

The Feminization of the Health Care Workforce: Implications for Texas - 2011



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Executive Summary

The gender characteristics of health care professionals are changing, both in Texas and the nation. Of the 438,180 health care workers in the professions for which gender data were available in 2010, 74.1% were female. The increasing proportion of females in the health care workforce will bring with it new benefits and new challenges. More studies have been conducted on the feminization of the medical profession than for other health professions; therefore, most of the information presented in this report pertains to physicians. The main findings in this report are:

- In Texas, several professions that have historically been predominately male have seen large increases in the percentage of females, and females now comprise the majority in some of those professions, including acupuncturists, physician assistants, pharmacists, and the primary care specialties of pediatrics and geriatrics.
- Men are not making the same rapid gains in the traditionally predominately-female professions, such as nursing, as women are making in the traditionally predominately-male professions; however, the percentage of males in some of those professions has increased slightly.
- National studies have shown that female health care providers are less likely than males to practice in rural areas, possibly due to lack of job opportunities for spouses, school opportunities for children, long hours and on-call schedules. In general, this trend holds for Texas; however, the data indicate that for professions that have large female majorities, such as nursing, females are slightly more likely than males to practice in a rural area. There may be increased shortages of health care providers in the rural areas of Texas if this disparity continues.
- Studies across the nation have shown that women work fewer hours than men, and the available Texas data for physicians, physician assistants, and nurses also support this conclusion. This trend suggests that more Full-Time-Equivalent (FTE) workers may be needed as the professions become more feminized.
- Various studies have shown that:
 - Women work fewer hours over the course of their professional work life than men.
 - Married female physicians work fewer hours than single female physicians.
 - Married female physicians worked fewer hours than married male physicians.
 - Female physicians with children worked as many hours as female physicians without children.
 - Female physicians who were parents worked fewer hours than their male counterparts who were parents.

- Male physicians who were parents worked longer hours than their male colleagues who were not parents.
 - Some married female physicians may work fewer hours because they enjoy the flexibility of combined family incomes.
 - Studies indicate that female physicians experience more stress due to balancing work and family than do male physicians.
 - Female physicians may work part-time or take time off from their careers to raise children, but often return to work and may retire later in life than do male physicians.
 - The number of hours worked by physicians – and perhaps other health professionals - is related to gender, marital status, parental status, and income, and not overly influenced by any single one of those factors.
- Studies have found that male physicians and female physicians have different practice styles. Female physicians are more likely to:
 - Spend more time with their patients.
 - Focus more on preventive care.
 - Foster more collaborative relationships with their patients.
 - Serve uninsured patients.
 - Patients often prefer a physician of a specific gender; this is seen most commonly in the obstetrics-gynecology specialty.
 - Over time, smaller percentages of both male and female physicians are selecting careers in primary care; in 1984, 46.3% of Texas' physicians practiced in primary care, compared with 42.5% in 2010. Women are more likely than men to choose primary care, an uncontrollable lifestyle specialty.
 - Women are underrepresented in the senior ranks of academic medicine. Since the influence of role models plays a more important role for women, this could have a negative effect on the specialty choices of female medical students.

A full analysis of the increasing role of women in the health professions workforce in Texas is hampered by the fact that gender data have not been collected for professions comprising 40.8% of the healthcare workforce in Texas.

Introduction

The majority of health care workers are women.¹ In Texas, of the 438,180 health care workers in the professions for which gender data were available in 2010, 74.1% were female. Over the last few decades, the percentage of women in the health care workforce in Texas has increased, and some professions that have been traditionally comprised of men are now seeing a higher proportion of women entering the profession. In some professions, such as physician assistants, the number of women has increased rapidly and has surpassed the number of men. This feminization - the increase in the number of female workers - of the workforce is the focus of this report produced by the Health Professions Resource Center (HPRC), located in the Center for Health Statistics at the Texas Department of State Health Services. HPRC examined the changing demographics of various health professions in Texas and the nation, and researched the possible reasons for these changes and the implications they may have on the health care workforce in the future. The feminization of the health care workforce will bring new benefits and new challenges for the various professions, and these cannot be ignored when forecasting the supply of health professionals for adequacy. This second edition is an update from a previous report released in 2006. That report referenced several studies on the national level; unfortunately, most of those studies have not been updated, therefore, some of the information and references in this report are repeated from the first edition. It is unknown if there have been any significant changes for some of these indicators on a national level.

The data for Texas included in this report were obtained from the health professions licensing boards. Unfortunately, several of them did not fully collect gender information; therefore, not all health professions were studied for this report, and the full impact of the feminization of the workforce in Texas may not be completely understood. Of the 44 professions tracked by HPRC, 21 did not report gender as of 2010. Some of those professions comprised a significant portion of the health care workforce, such as certified nurse aides (130,570 persons), EMS personnel (56,381 persons), massage therapists (25,030 persons), medical radiologic technologists (21,101 persons), respiratory care practitioners (12,378 persons), and licensed professional counselors (15,781 persons). Some of those professions were predominately female, so the full scope of participation of females in the healthcare workforce is understated due to this lack of information. The professions for which little or no gender information were collected include 302,494 active providers, or 40.8% of the healthcare workforce studied by the Health Professions Resource Center.

Demographics of Texas

In 2010, the population of Texas was 49.8% female and 50.2% male. In 1990, the population was 50.7% female and 49.3% male, and in 2005, 50.1% were female and 49.3% were male, indicating that the population fluctuates between male and female majorities over time, but for the most part there has been parity between the genders in the overall population. However, parity has not been achieved in many health professions. It is desirable to have a workforce that mirrors the population of Texas, both racially and in terms of gender. For this reason it is considered a positive development

when the representation of females in the traditionally predominately-male professions of the health care workforce increases; however, these changes may bring new challenges.

Traditionally Predominately-Male Professions

Of the professions for which HPRC was able to perform a gender analysis, several have historically been predominately male (Table 1). Also, the individual primary care (PC) physician and dental sub-specialties were historically predominately male. HPRC compared the most recent data available, 2010, with data from prior years. Table 1 shows the change in the percent of female representation over time in the professions that have been predominately male in the past. Between 2000 and 2010, acupuncturists, pharmacists, and physician assistants shifted from predominately male to predominately female, and the primary care sub-specialties of pediatrics and geriatrics experienced the same shift. The rest of the historically predominately-male professions all experienced increases in the percentage of females in their workforce, as well as the other dental and physician primary care sub-specialties.² However, although the percentage of females has been increasing for all of these professions, several are still far from becoming predominately female.

Table 1. Change of Female Representation in Traditionally Predominately-Male Professions, Texas

Profession	% Female in 2000	% Female in 2005	% Female in 2010
Acupuncturists	46.3	57.5	62.6
Chiropractors*	21.1	21.4	24.4
All Dentists	N/A	21.7	27.3
Dental Specialists only	N/A	13.7	16.5
Primary Care Dentists	18.5	23.1	29.1
Optometrists	31.4	37.7	43.3
Pharmacists	43.4	47.3	52.3
DPC Physicians (all)	20.1	23.8	27.5
DPC Physicians Specialists – (non PC)	15.0	17.2	20.1
PC Physicians	26.4	32.2	37.4
Family Practice	21.7	26.9	31.0
General Practice	13.0	15.4	17.8
Obstetrics-Gynecology	28.0	37.0	43.8
Pediatrics	46.7	51.1	57.4
Internal Medicine	22.2	26.8	32.0
Geriatrics	27.3	38.7	60.4
Physician Assistants	49.6	54.6	60.7
Podiatrists	16.3	17.9	21.2
Veterinarians	32.0	36.9	44.6

*gender data were not available for chiropractors for 2005; 2004 data were used

Traditionally Predominately-Female Professions

Ten of the health professions analyzed for this report have traditionally been predominately female (Table 2). The percentage of females has increased in some of those professions, while for some, the proportion of males increased. Some of these professions have experienced only a negligible change in the proportions of males and females over the years. Men are not making the same gains in the predominately-female professions as females are making in the predominately-male professions. Though in the context of this report these professions are not becoming more feminized, the fact that they have been and remain overwhelmingly female suggests that any issues related to women in the workforce have played and will continue to play a large role in these professions.

Table 2. Change of Female Representation in Traditionally Predominately-Female Professions, Texas

Profession	% Female in 2000	% Female in 2005	% Female in 2010
Dental Hygienists	98.7	98.5	98.2
Licensed Chemical Dependency Counselors	N/A	59.7	63.7
Licensed Vocational Nurses	91.0	90.9	89.7
Registered Nurses	91.6	90.5	88.9
Nurse Practitioners	95.3	91.9	89.8
Occupational Therapists*	88.4	88.0	87.9
Occupational Therapy Assistants*	82.6	84.6	84.6
Pharmacy Technicians	N/A	76.0	74.8
Physical Therapists*	71.2	71.2	71.0
Physical Therapy Assistants*	72.3	72.5	72.1
Social Workers*	81.3	82.6	83.5

* Gender data were not available for occupational therapists, occupational therapy assistants, physical therapists, or physical therapy assistants for 2000; 2001 data were used. Gender data were not available for social workers for 2000 or 2005; 2001 and 2004 data were used, respectively. The gender data for social workers contained too many unknown values for all years after 2007 to allow for a meaningful analysis, therefore 2007 data is used in the table in place of 2010.

HPRC attempted to analyze the gender characteristics of sex offender treatment providers, but there were too many unknown values every year to be able to conduct a meaningful analysis. From the available information, there appears to be roughly a 50/50 split between males and females, and this hasn't changed significantly in the last decade.

As Table 1 shows, most professions that have historically been 60% female or less are seeing increases in the percentage of females, but as Table 2 shows, many professions that have had very large percentages of females (>70%) have seen slight decreases. However, the decreases were small; for example, between 2000 and 2010, the percentage of registered nurses that were female decreased from 91.6% to 88.9%.

Gender and Choice of Practice Location

One of the differences between male and female health care providers is their choice of practice location. Female physicians are more likely to practice in urban rather than rural areas of the United States.³ One reason for this could be concerns about the quality of life in rural areas, such as lack of job opportunities for spouses and school opportunities for children.⁴ Other reasons women may choose not to work in rural or underserved areas is that physicians in these areas often work extremely long days and have frequent on-call schedules that give them little time to engage in relationships or family life.⁵ Women physicians are often under stress from the joint demands of their profession and raising a family. Stress reduction may be achieved by choosing to live in an area that provides geographic proximity to work, home, schools, and daycare.⁶

Table 3. Percentage of Males and Females Practicing in Rural Counties, Texas

Profession	% of Males Practicing in Rural Counties		% of Females Practicing in Rural Counties	
	2005	2010	2005	2010
Acupuncturists	1.1	0.9	2.9	2.5
Chiropractors*	9.3	8.7	5.6	5.0
Dentists (all)	9.3	8.1	3.9	4.0
Dental Specialists	4.1	2.6	2.5	2.6
Primary Care (General) Dentists	10.4	9.3	4.0	4.1
Direct Entry Midwives	33.3	37.5	9.7	6.5
Licensed Chemical Dependency Counselors	12.6	11.4	12.6	12.1
Licensed Vocational Nurses	12.8	11.9	22.4	21.0
Registered Nurses	8.1	7.2	9.0	8.3
Nurse Practitioners	14.0	9.5	8.7	8.0
DPC Physicians (all)	8.1	7.3	4.7	4.4
DPC Physicians - non PC	5.3	4.9	3.2	3.2
PC Physicians	12.4	11.7	5.7	5.3
Family Practice	18.4	17.4	8.8	7.8
General Practice	20.7	18.9	10.7	9.0
Obstetrics-Gynecology	7.3	7.0	3.2	3.2
Pediatrics	5.7	5.7	4.2	4.0
Internal Medicine	9.1	7.8	5.4	4.9
Geriatrics	0.0	5.3	0.0	10.3
Pharmacists	12.7	11.7	6.1	6.1
Physician Assistants	15.2	11.7	9.0	7.2
Physical Therapists	10.9	10.1	6.5	6.7
Podiatrists	6.7	6.4	5.5	5.4
Occupational Therapists	8.3	6.5	5.8	6.2
Optometrists	10.8	9.7	4.6	4.7
Sex Offender Treatment Providers	8.1	9.8	12.0	11.6
Social Workers*	9.5	8.9	8.9	8.9
Veterinarians	21.2	20.4	9.9	9.3

*Gender data were not available for chiropractors and social workers for 2005; 2004 data were used.

The available data indicate that for most professions in Texas, males are more likely than females to practice in the rural areas (Table 3). While the vast majority of health professionals practice in the urban areas, a higher – although in some cases only a slightly higher – percentage of males than females choose to practice in the rural areas. The exceptions were acupuncturists, dental specialists, licensed chemical dependency counselors, registered nurses (but not nurse practitioners), licensed vocational nurses, sex offender treatment providers, social workers, and the physician sub-specialty of geriatrics. In most cases, these are professions that are predominately female, which may account for the higher percentages in the rural areas; in those professions there are high percentages of females in the rural areas simply due to the fact that most of the providers are female. However, not all professions that were predominately female had larger percentages in the rural areas, for example, physician assistants. If this disparity between the genders in choice of practice location continues, then as the various professions become more feminized, this may contribute to future shortages of health care providers in the rural areas. Also of concern is the fact that for the workforce in general, the percentage practicing in the rural areas has been decreasing over the years, portending an increasing shortage of health providers in the rural areas.

Gender and Practice Hours

The Bureau of Labor Statistics reports that in 2009, 59.2 percent of women in the U.S. were in the labor force; this was a decrease from the peak of 60% in 1999.⁷ A study a decade ago found that half of the women who took a leave of absence to give birth returned to work within 12 months.⁸ Conversely, some may not have returned at all, and others took a more extended leave of absence. One of the reasons that the increasing number of women in the health care workforce is of interest is that studies have shown that they are more likely than men to work fewer hours due to family obligations. A number of studies have documented that women work fewer hours over the course of their professional work life than men;⁹ some studies have shown that female physicians work seven to fifteen fewer hours per week than male physicians.¹⁰ The resulting decrease in Full-Time-Equivalent (FTE) workers due to women working part-time could lead to a shortage that may not be readily apparent if one is examining only the overall number of providers.

A study by the American Academy of Pediatrics Workforce Subcommittee on Women in Pediatrics and the American Medical Association's Women Physicians Congress reported that between 1993 and 2000, the percentage of practicing women pediatricians increased from 36% to 45%. During the same time, the number of pediatricians who defined their positions as part-time increased from 11% to 15%.¹¹ Some experts believe that as the number of women physicians increases among all specialties, medicine will face changes and may need to expand its workforce to continue to ensure patient access.¹¹ As the percentage of women in medicine increases, practice patterns will begin to differ, and the result may be that more than one FTE physician will be needed to fill a vacancy left by a male physician leaving practice.¹² However, many of those physicians who work part-time may do so for only a portion of their careers, so researchers are divided on whether a shortage will develop due to this.¹¹ Increasing the complexity is the reality

that although women may work fewer hours per week or take time off for child rearing,¹³ women may tend to stay in the workforce longer and retire later in life.^{14,15}

Some female physicians may wish to work part-time but do not do so because they feel there could be negative consequences. They may worry about how they are perceived by other physicians in their practice, since other full-time physicians may have to pick up some extra work,^{6,11} and some practices may be reluctant to pay benefits to several part-time physicians rather than fewer full-time physicians.¹¹ And, liability insurance rates are not prorated by the number of hours worked.¹¹ Patients may become reluctant to have a physician who may not always be accessible.

There have been numerous studies exploring the factors of marriage and children and how these affect the number of hours worked by female physicians. Some of these studies have yielded seemingly contradictory results. One study found that married female physicians worked less than single female physicians; however, married male physicians did not work less than single male physicians.¹⁶ Married female physicians also worked fewer hours than married male physicians, but one study suggested that this may not be solely due to caring for children as might be expected, as the study showed that female physicians with children worked as many hours as female physicians without children.¹⁶ Rather, some married females may work fewer hours because they enjoy combined family incomes that are high enough to allow them to have more flexibility in the number of hours they work each week.¹⁶ Female physicians may be more likely to find themselves in that situation: in response to a survey, 65% of married male respondents indicated that their spouse also worked, while 95% of married female respondents indicated the same.¹⁰

Other studies have found that it was not marital status that had an effect on the number of hours worked, but parental status; men and women without children worked comparable hours, but female parents worked fewer hours than male parents.¹⁰ Female physicians who were parents spent fewer hours per week seeing patients than female physicians who were not parents, while male physicians who were parents actually worked longer hours than their male colleagues who were not parents.¹⁰ It was suggested that male parents worked longer hours for the increased income needed to raise a family,¹⁰ but that argument could also be applied to female physicians: a single mother might need to work more hours, for the increased income, than a married mother. Indeed, as stated above, shorter work weeks for women may not be the result of childcare, but rather marital status.¹⁶ So, while the studies are not conclusive, it appears that the number of hours worked by physicians – and perhaps other health professionals – is a function of gender, marital status, parental status, and income, and not specifically influenced by any single one of those factors.

A complete comparison of the number of hours worked between male and female providers in Texas is not possible without access to more data than were available. The information is self-reported by the provider on the license application at the time of license renewal, so it must be noted that it may not be representative of the actual hours worked at different times of the year. Due to incomplete data and a high number of

unknown values, 2008 was the most recent year in which HPRC had enough data to analyzed the practice time information supplied for physicians. Table 4 compares the practice hours of primary care physicians in 2008 with the 2005 data from the first edition of this report.

Table 4. Hours Worked Per Week by Gender – Primary Care Physicians, Texas

Hours Worked per Week	% of Total Females		% of Total Males	
	2005	2008	2005	2008
40 or more	71.5	68.2	83.5	79.9
20 – 39	22.4	24.9	12.2	14.3
11 - 19	3.1	3.1	1.9	2.0
1 – 10	2.2	2.0	1.7	1.9
Unknown	0.8	1.7	0.6	2.0

Just as in 2005, the 2008 data appears to indicate that a smaller percentage of females were working forty or more hours a week than the males, while a significantly greater percentage were working 20-39 hours. However, the percentages of physicians working forty or more hours have dropped from 2005 to 2008 for both males and females. This indicates that in general, primary care physicians are working fewer hours than in the past, and this could be a contributing factor to shortages.

The trend of males working more hours than females also holds true for nursing, a predominately female profession, as Table 5 shows.

Table 5. Percentage of Nurses Working Full Time in Texas

		2005	2010
Registered Nurses	Male	94.5	95.5
	Female	84.9	86.1
Licensed Vocational Nurses	Male	91.0	92.2
	Female	85.8	87.9

The Texas State Board of Dental Examiners reports practice time in a different way, by reporting the number of weeks per year in the office. Unfortunately, 86% of the female dentists and 52% of the male dentists did not report the number of weeks they practiced. Therefore, no concrete conclusions can be drawn, but of those dentists who did report their practice hours, 96% of the females reported working forty or more hours a week, compared with 98% of the males.

Although 18% of the physician assistants did not report their practice hours in 2010, of those who did, 60.9% of the males reported working forty or more hours a week, compared with 48.8% of the females.

HPRC compared practice hours between rural and urban locations. For primary care physicians, in both the rural and urban locations, a higher percentage of males than females reported working forty hours or more a week. And, for both males and females, the percentages of those working forty or more hours a week were higher in the rural areas than in the urban areas (Table 6).

Table 6. Hours worked per Week by Gender and Geographic Location, Primary Care Physicians

Hours Worked per week	Rural		Urban	
	% of Males	% of Females	% of Males	% of Females
40 or more	80.1	71.2	79.8	68.0
20 – 39	14.3	21.8	14.3	25.1
11 - 19	2.1	3.0	1.9	3.1
1 – 10	1.9	2.4	1.9	2.0
Unknown	1.6	1.5	2.1	1.7

Table 7 shows that for registered nurses, a slightly higher percentage of both males and females practiced full time in the urban areas than the rural areas.

Table 7. Hours worked per Week by Gender and Geographic Location, Registered Nurses

Hours Worked per week	Rural		Urban	
	% of Males	% of Females	% of Males	% of Females
Full Time	93.5	85.8	95.7	86.2
Part Time	6.5	14.2	4.3	13.8

Implications of Feminization of the Workforce

One concern that some have expressed regarding the feminization of certain professions is the effect that it may have on how society perceives those professions. Traditionally, predominately-female professions have had lower average salary levels than predominately-male professions, according to the theory of comparable worth, which suggests that the fact that women are the main holders of certain jobs leads to their pay being unusually low.¹⁷ One study conducted in New York found that females working in hospital medicine earned less than males, despite similar work schedules and commitments.¹⁸ Another study found that the average salaries for female psychiatrists were 38% lower than those for men.¹⁹ Another example is the disparity between salaries of physicians and nurses. An analysis of national-level census data found that nurse wages are held down by the fact that the occupation is predominately female.¹⁷

A recent study in New York found that "The unexplained trend toward diverging salaries appears to be a recent development that is growing over time."²⁰ "Although the absolute number of female physicians in primary care has indeed been rising, proportionally a

decreasing percentage of female physicians have chosen to enter primary care fields."²¹ That study included only internal medicine, family practice, and pediatrics as primary care. However, this does not appear to be occurring in Texas, where the proportion of females in those specialties rose from 42.2% in 1995 to 48.1% in 2005, before falling to 47.5% in 2010. Including all professions that Texas considers to be primary care (general practice, geriatrics, and obstetrics and gynecology, in addition to those above) the proportion of females increased from 54.9% in 1995 to 59.5% in 2005, before falling to 57.9% in 2010.

The study went on to state that it is possible that the continued influx of women into medicine has reached a point where physician practices may now be offering greater flexibility and family-friendly attributes that are more appealing to female practitioners, but this may come at the price of lower pay. This suggests that the continued integration of women into the physician workforce is reshaping the practice and business of medicine in ways that need to be measured by other factors than salary. Thus, instead of being penalized because of their gender, female physicians may be seeking out employment arrangements that compensate them in nonfinancial ways, and more employers may be beginning to offer such arrangements.²⁰

In addition to salaries, there may also be a difference in status and influence between predominately-male and predominately-female professions.¹⁴ An example of this is the medical profession. The Medical Women's International Association has suggested that as the practice of medicine becomes more feminized, it may become a "pink collar profession," losing the status, influence, and monetary compensation traditionally attached to the practice of medicine.¹⁴ Women tend to choose the lower paying primary care professions, and since women often command lower salaries than men, increasing the number of female physicians with less earning power may lead to a reduced status of the medical profession.¹³ This could lead to a loss of medical school applicants for whom money is a priority, but the positive aspect is that the remaining applicants may have more interest in improving health care.¹³ However, as fewer physicians overall choose primary care, some residency programs may be forced to be less selective in their choice of applicants.²¹

The Feminization of Medicine

More studies have been conducted of the feminization of the medical profession than for other types of health care professions; therefore, more information is available about the possible implications for that workforce as more females enter the profession. A 2004 study found that while the total number of medical school students nationally decreased between 1995 and 2001, the number of male applicants dropped faster than the number of female applicants. Similar changes have been observed in the schools of pharmacy, dentistry, and veterinary medicine.¹² In 2003, the number of female applicants to medical schools exceeded the number of male applicants for the first time.¹² However, there is a vacillation between the numbers of male and female applicants and enrollees each year, and females have not yet achieved a clear majority in either case. Of the 1999-2000 first-year class nationally, 45.8% were women.²² Males comprised a slight majority (50.5%),

of those enrolled in Texas' medical schools in the 2008-2009 academic year; however, only in the last few years have the numbers of males and females been so comparable; in the 2000-2001 academic year, 56.2% were male, and in the 1995-1996 academic year, 60.9% were male, according to data from the Texas Higher Education Coordinating Board.

Several studies have found that the long hours and obligations of being a physician can place a strain on the physician's home life and marriage. This is even more pronounced when the physician is a woman, who also often bears a disproportionate share of the strains of childcare and household tasks. One study found that women reported more job stress, lower perceived wellness, and more burnout than did male physicians. The key contributing factors were insufficient resources, insufficient income, and lack of organizational attention to personal time. Female physicians had 1.5 times the odds of reporting burnout compared with male physicians.²³ Female physicians experience a work/family conflict more so than do male physicians; strains arise from obligations as a mother, wife, and professional.⁸ Women with children and families may struggle with child care issues, working-mother guilt, and isolation from their spouses.²⁴ One study showed that in the 1980's, more than 50% of female physicians married another physician.²⁵ This can place an even greater strain on the woman, if she must bear even more of the responsibilities of home and family as her husband works long hours. This illustrates the need for female physicians to be able to work fewer and more flexible hours, but this in turn may yield a need for more physicians in the workforce.

The feminization of medicine has had positive effects on the profession. According to an article by Shelley Ross, M.D., in the American Medical Association's September 2003 issue of *Virtual Mentor*, it is believed that medical students now prefer "working for a living," rather than "living to work," and that this change might be due, at least partially, to the feminization of the medical workforce.¹⁴ The result is a desire for more reasonable hours and more time for family and recreation, which benefits both the men and the women in the profession. Some changes that have been attributed to the influence of women on the medical profession are flexible residency training programs, part-time work, maternity and paternity leave, and tax benefits for daycare costs. It is also now more acceptable for both male and female physicians to refuse to work to the point of mental and physical exhaustion.¹⁴ An article in *TexasMedicine*, published by the Texas Medical Association, quotes a family physician as saying that "since women physicians have learned to balance their lives, men are also considering how to do the same for themselves."²⁶ Seeking balance between a physician's personal and professional life has positive results, as the suicide rate of physicians has been much higher than that of the general population.²⁷ This is often linked to depression, which can be caused by a perceived failure to live up to expectations.

Although issues in Texas and the U.S. can be different than those in other countries, some other countries have also reported on the feminization phenomenon. An article published in April 2008 by MailOnline (part of the Daily Mail, The Mail on Sunday, and Metro Media Group), suggested that there could be negative consequences to the continued feminization of the medical profession. The article stated that "too many female

graduates are bad for medicine, just as too many male ones have been in the past. The numbers of men and women entering medical school should roughly reflect the numbers in society. In primary care in some parts of the country, the number of women general practitioners exceeds men and soon male doctors will be in a minority."²⁸ This is a concern because "too many women doctors working fewer hours than men will ultimately result in a major shortage of general practitioners" and "the unwillingness of women general practitioners to work unsocial hours played a part in the ending of out-of-hours care by the vast majority of family doctors." However, the article went on to state that "there is evidence that care by women doctors leads to better outcomes for patients."

Patients and Gender Preference

The increasing number of women in the medical profession may have other results. Studies suggest that gender may play a role in a patient's selection of a physician. Women may prefer female physicians, particularly for preventive health and obstetric-gynecology services. A study of patient visits from 1995 to 2000 showed that female physicians were more likely than male physicians to see female patients in the specialties of primary care, psychiatry, dermatology, and pediatrics.²⁹ A survey of 200 male and female children ages 8-13 in New York found that 79% of the children preferred a female physician when being treated for lacerations in the emergency department; however, 60% of the parents preferred a male physician. Also, the physician's gender was more important to both the children and the parents than was the amount of experience the physician had.³⁰ In Texas, females became the majority in pediatrics in 2004 (Table 1).

In addition, more women today prefer a female gynecologist. Nationally, more than 70% of obstetric-gynecology residents are women, and medical schools have reported that as many as 80-90% of the students planning to enter the specialty are women.³¹ The demand for female ob-gyns is so high that some male doctors believe they are being discriminated against in hiring, and some doctors say that male medical students who express interest in becoming ob-gyns are frequently talked out of it by their advisors.³¹

Another study has shown that women prefer female endoscopists³² (gastroenterologists). This preference is reported as being strong enough to delay the procedure and to incur personal expense until a female endoscopist is available, and it is an absolute barrier to undergoing a colonoscopy by 5% of the women surveyed.³² A lengthy delay to see a female gastroenterologist could be a risk factor for these women. In Texas in 2010, only 10.1%, or 70, of the general gastroenterologists were women, an increase from 8.3% in 2005 and 2.6% in 1992. However, among pediatric gastroenterologists, 53.3% were women. Nationwide, women occupy only 16% of gastroenterology fellowship positions. One possible reason for this may be found in a study that has shown that female gastroenterologists do not earn salaries as high as those of men.³³

This preference of women practitioners by their patients illustrates the benefit of the feminization of these professions, and in some cases, demonstrates a need for more women in the workforce. A negative repercussion is that since many patients prefer to be treated by a physician of the same sex, as more females enter the primary care physician

work force, men may find it difficult to obtain care from a male physician,³⁴ and this could affect their willingness to seek care.

Differences in Practice Characteristics

Studies have shown that female physicians spend more time with their patients per visit, and tend to deliver more preventive services.^{29,35} However, spending more time with patients may mean that they only have time to see fewer patients, which in a fee-for-service setting means earning less money.¹⁴ Female physicians are more likely to communicate with their patients in a way that fosters collaborative relationships, and engages their patients as active partners in their care. Female physicians are also more sensitive to a patient's emotional concerns, and tend to offer more support and encouragement.³⁶ This could result in improved outcomes and declining malpractice suits.³⁷ Studies have also shown that female physicians are more likely to serve uninsured patients.¹³

Controllable vs. Uncontrollable Lifestyle Specialties

Studies of the effects that the feminization of medicine has had on the workforce often involve an analysis of controllable and uncontrollable lifestyle specialties. Both men and women are increasingly choosing "controllable lifestyle" medical careers.³⁷ Controllable lifestyle specialties have been defined as "those with practice styles that allow for more control over the timing and number of hours worked, and more personal time for leisure, hobbies, family, and avocational pursuits, and control of total weekly hours spent on professional responsibilities."^{21,38} Medical specialties that feature a controllable lifestyle include anesthesiology, dermatology, diagnostic radiology, emergency medicine, neurology, ophthalmology, otolaryngology, pathology, and psychiatry.^{21,38,39} Non-controllable lifestyle specialties include surgery, orthopedic surgery, internal medicine, family practice, pediatrics, obstetrics-gynecology, and urology.^{21,38,39} Unlike the first edition of this report, HPRC included general practice along with family practice/medicine as a non-controllable lifestyle specialty.

There are seemingly contradictory findings on this subject. Some studies have shown that there is a movement away from the uncontrollable lifestyle specialties, and some have suggested that the influx of women into the workforce may have contributed to this. Many studies indicate that both men and women are migrating away from primary care careers.²¹ The proportion of positions in family practice filled by US medical school seniors decreased from 73% in 1996 to 47% in 2002, and smaller decreases are being seen in some other primary care professions.³⁷ Part of this may be because many medical students are gravitating towards professions with a "controllable lifestyle."³⁷ In Texas, the percentage of DPC physicians who specialized in primary care decreased from 46.3% in 1984 to 43.9% in 2005, and then 42.5% in 2010, a small decrease over almost three decades. However, studies show that female medical students are more likely to select primary care (uncontrollable lifestyle specialty) and psychiatry (controllable lifestyle specialty) as specialties than are male students.^{8,13} Therefore, the feminization of primary

care may be a positive development, as the influx of women may keep the supply of primary care physicians from decreasing at an even faster rate.

One reason that women are choosing the primary care specialties may be that these specialties require fewer years of training than medical and surgical subspecialties, and therefore may allow more flexibility in actual practice lifestyle.⁸ In the past, the surgical specialties required more hours of resident duty than other specialties. However, a cap on the number of resident duty hours, enacted by the Accreditation Council for Graduate Medical Education in 2003, is expected to make the surgical specialties more appealing to women than they have been in the past, as they now won't be spending significantly more time in residency training than their counterparts in other specialties; the cap levels the field for all specialties.⁴⁰ The data for Texas indicates that the percentage of women choosing surgical specialties increased from 2.6% in 2000 to 3.0% in 2010, while for men, the percentage decreased from 13.9% to 13.2%.

Studies indicate that women choose specialties that allow for more flexibility and the ability to balance their lives.¹⁴ Yet, most of the primary care specialties are considered uncontrollable lifestyle specialties, a seeming contradiction. Studies have shown that female physicians are gravitating to obstetrics-gynecology and pediatrics.²¹ This may also be a simple supply and demand issue; as more female patients prefer female ob-gyns, there is a greater demand for women in that profession. The percentage of primary care physicians in Texas who were women increased from 17.3% in 1992 to 37.4% in 2010. Unfortunately, as is the case with some other professions with a large proportion of women, the fee schedules for these specialties are often lower than for predominately-male specialties.¹⁴

It must also be noted that in analyzing the data for Texas, obstetrics-gynecology was considered to be a primary care specialty.² This is based on the classifications of primary care used by the Bureau of Health Professions at the Health Resources and Services Administration (HRSA) for the purpose of the Health Professional Shortage Area designation program, and several studies have included obstetrics-gynecology as a primary care specialty.³⁹ However, some studies do not include obstetrics-gynecology as a primary care specialty, but rather a surgical specialty.⁶ This may skew the comparisons of the various studies. The primary care data for Texas follows the HRSA recommendations and also includes the specialty of geriatrics, which many studies do not include in their definition of primary care. However, the number of physicians specializing in geriatrics in Texas is so small (48 in 2010) that the effect of including them in the primary care numbers is negligible.

It must also be noted that lifestyles among and within specialties can be variable. The classification of specialties as having a controllable or uncontrollable lifestyle has a subjective component,³⁹ and many specialties are left out of the calculus entirely; if more of them were categorized as either controllable or uncontrollable lifestyle specialties, the numbers, and possibly the conclusions, may change. In 2010, 31.9% of DPC physicians in Texas chose specialties that were not included in either category, a significant increase from the 20.9% that did so in 2005. One factor behind this may be the increase in the

number of specialties reported by the Texas Medical Board; in 2005, there were 78 distinct physician specialties, and in 2010 there were 240. Many of the new specialties are combinations of different specialties such as "neurology and psychiatry," or "family practice – emergency medicine." In the case of the latter, both family practice and emergency medicine were distinct specialties in 2005; family practice being an uncontrollable lifestyle specialty and emergency medicine being a controllable lifestyle specialty. When disparate specialties are combined in this manner, it is difficult to determine exactly how they should be categorized, therefore creating a margin of error which may explain the large fluctuations in some of the numbers.

Women in Texas were practicing in uncontrollable lifestyle specialties in greater proportions than men, which mirror studies that show that a greater proportion of women chose uncontrollable lifestyle specialties than men.^{21,39} However, one study found that both genders demonstrated an overall decreasing interest in uncontrollable lifestyle specialties.²¹ This may be driven at least partially by the declining interest in primary care, although the results have been mixed for women, as they are increasingly choosing the primary care specialties of pediatrics and obstetrics-gynecology.³⁹ A separate analysis in the study eliminated the primary care specialties from the data, to control for the overall trend away from the primary care specialties, and the results still showed a preference towards controllable lifestyle specialties, particularly by men.³⁹ One national study found that the popularity of uncontrollable lifestyle specialties declined in the early 1990s, then increased until 1996, and then has been decreasing since.²¹ The Texas data indicates that, since 1995, there has been a net decrease in the percentage of men choosing uncontrollable lifestyle specialties, while there has been a net increase in the percentage of women; however, there has been a recent decrease in the percentage of women since 2005 (Table 8). The national study was based on career *preferences* of medical students, and not career choice; medical school students' choices may be based on their perceptions of specialties and not necessarily reality.³⁹ In any case, male physicians appear to be the driving factor in the overall decline in the percentage of physicians choosing uncontrollable lifestyle specialties. It also must be noted that an increase in the percentage of physicians choosing one type of lifestyle specialty does not necessarily imply a decrease in the other type, since there are many other specialties that are not included in either category.

The information in the following tables for the years prior to 2005 can be obtained from the first edition of this report released in 2006, available on the Health Professions Resource Center's website at <http://www.dshs.state.tx.us/chs/hprc/publicat.shtm>. This update focuses primarily on the changes from 2005 to 2010. From 2005 to 2010, the number of DPC physicians in Texas increased from 35,811 to 41,191, or 15%. The number of female DPC physicians increased by 27.5%. Table 10 depicts the numbers of physicians employed in the controllable lifestyle specialties for 2005 and 2010, the percentage of total DPC physicians they represent, and the percentage of those specialists who were female. The percent change during that time period is also included. It shows that the number of women practicing in the controllable lifestyle professions increased by 24.6%. The number of men in those professions increased by only 8.7%. Therefore, the number of women in the controllable lifestyle professions increased at a faster rate than

for men, but at a slower rate than for all female DPC physicians (32.8%). The data in Table 8 shows that while the gender composition of controllable lifestyle specialties in Texas is rapidly becoming more female, a smaller percentage of the total number of female physicians are practicing in these professions, lending credence to the studies that suggest that women are not solely responsible for the overall trend towards controllable lifestyle specialties.

Table 8 shows, of the total number of female physicians, the percentages that are in the controllable and uncontrollable lifestyle specialties; and the same for the men.

Table 8. Percentage of Men and Women by Specialty Lifestyle, Texas

Specialty Lifestyle	Men				Women				Total			
	1995	2000	2005	2010	1995	2000	2005	2010	1995	2000	2005	2010
Controllable	26.9	26.3	27.2	27.0	28.9	25.4	24.6	23.1	27.2	26.1	26.6	25.9
Uncontrollable	52.8	52.9	49.7	46.4	56.8	60.9	61.4	59.3	53.4	54.5	52.5	50.0

As a percentage of the total for each gender.

Many older national studies have shown that both men and women are increasingly choosing specialties with a controllable lifestyle,³⁹ but the most recent available data for Texas indicates that the percentage of women choosing controllable lifestyle specialties has dropped from 28.9% in 1995 to 23.1% in 2010. Although the percentage of male physicians who were practicing in controllable lifestyle specialties has increased slightly since 1995, there has been a net decrease for all physicians over the last fifteen years (Table 8).

Table 9 shows what percentage of the total number of physicians in the controllable lifestyle specialties are male and female; and the same for the uncontrollable lifestyle specialties. As the percentage of physicians who are female increases each year, so does the percentage of physicians who are female in both the controllable and uncontrollable lifestyle specialties; therefore, the percentages of males have been decreasing. But Table 8 shows that, of all the female physicians, the percentage that are choosing the controllable lifestyle specialties has been decreasing since at least 1995, while the percentage of men has been increasing. The opposite is true for the uncontrollable lifestyle specialties.

Table 9. Specialty Lifestyle by Gender

Specialty Lifestyle	Men				Women			
	1995	2000	2005	2010	1995	2000	2005	2010
Controllable	83.5	80.4	78.0	75.6	16.5	19.6	22.0	24.4
Uncontrollable	83.6	77.5	72.2	67.3	16.4	22.5	27.8	32.6

As a percentage of the total for type of specialty.

Some of the discrepancies between the numbers reported in the first edition of this report and the numbers in this edition may be due to the increasing number of classifications of specialties, and in the previous report, child psychiatrists were not included with

psychiatry as a controllable lifestyle specialty as they are in this report. But there have also been interesting trends in the numbers of female physicians in certain specialties.

Table 10 shows the numbers and percent increase of women specializing in the controllable lifestyle specialties, and the data indicates fluctuations for emergency medicine and neurology. From 1991 (gender information were not available in 1990) to 1995, the number of women specializing in emergency medicine increased by 34%, then increased by 71.8% from 1995 to 2000. From 2000 to 2005 the increase was 79.5%, and in 2005-2010 it was 73.5%.

From 1991 to 1995, the number of women specializing in neurology increased by 59.1%, then increased by 72.9% from 1995 to 2000. From 2000 to 2005 the increase was only 21.6%, and in 2005-2010 it was only 16.1%. So, even within the controllable lifestyle specialties, some have seen large increases in the numbers of women, while some have seen smaller increases over the last two decades. Overall, from 2005 to 2010, the number of females in the controllable lifestyle specialties increased by 24.6%, while the number of males increased by only 8.7%.

Table 10. Females in Controllable Lifestyle Specialties - Texas

Profession	2005 Total	% of DPC	% Female	2010 Total	% of DPC	% Female	% Change of Total	% Change Female
Anesthesiology	2,453	6.8	19.3	2,747	6.7	20.5	12.0	18.6
Dermatology	513	1.4	34.0	602	1.5	39.4	17.3	36.2
Diagnostic Radiology	702	2.0	17.4	739	1.8	17.6	5.3	6.6
Emergency Medicine	1,452	4.1	15.1	1,976	4.8	19.2	36.1	73.5
Neurology	599	1.7	20.7	633	1.5	22.7	5.7	16.1
Ophthalmology	961	2.7	17.2	969	2.4	18.9	0.8	10.9
Otolaryngology	549	1.5	10.7	530	1.3	11.9	-3.5	6.8
Pathology	807	2.3	32.7	800	1.9	34.5	-0.9	4.5
Psychiatry	1,488	4.2	33.0	1,687	4.1	37.5	13.4	28.7
Total	9,334	26.1	21.6	10,683	25.9	24.4	14.5	24.6

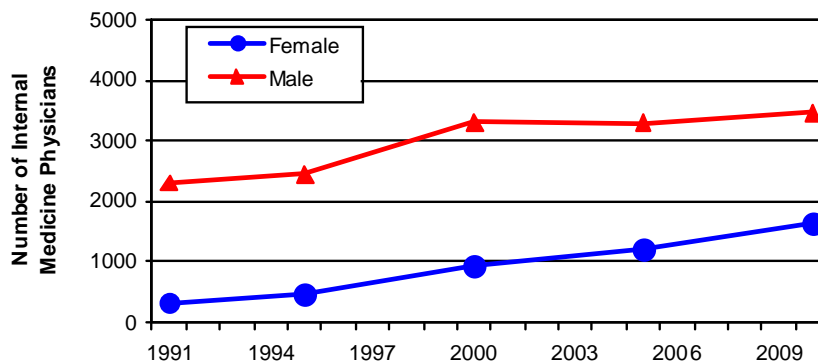
Table 11 shows that from 2005 to 2010, the percentage of DPC physicians in Texas who chose the uncontrollable lifestyle specialties decreased slightly, from 52.5% to 50.0%. And, the number of women who chose the uncontrollable lifestyle specialties increased from 27.8% to 32.6%. Overall, from 2005 to 2010, the number of females in the uncontrollable lifestyle specialties increased by 28.5%, while the number of males increased by only 2.2%. Therefore, the number of females increased by a greater percentage in the uncontrollable lifestyle specialties than the controllable lifestyle specialties, while the number of males increased by a greater percentage in the controllable lifestyle specialties than the uncontrollable lifestyle specialties.

Table 11. Females in Uncontrollable Lifestyle Specialties - Texas

Profession	2005 Total	% of Total DPC	% Female of Total	2010 Total	% of Total DPC	% Female of Total	% Change of Total Number	% Change Female Number
General Surgery	1,264	3.5	9.3	1,287	3.1	10.2	1.8	12.0
Orthopedic Surgery	1,280	3.6	2.5	1,303	3.2	2.2	1.8	-9.4
Obstetrics & Gynecology	2,266	6.3	37.0	2,362	5.7	43.8	4.2	23.4
Pediatrics	2,884	8.1	51.1	3,207	7.8	57.4	11.2	24.9
Family and General Practice	6,013	16.8	25.3	6,780	16.5	29.7	12.8	32.0
Internal Medicine	4,524	12.6	26.9	5,110	12.4	32.0	13.0	34.7
Urology	566	1.6	4.1	529	1.3	5.1	-6.5	17.4
Total	18,797	52.5	27.8	20,578	50.0	32.6	9.5	28.5

Another interesting fluctuation occurred with the uncontrollable lifestyle specialty of internal medicine. From 1991 to 1995, the number of women specializing in internal medicine increased by 42.2%, then increased by 101.1% from 1995 to 2000. From 2000 to 2005, the increase dropped to only 27.9%, and in 2005-2010 it was 34.7%. The increase for males was similar until 2000, when the number of males in internal medicine leveled off while the numbers for females continued to increase (Figure 1). The 34.7% increase for internal medicine was greater than the percentage increase of females for any of the other uncontrollable lifestyle specialties.

Figure 1. Internal Medicine Physicians by Gender



The data in Tables 8, 9, and 11 show that the gender composition of uncontrollable lifestyle specialties in Texas are rapidly becoming more female. In 1995, 16.4% of the physicians practicing in uncontrollable lifestyle specialties were female, and that increased to 32.6% in 2010, while the percentage for males decreased from 83.6% to 67.3%. However, the total percentage of females in the Direct Patient Care workforce increased from 15.5% in 1995 to 27.5% in 2010. The percentage of females in the uncontrollable lifestyle specialties has increased at a faster rate than the increase for all

specialties. The percentage of females also increased in the controllable lifestyle specialties during that same time, but only from 16.5% to 24.4%.

To summarize, the percentage of direct patient care physicians who are women physicians has been increasing, but the increases are more profound in the uncontrollable lifestyle specialties (Table 9); and, a greater proportion of women are choosing the uncontrollable lifestyle specialties even as a decreasing proportion of men are doing the same (Table 8).

Other Specialties

The overall percentages of physicians choosing both uncontrollable and controllable lifestyle specialties in Texas have been decreasing (Table 8), indicating that more physicians are choosing specialties that do not fall into either category. This report references several national studies that have been consistent on which specialties belong in which category, but due to changes in practice characteristics over time, those categories may need to be re-evaluated. Research for this report did not yield any studies that had been conducted since the first edition of this report containing new information, or any indications that there have been changes in which specialties fall in each category. However, one new study found that of those medical students who did not choose a primary care specialty, approximately 30% indicated that they would do so if they were offered a bonus (median bonus = \$27,500) before and after residency.⁴¹

HPRC studied other specialties besides those categorized as controllable or uncontrollable, to see where the increases may be occurring, and if there were any trends by gender. Several specialties had large increases from 2000 to 2010. Table 12 shows some of the uncategorized specialties that had large increases, and the percent increase by gender.

Table 12. Growth of Selected Uncategorized Specialties

Specialty	Total Number		% Female		% Change		
	2000	2010	2000	2010	Total	Female	Male
Allergy/Allergy and Immunology	202	264	18.8	26.5	30.7	84.2	18.3
Child Neurology	22	46	9.1	17.4	109.1	300.0	90.0
Colon and Rectal Surgery	65	102	3.1	16.7	56.9	750.0	34.9
Endocrinology	111	211	20.7	39.3	90.1	260.9	45.6
Infectious Diseases	84	190	17.9	34.2	126.2	333.3	81.2
Nephrology	170	467	15.3	23.3	174.7	319.2	147.2
Oncology	205	472	18.0	26.1	130.2	232.4	107.1
Rheumatology	105	204	20.0	39.2	94.3	281.0	47.6

As Table 12 shows, the numbers of physicians choosing certain specialties have increased by a large percentage, and the numbers of females have increased by a much higher percentage than they have for males. For example, the number of females

specializing in colon and rectal surgery increased 750% over the last decade, while the number of males increased by only 34.9%.

Also noteworthy: "Hospitalist" is a relatively new specialty that was not directly specified by the Texas Medical Board in 2000, but in 2010, there were 152 hospitalists in Texas, and 30.9% were women.

International Medical Graduates and Gender

International Medical Graduates (IMGs) play an increasingly large role in providing medical services in Texas. In 2000, 7,300 (23%) of the direct patient care physicians in Texas graduated from a foreign medical school, compared with 9,994 (24.3%) in 2010. In 2000, 20.9% of the IMGs were female, and in 2010, 28.5% were female. Therefore, as the number of IMGs increased by 36.9%, the number of female IMGs increased by 86.8%, and this has played some part in the feminization of the physician workforce in Texas. The number of male IMGs increased by 23.6%.

Table 13 shows the percentages of physicians by medical school location and gender who chose controllable and uncontrollable lifestyle specialties. The data indicate that IMGs comprise a larger proportion of physicians who chose uncontrollable lifestyle specialties rather than controllable lifestyle specialties, while those physicians from a U.S. medical school outside of Texas chose controllable lifestyle specialties in slightly higher proportions than uncontrollable lifestyle specialties. There was little difference between the percentages for graduates from a Texas medical school. The percentages showed little change from 2000 to 2010.

Table 13. Lifestyle Specialty by Gender and Medical School Location

Specialty	Gender	IMG	Texas	Other US	Total
Controllable					
2000	Male	18.4	47.0	34.6	100.0
	Female	21.5	47.6	31.0	100.0
2010	Male	17.1	47.2	35.8	100.0
	Female	19.1	48.7	32.2	100.0
Uncontrollable					
2000	Male	25.1	46.4	28.5	100.0
	Female	25.6	46.7	27.7	100.0
2010	Male	25.6	47.5	26.8	100.0
	Female	26.8	45.4	27.9	100.0

A previous study by the Health Professions Resource Center (*Characteristics of New Physicians in Texas, 2000-2009*, <http://www.dshs.state.tx.us/chs/hprc/publicat.shtm>), found that over the last decade, graduates from foreign medical schools were much more likely to specialize in internal medicine than graduates from Texas or other U.S. schools. IMGs were less likely than U.S. graduates to specialize in the controllable lifestyle specialties studied, with the exception of pathology, and IMGs were also less likely to

specialize in the uncontrollable lifestyle specialties, with the exception of internal medicine.

Table 14 shows that the percentage of IMGs who specialized in internal medicine remained flat over the last decade, as the percentages of Texas and other U.S. graduates specializing in internal medicine decreased slightly.

Table 14 Internal Medicine Specialists and Place of Medical School, 2000 and 2010

School	2000			2010		
	Number	Percent of Total*	Percent Female	Number	Percent of Total*	Percent Female
Texas	1,584	11.1	24.6	1,803	9.9	31.4
Other U.S.	1,164	11.5	22.6	1,216	9.3	34.0
Foreign	1,518	20.8	19.6	2,087	20.9	31.4

*the "Percent of Total" is the percent of all graduates from that medical school location who went into Internal Medicine.

Table 15 shows that the percent of females from all medical school locations has increased, but a higher percentage of IMGs are female and that trend has continued, which has contributed to the feminization of the medical workforce.

Table 15. Females by Medical School Location

School	2000			2010		
	Number	Percent of Total DPC	Percent Female	Number	Percent of Total DPC	Percent Female
Texas	14,305	45.0	20.7	18,147	44.1	27.6
Other U.S.	10,164	32.0	18.8	13,038	31.7	26.5
Foreign	7,299	23.0	20.9	9,986	24.3	28.5

Female IMGs comprised 6.9% of the entire direct patient care physician workforce in 2010, and some specialties had large percentages of female IMGs. Table 16 shows select specialties that had large percentages of female IMGs.

Table 16. Female IMGs by Selected Specialties

Specialty	Total DPC Number	% of Total DPC who were Female	% of Total DPC who were Female IMGs
Endocrinology, Diabetes & Metabolism	211	39.3	18.5
Family/General Practice	6,779	29.7	7.9
Psychiatry	1,686	37.5	10.4
Internal Medicine	5,106	32.0	12.8
Geriatrics	34	58.8	29.4
Hematology/Oncology	100	40.0	28.0
Pediatrics	3,205	57.5	16.0
Rheumatology	204	39.2	16.7
All Direct Patient Care	41,171	27.5	6.9

Factors in Choosing a Practice Specialty

One study shows an analysis of the uncontrollable and controllable lifestyle specialties: the average income, the average number of hours worked per week, and the years of graduate medical education (GME) required for each of the specialties in those categories.³⁹ Table 17 shows the information as averaged for the uncontrollable and controllable lifestyle specialties, as well as the ranges for the various categories. The minimum and maximum annual incomes are those of the specialties with the lowest average income and the highest average income, respectively, within each category; the same method is used for the number of hours worked per week. The study found that controllable lifestyle played a larger factor in specialty choice for both genders than did income.³⁹ As Table 17 shows, while there was a wide variance in the maximum salaries between uncontrollable and controllable lifestyle specialties, the average salaries were very close. While the number of years of graduate education ranges from three to five years for the individual specialties, the difference in the average number of years needed for the two categories of professions was negligible. The largest difference in indicators is seen in the average number of hours worked per week – those in the uncontrollable professions work on average 6.5 hours more per week.

Table 17. Characteristics of Controllable and Uncontrollable Lifestyle Specialties

Specialty Lifestyle	Minimum Annual Income	Maximum Annual Income	Average Annual Income	Minimum Hours per Week	Maximum Hours per Week	Average Hours per Week	Average Years of GME Required
Controllable	134,000	263,000	207,400	45.5	61	51.1	4.1
Uncontrollable	132,000	323,000	208,300	52.5	61	57.6	4.0

Source: *The Influence of Controllable Lifestyle and Sex on Specialty Choices of Graduating US Medical Students, 1996-2003*, E. Ray Dorsey, MD, MBA, David Jarjoura, PhD, Gregory W. Rutecki, MD, *Academic Medicine*, Vol. 80 No. 9, September 2005

One study has found that women were less likely than men to cite practice lifestyle as a contributing factor to their career choice.⁴² However, the Women’s Physician’s Health Study found that physicians in controllable lifestyle fields reported higher career satisfaction than did those in the primary care fields. This finding is likely to attract the attention of the next generation of physicians.²¹

One reason men may be choosing controllable lifestyle professions more often is the changing roles of fathers; men are increasingly expected to be more involved in child-rearing.⁴³ As women increasingly join the workforce, men often feel the need to spend more time on household duties. One study has shown that it is parenting, in combination with gender, which influences workforce choices for professionals rather than gender alone,¹⁰ although as mentioned previously, there are conflicting studies and more factors may be involved.

The factors that make pediatrics and obstetrics-gynecology more attractive to women are uncertain, and may extend beyond lifestyle considerations.³⁹ Some researchers have suggested that some of the reasons women have not entered other uncontrollable lifestyle

specialties are due to the lack of available role models and perceptions of male bias.⁴⁴ These factors may not apply to pediatrics and obstetrics-gynecology.

Women in Academia

There has been a concern that women are not being welcomed into the leadership positions of medicine. The advancement of women in academic medicine has not kept pace with the dramatic increases in the number of practicing female physicians,⁶ and women are underrepresented in leadership positions in academic medicine.⁴⁵ Women have often been criticized for not assuming leadership positions, but this has not always been by choice; women still sometimes come up against the “glass ceiling.”¹⁴ Women have been entering academic medicine and medical school faculty in equal numbers to men for several decades, but most studies have found that women do not advance to the senior academic ranks as fast as men and that their salaries are not as high as those for men.^{19,46} Some of this underrepresentation may also be due to women choosing not to apply for these positions, either because they don’t want to work in a setting that is dominated by men, or they believe that they will be unsuccessful in the competition.¹³ Some women have concerns about combining academic medicine and parenting.⁶ Part-time work is often not possible due to the competitive nature of academic medicine. A possible solution to this may be offering tenure deferment and temporary part-time positions.⁴⁷ Family responsibilities affect the academic productivity of females and contributes to the greater time needed to attaining senior rank.⁴⁸ More needs to be done to encourage women in leadership, and The World Health Organization has indicated a need for career tracks that promote women towards senior faculty and leadership positions more effectively.¹

In Texas, only direct patient care physicians are usually included in the statistical reports, while physicians who are primarily involved in administration, teaching, and research are usually excluded. To study academic trends in Texas, HPRC looked at those physicians who are usually excluded.

Table 18 shows that approximately three-quarters of the physicians who forgo direct patient care to concentrate on research, faculty/teaching, and administrative medicine are male. Since 2000, the percentage of females has increased, but only by a small amount.

Table 18. Physicians in Research, Faculty, Teaching, and Administrative Medicine by Gender

Practice Type	2000		2010	
	Male	Female	Male	Female
Research	75.1	24.9	71.2	28.8
Faculty/Teaching	76.2	23.8	65.5	34.5
Administrative Medicine	86.3	13.7	77.7	22.3

As medicine becomes more feminized, it is important that women play a role in the leadership positions as well, because of the values that women bring to the profession.¹³

One study has found that the patterns of specialty choice for women are more likely to be influenced by their role models than is the case for men.⁴² This underscores the need for more female role models.

Attrition

Studies have shown that women are more likely than men to leave their residencies before completing their training; studies showing this have been conducted in the fields of orthopedics,⁴⁹ general surgery,⁵⁰ family practice,⁵¹ and obstetrics-gynecology.⁵² These studies also found that the primary reason women gave for leaving their residencies was family reasons - often spousal issues - whereas the primary reason men gave for leaving was to change specialties. One possible solution to this problem for women is providing support services to prevent and/or manage the problems related to family demands as they arise.⁵²

At the other end of the spectrum, some studies show that women physicians retire at older ages than do men.^{14,15} While women may leave the workforce or work reduced hours while raising their children, they often return to full-time practice once their children are raised. When male physicians reach the stage of their career when they are decreasing their working hours, female physicians are increasing theirs and working longer.¹⁴

Conclusion

The gender demographics of many health care professions are changing, both in Texas and the nation. More study will surely be conducted in the years to come, but it is clear that the feminization of the workforce has yielded many benefits both for patients and health care workers alike. However, this feminization - and the concurrent changes in practice patterns - also comes with new challenges and issues that will need to be addressed.

Endnotes:

¹ *Working Together for Health*, The World Health Report 2006, World Health Organization, http://www.who.int/whr/2006/06_overview_en.pdf

² Primary Care is defined as direct patient care physicians who practice in one of these specialties: family medicine, general practice, internal medicine, obstetrics and gynecology, pediatrics, and geriatrics. For the purposes of this report, the family medicine and general practice physicians were combined into one group. The primary care physician information in this report excludes those physicians who are employed by the government or military, those who are primarily involved with research, teaching, or administration, and those who are residents/fellows. It has also been observed that not all studies consider obstetrics-gynecology to be a primary care specialty; some consider it to be a surgical specialty.⁵² This may skew the comparisons of the various studies. Primary Care dentists are those who specialize in general dentistry, pediatric dentistry, or dental public health.

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urbanized areas, and (2) outlying counties that are economically tied to the core counties as measured by work commuting. For the purposes of this report, those counties not included in this definition are rural. More complete definitions can be found at <http://www.ers.usda.gov/Briefing/Rurality/WhatisRural/>.

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