

Re-examining the Gap: A Wage Gap Between Male and Female PAs Persists

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Background

- The wage gap exists, and in recent years more attention has been given to this issue in healthcare and the PA workforce
- The gender wage gap is often reported in raw dollar differences such as “women are compensated 80% for every dollar men are compensated.”
 - While true, many of these analyses do not statistically control for real occupational differences between men and women
- No existing models for PAs account for various compensation models in health care.
 - This study includes productivity-based models as well as hourly models, and several other demographics not considered in past models.

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Methods

Instrument: 2019 AAPA Salary Survey, fielded February 1-28, 2019

- Included a battery of personal and workplace demographics, compensation, and benefits for calendar year 2018

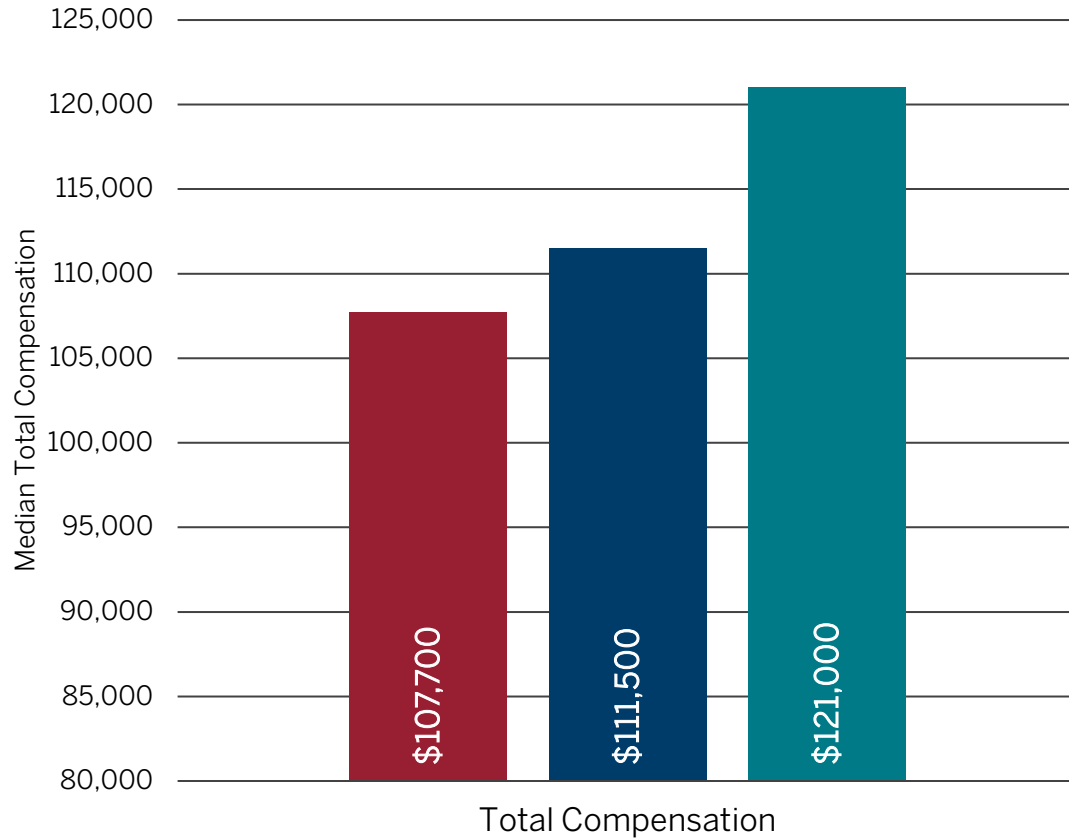
Participants: The survey was open to all non-retired, U.S.-based PAs and a subset of data from this survey was analyzed for the present study. A total of 13,088 partial or complete responses were collected from PAs.

Analysis: To be included in the wage gap analysis, the respondent must have completed each question relevant to this work; 8,339 respondents were included.

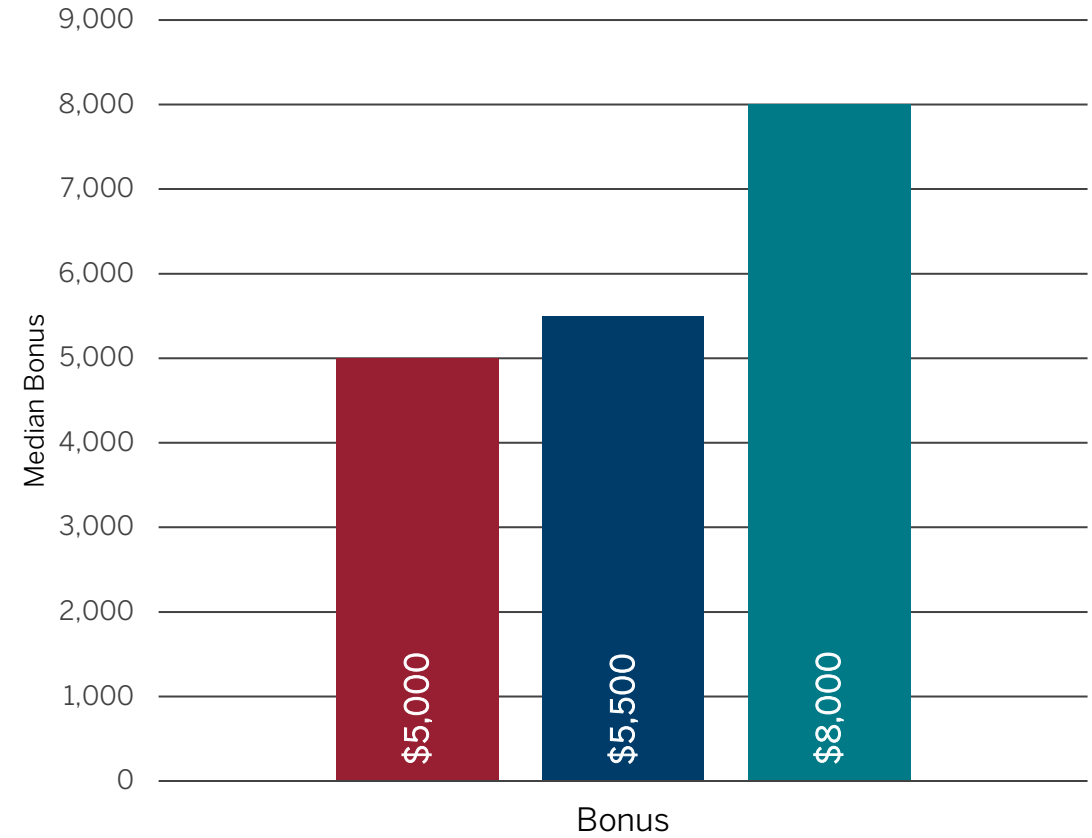
Wage Gap (Full-time PAs)

- Female
- All PAs
- Male

Total Compensation

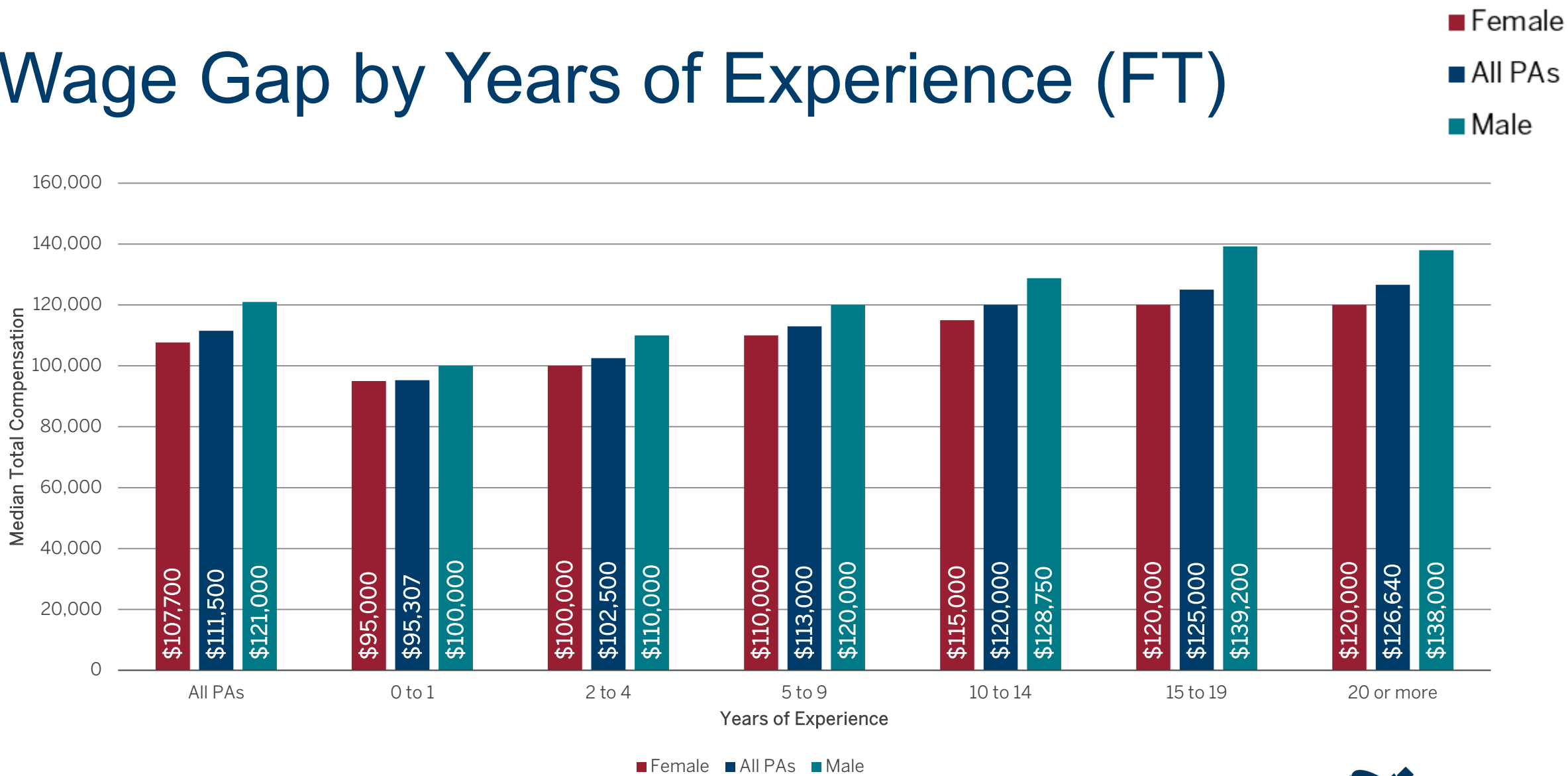


Bonus



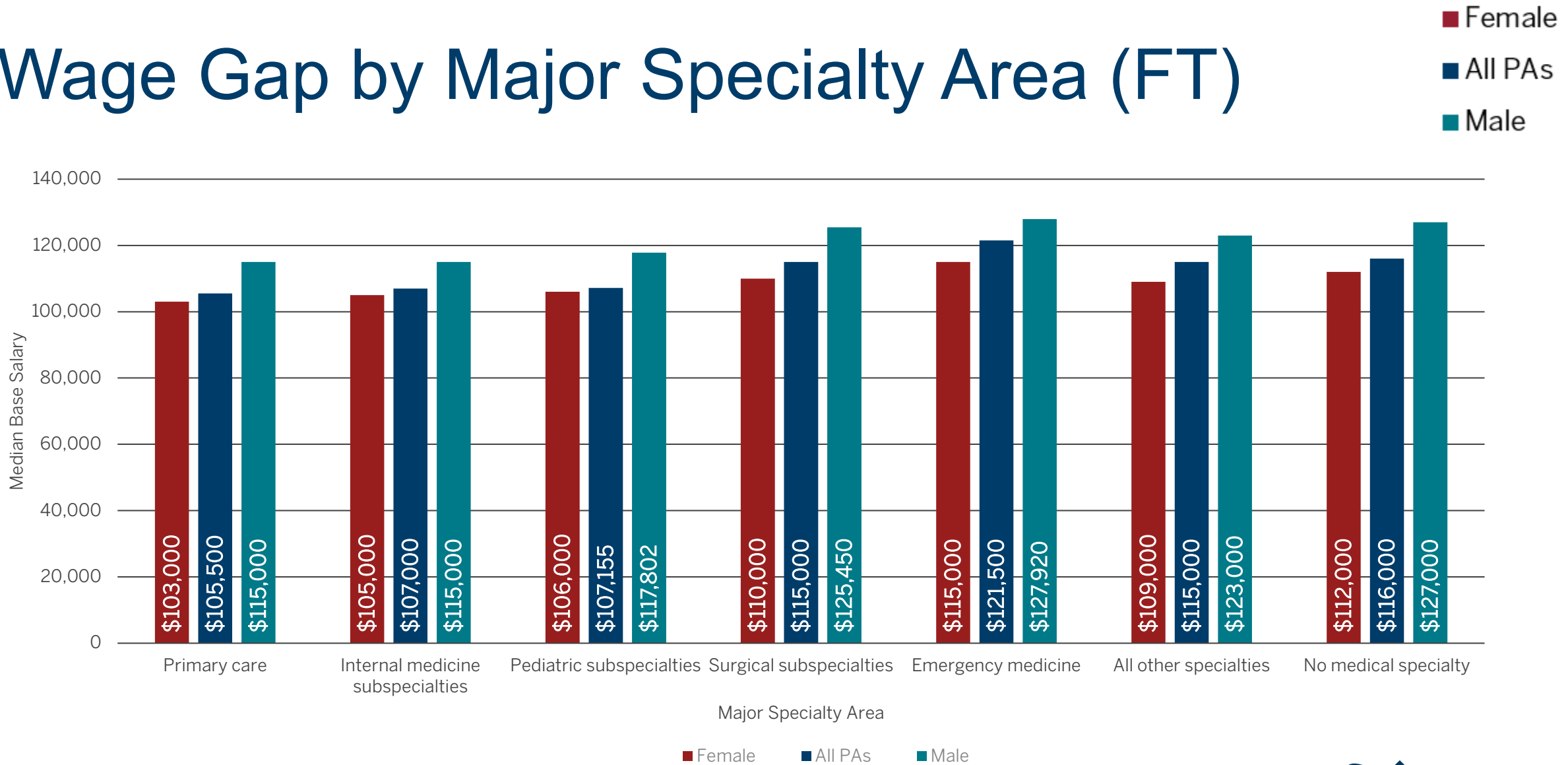
Women's bonuses were smaller, and men were more likely to receive a bonus. 54.5% of male PAs reported receiving a bonus in 2018; 48.1% of women reported the same.

Wage Gap by Years of Experience (FT)



The size of the gender disparity varies by years of experience.

Wage Gap by Major Specialty Area (FT)



Compensation-Relevant Factors by Gender

More Male PAs:

- ↑ Take call
- ↑ Are in a formal leadership role
- ↑ Own/share practice ownership

Male PAs:

- ↑ More experienced
- ↑ Work more hours
- ↑ Work more weeks per year
- ↑ See more patients

Variables	All PAs Percent	Female PAs Percent	Male PAs Percent	Sig. Level
Mode of Compensation				
Base Salary	75.4%	75.9%	74.1%	
Hourly	20.5%	20.2%	20.9%	
Productivity pay	4.2%	3.9%	4.9%	*
PA took call last year	34.9%	32.3%	40.7%	***
PA is in formal leadership	10.4%	8.1%	15.4%	***
PA owns or shares ownership in practice	1.4%	1.0%	2.4%	***
Variables	All PAs Mean	Female PAs Mean	Male PAs Mean	Sig. Level
Years of experience	10.27	9.54	11.88	***
Hours worked weekly	44.53	43.65	46.49	***
Weeks worked last year	43.82	43.56	44.40	***
Patients per week	66.39	64.40	70.82	***

Notes: For statistical significance, *** = $p < .001$, ** = $p < .01$, * = $p < .05$, either a z-test of column proportions (for percentages) or a t-test (for means).



Do Practice Demographics “Explain Away” the Gap?

■ Female
■ Male

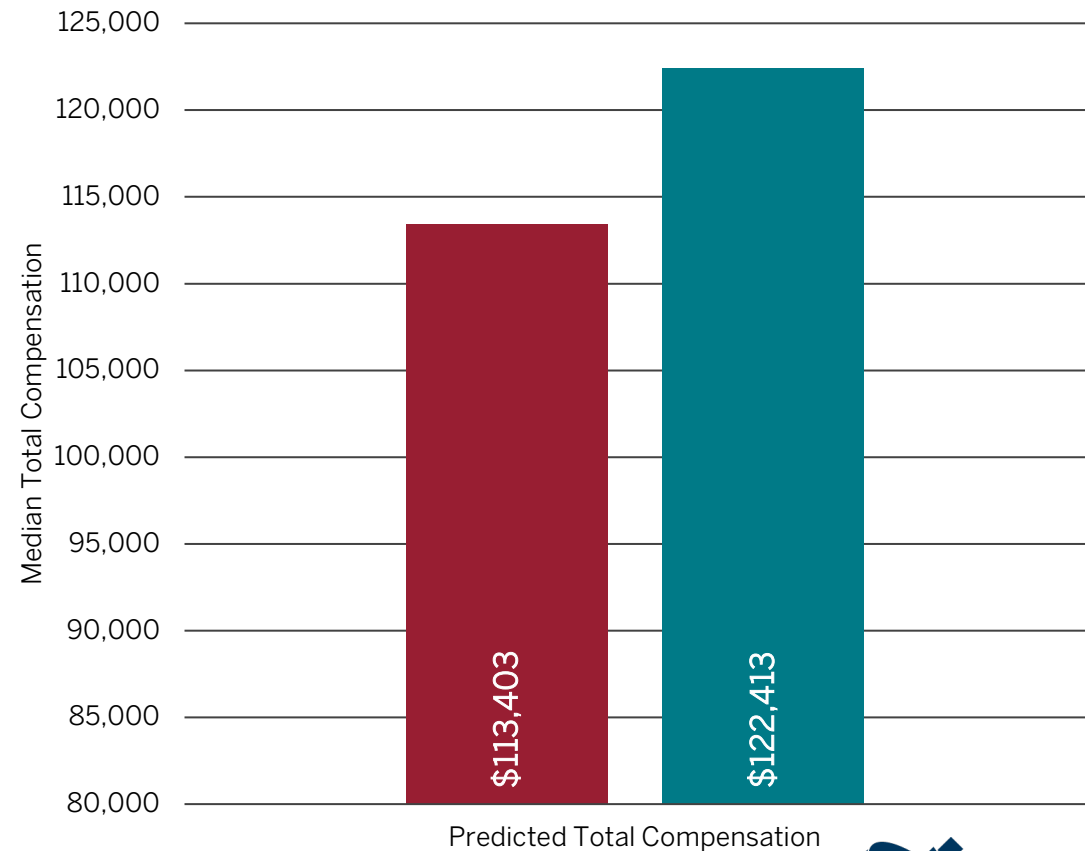
Sequential regression with gender and a gender by experience interaction term in the final step

Initial Steps: Compensation-relevant predictors

- Highest level of education completed
- Race
- Ethnicity
- Geographic region of work
- Mode of compensation
- Whether a bonus was received
- Statewide Cost-of-Living Index (COLI)
- Years of experience
- Primary major specialty area
- Primary work setting
- Hours worked weekly
- Weeks worked annually
- Patients seen weekly
- Whether a PA took call
- Leadership roles
- Ownership in a practice

Final Step: Gender as a predictor of compensation

Predicted Total Compensation



Education, Race, and Ethnicity

Variables	Coefficient (<i>B</i> ; \$)	95% Confidence Interval (95 CI; \$)	Standard Error (\$)	Sig. Level
Highest level of education completed				
(reference: master's)				
Associate's	-4,114.62	[-11,637.28, 3,298.21]	3,835.09	
Bachelor's	1,746.09	[-782.29, 4,274.46]	1,289.82	
Doctoral	2,888.81	[-2,526.84, 8,304.46]	2,762.73	
Race (reference: white)				
Black	137.63	[-4,584.50, 4,859.76]	2,408.94	
American Indian or Alaskan Native	5,699.76	[-6,713.44, 18,112.95]	6,332.44	
Asian	1,417.10	[-1,924.55, 4,758.75]	1,704.70	
Native Hawaiian or other Pacific Islander	-8,808.63	[-27,389.21, 9,771.95]	9,478.66	
Other	672.68	[-5,841.16, 7,186.52]	3,322.96	
Two or more races	-872.85	[-6,041.26, 4,295.56]	2,636.60	
Ethnicity: Hispanic	-656.68	[-4,171.87, 2,858.52]	1,793.23	

Notes: Thirty-four percent of the variance (adjusted R^2) in total compensation was accounted for by the model. Final model $R^2 = 0.34$, with R^2 change for gender significant at $p < .001$. Predicted total compensation based on regression model and analysis of covariance was \$113,403.59 for female PAs and \$122,413.17 for male PAs, a difference of \$9,010, or 92.6% women/men.

For statistical significance (“Sig. Level”), *** = $p < .001$, ** = $p < .01$, * = $p < .05$

Geography, Compensation Type, Bonus, COLI

Variables	Coefficient (<i>B</i> ; \$)	95% Confidence Interval (95 CI; \$)	Standard Error (\$)	Sig. Level
Geographic region (Reference: Midwest)				
Northeast	-8,618.21	[-11,292.85, -5,943.57]	1,364.44	***
Southern	-1,114.49	[-3,051.34, 822.36]	988.06	
Western	3,400.30	[982.34, 5,818.27]	1,233.49	*
Mode of compensation (reference: base salary)				
Annualized hourly wage	-7,595.51	[-9,616.12, -5,574.90]	1,030.79	***
Productivity pay	61,293.18	[57,578.86, 65,007.49]	1,894.81	***
Additional compensation and cost-of-living				
Bonus received	6,941.55	[5,610.69, 8,272.42]	678.92	***
2018 cost-of-living index (C2ER)	339.46	[281.85, 397.06]	29.39	***

Notes: Thirty-four percent of the variance (adjusted R^2) in total compensation was accounted for by the model. Final model $R^2 = 0.34$, with R^2 change for gender significant at $p < .001$. Predicted total compensation based on regression model and analysis of covariance was \$113,403.59 for female PAs and \$122,413.17 for male PAs, a difference of \$9,010, or 92.6% women/men.

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Workplace Experience and Factors

Variables	Coefficient (<i>B</i> ; \$)	95% Confidence Interval (95 CI; \$)	Standard Error (\$)	Sig. Level
Work experience				
Years of experience	827.86	[694.54, 961.38]	68.06	***
Hours worked weekly (primary employer)	467.74	[422.64, 512.84]	23.01	***
Weeks worked last year (primary employer)	591.15	[515.69, 666.60]	38.49	***
Patients per week (primary employer)	138.28	[117.50, 159.05]	10.6	***
PA took call	3,318.21	[1,715.23, 4,921.19]	817.74	***
PA is in a formal leadership role	11,693.66	[9,288.18, 14,099.13]	1,227.12	***
PA owns or shares ownership in practice	20,034.08	[13,895.08, 26,173.08]	3,131.74	***
Primary major specialty area				
(reference: primary care)				
Internal medicine	7,726.85	[5,047.72, 10,405.99]	1,366.73	***
Pediatric subspecialties	6,325.14	[163.18, 12,487.11]	3,143.45	*
Surgical subspecialties	12,663.20	[10,447.73, 14,878.67]	1,130.20	***
Emergency medicine	19,516.41	[16,035.82, 22,997.00]	1,775.58	***
Other	9,591.06	[7,387.06, 11,795.07]	1,124.35	***
No medical specialty	6,807.87	[485.40, 13,130.34]	3,225.33	*
Primary work setting				
(reference: physician office or clinic)				
Hospital	8,199.70	[6,299.25, 10,100.14]	969.49	***
Other	-258.3	[-2,949.16, 2,432.55]	1,372.71	
<p>Notes: Thirty-four percent of the variance (adjusted R²) in total compensation was accounted for by the model. Final model R² = 0.34, with R² change for gender significant at p < .001. Predicted total compensation based on regression model and analysis of covariance was \$113,403.59 for female PAs and \$122,413.17 for male PAs, a difference of \$9,010, or 92.6% women/men.</p> <p>For statistical significance (“Sig. Level”), *** = p < .001, ** = p < .01, * = p < .05</p>				

Gender and Gender X Experience

Variables	Coefficient (<i>B</i> ; \$)	95% Confidence Interval (95 CI; \$)	Standard Error (\$)	Sig. Level
Gender				
Female	-9,009.58	[-11,378.59, -6,640.57]	1,208.52	***
Female x Years of experience	-201.9	[-365.12, -38.68]	83.26	*

Notes: Thirty-four percent of the variance (adjusted R^2) in total compensation was accounted for by the model. Final model $R^2 = 0.34$, with R^2 change for gender significant at $p < .001$. Predicted total compensation based on regression model and analysis of covariance was \$113,403.59 for female PAs and \$122,413.17 for male PAs, a difference of \$9,010, or 92.6% women/men.

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Sequential Regression Model: Total Compensation Among Full and Part-Time PAs

Without controlling for compensation-relevant factors, women were compensated about \$0.85/\$1.00 that men were.

When controlling for compensation-relevant factors, this wage gap shrinks to ~\$0.93/\$1.00 but the gap widens over time.

Variables	Coefficient (B; \$)	95% Confidence Interval (95 CI; \$)	Standard Error (\$)	Sig. Level
Highest level of education completed (reference: master's)				
Associate's	-4,114.62	[-11,637.28, 3,298.21]	3,835.09	
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Discussion

- While the unadjusted wage gap between male and female PAs is 15%, it shrinks to around 7.5% when accounting for factors other than gender
 - The adjusted gap in terms of dollars is \$9,009
 - Larger than average annual bonus among PAs who received one
- This gap widens by \$201 for each additional year of work experience.
- All factors in the sequential multiple regression model were significant predictors of wage, except education, race, and ethnicity
 - Associated with wages independently, but not significant predictors when controlling for other factors

Future Directions

- Researchers should explore other unmeasured factors that may explain a portion of this difference.
- Exploring lifelong cost estimates of wage, given it worsens with additional work experience
- Policy considerations:
 - Banning inquiries (or not requiring disclosure) about previous wages
 - Laws requiring compensation statistics for companies be published
 - Statistical self-audits within organizations that use regression analyses similar to those employed in this study
 - Pay range standardization
 - Other ways to reduce managerial discretion in wages

Thank you!

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