



Antecedents of Physician Retirement

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Overview of Presentation

- Introduction
- Prior Research
- Data
- Methods
- Findings
- Discussion
- Next Steps



Introduction

- Physician supply concerns
- Aging of the workforce
- Aging of the population



Prior Research on Physician Retirement

- The retirement age for physicians is lowering (from 69.8 in 1980 to 67.4 in 1995)
- Variations across specialties
- HMO penetration
- Net-income



Data

- NY physician re-registration survey
- NY resident exit survey
- Medical malpractice insurance premium data



NY Physician Re-registration Survey

- 2 year registration cycle for physicians
- January 2004 through January 2006
- During this period over 77,000 physicians held licenses in NY
- $n = 48,090$



NY Physician Re-registration Survey

- Active, post-residency patient care physicians practicing in NY
- $n = 38,607$
- Limited analysis to physicians over age 50
- After a listwise deletion for missing cases:
 $n = 15,443$



NY Resident Exit Survey

- Annual survey of last year residents between 1998 and 2003
- 18,246 of 27,251 graduates have completed the survey (67% response rate)



Methods

- Variables
 - Demand scale
 - Malpractice premium scale
 - Plans to retire/reduce
- Methodological technique



Relative Demand by Specialty

- Four years of data (2000 – 2003) collected from the NY Resident Exit Survey
- Most recent years weighed heaviest
- Average rank of each specialty relative to each other specialty across six indicators of demand
- 4 groups constructed based on their quartile rankings



Demand Indicators

- Difficulty finding a satisfactory practice position
- Having to change plans due to limited practice opportunities
- Number of job offers (double weighted)
- Views of regional job market
- Views of national job market
- Trends in starting income (double weighted)



Medical Malpractice Insurance Premium Rates

- 2005 Premium Rates
- Medical Liability Mutual Insurance Company
- Each specialty assigned a value of high, medium, or low



Current Class	2005 Class	Specialty Description	Territory 00 Remainder of State	Territory 01 New York, Orange, Rockland, Sullivan, Westchester	etc...
1	1	Neurosurgery	\$66,197	\$181,709	
2	2	Obstetrics/Gynecology	\$40,352	\$110,767	
4	3	General Surgery, including Bariatric Surgery	\$36,268	\$99,554	
3	4	Orthopedic Surgery	\$30,059	\$82,511	
4	5	General Surgery, excluding Bariatric Surgery	\$24,178	\$66,369	
4	5	Cardiac Surgery	\$24,178	\$66,369	
5	6	Gynecology only	\$23,416	\$64,276	



Dependent Variable

- In the next 12 months, do you plan to:
retire from patient care? (or)
significantly reduce patient care hours?



Method

- Individual level characteristics (including demographic characteristics and practice setting)
- Specialty level characteristics (including relative demand and premium scale)
- Multilevel logistic regression model with a random intercept



Descriptive Statistics for Individual Level Variables

Individual Level Variables	Mean	Std. Dev.
Plans to Retire or Reduce Hours	0.11	0.31
<i>Gender</i>		
Female	0.21	0.41
Male	0.79	0.41
<i>Race</i>		
White	0.72	0.45
Asian	0.20	0.40
African America	0.04	0.20
Hispanic	0.04	0.19
Native American	0.01	0.08
Age	59.44	7.49
IMG	0.43	0.50
Solo Practice Setting	0.38	0.49
Urban	0.90	0.30



Descriptive Statistics for Specialty Level Variables

Specialty Level Variables	Mean	Std. Dev.
Primary Care	0.31	0.46
<i>Premium Rates</i>		
High	0.18	0.38
Medium	0.41	0.49
Low	0.42	0.49
<i>Demand</i>		
Strong	0.27	0.45
Moderately Strong	0.19	0.40
Moderately Weak	0.17	0.38
Weak	0.36	0.48



Findings for Individual Level Predictors

Variable	Coefficient	Odds Ratio	S. E.	t ratio
Intercept*	-9.260	*****	0.306	-30.23
Individual Level Predictors				
Female	0.109	1.115	0.073	1.49
Asian*	0.622	1.863	0.077	8.67
African American*	0.734	2.083	0.129	5.68
Native American*	0.622	1.830	0.264	2.36
Hispanic	0.032	1.033	0.155	0.21
Age*	0.110	1.116	0.004	30.47
IMG*	0.254	1.289	0.069	3.65
Solo Practice*	0.135	1.145	0.058	2.31
Urban*	-0.380	-0.765	0.117	-3.24

* p < .05 for a two-tailed test



Findings for Specialty Level Predictors

Variable	Coefficient	Odds Ratio	S. E.	t ratio
Specialty Level Predictors				
Primary Care	0.030	1.030	0.153	0.19
High Premiums*	0.495	1.640	0.133	3.72
Medium Premiums	0.231	1.260	0.124	1.87
Strong Demand	0.087	1.091	0.141	0.62
Moderately Strong Demand	0.103	1.108	0.150	0.69
Moderately Weak Demand	0.134	1.143	0.139	0.96

* p < .05 for a two-tailed test



Discussion

- Implications
 - Aging
 - Practice setting (solo practice – practice stress)
 - Malpractice insurance premiums



Next Steps

- Confirmation of intentions
- Assessment of intentions as an indicator of retirement behavior
- Demographics of population
- Improved model specification