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

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td></td>
<td>n</td>
<td>%, Mean(range)</td>
<td>n</td>
</tr>
<tr>
<td>Race/ethnicity</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>26,431</td>
<td>170,234 (106,902,215)</td>
<td>76,989</td>
</tr>
<tr>
<td>Black or African American, non-Hispanic</td>
<td>2,459</td>
<td>144,769 (15,815-792,242)</td>
<td>2,282</td>
</tr>
<tr>
<td>Asian, non-Hispanic</td>
<td>10,597</td>
<td>144,520 (1-727,404)</td>
<td>12,932</td>
</tr>
<tr>
<td>Other races, non-Hispanic</td>
<td>1,282</td>
<td>152,759 (4,143-572,400)</td>
<td>1,906</td>
</tr>
<tr>
<td>Hispanic</td>
<td>3,616</td>
<td>138,742 (10,358-839,408)</td>
<td>5,177</td>
</tr>
</tbody>
</table>

• 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
• 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 \( \geq 3 \) 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

<table>
<thead>
<tr>
<th>Race/ethnicity</th>
<th>Risk Ratio</th>
<th>95% Confidence Interval</th>
<th>P-value</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Upper Limit</td>
<td>Lower Limit</td>
</tr>
<tr>
<td>White, non-Hispanic</td>
<td>0.80</td>
<td>0.85</td>
<td>0.75</td>
</tr>
<tr>
<td>Black or African American, non-Hispanic</td>
<td>1.24</td>
<td>1.58</td>
<td>0.98</td>
</tr>
<tr>
<td>Asian, non-Hispanic</td>
<td>0.79</td>
<td>0.93</td>
<td>0.68</td>
</tr>
<tr>
<td>Other race, non-Hispanic</td>
<td>1.18</td>
<td>1.69</td>
<td>0.83</td>
</tr>
<tr>
<td>Hispanic</td>
<td>0.80</td>
<td>0.96</td>
<td>0.68</td>
</tr>
</tbody>
</table>

- 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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