

Patterns in Dentistry's Gender Income Gap: Exploring Differences by Race

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Study Objectives

- To evaluate the impact of various factors on dentists' personal annual income
- **Personal Characteristics:** Gender, race, age, nativity, bilingualism, migration, disability
- **Employment Characteristics:** Practice ownership, hours worked per week, weeks worked per year, work setting, source of personal health insurance, commuting time to work
- **Household/Family Characteristics:** Partner/spouse's occupation-education level, number of children, presence of older dependents, household income

Data and Methods

- 2014-2018 American Community Survey
- Restricted to dentists working 350-2,500 hours, and 43.5-51 weeks, in the last year
- Restricted to dentists without missing information for variables of interest
- Analytic Sample = 143,671 dentists
- Descriptive Statistics: Chi-square and t-tests
- Regression Analysis: Ordinary Least Squares (OLS)

Descriptive Statistics

- Female dentists earned less than male dentists: \$159,614 vs \$211,398
- Female dentists belonged to more diverse racial/ethnic groups than male dentists: 59.5% White vs 77.5%
- Female dentists were more likely to be bilingual than male dentists: 35% vs 20%
- Female dentists were less likely to be practice owners than male dentists: 45% vs 66%
- All differences significant at $P < 0.001$

Some Descriptive Statistics

Personal Annual Income (2018 \$)	Female Dentists N=44,385		Male Dentists N=99,286		All Dentists N=143,671	
	n	%, Mean(range)	n	%, Mean(range)	n	%, Mean(range)
Race/ethnicity						
White, non-Hispanic	26,431	170,234 (106-902,215)	76,989	218,938 (1-1,093,079)	103,420	206,491 (1-1,093,079)
Black or African American, non-Hispanic	2,459	144,769 (15,815-792,242)	2,282	128,143 (5,353-628,485)	4,741	136,766 (5,353-792,242)
Asian, non-Hispanic	10,597	144,520 (1-727,404)	12,932	193,393 (531-1,086,594)	23,529	171,381 (1-1,086,594)
Other races, non-Hispanic	1,282	152,759 (4,143-572,400)	1,906	165,879 (5,094-785,874)	3,188	160,603 (4,143-785,874)
Hispanic	3,616	138,742 (10,358-839,408)	5,177	197,689 (158-628,120)	8,793	173,448 (158-839,408)

- Among Black or African American non-Hispanic dentists, women earned \$16,626 more than men

Ordinary Least Squares Regression

- Linear regression analysis
- **Dependent Variable:** Log (personal annual income)
- **Independent Variables:** All demographic, employment, and household/family characteristics listed previously
- Also adjusted for year in which the dentist was surveyed, and the state in which the dentist worked

OLS Regression Results

- Bilingual dentists earned less than those who only spoke English: RR = 0.92, $P=0.02$
- Dentists who were practice owners earned more than those who were employed: RR = 1.08, $P=0.001$
- Dentists with a partner/spouse earned more than those without
- Dentists with ≥ 3 children earned more than those without any children: RR = 1.20, $P<0.001$
- Dentists with older dependents in their household earned less than those who did not have older dependents: RR = 0.90, $P=0.006$

OLS Regression Results

- Black or African American, non-Hispanic dentists earned less than White, non-Hispanic dentists: $RR = 0.76, P < 0.001$
- Dentists belonging to other non-Hispanic races (ie, not White, Black/African American, or Asian) earned less than White, non-Hispanic dentists: $RR = 0.82, P = 0.02$
- Hispanic and Asian, non-Hispanic dentists did not have significant income differences from White non-Hispanic dentists

OLS Regression Results

Female vs Male	Log Personal Annual Income (in 2018 dollars)			
	Risk Ratio	95% Confidence Interval		P-value
		Upper Limit	Lower Limit	
Race/ethnicity				
White, non-Hispanic	0.80	0.85	0.75	<0.001
Black or African American, non-Hispanic	1.24	1.58	0.98	0.07
Asian, non-Hispanic	0.79	0.93	0.68	0.003
Other race, non-Hispanic	1.18	1.69	0.83	0.36
Hispanic	0.80	0.96	0.68	0.01

- Female dentists earned significantly less than male dentists in the following racial/ethnic groups:
 - White, non-Hispanic: 20% less
 - Asian, non-Hispanic: 21% less
 - Hispanic: 20% less

Conclusions

- Dentists' demographic, employment and household characteristics significantly impact their earnings
- Differing patterns of gender disparities in personal income were observed by racial/ethnic groups
- Characteristics such as bilingualism, race/ethnicity, and practice ownership significantly impact dentists' income

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