Reverse Discrimination?

Wages of Internationally Educated Nurses Working in the United States

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Disclosures

Sat Ananda Hayden is affiliated with the University of Southern Mississippi College of Nursing, Department of Systems Leadership and Health Outcomes

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Objectives

At the end of this session attendees will

1. Understand the role played by gender, race, human capital, and market characteristics in wages earned by internationally educated nurses (IENs) working in the United States

2. Relate the effects of gender, race, and human capital in terms of hourly wages earned by IENs

3. Understand the impact of study findings on employer preference

4. State policy implications of wage disparity among IENs
Chart 1: National Supply and Demand Projections for FTE Registered Nurses: 2000 to 2020

Source: Bureau of Health Professions, RN Supply and Demand Projections

Topics
- Problem
- Significance
- Study
- Results
- Analysis of Findings
Research Questions

1. Do all IENs earn the same?
2. If NO, are differences due to:
   • MARKET
   • INDIVIDUAL ATTRIBUTES
   • HUMAN CAPITAL INVESTMENT
Findings

• HUMAN CAPITAL investments do not influence wages

• MARKET SECTOR do influence wages

• INDIVIDUAL ATTRIBUTES can influence wages
  
  • Effects of Race and Gender are interactive

  • Country of Education produces differences in wages
Female IENs earn $.94 cents for each $1.00 earned by a male IEN
Problem

1. 3,063,162 Registered Nurses (RN) in the United States are female (U.S. DHHS & HRSA, 2010)

2. Female RNs face wage discrimination based on gender (Gates & Jones, 2004; Hayden, 2004; Jarrell & Stanley, 2004; Kalist, 2002)

3. Historically, non-white workers in the United States experience wage discrimination based on race

4. Unexplained differences in wages exist between IENs and USENs
Significance

1. Discrimination is an avoidable injustice
2. Laws to eliminate wage inequality have not been effective
3. Preferential wages earned by IENs may signal devaluation of domestic nursing education
4. Nurses who receive lower wages bear a disproportionate burden of health care costs
Background

1. Non-white female teachers and nurses earn more than white female teachers and nurses (McGregory, 2011)

2. IENs earn higher wages than US educated RNs (Schumacher, 2010)


Gap:
Wage structure among IENs is unexplored in the literature
Study

• Data from 2008 NSSRN

• IENs
  • Working Full Time in the U. S. as an RN
  • Minimum of 1 year experience as an RN
  • Active RN license required for job
Method

• Linear Regression with post hoc 1 sample t test and effect size

• Secondary Data/ 2008 NSSRN (accessible population = 1548)

• Power Analysis (.05, power of .08, 20 variables ) required n=156

• N = 757
Conceptual Model

- Human Capital Attributes of RNs
- Individual Attributes of RNs
- Market Attributes

Employers’ Preferences

Wages of RNs
Dependent Variable

$35.85  $32.50  $40.51  $36.87  $37.58  $35.15  $33.26  $35.96

Nonwhite Females (537)  White Females (144)  White Males (15)  Nonwhite Males (61)  All Males (76)  All Females (681)  All White (159)  All Nonwhite (598)
Sample: n = 757

- White IENs n = 159
  - Canada (92)
  - United Kingdom (35)
  - Other (53)

- NonWhite IENs n = 598

- Male IENs n = 76
  - Philippines (48)
  - Canada (10)
  - United Kingdom (4)
  - Nigeria (3)
  - India (2)
  - Other (9)

- Female IENs n = 681
Comparison of Mean Hourly Wages with Average Wage for RNs in 2008

Mean Difference

Mean Wage

* statistically significant at p < .001
Mean Wage by COE

<table>
<thead>
<tr>
<th>Country</th>
<th>Wage</th>
<th>Count</th>
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<tbody>
<tr>
<td>Philippines</td>
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<tr>
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<tr>
<td>United Kingdom</td>
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<tr>
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<td>14</td>
</tr>
<tr>
<td>All Other</td>
<td>$33.57</td>
<td>128</td>
</tr>
</tbody>
</table>
Market Impact on Wages

- UNION
- URBAN
- ACUTE CARE

ALL
WHITE
NONWHITE
Individual Attribute Impact on Wage

![Chart showing wage impact for different categories.](chart)

- **FEMALE WHITE**
  - $0.00
  - -$0.02
  - -$0.04
  - -$0.06
  - -$0.08
  - -$0.10

Legend:
- WHITE
- NONWHITE
- ALL
Overall Impact on Wages

- $0.20
- $0.10
- $0.00
- $0.10
- $0.20

ALL
WHITE
NONWHITE

Overall Impact on Wage/HR

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Wage Inequality Among Internationally Educated Nurses Working in the United States
Statistically Significant Sources of Inequality

- Years of US experience +
- Working in a tertiary setting +
- Working in an urban location +
- Holding a staff nurse position −
- Union membership +

R² = .143
F (8, 748) = 15.62
P = 0.000
n = 756
Difference in Hourly Wage By Gender

Male (76) - $37.58
Female (681) - $35.15
Pooled (757) - $36.37

Cohen's $d = -0.237$
Wage Differences by Race

- Years experience working in the U. S. +
- Working in a tertiary setting ++
- Working in an urban location ++
- Holding a staff nurse position − −
- Being female -
- Union membership ++

**White**

\[ R^2 = .15 \]

\[ F (3, 155) = 5.634 \]

\[ p = 0.031 \]

\[ n = 158 \]

**Nonwhite**

\[ R^2 = .126 \]

\[ F (5, 592) = 17.06 \]

\[ p = 0.006 \]

\[ n = 597 \]
Difference in Mean Hourly Wage by Race

- **White**: $33.26
- **Nonwhite**: $35.96
- **Pooled**: $34.61

Cohen’s $d = -.0259$

$P = .004$
Variables with Statistically Significant Differences in Mean Hourly Wage By Race and Gender \((p \leq .013)\)
Differences in Mean Hourly Wage by Race and Gender Compared with White Males

- WF (32.50)
- NWF (35.85)
- NWM (36.86)

**EFFECT SIZE**

- $0.808; p = .003$
- $0.455; p = .000$
- $0.371; p = .000$
Effect Size of Wage Difference by COE

- Canada (-$2.47)
  - $p = .036$
  - $-0.235$

- Phillipines ($2.08)
  - $p = .007$
  - $0.197$

- Not Specified (-$2.19)
  - $p = .032$
  - $-0.217$
Summary of Results ($p< .05$)

- IENS earn more if they
  - Are not staff RNs
  - Work in tertiary care
  - Are represented by a union

- IENs educated in Canada and the Philippines earn different wages

- Employers show preference for White Males
Conclusions

- The *combination* of race and gender contribute to statistical and practical differences in wages
- Higher nonwhite IEN wages are the result of gender penalties paid by white female IENs
- No relationship between human capital variables and wage
- Country of education contributes to wage inequality
- Differences are both practically and statistically significant
Implications for Policy

1. Equal pay for equal work is a wicked problem
2. A clumsy solution may be successful
3. Addition of wage equality measures to Magnet or accreditation status may be useful
Limitations

• Omitted variables
• Cost of Living
• Employer attitude (statistical discrimination)
• Institutional discrimination
Recommendations for Future Study

1. Inclusion of Cost of Living data
2. Impact of institutional discrimination
3. Employer attitudes (statistical discrimination)
4. Development of an index of nurse characteristics to predict wages
Questions?

Thank You for Your Time, Attention, and Support
Photo Credits

Slide 2: Clockwise from Top

1. Foreign Nurse – USA  http://www.assistantships.com/foreign-nurse-services.htm

Slide 22:

Childs, B (March 9, 2012) [blog], Nurses Immigrating To The U.S., Photo by Glen McBethlaw,  http://nursinglicensemap.com/nurses-immigrating-to-the-u-s
References


