

# Differences in Physician Assistant Income by Gender and Race: A Cross-Sectional Analysis

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## Background

- Prior literature demonstrates wage disparities for medical providers by gender and race<sup>1-6</sup>
  - After adjustment for covariates, white male physicians earned more than African American male physicians; no significant differences between African American and white female physicians, but income was lower than for male physicians<sup>2</sup>
  - 2009 American Academy of Physician Associates\* (AAPA) data; after adjusting for covariates, income for male physician assistants (PAs) was \$9,500 higher than for female PAs; no difference by race<sup>3</sup>
  - American Community Survey data (2010 – 2012); earnings for female PAs were \$21,084 less than males; African American and Hispanic PAs earned less than Non-Hispanic White PAs<sup>4</sup>
  - AAPA data from 2014; adjusted difference of \$9,695 between male and female PAs<sup>5</sup>
  - Female PAs earned \$9,010 adjusted and \$20,105 unadjusted less than males (2019 AAPA salary survey data); no differences by race/ethnicity<sup>6</sup>

## Objective & Method

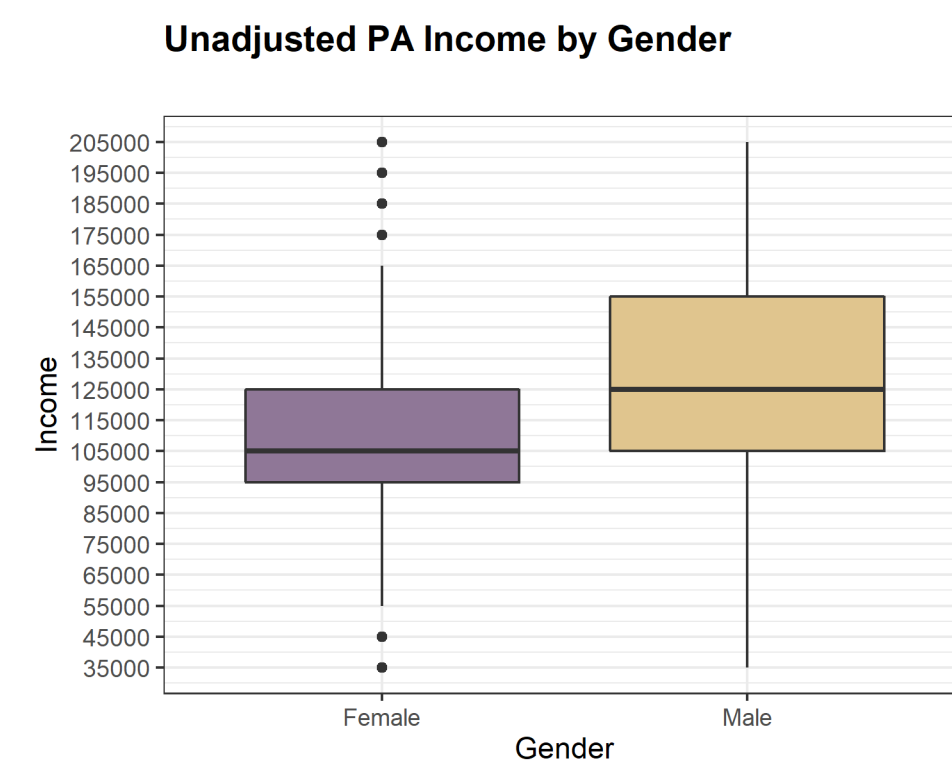
- To estimate differences in PA annual income by gender and race using a robust national 2021 workforce dataset (N=111,726) from the National Commission on Certification of Physician Assistants
- Cross-sectional study was conducted using descriptive, bivariate (chi-square, Mann-Whitney or Kruskal Wallis Tests), subgroup (income differences by race separately within male and female PAs) and multivariate (quantile regression) analyses with R

## Results

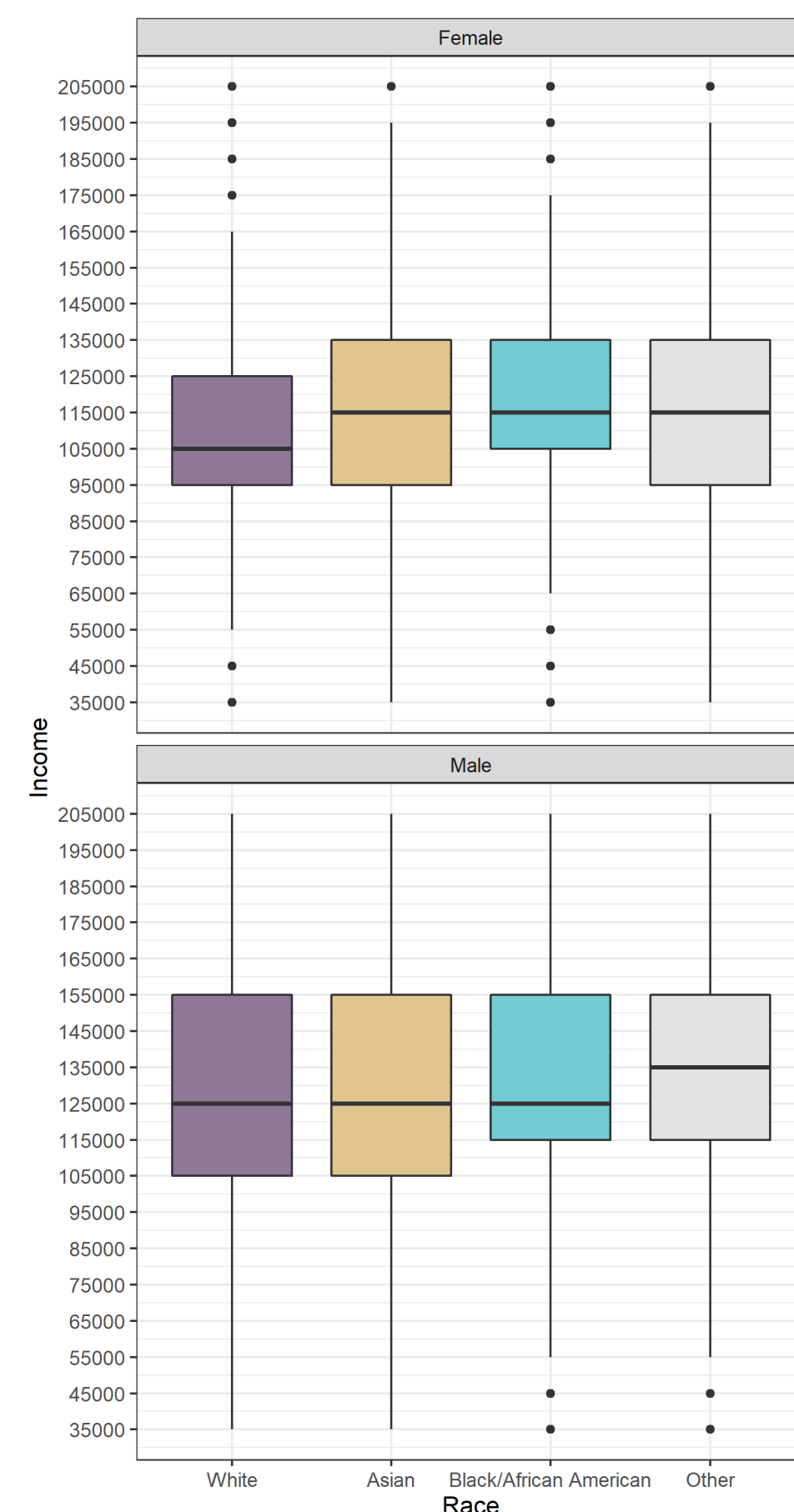
### PA Demographic and Practice Characteristics by Gender and Race

| Covariates                                       | Gender      |             | p-value | Race        |             |                  |             | p-value |
|--|-------------|-------------|---------|-------------|-------------|------------------|-------------|---------|
|  | Female      | Male        |         | White       | Asian       | African American | Other       |         |
| <b>Age</b>                                       |             |             |         |             |             |                  |             |         |
| Mean (SD)  | 39.6 (10.2) | 45.1 (11.6) | <0.001  | 41.2 (11.0) | 38.7 (9.18) | 44.5 (10.7)      | 42.2 (10.5) | <0.001  |
| Median (IQR)                                     | 37 (32-45)  | 44 (36-53)  |         | 39 (32-48)  | 37 (32-44)  | 43 (36-52)       | 40 (34-49)  |         |
| <b>Census divisions</b>                          |             |             |         |             |             |                  |             |         |
| South Atlantic                                   | 21.4%       | 22.0%       |         | 21.3%       | 17.0%       | 38.9%            | 19.6%       |         |
| New England                                      | 6.6%        | 6.0%        |         | 6.9%        | 4.1%        | 3.3%             | 3.7%        |         |
| Middle Atlantic                                  | 19.7%       | 15.4%       |         | 18.1%       | 23.5%       | 21.1%            | 15.6%       |         |
| East North Central                               | 13.6%       | 11.8%       |         | 14.3%       | 7.7%        | 6.9%             | 7.7%        |         |
| West North Central                               | 7.1%        | 5.9%        | <0.001  | 7.6%        | 2.8%        | 1.7%             | 2.8%        | <0.001  |
| East South Central                               | 3.5%        | 4.1%        |         | 4.1%        | 1.1%        | 2.9%             | 2.0%        |         |
| West South Central                               | 9.0%        | 9.2%        |         | 8.6%        | 12.3%       | 12.3%            | 12.9%       |         |
| Mountain   | 8.1%        | 11.5%       |         | 9.5%        | 4.6%        | 3.1%             | 9.8%        |         |
| Pacific  | 11.0%       | 14.0%       |         | 9.6%        | 27.1%       | 9.8%             | 26.1%       |         |
| <b>Urbanicity</b>                                |             |             |         |             |             |                  |             |         |
| Urban  | 92.9%       | 91.5%       |         | 91.5%       | 98.5%       | 98.5%            | 95.2%       |         |
| Large Rural                                      | 4.0%        | 5.1%        | <0.001  | 4.8%        | 0.9%        | 0.9%             | 2.9%        | <0.001  |
| Small Rural/Isolated                             | 3.1%        | 3.5%        |         | 3.7%        | 0.6%        | 0.6%             | 1.9%        |         |
| <b>Highest degree</b>                            |             |             |         |             |             |                  |             |         |
| Bachelor's Degree                                | 13.7%       | 20.2%       |         | 15.0%       | 15.2%       | 24.1%            | 18.8%       |         |
| Master's Degree                                  | 82.8%       | 72.5%       | <0.001  | 80.9%       | 79.3%       | 67.7%            | 73.4%       | <0.001  |
| Doctorate Degree                                 | 1.5%        | 3.3%        |         | 1.7%        | 3.6%        | 5.8%             | 3.0%        |         |
| Other  | 2.0%        | 4.0%        |         | 2.5%        | 2.0%        | 2.4%             | 4.8%        |         |
| <b>Postgraduate training</b>                     |             |             |         |             |             |                  |             |         |
| No   | 95.6%       | 92.7%       | <0.001  | 95.0%       | 95.0%       | 92.8%            | 93.2%       | <0.001  |
| Yes  | 4.4%        | 7.3%        |         | 5.0%        | 5.0%        | 7.2%             | 6.8%        |         |
| <b>Time-off from workforce</b>                   |             |             |         |             |             |                  |             |         |
| No time off from PA workforce                    | 93.6%       | 96.8%       |         | 94.6%       | 94.4%       | 93.9%            | 94.8%       |         |
| One year   | 3.1%        | 1.6%        | <0.001  | 2.6%        | 3.0%        | 3.5%             | 2.7%        | 0.004   |
| Two years  | 1.2%        | 0.6%        |         | 1.0%        | 1.1%        | 1.1%             | 0.9%        |         |
| Three or more years                              | 2.1%        | 1.0%        |         | 1.8%        | 1.5%        | 1.5%             | 1.6%        |         |
| <b>Total hours work per week (all positions)</b> |             |             |         |             |             |                  |             |         |
| 30 or fewer hours                                | 14.9%       | 6.4%        | <0.001  | 12.8%       | 9.7%        | 7.1%             | 9.9%        | <0.001  |
| 31-40  | 53.9%       | 44.9%       |         | 50.6%       | 57.9%       | 51.8%            | 52.7%       |         |
| 41-50  | 23.3%       | 31.8%       |         | 26.5%       | 21.8%       | 23.0%            | 23.9%       |         |
| 51-60  | 5.8%        | 11.6%       |         | 7.3%        | 6.9%        | 11.1%            | 9.0%        |         |
| More than 60 hours                               | 2.2%        | 5.3%        |         | 2.8%        | 3.8%        | 7.0%             | 4.5%        |         |
| <b>Total patients per week (all positions)</b>   |             |             |         |             |             |                  |             |         |
| 40 or fewer patients                             | 29.7%       | 21.5%       | <0.001  | 27.5%       | 29.1%       | 24.6%            | 24.0%       | <0.001  |
| 41-60 patients                                   | 25.7%       | 22.4%       |         | 25.1%       | 23.6%       | 23.1%            | 21.4%       |         |
| 61-80 patients                                   | 18.6%       | 19.5%       |         | 19.2%       | 16.3%       | 17.8%            | 17.2%       |         |
| 81-100 patients                                  | 14.1%       | 17.1%       |         | 14.8%       | 14.7%       | 15.6%            | 17.0%       |         |
| More than 100 patients                           | 12.0%       | 19.5%       |         | 13.4%       | 16.3%       | 19.0%            | 20.4%       |         |
| <b>On-call</b>                                   |             |             |         |             |             |                  |             |         |
| None (I do not take calls)                       | 67.2%       | 58.5%       | <0.001  | 63.9%       | 70.0%       | 67.2%            | 64.9%       | <0.001  |
| 5 or less hours/week                             | 17.5%       | 18.4%       |         | 18.0%       | 15.7%       | 16.3%            | 17.9%       |         |
| 6-10 hours/week                                  | 5.4%        | 7.6%        |         | 6.2%        | 4.6%        | 6.1%             | 5.9%        |         |
| More than 10 hours/week                          | 9.9%        | 15.5%       |         | 11.8%       | 9.6%        | 10.5%            | 11.4%       |         |
| <b>Patient panel</b>                             |             |             |         |             |             |                  |             |         |
| No   | 65.0%       | 67.5%       | <0.001  | 65.9%       | 67.1%       | 63.6%            | 62.6%       | <0.001  |
| Yes  | 35.0%       | 32.5%       |         | 34.1%       | 32.9%       | 36.4%            | 37.4%       |         |
| <b>Specialty</b>                                 |             |             |         |             |             |                  |             |         |
| Primary Care                                     | 24.1%       | 23.0%       |         | 23.4%       | 22.0%       | 27.7%            | 28.4%       |         |
| Surgery-Subspecialties                           | 16.1%       | 24.5%       |         | 19.4%       | 16.2%       | 12.4%            | 15.9%       |         |
| Other  | 17.4%       | 13.5%       |         | 16.0%       | 16.9%       | 16.9%            | 17.3%       |         |
| Emergency Medicine                               | 10.0%       | 16.0%       |         | 11.7%       | 11.1%       | 11.9%            | 11.9%       |         |
| Internal Medicine - Subspecialties               | 11.0%       | 6.7%        |         | 9.8%        | 11.1%       | 8.8%             | 7.8%        |         |
| Dermatology                                      | 4.9%        | 2.4%        |         | 4.2%        | 4.5%        | 1.7%             | 3.6%        |         |
| Hospital Medicine                                | 3.9%        | 3.2%        | <0.001  | 3.5%        | 4.9%        | 5.7%             | 3.1%        | <0.001  |
| Surgery - General                                | 3.2%        | 2.6%        |         | 3.0%        | 3.5%        | 3.3%             | 2.6%        |         |
| Psychiatry                                       | 2.1%        | 1.9%        |         | 1.9%        | 2.2%        | 3.2%             | 2.3%        |         |
| Critical Care Medicine                           | 1.8%        | 2.1%        |         | 1.9%        | 2.2%        | 1.9%             | 1.6%        |         |
| Pain Medicine                                    | 1.3%        | 1.7%        |         | 1.4%        | 1.7%        | 1.9%             | 1.8%        |         |
| Occupational Medicine                            | 1.1%        | 1.9%        |         | 1.2%        | 1.5%        | 2.0%             | 1.6%        |         |
| Pediatrics-Subspecialties                        | 1.6%        | 0.6%        |         | 1.4%        | 1.0%        | 1.0%             | 0.7%        |         |
| Obstetrics and Gynecology                        | 1.7%        | 0.1%        |         | 1.2%        | 1.2%        | 1.7%             | 1.2%        |         |
| <b>Practice setting</b>                          |             |             |         |             |             |                  |             |         |
| Hospital   | 41.6%       | 41.5%       |         | 41.9%       | 44.2%       | 40.7%            | 35.5%       |         |
| Office-Based Private Practice                    | 38.5%       | 34.9%       |         | 38.0%       | 35.5%       | 27.8%            | 38.0%       |         |
| Other  | 8.1%        | 7.2%        |         | 7.7%        | 7.1%        | 9.8%             | 8.0%        |         |
| Urgent Care                                      | 5.3%        | 5.7%        | <0.001  | 5.3%        | 5.3%        | 6.5%             | 6.3%        | <0.001  |
| Federal Government                               | 3.6%        | 7.9%        |         | 4.4%        | 4.4%        | 10.3%            | 7.4%        |         |
| Community Health Center                          | 2.9%        | 2.9%        |         | 2.7%        | 3.4%        | 4.9%             | 4.8%        |         |
| <b>Secondary position</b>                        |             |             |         |             |             |                  |             |         |
| Work in one clinical position                    | 86.8%       | 80.3%       | <0.001  | 85.6%       | 83.8%       | 74.7%            | 81.8%       | <0.001  |
| Work in two or more positions                    | 13.2%       | 19.7%       |         | 14.4%       | 16.2%       | 25.3%            | 18.2%       |         |

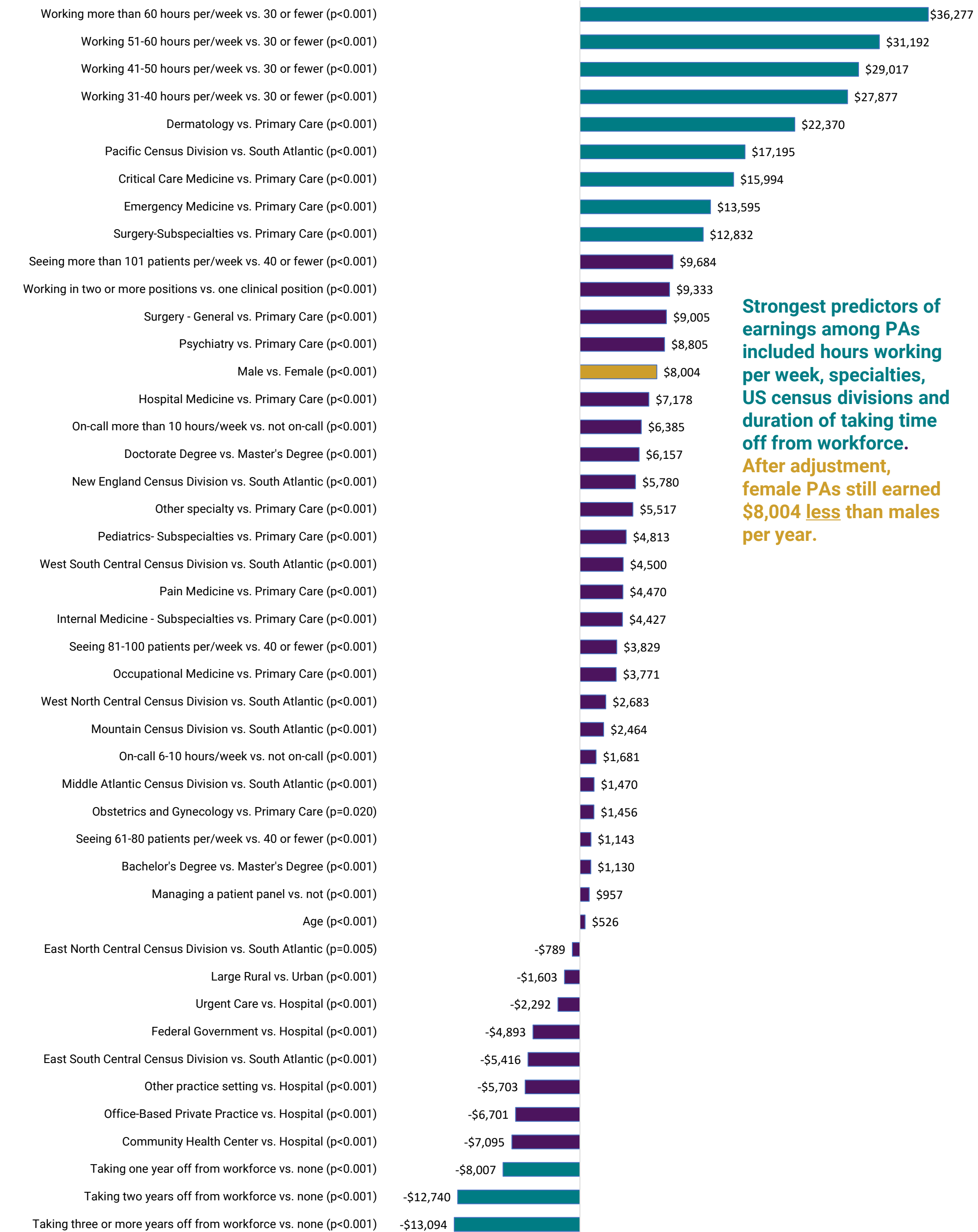
### Bivariate and Subgroup Analyses



### Unadjusted PA Income by Gender and Race



### Multivariate Analyses



## Key Findings and Conclusion

- In bivariate analyses, we found differences in income by gender: male PAs earned a median of \$20,000 more than females. PAs from all racial groups earned a median of \$115,000.
- In subgroup analyses, among males, PAs who self-identify as other race earned \$135,000 while African American, Asian and white PAs earned \$125,000. Among females, white PAs earned \$105,000 while all other race groups earned \$115,000.
- After controlling for a multitude of covariates related to income, male PAs earned \$8,004 more per year than female PAs; no differences in income were detected by race.
- Strongest predictors of PA income were number of hours worked per week, specialties, US census divisions and duration of taking time off from workforce.
- Our findings on gender disparities in income are consistent with those seen in prior studies.
- Further research is needed to assess if the etiology of the pay discrepancy stems from job opportunities or other yet unmeasured factors.

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\* American Academy of Physician Assistants changed to American Academy of Physician Associates