

ABSTRACT

Purpose Statement: To determine if gender differences in physician income have changed over time.

Background: While income differences between men and women have been gradually decreasing over time, the extent to which these differences have decreased across professions or in particular professions is unclear. Previously, it has been found that female physicians earn less than their male counterparts do, even after taking into account a variety of factors influencing income. Between 1998 and 2016, the percentage of female physicians who completed a graduate medical education program in New York grew from 36% to 48%. One important question is whether the income disparity is increasing or decreasing over time as more women join the physician workforce.

Methods: The primary data source for the study was the New York Resident Exit Survey. This annual survey of physicians completing residency or fellowship training in New York has been conducted in collaboration with teaching hospitals in the state since 1998. The response rate to the survey each year typically exceeds 60%. Only physicians with confirmed practice plans were included in the analysis and IMGs on temporary visas were excluded due to practice restrictions. The primary analytic technique for this analysis was multivariate regression. A multivariate regression model was run for each year of the survey controlling for a variety of factors including specialty, setting, expected hours worked, etc., in order to determine if the difference in income for male and female physicians has increased or decreased over time. In addition, a subsequent regression model was run which included interaction effects for gender and specialty in order to determine within specialty gender differences in income. This later regression model pooled data from the last three years of the survey (2014-2016).

Results: In 2016, despite controlling for a number of relevant factors, the difference in income between male and female physicians was more than \$26,000. Furthermore, the difference appears to be growing rather than decreasing.

Conclusions: Unlike trends in the overall workforce, income disparities are increasing between male and female physicians. Even as women become a greater proportion of physicians in the workforce, the gender disparity in income persists and appears to be growing in recent years.

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INTRODUCTION

While income differences between men and women have been gradually decreasing over time, the extent to which these differences have decreased across professions or in particular professions is unclear. Previously, it was found that female physicians earn less than their male counterparts, even after taking into account a variety of factors influencing income. Between 1998 and 2016, the percentage of female physicians who completed a graduate medical education program in New York grew from 36% to 48%. An important question that hasn't been answered, however, is whether the income disparity is increasing or decreasing over time as more women join the physician workforce.

METHODS

The primary data source for the study was the New York Resident Exit Survey.¹ This annual survey of physicians completing residency or fellowship training in New York has been conducted in collaboration with teaching hospitals in the state since 1998. The response rate to the survey each year typically exceeds 60%. The survey collects extensive information on new physicians' demographics, post-training plans, and job market experiences.

Only physicians with confirmed practice plans were included in the analysis and international medical graduates (IMGs) on temporary visas were excluded due to practice restrictions (n ≈ 1,200 annually). The primary analytic technique for this analysis was multivariate regression. A multivariate regression model was run for each year of the survey in order to determine if the difference in income for male and female physicians had increased or decreased over time. In addition, a subsequent regression model was run which included interaction effects for gender and specialty in order to determine gender differences in income within specialty. This later regression model pooled data from the last 3 years of the survey (2014-2016).

METHODS (cont.)

The analyses controlled for a variety of factors to ensure that the observed incomes differences were not spurious (Table 1). The income differences in Figure 1 are reported in 2016 dollars in order to take into account inflation. Also, only the gender income differences within specialty are reported for the regression model which included interaction effects (Table 2).

Table 1. Variables Included in Physician Income Regression Models, 2001-2016

Variables
Gender
Race/Ethnicity
Age
Type of Medical Education (MD or DO)
Medical School Location
Citizenship Status
Practice Location (Urban, Rural, etc)
Patient Care Hours
Practice Setting (Group, Hospital Inpatient, Emergency Room, etc)
Specialty

RESULTS

Gender differences in physician income have increased over time even when taking into account inflation. In 2016, male physicians had an average starting income of \$26,367 more than females after taking into account a variety of factors including specialty.

Figure 1. Gender Differences in Physician Income in 2016 Dollars, 2001-2016



RESULTS (Cont.)

The majority of specialties had significant differences ($P < .05$) in income by gender after controlling for the other variables in the regression model.

Table 2. Gender Differences in Physician Income by Specialty, 2014-2016

Specialty	Income Difference	Significance
Family Medicine	-\$20,134	0.001
General Internal Medicine	-\$15,214	0.000
General Pediatrics	-\$2,759	0.000
Obstetrics/Gynecology	-\$12,697	0.001
Cardiology	-\$64,183	0.610
Gastroenterology	-\$20,168	0.019
Geriatrics	-\$26,564	0.164
Hematology/Oncology	-\$22,348	0.055
Nephrology	-\$9,347	0.026
Pulmonary Disease	-\$30,827	0.183
General Surgery	\$53,502	0.000
Ophthalmology	-\$47,895	0.892
Orthopedics	\$9,388	0.033
Otolaryngology	\$35,369	0.050
Urology	-\$69,546	0.644
Anesthesiology	-\$17,639	0.012
Pathology	\$2,052	0.003
Radiology	\$19,644	0.000
Adult Psychiatry	-\$5,940	0.001
Child and Adolescent Psychiatry	-\$26,360	0.111
Dermatology	-\$79,815	0.294
Emergency Medicine	-\$35,146	0.045
Neurology	-\$17,518	0.103
Pediatric Subspecialties	\$3,253	0.000
Physical Medicine and Rehabilitation	-\$25,210	0.202

Note: Negative numbers indicate female physicians earn less than males.

CONCLUSION

In 2016, despite controlling for a number of relevant factors, the difference in income between male and female physicians was more than \$26,000. Unlike trends in the overall workforce, income disparities are increasing between male and female physicians. Even as women become a greater proportion of physicians in the workforce, the gender disparity in income persists and appears to be growing in recent years.

REFERENCE

1. Armstrong DP, Liu Y, Forte GJ. 2016 New York Residency Training Outcomes: A Summary of Responses to the 2016 New York Resident Exit Survey. Rensselaer, NY: Center for Health Workforce Studies, School of Public Health, SUNY Albany; September 2017.