

Gender Pay Gaps Widen for Newly Trained Physicians

Highlights

Researchers at the Center for Health Workforce Studies (CHWS) analyzed starting salary trends for physicians who completed graduate medical education (GME) training in New York over the past 15 years. Using data drawn from its annual Resident Exit Survey, researchers found that despite the growing percentage of women completing training in the state's GME programs, pay gaps between newly trained male and female physicians persist and are in fact widening.

Background

Income differences between men and women have persisted over time, but the extent to which these differences have decreased or increased in particular professions is unclear.¹⁻⁴ Previously, it was found that female physicians completing GME training in New York earned less than their male counterparts, even after taking into account a variety of factors known to influence income.⁵ At the same time, the number of females completing a GME program in New York has been steadily increasing. Between 1998 and 2016, the percentage of physicians who were female and completed a GME program in New York grew from 36% to 48%.⁶ This research brief describes findings from a 15-year trend analysis of wages reported by newly trained physicians who completed GME training in New York.

Methods

The primary data source for this study was the New York Resident Exit Survey.⁷ 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. New York trains more than 16,000 physicians currently⁸ and each year more than 5,000 physicians complete a training program in the state. The annual response rate to the survey is approximately 60%. The survey collects extensive information on new physicians' demographic and education characteristics, post-training plans, and job market experiences.

Only physicians with confirmed practice plans were included in the analysis (n≈1,200 annually). International medical graduates (IMGs) on temporary visas were excluded due to practice restrictions. A multivariate regression model was run for each year in order to determine if the difference in income between male and female physicians had changed over time. In addition, a subsequent regression model was run which included interaction effects for gender and specialty in order to estimate gender differences in income within specialty. The latter regression model pooled data from the last 3 years of the survey (2014-2016) (n=2,695).

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

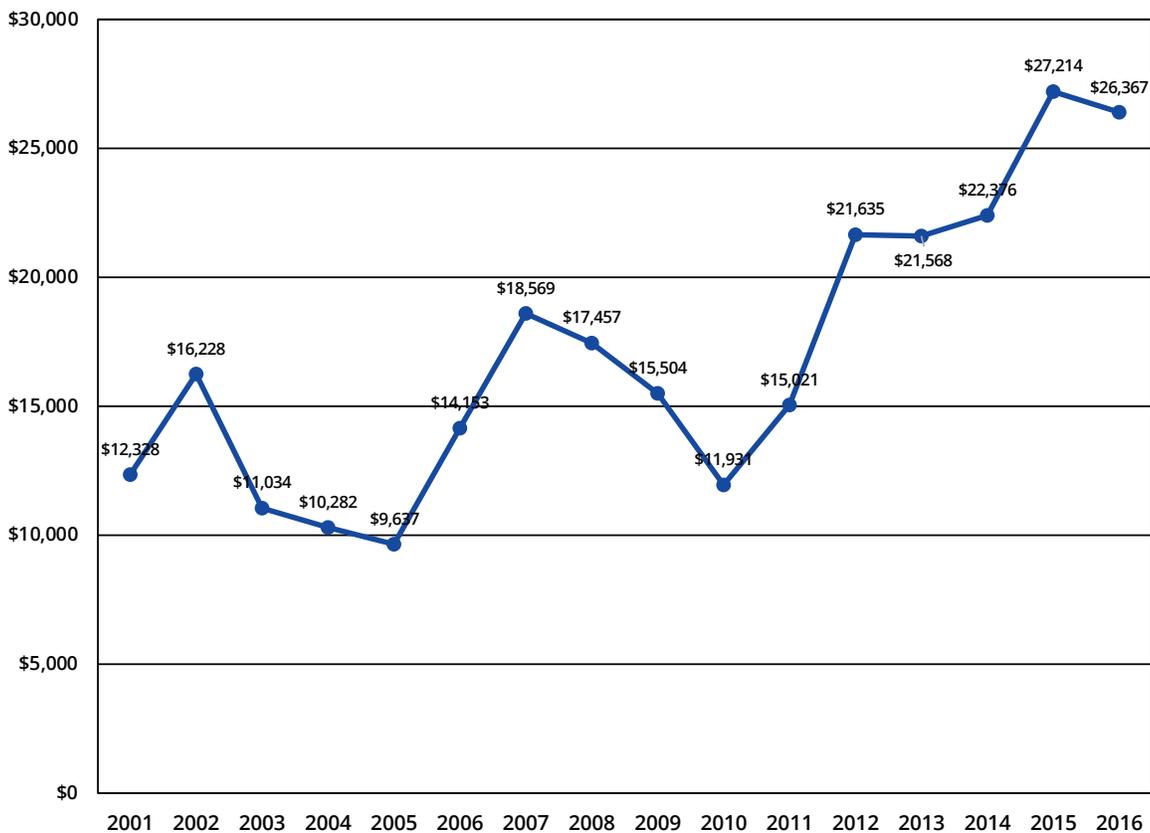
Table 1. Variables Included in Physician Income Regression Models, 2001-2016

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

Findings

Gender differences in new physician income have increased over time (Figure 1). In 2016, average male physician starting income was \$26,367 more than females after taking into account the factors listed in Table 1. In comparison, the gender pay disparity was less than \$10,000 in 2005 and only \$11,931 in 2010.

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



Source: Center for Health Workforce Studies, New York Resident Exit Survey, 2001-2016

In addition, there were significant wage gaps by gender in a large number of specialties, with female physicians earning less than male counterparts in the same specialty (Table 2).

Table 2. Gender Differences in Physician Income by Specialty, 2014-2016^{a,b}

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
Orthopedics	\$9,388	0.033
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

^a Negative dollars indicate that females earn less than males.
^b Only specialties with at least 20 observations are shown.

Source: Center for Health Workforce Studies, New York Resident Exit Survey, 2014-2016

Limitations

The 2 main limitations of this study are that the sample of residents and fellows completing training is only from New York programs and that the response rate to the survey averages approximately 60% annually. The implications of the former are that experiences of New York residents may not be representative of the experiences of residents from other states. In terms of the latter, the job market experiences of respondents might differ from those who did not respond to the survey. The ramifications of these limitations are that the results from the survey reported in this brief could be biased.

Conclusions

In 2016, despite taking into account a number of relevant factors, the difference in income between new male and female physicians was more than \$26,000. As has been observed in the general labor workforce, even as women have become a greater proportion of physicians in the workforce, the gender disparity in income has persisted and is growing. The New York Resident Exit Survey provides a unique opportunity to monitor income trends over time due to its regular and consistent administration since the late 1990s. CHWS will continue to monitor the gender pay gap and explore other factors that may affect the disparity.

References

1. Weichselbaumer D, Winter-Ebmer R. A Meta-Analysis of the International Gender Wage Gap. *Journal of Economic Surveys*. 2005;19(3):479-511. doi:10.1111/j.0950-0804.2005.00256.x.
2. Blau F. The Sources of the Gender Pay Gap. In: Grusky DB, Kricheli-Katz T, eds. *The New Gilded Age: The Critical Inequality Debates of Our Time*. Stanford: Stanford University Press; :189-210.
3. Cha Y, Weeden KA. Overwork and the Slow Convergence in the Gender Gap in Wages. *American Sociological Review*. 2014;79(3):457-484. doi:10.1177/0003122414528936.
4. England P. The Gender Revolution: Uneven and Stalled. *Gender & Society*. 2010;24(2):149-166. doi:10.1177/0891243210361475.
5. Lo Sasso AT, Richards MR, Chou C-F, Gerber SE. The \$16,819 Pay Gap For Newly Trained Physicians: The Unexplained Trend Of Men Earning More Than Women. *Health Affairs*. 2011;30(2):193-201. doi:10.1377/hlthaff.2010.0597.
6. Center for Health Workforce Studies. New York Resident Exit Survey Data, 2001-2016.
7. Armstrong D, 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; July 2017.
8. Brotherton SE, Etzel SI. Appendix II: Graduate Medical Education, 2015-2016. *J Am Med Assoc*. 2016;316(21):2291-2310.



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Established in 1996, CHWS is an academic research center based at the School of Public Health, University at Albany, State University of New York (SUNY). The mission of CHWS is to provide timely, accurate data and conduct policy relevant research about the health workforce. The research conducted by CHWS supports and promotes health workforce planning and policymaking at local, regional, state, and national levels.