

Relative Wages and the Market for Nursing Instructors

Abstract

Given the reported difficulty in attracting and retaining qualified instructors, this paper examines the earnings of RNs involved in nursing instruction. Using data from the quadrennial NSSRN for 1988 through 2008, a large decrease in relative wage is found for RN instructors relative to other RNs working outside of education. In addition, early in the sample period RNs whose primary job was in teaching earn a wage advantage in their second job, but this wage differential goes to zero by 2008. This is interpreted as the effect of more able nurses moving out of teaching as relative wage opportunities increased.

July 2011

I. Introduction

According to the Bureau of Labor Statistics' Occupational Outlook Handbook, nursing is the largest healthcare occupation, with expected job growth greater than 22 percent over the next 10 years.¹ Forecasts for a RN shortage in 2020 range from 400,000 (Auerback, Buerhaus, and Staiger, 2007) to more than 1 million (Health Resources and Services Administration, 2004). The explanations for these expected shortages are the combination of growing demand for nursing services, the expected retirement of an aging nursing workforce, along with an inability to increase the supply of nurses to meet this growing demand.² While the shortage has eased in recent years (Evans, 2009), it is expected to pick up again as the economy recovers from recession (Buerhaus, Auerback, and Staiger, 2009).

One common explanation for the lagging supply response is the constraint on nursing school capacity and enrollment. In 2010 almost 55,000 qualified applicants were turned away from BS nursing programs alone³, and it is estimated that in 2006 as many as 150,000 were turned away from all types of programs (Aiken, 2007). The top reasons reported by nursing schools for turning away qualified applicants include insufficient faculty (71.0 percent), a lack of clinical teaching sites (55.9 percent), and not enough classroom space (50.3 percent).⁴ According to a 2007 survey of nursing schools, the main reasons precluding schools from hiring additional full-time faculty include insufficient funds to hire new faculty, an unwillingness of administration to commit to additional full-time positions, an inability to recruit qualified faculty because of competition for jobs, and an unavailability of qualified applicants in the school's geographic area.⁵

¹ <http://www.bls.gov/oco/ocos083.htm>

² Aiken, 2007; Aiken and Cheung, 2008; Buerhaus, Staiger, and Auerbach, 2003, 2004; Buerhaus, Auerbach, and Staiger, 2009; Goldfarb, Goldfarb, and Long, 2008; Long, Goldfarb, and Goldfarb, 2008; Shields, 2004; Spetz and Given, 2003; Hirsch and Schumacher, 2005

³ American Association of Colleges of Nursing.

⁴ American Association of Colleges of Nursing, *Annual State of the Schools*, 2007.
<http://www.aacn.nche.edu/Publications/pdf/AnnualReport07.pdf>

⁵ American Association of Colleges of Nursing, 2007 Survey on Faculty Vacancies, Washington, DC.
<http://www.aacn.nche.edu/IDS/pdf/vacancy07.pdf>

In order to explore this issue in more detail, this paper examines the relative earnings of RNs involved in nursing instruction. Using data from the quadrennial National Sample Surveys of Registered Nurses (NSSRN) for years 1988 through 2008 it provides measures of how nurses involved in teaching have fared relative to those nurses involved in non-academic settings. The results indicate that nurses involved in teaching experienced large decreases in their earnings relative to other nurses over this period. As the earnings of nurses working in hospitals and other non-academic settings were bid up, the salaries for teaching positions have not kept pace resulting in an eroding relative wage for nurse educators. Information on nurses who hold second jobs is then used to examine the role of unmeasured ability in explaining the wage differential between instructors and non-instructors. These results indicate that early in the period, nurses who are instructors in their primary job receive a wage advantage in their second job relative to nurses who are not instructors in their primary job. By 2008, however, this wage advantage goes to zero. This is interpreted as a shift of relatively more able nurses involved in teaching to occupations outside of teaching as the relative wage for instructors eroded.

II. Background

As of 2008 about 20.4 percent of the RN workforce held a diploma, 45.4 percent held the associate's degree, and 34.2 percent held a bachelor's degree or higher.⁶ In 2010 2.7 percent of US trained nursing taking the NCLEX exam were from diploma programs, 29.3 percent were from Baccalaureate degree programs, and 57.9 were from associate degree programs (National Council of State Boards of Nursing, 2010). Thus, nursing instructors can be employed by colleges and university, community colleges or technical school, and hospital programs. RNs are also employed as instructors in LPN/LVN programs. Nurses involved with teaching often hold a Ph.D, but not always. According to the American Association of Colleges of Nursing (AACN), of the 755 vacant faculty positions in the 2009-2010 academic year, 58.8 percent required an earned doctorate, 31.8 percent required a Master's

⁶ The Registered Nursing Population, Findings from the 2008 National Sample Survey of Registered Nurses, September 2010, US Department of Health and Human Services, Health Resources and Services Administration, <http://bhpr.hrsa.gov/healthworkforce/nrsurveys/nrsurveyfinal.pdf>

Degree, but preferred a Ph.D., 7.2 percent required a Master's Degree, and 2.3 percent required some other degree.⁷ The education requirements for teaching in diploma or associate degree programs are lower. Most instructors in associate degree programs will hold a master's degree, but some may have a Ph.D.

Most nurses involved with nursing education are required to be involved with both classroom and clinical teaching. The AACN reports that 74.3% of faculty positions involved both classroom and clinical teaching, 22.5 percent involve only classroom time, and 2.1 percent involve only clinical teaching.⁸ Thus the work of a nursing instructor involves both time in the classroom and time spent with patients. Even during breaks and vacations the average nurse educator works more than 24 hours per week. During the school term nurse educators worked an average of 56 hours per week which exceeds the average of 45-55 in academics in general (National League for Nursing 2007).

In order to attract nurses into teaching, schools must offer enough compensation to make RNs at least indifferent between employment practicing nursing and that as a nursing instructor. For academics in general schools can offer better working conditions (flexible hours, summers off, academic freedom, etc.) to make up for lower compensation than in the non-academic setting. Nursing, however, may not have this luxury as instructors are required to spend time in both classroom and clinical settings. Colleges and universities, however, may be reluctant to increase nursing salaries to make up for this difference. Nursing schools are expensive for colleges to operate. The provost of the Medical Education Campus of Northern Virginia Community College indicates that they lose \$8,000 per year for every nurse they train.⁹ Thus, colleges and universities may be unwilling or unable to increase salaries sufficiently for nursing instructors to balance the wage difference between academic and nonacademic settings.

⁷ American Association of Colleges of Nursing, Special Survey on Vacant Faculty Positions for Academic Year 2009-2010, <http://www.aacn.nche.edu/IDS/pdf/vacancy09.pdf>

⁸ Ibid.

⁹ *What Works: Healing the Healthcare Staffing Shortage*, Price Waterhouse Coopers, 2007

At the same time, nursing wages have risen rather rapidly (Schumacher, 1997, 2001) and nurses are paid high wages relative to other occupations with similar skill requirements and working conditions (Hirsch and Schumacher, forthcoming). Due to changing technology, nursing shortages, and overall increased demand, the wages of RNs have been pushed up in both absolute and in relative terms as compared to most groups of workers in the economy. This demand increase has been largest for the higher skilled nurses who are also most qualified for teaching positions. There is a close association with nursing school enrollments and the earnings of RNs. Figure 1 shows a relative wage index along with the percentage change in enrollments in entry-level Baccalaureate nursing programs. The index is constructed by estimating a log wage regression from data from the monthly Current Population Surveys for the years 1992 through 2010.¹⁰ The figure plots the coefficient on the yearly dummy variable which shows how the real wage (adjusted for inflation using the Consumer Price Index) for RNs changes relative to the base year (1992) after adjusting for measurable characteristics. Early in the period, real wages were falling so that an RN in 1997 earned a wage about 94 percent of an RN in 1992 with identical characteristics. After 1997, however, real wages began to rise so that by 2002 RNs were above their 1992 wage level, and an RN in 2010 earned a wage about 5 percent more than an equivalent RN in 1992.

The enrollment data in Figure 1 show a close connection to the wage measure with a slight lag. Between 1994 and 2000 when nursing earnings were relatively flat, enrollments in nursing schools declined slightly. When nursing wages began to increase in the late 1990s or early 2000s, nursing enrollments picked up rather dramatically. But enrollments could have been even larger: since 2004 at least 30,000 qualified applicants have been turned away each year from entry-level BS nursing programs with almost 55,000 turned away in 2010.¹¹ The link between wage growth and nursing school enrollment is consistent with findings on choice of college major in general. Freeman

¹⁰ This regression includes controls for potential experience (years since finishing school) and higher order terms to the fourth power, and dummies for degree type (4), race/ethnicity (2), gender, part-time status, union membership, hospital employment, marital status (2), region (8), large metropolitan area, and year (18).

¹¹ <http://www.aacn.nche.edu/media/newsreleases/2011/enrollsurge.html>

and Hirsch (2008) find that the choice of college major is responsive to changes in the knowledge composition of jobs and the wage returns to types of knowledge.

Thus, the nursing staffing problem is likely to have worsened. If market forces outside of teaching are pushing wages up for nurses, but institutional constraints within academics are holding wages down, then we would expect workers to move out of teaching and into non-teaching settings. The workers who remain in teaching would be those who have an especially strong affinity for teaching or are not sufficiently mobile to switch jobs. In the sections that follow, I examine how the earnings of RNs involved in teaching compare to those involved in patient care.

III. Data and Descriptive Evidence

The Primary Data for this study are taken from the quadrennial National Sample Survey of Registered Nurses (NSSRN) for 1988 through 2008. The survey is mailed to individuals with an RN license in the US every four years by the Division of Nursing, Health Resources and Services Administration, U.S. Department of Health and Human Services. The resulting public use data contain personal and demographic information on the registered nurse population; including current employment setting as well as information on second jobs within nursing. The sample was restricted to those who were employees of a facility or a temporary employment agency (self-employed were eliminated), and who were employed in nursing as their principal position.

The survey asks individuals to identify both their employment setting as well as their position. The setting categories include hospital, nursing home, ambulatory care center, public or community health settings, and nursing education among other categories. The choices within the nursing education category include LPN/LVN program, diploma program, associate degree program, baccalaureate and/or higher degree program, and “other” program. The options within the position categories include instructor in a school of nursing and Assistant/Associate/Full professor. I use both of these measures to define nursing teachers. Nursing Education is defined as those whose setting is in one of the nursing education categories, and a nursing instructor is defined as a nurse whose position is either an instructor or a professor.

Approximately 2.2 percent of the RN sample reports their primary position as a nursing instructor. Overall, instructors tend to earn a higher hourly wage,¹² report similar hours per week, but more than 200 hours less per year. Instructors tend to be older and have more experience, but otherwise have similar characteristics to non-instructors.

Real annual salary, hours of work per week, and weeks worked per year are reported in Table 1 by year and by nursing position. The data are shown for instructors, nurses involved in LPN/LVN, diploma, associate degree, and BA programs. Also shown are nurses not involved in education, staff RNs, and supervisors.¹³ The real earnings of nurses increased over the period for all categories, but the increase was greater for nurses not involved with education. Though the sample sizes are small within type of education group, salary increases for these groups were lower than for those outside of teaching. The hours worked per year seem to increase slightly, and mostly between 2000 and 2008, while the number of weeks worked per year remains relatively constant. The paper next examines how accounting for differences in measurable characteristics affects this trend in earnings data.

IV. Changes in the Relative Wage Associated with Nursing Instruction

In order to adjust for differences in worker characteristics between nurse educators and non-educators and across time, log wage regressions are estimated separately for each survey year. Nurse educators are pooled with RNs not involved with teaching and a dummy variable on nurse educator is included. These results are presented in Table 2. In specification 1, the nurse educator category is defined as those who indicate their primary setting is in nursing education, while in specification 2 this is broken out by type of program. As an alternative, specification 3 includes dummy variables for position title.

¹² All earnings data are reported in constant 2008 dollars.

¹³ Staff Nurses include Charge Nurse, Public Health Nurse, School Nurse, Staff Nurse, Team Leader, and "No Position Title". Supervisor includes Administrator of Facility/Agency, Administrator of Nursing, Supervisor or Assistant Supervisor, Head Nurse or Assistant Head Nurse, and Nurse Manager.

Employment in a hospital is a mutually exclusive category for the education variables in regressions 1 and 2, but not in 3 (though it is controlled for).¹⁴

Regression results reported in Table 2 show that, overall, nurse educators earn a wage premium relative to non-educators. Pooling the surveys over the years, those in nurse education earn a log wage about .118 points (12.5 percent)¹⁵ more than nurses employed outside of hospitals but not in education, while a hospital employed RN earns about 3.3 percent more than an RN in education. Likewise, a nursing instructor earns about 4.0 percent higher wages than a supervisor, and about 14.9 percent higher wages than a staff nurse. Specification 2 shows that over the entire period, with the exception of teaching in an LPN program where wages are much lower, teaching RNs earn a wage at or just below those paid to hospital based RNs.

Examining how these differentials change over time shows that nursing instructors experienced large relative wage losses over the period. In 1988 a nurse involved in nursing education received a wage 32.7 percent higher than a nurse employed outside of teaching and the hospital setting and 12.2 percent more than a hospital RN. This positive differential eroded consistently over the period so that by 2008 a nursing educator earned about 13.3 percent *less* than a hospital RN and only about 2.9 percent more than RNs employed outside the hospital sector. RNs involved in teaching in a BA program saw their wage advantage over non-hospital RNs fall from almost 35 percent in 1988 to about 3.7 percent in 2008 while associated degree educators saw a decrease from 35.8 percent to about 6.5 percent. Teaching in a BA program in 2008 is associated with an 11.8 percent lower wage over working in a hospital. Similar results are obtained when examining the position title of the RNs. In 1988 nurse instructors earned 28.9 percent more than a staff RN and about 13.1 percent more than an RN supervisor. By 2008 these differentials fell to 4.1 and 3.1 percent respectively.

¹⁴ Other variables included in these models are dummy variables for level of education (3 for 4 categories), experience and its square, and dummies for employment in a large metropolitan area, part-time employment, race/ethnicity (3 for 4 categories), marital status (2 for 3 categories), employment by a temporary agency, gender, and region (8 for 9 categories).

¹⁵ Log wage differentials are converted to percentages by $100[\exp(\beta)-1]$ where β is the log wage coefficient.

The results show that RNs involved in teaching experienced large relative wage declines over the 1988 to 2008 period. While real earnings rose slightly for RN teachers (Table 1), when compared to RNs in alternative employment settings, nursing instructors' earnings fell significantly. As the demand for RNs increased in non-academic settings increased, their wages were driven up. In order to keep compensation competitive, colleges and universities faced pressure to increase compensation to their RN teachers, but the evidence here suggest that RN teacher compensation did not keep pace with the rest of the RN sector. Thus, it is not surprising to find that one of the binding constraints on nursing school capacity and enrollment is insufficient faculty.

V. Evidence from RNs Holding Second Jobs

The results above showed that when compared to nurses employed in other sectors, nursing educators experienced substantial declines in relative wages. Given that RNs, once educated, are mobile between teaching and practicing nursing we would expect that as relative wages decreased teaching nurses would move out of teaching positions and into other positions. In fact, many of the explanations reported by nursing schools for the difficulty in filling vacant faculty positions deal with the inability to compete with earnings outside of teaching.¹⁶

Nursing educators, like other academic jobs have to compete with other employment opportunities to attract workers. The difficulty with nursing, however, is that the demand for nurses was increasing rather rapidly over this period. Schumacher (2001) finds a large increase in the return to education and experience over the 1993 to 1998 period and interprets this change as an increase in the demand for higher skilled nurses relative to lower skilled workers. Thus, given that nursing educators are highly educated and have extensive nursing skills, their opportunities outside of teaching increased over this period. This movement, however, might not be uniform across all skill levels, and the relative quality of nursing faculty may well decline as more able nurses move out of teaching.

¹⁶ American Association of Colleges of Nursing, 2007 Survey on Faculty Vacancies, Washington, DC. <http://www.aacn.nche.edu/IDS/pdf/vacancy07.pdf>

Measuring quality is difficult to do in most data sets. Measurable characteristics may not adequately capture differences in worker ability, especially at such a highly specialized area of nursing. Yet there still may be differences in unmeasured ability across sector of employment. To get at the role of unmeasured ability in nursing education the information in the NSRN on RNs who hold a second job in nursing is utilized. The NSRN asks workers if they are employed in a second job in nursing and if so asks detailed information about the job including position, hours worked, and earnings.¹⁷ About 15 percent of the sample holds a second job in nursing. Second job holders tend to be slightly younger and are less likely to be married, but otherwise have similar characteristics. Among second job holders, about 43 percent of these jobs are in hospitals and about 12 percent tend to be involved in teaching.

The proportion of RNs whose primary job is in teaching who hold second jobs declined over the period from about 40 percent in 1992 to 27 percent in 2008. The proportion of second job holders whose primary job is not in teaching is much smaller at about 14.5 percent, but the proportion declined over the period as well. Early in the period, workers whose primary job is in teaching, earn a higher wage in their second job than workers whose primary job is not in teaching. By 2004, however, wages in the second job are similar for these workers.

In table 3 separate regression results by year are presented where the log wage in the second job is the dependent variable.¹⁸ Specification 1 shows coefficients on primary job dummy variables using the primary job setting categories.¹⁹ In 1988 RNs whose primary job was in education earned about 12 percent more in their second job than did those whose primary job was outside of education.

¹⁷ The 2004 survey changed the way hours worked was collected. Previously they mirrored the questions on the primary job and asked individuals for the typical hours worked per week and the number of weeks worked per year. Beginning in 2004, however, the survey asks workers to choose among a discrete number of annual hours categories. Thus, the average hours worked over time may not be consistent in this survey year as compared to others. The 2008 survey reverted back to the method used in the pre 2004 surveys.

¹⁸ In results not shown comparing the whole sample to the restricted sample of second job holders shows these groups are quite similar. Likewise a regression using the log wage in the second job yields highly similar coefficients as a similar regression using the log wage in the primary job. There is a slightly lower return to graduate education on the second job than for the primary job and a higher return to experience on the second job. Otherwise results are similar.

¹⁹ Only the education category is shown in the table. Other right hand side variables included in the regressions are the same as those listed in Table 2.

By 2008 this difference fell to about 5.1 percent. Similarly, specification 2 shows that RNs whose title is instructor in their primary job earned about 8 percent more in their second job than did those whose primary title was not instructor. By 2008 this fell to a negative differential of about 5 percent. These results suggest that early in the period, RN educators tended to have high unmeasured skills as compared to non-educators. As the wage differential associated with teaching eroded, however, the results are consistent with the movement of the more able workers out of teaching and into non-academic settings.

VI. Conclusions

Reports of chronic nursing shortages and predictions of larger shortages looming has caused policy concern. At the same time, nursing schools have reported difficulties attracting and retaining qualified instructors and, therefore, have had to turn away thousands of qualified applicants. The results here document that nursing instructors experienced large decreases in relative wages when compared to RNs working in non-educational settings. In 1988 a nursing instructor earned about 30 percent more than a staff RN, but by 2008 this differential fell to about 4 percent.

Information on second jobs shows a decrease in the wage premium RNs educators (in their primary job) receive in their second job. This is interpreted as a decrease in the relative skill level of nursing educators relative to non-educators. As nursing wages in hospital and other settings were bid up over this period, the salary of nursing instructors did not keep pace making it difficult for nursing schools to attract qualified instructors. This led to a decrease in the relative skill level of nursing instructors as the most able or most mobile nurse educators were the most likely to leave for better opportunities outside of teaching. If policy makers hope to resolve expected future nursing shortages by increasing the output of nursing schools, they first need to establish ways to increase the compensation of nursing instructors relative to what these nurses could make in alternative employment settings.

References

- Aiken, Linda H. "U.S. Nurse Labor Market Dynamics Are Key to Global Nurse Sufficiency," *Health Services Research*, Volume 42 (3) Part II, June 2007, 1299-1320.
- Aiken, Linda H., and Robyn Cheung. 2008. "Nurse workforce challenges in the United States: Implications for policy." *OECD Health Working Papers*, No. 35.
- American Association of Colleges of Nursing. 2009. *Advancing Higher Education in Nursing: 2009 Annual Report*, Washington D.C. <<http://www.aacn.nche.edu/Media/annualreport.htm>>.
- Auerback David I., Peter I. Buerhaus, and Douglas O. Staiger. "Better Late than Never: Workforce Supply Implications of Later Entry into Nursing," *Health Affairs*, Volume 26(1), January/February 2007:178-185.
- Buerhaus, Peter I., David I. Auerbach , and Douglas O. Staiger. 2009. "The recent surge in nurse employment: Causes and implications." *Health Affairs* 28:4: w657-w668.
- Buerhause, Peter I, Douglas O. Staiger, and David I. Auerbach, "Is the Current Shortage of Hospital Nurses Ending?" *Health Affairs*, Volume 22(6) November/December 2003: 191-98.
- _____. "New Signs of a Strengthening U.S. Labor Market?" *Health Affairs* 23 Web Exclusive, 2004.
- Evans, Kelly. "Fewer openings in nursing field. 2009. *Wall Street Journal*, April 13, A6.
- Freeman, James A., and Barry T. Hirsch, "College Majors and the Knowledge Content of Jobs," *Economics of Education Review*, Vol. 27, No. 5, October 2008, pp. 517-35.
- Goldfarb, Marsha G., Robert S. Goldfarb, and Mark C. Long. 2008. "Making sense of competing nursing shortage concepts." *Policy, Politics, & Nursing Practice*, 9:3, 192-202.
- Hirsch, Barry T., and Edward J. Schumacher. "Underpaid or Overpaid? Wage Analysis for Nurses Using Job and Worker Attributes," *Southern Economic Journal*, forthcoming.
- _____. "Classic or New Monopsony? Searching for Evidence in Nursing Labor Markets," *Journal of Health Economics*, Vol. 24 (5), September 2005, pp. 969-89.
- Health Resources and Services Administration. *What's behind HRSA's Projected Supply, Demand, and Shortages of Registered Nurses?* September 2004.
- Long, Mark C., Marsha G. Goldfarb, and Robert S. Goldfarb. 2008. "Explanations for persistent nursing shortages." *Forum for Health Economics & Policy*, 11:2, article 10 <<http://www.bepress.com/fhep/11/2/10>>.
- National Council of State Boards of Nursing 2010. "Number of candidates taking NCLEX examination and percent passing, by type of candidate, 2009," <<https://www.ncsbn.org/1237.htm>>.

National League for Nursing, "More Findings from the NLN/Carnegie National Survey: How Nurse Educators Spend Their Time," *Nursing Education Perspectives*, Volume 28, No. 4, September/October 2007, pp. 296-297.

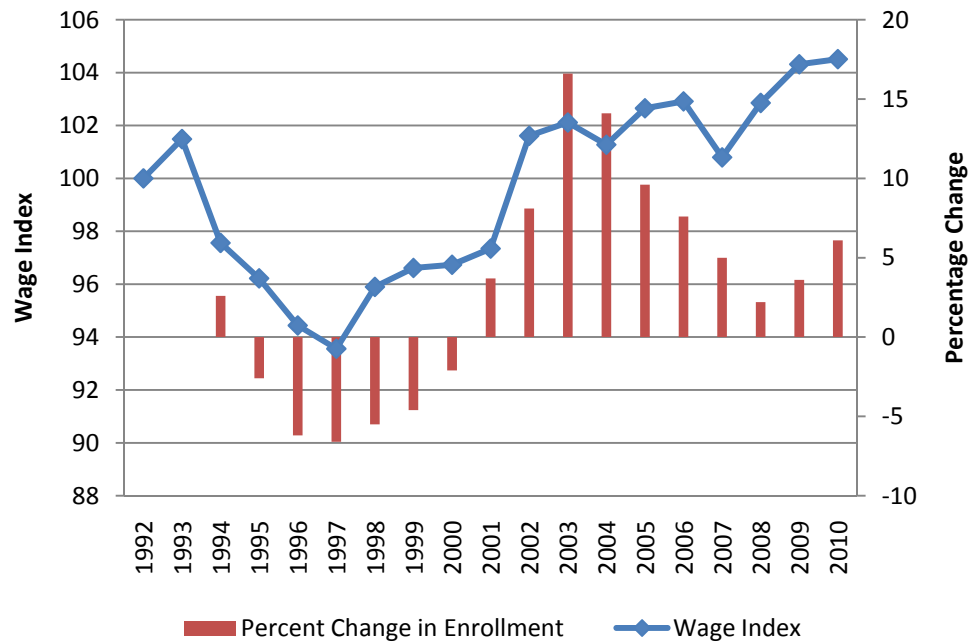
Schumacher, Edward J. "The Earnings and Employment of Nurses in an Era of Cost Containment," *Industrial and Labor Relations Review*, Volume 55 (1) October 2001, pp. 116-32.

Schumacher, Edward J. "Relative Wages and the Returns to Education in the Labor Market for Registered Nurses," *Research in Labor Economics*, Volume 16, 1997, pp. 149-76.

Shields, Michael A. 2004. "Addressing nurse shortages: What can policy makers learn from the econometric evidence on nurse labour supply?" *Economic Journal* 114, F464-F498.

Spetz, Joanne, and Ruth Given. 2003. "The future of the nurse shortage: Will wage increases close the gap?" *Health Affairs* 22:6, 199-206.

Figure 1
RN Wage Index and the Percentage Change in Enrollment in Entry-Level Baccalaureate Nursing Schools



Note: The RN wage index and relative wage are constructed from Current Population data using the Monthly ORG files from 1992 through 2010. The index is derived from log wage regression coefficients on year dummies, with 1992=100. The regression includes controls potential experience (years since finishing school) and higher order terms, and dummies for degree type (4), race/ethnicity (2), gender, part-time status, union membership, hospital employment, marital status (2), region (8), large metropolitan area, and year (18). The coefficients on the year dummies are converted to a percentage index by: $\exp(\beta) * 100$, where β is the coefficient. Enrollment data are from the American Association of Colleges of Nursing, www.aacn.nche.edu/index.htm

Table 1: Annual Earnings, Hours of Work, and Sample Size by Year by Nursing Specialty

Year		Instructor	LPN Program	Diploma Program	AD Program	BA Program	Non-Educational	Staff RN	Supervisor
All years	Real Earnings	\$48,879	\$47,698	\$54,054	\$51,170	\$58,880	\$51,627	\$46,854	\$63,300
	Annual Hours	1596	1694	1824	1660	1802	1842	1755	2119
	Weeks/Year	42.4	45.4	47.7	41.6	42.2	49.9	49.6	50.8
	N	3,293	409	269	1,118	1,630	145,542	95,506	22,656
1988	Real Earnings	\$44,156	\$49,021	\$48,485	\$45,995	\$53,040	\$42,987	\$39,086	\$53,438
	Annual Hours	1552	1734	1776	1551	1723	1761	1682	2029
	Weeks/Year	43.4	46.9	47.7	41.0	41.7	50.2	50.0	51.2
	N	654	69	50	150	239	24,742	17,044	4,344
1992	Real Earnings	\$46,849	\$43,940	\$54,161	\$47,729	\$57,088	\$48,688	\$44,731	\$59,844
	Annual Hours	1528	1643	1786	1479	1754	1748	1667	2010
	Weeks/Year	42.4	46.5	49.2	40.1	42.7	50.2	50.0	51.0
	N	583	62	24	153	232	23,961	16,433	3,905
1996	Real Earnings	\$47,406	\$45,625	\$52,752	\$48,359	\$54,774	\$49,274	\$44,688	\$59,950
	Annual Hours	1546	1606	1787	1488	1689	1774	1686	2010
	Weeks/Year	42.8	44.6	47.4	41.0	41.6	50.3	40.0	51.0
	N	641	58	28	151	272	21,909	14,106	3,534
2000	Real Earnings	\$51,354	\$50,389	\$56,788	\$50,184	\$58,763	\$51,162	\$45,961	\$64,471
	Annual Hours	1680	1550	1770	1499	1666	1773	1687	2026
	Weeks/Year	41.0	43.5	47.5	41.7	41.9	50.1	49.8	50.9
	N	418	61	26	135	256	24,579	15,587	3,540
2004	Real Earnings	\$52,865	\$48,850	\$60,026	\$53,417	\$61,748	\$57,298	\$55,263	\$69,898
	Annual Hours	1680	1836	1991	1775	1847	2000	1921	2294
	Weeks/Year	41.5	45.4	47.1	43.4	43.1	48.7	48.3	49.8
	N	489	78	53	240	268	24,863	15,368	3,886
2008	Real Earnings	\$53,924	\$47,524	\$53,401	\$55,741	\$64,879	\$59,718	\$54,434	\$74,439
	Annual Hours	1785	1733	1797	1883	2031	1981	1887	2364
	Weeks/Year	--	--	--	--	--	--	--	--
	N	508	81	115	289	364	25,488	16,968	3,447

Data are from the NSSRN. Instructors are those RNs who indicate their primary position is either as an instructor in a school of nursing or a professor (full, associate or assistant) of nursing. LPN program, Diploma Program, AD program, BA Program, are based on they primary setting question in the survey. Staff RN and Supervisor are based on the primary position question. Staff RNs include Charge Nurse, Public Health Nurse, School Nurse, Staff Nurse, and Team Leader. Supervisors include Administrator of Facility/Agency, Administrator of Nursing, Supervisor or Assistant Supervisor, Head Nurse or Assistant Head Nurse, and Nurse Manager. The 2008 NSSRN does not include weeks per year in the public use file. Real earnings are in 2008 dollars.

Table 2: Log Wage Coefficients on the Returns to Nursing Education

Year	Specification 1		Specification 2					Specification 3		
	Hospital	Nursing Education	Hospital	LPN Program	Diploma Program	Associate Program	BA Program	Instructor	Supervisor	Staff RN
All years	.151 (.002)	.118 (.005)	.151 (.002)	.071 (.016)	.125 (.018)	.154 (.010)	.125 (.008)	.057 (.006)	.017 (.003)	-.082 (.002)
1988	.161 (.004)	.283 (.013)	.161 (.004)	.266 (.034)	.157 (.040)	.306 (.023)	.299 (.019)	.140 (.012)	.007 (.007)	-.114 (.006)
1992	.188 (.004)	.182 (.013)	.188 (.004)	.124 (.036)	.123 (.057)	.227 (.023)	.181 (.019)	.124 (.012)	.055 (.007)	-.066 (.006)
1996	.142 (.004)	.137 (.013)	.142 (.004)	.093 (.039)	.084 (.055)	.192 (.024)	.115 (.018)	.061 (.012)	.049 (.007)	-.071 (.006)
2000	.127 (.004)	.110 (.013)	.128 (.004)	.135 (.039)	.123 (.059)	.132 (.026)	.122 (.019)	.101 (.015)	.047 (.006)	-.086 (.005)
2004	.128 (.005)	.076 (.015)	.129 (.005)	-.057 (.042)	.102 (.052)	.123 (.024)	.100 (.023)	.041 (.018)	.009 (.008)	-.075 (.006)
2008	.154 (.004)	.029 (.010)	.154 (.004)	-.049 (.036)	.064 (.031)	.063 (.019)	.036 (.018)	-.039 (.015)	-.008 (.007)	-.079 (.005)

Data are from the NSSRN. Instructors are those RNs who indicate their primary position is either as an instructor in a school of nursing or a professor (full, associate or assistant) of nursing. LPN program, Diploma Program, AD program, BA Program, are based on they primary setting question in the survey. Staff RN and Supervisor are based on the primary position question. Supervisors include administration, head nurse, and supervisor categories. Shown are log wage coefficients on nursing educator dummy variables. Specification 1 includes a dummy variable for nurses whose primary setting of employment is in nursing education. Specification 2 breaks this into separate categories for type of program. Specification 3 includes dummies for position title. Other title is the omitted group. Hospital is a mutually exclusive category in regressions 1 and 2, but not in 3 (though it is controlled for). Other variables included in these models are dummy variables for level of education (3 for 4 categories), experience and its square, and dummies for employment in a large metropolitan area, part-time employment, race/ethnicity (3 for 4 categories), marital status (2 for 3 categories), employment by a temporary agency, gender, and region (8 for 9 categories).

Table 3: Second Job Log Wage Coefficients by Year

	Primary Job in Education	Primary Job as Instructor
1988	.115 (.061)	.078 (.046)
1992	.168 (.055)	.114 (.045)
1996	.044 (.063)	.029 (.053)
2000	.036 (.056)	-.005 (.050)
2004	.051 (.056)	-.054 (.052)
2008	.051 (.040)	-.053 (.023)

Source: data are from the NSSRN. The dependent variable is the real wage in the secondary job. Shown are coefficients from two separate regressions for each year. Other variables included in the regressions are years of experience and its square, dummies for degree type (3), large metropolitan area, race/ethnicity (3), marital status (2), gender, region (8), hospital employment in the primary job, hospital employment in the second job, and second job as an instructor.