two women to gain access to the traditional male field of phlebotomy demonstrate both the obstacles women faced and their increased participation in medicine. The first begins with an application to the School of Medicine filed by doña Teresa Zamora on March 8, 1835 "asking to be examined in phlebotomy." She had been previously denied permission to take the exam "because the laws do not allow it," and was again requesting to take examinations for phlebotomy and obstetrics.⁴¹ A magistrate immediately scheduled the exam for obstetrics, which she passed by the unanimous consent of the three-team medical board exactly one month later. She continued her appeal to be examined in phlebotomy and presented excellent references testifying to her competence. Antonio Gutiérrez, the chief physician at San Andrés General Hospital, said that she sometimes assisted him and was "completely trained in the application of blood-letting . . . [though] with sole application on those of her own sex." But in 1837 a magistrate frustrated her efforts to become certified in phlebotomy when he stipulated: "in order to be [certified] in phlebotomy a law concern-

³⁸ AHFM, Documentos Rescatados, caja única, exp. 194, fols. 1-2.

³⁹ AHFM, Escuela de Medicina y Alumnos, leg. 290, exp. 1, fol. 6.

⁴⁰ AHFM, Documentos Rescatados, caja única, exp. 84, fs. 1-6; AHFM, Documentos Rescatados, caja única, exp. 83, fols. 1-5. Hermann Franz Naegele and Woldemar Ludwig Greaser, *Lehrbuch der geburtshilfe*, 5th ed. (Mainz: Von Victor V. Zabern, 1863).

⁴¹ AHFM, Protomedicato, leg. 20, exp. 20, fol. 1.

ing this matter is needed from the Supreme Congress."⁴² She was only permitted to work as a midwife. Twenty years later, however, doña Luz Gutiérrez received permission to be examined in obstetrics and phlebotomy after having successfully completed coursework in those subjects. She also argued that female patients would feel less embarrassed being examined by female phlebotomists. Apparently, the Congress did not have to write a new law after all: instead, the director of the medical school, José Ignacio Durán, received permission from the Minister of Justice, Ecclesiastical Affairs and Public Instruction to examine Gutiérrez. She passed both examinations on February 1 and February 4, 1858. Her certification in phlebotomy, however, only entitled her to practice "with persons of her same sex."⁴³

Two censuses taken in Mexico City in the middle of the nineteenth century and tax records at the end of the century show that midwives gained respect as professionals and received considerable remuneration. The censuses were both entitled "Professions and Lucrative Practices" and listed the names, addresses, and occupations of hundreds of comparatively wealthy individuals so that they could be assessed taxes. Doctors, surgeons, lawyers, musicians, notaries and, most importantly for our purposes, midwives, were all considered well-paid professionals. Some of these midwives received diplomas from the School of Medicine and others did not—suggesting that midwives who did not have the luxury of taking two years of obstetrics classes might still play important roles in their communities and make a good living.⁴⁴ Tax records for the month of February 1898 list the names of and amounts that 15 professional groups contributed in revenue; midwives paid more total taxes than veterinarians or Catholic priests.⁴⁵

⁴² *Ibid.*, fols. 1, 7. A widow in 1750 received permission to manage her deceased husband's phlebotomy office, though she was forbidden to practice phlebotomy herself. See AGN, Consejo Superior de Salubridad, leg. 11, exp. 41, fol. 1.

⁴³ AHFM, Protomedicato, leg. 33, exp. 4, fols. 1-13; AHFM, Documentos Rescatados, caja única, exp. 105, fols. 1-6. At other times during the nineteenth century, the School of Medicine also fell under the jurisdiction of the Secretary of Public Instruction and Fine Arts, and the Ministry of Public Education. See Rodríguez, "Escuela Nacional de Medicina," pp. 460-461.

⁴⁴ This census information is compiled from AGN, Padrones, volumes 82 and 86. No folder numbers are provided and pagination is haphazard. Volume 86 is dated 1850; volume 82 is officially listed as undated. However, both the handwriting and the names of the midwives who appear in volume 82 suggest that it was compiled around 1850. Columns exist in these censuses for information on trimester tax payments, but they are almost never completed; for that reason fiscal assessments for midwives and other professions cannot be tabulated from this document. Midwives in volume 82 were not listed in Libro 41 as having graduated from the School of Medicine. For a similar document on "professional" midwives and their residences in Mexico City in 1881, see AGN, Folletería, caja 35, folleto 915, fols. 761-780.

⁴⁵ Seventy-six taxpaying midwives contributed 121.50 total pesos to the government. The 12 other professional groups that paid taxes were lawyers, businessmen, businessmen without degrees, brokers, dentists, pharmacists, engineers-surveyors-architects, construction builders, allopathic doctors, homeopathic doctors, Protestant ministers and notaries. A note at the bottom of the document states that the

TABLE 2
PROFESSIONS, OCCUPATIONS AND SCHOOLING IN MEXICO CITY BY GENDER,
1895 AND 1900

		Year	
		1895	1900
Midwives	M	0	0
	F	211	189
Allopathic Doctors	M	375	502
	F	2	3
Homeopathic Doctors	M	52	52
	F	0	0
Dentists	M	73	77
	F	3	3
Pharmacists	M	—	287
	F	—	6
Estudiantes	M	5,314	4,732
	F	1,751	1,571
Escolares	M	25,657	8,465
	F	25,431	6,667

Source: Derived from Antonio Peñafiel, ed., *Censo general de la República Mexicana: Censo de Distrito Federal* (Mexico City: Oficina Tip. de la Secretaría de Fomento, 1898), 42-45; Antonio Peñafiel, ed., *Censo general de la República Mexicana: Censo y división territorial del Distrito Federal* (Mexico City: Oficina Tip. de la Secretaría de Fomento, 1901), pp. 66-67, 73.

Two additional censuses completed under the direction of Antonio Peñafiel in 1895 and 1900, and a 1903 publication by the Maternity and Infant Hospital likewise reveal that midwives had become respected medical professionals. The censuses include statistics on professions, occupations, and schooling by gender. Midwives, allopathic doctors, homeopathic doctors, dentists and pharmacists are prominently listed as members of the medical profession. Females are noted in the lists of pharmacists, doctors, and dentists. Their numbers are small, but they are no longer denied entrance into the higher echelons of the medical establishment. These same censuses distinguish “estudiantes” from “escolares”; the former were seen as pursuing a career while the latter were simply enrolled in grammar school. The prevalence of female “estudiantes” suggests that access to the medical pro-

number of professionals listed in each category is not indicative of the total number of professionals, but rather those who were not exempt from paying taxes. AGN, Folletería, caja 44, folleto 1124, fol. 34.

fession was a byproduct of their gradual acceptance into schools of higher learning. Statistics on professions, occupations, and schooling in Mexico City are derived from the 1895 and 1900 censuses, and are included in Table 2.⁴⁶ Finally, a 1903 maternity hospital publication proudly lists its most important medical personnel on the first page of its publication. The professor of clinical obstetrics and the head clinician are men. But immediately thereafter appear the names Concepción Fernández, Dolores Osorio, and Tomasa Velázquez, head midwife, second midwife, and midwife of the Infectious Disease department respectively.⁴⁷

Porfirio Díaz's desire to use schooling as a vehicle to ensure order and progress further helped middle and upper-class women advance in professional medicine into the first decade of the twentieth century.⁴⁸ In the 1870s students received different types of education according to their gender and presumed skills. Boys, for example, took classes in history and civics whereas girls took classes in the "obligations of the woman in society and of the mother in her relations with the family and state," hygiene, and home medicine.⁴⁹ Women with access to education faced obvious discrimination

⁴⁶ Antonio Peñafiel, ed. *Censo general de la República Mexicana: Censo de Distrito Federal* (Mexico City: Oficina Tip. de la Secretaría de Fomento, 1898), pp. 42-45; Antonio Peñafiel, ed. *Censo general de la República Mexicana: Censo y división territorial del Distrito Federal* (Mexico City: Oficina Tip. de la Secretaría de Fomento, 1901), pp. 66-67, 73. Pharmacists are not included in the 1895 census. "Población" statistics are analyzed from the 1895 census. The 1895 census covers the municipality of Mexico City and the districts of Guadalupe-Hidalgo, Xochimilco, Tlalpan, and Tacubaya. The 1900 census includes the 8 *cuarteles* in Mexico City and the districts of Xochimilco, Tacubaya and Coyoacán. The combined population of these areas is 481,782. The differences between allopathic and homeopathic medicine are explained in J.B. Dubois, *Diccionario de las enfermedades y tratamientos*, Abdón Berben, trans. (Madrid: Imprenta de Fortanet, 1892), pp. 20-21, 97. The distinction between "escolar" and "estudiante" is made in Carlos de Ochoa, *Novísimo diccionario de la lengua castellana* (Paris and Mexico City: Librería de la Viuda de Ch. Bouret, 1896), pp. 602, 634. The author was unable to determine why there was such a dramatic difference in the recording of *escolares* from 1895 to 1900.

⁴⁷ Manuel S. Izaguirre, *Estadística médica del Hospital de Maternidad é Infancia correspondiente a veinte años de 1883 a 1903* (Mexico City: Oficina Tip. de la Secretaría de Fomento, 1903), 2, located in AGN, Folletería, caja 49, folleto 11971.

⁴⁸ Mexico equaled and surpassed developments in other countries. Its School of Medicine, for example, taught obstetrics as early as the 1830s and successfully graduated hundreds of women well into the 20th century. Midwifery was not regulated in England until the promulgation of the Midwives Act of 1902. New York City's Board of Health did not request midwives to register themselves until 1907, and even then they did not have to demonstrate competency. Ten US states had no registry for midwives as late as 1930. See Judy Barrett, Litoff, ed. *The American Midwife Debate: A Sourcebook on its Modern Origins* (New York: Greenwood Press, 1986), pp. 8-10, 37, 47, 150; Regina Markell Morantz, "The 'Connecting Link': The Case for the Woman Doctor in 19th Century America," in *Sickness and Health in America: Readings in the History of Medicine and Public Health*, Judith Walzer Leavitt and Ronald L. Numbers, eds. (Madison: The University of Wisconsin Press, 1978), p. 117.

⁴⁹ Julia Tuñón Pablos, *Women in Mexico: A Past Revealed*, Alan Hynds, trans. (Austin: University of Texas Press, 1999), p. 79. Teresa A. Meade, "Gender: 1821-1910," in *Encyclopedia of Mexico: History, Society & Culture*, vol. I, Michael S. Werner, ed. (Chicago: Fitzroy Dearborn Publishers, 1997), p. 573.

in terms of course selection and subject matter, but they were also assumed to be especially well suited for teaching and health care, perhaps because of their traditional roles as caretakers and nurturers. Societal stereotypes and governmental policies contributed to women holding more than one-half of all teaching positions in the country by 1895.⁵⁰

Classes in obstetrics continued to thrive. A registry book from 1890 to 1928 listed the names of 533 women who took classes in obstetrics. Women came to Mexico City from all over the republic to begin their medical careers at the School of Medicine. Some lived with their parents, husbands or other relatives. Others relied solely on their own resourcefulness. A grade book on clinical obstetrics for the 1896 school year, for example, listed 25 year-old Ignacia Figueroa from Cuernavaca as “dependent upon herself.”⁵¹ Women also began to break important barriers in other fields of medicine. One of the greatest accomplishments occurred in August 1887 when Matilde Montoya, a graduate of the obstetrics program, passed her examination in “medicine, surgery and obstetrics” and became Mexico’s first certified female doctor.⁵² Record books of medical students from 1896 to 1907 demonstrate that women entered other fields of medicine as well, such as general medicine (1896, 1901, 1902), surgical medicine (1902), pharmacy (1899, 1903) and dental surgery (1906).⁵³

Educational objectives emanating from the Mexican revolution and embodied in Article 3 of the 1917 Constitution promised women from all socio-economic sectors greater access to schooling. These changes, notes Julia Tuñón Pablos, gave “women as a group the opportunity to substantially change their social status.”⁵⁴ Though gender parity in medical education at the university level would take several decades to achieve, women were likely to play an increasingly important role in health care initiatives because, as Shirlene Soto documents for the 1920s, the “implementation of the programs was dependent upon teachers and nurses, nearly all of whom

⁵⁰ Meade, “Gender: 1821-1910,” p. 573.

⁵¹ AH: CESU, Escuela Nacional de Medicina y Asuntos de Alumnos (Sección II), caja 7, exp. 24, fols. 1-47; AH: CESU, Escuela Nacional de Medicina y Asuntos de Alumnos (Sección II), leg. 28, exp. 108, fol. 46. Investigators who review the 1890 to 1928 registry should not rely on the incorrect tabulations on the inside cover of the book.

⁵² See the following documents from AHFM, Protomedicato: leg. 148, exp. 59; leg. 149, exp. 38; and leg. 56, exp. 47; and AH:CESU, Escuela Nacional de Medicina y Asuntos de Alumnos (Sección II), caja 4, exp. 20, fol. 89.

⁵³ AH: CESU, Escuela Nacional de Medicina y Asuntos de Alumnos (Sección II), caja 60, exp. 260, fols. 1-2, 98, 125, 152, 350, 414, 454; AH: CESU, Escuela Nacional de Medicina y Asuntos de Alumnos (Sección II), leg. 28, exp. 108, fols. 9-10.

⁵⁴ Tuñón Pablos, *Women in Mexico*, p. 93.

TABLE 3
UNIVERSITY GRADUATES WITH DEGREES IN GYNECOLOGY, MIDWIFERY, AND
OBSTETRICS: MEXICO CITY, 1945-1999

<i>Years</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
1945-1949	211 (94.6%)	12 (5.4%)	223
1950-1954	107 (92.2%)	9 (7.8%)	116
1955-1959	52 (94.5%)	3 (5.5%)	55
1960-1964	56 (87.5%)	8 (12.5%)	64
1965-1969	39 (84.8%)	7 (15.2%)	46
1970-1974	269 (84.9%)	48 (15.1%)	317
1975-1979	1,412 (71.2%)	572 (28.8%)	1,984
1980-1984	1,449 (67.7%)	692 (32.3%)	2,141
1985-1989	1,670 (65.3%)	889 (34.7%)	2,559
1990-1994	1,061 (59.8%)	714 (40.2%)	1,775
1995-1999	1,243 (56.2%)	967 (43.8%)	2,210

Source: Statistics are based on graduates from the following universities: Escuela Libre de Homeopatia de México; Escuela Médico Militar (S.D.N.); Instituto Politécnico Nacional; Universidad La Salle; Universidad Nacional Autónoma de México. Graduates from these universities received degrees in the following areas: Gynecology-Obstetrics; Gynecology and Obstetrics; Mtro. in Medical Science (Gynecology and Obstetrics); Homeopathic Obstetric Medical Surgery; Medical Surgery and Midwifery. Derived from Secretaría de Educación Pública [SEP], Mexico, Subsecretaría de Educación Superior e Investigación Científica, "Total quinquenal de 1945-1999 por institución, sexo, y denominación de ginecología," December 5, 2000, 9-10, 17, 65, 70-71, 74.

were women."⁵⁵ The expansiveness of the country and inadequate resources have prompted successive governments to promote modern medicine at the university level and to regulate non-titled medical practitioners. Both university-trained midwives and empirics, therefore, continue to meet the needs of vast numbers of people, especially in rural areas and indigenous communities. During the 1970s, for example, more than 70 percent of births in the entire country took place outside of hospitals. As late as 1993, midwives attended more than half or 55,597 of the 105,246 births in government-sponsored medical establishments. And these figures ignore those births that took place at home and were probably attended by midwives as well.⁵⁶

⁵⁵ Shirlene Soto, *Emergence of the Modern Mexican Woman: Her Participation in Revolution and Struggle for Equality, 1910-1940* (Denver: Arden Press, Inc., 1990), 100. Even as late as 1949 a full 82 percent of university students were male. See Mary Kay Vaughan, "Education: 1889-1940," in Werner, p. 445.

⁵⁶ Carlos Zolla and Ana María Carrillo, "Mujeres, saberes médicos e institucionalización," in *La condición de la mujer en el espacio de la salud*, Juan Guillermo Figueroa Perea, ed. (Mexico City: Colegio de México, 1998), p. 185.

TABLE 4
ALL STUDENTS WITH DEGREES IN MEDICINE FROM THE UNAM, 1945-2000

<i>Years</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
1945-1949	4,194 (95.0%)	229 (5.0%)	4,423
1950-1954	4,104 (91.0%)	406 (9.0%)	4,510
1955-1959	2,689 (89.5%)	317 (10.5%)	3,006
1960-1964	2,825 (88.5%)	367 (11.5%)	3,192
1965-1969	4,247 (84.9%)	758 (15.1%)	5,005
1970-1974	5,482 (81.2%)	1,267 (18.8%)	6,749
1975-1979	9,475 (76.7%)	2,874 (23.3%)	12,349
1980-1984	12,004 (71.4%)	4,810 (28.6%)	16,814
1985-1989	6,018 (62.1%)	3,676 (37.9%)	9,694
1990-1994	4,283 (55.4%)	3,450 (44.6%)	7,733
1995-1999	5,828 (53.9%)	4,983 (46.1%)	10,811
2000	515 (50.0%)	515 (50.0%)	1,182
Total	61,664 (72.1%)	23,804 (27.9%)	85,468

Source: Derived from SEP, "Total quinquenal de 1945-2000 por institución, sexo, y denominación médica: Universidad Nacional Autónoma de México," 5 December 2000, 79.

While this study focuses primarily on the incorporation of midwives into modern medicine during the nineteenth century, statistics from Mexico's Secretary of Public Education for the years 1945 to 2000 provide some evidence of women's fuller participation in branches of medicine previously reserved for men by the end of the twentieth century. This same source, however, indicates that as female doctors become more prevalent in general medicine male doctors specialize in other, more prestigious and lucrative medical fields.⁵⁷ Table 3 lists the graduation statistics by gender for students from the UNAM and four additional universities in fields associated with obstetrics medicine.⁵⁸ Men predominate. But women made steady increases in this area,

⁵⁷ The author sincerely thanks Roberto Sandoval Hernández and Diana Cecilia Ortega Amieva of Mexico's Secretary of Public Education for providing detailed statistics on the 97 medical institutions and the gender of medical students in Mexico from 1945 to 2000. He also acknowledges the valuable assistance of Ernesto Cabrera Villoro who pursued this information.

⁵⁸ Statistics are based on graduates from the following universities: Escuela Libre de Homeopatía de México; Escuela Médico Militar (S.D.N.); Instituto Politécnico Nacional; Universidad La Salle; Universidad Nacional Autónoma de México. Graduates from these universities received degrees in the following areas: Gineco-Obstetricia; Ginecología y Obstericia; Mtro. en Ciencias Médicas (Ginecología y Obstetricia); Médico Cirujano Partero Homeopata; Médico Cirujano y Partero. Derived from Secretaría de Educación Pública [SEP], Mexico, Subsecretaría de Educación Superior e Investigación Científica, "Total quinquenal de 1945-1999 por institución, sexo, y denominación de ginecología," December 5, 2000, pp. 9-10, 17, 65, 70-71, 74. Gynecology as a field was developed in Mexico at the end of the nineteenth century, though medical practices associated with this field were previously incorporated into obstetrics. This writer found references to gynecology in Mexican medical journals beginning in 1877

TABLE 5
GENERAL PRACTITIONERS OF MEDICINE WITH DEGREES FROM THE UNAM,
1945-2000

<i>Years</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
1945-1949	4,189 (95.0%)	223 (5.0%)	4,412
1950-1954	4,104 (91.0%)	406 (9.0%)	4,510
1955-1959	2,688 (89.5%)	317 (10.5%)	3,005
1960-1964	2,825 (88.5%)	367 (11.5%)	3,192
1965-1969	4,246 (84.9%)	758 (15.1%)	5,004
1970-1974	5,481 (81.2%)	1,266 (18.8%)	6,747
1975-1979	9,460 (76.7%)	2,871 (23.3%)	12,331
1980-1984	11,950 (71.4%)	4,797 (28.6%)	16,747
1985-1989	5,910 (61.9%)	3,641 (38.1%)	9,551
1990-1994	3,833 (54.1%)	3,248 (45.9%)	7,081
1995-1999	3,155 (48.5%)	3,348 (51.5%)	6,503
2000	507 (43.6%)	655 (56.4%)	1,162
Total	58,348 (72.7%)	21,897 (27.3%)	80,245

Source: Derived from SEP, "Total quinquenal de 1945-2000 por institución, sexo, y denominación médica: Universidad Nacional Autónoma de México (Médico Cirujano)," December 5, 2000, 72.

especially since 1970, and they represented approximately 33.4 percent of all graduates by 1999. The gender of UNAM students who received medical degrees from 1945 to 2000 is noted in Table 4.⁵⁹ There are 105 different medical specialties, 32 of which are prefaced with the title "Maestro" and 1 (Optometry) as "Licenciado." Again, men outnumber women. But disparities in gender were mostly eliminated by the 1990s: from 1995 to 1999, 53.9% of graduates were men compared to 46.1 percent women, while in the class of 2000, 515 (50%) were male and 515 (50%) were female. Especially revealing are the statistics in Table 5 on UNAM graduates with degrees as general medical practitioners.⁶⁰ Women surpassed men in this seemingly important

and 1882. See Nicolás San Juan and Pablo Martínez del Río, "Ginecología," in *Gaceta médica de México: Periódico de la Academia de Medicina de México* 12:6 (March 15, 1877), pp. 101-108 and Juan F. Fénélon, "Apuntes sobre ginecología," in *Gaceta médica de México: Periódico de la Academia de Medicina de México* 17:5 (March 1, 1882), pp. 70-72, 88-93. The origins of gynecological study in the US and useful descriptions of this branch of medicine can be found in Deborah Kuhn McGregor, *From Midwives to Medicine: The Birth of American Gynecology* (New Brunswick, NJ: Rutgers University Press, 1998), esp. pp. 6, 48, 204.

⁵⁹ SEP, "Total quinquenal de 1945-2000 por institución, sexo, y denominación médica: Universidad Nacional Autónoma de México," 5 December 2000, p. 79.

⁶⁰ SEP, "Total quinquenal de 1945-2000 por institución, sexo, y denominación médica: Universidad Nacional Autónoma de México (Médico Cirujano)," December 5, 2000, p. 72. The title "Médico Cirujano" was translated as General Practitioner. Mexican women apparently made greater advancements in medical fields than women in the United States. Morantz notes that women in the U.S. only comprised

TABLE 6
FEMALE PARITY OR DOMINANCE IN MEDICAL SPECIALTIES:
UNAM, 1995-1999

<i>Medical Specialty</i>	<i>Females</i>	<i>Males</i>
Clinical and Allergy Immunology	5	4
Dermatology	55	29
Endocrinology and Nutriology	14	13
Family Medicine	9	9
Family Medicine (Residency)	50	38
General Family Medicine	6	3
General Practitioner	3,348	3,155
Geriatrics	4	2
Human Genetics	6	0
Infectious Diseases	5	4
Neonatology	14	7
Nephrology	10	8
Neuro-Psychology (Mtro.)	5	0
Occupational Medicine	8	7
Optometry (Licentiate)	11	5
Pathological Anatomy	27	27
Pediatric Pneumology	4	3
Pediatrics	99	54
Physiological Science (Doctor)	16	8
Physiology (Mtro.)	8	5
Radiodiagnosis	31	27
Radiology	20	15
Rehabilitation Medicine	38	13
Social Service Investigations (Mtro.)	9	7
Sociomedical Epidemiological Science (Mtro.)	15	12
Sociomedical Occupational Science (Mtro.)	4	3

Source: Derived from SEP, "Total quinquenal de 1945-2000 por institución, sexo, y denominación médica: Universidad Nacional Autónoma de México (Médico Cirujano)," December 5, 2000, 67-79.

area during the 1990s. From 1995 to 2000, for example, 4,003 (52.2%) of graduates were women and 3,662 (47.8%) were men.

An analysis of medical specialties by gender at the UNAM from 1995-1999, however, suggests significant segregation of tasks within the profession despite

6 percent of doctors in 1950 compared to 9 percent in Mexico. Similarly to the United States, "it was not until the 1970s that dramatic alterations in the numbers of women in medical schools again occurred." See Morantz, "Introduction: From Art to Science: Women Physicians in American Medicine, 1600-1980," in *In Her Own Words: Oral Histories of Women Physicians*, Regina Markell Morantz, Cynthia Stodola Pomerleau, and Carol Hansen Fenichel, eds. (Westport: Greenwood Press, 1982), p. 23.

TABLE 7
MALE DOMINANCE IN MEDICAL SPECIALTIES: UNAM, 1995-1999

<i>Medical Specialty</i>	<i>Females</i>	<i>Males</i>
Anesthesiology	344	267
Angiology	5	1
Cardiology	78	9
Cardiovascular Surgery	13	0
Critical Care Medicine	47	23
Gastroenterology	12	8
General Surgery	285	40
Gynecology and Obstetrics	344	190
Internal Medicine	181	89
Legal Medicine	10	5
Medical Pediatrics	235	233
Medical Sciences (Doctor)	8	6
Medical Sciences (Mtro.)	39	23
Medicine (Mtro.)	6	2
Neurology	20	2
Neuroscience (Mtro.)	6	2
Neurosurgery	28	3
Nuclear Medicine	5	3
Ophthalmology	116	90
Orthopedics	18	1
Otorhinolaryngology	88	41
Pediatric Surgery	59	9
Physiology (Doctor)	4	2
Plastic Surgery and Reconstruction	86	26
Pneumology	41	12
Psychiatry (Mtro.)	3	2
Psychology	41	13
Traumatology and Orthopedics	171	12

Source: Derived from SEP, "Total quinquenal de 1945-2000 por institución, sexo, y denominación médica: Universidad Nacional Autónoma de México (Médico Cirujano)," December 5, 2000, 67-79.

recent numerical parity. Tables 6 and 7 demonstrate that women predominate in areas such as rehabilitation medicine (74.5%), physiological medicine (66.6%), neonatology (66.6%), dermatology (65.4%), pediatrics (64.7%), and family medicine (56.8%) whereas men predominate in areas such as traumatology (93.4%), general surgery (87.7%), plastic surgery and reconstruction (76.8%), otorhinolaryngology (68.2%), and internal medicine (67%).⁶¹ Appar-

⁶¹ Top six female-dominated specialties with a minimum of 20 total graduates in field. Top six male-dominated specialties with a minimum of 100 total graduates in field. SEP, "Total quinquenal de 1945-

ently, as women have gained access as general family practitioners and in areas that specialize in the illnesses of women and children, men have moved into more prestigious specialties. Perhaps the dramatic increase in university-trained physicians since 1945 contributed to a diminution in the exclusivity and prestige of the profession itself, a belief by some that general medicine is now women's work, and the decision on the part of male medical students to differentiate themselves by acquiring higher professional status in more specialized and lucrative fields.⁶² As Luis Durán-Arenas states, "while in recent years the number of male and female students has reached equilibrium in medical schools, women in the job market occupy positions of lesser prestige and are concentrated in lower income levels within the medical profession."⁶³

Government officials and physicians in early-Republican Mexico established the School of Mexico in order to prepare informed and skilled medical professionals. Unlike the Protomedicato, which discouraged women from entering the ranks of titled practitioners, the School of Medicine encouraged midwives to take classes in the newly incorporated field of obstetrics medicine. Course outlines, grade books, inter-departmental correspondence and faculty searches suggest that obstetrics became a respected branch of the profession by the end of the nineteenth century. Obstetrics classes held women to the same rigorous and quantifiable standards as male students of medicine. Government censuses and fiscal documents reveal that midwives ultimately gained respect in their field as professionals and received decent salaries. Mexican physicians did not exclude women from recognized obstetrical practice or turn midwifery into a male-dominated activity. Statistics from Mexico's Secretary of Public Education demonstrate the persistence of women as obstetrics specialists and their inclusion in other branches of medicine. Further specialization within medicine, however, has not eliminated segregation of tasks within the profession or permitted female doctors to receive equal prestige or remuneration.

2000 por institución, sexo, y denominación médica: Universidad Nacional Autónoma de México (Médico Cirujano)," December 5, 2000, pp. 67-79. Only specialties with five or more graduates (56/105) were included in tables 6 and 7. Translations for medical specialties are provided in Francisco Ruiz Torres, *Diccionario de términos médicos: Inglés-español, español-inglés* (Madrid: Editorial Alhambra, 1986).

⁶² Roberto Uribe-Elías, "Corrientes actuales en la formación de médicos," *Gaceta médica de México* 125 (1989), p. 126. Judith Lorber, "Why Women Physicians Will Never Be True Equals in the American Medical Profession," in *Gender, Work and Medicine: Women and the Medical Division of Labour*, Elianne Riska and Katarina Wegar, eds. (London: Sage Publications, 1993), p. 65.

⁶³ Luis Durán-Arenas, "Determinantes del estatus profesional de los médicos en México," *Gaceta médica de México* 137 (2001), p. 518. Gender inequalities within professional medicine result from cultural and social barriers, the desire or need for many women to have a flexible work schedule in order to meet family obligations, and perhaps even a greater willingness on the part of women to provide primary health care. See Margaret E. Harrison, "Hobby or Job? Mexican Female Health Workers," *Health Care for Women International* 15 (1994), pp. 397, 409.

APPENDIX 1

STUDY PLAN FOR STUDENTS OF MIDWIFERY IN THE OBSTETRICS THEORY COURSE, 1895

1. Anatomical study of the pelvis and its contents.
2. Physiology of the female genital organs.
3. Development of the ovule and the study of the fetus.
4. The study of pregnancy and its hygienic care during this state.
5. The study of normal childbirth and postpartum care.
6. The study of puerperium and special care for the newborn.
7. The study of childbirth complications and ways to combat them.
8. The study of difficult childbirths.
9. The study of pathological puerperium.
10. The study of operations that may be undertaken.
11. The study of miscarriage.
12. The study of rules and legal ordinances relative to midwives.

Source: AHFM: Escuela de Medicina y Alumnos, leg. 192, exp. 1, fol. 39.

APPENDIX 2

STUDY PLAN FOR FEMALE STUDENTS IN THE CLINIC CLASS AT MEXICO'S SCHOOL OF MEDICINE [1899]

1. Oral lessons related to asepsis and antisepsis, and the practical application of the most common antisepsis measures.
2. Oral lessons related to pregnancy, the delivery and puerperium.
3. The personal assistance by a professor or chief clinician during delivery due to the seriousness or importance of the case.
4. Practice with mannequins.
5. Oral explanations of situations that occur when female students assist.
6. Care required by the patient and the fetus at the time of delivery.
7. Knowledge of those means that should be employed to combat hemorrhages.
8. Daily assistance and shifts by [students in] alphabetical order at the *Casa de Maternidad*.

Source: AHFM, Escuela de Medicina y Alumnos, leg. 193, exp. 2, fol. 15.

APPENDIX 3

LETTER WRITTEN BY THE BOARD OF DIRECTORS OF THE LEAGUE OF MIDWIVES SOCIETY TO PRESIDENT PORFIRIO DÍAZ IN 1892

Qualified professors of obstetrics of the Faculty of Medicine of Mexico... [in] the Federal District . . . have authorized us to partake in minor obstetrics operations . . . [and] we are qualified to execute those operations. . . . Students of medicine only take one year of obstetrics (5th year of their studies) whereas we [thoroughly] study

the profession, divided into two years, and then we continue to attend classes until we pass the professional exam. Their same teacher is our teacher. We study the same material. We take the same hours of class. And finally, in the pursuit of our profession, we have acquired great experience since we exclusively dedicate ourselves to this field to the extent that we may well be called experts. If an individual midwife has made a blunder in the exercise of her profession, she is solely responsible. But under no circumstance should responsibility be collective because that would be the equivalent of collectively holding responsible all engineers just because one of them had poorly constructed a building and had not followed the rules of art. Who can claim that he has not committed errors in his profession? No one is infallible on this planet. . . . If we have received and obtained our diploma it is because we demonstrated competency in our exams. How can it be that today, in the nineteenth century, with all its progress, advancement, and civilization, when even today's campesino has rudimentary knowledge, that we are prohibited from exercising a part of our profession, in those things that we know and are capable of doing? . . . We cannot understand [the reason for these prohibitions] and can only speculate on the selfishness of the doctors who participated in the formulation of the aforementioned statute; they have taken away the lucrative part of our profession, leaving us to perform a role that a *rinconera*, as untitled and uneducated midwife aficionados are vulgarly called, could do. . . . Mexico, April 23, 1892

[Signed] Rómula Bravo, President of the Society

Source: AH: CESU, *Escuela Nacional de Medicina, Institutos y Sociedades Médicas, Sociedad Liga de Parteras, caja 42, exp. 1, fols. 1-2, 4-13.*

APPENDIX 4

RESPONSE BY DR. ANDRÉS A. QUIJANO TO ALLEGATIONS MADE BY THE LEAGUE OF MIDWIVES SOCIETY

Some midwives have launched a discourse to the President of the Republic complaining that the edict issued this past March by the Supreme Board of Health infringes upon certain constitutional articles by severely limiting their professional practice, and that it hurts the interests of these women while favoring those of doctors. . . . Our legislation guarantees all rights including free trade, but the police seize rotten meat that it finds in the marketplace and punishes the merchant who traded in rotten meat. The right of midwives to freely practice their art is indispensable, but the Board does not have fewer rights itself, [for it is] duly authorized to establish limits and issue edicts intended to stop excesses and avoid atrocities. That is to say that an individual right, though it should be respected, means little when it injures that of others. These complainers say that they are being impeded from carrying out their profession. Nothing could be further from the truth: what [the edict] does is to ensure that they do not go further than they should go. Ordering them not to intervene by themselves in complicated deliveries, as they are called, in which the lives of two persons are almost always seriously endangered, neither places obsta-

cles nor difficulties before them. It simply makes known that they are not to venture [too far], and this is to the advantage not to doctors, but rather to children and mothers; that is to say, to society. . . . The midwives reassure [us] that they know the obstetrics subject area better than do students of medicine because—they say—though [the classes] are the same for both, and given by the same professors to both male and female students, that [the female students] take them for two years and [the male students] during only one year. . . . The male student when he begins this course—which he does during the final year of his studies—already has study skills, which should not be underestimated, and brings with him a wealth of knowledge which helps him enormously in this new field: he knows physics, chemistry, anatomy, physiology, pathology, etc., etc., etc. And the female student, what does she bring when she enrolls in the school? Except for a case [in which an individual has received] an exceptionally careful education, [she brings] no more knowledge than that which a ten-year old child possesses: knowing how to read, write and count. . . . And not because women, in general, are less capable than men when it comes to studying the sciences and practicing all of the arts, but rather because of the present deficiency in their scientific schooling which makes them inferior. Amplify this aspect and there will be no objection in granting them more confidence. . . . '[Midwives claim that doctors] have taken away the lucrative part of our profession. . . .' Now we come to the crux of the matter. The lucrative aspect! . . . To suppose that [doctors] have been guided by such a sad objective as to compete with midwives over the financial spoils of a few sick women [and] take advantage of their own elevated social position . . . can only make one smile at such nonsense.

[Signed] Dr. Andrés A. Quijano

Source: Andrés A. Quijano, "Dos palabras: A propósito de las parteras y su reglamento," *La medicina científica* 5 (June 1892), pp. 174-176.

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