COMPENSATION OF STAFF NURSES EMPLOYED IN UNITED STATES HOSPITALS FROM 1960 TO 1990

by

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ABSTRACT

Compensation for registered nurses employed as staff nurses in nonfederal hospitals from 1960 to 1990 was studied. Significant events of hospital financing, professional efforts to improve wages and working conditions, and the changing demand for nurses were also examined. Historical method was used to gather and interpret data, construct a salary time series, and describe events affecting the interaction of supply, demand, and wages in the nurse labor market.

Over thirty years, staff nurses experienced a 606% increase in actual salaries; however, when adjusted for inflation, real earnings grew only 82%. The range between minimum and maximum salaries increased from 20% to 50%, alleviating some wage compression. The cost of employer-offered benefits rose, although the hospital industry lagged behind the averages for both manufacturing and nonmanufacturing industries. Gains in nonwork compensation, such as vacation, holiday, and sick benefits, were negligible.

The registered nurse labor pool grew more than threefold. Consistently two-thirds of all nurses worked in hospitals. The activity rate peaked at 80% in 1988 and continued to exceed the labor force participation for all U.S. women. Part-time work was the greatest factor affecting supply. Demand for hospital nurses also continued to rise. Expressed as vacancy rate, demand was an unreliable and probably inaccurate

measure. Three-quarters of reported rates exceeded 10%, indicating shortage conditions.

The hospital industry experienced frequent growth and retrenchment. Funding from the Hill Burton Act and Medicare and Medicaid created new demands for care and nurses. Federal government regulation was imposed through cost containment in the seventies and prospective payment in the eighties. Health care expenses continued to climb, and registered nurses were widely substituted for nonprofessional workers.

The American Nurses Association steadfastly advocated for nurses' economic security. Salaries grew only slightly, however, and earnings never rose to a level that reduced demand for more expensive workers. Thus, the nursing profession missed opportunities to push for increases during shortages.

Findings support the need for a standardized national minimum data set. The nursing profession must take bold steps to control the supply, redefine demand, and increase wages to correct the market for the nation's largest group of health care workers.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

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CHAPTER 1

INTRODUCTION

Approaching midcentury, nurses were disillusioned by intolerable working conditions and low wages in hospitals. Undesirable conditions were perpetuated by the unwillingness of hospitals to modify wage structures or accommodate married women and mothers. Some hospitals continued to pay low wages with maintenance supplements of room, board, and laundry, which discriminated against married women.[1]

The initial move from private duty nursing to hospital nursing in the 1930s had stripped nurses of their freelance independence. Over time, however, hospital jobs enhanced nurses' skills through the demand for medical technology management and the ability to administer therapeutic regimens. The institutional setting had changed the physician's role to one of reliance on the nurse, rather than traditional entrepreneurial practice. Hospital nurses were no longer under the economic and social control of physicians and discovered a newfound occupational solidarity with similar interests and grievances in the work place. Nurses held strategic positions managing patient wards, and ultimately, doctors no longer wielded authority over their

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[1]Barbara Melosh, "The Physician's Hand" Work Culture and Conflict in American Nursing (Philadelphia: Temple University Press, 1982), 195.

actions. Nurses, in short supply after World War II, found some administrative support or leverage when confronting a physician or resolving a conflict.[2]

As medical knowledge developed, so did care, and nursing and medical work became more interdependent. Nurses' authority for patient care management grew in the face of expanding specialty services and the demand for keen nursing observation, skill, and judgment; as nurses gained new responsibilities, they also began to demand commensurate authority. The new responsibilities were bittersweet and were accompanied by an increased work load and a staffing crisis in the industry during a period of rapid hospital expansion in the late 1940s. Nurses cited the pay, the amount of work, and the lack of time to accomplish the necessary work as the primary causes of the crisis.[3] This marked a significant episode of nursing shortage associated with low pay and poor working conditions.

The nursing profession has continued to be concerned with compensation issues and demonstrates renewed interest with each occurrence of a national nursing shortage. Shortages of registered nurses in the United States have been a persistent problem for over forty-five years. The most recent shortage reached crisis proportions in 1987 and 1988 and remained unresolved in some locations five years after its recognition.[4]

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[2]Ibid., 184-185.

[3]Ibid., 186-195.

[4]Matt Clark, "Nurses: Few and Fatigued. Staffing Shortages are Straining Hospital Care," Newsweek, 29 June 1987, 59, 61; Christine Gorman, "Special Report: The Crisis in Nursing. Fed Up, Fearful and Frazzled," Time, 14 March 1988, 77-88; Tamar Lewin, "Sudden Nurse Shortage Threatens Hospital Care," New York Times, 7 July 1987, 1, A19; Dan Richman, "Nursing: An Endangered Profession," Modern Healthcare, 27 March 1987, 32-36; and Terry L. Selby, "R.N. Shortage Threatens Quality of Care," American Nurse, March 1987, 1, 11.

Despite intense study of the nursing work force, long-term solutions to correct the problems have been either ineffective or not implemented during the recurrent shortages.

Supply considerations in the most recent shortage were aggravated by a declining college age population in the United States (U.S.) and a declining applicant pool to nursing schools.[5] Applicants looking for financial security found disparity between nursing and other professional salaries and were deterred from pursuing education in nursing. Also on an increasing basis, women began exercising alternative career options in what were formerly male dominated professions such as law, engineering, medicine, business, and computer science. These professions traditionally have offered greater status, prestige, and career earnings progression of 100% to 200%. The compressed lifetime earnings of the staff nurse, however, are dwarfed in comparison, despite recent gains. Between 1986 and 1990, projected lifetime earnings growth increased from 36.4% to 69.3%.[6] The possibility of significant long-term improvement, however, has been questionable due to the constrained economic environment of hospitals. Nevertheless, a consistent theme proposed for stabilizing the registered nurse work force has been to raise wages. This is consistent with simple economic principles governing changes in supply and demand. In a freely competitive market when demand exceeds supply, wages increase, thereby correcting the

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[5]Kenneth Green, "What the Freshmen Tell Us," American Journal of Nursing 87 (December 1987): 1611-1615.

[6]White Collar Pay: Private Service-Producing Industries, March 1989, U.S. Department of Labor, Bureau of Labor Statistics (Bulletin 2347), March 1990.

immediate shortfall. Over time, improved productivity from fewer but more expensive workers allows the wage to remain competitive and attractive.

In a 1971 monograph, Present and Future Supply of Registered Nurses, Altman asserts:

> The monetary income generated by an occupation considered either at a point in time or as a stream received over the working lifetime of an individual, strongly influences the choice of that occupation and is the most frequently mentioned attribute of an occupation.[7]

Economists and members of the profession have linked salary and benefits as key agents responsible for nurse shortages. In 1989, The Commonwealth Fund study of the nursing shortage reported that full-time nurses ranked pay second in a list of nine "very important" factors in job selection, whereas part-time nurses ranked it first.[8] A retention survey of more than 1500 operating room nurses identified pay as the most important job-related issue, followed closely by communication, participation, benefits, recognition, respect/appreciation, peer relationships, and hours. Only a third of the respondents indicated they were "very satisfied" or "satisfied" with pay, and 37% reported similar satisfaction levels with benefits.[9]

One of the sixteen final recommendations offered by the 1988 Secretary's Commission on Nursing to improve recruitment and retention of nurses in the U.S. addressed the need to increase compensation of registered nurses. The Commission

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[7]Stuart Altman, Present and Future Supply of Registered Nurses, U.S. Department of Health, Education, and Welfare, Public Health Service National Institutes of Health, Bureau of Health Manpower Education, Division of Nursing. NIH Publication 72-134. (1971): 50.

[8]Ann Minnick, Marc J. Roberts, Connie R. Curran, and Eli Ginzberg, "What do Nurses Want? Priorities for Action," Nursing Outlook 37 (September/October 1989): 217.

[9]Diane I. Howery, "What Pleases OR Nurses?" AORN Journal 51 (February 1990): 489, 491.

recommended a one-time adjustment to increase relative wages, innovative compensation options, and expansion of pay ranges "based on experience, performance, education, and demonstrated leadership."[10] Based on the findings of the Secretary's Commission and numerous analyses of nursing employment conditions, there seems to be no doubt that correction of recurrent nurse labor market problems hinges, to some degree, on improved compensation, along with attention to other issues affecting the role of the registered nurse as an essential health care provider.

Control over the work environment and terms of work have raised similar concerns. Nurses seeking greater autonomy and responsibility have found they must redefine their roles in order to meet the challenges of a burgeoning, expensive, health care industry that produces technologic miracles against a back-drop of inaccessibility of care for the poor and of infant mortality rates many times greater than most industrialized nations. One economist, Hornbrook, proposes a nurse-physician "comanagement model" of nursing practice whereby nurses and physicians coproduce multiple health care outputs. This synergistic model proposes to reduce redundancy, remove the hierarchy inherent in nurse/physician decision making, enhance creativity in managing clinical problems, and improve access and quality at lower cost. Hornbrook believes this model, which fosters a therapeutic alliance among nurse, physician, and patient, addresses the two highest priority issues specific to the most recent nursing shortage: income and control over terms of work.[11]

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[10]Secretary's Commission on Nursing, Final Report, Volume 1 (Washington, D.C.: Department of Health and Human Services, 1988), 27.

[11]Mark C. Hornbrook, "Economic Models of Nursing Practice: Substitution, Competition, and

As was true in the postwar period in the 1940s, the responsibilities and demands on the staff nurse today have continued to expand. Increased utilization of registered nurses in hospitals and expansion of job responsibilities are attributed to increased patient acuity, continuous introduction of complex life saving technology, and changing patient demographics. A concomitant decrease in the hospital employment of licensed practical nurses in the early eighties aggravated the situation; cost saving efforts during introduction of prospective payment forced the practical nurse and ancillary workers out of the acute care setting and into the nursing home and home health settings causing hospitals to use registered nurses in place of these workers. The registered nurse was viewed as the perfect worker, who could expand job duties in the absence of lower level workers, such as house keepers, secretaries, and practical nurses, as well as diligently work to meet professional expectations. This substitution effect has been cited by numerous experts and linked to the low relative wages of the registered nurse, which allowed or encouraged employers to continue the practice.[12]

Nurses also have reacted in a similar way by adjusting the hours they are willing to work for the pay and conditions available to them. Whereas the married nurse, a new phenomenon in the forties, exercised options to change work patterns when conditions were not suitable, so does the part-time nurse of the nineties, also usually married or with dependents or older, seek the most advantageous salary and work

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Comanagement," in Alternate Conceptions of Work and Society: Implications for Professional Nursing ed. Carol A. Lindeman (Washington, D.C.: American Association of Colleges of Nursing, 1988), 55-106.

[12]Patricia Prescott, "Another Round of Nurse Shortage," Image 19 (Winter 1987): 207; Linda H. Aiken and Connie Flynt Mullinix, "The Nurse Shortage: Myth or Reality?" New England Journal of Medicine 317 (September 3, 1987): 643.

environment. Aiken suggests increasing salaries leads to increased immediate and future enrollment of new recruits, increased economic incentives for employers to use fewer nurses thus decreasing vacancies and demand, improved voluntary coverage of undesirable hours, and improved incentives for part-time nurses to seek full-time work.[13]

McKibbin reports that "among employed registered nurses, part-time work is prevalent; almost one-third (32.4%) of employed registered nurses work part-time."[14] Registered nurses can easily find part-time staff nurse positions; part-time work commonly meets one's personal needs as well as the institution's. According to one expert, the large proportion of part-time nurses has created detrimental effects. Cleland believes the attention to part-time nurses has undermined the contribution of full-time workers as she points to lack of higher pay rewards for full-time employees who carry on-going unit responsibilities. She also fears productivity is diminished due to multiple changes of personnel throughout the day. Despite the fact that part-time workers can provide coverage for staffing undesirable shifts, part-time workers can often end up earning higher wages per hour than full-time workers. She suggests employers shift to a greater percentage of full-time workers so that nurses offer more hours to the labor force, thus alleviating some of the recurrent shortage problems. Further, she recommends that employers focus more effort on providing noneconomic

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[13]Linda Aiken, "The Hospital Nursing Shortage: A Paradox of Increasing Supply and Increasing Vacancy Rates," Western Journal of Medicine 151 (July 1989): 89.

[14]Richard, McKibbin, The Nursing Shortage and the 1990s: Realities and Remedies (Kansas City, MO: American Nurses Association, 1990), 2.

rewards for full-time workers to effect a change and return nursing to full-time work, away from a production line process with day laborers.[15]

Significance and Purpose of the Study

The ineffective wage structure for hospital nurses has been a major factor contributing to shortages and the downward spiral of desirability of nursing as a career option. The problems that have been identified include wage depression and compression, lack of differentiation of wages by education, lack of pay competition, and inability of systems to increase wages for increased responsibility.[16] Each one of these problems is complex and carries serious consequences; these are discussed in more detail in Chapter 2.

Other than periodic categorical reports of nursing salaries, interest in compensation of nurses has been linked primarily with study of recurrent shortages, and the ongoing efforts to recruit and retain nursing staff. Nursing has struggled for solutions decade after decade in the face of economic constraints and at the risk of jeopardizing other professional issues, the outcomes of which hinge on resolution of the shortage of registered nurses. Nurses cite the shortage as a barrier to differentiation of associate degree and baccalaureate nursing roles in hospitals. Contracting entire nursing

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[15]Virginia S. Cleland, The Economics of Nursing, (Norwalk, CT: Appleton and Lange, 1990), 156, 157, 165.

[16]Lois Friss, "The Nursing Shortage: Do We Dislike It Enough to Cure It?" Inquiry 25 (Summer 1988): 234.

services as independent organizations has not been attempted, and developing new models of nursing care delivery has been stalled in many areas.

In a 1988 State of the Science Conference, Linda Aiken, a noted scholar on the registered nurse labor market, recommended the development and support of

> a cadre of researchers to study nurse labor market issues in the broad context of health care over the long-run, so that the next time we have one of these cyclical shortages we're not all scurrying and trying to catch up and redoing everything that we've done in the past.[17]

Panel participants at the same conference, reporting on "Research on Influences Affecting Availability of Resources for Patient Care Delivery," identified areas of study that needed to be conducted or expanded in the future, including what is the relation of nurses' salaries and benefits to the supply of nurses?[18]

This historical study examines the changes in compensation patterns of staff nurses working in United States nonfederal hospitals from 1960 to 1990. The findings identify and describe the changes that have occurred in total nurse compensation. The study also examines the relationships of the changes in compensation to fluctuations in supply and demand within the nurse labor market.

Although compensation is not the sole determinant of attracting potential recruits and retaining currently employed nurses in hospitals, inadequate compensation has

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[17]Linda Aiken, "Assuring the Delivery of Quality Patient Care," Nursing Resources and the Delivery of Patient Care: Proceedings of the State-of-the-Science Invitational Conference in Bethesda, Maryland, February 18-19, 1988 U.S. Department of Health and Human Services, U.S. Public Health Service National Institutes of Health. NIH Publication 89-3008, (1988): 9.

[18]Connie Mullinix, "Research on Influences Affecting Availability of Resources for Patient Care Delivery," Proceedings of the State-of-the-Science Invitational Conference in Bethesda, Maryland, February 18-19, 1988 U.S. Department of Health and Human Services, U.S. Public Health Service National Institutes of Health. NIH Publication 89-3008 (1988): 14.

been commonly associated with increased turnover and job dissatisfaction. It has been well established that increases in pay result in decreases in turnover. Further, Price and Mueller in their causal model of turnover emphasized that success is often measured by pay, and pay is often considered a reward.[19] Because nurses' salaries have been cited as low and career earnings lag behind other professional service occupations, it was imperative that compensation be studied. This study lays the foundation for closer examination of market forces affecting supply, demand, and wages, and the degree to which level of compensation affects shortages of nurses.

The Research Problem and Questions

Improvement in compensation for registered nurses has occurred over time in a haphazard fashion. The increase in wages, however, has not resulted in a self-correcting labor market for registered nurses. Although experts have continued to characterize nurses' wages as low relative to other occupations and professions, the effect was unknown of compensation package changes on nurses' decisions about the hours of work supplied to the labor force. Patterns of total compensation including changes in benefits, incentives, and options for special pay that have affected the nurse's selection of work site and hours and the effects of these changes on the work force have not been studied previously.

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[19]James L. Price, and Charles W. Mueller, Professional Turnover: The Case of Nurses (New York: SP Medical & Scientific Books, 1981), 16-17.

This study addressed the following questions:

1. What changes have occurred in compensation of hospital staff nurses between 1960 and 1990?
2. How have events associated with (a) national health care financing, (b) efforts on behalf of the profession to improve wages and working conditions in hospitals, and (c) the changing demand for nursing services affected nurses' compensation?
3. What is the relationship of nurses' compensation to the supply and demand for hospital staff nurses during this period?

Definition of Terms

Compensation -- total of all hourly, weekly, or monthly wages (earnings), plus fringe benefits and special pay; this includes rewards other than earnings that act as substitutes for pay and constitute any and all net attractions that impact cost to the employer.

Earnings -- calculated by the formula:

Wage Rate (pay per unit time) X Units of Time Worked.

Demand for Hospital Nurse Labor -- budgeted vacant positions reported by hospitals indicating unmet need for registered nurses (R.N.s).

Fringe Benefits -- type of compensation provided to workers in a form other than expendable cash, usually described as inkind or deferred income; these include government mandated payments, paid vacation, health care insurance plan, paid sick leave, retirement program, life insurance, maternity leave with full

reemployment rights, parental leave (paid or nonpaid), day care facilities, education programs, savings plans or credit unions, dental benefits, eye care, profit-sharing, work-clothing allowance, discounted meals, legal aid services, employee assistance programs, relocation allowance, hire on bonus, and recruitment bonus.

Nurse -- individual duly licensed to practice as an registered nurse in one of the United States or its territories.

Nursing -- professional nursing practice or the collective of nurses as defined above; this includes all persons who hold a license as an registered nurse regardless of educational preparation.

Nurse Labor Market -- system of employers, in this study hospitals, and registered nurses who represent the buyers and sellers respectively of nurse labor; seller may refer to a third-party representing the individual registered nurse, such as a registry or supplemental agency.

Nurse/Nursing Shortage -- disequilibrium between the balance of supply and demand of registered nurses creating a condition of insufficient numbers of registered nurses to meet expressed demand.

Staff Nurse -- Registered nurse employed in a direct patient care delivery role, including supervision of other care givers, and classified as nonmanagement and responsible for assessment, planning, intervention, and evaluation of care to individuals or groups of hospitalized patients and commonly referred to as a general duty nurse.

Supply of Nurse Labor -- total number of registered nurses available to work, which includes those currently working and those seeking work.

CHAPTER 2

REVIEW OF CONCEPTS AND ISSUES

Historical research requires the collection and analysis of historical evidence in an attempt to establish associations among patterns of events in time and within interpretive frameworks.[1] Data are collected by a process of selecting, verifying, organizing, analyzing, and synthesizing evidence from extensive review of literature sources.[2]

Investigation of the stated research questions for this study required an exploration of health care financing, efforts on behalf of the profession to improve wages and working conditions in hospitals, and operation of the nurse labor market in general terms. These points were examined in detail in order to analyze the effect and interaction of major events affecting supply, demand, and wages in the nurse labor market. The following discussion provides a brief introduction to these topics and highlights key events. The discussion is provided here to iterate the current

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[1]Joan Lynaugh and Susan Reverby, "Thoughts on the Nature of History," Nursing Research 36 (January/February 1987): 4, 69.

[2]Myrtle Matjeski, "Historical Research: The Method," in Nursing Research A Qualitative Perspective, eds. Patricia Munhall and Carolyn Oiler (Norwalk: Appleton-Century-Crofts, 1986), 185-192; Jan Lee, "The Historical Method in Nursing," in Paths to Knowledge. Innovative Research Methods for Nursing, ed. Barbara Sarter (New York: National League for Nursing, 1988), 7-14.

understanding of these issues as a prelude to reviewing the findings from the study. Analysis of research findings about these areas appears in Chapters 5 and 6.

The Nurse Labor Market

The market for registered nurses in hospitals is comprised of the hospitals as buyers of nursing labor and individual nurses primarily as sellers of nursing labor. In some areas, third parties, usually unions or staffing agencies, represent nurses as sellers of labor. In the case of a union, labor transactions are normally made within a written legally binding contract. Unions have affected nursing salaries positively in the U.S.[3]

A state of equilibrium between demand (buyers) and supply (sellers) is ultimately desirable for most labor markets. In a labor market the demand side of the equation is reflected in employer behavior, whereas the supply-side is determined by the behavior of both workers and potential workers. Interaction between demand and supply affects any labor market and will determine working conditions, levels of employment and compensation, and distribution of workers to various occupations or industries, and employers.

Local Versus National Labor Market

When buyers and sellers within the U.S. search for one another without restriction of geographic boundaries, the market is national. Most data about the nursing work

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[3]Patricia Prescott, "Another Round of Nurse Shortage," Image 19 (Winter 1987): 208.

force assume a national labor market. Registered nurse supply is expressed as aggregate data that are compiled on a regular basis in each state and then are pooled. Vacancy rates are averaged nationally and reported through national organizations, primarily the American Hospital Association and its subsidiary the American Organization of Nurse Executives.

Nurses are recruited nationally through various media, and some are employed in travel nurse positions across the country. Companies that offer the services of traveling nurses on a national basis usually enter into contracts for a three month period. The employer pays wages plus an administrative fee to cover the placement service, transportation, and local housing for the nurse. Hospitals rely on some level of ability to recruit from this national pool of registered nurses.[4]

When buying and selling occur only within a limited geographic area, the labor market is local. Nursing exemplifies aspects of operating in local as well as in national and regional labor markets. Salaries differ in all these markets particularly due to the competition between employers. This compounds the difficulty of comparing the national averages for salaries to local markets because of discrepancies. For example, in 1984, the average salary for a staff nurse in the East South Central region of the United States was $19,914 and in the Pacific region it was $25,018 with a national average of $21,704.[5] It is common practice for hospitals to use only

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[4]Cynthia Dunsmore and Rose Houston, "Traveling Nurse: A Valuable Resource," Nursing Management 10 (October 1990): 79-81.

[5]American Nurses Association, Facts About Nursing, Kansas City, MO: American Nurses Association, 1988, 159.

available local or regional data to evaluate salary competition without attention to national market data.

Demand for Nurses

In a competitive market, a hospital seeks to maximize profit and will hire nurses up to the point where the value of each additional nurse is equal to or less than the cost. The value of that nurse is referred to as the marginal revenue product (MRP). For example, if the value of the MRP of a nurse is $28,000 and the wage is $23,000, the hospital will have an incentive to continue hiring available nurses because their cost is less than their value. Eventually as more nurses are hired, the marginal product value will decline and the employer will no longer increase the number of nurses hired. It follows for a given level of employer gross capital with no new operating revenue that as the competition drives wages higher the quantity of labor that can be hired at a profit decreases, thus decreasing the demand. This begins to illustrate the relationships between demand, supply, and price or wages.

Demand and wages are inversely related, and together with supply, they are continuously adjusted toward equilibrium in a competitive labor market. When one of these variables changes, it creates a shift in equilibrium, altering one or more of the other variables. For example, it is important to examine the impact of wage changes on demand. If all other factors related to providing a service are held constant, when the wage rate is increased, the demand for that particular worker should decrease. This can be represented on a typical graph showing supply and demand as straight

intersecting lines with demand depicted as the negative sloping line (see Figure 2-1). This reveals that the number of employees or hours of work varies with changes in the wage when other factors affecting demand are held constant. These other factors for nursing would include demand for hospital nursing care, conditions under which capital can be obtained by the employer, and the maintenance of the level of technology available.

As the cost of a particular type of worker increases, in this case the registered nurse, the employer first attempts substitution. It is difficult to substitute machines for

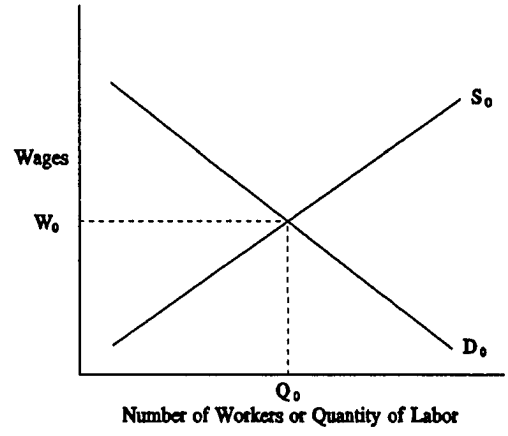

Figure 2-1 Market Supply and Demand[6]

In a freely operating market, the supply and demand curves exist in a state of equilibrium. The supply curve, S_0, slopes positively and the demand curve, D_0, slopes negatively. At $Wage_0$ the number of workers or the quantity of labor supplied is equal to the demand at Q_0. This wage rate is the equilibrium or market-clearing rate. The equilibrium wage prevails in a market until forces of change in supply or demand create movement in the wage.

[6]Adapted with permission from Carl J. Schramm, "Economic Perspectives on the Nursing Shortage," in Nursing in the 1980s: Crises, Opportunities, Challenges, ed. Linda H. Aiken. (Philadelphia: J.B. Lippincott, 1982), 45.

registered nurses in most instances, and in essence, the introduction of more technology into the health care environment has not resulted in a labor trade-off. On the other hand, if the cost of a registered nurse remains lower than the MRP, nurses substitute for nonnurses and take on many responsibilities of other personnel who provide ancillary services in the hospital setting. Substitution has been detrimental to the supply of registered nurses and has been responsible, in part, for perpetuating the imbalance of demand and supply. This was evidenced in the eighties when nurses substituted for ancillary workers who were laid off prior to and during implementation of prospective payment.

As nursing education began to shift from hospital schools into baccalaureate and associate degree programs, the number of students available to substitute partially for registered nurses began to diminish. Licensed practical nurses were used to substitute for registered nurses in the 1950s and 1960s, but the demand for specifically registered nurses began to be expressed in the 1970s and 1980s.[7]

The current picture of demand includes other factors, such as the impact of prospective payment and a cost effectiveness focus, increasing acuity (partially explained by the changing demographics--aging), public expectations, changes in physician supply, and maldistribution of available health care. Measurement of demand has not been done in any scientific manner. Estimates have been made according to academic preparation and by desired staffing levels, but the ability to define and quantify demand continues to be evasive.

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[7]Ibid.

The benchmark for monitoring demand has been reported as hospital nurse vacancy rates. The rates have been measured against available supply in the aggregate. Inherent difficulties of interpreting vacancies include the insensitivity to local labor markets and the possibility of inaccurately reported market conditions. Hospitals have been thought to express demand with inflated numbers of vacancies, along with an unwillingness to raise wages, in an attempt to fill those vacancies at a lower cost.

Supply of Nurses

Nurses, presumably like all other workers, make decisions to work based partially on the wage being offered by the employer. Therefore, one would expect the national supply of nurses in the labor market to be related positively to the prevailing wage rate. As the wage increases, so should the supply. Thus, the supply curve for labor is an upward sloping line when other prices and wages are held constant (refer to Figure 2-1).

Nurses also make decisions about the total hours worked and the value of leisure time. At a certain point, when the wage is high enough, a nurse may actually cut back on hours worked when income is adequate and the personal desire for more leisure time becomes greater. This is represented graphically with a hypothetical configuration called a backward-bending supply curve, common to a number of labor

markets (see Figure 2-2). A study of married nurses by Link and Settle has supported this hypothesis for nurses' work patterns.[8]

The supply of nurses in the United States is measured in the aggregate. Rather than looking at the average number of hours an individual nurse works, the total hours

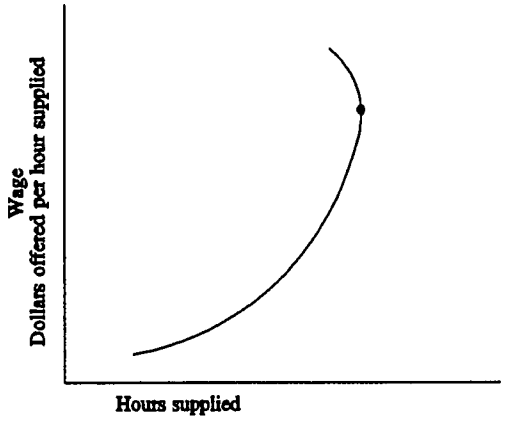

Figure 2-2 Backward Bending Supply Curve (Hypothetical)[9]

A wage change will involve both an income and a substitution effect. When increased wages are attractive, the worker usually opts to offer more hours substituting work time for leisure time. As the hourly wage rises, the price of an hour of leisure becomes more expensive relative to other commodities. When the income effect is dominant, the worker responds to a wage increase by decreasing the hours worked. At a certain point (Wage •), the nurse may decide to decrease hours supplied in order to have all commodities including leisure. In order to reach the backward bend, income effects would dominate substitution effects. Usually these effects moderate each other although one may predominate over the other at different times.

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[8]Charles R. Link and Russell F. Settle, "Financial Incentive and Labor Supply of Married Professional Nurses: An Economic Analysis," Nursing Research 29 (July-August 1980): 240-241. Cleland (1990) suggests that if further study substantiates this thesis, then employers will need to increase non-economic rewards to full time workers and find ways to make part time work less attractive in order to address the current nurse shortage.

[9]Adapted with permission from Carl J. Schramm, "Economic Perspectives on the Nursing Shortage," in Nursing in the 1980s: Crises, Opportunities, Challenges, ed. Linda H. Aiken. Philadelphia: J.B. Lippincott, 1982, 42-43; Ronald G. Ehrenberg and Robert S. Smith, Modern Labor Economics: Theory and Public Policy, 2nd ed. Glenview, IL: Scott, Foresman and Company, 1985, 157, 159. Permission granted by Harper Collins Publishers.

supplied by nurses to the market are estimated. Supply, in general economic terms, represents the total number of persons willing to work and includes those actively seeking work. In nursing, aggregate data sources reflect numbers of nurses actually employed in nursing at a particular time. This approach is not considered flawed because nurses have been fully employed, meaning that any nurse who wants to work can find a job. The reported number of full time equivalents (FTEs) in nursing is determined by adding the number of nurses who work full time to half the number who work part time.[10]

Since the 1970s, estimates of the number of nurses working in the United States have routinely been carried out on a state-by-state basis and in the aggregate. Data are readily available describing labor force participation rates, salary levels, employment demographics for nurses, and potential recruits into nursing based on estimates of graduates of nursing programs by educational preparation. In addition to these quantitative measures, the supply of nurses is affected by such items as the job design, changing educational systems, money to support education, availability of other career options, status and other aspects of job satisfaction or dissatisfaction, and, of course, wages and benefits. Labor force participation rates remain high, and relatively few nurses are inactive (see next section.) Part-time work has caused the greatest reduction of the total number of hours of work supplied. Nurses have opted for part-time schedules for reasons that appear in opposition to one another. Some are

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[10]For purposes of calculating part-time workers, the number of R.N.s who report their work as part time is divided in half. The Division of Nursing and the American Hospital Association use this method for estimating FTEs.

able to take advantage of local market incentives of high hourly wages for undesirable hours during which the nurse can earn almost as much in 24 hours (60% time) as a full-time worker would earn in 40 hours. Others select part-time work because wages have not been adequate to attract them to full-time work. The end result of both is an antithesis to supplying as many hours as possible to the work force.

Labor Force Participation

The labor force participation rate, as measured in a percentage of a given population that is employed or looking for work, expresses the willingness to work outside the home. For women, the rate more than doubled from 1900 to 1980, increasing from 20.6% to 51.7% respectively. In 1980, the rate for nurses was almost 77%. The participation rate for nurses has consistently exceeded that of the general population of women and was at an all time high of approximately 80% in 1990. The high proportion of nurses working dispelled the myth that nurses were staying home or seeking other jobs; further, only 5% were reportedly working in nonhealth related jobs.[11]

Compensation

The most significant factor affecting supply of any source of labor is wages. Hospitals employ approximately 68% of all registered nurses, a percentage that has remained relatively constant for many years. Some describe nursing as a captured

[11]Linda Aiken, "The Nurse Labor Market," Journal of Nursing Administration 14 (January 1984): 18-23; and Linda Aiken, "The Hospital Nursing Shortage: A Paradox of Increasing Supply and Increasing Vacancy Rates," Western Journal of Medicine 317 (September 3, 1987): 641.

labor market because, for the most part, if nurses seek employment in the health care industry, they work largely in hospitals. In areas where the number of hospital employers is limited, nurses may be forced essentially to accept certain unsatisfactory terms of employment.[12] In the case of a single employer or industry controlled market, a monopolistic or oligopsonistic market, the normal balancing or self-correction of supply and demand disequilibrium does not occur because the market is no longer freely competitive. Wages are artificially set and do not freely rise in response to changes in demand. Many experts on the nurse labor market believe that employers express demand in excess of the supply of nurses that the prevailing wage will purchase. Consequently, employers will not raise wages sufficiently in order to attract and hire more nurses. The result is large numbers of vacancies reported by employers.

An ongoing debate among economists is whether or not the nurse labor market is inelastic. Wage elasticity describes the responsiveness of supply to changes in wage. When wages are increased to a specific level, the supply increases by some proportion. When the wage increase results in a proportionately greater increase, the supply is said to be elastic. When only a slight increase in supply occurs, economists refer to supply at that wage level as inelastic. Some believe the nurse market is relatively inelastic as demonstrated by reduction of the hours that nurses are willing to work when provided

[12]Flanagan, 4.

minimal pay increases; this pattern is consistent with the backward-bending supply curve.[13] Others have noted positive wage elasticity.[14]

For the most part, nursing wages are determined by local markets yet studied in the aggregate national market. This creates difficulty when studying a problem like the nursing shortage.

Low Relative Wages

With the exception of the early 1980s, nurses' salaries have lagged behind other female professions since 1947.[15] The gap between registered nurse and other allied nursing personnel narrowed in the 1960s and 1970s such that by 1979, nurses earned less than 30% more than aides, who had no academic nursing education.[16] The lower the registered nurse's relative salary, the more frequently the registered nurse was used to substitute for ancillary personnel. The substitution was evidenced by a shift in staff mix just prior to implementation of prospective payment in the early 1980s. Prior to 1980, hospitals on average employed one-third registered nurses and

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[13]Prescott, Patricia, "Another Round," 208; Carl J. Schramm, "Economic Perspectives on the Nursing Shortage," in Nursing in the 1980s: Crises, Opportunities, Challenges, ed. Linda Aiken (Philadelphia: J.B. Lippincott, 1982), 42.

[14]Janet Bostrom Ezrati, "Labor Force Participation of Registered Nurses," Nursing Economics 5 (March-April 1987): 85.

[15]Feldstein, Health Care Economics, 411-413. Comparison has been made repeatedly to teachers who earn more, on average, for comparable years experience.

[16]Linda Aiken, "The Nurse Labor Market," Journal of Nursing Administration 14 (January 1984): 20.

two-thirds aides and practical nurses, which shifted to half and half by 1980. By 1989, the rate had increased to 60% registered nurses.[17]

Despite characterization of the late 1970s as a time of nurse shortage, staff nurses replaced aides and practical nurses at an alarming rate. Following normally expected patterns in a well-functioning labor market, one would have assumed the opposite to occur where more practical nurses and aides would have been added to make up some of the work of nonexistent registered nurses. The additional effect of substituting registered nurses for practical nurses is discouragement of new recruits.[18]

By seeking to employ as many nurses as possible at the lowest wage, hospitals may attempt to fix entry wages and hold down salary growth. The more attractive the local institution, the more willing nurses have been to work for lower wages.[19] Hospitals have been accused of colluding to control wages. Collusion prevents normal fluctuation of markets in response to supply and demand and may account for the years of minimal salary increases for staff nurses despite increasing demand.[20]

Problems with Compensation

Friss describes above-average pay increases instituted to overcome artificially low salaries as creating a "rachet" effect. She describes a cycle in which pressures mount to hire more nurses with concomitant use of staffing agency nurses, recruitment

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[17]Ibid.; and Linda Aiken, "The Hospital Nursing Shortage: A Paradox," 88.

[18]Marc J. Roberts, Ann Minnick, Eli Ginzberg, and Connie Curran, "What to Do About the Nursing Shortage," Hospital Topics 67 (July-August 1989): 17.

[19]Aiken, "The Nurse Labor Market," 20.

[20]Virginia S. Cleland, The Economics of Nursing, (Norwalk, CT: Appleton and Lange, 1990), 165-167.

bonuses, enhanced benefits, and importation of foreign labor. Rather than an orderly salary progression, she faults this rachet pay system for creating boom and bust cycles affecting supply of nurses.[21]

Hospitals rarely compensate registered nurses differently based on education or level of responsibility. By and large, clinical ladders have not been effective in accomplishing significant economic differentiation between nursing roles. Entry level pay has increased as a competitive recruitment tactic, but salaries for more experienced workers have not kept pace. This has resulted in salary compression, a very serious threat to nursing supply. The effect of compression on hospital nurses' lifetime earnings has been dramatic. In 1990, nurses experienced only a 69.3% salary progression compared to other occupations with salary progression of 102.6% for computer programmers, 142.1% for personnel specialists, 209% for accountants, and 226.1% for attorneys.[22]

Nurses with more years experience are apt to work fewer hours. An additional contributing factor may be compensation packages. There is an image in popular culture that nurses are young single women in their early twenties. This is no longer true because nurses are now predominantly white and married, are in their thirties and forties, and have children.[23] Friss points out that benefits packages offered by

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[21]Lois Friss, "Simultaneous Strategies for Solving the Nursing Shortage," Health Care Management Review 13 (Fall 1988): 75.

[22]White Collar Pay: Private Service-Producing Industries, March 1989, U.S. Department of Labor, Bureau of Labor Statistics (Bulletin 2347), March 1990. The salary progression for staff nurses is less than the average for all nurses. In 1986, salary progression for hospital staff nurses was 36.4%.

[23]Roberts, et al., 13.

hospitals are not attractive to the nurse of today but are geared more toward a young mobile worker that was yesterday's stereotype. These benefits do not offset compressed salaries and only increase the dependence on hiring young inexperienced workers.[24]

Employers pay "differentials," additional hourly wages for undesirable hours: usually evening, night, and weekend shifts. The amount paid varies greatly by institution, but may make a major contribution to the nurse's salary depending on the proportion of off-shift time worked.

Wage Disparities

Female dominated jobs are known to have lower wages. On average, the difference in pay between male and female workers in the U.S. is 30% - 35%, with some variation in age groups.[25] Bergmann's solution is better affirmative action to end discrimination. Feldstein disputes this view,[26] and the issue remains one of theoretical and emotional debate between those with feminist views and those with purely economic views of human capital.

Some attention has been focused on the issue of comparable worth in nursing and other female dominated jobs. Comparable worth attempts to address relative value of different jobs while at the same time, laws banning compensation differences based on

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[24]Lois Friss, "Simultaneous Strategies," 77.

[25]Barbara R. Bergmann, "Does the Market for Women's Labor Need Fixing?" Journal of Economic Perspectives 3, no. 1 (Winter 1989): 43.

[26]Feldstein, Health Care Economics, 429.

gender deal only with equal pay for equal work. The Equal Pay Act of 1963 and Title VII of the Civil Rights Act of 1964 prohibit discrimination based on gender. No interpretation of these laws has ventured toward determining the economic worth of job categories, but rather, has addressed employers' discriminatory practices and declared them unlawful. The choice remains to pursue instances of blatant discrimination rather than argue for comparable worth. Cook advises promoting the market value of nurses' services. Despite law suits, there have been no gains in this arena. For the most part, comparable worth has been dismissed as too complex to apply to nursing at this time and, thus, is not addressed in this study.[27]

Benefits and Other Compensation

Benefits are the noncash or indirect portion of compensation. The cost of benefits to the employer on average is 25% - 30% of payroll. Benefits acquired the name, "fringe benefits," when they were small in amount and were relatively unimportant. Today they are commonly termed employee benefits, reflecting both the importance and substantial cost to the employer.

Employers use benefit programs to prevent the loss of valuable employees. An employee may decide to stay with a company largely due to the desirable benefit plan. The mandatory benefits of social security, unemployment, and worker's compensation are provided in accordance with government regulations. Voluntary benefits vary by employer and may not meet the needs of a diverse group of employees. Cleland

[27]Ibid., 429-430; and Adele C. Cook, "Comparable Worth: An Economic Issue," Nursing Management 21 (February 1990): 28-30.

argues that nurses' benefits have been poor primarily because the choices of benefits have been made by men who do not represent the interests of the nursing work force.[28]

Health insurance represents the most expensive benefit desired by employees. Life, sickness, and accident-disability insurance are commonly offered as options for employee purchase. Other benefits of interest to nurses include retirement or pension plans, tuition reimbursement, and child care.

Hospitals usually offer a variety of nonwork benefits that include options for time off with or without pay. Examples of these include holidays, vacations, personal days, jury or military duty, severance pay, parental leave, educational leave, and leave of absence.[29]

The escalating competition for staff nurses has resulted in imaginative cash award programs associated with recruitment. It is not unusual to see hospitals advertising bonuses for sign-on, recruitment bounties, relocation allowances, retention bonuses, and special pay structures for weekend work or other undesirable hours. Some of these may be short-term; others may change the patterns of nurse recruitment for the future.

Demand for Nursing Services

The demand for nursing services in hospitals has been expressed by vacant budgeted positions. Vacancy rates varied between 1960 and 1990 from a reported

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[28]Cleland, 143-144.

[29]Ibid., 144-152.

high of 23.2% in 1961 to a low of 5.1% in 1984. It appeared initially that rates of 13% or above may be the trigger point for escalating activities to address a national shortage of registered nurses. Data in this study supported pronouncement of an acute shortage at rates close to or exceeding 12% (see Chapter 6). Vacancy rates, however, have failed to account for understated positions that are not budgeted or the number of temporary nurses employed by hospitals.

At the local institutional level, patient classification systems have been used to calculate a measure of nursing work load representing demand on a daily basis. The variability of these systems has been great, and despite validity and reliability measures, a high degree of skepticism has been associated with their use.

The rise in the number of registered nurses per 100 patients, an industry measure of utilization, has demonstrated a rise in demand for the services of the registered nurse. For the period 1972 to 1986, the number rose 82%, from 50 nurses per 100 patients to 91 nurses per 100 patients.[30]

Health Care Financing

The Hill Burton Act of 1946 was the impetus for the growth in the number of hospitals, which in turn created an increased employment of nurses. The demand for hospital care also increased greatly during this period due to population expansion, increase in health insurance coverage, rise in per capita income, advances in medical

[30]Ibid.

technology, and creation of intensive care units. As a result, nurses assumed many responsibilities that were previously in the domain of physicians.[31]

A substantial rise in health care costs in the 1960s led to denial of care to the poor and elderly. This social atrocity led Congress to address a national plan for health care. Under President Lyndon Johnson, Medicare and Medicaid were enacted in the summer of 1965. Medicare was designed to provide hospitalization insurance for individuals sixty-five years of age or older. A voluntary co-payment portion of the system provided coverage for physician fees. The Medicaid program expanded former medical care programs to provide insurance coverage to those who were financially and medically needy.[32]

Increasing Medicare expenditures led to the federal government's agenda of controlling health care costs in the early 1970s. Voluntarily, hospitals attempted to control costs with minimal incentives. Retrospective cost reimbursement from third-party payers was the primary source of revenue at the time, and neither consumers nor third-party payers considered price an issue when purchasing services from hospitals or physicians. Capital dollars were also readily available from public and private sources to expand and renovate facilities.[33]

Throughout the seventies, numerous states tested plans to reduce health care costs and control government spending on health care. The projected bankruptcy of

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[31]Peter Buerhaus, "Not Just Another Shortage," Nursing Economics 5 (November-December 1987): 268.

[32]Philip A. Kalisch and Beatrice J. Kalisch, The Advance of American Nursing, 2nd ed. Boston, MA: Little, Brown and Company, 1986, 674.

[33]Ibid., 745.

Medicare led Congress to pass the Tax Equity and Fiscal Responsibility Act of 1982 (TEFRA), which introduced a prospective payment system (PPS), whereby Medicare established a fixed price on a cost-per-case basis using diagnosis-related groups (DRGs) as a measure. Implemented in 1983, PPS proved to be a flexible system despite many hospital closures, decreased occupancy, and closure of beds during the eighties. Hospitals also developed less expensive means of providing care, such as ambulatory procedures, administering therapies and treatments in the home, and early discharge to intermediate care facilities or to home. Hospitals responded in anticipation of the introduction of prospective payment by trimming hospital staffs with the exception of registered nurses and, instead, using these nurses to substitute for other workers. Control of health care costs remained an important agenda for the federal government throughout this decade.

Efforts on Behalf of the Profession

The American Nurses Association (ANA) launched its economic security program in 1946 with three basic components: collective bargaining, public relations and education, and lobbying efforts. In the early 1960s, ANA conducted a nationwide public information campaign aimed at drawing attention to the poor working conditions of nurses. The seventies were a time of aggressive organizing of the nation's nurses into collective bargaining units. This was triggered by increased activities by unions to organize health care workers. In the early 1980s, ANA entered the battle of gender-based wage discrimination through litigation. The Association has

continued to work toward the elimination of employment discrimination against women employees.[34]

Other changes characterized the efforts of groups within the profession. Supplemental staffing agencies, more popular in recent years, provided nursing services on a daily or long-term contractual basis for payment of a fee. Individual nurses working for supplemental agencies could earn more per hourly wage than nurses employed by hospitals. The agencies have been credited with adding a level of competition that has transiently driven up salaries for staff nurses in hospitals. The effect has not been lasting because the higher wages associated with the agencies have not affected the marginal labor costs of permanent hospital staff nurse employees.[35]

Some nursing departments have established their own internal per diem pools to allow flexible staffing with financial savings to the employer; some operate from a for-profit arm of the institution. These float pools usually offer higher hourly wages, less rigid scheduling requirements, and no fringe benefits.

Nursing services in hospitals also have implemented clinical ladders in an attempt to offer greater financial rewards commensurate with higher levels of expertise and productivity. In some cases, clinical ladders have been successful, but for the most part, economic differentiation remains insignificant.

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[34]American Nurses Association, Cabinet on Economic and General Welfare, "Status of RN-Only Bargaining Unit and National Labor Relations Environment," in Summary of Proceedings: American Nurses Association 1990 House of Delegates Held in Boston, MA 16-20 June 1990, (Kansas City, MO: American Nurses Association, 1990), 127-128.

[35]Patricia Prescott, "Another Round of Nurse Shortage," Image 19 (Winter 1987): 208.

The American Nurses Association published a monograph on obtaining better compensation, entitled Earn What You're Worth, which emphasizes the value of nurses' services and advises nurses individually and collectively how they can achieve improved compensation. Advice includes numerous items, from enhancing business savvy to strategies for achieving better pay.[36]

Oppression of Women and Nurses

Exploration of events in nursing's history is inextricably linked to the study of the status of women in the United States. Those who study nursing history have been termed revisionist and/or feminist. Revisionists use critical analysis to rewrite and recast history in a new context, whereas feminists express their concerns for and about women. Nursing, a predominantly female profession, does not require a radical[37] feminist approach for legitimate criticism of its history; rather, a feminist consciousness would be a common expectation of any nurse historian or historiographer.[38]

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[36]Lyndia Flanagan, Earn What You're Worth. A Nurse's Guide To Better Compensation. Kansas City, MO: American Nurses Association, 1989.

[37]The radical feminist movement began in 1967 but gave way to cultural feminism by the mid 1970s. Radical feminists were concerned with male supremacy and vowed to fight women's oppression. Echols provides an explanation of the fundamental difference between radical and cultural feminism. She asserts, "Radical feminism was a political movement dedicated to eliminating the sex-class system, whereas cultural feminism was a counterculture movement aimed at reversing the cultural valuation of the male and the devaluation of the female" (p. 6). Both mobilized women to resist oppression, however, the provocative radical feminists were considered too far left and could not maintain social acceptability as the dominant force in the women's movement. Source: Echols, Alice, Daring to Be Bad. Radical Feminism in America 1967-1975, (Minneapolis: University of Minnesota Press, 1989), 3-6.

[38]Jan Lee, "The Historical Method in Nursing," in Paths to Knowledge. Innovative Research Methods for Nursing, ed. Barbara Sarter (New York: National League for Nursing, 1988), 10.

The study of employment of nurses and women in the U.S. provides an example of the need for a feminist consciousness. Male dominance has plagued the development of nursing in this country for more than a century. At the turn of the century, nurses for the most part, were antifeminists or nonfeminists and mirrored the general population of women who accepted second-class status to men. Ashley asserts, "the historical failure of women to achieve independence grew out of lack of persistence in changing the oppressive social order."[39]

There were some outstanding feminist nurses who joined with social reformers to support the women's movement in the early decades of the twentieth century.[40] Most notable is Lavinia Dock, often called a radical feminist. She appeared fearless with her outspoken words and actions in support of women's suffrage and the Equal Rights Amendment. Other supporters of the feminist movement included Isabel Stewart, Adelaide Nutting, Lillian Wald, and Sophia Palmer.[41] More recent activists include Shirley Titus, who pioneered the ANA economic security program for nurses

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Frequently cited feminist and revisionist studies of nursing include: Hospitals, Paternalism and the Role of the Nurse, Jo Ann Ashley, 1976; The Physician's Hand, Barbara Melosh, 1982; and Ordered to Care, Susan Reverby, 1987.

[39]Jo Ann Ashley, "Nurses in American History and Early Feminism," American Journal of Nursing 75 (September 1975): 1465.

[40]Sheila Bunting and Jacquelyn C. Campbell, "Feminism and Nursing: Historical Perspectives," Advances in Nursing Science 12 (July 1990): 19.

[41]Isabel Stewart worked for improvement in nursing education with emphasis on curriculum; she is best known for her philosophical writing about nursing education entitled, The Education of Nurses. M. Adelaide Nutting succeeded Isabel Hampton Robb as superintendent at the Johns Hopkins Hospital. With Lavinia Dock she wrote the four volume series, A History of Nursing; she was the first nurse to become a true professor in higher education during her tenure at Teacher's College. Lillian Wald is credited as the founder of public health or community nursing. Her Henry Street Visiting Nurse Service became the model for delivering nursing and social services to the poor. Sophia Palmer distinguished herself as the first editor of the American Journal of Nursing and served from 1900-1920 until her death.

in California in the 1950s, and Wilma Scott Heide, a nurse and former President of the National Organization of Women.[42] Against the resistance of other women and men, these liberal feminists championed the rights of nurses and battled for equitable wages and benefits.

"Feminism goes to the sexist root of human oppression consequent to patriarchy (which means male power, rule, and domination in values) in governance, in all institutions,"[43] proclaims Heide. Sexism, ever present in our society, has been called the original form of oppression, which opened the door to many other forms such as racism, classism, ageism, religionism, and homophobia.[44] Oppression of women is a recurrent theme in writing about the development of nursing in the U.S. throughout the twentieth century. Ashley,[45] in her classic work on paternalistic oppression of nurses by hospitals and physicians, awakened the nation's nurses to their ever present domination by powerful men and male groups. Typical of oppressed groups, women have become dependent and submissive in order to deal with the domination of a powerful group. Nurses are not inferior, but live in a male-dominated culture that does not value or understand their main attribute: caring. The feminist view associates the devaluation of women's caring work with the dominance of a male value

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[42]Ashley, "Nurses in American History and Early Feminism," 1467.

[43]Wilma Scott Heide, "Feminist Activism in Nursing and Health Care," in Socialization, Sexism, and Stereotyping. Women's Issues in Nursing ed. Janet Muff (St. Louis, MO: C.V. Mosby, 1982), 255.

[44]Ibid.

[45]Jo Ann Ashley, Hospitals, Paternalism, and the Role of the Nurse (New York: Teacher's College Press, 1976).

system.[46] Yet, from the beginning of hospitals, the role of women (nurses) was conceived as caring for the hospital family, an extension of caring for a family within the confines of a house. Nurses managed the hospitals and were known to be efficient and economical in the production of patient care. They also were loyal to the institution, devoted to preserving its reputation, and looked out for the needs of the men (physicians) who came and went freely from the hospital. Nurses lived in economic servitude within the hospitals.[47] Perhaps one of the most revealing observations is Reverby's, who states, "nursing organized under the expectation that its practitioners would accept a duty to care rather than demand a right to determine how they would satisfy this duty."[48]

As nurses sought higher education in the early 1900s and forged ahead with the movement of professionalization, physicians and administrators resisted. Physicians claimed that women seeking intellectual development suffered from increased infertility or atrophy of reproductive organs.[49] Slow efforts began to move educational reform in nursing, but the apprenticeship model predominated. Nurses were bound to hospitals, giving up the autonomy once enjoyed in private duty nursing.

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[46]Susan J. Roberts, "Oppressed Group Behavior: Implications for Nursing," Advances in Nursing Science 5 (July 1983): 28-29; Berenice Fisher and Joan Tronto, "Toward a Feminist Theory of Caring," in Circles of Care eds. Emily K. Abel and Margaret K. Nelson (Albany, NY: State University of New York Press, 1990), 36.

[47]Ashley, Hospitals, 117; Mary Field Belenky, Blythe McVicker Clinchy, Nancy Rule Golberger, and Jill Mattuck Tarule, Women's Ways of Knowing (New York: Basic Books, Inc., Publishers, 1986), 7.

[48]Susan Reverby, "The Duty or Right to Care? Nursing and Womanhood in Historical Perspective," in Circles of Care, Work and Identity in Women's Lives eds. Emily K. Abel and Margaret K. Nelson (Albany, NY: State University of New York Press, 1990), 133.

[49]Ashley, Hospitals, 117; Belenky, 7.

Throughout this century, knowledge development of women has been tainted by male dominance. The human experience has been defined by using only patterns of male experience. The model of intellectual development attributed to men is one of "thinking" and includes mental processes involved in considering the abstract and impersonal. The model for intellectual development in women, on the other hand, is described as one that involves mental processes dealing with the personal and interpersonal, called "emotions."[50]

The status and work of women and nurses today reflect patterns of dominance by males. A feminist analysis of women in the caring professions reveals two images of women's paid work. First is one as an escape from domesticity, and the other is the extension of domestic work.[51] Caring has been equated as women's work and, in nursing, is linked to demanding physical work, having less value and status.[52]

In the health care industry, patriarchy predominates, and in patriarchal systems, the male is believed superior in attributes such as strength, intellect, rational thinking, and economics.[53] Woman is valued through her interpersonal relationships. The unescapable socialization in our culture leads women to behave as an oppressed group, and they quickly learn to admire, identify with, and emulate the power group.[54] The

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[50]Belenky, et al., 7.

[51]Berenice Fisher, "Alice in the Human Services: A Feminist Analysis of Women in the Caring Professions," in Circles of Care. Work and Identity in Women's Lives (Albany, NY: State University of New York Press, 1990), 110.

[52]Fisher and Tronto, "Toward a Feminist Theory of Caring," 36.

[53]Patricia Geary Dean, "Go Ahead I'm Behind You . . . Way Behind You," in Socialization, Sexism, and Stereotyping, 324.

[54]Ibid.

resultant behavior is to criticize and mistrust one's own group rather than the dominant one; these cultural lessons are repeated and reinforced as women assume envied qualities of men, denying the male weaknesses and feeling strong like the dominant group.[55] The risk in this acculturation is that women can turn against women when they take on the attitudes of men and exhibit behavior called horizontal violence.[56] Victims engage in horizontal violence; victims, usually minorities, are associated with low status and power.

Nurses express great frustration being women in a male-dominated health care system.[57] The stereotypic image of the nurse is that of the caring, nurturing, and subservient individual. The traditional image of woman is quite similar as the passive, dependent, nurturing person with limited aspirations and career options. The ideas that girls become wives and mothers and jobs are stopgaps to marriage prevail despite a large female work force in the United States.

The conditions affecting women's work and oppression of women are closely linked. Barbara Melosh, an historian who has written about the occupational and social culture of American nursing, points out, "the structure of paid work undeniably replicates the existing relationships of power and inequality; the stratification of the work force clearly reproduces hierarchies organized by race, class, and gender."[58]

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[55]Janet Muff, "Why Doesn't a Smart Girl Like You Go To Medical School? The Women's Movement Takes a Slap at Nursing," in Socialization, Sexism, and Stereotyping, 181.

[56]Ibid.; Patricia Geary Dean, "Toward Androgeny," in Socialization, Sexism, and Stereotyping, 249.

[57]Janet Muff, xv.

[58]Barbara Melosh, The Physician's Hand. Work Culture and Conflict in American Nursing (Philadelphia, PA: Temple University Press, 1982), 218.

Women, like minorities, are considered second class citizens and, in the health care industry, find themselves at the bottom of the pay scale. The industry is stratified by race and gender. Women and minority men typically fill clerical and service support roles. Nurses, predominantly white women, are underpaid with comparison to those at the top, mainly white males in medical and managerial positions.[59]

Feminists advise women to stop thinking about themselves in male terms and point out the great mistake women have made by accepting the assumptions of the very culture that denies them. The socialization of women, a process that is continuous and cumulative, has passed on values and expectations from generation to generation. This process corresponds to the sequence of age-gender-statuses of the life cycle.[60] During socialization people knowledge and understanding of the status and structure of society, role prescription, and role behaviors of various statuses or positions within societal structure. The development of self is a product of social interaction and is required for learning social roles.[61]

Physicians have exerted paternal control over nurses by instilling fear and imposing ignorance. The first nurse practice acts actually subjected nurses to the authority of physicians.[62] Lovell[63] traces the paternalistic views of medicine from

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[59]Karen Brodkin Sacks, "Does it Pay to Care," in Circles of Care (Albany, NY: State University of New York Press, 1990), 188.

[60]Margaret E. Hardy and Mary E. Conway, Role Theory Perspectives for Health Professionals (New York: Appleton-Century-Crofts, 1978), 61.

[61]Ibid., 44-45.

[62]Ashley, Hospitals, 117.

[63]Marian Lovell, "Daddy's Little Girl: The Lethal Effects of Paternalism in Nursing," in Socialization, Sexism, and Stereotyping, 215-218.

the turn of the century to the 1970s. She elucidates themes reflecting myths, including women are born as nurses; physicians needs to care for and guide nursing in a fatherly way; physicians need to guide the educational system; nurses have been used to make physicians' livelihoods more profitable; women are ruled by their hearts; and nurses must be kept under the direction of physicians. Although laws and times have changed, it seems physicians assume nursing is tied as a legal subservient partner to the medical profession.

Employment of Women in the U.S. Post-World War II

World War II had a major impact on women who formerly had been told to stay at home and not work. With men in combat overseas, women were called upon to replace them at work, and more than six million responded by entering the work force. Initially the idea of work outside the home had to be heavily marketed. The proportion of working women rose to 57%, wages increased, and women were unionized at a rate four times faster than usual. Employment shifted to war industries such as munitions, aircraft, and ship building. Women left their jobs in eating and drinking establishments and laundries. War time provided a social revolution for women despite the rampant gender discrimination with double standards for wages and a noticeable absence of women in any top policy making positions relative to war actions.[64]

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[64]William H. Chafe, The Unfinished Journey. America Since World War II, (New York: Oxford University Press, 1986), 11 - 16.

After the War, women were laid off at a rate 75% higher than men. The uphill battle for economic equality was begun.[65]

The 1950s, considered the decade of the family, were wrought with much contradiction and conflict as regards women at home versus women at work. Women worked only to help pay for a family's first home and its accoutrements. Patterns of employment again reflected pre-World War II, although efforts were made to improve the power of women in the work place who made up 29% of the work force.[66]

In the 1960s, women who did not work for wages became the exception as women grew to 35% of the work force. Work began to assume a more central position other than pre- and postmarriage, child-bearing, education, or other family events. In the mid-1960s, women earned 58% of the average man's wages. In the 1970s, they gradually infiltrated skilled male trades with increasing numbers.[67]

The decade of the sixties represented an attack against domesticity and femininity. Many women chose to emerge from being "trapped house wives" and take on some of the feminist challenges that continued on into the seventies.[68] There was a revival of the women's movement along with a rise in divorce rates, a slowing in marital rate, and an all-time low birth rate.[69]

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[65]Ibid.; and Alice Kessler-Harris, Out to Work. A History of Wage-Earning Women in the United States, (New York: Oxford University Press, 1982), 301.

[66]Kessler-Harris, 300.

[67]Ibid., 312.

[68]Sara M. Evans, Born for Liberty. A History of Women in America, New York: The Free Press, 1989, 284.

[69]Mary P. Ryan, Womanhood in America. From Colonial Times to the Present, 3rd ed., (New York: Franklin Watts, 1983), 315.

The women's movement was ushered in to the 1970s with continued contemplation and questioning of femininity and motherhood. A division over women's changing roles created an adversarial relationship between women across religious groups, races and middle and working classes. Antifeminism and a new conservative right grew out of this discontent and controversy.[70]

In the late seventies, women began to make measurable strides in business and the professions. Many were striving to be the successful professional woman while at the same time maintaining the traditional role of wife and mother; this "superwoman" complex brought with it a great deal of stress. The meaning of the changes that occurred across the seventies became the focus of the eighties. Women examined their new roles in the labor force, the reemergence of single women, women as heads of households, the greater sexual freedom, growth in union membership, and the struggle for equal pay for jobs of comparable worth. It was the decade of political feminism.[71] The feminists and antifeminists continued to do battle on issues such as the Equal Rights Amendment and abortion.

These represent but a few of the characteristics shaping the work world of women. Sex-based wage discrimination in the work place remains an issue as does debate on comparable worth. The latest trend is looking at career tracks for women with and without family obligations and the "glass ceiling" imposed on women seeking corporate success.

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[70]Ibid., 289-304.

[71]Ibid., 307.

Nurse Shortages in the United States, 1960-1990

Shortages of registered nurses have been persistent problems in the United States for many years, and they are recurrent themes in nursing's history. Aiken reports cyclic shortages since World War II.[72] In economic terms, a shortage exists whenever the demand exceeds supply at the current market price. The key determinants are demand, supply, and wages. Nursing has characterized shortage with the concepts of need and want, defining the term to be an inadequate number of nurses to meet staffing requirements to provide care to patients. Further, nurses attribute shortages to conditions primarily representing dissatisfaction with the job and/or conditions of work. The primary reasons cited by nurses consistently include dissatisfaction with salary and benefits, control over basic working conditions, and professional issues including autonomy, respect and opportunities for individual growth and promotion.[73] The most recent shortage was also linked to increased hospital demand for nurses to deal with increased technology, changing patient demographics, and increased acuity.

Dynamic Versus Static Shortages

Shortages are also characterized as dynamic or static. A temporary shortage reflects a dynamic state of increase in demand when demand exceeds supply at the old wage or price; the new wage eventually reaches its new equilibrium point thereby

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[72]Linda Aiken "The Hospital Nursing Shortage: A Paradox," 87.

[73]Prescott, "Another Round," 205.

alleviating the shortage. If demand continues to increase, the time required to reach equilibrium again will be greater. The distinguishing characteristics of a dynamic shortage are increases in quantity supplied and rising wages. The concern of shortage continues throughout the period when wages are increasing and supply is increasing to reach a new equilibrium.[74]

When supply does not increase and market equilibrium is not restored, a static or long-run shortage occurs. Usually prices or wages are controlled and prevented from reaching the equilibrium level. In the case of nursing, the argument of an oligopsonistic market gains strength when examining the slow and inadequate growth of wages despite persistent and recurring reported shortages. The presence of primarily one type of employer, hospitals, creates an oligopsonistic market in which there are too few employers to stimulate meaningful wage competition. Nurses do not increase the hours they work if the wage rate does not increase sufficiently. This decision about work hours lends support to the theoretical backward bending supply curve (refer to Figure 2-2) as applied to nurses.[75]

The policy implication for static shortages in the health services market calls for a rise in wages. Alternatively, if barriers to new entrants are believed to be a precipitating factor, the barriers must also be removed to allow supply to rise.[76]

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[74]Paul Feldstein, Health Care Economics, (New York: Wiley), 352.

[75]Ibid., 353.

[76]Ibid., 353-354.

Resolving the Problem

What has puzzled many people is that the number of nurses in the United States has grown steadily since the turn of the century. Also striking is the labor force participation rate of nurses, which was at an all time high of close to 80% in 1990. Simply stated, more nurses were working than ever before yet a shortage persisted throughout the end of the eighties.

The most common pathway to resolving the nurse shortages has been to focus on increasing the supply of nurses. Experts on the nurse labor market have warned against supply-side corrections as the only solutions for many years. Their words have gone unheeded. Lack of resolution of the disequilibrium in supply and demand sends the message that supply-side solutions have not been the answer. Experts argue that these solutions may, in fact, have suppressed wages and nurses must therefore concentrate their efforts on demand. Current efforts are being shifted toward decreasing the nonnursing time of registered nurses, restructuring the hospital role, adding other workers, and differentiating staff nurse work by educational level.[77]

Beginning in 1964, the federal government responded with legislation to provide subsidies for nurses' education. As a result of the report of the Surgeon General's Consultant Group on Nursing, which recommended increased support for nursing education, the Nurse Training Act (NTA) of 1964 was passed by Congress and

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[77]Sister Rosemary Donley and Mary Jean Flaherty, "Analysis of the Market Driven Nursing Shortage," Nursing and Health Care 10 (April 1989): 183-187; Lois Friss, "The Nursing Shortage: Do We Dislike it Enough," 237; Patricia Prescott, "Shortage of Professional Nursing Practice," Heart and Lung 18 (September 1989): 439-442; Eli Ginzberg, "Facing the Facts and Figures," American Journal of Nursing 87 (December 1987): 1597; Linda H. Aiken, "Breaking the Shortage Cycles," American Journal of Nursing 87 (December 1987): 1616.

provided close to $288 million over five years. It funded student scholarships and loans primarily, grants to schools for construction, planning, and/or initiating of programs, and general financial support.[78] The NTA's two goals broadly stated were to increase the quantity of nurses and improve their quality.

Debate about the need for continued federal support to increase the supply of nurses led to the independent study by the Institute of Medicine (IOM) of the National Academy of Sciences at the time of reauthorization of the NTA of 1979. The IOM study concluded in 1983 that the supply of and demand for nurses was in balance and was expected to continue that way through the end of the decade. The conclusions were met with much controversy.

The recommendation came on the heels of a major shift in both the registered nurse labor market and the U.S. economy. Inactive nurses had reentered the market in response to double digit inflation. At the time, working nurses also increased the number of hours they were willing to work. Demand for nurses also fell as a result of general unemployment and loss of hospitalization insurance coverage creating a transient decrease in demand for health care.[79]

Other important recommendations from the IOM study focused attention on the role and responsibility of employers to address and alleviate nurse dissatisfaction and

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[78]Claire Fagin, "The Shortage of Nurses in the United States," Journal of Public Health Policy (December 1980): 293; Donald E. Yett, An Economic Analysis of the Nurse Shortage, (Lexington, MA: Lexington Books D.C. Heath and Company, 1975), 30; Kalisch and Kalisch, 665. The original bill included $283 Million for programs and $4.6 Million for administration of the programs; Yett (1975) estimated final dollars spent to implement the N.T.A. were closer to $300 Million.

[79]Linda H. Aiken, "Nursing's Future: Public Policies, Private Actions," American Journal of Nursing 83 (October 1983): 1440.

turnover, the importance of graduate education and nursing research, and the cost-effectiveness of nurse practitioners. There was also acknowledgment of the need for increased involvement by nurses skilled in gerontological nursing.[80]

Renewed federal support occurred in 1975, 1979, and 1983. Most recently in 1987 and 1988, legislation including the Nursing Shortage Reduction Act of 1987 and the Nursing Education Reauthorization Act of 1988 continued support for nurse education and support to schools of nursing, as well as new initiatives to increase retention and decrease shortages. Once again in 1992, Congress is debating a Nurse Reauthorization Act to renew funding for the Nurse Education Act.

The Secretary of Health and Human Services activated a commission in 1987 to complete a one-year study of the nursing shortages and constituted a new group to continue that work in 1990. Nursing organizations spent human and material resources together to address the nursing shortage. Efforts throughout the latter half of the 1980s included cooperation among the Tri-Council in Nursing and specialty nursing organizations, intensified media efforts for recruitment of students into nursing, brochures and information about careers in nursing, and collection of data to describe features of nurse shortages across the country.[81] Despite the extensive study of this complex issue, the shortage of registered nurses persisted. The nursing

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[80]Ibid., 1444.

[81]The Tri-Council organizations include the American Nurses Association, The American Association of Colleges of Nurses, the National League for Nursing, and the American Organization of Nurse Executives. There are more than fifty smaller organizations representing nursing specialties.

public has grown more impatient with the tenacity of this problem. Nursing leaders have been challenged to address the issue.[82]

The sentiments continue: "Again so soon? Thoughts on the nurse shortage,"[83] "Round and round we go,"[84] "Nursing shortage: Do we dislike it enough to cure it?"[85] and "The yo-yo ride."[86] Nursing has analyzed, studied, proposed solutions, and received the attention of the media and the Congress, yet nurse shortages persist. There is no question that the nurse shortage problem is complex and difficult to understand.

Looking at the modern nursing work force, one must evaluate the delicate balance between factors affecting the supply and demand. The roots of many of these factors lie in the post-World War II boom in health care and changes experienced by the profession.

Attention must be focused toward permanent resolution of the persistent shortages. A beginning point is to examine the changes in nurse compensation from 1960 to 1990 as one major determinant to maintaining the balance in supply and demand.

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[82]Claire Fagin, "Strategies for Change," American Journal of Nursing 87 (December 1987): 1645-1646.

[83]MaryAnn Fralic, "Again so Soon? Thoughts on the Nurse Shortage," Nursing and Health Care 8 (April 1987): 209.

[84]Enid Goldberg, "Round and Round We Go," Journal of Professional Nursing 4 (January - February 1988): 1.

[85]Lois Friss, "The Nursing Shortage: Do We Dislike it Enough," 232.

[86]Joan Lynaugh, "The Yo-Yo Ride," American Journal of Nursing 87 (December 1987): 1606.

CHAPTER 3

METHODOLOGY

This study uses techniques of the historical method, which is an exploratory, descriptive design. Historical research, a qualitative research approach, is reasoned argument about the past by which one seeks the fullest possible understanding of actions, thoughts, and feelings. It is a hermeneutical process that involves interpretation of data to link existing evidence to earlier phenomena. It requires the researcher to scrutinize, criticize and analyze data sources to uncover bias, prejudice and exaggeration. In the process of seeking facts or constructing the past, the researcher aims to discover relationships, draw inferences, and link data systematically by interpolating between certain events.[1] Lynaugh and Reverby advise that "there is neither a formula for historical research nor a single historical method, although there are rules of evidence and guideposts to follow."[2] The usefulness and credibility of the researcher's work depends on following this advice.

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[1]Mildred E. Newton, "The Case for Historical Research," Nursing Research 14, no. 1 (Winter 1965): 20; Theresa Christy, "The Methodology of Historical Research: A Brief Introduction," Nursing Research 24, no. 3 (May-June 1975): 190.

[2]Joan Lynaugh and Susan Reverby, "Thoughts on the Nature of History," Nursing Research 36 (January/February 1987): 4.

Principles of Historical Method

History concerns itself with the relationships of continuity and change over time. Barzun and Graf[3] propose that the origins of history lay in human beings' awareness of continuity, modified by separateness of moments, days, years, hours and centuries. It is evident that change is a small part of human existence in comparison to the large part that is continuity. Scholars in history examine continuities and discontinuities in the study of current affairs and view every problem in a long-term perspective.

Ideas and objects find their place in recorded time, otherwise known as history. The methods used by historians in research are not uniquely their own. They include methods developed over time by humanistic scholars interested particularly in the social and behavioral sciences. Historical study is concerned with humankind, events, developments and institutions, all representative of human activity. The historiographer looks for regularities, generalizations, and strands of evidence that link events. Many historians present an exhaustive discourse on a narrow subject, which then can be integrated into a broader history of the same time period. During the growth of history as a discipline, specialization of subject matter has been more evident.

Some argue history is not truly a science; however, the methods are made as scientific as possible because they are critical, objective, and systematic. The work of the historian may be considered an art and a science. It is likened to science by its in-depth study and exact reporting, whereas it embodies the art of being able to

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[3]Jacques Barzun and Henry F. Graff, The Modern Researcher, 4th ed. (New York: Harcourt Brace Jovanovich, Publishers, 1985), 44.

organize principles, frame a narrative shell, draw conclusions or explanations, and meld disconnected facts into a written history.

Historiography is gaining professional acceptance as a method of nursing research. Contemporary research traditions of postempiricists (phenomenology, hermeneutics, feminism, and critical theory) recognize historiography as a valid and reliable method for deriving knowledge.[4] Nurses and others who study health care history put forth a continual effort to explain human events by struggling with conceptual ambiguities, missing evidence, and conflicting view points. "Historical scholarship is judged on its ability to assemble the best facts and generate the most cogent explanation of a given situation or period."[5]

The study of women's work in male-dominated bureaucracies (patriarchies) is part of a growing field of critical scholarship. Power relations or relations of domination maintain an established order of fact; these relationships often go unrecognized. "The systematic, thorough critique required by critical scholarship often leads nurses to experience the line between the fact world and critique as an awakening of political consciousness."[6] The challenge is to recognize the domination and recognize that the established order is only one version of constructing reality.

Feminism and critical theory both present models for uncovering unacknowledged power relations. Reflection and insight, integral parts of the critical scholarship

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[4]Mary T. Sarnecky, "Historiography: A Legitimate Research Methodology," Advances in Nursing Science 12 (1990): 9.

[5]Lynaugh and Reverby, 4.

[6]Janice L. Thompson, "Critical Scholarship: The Critique of Domination in Nursing," Advances in Nursing Science 10 (October 1987): 33.

process, are founded on consciousness raising, a basic tenet of feminism. Both serve to awaken emotional, spiritual, moral, and practical strands of the human being.[7] The problem to be studied derives from power relations defined by paternalistic systems and calls for a feminist consciousness during the conduct of the research.

Requirements of the Method

Historians seek to distinguish between single facts or events and determine linkages of objects and events with ideas. In the written account, the historian must present information that convinces the reader that it is probable or believable, reliable, and complete. It must also be clear, orderly, easy to grasp, and easy to remember.

Shafer[8] describes the three elements of the method as categorizing evidence, collecting evidence, and communicating evidence. Each will be briefly described.

Categorizing evidence includes examination of its character and quality to determine how the information has been transmitted. The major categorizations include documents, witness or participant, physical remains or artifacts, and orally transmitted accounts such as interviews, ballads, and myth. Evidence provided by a witness or participant is in contrast to testimony by other contemporaries with knowledge of or familiarity with an event. Further characterization may be made as to whether evidence was transmitted deliberately or nondeliberately; deliberate transmission carries a higher risk of bias.

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[7]Ibid., 33-35.

[8]Robert Jones Shafer, A Guide to Historical Method, 3rd. ed. (Homewood, IL: The Dorsey Press, 1980), 40-41.

Documents, the broadest classification, include a range of written private and public materials. They are further categorized as public or private, by time of composition, intended audience, intent of the composer, and special sources such as government documents and the press.

Collecting evidence, usually concentrated in the early part of an investigation, is a process of searching for and reviewing potential data sources, making research notes about the source and information, and understanding and analyzing the evidence. The researcher deals with plausible and implausible statements about facts and must consider the probability of the statements being true. Facts are revealed as events, objects, ideas, and values. The researcher must avoid judging or moralizing the evidence and understand how one's own values may affect the search for evidence.

Collecting evidence merges with analysis when the researcher evaluates facts and makes notes. The researcher distinguishes between single facts that appear to stand alone and linkages of objects and events with ideas.[9] In this process the researcher decides if the source is spurious, relevant, reliable, and can be corroborated, and then begins to verify and assemble the data. The stages of analysis and synthesis of data will be described under "Data Management." The evidence will be used to report what has happened and ultimately is expected to meet the litmus test of approximating truth.

The last element, communicating evidence, is the phase of presentation of the completed work describing an event or events based on the researcher's interpretation,

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[9]Ibid., 75.

analysis, and synthesis of the data. The researcher, through the use of a variety of notes, annotations, and essays, presents a full view of the nature and adequacy of data sources used and consulted during the study. This information can be extremely helpful in addition to the formal text.

Barzun and Graf[10] espouse the virtues necessary to carry out historical research. The first is accuracy. Precision is everything and must be represented in all work. Next is the love of order, a mechanical process. The researcher, whose character requires calm, patience, and pertinacity, creates a system from which there is no wavering. Data are read, noted, compared, verified, indexed, grouped, organized, and recopied so that order is maintained. The intellectual process of logic is yet another virtue. The historical researcher must use logic in pursuing leads and making inferences to finding sources in the literature. Honesty, a personal virtue, is listed here as well, reminding the researcher that complete candor is essential and that one seeks to represent interpretation of events in a skillful and accurate manner. Self-awareness is next and will lessen the influence of bias by making standards of judgment evident to the reader as well as making assumptions clear; it will also guard against dishonesty. The final virtue is imagination, the key to releasing the creativity within the individual.

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[10]Barzun and Graf, 55-59.

Data Sources

Historical research uses primary, secondary, and tertiary data sources such as documents, records and accounts of participants, witnesses, and experts. A primary data source is one that provides the words of an eye witness or participant; it may include heresay evidence. The first recorders of an event may also be considered a primary source. A secondary source records primary sources and includes all other accounts once removed from the event. Accounts written by contemporaries are tertiary sources.

The sources of data for this study are discussed in detail in Chapter 4. For the most part, secondary and tertiary data were used in this study. Some original research reports qualified as primary source data.

Time Period of Study

The period 1960 to 1990 was the specific time frame under study. This time frame was significant because of several events that occurred beginning in the early 1960s. Initially after World War II, the work force of nurses stabilized. More hospitals were built and more nurses were employed as a direct result of the Hill-Burton legislation. Vacancy rates peaked to an all time high of 23.2% in the early 1960s, which eventually led to passage by Congress of the Nurse Training Act of 1964.

The sixties were a time of great change in hospital nursing. Educational requirements were changing as proposed by the American Nurses Association in their

position paper on educational preparation of nurses issued in 1965.[11] Women established a new work ethic following the postwar period stabilization in attempts to overcome the feminine mystique. Hospitals were affected not only by the Hill-Burton Act, but also from anticipating major changes with the introduction of Medicare and Medicaid in 1965.

The seventies were the decade of exponential growth of high technology, and the eighties once again saw a recession in the overall economy with major implications for women to reenter the work force to boost or supplement family incomes. These two situations account for some fluctuation of supply of nurses in the work force.

During this time frame, three periods of nurse shortages were evident: the early 1960s, 1979-1981, and 1986-1990. The time frame allowed comparison of events inclusive of significant supply, demand, and wage changes for nurses.

Data Management

The most complex part of historiography is the management of data. The steps include selection, organization, analysis, and synthesis of the data collected. After identifying sources and collecting evidence, methods of analysis critically test the source and its contents in order to make objective judgments. Because objects are the events of history, clear judgment and knowledge of each object are necessary to rule out the possibility of subjective impressions. The critical method of historical research

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[11]American Nurses Association, Educational Preparation for Nurse Practitioners and Assistants to Nurses. A Position Paper (New York: American Nurses Association, 1965).

subjects a piece of evidence to action of the researcher's mind.[12] In this action lay the following fundamental questions: Is the evidence genuine? Is its message trustworthy? How do I know? A variety of questions guide the researcher in the criticism of evidence. The findings of this study are presented as an historical description of compensation of registered nurses from 1960 to 1990. The historical review includes data that were revealed through the research process and then were subjected to analysis and synthesis.

Criticism

Criticism is intended to assess the accuracy and value of observations left by witnesses, as well as the credibility of such observations. It also initiates the search for truth and causation. There are three types of criticism: external criticism, internal criticism, and self-criticism. External criticism determines the validity of the data source. Verification, the process of discriminating between true and false, or probable and doubtful or impossible, requires a technique that includes attention to detail, common sense reasoning, a feeling for history and chronology, familiarity with human behavior, and an ever growing capacity for information. Verification of documents usually focuses on determining if the work is genuine, meaning not forged, and authentic, such that it reports truthfully on its subject. The researcher must reach a rational decision that is convincing to oneself as well as others.

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[12]Shafer, 165.

The researcher uses internal criticism to determine the reliability and credibility of evidence. One must be aware of individual biases and be careful not to interpret the meaning of statements in data sources. This phase is called positive criticism. Once the researcher believes the meaning of the statements in the data sources is clearly understood, negative criticism is applied. Here the researcher seeks to establish reliability through careful comparison and testing of information. The researcher establishes if the information is fact, probability or possibility, the latter two having a declining degree of purity.[13]

Self-criticism occurs when examining the written history. The researcher tries to insure that the words used to describe events will evoke ideas in the reader's mind as close as possible to the writer's intended meaning, thus reducing the possibility of misinterpretation.

Analysis

A major task of historical method is to find linkages between facts that reinforce, refute, extrapolate on, or alter the evidence already collected in the process of interpreting events. Once the researcher is convinced there is high probability of truth, more complex analysis is begun. This is the beginning stage of synthesis.

The historical researcher uses the mental processes of comparison, combination, and selection when analyzing and synthesizing data. Analysis occurs bit by bit, leading to synthesis so that the two are intertwined throughout data management.

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[13]Christy, 191.

Corroboration and Contradiction

Finding corroborative evidence that meets the test for quality and veracity helps confirm events. It may also resolve problems in the presence of contradictory evidence. It is always better to have more than one source on the subject matter if more than one is available. Corroboration of small events, in contrast to global ones, is usually more readily found.

Bias and Subjectivity

The researcher aims for objectivity at all times; however, because the historian selects the facts to be included, there is always some degree of subjectivity in the work. Some argue this subjectivity allows for creativity. Christy[14] describes synthesis, the final stage of historiography, as a highly subjective art.

In order to reduce subjectivity, one must offer a well-rounded account that includes as much significant and relevant evidence as possible. Taking care to be aware of one's own biases and resisting any attempt to allow one's own theories or hypotheses to impose on the interpretation of the data are essential.

Relevance and Selection

Because of the inexhaustible amount of evidence on many subjects, the researcher selects the most relevant data. This important yet difficult task can be accomplished

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[14]Theresa Christy, "The Methodology of Historical Research," Nursing Research 24 (May-June 1975): 192.

by selecting facts that are important and representative of the total body of evidence. If the study has a proposition or hypothesis, data supporting or refuting the proposition are used. Carefully framed research questions are the most helpful means to guide proper selection of sources and guard against irrelevant diversion into other areas.

Final Synthesis

The terminal process of historical research is the final synthesis and the expression of the researcher's work. Shafer[15] identifies four interacting and overlapping processes of final synthesis: interpretation, emphasis, arrangement, and inference. Preparation begins with observation of data that have been collected.

Observation

The researcher reads and reread the evidence to learn and understand the content and reflect on manipulation of the evidence that will result in meaningful synthesis. Assimilation of evidence occurs in earlier steps of data collection and analysis; it is an essential component to interconnections and contradictions by being fully familiar with one's evidence.

Synthesis also readdresses the work of other researchers. At this stage, one must judge the quality of the conclusions of other scholars to avoid repetition and at the same time, incorporate into one's own research the worthwhile work of others. This moves beyond merely using a piece of evidence.

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[15]Shafer, 177-183.

Any generalization or explanation must be well substantiated. Adequate evidence must be found for specific generalization. Often qualifications are used such as nearly always, usually, almost, in the majority of cases, mostly likely, and perhaps.

Interpretation

History does not reveal or define the essential antecedents or causes of an event, but rather only the conditions leading to its emergence and related consequences. Interpretation of data leads to discovery of relationships that allow explanations of human events. Interpretation is often used interchangeably with explanation or generalization.

Emphasis

The researcher attempts to define intended areas of emphasis that require skill on the part of the author. Interpretation, generalization, and arrangement may all contribute to emphasis. In the final synthesis, however, a large proportion of attention given to a subject may provide emphasis as well as the order in which events are discussed.

Arrangement

Grouping of evidence, essential for communication, also constitutes interpretation. Two fundamental forms of arranging historical evidence are chronological and topical. Most syntheses combine these forms because historical arrangements always include

an element of time ordering. For example, if the major divisions of this study are changes in the role of the professional nurse, the next level of arrangement could be by time periods of significant change in the role. In this combined form, the chronology moves forward involving each topic with the opportunity to look forward or backward.

Inference

Inference is a creative process that suggests relationships between facts. It is used to bridge gaps in accounts or between pieces of evidence. It is sometimes unavoidable but must be used very cautiously and modestly because of the possible introduction of error into the synthesis.

Communication

The written history communicates many pieces of information to the reader. The chronology of facts tells a story of events, which conveys the researcher's findings clearly and concisely to the reader. A history is composed in an orderly manner, which presents topical unity, coherence, and transition between ideas and events. Two types of footnotes are used in this dissertation. They are source notes to cite references for statements in the text and explanatory notes that elaborate on the text.

CHAPTER 4

DATA SOURCES

The amount of data collected and the number of organizations attempting to collect data about the nursing work force increased throughout the course of the study period. In the sixties, the federal government, primarily the Department of Labor, published the majority of information in Industry Wage Surveys[1] of hospitals. The University of Texas, Medical Branch (UTMB) at Galveston, initiated an annual Survey of Medical School Salaries in 1963, which provided salary information for various job categories in hospitals, medical schools and medical centers.[2] The American Nurses Association (ANA) was the only other major source of data; findings were limited to some original earnings data and compilations of secondary data released in the series Facts About Nursing.[3] ANA also studied the nurse supply and published the findings in a series of four Inventories of Registered Nurses.[4]

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[1]Department of Labor, Bureau of Labor Statistics, Industry Wage Survey: Hospitals ([Washington, D.C.]: U.S. Department of Labor, Bureau of Labor Statistics, 1960-1990).

[2]The University of Texas Medical Branch, National Survey of Hospitals and Medical School Salaries (Galveston: University of Texas Medical Branch, 1963-1990).

[3]American Nurses Association, Facts About Nursing (New York: American Nurses Association, 1962-1971). American Nurses Association, Facts About Nursing (Kansas City: American Nurses Association, 1972-1977, 1983-1987). American Nurses Association, Facts About Nursing (New York: American Journal of Nursing Company, 1981).

[4]E.D. Marshall and Evelyn B. Moses, The Nation's Nurses, the 1962 Inventory of Professional Registered Nurses (New York: American Nurses Association Research and Statistics Program, 1965).

Reporting took on a more important value as requirements set forth in the first Nurse Training Act of 1964 became effective. Subsequent legislation enabling the provision of funds for education and support of health personnel in the United States (U.S.) also carried data collection and reporting requirements. Collaborative efforts were evident in reports issued jointly by the Division of Nursing of the U.S. Public Health Service and the American Hospital Association, with the American Nurses Association, and later with the Western Interstate Commission on Higher Education, among other groups.

In the seventies, a greater number of agencies throughout the Public Health Service became involved in data collection through the Health Resources Services Administration, Bureau of Health Manpower, although major responsibility rested with the Division of Nursing. At the same time, the Interagency Council on Nursing Statistics (ICONS) assisted the Division with collecting, compiling and interpreting data about nursing.

With improved data management capabilities, the eighties saw an increased interest in data collection. Reports reflected data being issued almost annually from the organizations that had become major players in tracking nurse manpower.

Despite the variety of information available, a noticeable lack of trend line data was apparent. With the exception of the Industry Wage Surveys, hereafter referred to

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RNs 1966 . . . An Inventory of Registered Nurses (New York: American Nurses Association Research and Statistics Department, 1969). Aleda V. Roth and Alice R. Walden, The Nation's Nurses. 1972 Inventory of Registered Nurses (Kansas City: American Nurses Statistics Department, 1974). Duane C. Schulte, Inventory of Registered Nurses 1977-78 (Kansas City: American Nurses Association Research and Policy Analysis Department, 1981).

as IWS, which were issued only every three to four years, and the more recent appearance of the National Sample Surveys[5] in 1977, nursing has lacked consistent reporting and analysis of time series data that capture a comprehensive picture of the national market for registered nurses. Many local, state, and regional groups initiated surveys, particularly in the late eighties, addressing local markets, but these were not useful in addressing the aggregate data base. Some surveys were based on specific personnel systems, whereas others relied on self-reporting with no means to insure reliability of data; these surveys were excluded from the scope of this study.

Sources of Salary Data

Initially, four data bases had been proposed as sources for establishing a time series of salary information. These included the IWS of the Bureau of Labor Statistics, U.S. Department of Labor, the National Sample Surveys conducted by the Division of Nursing, U.S. Public Health Service, the annual Survey of Medical School Salaries conducted by the University of Texas, Medical Branch, Galveston, Texas, and surveys of nursing personnel conducted by the American Hospital Association. These and other available data bases will be described and strengths and weaknesses for establishment of historical trends will be addressed. It is important first to describe

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[5]Aleda Roth, Deborah Graham, and Gordon Schmittling, 1977 National Sample Survey of Registered Nurses. A Report on the Nurse Population and Factors Affecting their Supply (Kansas City: American Nurses Association, 1977), HRP-0900603. Barbara S. Bentley and others, National Sample Survey of Registered Nurses II. Status of Nurses: November 1980 (Research Triangle Park: Research Triangle Institute, 1982), HRP-0904375. Westat, Inc., The 1984 National Sample Survey of Registered Nurses, Summary of Results (Rockville: Westat, Inc., 1986), HRP-0906851. Evelyn B. Moses, The Registered Nurse Population. Findings from the National Sample Survey of Registered Nurses, March 1988 (Rockville: U.S. Department of Health and Human Services, 1990).

the condition of available data sources and problems inherent in tracking historical data, even from a period as recent as 1960-1990.

The IWS of the Bureau of Labor Statistics, U.S. Department of Labor, provided the most consistent and comprehensive data over time.[6] Sampling of various occupations on a regional and national basis has been done for many years. The earliest survey of any nursing salaries included in these studies was that of industrial nurses; salaries were included in reports about the manufacturing industries prior to World War II. The first hospital industry wage survey that included staff nurses and other categories of registered nurses occurred in mid-1960. These surveys were done approximately every three years in the sixties and seventies, and then every four years in the eighties.

The methods of the IWS were surprisingly constant. Each survey was accomplished by personal visits of field economists from the Bureau of Labor Statistics of the United States Department of Labor. Oversight was provided by Regional Directors of Wages and Industrial Relations. The surveys were conducted on a sample basis with a greater proportion of larger hospitals than smaller hospitals being used each time in order to be the most cost-effective. All data were combined and weighted accordingly. The surveys, with the exception of 1989, covering private hospitals exclusively, included state and local government hospitals, as well as private hospitals; they excluded federal hospitals. This met the intended parameters for this study.

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[6]The Industry Wage Surveys prepared by the Bureau of Labor Statistics, were issued for the years covering data from 1960, 1963, 1966, 1969, 1972, 1975-76, 1978, 1981, 1985, and 1989.

Each survey described industry characteristics for the current year and made comparisons to earlier surveys. Most reports addressed unionization and analyzed segments of data for unionized and nonunionized facilities. Major categories of data reported included occupational earnings (straight time), minimum entrance salaries reported in ranges for registered nurses, shift differentials, holidays, vacation plans, and health insurance and retirement plans data. Specific findings are reported and analyzed later in this study.

In response to a demand for information on current and future nursing needs and resources, the Division of Nursing of the United States Public Health Service initiated the National Sample Survey of Registered Nurses in 1977. This was partly in response to a need for data on the current and projected supply and distribution of and requirements for nurses to be furnished to Congress as a requirement of the Nurse Training Act of 1975.[7] The National Sample Survey, using a sampling design originally developed with the ANA and Westat, and later refined in subsequent surveys, was hailed as a new method to obtain data about the registered nurse universe never previously available. Surveys were conducted in 1977, 1980, 1984, and 1988.

Data made available in the National Sample Survey included extensive demographics on the nurse population, characteristics of employment and the work force; analyses of educational preparation of nurses stratified by occupational setting,

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[7]Public Law 94-63, containing the Nurse Training Act of 1975, directed the collection of data on the characteristics and supply of nurses for decisions related to the allocation of resources to nursing educational programs, and government programs related to preparation and utilization of registered nurses. Aleda Roth, Deborah Graham, and Gordon Schmittling, 1977 National Sample Survey of Registered Nurses, 14-15.

role, other characteristics, such as current student status and number of foreign educated graduates; and discussion of emerging trends.

A rich source of primary and secondary data was Facts About Nursing, reports compiled and published by the ANA beginning in 1935. These reports included primarily secondary data analyzed and organized to report pertinent information about the registered nurse population. Some reports included previously unpublished data collected by the ANA Statistical Unit, and numerous editions included tables based on data from the Bureau of Labor Statistics, the UTMB Galveston studies, the National League for Nursing, the Division of Nursing, and the American Hospital Association. The reports were originally published annually and then combined data for two-year periods. Reports from 1961 through 1987 were used for this study.

The American Hospital Association (AHA) reported statistical data on hospitals in the series, AHA Guide to Hospitals. The Guide included a section, "Hospital Statistics," which eventually was published separately as a companion to the Guide. The Nursing Center at the AHA issued an annual report on nurses, The Nursing Personnel Survey, throughout the eighties (1981-1989), with the exception of 1982. Analysis of the AHA "Nursing" section data revealed constantly changing methodology, sampling, and categories of data reported. Inconsistent categories of data were the most disappointing because they did not permit use of any salary data; these data were eliminated as a source for any useful trend line. The surveys offered some use in reporting vacancy rates and included other data useful to employers.

The annual Survey of Medical School Salaries, conducted since 1963 by the UTMB Galveston, was also disappointing. The sample was constituted by voluntary participation of hospitals in three categories: hospitals, medical schools, and medical centers. A comprehensive list of hospitals invited to participate in each survey was provided, but an actual accounting of final participants was considered confidential. The sample in this survey grew from 31 institutions in 1963, the initial year of the survey, to 90 institutions in 1982. The mean number of participants was 72, with an average rate of return of 74% for years prior to 1989 when the change in survey format occurred. The rates of return for 1989 and 1990 were 49% and 50%, with only 62 and 63 participants respectively. From 1963 through 1988, data could not be used to depict accurate mean salaries. Only the surveys conducted in 1989 and 1990 provided information that reflected current compensation reporting parameters, such as the minimum, midpoint, and maximum of salary ranges, and calculated actual salary weighted averages. Thus, data were used only to compare minimum and maximum salary over time. The surveys did, however, provide a trend line for this small segment of the nonfederal hospital industry. Consistent reporting of minimum and maximum salaries provided a reference point for changes in entry levels and salary progression, which will be discussed later in Chapter 5.

Sources of Supply Estimates

Four administrative agencies or organizations were primarily responsible for collecting data about and/or estimating national nurse supply in the United States.

These included the Division of Nursing, Bureau of Health Professions, Health Resources Services Administration, Public Health Service, Department of Health and Human Services; the American Nurses Association; the American Hospital Association; and the Interagency Conference on Nursing Statistics. Unlike salary data, information about supply was more readily available for years throughout the study period. However, data were in large part estimates or counts made through surveys of employers. Both methods have inherent risks to reliability with estimations relying on assumptions to be correct and employer counts to be accurate and complete. Variations in supply estimates occurred as a result of seasonal timing differences and diversity of methods.

The numbers representing the supply of nurses included the estimates of total number of licensed registered nurses, the number of nurses employed in nursing, and the number not employed in nursing. For purposes of this study, the number of nurses employed in nursing was used to represent the active supply of registered nurses. The percent of nurses employed in nursing was expressed as the activity rate for registered nurses. Nurses not employed in nursing represented those employed in another field, those not working, and those who did not report information with regard to employment status. Of those not employed in nursing, fewer than 5% were employed in other fields in any given survey year when data were available; those not working were primarily those in higher age categories, at least 50 and above.

The Division of Nursing (DON) has had the responsibility for collecting data about nursing personnel for many years. The federal government established the Division of

Nursing Resources in 1949, when reports of short supply and maldistribution dissipated the notion that a nurse surplus would occur following World War II. Since its inception, the DON's work has focused on helping states conduct surveys of nursing needs and resources; the name was changed to Division of Nursing in 1960.[8] In the sixties and early seventies, the DON produced several cooperative studies with other groups, such as the American Hospital Association and the American Nurses Association, as initial efforts to begin data collection about the nation's nurses. These joint projects were usually funded by the federal government and took advantage of the professional contacts of the associated organizations. For a short period of time in the seventies, the National Center for Health Statistics (NCHS) was the focal point for all federal health related studies of a descriptive nature, and estimates of nurse supply were published under its name. The data collection for these efforts was carried out and funded by the Division of Nursing but appeared under the umbrella of NCHS work.[9]

The DON also published two issues of Sourcebook--Nursing Personnel in 1974 and 1981. Earlier editions of reports about nursing personnel were contained in the publication, Health Manpower Source Book, issued periodically by the Public Health Service beginning in 1953. The Sourcebook included trend data on nurse manpower based on information from nursing organizations, hospitals, medical associations, and components of the federal government.

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[8]Aleda V. Roth and Alice R. Walden, The Nation's Nurses. 1972 Inventory of Registered Nurses, 46.

[9]Personal communication with Evelyn Moses, Division of Nursing, February 21, 1992.

The most comprehensive work of the DON has been carried out in the National Sample Surveys. The surveys began in 1977 and have been conducted approximately every four years. The last completed survey was conducted in 1988, with a new study launched in March 1992.[10] The work performed in the Surveys has supported an ongoing reporting responsibility of the DON to the U.S. Congress as mandated in the Nurse Education Acts and Public Law 94-484, the Health Professional Educational Assistance Act of 1976.[11] Reports to Congress have been issued about health professions personnel approximately every two years since 1978. These reports have included data reiterated from prior surveys, including future estimates of supply and need, along with projections of trends and patterns of importance to policy makers.

Each edition of Facts About Nursing, published by the ANA, included valuable manpower data about nurses in addition to extensive demographic and salary data. Facts was an excellent source for verifying work of the other major organizations including the American Hospital Association, Division of Nursing, and ICONS, particularly when presented in tables showing data from multiple years. It also proved

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[10]The 1977 survey was prepared by the American Nurses Association under contract to the Division of Nursing. The 1980 and 1988 surveys were completed under contract by the Research Triangle Institute of North Carolina, while Westat, a Rockville, Maryland based research firm, conducted the 1984 survey.

[11]Secretary H.E.W., First Report to the Congress February 1, 1977. Nurse Training Act of 1975 (Hyattsville, MD: U.S.D.H.E.W., DHEW Pub. No. HRA 78-38, 1978). Secretary H.E.W., Second Report to the Congress March 15, 1979 (Revised). Nurse Training Act of 1975 (Hyattsville, MD: U.S.D.H.E.W., DHEW Pub. No. HRA 79-45, 1979). Secretary H.E.W., Nurse Supply, Distribution and Requirements. Third Report to the Congress February 17, 1982. Nurse Training Act of 1975 (Hyattsville, MD: U.S.D.H.E.W., DHEW Pub. No. HRA 82-7, 1982). U.S.P.H.S., Nurse Training Act of 1964. Program Review Report (Arlington, VA: U.S.D.H.E.W., 1967). U.S.P.H.S., Report to the Congress. Nurse Training 1974 (Bethesda, MD: U.S.D.H.E.W., 1974). U.S.P.H.S., A Report to the President and Congress on the Status of Health Professions Personnel in the United States (Washington, D.C.: U.S.D.H.E.W., DHEW Pub. No. 78-93, August 1978).

invaluable when projections had been changed and later editions identified revisions to earlier published data.

In addition to Facts, the ANA completed four editions of Inventory of Registered Nurses during the study period in 1962, 1966, and 1972 and the final edition in 1977-1978. The Inventory, initiated in 1949, was conducted by having each State Board of Nursing mail postcard questionnaires to its registrants. The cards were returned to ANA for tabulation and analysis. By using all licenses processed, the intention was to reach all active nurses. Efforts were made to eliminate duplication of nurses holding more than one active license. Response rate was initially low at 51%, and there were sometimes long delays in processing. Due to the cycling of different license renewal periods throughout the states, the inventory could be conducted no more frequently than every three years; cost also prohibited more frequent sampling.

The 1962 Inventory was completed under contract to the U.S. Public Health Service in hopes of improving survey methods. The 1966 attempt used social security numbers to eliminate duplications and was the closest to a real census of nurses as possible; similar to other early studies, part-time work was not addressed. The 1972 study reported nursing home data separately as a work site distinct from the hospital. At the time, these studies provided the most accurate counts of registered nurses that were possible.

In addition to the Inventories, other sources identified for possible information at the time included the 1960 Decennial Census. This report was not trusted by the nursing public, based on the belief that many categories were inflated and failed to

differentiate responses of registered nurses and licensed practical nurses. The American Hospital Association (AHA) also conducted biennial surveys of nurses employed in U.S. hospitals based largely on employer counts.

The AHA, through cooperation with the DON and ANA, provided data for publication in Facts. In addition, much of these data were published over the years in the annual publication, Hospital Statistics. Some of the difficulty using these data occurred in sampling. Estimates of nurse supply often differed from ANA or DON estimates. It is possible that timing was primarily responsible for the differences; AHA estimates were usually 10% - 12% higher, and samples usually included hospitals registered with AHA. All but about 100 of the nation's smallest hospitals were included, which accounted for only about 1% of all employees, considered well within an acceptable margin of error. ANA samples, on the other hand, included only nonfederal general hospitals, the focus of this study.

ICONS provided some of the most useful data. The interagency conference was composed of members of the statistical staffs of the ANA, Division of Nursing, National League for Nursing (NLN), and the Bureau of Health Manpower of the Public Health Service. Members were responsible for jointly preparing national estimates of employed nurses during years that other surveys were not conducted. The ICONS estimates were prepared using employee counts from employers when available and were made biennially from 1954 to 1966. Estimates were made annually, however, beginning with 1967 data. The problem with these data was that they appeared only as table references in Facts, thus more data existed than were

published; they were not readily available from another source. ICONS estimates were computed on the basis of current graduations and estimated attrition rates.[12] Two significant revisions were made when it was determined the attrition rate had changed; data from 1967 to 1973 and 1981 to 1983 were later revised.

Despite the availability of data for most years of the study period (1960-1990), it became apparent that there were numerous discrepancies in estimates of the registered nurse work force. Organizations reporting data on nurses used different estimation formulas and various sampling techniques. An influx of new entrants with each graduation of basic students accounted for seasonal variation in work force counts.

Sources of Benefits Data

The U.S. Chamber of Commerce provided an important source of data for employee benefits. Reports on manufacturing and nonmanufacturing industries benefits have been published since 1947, and hospitals were introduced as a separate category in 1975. Other private companies have collected benefits data more recently; however, much of their work used a purposive sample and was not useful for this study, e.g., the Hay Group. The IWS of the Bureau of Labor Statistics provided data on hospital paid benefits from 1960 forward. For the studies between 1960 through 1972, benefits data specifically addressed registered professional nurses; from 1975-1989, registered nurses were included in the category, professional and technical, for the purposes of benefits data reporting. The AHA's Nursing Personnel Surveys

[12]ANA, Facts About Nursing, 1967, 7.

included some benefits information in their studies conducted during the eighties, and Hospital Statistics also included some data. The U.S. Chamber reports generalized industry data with a very small sample of hospitals (approximately 1%), whereas the IWS and AHA data referred directly to employed nurses.

Challenges to Data Collection

The establishment of any trend line demands consistency of data collection over time. This includes similar definitions, sampling, methods, presentation, and analysis of data. Establishment of a time-series of salary data for registered nurses in hospital staff nurse positions was accomplished using data from only two sources, the IWS and the National Sample Surveys. A variety of other reports issued throughout the study period offered isolated information about nursing personnel and salaries. There were great disparities in sampling and methodologies; therefore, attempts to use these sources, even to corroborate primary data, proved unsuccessful. As a result, data used to establish a time-series of staff nurse salaries were not as abundant as had been anticipated.

Salaries, or straight time earnings, were reported in different units over time. In the early IWSs (1960, 1963, 1966, 1969, 1972), salaries were reported as weekly income. The reporting then changed to hourly wages for the period 1975 to 1985 and returned to weekly wages in the 1989 survey. The National Sample Survey reported salaries as annual earnings. In order to establish consistency, all salary values were converted to annual earnings using a standard industry calculation of 2,080 hours

worked per calendar year per full-time equivalent. This method was appropriate because it approximated the average number of hours reported for full-time workers in hospital staff nurse positions. Historically, nurses in almost all locations, with the exception of New York City, worked a forty-hour work week; in New York a thirty-seven-and-a-half-hour week was common.[13]

Part-time workers were excluded from most early surveys, and when they did become part of the sampling in 1972, their earnings were figured on a half-time (50%) work effort. To a certain degree the 50% effort approximated the average hours reported for part-time nurses; however, in the latter part of the eighties, a variety of flexible work plans were implemented that paid nurses larger sums of money for a number of hours not equivalent to a full-time or half-time work effort; data were insufficient to evaluate such plans.

Nurse manpower costs to hospitals escalated over time for reasons other than just increases in staff nurses' salaries. One key manpower issue was the reduction of student labor that occurred throughout the study period. Many thousands of hospital-based student registered nurses and student practical nurses provided assistive nursing care that allowed hospitals to maintain a smaller paid work force. Also, nurses who belonged to religious orders provided services at minimal or no cost to the institutions. Both groups were excluded from the IWS.

Another item of interest noted was the changing definition of the staff nurse. The most consistent source of categorization of the staff nurse was in the IWS. From 1963

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[13]Industry Wage Survey, 1989, 122.

through 1981, the definition of staff nurse, titled, General Duty Nurse, remained constant. This definition first appeared in the mid-1960 survey as follows:

> A registered professional nurse who gives nursing care to patients within an organized nursing unit: Utilizes special skill, knowledge, and judgment in observing and reporting symptoms and condition of patient. Administers highly specialized therapy with complicated equipment. Gives medication and notes reactions. Maintains records on patient's condition, medication, and treatment. Assists the physician with treatment. May set up equipment, prepare the patient, etc. May supervise professional and other nursing personnel who are working as members of a nursing team in caring for a group of patients. May spend part-time instructing, supervising, or assigning duties to student nurses, practical nurses, and nursing aids. May instruct patients and family. May assume some or all of the functions of the head nurse in her absence. May bathe and feed acutely ill patients. May take and record temperatures, respiration, and pulse.
>
> Excludes nurse anesthetists, those who are given extra compensation as assistant head nurses, those who spend more than half their time in the central supply department or in classroom and organized nursing unit instruction.[14]

In 1985, the General Duty Nurse was parenthetically referenced as "Staff nurse; generalist" and the definition changed to read:

> A registered professional nurse who uses special skills, knowledge, and judgment in caring for patients within an organized nursing unit. Gives medication and notes reaction; administers highly specialized therapy, using complicated equipment; and observes condition of patient and reports any significant changes. Maintains records on patient's condition, medication, and treatment.
>
> May set up therapeutic equipment, prepare patient, and in other ways assist physician with treatment; may supervise professional and other nursing personnel who, as a team, care for a group of patients; instruct, supervise, or assign duties to student nurses, licensed practical nurses, and nursing aides; and assume some or all of the functions of the head nurse in absence. May bathe

[14]Industry Wage Survey, 1960, 74.

> and feed acutely ill patients; take and record temperatures, respiration and pulse; and instruct patient and family.[15]

The 1989 IWS definitions listed four levels of Registered Nurse (I-IV) plus a Registered Nurse II specialist.[16] The title of general duty nurse had become "Staff Nurse" and added the element of specialization. With only slight modification and the same exclusions, the definition read:

> A registered professional nurse who uses special skills, knowledge, and judgment in caring for patients within an organized nursing unit. Gives medication and notes reaction; administers highly specialized therapy, using complicated equipment; and observes condition of patient and reports any significant changes. Maintains records on patient's condition, medication, and treatment. May set up therapeutic equipment, prepare patient, and in other ways assist physician with treatment; may supervise L.P.N.s and nursing assistants and other nursing personnel who, as a team, care for a group of patients; instruct, supervise, or assign duties to student nurses, licensed practical nurses, and nursing aides; and assume some or all of the functions of the head nurse when absent. May bathe and feed acutely ill patients; take and record temperatures, respiration and pulse; and instruct patient and family in complying with prescribed medical regimes. May specialize, e.g., operating room nurse, emergency room nurse, and psychiatric nurse.[17]

The Registered Nurse I and II addressed specialization in various roles and described the registered nurse in specific settings such as staff, operating room, psychiatric, health unit/clinical, and community health; levels III and IV were reserved for specialist and expanded roles.

Other reports provided no definition of the general duty or staff nurse, and it was not apparent if roles were similar in different settings. Traditional titles of registered

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[15]Industry Wage Survey, 1985, 245.

[16]Industry Wage Survey, 1989, 171-172.

[17]Ibid.

nurse categories included general duty nurse, instructor, supervisor, head nurse, and director of nurses.

Retrieval of known data sources was often difficult as well. Government documents held in repositories in various libraries and regional government agency locations were found to be poorly catalogued. Systems were not automated, copies of reports were not available for use outside the original location, and documents on microfiche were sometimes barely decipherable. Some reports within a series were entered into the National Technical Information Service, whereas others only could be tracked to their original source and may have been out of print and no longer available. Even when some reports were obtained, in the cataloging process, page numbering had been adjusted with new hand written numbers next to typed numbers. It was difficult to know which system of pagination provided correct information for citations from the text.

Despite the difficulties in tracking data sources, conversations with experts in the field revealed that the data bases selected and analyzed represented all known major sources.[18] Selection of data was limited to aggregate national data, excluding local, state, regional, or special interest sources. Studying nurses in the aggregate national market was consistent with other major efforts directed toward collection of data about the registered nurse work force in the United States. Table 4-1 shows the availability of the selected data sources and the year(s) of publication.

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[18]Personal communications with experts in the field of nurse manpower data, Linda Aiken, Patricia Prescott, Richard McKibbin, and Evelyn Moses.

Table 4-1 Data Sources

Year	A	B	C	D	E	F	G	H	I	J
1960	X							X		
1961								X		
1962						X	X			
1963	X							X(62-63)		X
1964							X	X		X
1965								X		X
1966	X					X	X	X		X
1967							X	X		X
1968				X			X	X		X
1969	X						X	X		X
1970							X			X
1971							X	X(70-71)		X
1972	X			X		X	X			X
1973							X			X
1974					X		X	X(72-73)		X
1975							X			X
1976	X(75-76)						X	X(74-75)		X
1977		X					X	X(76-77)		X
1978	X		X			X(77-78)	X			X
1979							X			X
1980		X	X				X			X
1981	X				X		X	X(80-81)	X	X
1982			X				X			X
1983							X	X(82-83)	X	X
1984		X	X				X		X	X
1985	X						X	X(84-85)	X	X
1986			X				X		X	X
1987							X	X(86-87)	X	X
1988		X	X						X	X
1989	X									X
1990			X							X

A - Industry Wage Survey
B - National Sample Survey
C - Reports to Congress
D - Nursing Pers. in Hospitals
E - Nurs. Pers. Sourcebook
F - ANA Inventories
G - ICONS
H - Facts
I - AHA Nsg. Survey
K - UTMB Survey

Another document that was uncovered that corroborated data sources was a background paper prepared by staff of The Project HOPE Center for Health Affairs to support the project, "An Action Plan for the Establishment of a Minimum Nursing Data Set." This paper, Background Paper 1: Volume 1, Overview of Available Data on Nurse Supply, Demand, and Compensation, was written in July 1989 and provided an overview of available data on the nurse market, in particular, nurse supply, demand and compensation. It dealt with national level sources of data consistent with this study.

The report identified the same sources used in this study as well as those not selected for inclusion. The final report, An Action Plan for the Establishment of a Minimum Nursing Data Set,[19] highlighted the elements to be included in a nurse labor market minimum data set. A five-year action plan for the years 1990-1995 was also proposed to correct and expand data collection capabilities and methods, with heavy emphasis placed on the necessary partnership between public and private interests in these endeavors. Review of this report in 1992 revealed very few, if any, of the suggested actions have been implemented, due largely to the harsh economic climate affecting all interested organizations.

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[19]The Project Hope Center for Health Affairs, An Action Plan for the Establishment of a Minimum Nursing Data Set (Chevy Chase: The Project Hope, 1990).

CHAPTER 5

PRESENTATION OF FINDINGS

Compensation

Compensation data have been divided into two distinct sections, salaries and benefits, for reporting and analysis. This chapter addresses data that were used to describe the major focus of this study, changes in staff nurses' salaries from 1960-1990. Salary data are presented with trend analysis and other background information on time-series information; a review of benefits follows. The terms salary and wages are used interchangeably to reflect straight time earnings.

Salaries

Changes in Hospital Staff Nurse Salaries 1960-1990

Based on fourteen data points, a time-series analysis of hospital staff nurse salaries was established (see Figure 5-1). The mean annual salary in 1960 was $4,082 and steadily increased to $28,834 in 1989, which represented an increase in actual wages of 606% over thirty years.[1]

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[1]Mean annual salaries were derived from the Industry Wage Surveys, 1960 through 1989, and the four National Sample Surveys, 1977, 1980, 1984, 1988. All values for wages were converted to annual amounts based on an average of 2080 hours for a full time equivalent worker.

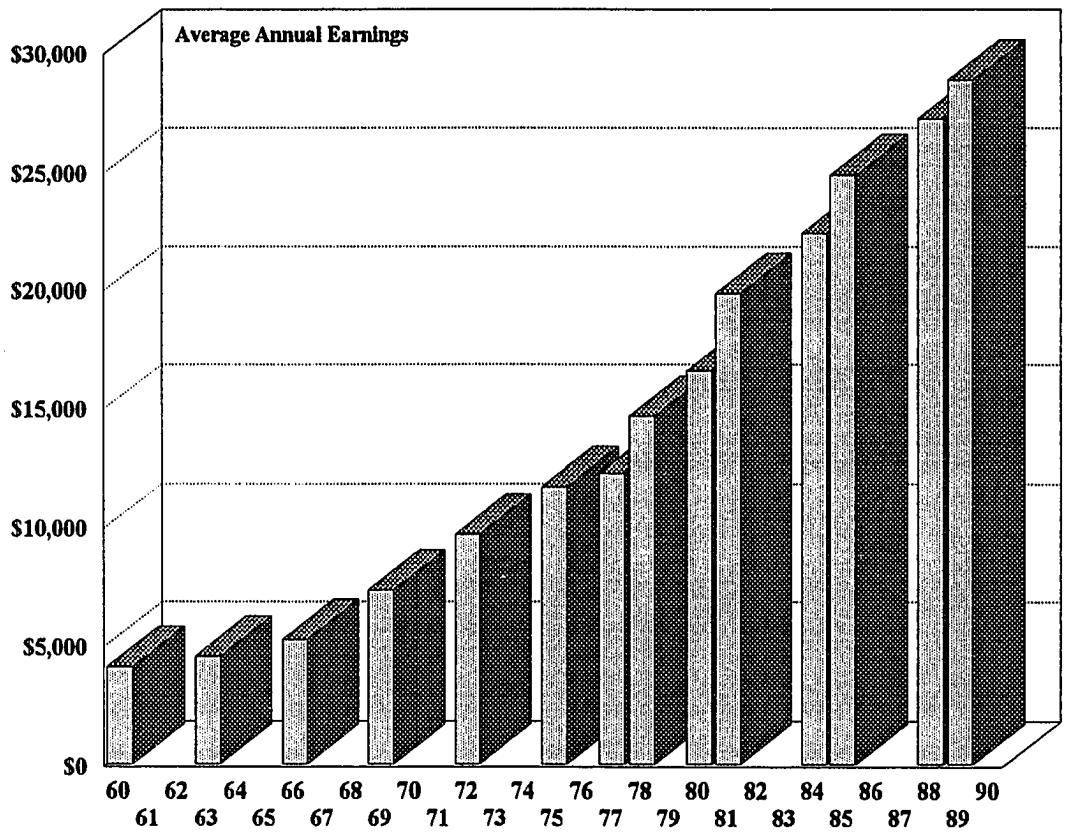

Figure 5-1 Mean Salary for Hospital Staff Nurses

Employees were usually concerned with real earnings over time rather than simply actual earnings. Real earnings represented those dollars adjusted for inflation, whereas actual earnings were the actual dollar amount received in current dollars. When adjusted for inflation, using the Consumer Price Index for all urban workers (CPI-U), the change in earnings for hospital staff nurses showed real growth of only 82%, compared to actual growth of 606% over thirty years. Salary increases accounted for very little growth beyond inflation. Earnings in 1989 given 1960 dollars would have risen to $7,263 if adjusted only for the effects of inflation. Real annual earnings in 1989 based on 1960 dollars rose an additional 2% to $7,412. Figure 5-2 reinforces this comparison with a relatively flat line showing growth in real earnings over time.

The growth of salary ranges was evident over time using the data from the Survey of Medical School Salaries. A comparison of minimum and maximum salaries from 1963 through 1990 showed a growth of 30% (range 20-50%) between minimum or entry salaries, and those paid to experienced workers (see Figure 5-3 and Table 5-1). The greatest change in salary range growth occurred in the latter portion of the 1980s when salary compression was an issue highlighted in numerous reports citing problems with nurse compensation. Figure 5-4 compares the growth in these areas.

Approximately two-thirds of workers were employed in privately owned and operated hospitals compared to state and local (nonfederal) hospitals during the study period. It was interesting to note that from 1960 until 1972, government institutions paid wages that were higher than private hospitals.

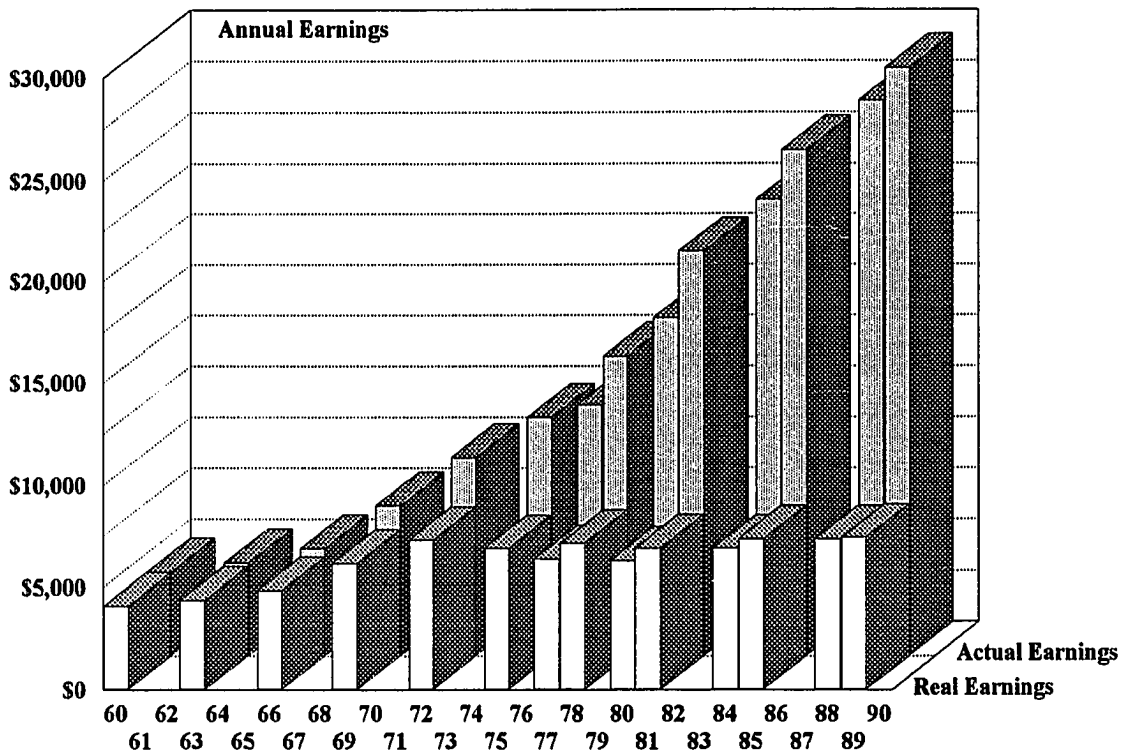

Figure 5-2 Mean Wages Adjusted for Inflation

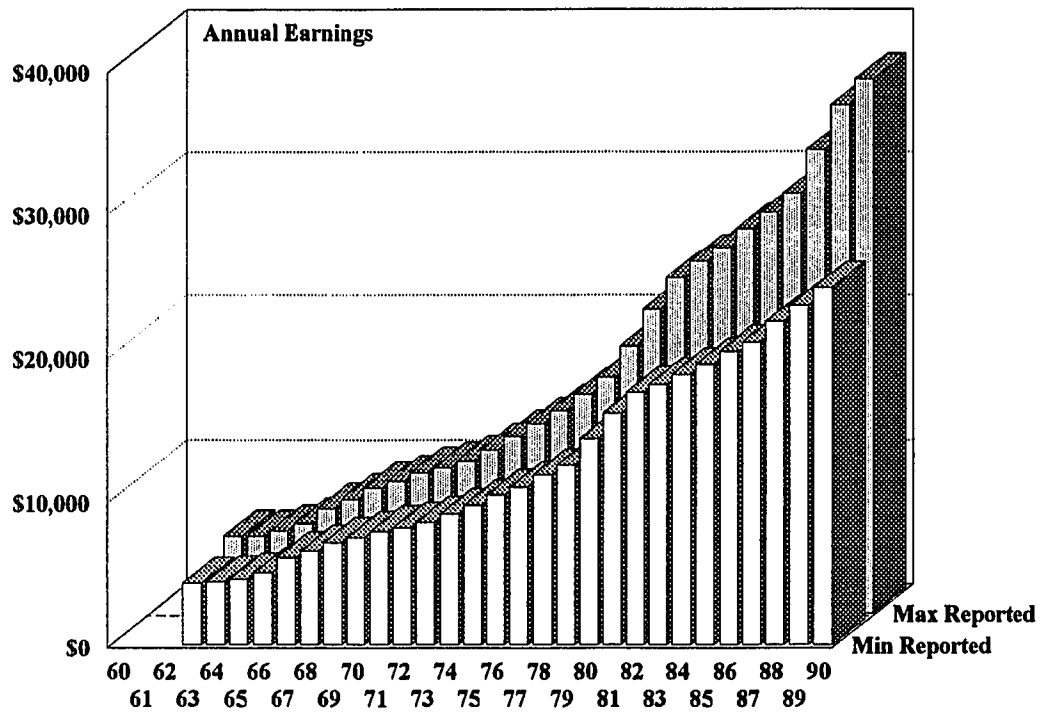

Figure 5-3 Progression of Minimum and Maximum Salaries

Table 5-1
Change in Percent Difference Between Minimum and Maximum Staff Nurse Salaries 1963 - 1990 Showing Improvement in Wage Compression

Year	Minimum Salary	Maximum Salary	% Difference/Range
1963	$4,308	$5,376	24.8
1964	$4,392	$5,304	20.8
1965	$4,596	$5,664	23.2
1966	$5,016	$6,192	23.4
1967	$6,024	$7,236	20.1
1968	$6,516	$7,872	20.8
1969	$7,092	$8,664	22.2
1970	$7,488	$8,132	22.0
1971	$7,884	$9,732	23.4
1972	$8.112	$10,068	24.1
1973	$8,508	$10,512	23.6
1974	$9,096	$11,364	24.9
1975	$9,672	$12,288	27.1
1976	$10,404	$13,153	26.4
1977	$10,944	$14,040	28.3
1978	$11,796	$15,204	28.9
1979	$12,492	$16,356	30.9
1980	$14,304	$18,480	29.2
1981	$16,068	$21,048	31.0
1982	$17,568	$23,268	32.4
1983	$18,084	$24,348	34.6
1984	$18,768	$25,272	34.7
1985	$19,440	$26,604	36.9
1986	$20,034	$27,744	36.4
1987	$20,964	$29,088	38.8
1988	$22,416	$32,160	43.5
1989	$23,488	$35,330	50.5
1990	$24,768	$37,168	50.1

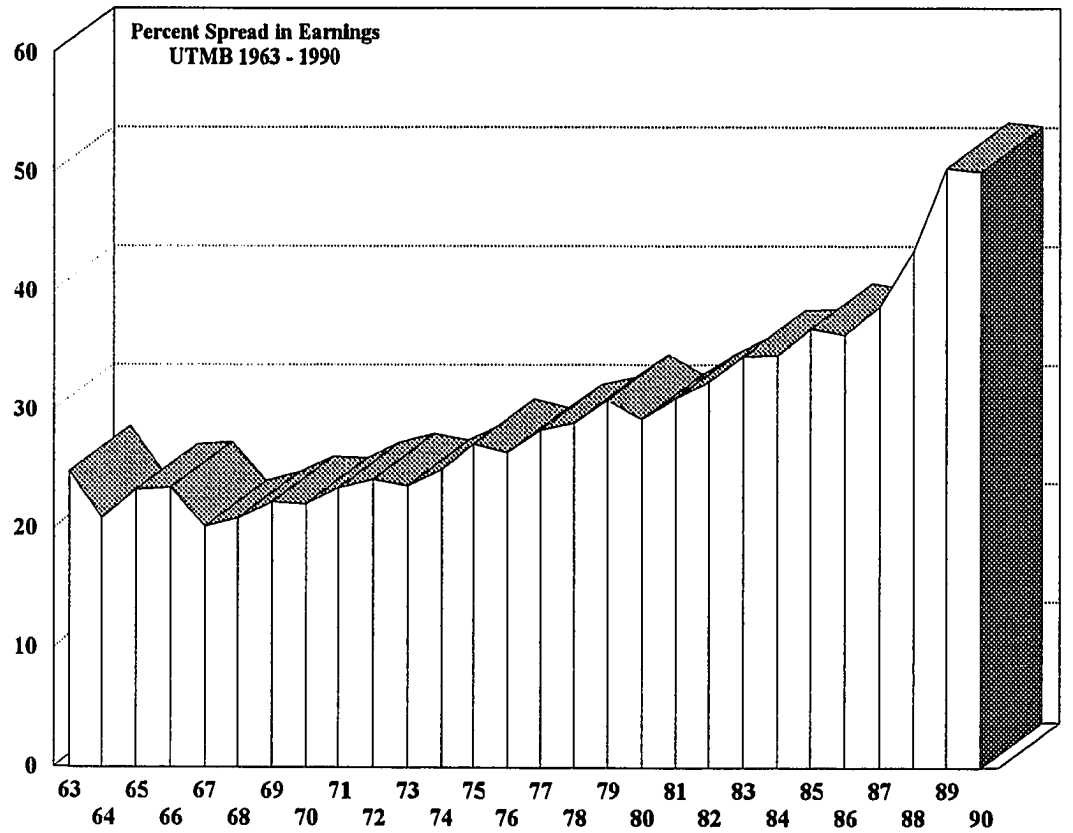

Figure 5-4 Range Growth Between Minimum and Maximum Salaries

The pay relative advantages for government hospital workers declined gradually over this time period and continued to do so until the end of the seventies when private hospitals tended to pay better than the government owned institutions. In 1975-1976, the pay relative advantage for government hospitals was only 5% to 15% and was reported in only 15 of the 21 areas surveyed. By the 1978 survey, private hospitals in eight areas surveyed had passed government hospitals by 1% to 5%; government pay relatives in eleven other areas were only 0% to 6% above. The 1981 survey revealed a wide variation of better pay on the part of private hospitals, usually about 10%, with ten areas reporting rates higher than government and eight lower, but only by 1% - 5%. Cleveland, Ohio, was the exception, which was 10% higher in government institutions. By 1976, it was evident that the pay relationship had been reversed. The average 10% pay relative advantage remained for private hospitals throughout the eighties; however, with the change in sample in 1989 when only private hospitals were surveyed, comparison was no longer possible.

Full-Time Versus Part-Time Pay

Nurses, the most abundant group of health care workers surveyed, demonstrated a consistently high percentage of part-time workers. IWSs noted the aberration from other groups stating that "whereas the ratios for other numerically important jobs usually exceeded five to one full-time to part-time, full-time nurses, in 1966, outnumbered part-time by only one and a half to one in private institutions and by two

and one half to one in government."[2] For private hospitals in 1969, 58% of staff nurses were full time, and 42% part time, compared to government where 68% were full time and 32% part time. The nursing work force has consistently exceeded the expected 20% portion of part-time workers seen in other fields. The percent of full- and part-time workers will be discussed under "Supply and Demand."

Earnings data from the 1972 IWS for part-time workers initially showed an advantage for full-time workers over part-time workers of approximately 5%. This advantage was reversed beginning in 1978 and increased significantly from less than 1% to a pay advantage of 4.6% for part-time workers in the 1989 IWS. It was not known if this effect was due to a larger number of older nurses, known to decrease their work hours, being counted in the hospital staff nurse role. The comparison was based on hourly rates of pay only and could not be compared based on annualized estimates of hours worked at a specified rate of pay. In the late eighties, many private hospitals allowed registered nurses to work alternative schedules to better meet their needs. Often these schedules consisted of an option to work a compressed work week consisting of two or three twelve-hour shifts; it was estimated that half of the nurses surveyed by the Bureau of Labor Statistics were eligible for such flexible options although actual estimates were not quoted. Table 5-2 shows compares the hourly pay for full-time and part-time workers.

Because most surveys included sample selection incorporating Standard Metropolitan Statistical Areas (SMSA), it was possible to identify regional variations

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[2]Industry Wage Survey, 1966.

Table 5-2 Full-Time Versus Part-Time Pay

Year	Full-Time Rate/Hr.	Part-Time Rate/Hr.	Difference of PT to FT as Percentage FT
1972	$4.65	$4.42	- 5.0%
1975	$5.59	$5.77	+ 3.2%
1978	$7.04	$7.07	< 1.0%
1981	$9.53	$9.65	+ 1.3%
1985	$11.94	$12.43	+ 4.1%
1989	$13.86	$14.50	+ 4.6%

in salary data. A trend immediately emerged in the IWSs. In general, the West was consistently highest in salaries, and the South was the lowest. The highest paying cities consistently were San Francisco-Oakland and New York City (Los Angeles-Long Beach in 1960), and the lowest were Atlanta, Memphis, Dallas, Scranton, Dallas-Ft. Worth, Houston, and Buffalo.[3] These designations were also confirmed regionally in the National Sample Surveys. Typically, nurses working in larger metropolitan areas of one million or more persons also were paid more than smaller communities.

A generalization by size of facility also was possible. Usually, the larger the hospital, the higher the mean salary. This followed closely with location because the largest hospitals were usually found in large metropolitan areas.

Special Pay

Provisions for overtime pay in 1960 were at the discretion of the employer. The IWS for that year indicated that nurses in thirteen of the fifteen areas surveyed

[3]Industry Wage Surveys, 1960-1989.

received straight time pay for hours worked in excess of forty hours per week. In Minneapolis nurses received either equal time off or time and a half for work in excess of eighty hours in two weeks; San Francisco paid time and a half for hours worked in excess of forty hours in one week.

Amendments to the Fair Labor Standards Act, passed in 1966, required that hospital employees covered by the Act receive one and one half times their regular rate after forty-four hours in a work week, effective February 1, 1967. The total number of hours worked affecting the overtime pay decreased to forty-two hours February 1, 1968, and to forty in February 1, 1969. Modifications allowed alternative means of calculating overtime for workers who accepted an assignment of seven or more consecutive days.[4] Cleland[5] credited the American Hospital Association with obtaining a modification for the health industry such that overtime was paid only if the hours worked were in excess of 80 in a two-week period; this allowed the employer flexibility to offer compensatory time throughout the pay period. Data on overtime pay were not available in any source.

Shift Differentials

Shift differential information was collected throughout the IWS and revealed a trend to pay on a cents-per-hour basis. Actual dollar values of differentials on an annual basis were not included in base salary reports and appeared not to be quantified

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[4]Industry Wage Survey, 1966, 10.

[5]Virginia S. Cleland, The Economics of Nursing (Norwalk: Appleton and Lange, 1990), 90.

in any data source. A small amount of pay was offered for second and third shift work, commonly referred to as evening and night shift, respectively. Until the eighties, the method of calculating payment varied among cents per hour, dollars per week or month, and additional percent of salary; most hospitals converted to cents per hour in the early eighties. In 1960, a higher differential was paid to second shift workers. This leveled off, and both were paid the same until the eighties when night shift differentials were slightly higher. Crude estimates showed a shift differential rate of approximately $0.125 were paid in 1960. This increased to a range of $0.25 to $2.00 for evenings and $0.75 to $2.50 for night shift differentials in 1989. Data from the Bureau of Labor Statistics (BLS) surveys, the IWSs, were reported in ranges and a weighted average could not be calculated; no comparisons could be made among the precise rates including percent change over time.

American Hospital Association data from the eighties denoted only a slight increase in hourly differentials. From 1981 to 1987, night differentials increased from $0.70 to $1.02 per hour, evening shift from $0.57 to $0.79 per hour, and weekend differential from $0.83 to $1.09 per hour. Only 30% of hospitals in 1960 and 40% in 1989 reported paying a weekend differential. An intensive care/coronary care unit differential was in place in about a quarter of the surveyed hospitals, and the reported amount grew from $0.48 to $0.63 over the same time period.

Incentives for less desirable and off-shift work (weekends, second/evening and third/night shifts) adopted in the late eighties were not reflected in these data. The only change over time other than actual payment was a reversal of earlier patterns that

paid second shift workers more than third shift workers. The percent of work force assigned to the off shifts has remained somewhat constant with about 20% of workers assigned to second, and 15% to third shift.

Differential for education. In the eighties, graduates of baccalaureate programs could expect higher starting salaries in a little less than a quarter of all hospitals; government hospitals tended to support a higher baccalaureate entry salary more often than private hospitals.[6] The number of hospitals reporting the same minimum entry for nurses with and without a BSN grew from 56% in 1972 to 71% in 1985, indicating a decline in recognition for the BSN.[7] The IWSs for years 1972-1985 reported minimum entry salaries for general duty nurses that indicated a small pay advantage of 5% - 10% for nurses holding a baccalaureate degree. Although the National Sample Surveys reported categorical information by educational preparation, there was no such designation for salaries. Data from the American Hospital Association did not report differentials for nurses prepared with a baccalaureate degree.

Summary of Major Findings in Salary Changes Over Time

Over time, straight time wages of hospital staff nurses showed very little growth beyond the effects of inflation. During the study period, there were also very few changes in differentials or incentives for full- or part-time work, and special pay was

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[6]The minimum starting salary for baccalaureate graduates in the 1981 and 1985 from Industry Wage Survey data was higher in 23% and 24% of all hospitals, respectively. The range of hospitals reporting higher entry salaries for BSN prepared nurses was 28% to 29% of government hospitals, and 21% to 23% of private hospitals.

[7]Industry Wage Survey, 1972, 1975-1976, 1978, 1981, and 1985.

difficult to assess. There appeared to be no effective difference in salaries between nurses holding a baccalaureate and those with a diploma or associate degree. Although compression was somewhat alleviated in the eighties, the career earnings growth of nurses still was not comparable to other professional and technical workers described in Chapter 2 of this study.

Improvements in early salary conditions were related to minimum wage legislation and adherence to laws by employers. Salaries in private institutions surpassed those in government hospitals in the seventies and have continued to offer a pay advantage.

Benefits

Benefits, considered noncash compensation, have constituted considerable cost to employers and acted as rewards to employees. In the past, they were referred to as marginal expenses, hence the label "fringe benefits," and accounted for only 3% of the value of all wages prior to the Great Depression; by 1989, hospitals were paying 34.7% of payroll for benefits.[8] Because of their rising importance, they have been referred to as employee benefits.

Employees saw very little improvement in benefits during the period of the study. Staff nurses and other hospital workers had a relatively poor benefit package compared to employees in the manufacturing industries. Cleland[9] cited choices of employer offered benefits as poor, related to the fact that most selections of offerings have been

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[8]U.S. Chamber Research Center, Employee Benefits 1990 edition (Washington, D.C.: U.S. Chamber of Commerce, 1990), 17.

[9]Cleland, 143.

made by men with little input from female employees. Men tended to seek large amounts of life and health insurance to protect families. Nurses, on the other hand, primarily women working rotating shifts and concerned about safety and family welfare, preferred benefits providing child care services and safe access and passage at the work site such as free, well-lighted, patrolled parking facilities. Further, because the majority of nurses were married, preferences also included the ability to select benefits that did not duplicate those provided by a spouse's existing insurance coverage.

Over time, benefits have not changed appreciably, although the cost to the employer has risen significantly. This section will highlight the major types of benefits, the impact to the employee and the employer, and associated trends.

Mandated Benefits

The federal government required and still requires that most employers make provisions for social security, unemployment compensation, and worker's compensation for all employees. These programs have been administered by the Social Security Administration. Legislation that established the Social Security System in 1935 set up numerous programs including the federal Old-Age, Survivors, Disability and Health Insurance System. The Social Security program provided coverage for retirement payments, assistance to spouses and dependent children, a subsistence payment to employees who lost their jobs, and disability insurance for work-related injuries or illnesses; later legislation in 1965 established the well-known

health insurance system, Medicare. The pension portion of Social Security changed from its original intent of a retirement system to a minimal-level retirement program intended to supplement other forms of income after retirement. The Congress has periodically increased the tax rate and level of earnings that are taxed in order to maintain the funding of the program; both the employer and employee paid a percent of earnings to meet the requirements of the law. In 1987 the rate was 7.15% and in 1990 the rate became 7.65%.

Unemployment compensation was established to provide a subsistence payment to employees who lost jobs involuntarily. Employers were required to pay federal and state employment insurance tax under the Act requirements; usually employees incurred no costs. The rate in 1990 charged the employer was 3.4% of the first $6,000 of earnings.[10]

Worker's compensation, fully paid by the employer, was designed to provide disability insurance payments for injury or illness shown to be work-related. The program was federally required but allowed the state to determine the definition of "work-related." The average cost to the employer across all industries for these legally required benefits rose from 5.1% of payroll in 1961 to 8.7% (8.2% for hospitals) in 1989.[11]

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[10]Ibid., 142.

[11]U.S. Chamber Research Center, Economic Policy Division, 1951-1979 Employee Benefits Historical Data (Washington, D.C.: Chamber of Commerce of the United States, 1981, 11. U.S. Chamber Research Center, Employee Benefits 1990 Edition (Washington, D.C.: U.S. Chamber of Commerce, 1990), 9.

Employer-Offered Benefits

The more common and traditional security benefits offered to all hospital employees included health insurance, life insurance, accidental death and dismemberment insurance, and pensions. Over time these categories were expanded to include long-term disabilities, dental, vision, hearing, alcohol and drug abuse treatment insurance, and options for a variety of health plan coverages.

IWSs from 1960 to 1989 revealed a majority of hospitals offered sickness and accident insurance, sick leave with no waiting, hospitalization insurance, and some type of retirement plan, pension, social security or combination thereof. In the sixties, hospitalization insurance often included "care outside insurance" or care provided by the employing facility. In the seventies, dental insurance coverage was recorded as a benefit offered by over 80% of employers. The eighties demonstrated a more detailed breakdown of insurance options, and a majority of employers reported offering HMO plans, dental, alcohol and drug abuse treatment programs; a small number offered vision and hearing insurance.

These benefits were usually offered to all full-time employees and part-time employees; benefits to part-time workers were commonly pro-rated based on percentage of effort. Flexible plans offering employees selection of options, called cafeteria plans, were initiated in the eighties when it was common for workers to share the cost of premiums through co-payments.

Perquisites. The provision of "perquisites" to nurses was common practice prior to the sixties. Many nurses received free room and board, uniforms and laundry service.

In 1960, the Bureau of Labor Statistics reported a significant decline in perquisites from the 1956-1957 study. As of 1963, any free meals or housing were considered rare, and by 1969 only about 5% of hospitals provided free meals, while 10% to 30% provided uniform laundering; government hospitals continued to provide laundry service into the mid-seventies. By 1981, 92% provided no uniforms or laundry service. There was no indication this cut-back affected special work areas such as operating rooms where special attire was required under strict policies.

Nonwork compensation. Benefit plans also paid holiday, vacation, and sick time. The numbers of paid holidays grew only slightly over the thirty years studied. Private hospitals averaged six to seven paid days in 1960, which rose to eight to twelve in 1985. Government hospitals averaged eleven holidays per year consistently, although there were early regional differences.

In addition to paid holidays, some hospitals offered a differential to employees working on the actual holiday. Fifty-nine percent of hospitals surveyed by AHA in 1989 reported paying a holiday differential. Other hospitals granted comparable time off or paid overtime in that particular pay period rather than establish a differential for holiday work.

Vacation benefits were virtually unchanged throughout the study period. For the majority of private and government hospitals, the standard vacation provisions were two weeks after one year of service, three-plus weeks after five years, and four-plus weeks after twenty years of service. Some government hospitals allowed four weeks after ten years, and in the seventies, more private hospitals offered four weeks

vacation after fifteen years of service. The 1989 IWS reported 26% of hospitals had a consolidated leave plan.

Expectation for benefits, such as tuition reimbursement and payment for attendance at professional meetings, grew in the eighties. In their 1981 survey, the AHA showed a majority of hospitals provided the basic benefits of health insurance, retirement, disability, life insurance, and maternity leave with assured return to employment. Subsequent studies from 1983 through 1988 turned attention to selected benefits believed to be more variable. These benefits included dental insurance, child care, and professional educational development, including items such as tuition reimbursement and attendance at professional meetings, professional membership fees, and clinical specialty certification. More than half paid for professional and educational development and dental insurance. Less than a fourth paid for certification or professional membership fees or child care. From 1981-87, only 6% of institutions reported some type of child care program; even in these programs the majority of cost was borne by the employee. The percent of hospitals offering such plans in 1988 had doubled to 12.1. The 1988 Survey also reported some additional benefits provided registered nurses including adult dependent day care (2.8%) and parking (90.2%).

The AHA offered a conclusion regarding benefits and vacancy rates. They believed that where vacancies were high benefits were the lowest. This supported the general assumption that benefits have been and still are important to retention of employees; they have been a less important variable in recruitment.

Impact on Employee

The benefit package was believed to be worth about an additional third of an employee's salary. The employee regarded these benefits as customary rewards of employment. As stated previously, they appeared to play a part in retention of staff. The attention focused on alleviating the nursing shortage from 1986-1990 sparked interest in improving employer provided benefits as a means of competing for new recruits. Common practices included paying bounties for finding new employees, sign-on bonuses, alternative work plans with fewer hours earning full-time pay, and an increased presence of fluctuating benefits such as parking and child care. The impact of these new additions will likely be measured in the future.

Impact on the Employer

Retention aside, the employer measured the impact of benefits almost exclusively from the cost perspective. Typically, methods to calculate the costs to employers included cents per payroll hour, dollars per year per employee or cost per employee year, total annual dollars spent for all employees, and percent of payroll. Dollars per year per employee was used for this study.

The U.S. Chamber of Commerce tracked historical data on benefits in the manufacturing and nonmanufacturing industries. No hospital data were included in their reports until 1971 when they were part of a miscellaneous nonmanufacturing group. The first separate reports of hospitals appeared in 1975 and all subsequent

studies. Table 5-3 shows the increase in costs to employers for benefits expressed as dollars per year per employee as compared with other industries.

Hospitals consistently ranked lower than the average for their reference group and nonmanufacturing industries and well below the manufacturing industries. Hospital contributions were lowest in the areas of profit sharing, retirement, and savings plans payments; early survey years also showed lower payments in categories such as bonus and service awards and employee thrift plans.

Table 5-3 Cost of Benefits to Employers as Dollars Per Year Per Employee Per Industry Group

Year	All Industries	All Manufacturing	All Non-Manufacturing	Hospitals
1975	$3,984	$3,954	$4,025	$2,204
1977	$4,692	$4,683	$4,704	$2,675
1978	$5,138	$5,164	$5,083	$3,052
1979	$5,560	$5,605	$5,501	$3,359
1980	$6,084	$6,314	$5,820	$3,855
1981	$6,627	$6,883	$6,347	$4,533
1982	$7,187	$7,771	$6,697	$5,305
1983	$7,582	$8,110	$7,163	$5,728
1984	$7,842	$8,365	$7,425	$6,146
1985	$8,166	$8,653	$7,819	$6,745
1986†	$10,283	$12,035	$8,917	$7,172
1987	$10,750	$12,284	$8,765	$7,201
1988	$10,750	$11,758	$10,132	$8,731
1989	$11,527	$12,707	$11,003	$8,774

† 1986 and subsequent years included benefits for salaried as well as hourly paid employees.
Source: U.S. Chamber of Commerce.

Summary of Benefits Changes Over Time

What appeared to be most significant was the relatively small gain in benefits over time. Costs to both the employer and employee rose during the study period, as did insurance coverage. Shift differentials improved only slightly, and private and government institutions became even on holiday pay. Vacation allowances were virtually unchanged. Total benefit packages rose in actual dollars; however, the industry lagged behind most others.

Supply and Demand

Supply of Registered Nurses

In order to address the question, "What is the relationship between supply, demand, and wages (salary) from 1960-1990?" it was necessary to study each variable in some detail. Wages were addressed in the preceding chapter; changes in supply and demand of registered nurses are presented here.

Estimates of the active registered nurse supply are presented in Table 5-4 and Figure 5-5. The data reflected the work force of employed nurses inclusive of hospital staff nurses. These numbers constituted the aggregate pool of available labor and were the most consistently reported figures. It was from this base, the active pool of registered nurses, that conclusions were drawn and comparisons throughout the work force were made, which was consistent with analysis of the work force in most major studies. As stated previously, the active work force constituted those registered nurses employed in

Table 5-4 Estimated Total Active RN Supply

Year	Number	FTE
1960	504,000	458,650
1962	550,000	491,405
1964	582,000	516,025
1966	621,000	543,500
1967	643,000	559,500
1968	667,000	578,000
1969	694,000	598,500
1970	722,000	620,500
1971	750,000	642,000
1972	780,000	664,000
1973	815,000	696,500
1974	857,000	732,500
1975	906,000	774,500
1976	961,000	821,500
1977	981,500	828,300
1978	1,028,400	868,300
1979	1,074,500	907,500
1980	1,119,100	945,700
1981	1,326,700	1,112,700
1982	1,379,300	1,155,700
1983	1,436,100	1,202,600
1984	1,485,700	1,234,900
1985	1,531,200	1,271,400
1988	1,627,035	
1990	1,687,100	

Sources: National Sample Surveys, ICONS, 7th Report to Congress

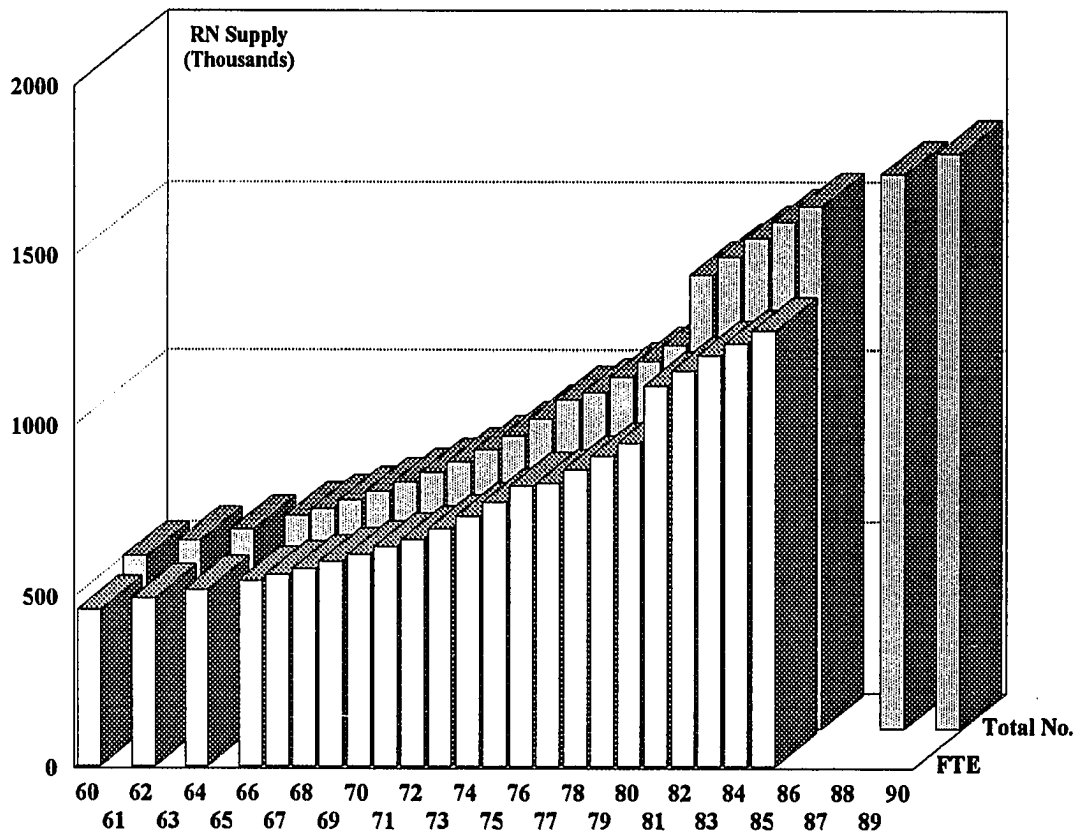

Figure 5-5 Estimated Active RN Supply All United States and Territorities

nursing who were considered the available supply of nurses. In theory, the inactive supply of nurses was also a potential source of labor. Changes in the ratio of these two groups were appropriate to illustrate shifts in nurses' employment status from inactive to active.

When numbers of only hospital staff nurses were stated, there was great variability due to differences in reporting method. Early surveys combined hospitals, nursing homes, and other related institutions; in a few instances, nursing home figures were extracted. When data for staff nurses were presented, sometimes the categorization included workers, such as nurse anesthetists and other registered nurses who did not fit into classic roles, thus making comparison impossible. Counts of hospital nurses were considered unreliable and were not extracted for use in the data analysis.

Many early studies did not address part-time workers. When counts were changed to reflect full-time equivalents (FTEs), the number represented all full-time workers added to one-half the number of part-time workers; this calculation became the standard for part-time nurses throughout the industry.

It became apparent that trends in nurse supply were much more important than discrete numbers when analyzing data sources and other reports addressing nurse resources or manpower issues over time. For this reason, further discussion in this chapter will address trends important for analyzing the relationship between changing supply, demand, and wages over time rather than absolute counts.

Growth in Nursing Supply

Figure 5-5 demonstrates a constant increase in aggregate active nurse supply. Growth in supply from 1960 to 1990 was due primarily to new graduates entering the work force and an increase in part-time workers. The rise in part-time work force primarily accounted for formerly inactive nurses returning to the work force, as well as increased work efforts reflecting a contribution of more hours. This was consistent with the changes in activity rates and continuous increase in average nurse to population ratios (see Tables 5-5 and 5-6 and Figure 5-6). Emigration of foreign nurses accounted for a small but insignificant proportion of rising supply.

The growth in nurse supply routinely exceeded the growth in population of the United States. This was reported as a positive trend because projections for health care needs of the American people stressed an improved health care system including greater access to care and nursing personnel to provide the care. The nurse-to-population ratios were reported to verify continued growth in the nursing population. Any discussion of these ratios was accompanied by a cautious caveat warning the reader about the perils of interpretation. The ratios varied with wide ranges across the nation; large urban areas skewed the ratio for a particular state.

The ratios were not intended to be interpreted as goals or standards to be met, although an initial target of 300 registered nurses per 100,000 population had been referred to as desirable for 1960. The activity rate for nurses has always exceeded the rate for women in this country. The annual average labor force participation rate for all women, ages sixteen

Table 5-5 Nurse to Population Ratio

Year	No. RN/100,000	No. FTE/100,000
1960	282	257
1962	298	234†
1964	306	
1966	319	279
1967	327	
1968	335	
1969	345	
1970	356	
1971	366	313
1972	376	320
1973	390	333
1974	407	348
1975	427	365
1976	449	384
1977	455	384
1978	506	425
1979	534	447
1980	560	470
1981	578	485
1982	595	498
1983	613	513
1984	629	523
1985	661	533
1988	668	

† Full-time only.

Table 5-6 Activity Rate of Nurses Compared to Labor Force Participation of All Women Expressed in Percentage (Selected Years)

Year	Estimated Activity Rate, Nurses	Labor Force Participation Rate, All Women
1962	64.9	38.0
1966	67.0	40.3
1967	53.0	41.1
1972	70.5	43.9
1977	69.8	48.5
1978	69.7	50.0
1980	76.6	51.6
1984	78.7	53.7
1988	80.0	56.1†

† For 1987.
Sources: ANA Inventories, Nurse Training Act of 1964, U.S. Department of Labor, Labor Force Statistics Derived from the Current Population Survey, 1948 - 87.

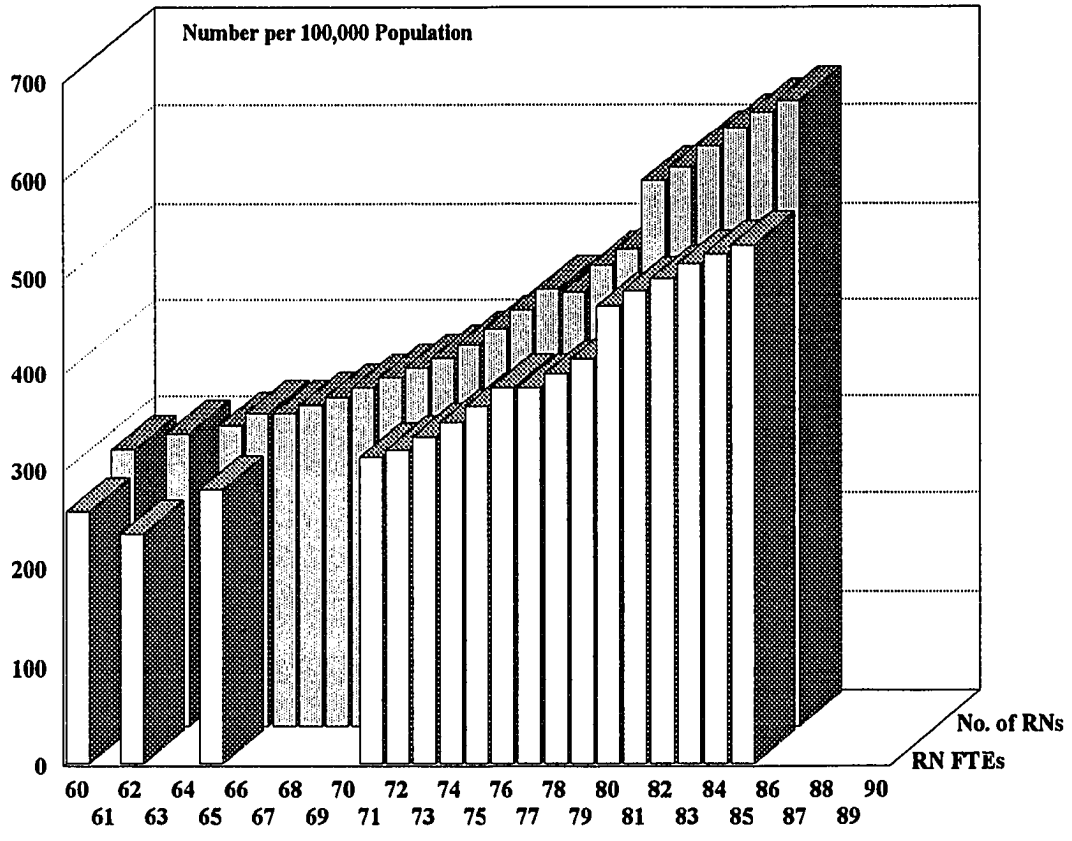

Figure 5-6 Nurse to Population Ratio

and above, was 37.8% in 1960 and rose to 56.1% by 1987. Nurses demonstrated an activity rate of 64.9% in 1962 increasing to 80% in 1988. Table 5-6 also compares the activity rates for nurses with rates of all women in the work force.[12]

Any fluctuation in the relationship of nurse supply and demand, when measured as a shortage, was narrowly but consistently addressed as a supply-side problem. Nursing maximized its available work force over time and exhausted options to increase supply in the latter eighties. This trend was supported by the 80% activity rate in 1988-1990.

Factors Affecting Supply

Part-Time Work

The greatest factor that affected supply from 1960 to 1990 appeared to be the pattern of part-time work for all registered nurses and, in particular, hospital staff nurses. Table 5-7 summarizes the breakdown of the active labor force. The percent of nurses working in hospitals remained relatively unchanged over these years, fluctuating from 63% to 68%. Of these percentages, those holding staff nurse positions ranged from 58% to 73.% (Again bear in mind the blurring of categories.) These figures translated into approximately 37% (1965) to 50% (1984) of the total nurse population holding hospital staff nurse positions.

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[12]U.S. Department of Labor, Bureau of Labor Statistics, Labor Force Statistics Derived from the Current Population Survey, 1948-1987 ([Washington, D.C.] U.S. Government Printing Office, 1988), 7. Labor force participation rate is determined by the percentage of a population of workers that has a job or is looking for one. The activity rate excludes estimates of individuals seeking employment and reflects a simple percentage of a population of workers that has a job.

Table 5-7 Active Nursing Supply Full Versus Part Time

Year	Full-Time	Part-Time
1962	78.7	21.3
1964	77.3	22.7
1966	75.0	25.0
1968	73.3	26.7
1970	71.9	28.1
1972	70.1	29.7
1973	70.9	29.1
1975	72.0	28.0
1977†	68.0	32.0
1978†	71.0	29.0
1980†	67.0	32.0
1984†	66.2	33.8
1988†	67.6	32.4
1989	62.5	37.5

† Data for years 1977 through 1988 calculated based on reported values in the 7th Report to Congress.

Sources: Industry Wage Surveys, U.S. Department of Labor, National Sample Surveys.

As expected, nurses chose to work full or part time based on their desire to commit time to the work force in exchange for compensation. During periods of economic recession, there was an increase in contribution of hours to the work force. The increased contribution was not represented by an increase of the percent of nurses working full time in comparison to part time, but rather an increase in the activity rate overall. The growing proportion of part-time workers that occurred during periods of high inflation in the late seventies, which continued through the recession of the early eighties, was unchanged at the end of the decade.

Studies noted the extremely high percentage of part-time workers among registered nurses in comparison to other categories of workers.[13] In comparison to the total percentage of part-time versus full-time workers in the aggregate supply, hospital staff nurses reported the highest percentage of part-time work. It was also noted that part-time work was much more prevalent in private institutions rather than nonfederal government institutions.

The accommodation of part-time work occurred for a variety of reasons. The wage rate stayed approximately equal for full- and part-time work and did not provide sufficient incentive to increase one's work effort to full time. In recent years, various part-time work plans that provided hourly compensation at rates higher than full-time work have aggravated the perpetuation of a large segment of the supply remaining as part-time workers. These flexible plans were, in part, creative solutions to nursing shortages and have become a challenge to the profession to recapture hours lost from part-time workers to the work force.

Other Factors

Drop in graduations. Total graduations from basic nursing programs declined slightly and leveled off from 1979-1982 and then dipped 26% between 1985 and 1989 when total numbers again increased (see Figure 5-7). The changing mix of graduates will be discussed later in this chapter.

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[13]Several Industry Wage Surveys made comment on the higher than expected proportion of registered nurses working part time. The percentage of part time nurses was lower in government hospitals than in private hospitals.

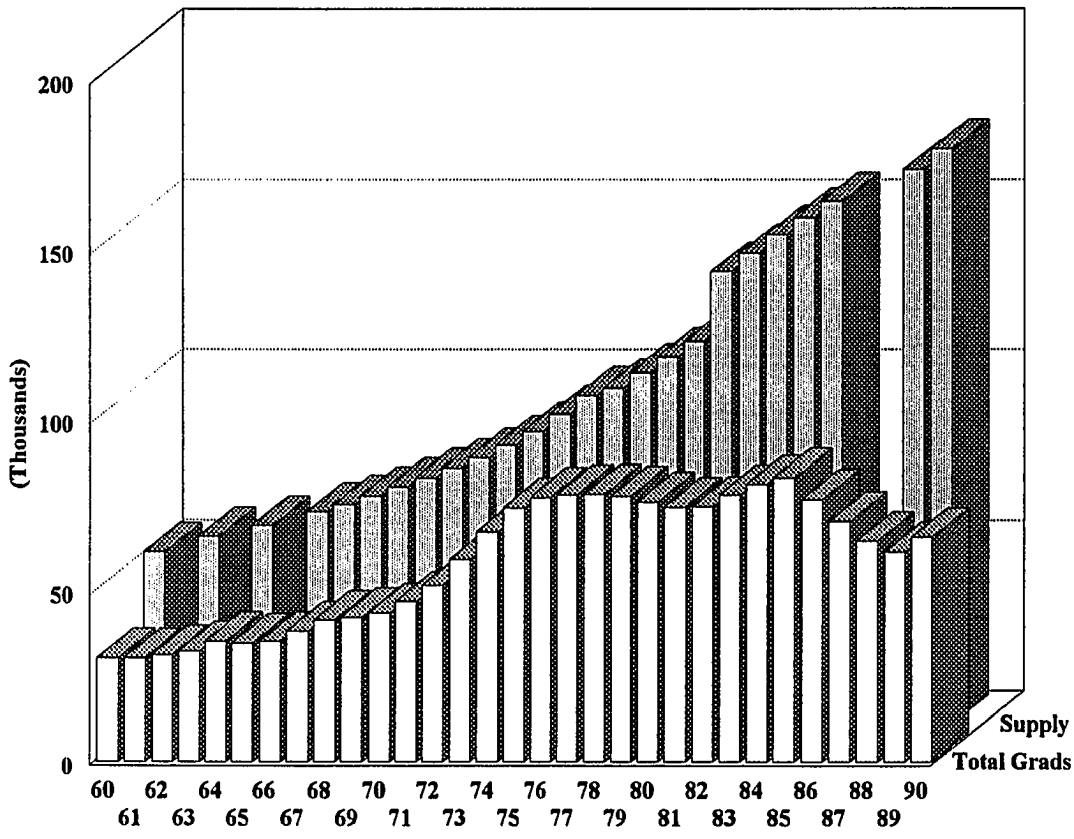

Figure 5-7 Estimated Supply and Annual Graduations

Current conditions. A drop in the college age population and a discussion of alternative career choices for women were presented in Chapters 1 and 2. These factors were a potential but relatively small threat to maintaining supply. No major shift in supply was substantiated for the study period although the decline in graduations that began in 1985 raised these issues as long-term consequences.

The Hospital as Preferred Employment

The number of nurses employed by hospitals more than doubled between 1949 and 1962. This growth was attributed to the increase of part-time workers.[14] Another major event that was taking place was the shrinking of the private duty work force between 1960 and 1970. This group all but disappeared with most of its ranks being absorbed by hospitals either through direct employment or employment through third parties.

Consistently, two-thirds of the nurse work force has been employed in hospitals. This constituted and still remains the largest single category of registered nurse employment across all settings. Despite beliefs that expansion of health care delivery into home care, managed care, and ambulatory settings would draw nurses away from hospitals, employment patterns did not shift in these directions as had been predicted. In fact, each year new graduates moved primarily into hospital employment. What seemed to be a continuous availability of nurses to enter hospital employment created

[14]Industry Wage Survey, 1962, 9.

a false sense of security that has perpetuated the focus on supply-side corrections to problems with the registered nurse work force.

The decline in college age applicants along with a reduction in graduations sounded an alarm in late 1986. Tremendous recruitment efforts have reversed the downward trend, and enrollments and graduations in schools of nursing were once again on the rise; the duration of this trend, however, is not predictable.

Supply of Nurses by Educational Credential

The Surgeon General Consultant's Group in 1963 was one of the first groups to emphasize the need to look at the mix of nurses and the different skills and knowledge that would be needed to meet the health needs of the American people.[15] Since the early sixties, the desire and need to produce more baccalaureate and higher degree graduates had been spread across the pages of virtually every professional and federal government report concerned with nurse manpower. The numbers of graduations, however, told a different story. Associate degree programs proliferated, and the number of graduates exceeded projections. At the same time, the rate of baccalaureate program growth was slower than desired particularly in light of forecasts that consistently called for greater numbers of baccalaureate programs and graduates (see Figure 5-8).

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[15]Public Health Service, Toward Quality in Nursing. Needs and Goals. Report of the Surgeon General's Consultant Group on Nursing ([Washington, D.C.] Public Health Service, 1963, Public Health Service Pub. No. 992).

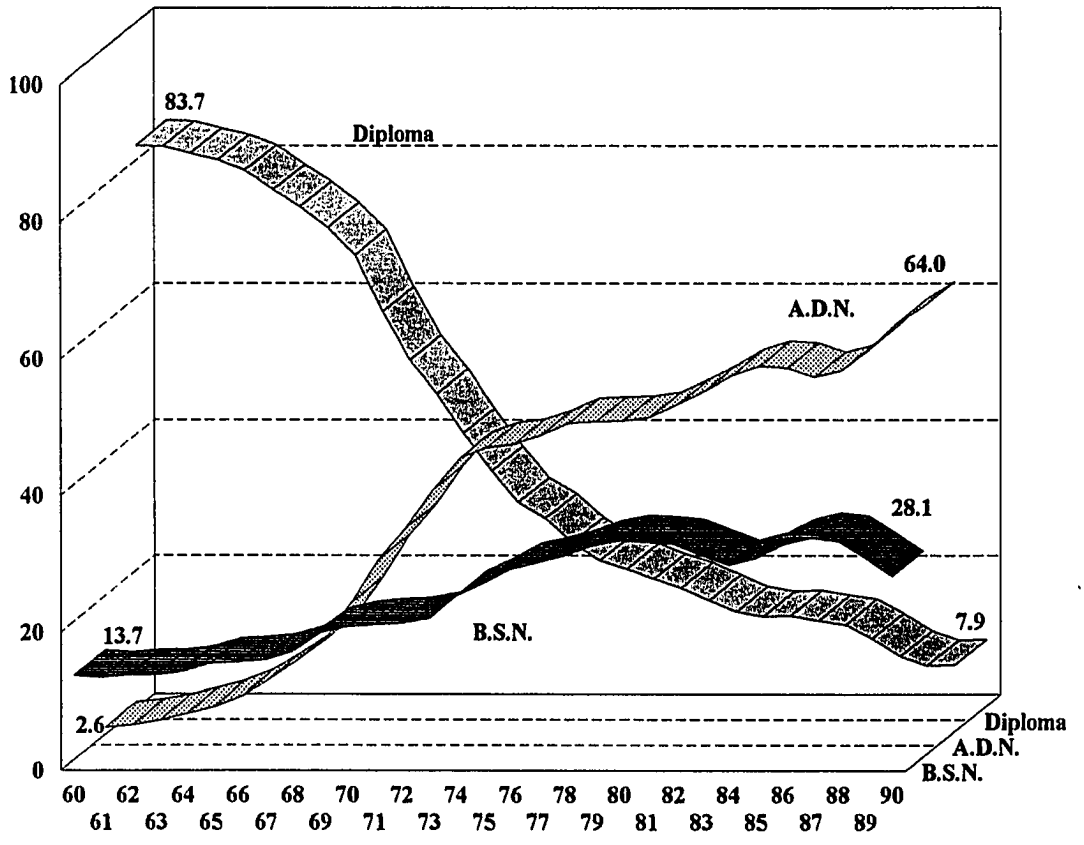

Figure 5-8 Trend of Graduations by Type of Program

Diploma schools closed in record numbers, diminishing from 908 programs in 1960 to only 152 in 1990, although the number of nurses holding a diploma as their highest credential still exceeds all other categories of nurses.[16] What was not apparent in this transition to a predominance of associate degree education was the effect on delivery of care in the hospital setting where students of diploma programs had provided significant, unaccounted for manpower. These invisible workers had provided assistance to staff registered nurses while being closely supervised by registered nurse faculty. The diminished number of diploma school students effectively reduced the available supply of nursing resources.

Demand

The demand for nursing care has been rooted in the demand for medical and hospital care. To that end, the driving factors affecting demand for nurses have been many of the same factors influencing the demand for hospital care. The number of nurses employed by hospitals has grown steadily since 1960 and throughout the study period. As the number of hospitals expanded immediately following World War II, primarily as a result of the infusion of funds supplied by the Hill Burton Act, the number of hospital admissions and inpatient days also increased steadily. Other factors responsible for increased demand and utilization of hospitals included continued population expansion, increased availability of private and public health

[16]National League for Nursing, Nursing Datasource 1991. Volume 1. Trends in Contemporary Nursing Education (New York: National League for Nursing, 1991). Approximate percent comparisons are 40% diploma, 25.2% associate degree, 27.2 baccalaureate in nursing or other field, and 6.5% higher degrees. 1988 The Registered Nurse Population, 39.

insurance coverage, advances in medical technology, the creation of intensive care units, growing consumer involvement, and the expansion of physician and nursing services within the hospital setting.[17] These factors will be addressed in more detail under "Hospitals."

Defining demand has always been difficult and imprecise at best. Facts About Nursing[18] in the sixties addressed the problem that the "demand side of the supply-demand equation is less well defined," pointing out the common practice of interpreting unfilled budgeted positions as representing current demand or shortage. Some economists forwarded the argument that budgeted positions represented the amount of personnel for which the public was willing to pay. Need implied the "desired" number of nurses, whereas demand implied a financial relationship expressed on the part of the employer (refer to "Definition of Terms," Chapter 1, p.11). Studies of supply and requirements (demand) in the seventies and in recent years have looked at other settings, such as public health, long-term care, and schools. The public at large and the nursing public, however, have come to identify demand with the clamoring for hospital-based nurses and nursing care.

First attempts to measure the "need" for nurses were based on ratios of personnel to population, rather than identifying the number and kinds of personnel to best meet the needs of the people of a particular area.[19] The flaws in this method were the disparities in demographics, which did not allow comparison among communities.

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[17]Facts About Nursing 1974-75, 1.

[18]Facts About Nursing 1967, 8.

[19]Facts About Nursing 1960, 7.

Computation of nurse-to-population ratios has continued, although use of this method for assessing hospital-based nurses was never realized; application was most useful in the public health setting.

Vacancy Rates

The hospital industry has expressed demand as the number of vacant unfilled budgeted positions, or vacancy rate. The rate is calculated simply as the number of unfilled budgeted positions divided by the total number of budgeted positions per category of personnel. Interpreting the reporting of vacancy rates over time presented some problems with comparability. High rates reported in earlier periods (1961 and 1962) were probably not comparable with those reported in the eighties, as hospitals were more discriminate and stringent in budgeting permanent positions in later years and available positions were more carefully evaluated and adjusted than in the past. Vacancy rates are presented in Table 5-8 and Figure 5-9.

Tight budgets resulting from changes in the reimbursement system forced hospital administrators to make realistic projections and requests for personnel positions and not maintain vacant positions for which no active recruitment was occurring or for which funding could not be secured.[20] Employment practices adopted in the late eighties were confusing as well. The increased utilization of temporary or supplemental staff through the institution or third-party agencies may have affected the

[20]Richard McKibbin, The Nursing Shortage and the 1990s: Realities and Remedies (Kansas City: American Nurses Association, 1990), 5.

Table 5-8 Vacancy Rates for General Duty Nurses in Nonfederal Hospitals

Year	Rate (Percentage)
1961	23.3
1962	23.0
1967	18.1
1968	15.0
1969	11.2
1971	9.3
1979	14.0
1980	10.6
1981	16.6
1983	6.4
1984	5.1
1985	6.3
1986	11.0
1987	11.3
1988	10.6
1989	12.7

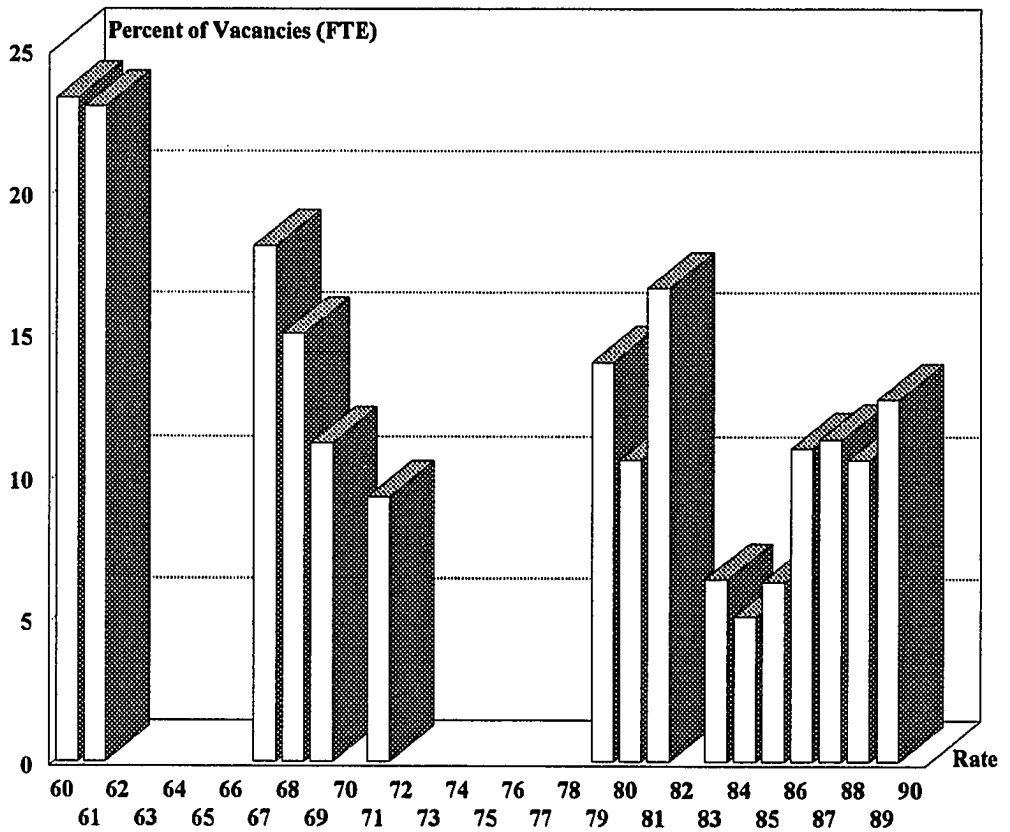

Figure 5-9 Vacancy Rates General Duty Registered Nurses' Nonfederal Hospitals

reporting of vacancies or the intentional action to keep some positions vacant to allow flexibility in filling care requirements.

As nursing education began to shift away from hospital based diploma schools into baccalaureate and associate degree programs in the sixties, the number of student nurses providing nursing care around the clock diminished, leaving a greater demand for registered nurses. Comparison of the trend line of diminishing diploma school graduations to vacancy rates in Figure 5-10 shows the reduction in student labor and potential relationship to an increase in demand during this period of time.

Only national averages for vacancy rates were reported, and they varied significantly among institutions based on size and location. However, vacancies were known to be greater in large urban hospitals. Another problem observed with the availability of data on vacancy rates was that reporting appeared to improve as the vacancy rate increased, suggesting increased reporting in times of pronounced shortages.

As employers were threatened by rising rates, they were more apt to respond to surveys and report more consistently. Averaging of rates over time potentially skewed reporting of shortages.

Fluctuating vacancy rates appeared to reflect demand expressed by the profession and industry, and recruitment activities also reflected the reciprocal variations in the supply-demand relationship. The higher the reported number of vacancies, the stronger the tendency to be concerned about a shortage of nurses. McKibbin provided a general guideline that "a vacancy rate of 10% or more may be regarded as involving

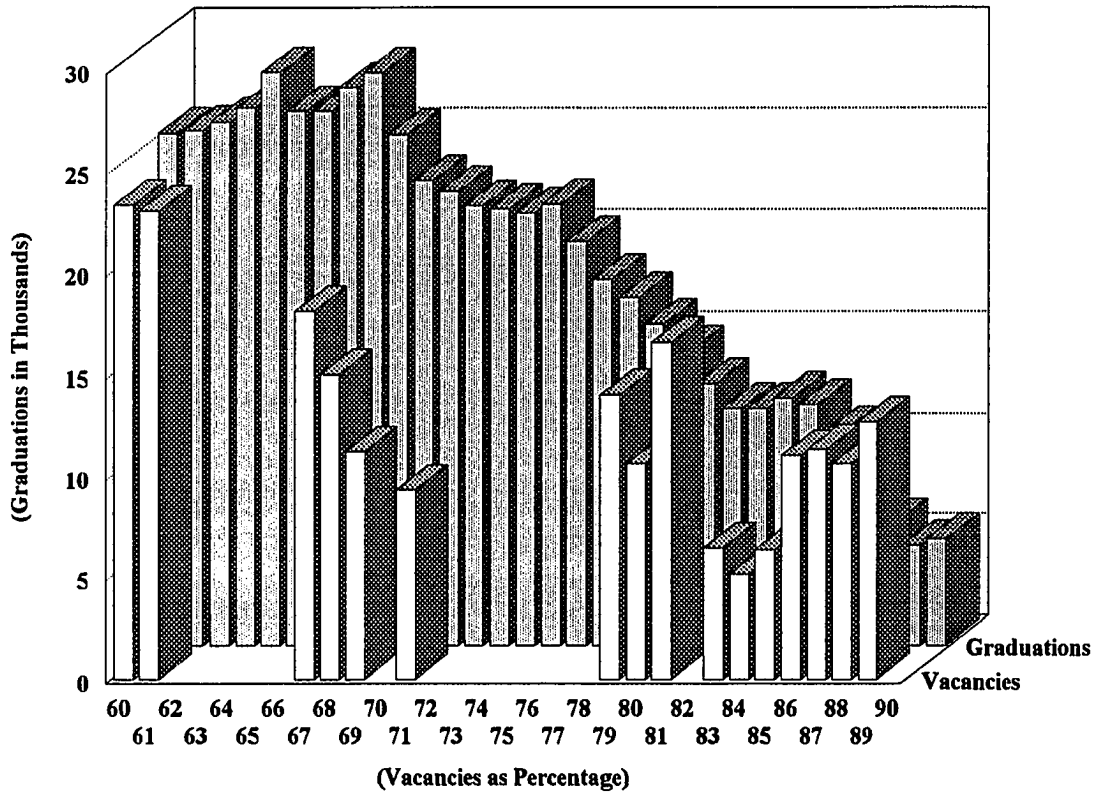

Figure 5-10 Vacancy Rates and Decline in Diploma Graduations

a serious shortage of nurses."[21] Review of the literature for this study in an attempt to reveal nurses' reactions indicated a rate close to or exceeding 12% was intolerable and was the threshold for a serious dynamic shortage. The periods of serious shortage between 1960 and 1990 occurred in 1961-62, 1967-69, 1979-81, and 1986-90 and beyond when vacancy rates in excess of 10% were sustained.

When the need to recruit nurses was most acute during shortage periods, an increase in use of temporary personnel took place as well as an increase in advertising. The American Nurses Association tracked advertising ratios and developed a demand index for 22 selected Sunday newspapers. An increase in the index represented an increase in demand and resultant increase measured in advertising. Likewise, as demand fell, so did the index. Measurement began in January 1982 and was discontinued in 1983 when it was believed the shortage had abated due in part to the recession and funding cut backs for all hospital personnel positions. The index for February 1983 showed a drop to 33% from the starting value.[22]

The normal expected vacancy rate was about 5%, which was generally accepted in the United States. The small percentage was considered normal and expected to account for turnover and other factors associated with filling positions. Unemployment for registered nurses nationally across all employment settings ranged from 1.8% to 2.6% throughout the decade of the seventies. The rate for all civilian workers during that period ranged from 4.9% to 8.5%.

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[21]Ibid., 4.

[22]Facts About Nursing 1982-83, 3.

Summary of Changes in Supply and Demand

The active work force of nurses increased consistently throughout the study period. The need for more nurses continued to be felt after expansion of hospital facilities in the fifties. The number of diploma student nurses also diminished over time. Activity rates for nurses grew, reflecting the return to work by inactive nurses and periodic increases in hours contributed to the work force, such as during the recession of the early eighties. The rate of nurses' participation in the work force exceeded that for all women in the U.S.

The influx of new entrants into the active supply of nurses boosted the nurse to population ratio as well. The ratio remained only a relative measure of supply growth.

The part-time to full-time ratio of workers in the active work force grew in the sixties, leveling off in the late seventies. Almost a third of employed nurses worked part time for the last decade. Comparison with other groups that were predominant within their industry showed nursing exceeded the expected ratio of one to five part time to full time.

Corrections to the labor market were usually sought in terms of increasing supply, hence a preoccupation with supply numbers. Threats to maintaining future aggregate supply included the diminishing college age population and lack of selection of nursing as an attractive career. Many believed women were selecting other opportunities that were more lucrative, provided higher status, and possibly offered a better quality of life. The concern in hospital nursing for sustaining two-thirds of the

active work force was expressed in relation to competition from employment settings outside the hospital; no effective change was noted.

The beginning shift in proportionate supply by educational credential was also noticeable. Large numbers of associate degree graduates and diminishing numbers of diploma graduates were beginning to alter the demographics of the active supply.

Vacancy rates, the industry measure of demand, provided the most interesting variable for interpretation. More discriminate reporting occurred as budgets tightened, and more frequent reporting was evident as the vacancy rate rose. Periodic shortages, characterized by crisis level activity and effort to correct labor market problems, occurred with a relatively small change in the vacancy rate. When examined, the rate exceeded 10% in most years and was accepted as defining shortage. When the rate exceeded 11% and inched toward 12%, a heightened awareness turned attention to crisis.

Hospitals and Health Care Financing

During the past three decades, hospitals have experienced uncontrolled growth followed by precipitant retrenchment, alterations in the public and private marketplace, shifts in control, and a critical decline from capturing the amazement of the public to becoming the subject of ridicule. There were 6,876 hospitals in 1960 with 1,657,970 beds, and in 1985 there were 6,872 hospitals representing 1,317,630 beds.[23] The number of hospitals hovered slightly over 7,000 from 1962 to 1972 and peaked in

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[23]American Hospital Association, Hospital Statistics 1989-90 Edition (Chicago: American Hospital Association, 1989), 2.

1974 at 7,174, although a steady decline in the number of beds was reported throughout the study period.

This section examines some of the more significant events that influenced the financing of health care in hospitals and the resultant changes in the hospital industry. Discussion also addresses the factors affecting nurse employment in hospitals and possible impact on wages and working conditions.

The Hospital Industry

The hospital industry was, at various times, characterized as being "in crisis" and yet continued to be one of the significant growth industries in the U.S. Hospitals were in the difficult position of serving the public yet needing to operate like businesses in response to market pressures. Stevens[24] in her study of American hospitals in the twentieth century described the conflict of voluntary institutions: hospitals strived for income-maximization yet served as socially significant institutions embodying divergent ideals such as science, technology, expertise, altruism, social solidarity, and community spirit. She claimed, "The ideal of 'charity' has been at least as important as the 'business of business.' "[25]

Hospitals included in this study were short-term general hospitals. These were either public or privately owned, nonfederal institutions. As such, they were commonly referred to as community hospitals, regardless of size. Short-term hospitals

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[24]Barbara Stevens, In Sickness and in Wealth. American Hospitals in the Twentieth Century (New York: Basic Books, Inc., 1989), 6.

[25]Ibid.

were further characterized as providing general acute care with a length of stay thirty days or less; this definition, used in most data sources, did not change throughout the study period. Short-term hospitals accounted for approximately 85% of expenditures and 96% of employment in the industry in 1960. On average, they employed 90% of all industry workers throughout the study period.

Understanding the hospital industry required a closer look at the past and present system of American hospitals. Characteristics of this industry stressed by Stevens[26] included segmentation and diversification of ownership, social stratification, the money standard of success, focus on acute care and technology, tension between hospitals and the medical profession, and the strong yet predominantly informal role of medical schools as an influence in the hospital system. As these characteristics changed in concert or in opposition to one another, the hospital system changed and reacted over the years.

The 1960s: A Time of Expansion

The Hill-Burton Act, originally passed in 1946, provided financial incentives for physical expansion of hospital facilities and services. This led the way for expansion of the total number of hospitals, growth in existing facilities, and provision of specialized services.

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[26]Ibid., 8-13.

The Act was extended in 1961 to provide money for area wide health planning.[27] The hope was that hospitals would collaborate to provide community leadership on a local level to improve patient care, efficiency, and economy.

Almost two-thirds of all nongovernment hospital expenditures in 1960 were met by Blue Cross plans or by other insurance carriers; 67.8% of people in the U.S. held some type of private hospital insurance in that year.[28] At the time, Blue Cross and Blue Shield plans were considered nonprofit and were lauded as socially responsive programs. Hospital insurance lessened the anxiety of individuals about paying large hospital bills. Concomitantly, it lifted cost constraints from hospital billings. Hospitals passed on increased costs to insurers, who passed them on to a large subscriber base in small increments. The presence of third-party payers fueled an unprecedented demand for hospital services, a demand willfully met and stimulated by doctors and hospitals, the suppliers of services. Hospital expenditures and reimbursement mechanisms worked in tandem to expand price and payment upward, and contractual relationships between hospitals and third parties became central to hospital policy making.

In response to inadequate payment on the part of government for hospital care of the elderly and poor and a limited goal of national hospital insurance rather than health insurance, federal government officials reevaluated the federal-state program of vendor payments. This program had provided grants to states for direct third-party

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[27]Ibid., 276.

[28]Ibid., 259.

payments to hospitals, doctors, and other providers for care given to those on public assistance. The program was small and did not aid those who were above the assistance level yet unable to afford needed care. In 1960, the Kerr-Mills legislation increased the allocations in the vendor payments, but hospitals were claiming large losses for charity care. In 1965, Congress amended the Social Security Act, thereby creating Medicare and Medicaid, a three-part program to fund care for the elderly and the poor. Medicare Part A covered hospitalization; Part B physician services; and Medicaid, the third part, addressed a corrected version of vendor payments for the needy. The expectation was that reasonable costs would be reimbursed and, in turn, hospitals would act responsibly and increase only the costs that were actually necessary for patient care and total social spending.

Medicare Parts A and B became effective in 1966 (PL 89-97) and provided substantial hospital and medical benefits to people sixty-five years and older. The plans were administered by the Social Security Administration. Fiscal intermediaries handled the payment of hospitals in order to provide a buffer between the government and voluntary, for-profit, and local government hospitals. The intermediaries provided reimbursement, consultation and auditing services, whereas the government paid the bills. Ninety percent of hospitals that received Medicare funds chose Blue Cross as their fiscal intermediary, affording the company national prominence.

Basic benefits under Medicare covered up to ninety days of inpatient hospital care per illness, outpatient care, posthospital care in a skilled nursing home of up to one hundred days per illness, home health services, and physician services; various

deductibles and coinsurance applied. Coverage was later expanded in 1972 to include the disabled and kidney dialysis and transplant patients.

Payment to hospitals under Medicare included dollars for not only direct services but also depreciation of hospital assets. Hospitals were paid according to their costs rather than prenegotiated rates. The reimbursement calculation was referred to as a cost plus system because it allowed other amounts such as depreciation to be tacked on, later called "pass throughs."

The initial implementation was done with the goal of accommodating and engaging the support of physicians and hospital administrators, but, in reality, higher costs were encouraged so payments would increase on an ongoing basis. With payments quite favorable, hospitals gained long-term strength to accumulate and borrow capital. This scheme perpetuated the support of hospital care rather than the expansion of ambulatory services and undermined efforts to improve voluntary planning and coordination of medical facilities.[29]

The 1970s: Government Controlled Growth

By the seventies, a popular expectation existed that health care or medical services were a right.[30] Hospitals began to act like businesses and were accused of acting like entrepreneurs, interested only in the business of making a profit. Hospitals could

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[29]Paul Starr, The Social Transformation of American Medicine (New York: Basic Books, 1982), 376.

[30]Michael L. Millman, Nursing Personnel and the Changing Health Care System (Cambridge: Ballinger Publishing Company, 1977), 246. Robert Crawford, "Individual Responsibility and Health Politics in the 1970s," in Health Care in America. Essays in Social History, ed. Susan Reverby and David Rosner (Philadelphia: Temple University Press, 1979), 247.

not escape the incentives of new market conditions and, as social institutions, were criticized for being market-driven rather than operating on principles of voluntarism. Costs far exceeded the government's expectations in the early years of Medicare. Projection of cost for the year 1970, made in 1965, had been estimated at $3.1 billion for part A; however, that amount was nearly doubled in actual revised cost, up to $5.8 billion. The rise in hospital expenditures between 1963 and 1966 was 7.4% per year and jumped to 13.3% between 1966-69 and 15.7% from 1969-70.[31]

The Medicare program was viewed as a success in terms of the impact on care to the elderly. Older Americans increased their utilization of short-stay hospitals, which in turn encouraged acute medical intervention as part of the expected care of the elderly in the later and final months of life.

In terms of hospital financing, Medicare was a watershed event that irrevocably changed the industry. The program failed to create a philosophy of regulation on the part of the federal government. Hospitals, as well as the fiscal intermediaries, failed to live up to voluntary compliance with the laws and ignored utilization review requirements. Institutional expansion without community planning often led to overexpansion and waste of facilities. The hope that national goals could be voluntarily achieved began to fade into congressional attention toward the need for national regulation.

Medicare funding of depreciation afforded hospitals a unique opportunity to fund capital from debt, as well as from the hospital's operating revenue. Hospitals also

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[31]Stevens, 291.

built up reserves from operating surpluses. In short, profit maximization took on a new meaning as hospitals developed expertise in financial management; the greater the amount of capital and reserves, the greater the power and influence. It was no surprise then, that the greatest period of growth for the for-profit sector of health care came in the seventies.

All of these changes marked the beginning of a capitalistic bent for all nongovernmental hospitals, not-for-profit and for-profit alike. Hospitals, stressed by competition, faced fiscal vulnerability as business corporations, and there was conflict between aggressively pursuing the market and risking alienation of the local community. As costs escalated, the movement to control health systems through planning emerged.

Intense statutory regulation brought about cost containment in the seventies through a three-pronged approach focused on capital expenditures-facilities regulation, revenue-cost regulation, and utilization review. Revenue-cost regulation was ushered in by President Nixon in 1971 through the Economic Stabilization Program and some state prospective reimbursement plans; wages and prices were controlled, and limits were set on cost increases. In 1974, the National Health Planning and Resources Development Act (PL-93-641) was passed. The legislation led the way to increased government regulation in response to the failure of voluntary efforts to curb uncontrolled growth of expenditures and duplication of services. Many states passed certificate of need (CON) laws requiring hospitals to prove the need for more beds prior to construction or expansion of facilities. Employers who also were interested in

curbing rising costs began to require second opinions before approving coverage for surgery in health insurance policies. Higher copayments and deductibles also were becoming more common.

Although some individuals were able to enjoy almost unlimited access to expensive medical services, segments of the population were being shut out as rising costs caused benefits to shrink. Individuals faced with unusual medical expenses were unable to meet them, and others suffered reduced access to services. People had become conditioned to consume high levels of services and products and wanted expansion of entitlements. Wide-scale discussion of national health insurance plans surfaced for the first time since the forties, but the plans were viewed as cost prohibitive and were being considered at a time of unprecedented inflation and a demand for a balanced federal budget.

In an attempt to mediate between popular demand for more services and an unresponsive health care system, government officials responded by arguing for cost controls and more judicious use of the system with attention to individual responsibility. Individuals were encouraged to examine their life styles and behaviors critically and to differentiate between the need for health and the need for medical services. Asking individuals to change their unhealthy habits was a first step in asking them to identify social causation of disease. For many reasons, life style modification was an unrealistic behavioral model. Asking individuals to exercise personal responsibility for health was not going to turn around all the problems within a

complex health care system. Dominant culture prevailed, individuals did not choose to alter their at-risk behaviors, and the struggle for affordable services continued.[32]

The 1980s: Prospective Reimbursement

The unchecked escalation of costs sustained throughout the seventies demanded improved management of health services, changes in financing schemes, and restructuring of delivery systems. Increases in costs in the eighties were attributed generally to population growth and, in particular, an aging population requiring more resource consumption in health care; inflation and overall rising mandated labor costs, such as minimum wage rates and social security taxes; and increases in new technology and services requiring expensive equipment and personnel able to operate such equipment.[33]

Forces shaping directions in the eighties included continued improvements in technology, increasingly complex delivery services, increasing demands from an aging population, increasing counterpressures to control costs, potential surplus of physicians, increasing competition, and consolidation of services.[34] Most remarkable in the eighties was the switch from cost-based reimbursement to prospective payment and capitation systems.

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[32]Reverby and Rosner, 255-264.

[33]Marshall W. Raffel and Norma K. Raffel, The U.S. Health System. Origins and Functions, 3rd ed. (Media: Harwal Publishing Company, 1989), 175.

[34]Rockwell Schulz and Bruce Steinwald, Hospital Labor Markets. Analysis of Wages and Work-Force Composition (Lexington: Lexington Books, 1980), 8.

The push for standardization in hospitals came from federal rule-setting in an attempt to streamline Medicare reimbursement, encourage economic competition, and consumer choice. The prospective payment system (PPS) was the result of the Tax Equity and Fiscal Responsibility Act (TEFRA) adopted by Congress in 1982. The Act phased in a prospective payment system into Medicare in order to strengthen the role of government as a major purchaser of services. Medicare paid a set fee per case, which varied by type of diagnosis (diagnosis related group, or DRG) rather than reimbursing on a cost basis. The system had some intended and many unintended results. The most noticeable effect was the increased federal role in hospitals despite major defederalism and deregulation under President Reagan. That is, the Medicare DRG system authorized the government to establish the purchase price for services from hospitals for its 20 million beneficiaries. Peer review organizations were strengthened as an intermediary in approving reimbursement. Additional legislation adopted in 1986 also prohibited rerouting patients seeking emergency care or denying treatment solely on the basis of inability to pay.

Hospitals, accustomed to finding ways to maximize their income, were quick to analyze the methods of DRG reimbursement and classified patients in ways that would improve reimbursement. Classification was carried out within the law and led to coaching of physicians in their selection of diagnoses, as well as the expansion of medical records departments with newly trained personnel who were experts in coding diagnoses. DRGs required that medical and hospital staff agreed on a state of wellness for discharge, although the standardization was left up to each hospital.

Maximizing financial incentives for early discharge had to be balanced with safe and prudent care for patients and knowledge that sanctions would be levied for readmission due to premature discharge.

The "quicker and sicker" phenomenon developed whereby patients were discharged from hospitals earlier than in the past although they continued to require a significant amount of care. The earlier discharges were in keeping with prescribed lengths of stay reimbursed by Medicare. Patients were considered more acute during their hospital stay and thus required more nursing care. The reduction of personnel in the hospital that occurred to decrease costs in anticipation of PPS meant registered nurses substituted for other care givers. The added burden of all high acuity patients with a real decrease in staffing drove the demand higher for registered nurses in the early to mid-eighties.

At the same time that hospitals were reducing the nonregistered nurse work force, the length of stay was falling, preadmission screening programs reduced unnecessary admissions, and more ambulatory services were utilized. The expected reduction in required nursing hours did not occur, and, in fact, the demand for nurses increased due to the increased acuity as well as an explosion in the number of intensive care beds. A higher nurse patient ratio was demanded by these sicker patients. The increased demand came simultaneously with prospective payment. The greater demand along with the continued practice of employers hiring nurses at low wage rates most likely precipitated the nurse shortage in 1986. Aiken[35] believes cost containment

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[35]Aiken, "The Hospital Nursing Shortage: A Paradox," 89.

approaches such as the PPS actually had a diminishing effect on nurses' salaries compared to other hospital employees because nurses were an obvious target of budget reductions.

Changes in fine tuning of the PPS occurred throughout the latter part of the eighties, including adjustments for teaching hospitals in the form of supplemental payments for patients with atypical cases, or outliers. The impact of prospective payment, beyond initial control of cost escalation, was infiltration of government in regulation of prices, policies, quality of patient care, length of stay, and hospital procedures. The profound central regulation of hospitals defied a system of trust in the medical profession, as well as in the voluntary hospital industry.

Another anticipated result of DRGs was to increase utilization of ambulatory services. Although this was achieved to some degree, hospitals continued to focus on illness care. Coile,[36] a noted futurist, described a recession in the hospital industry in the early eighties that he predicted might be permanent given a major shift in consumption patterns. Admissions and revenues had declined, and consumers who were experiencing diminished benefits could not afford to purchase care. Inflation in health care expenses was 50% to 100% above the Consumer Price Index, an indicator of economic catastrophe for some hospitals and health care organizations. He advised hospitals to reconceptualize their businesses as health, to replace the old paradigm of

[36]Russel C. Coile, The New Hospital (Rockville: Aspen Publishers, 1986), xiii.

curative medicine with the new one of health and the central themes of personal responsibility and wellness.[37]

The Hospital Labor Market for Nurses

As previously discussed, two-thirds of all working registered nurses were and are employees of hospitals, with staff nurses the largest subpopulation of that group. As a result, wages of hospital-based registered nurses set the trend and acted as a benchmark for all other nursing positions.[38] Several hypotheses have been forwarded explaining the labor market for registered nurses in hospitals, although none has received convincing support from the professional or economic communities.

The first hypothesis, proposed in the early 1970s by noted health economist Feldstein, is that of "philanthropic" wage setting by nonprofit employers. The hypothesis proposed that nonprofit entities were not solely concerned with maximizing income and, therefore, set wages at a higher rate in order to affect higher job satisfaction, morale and productivity, with a subsequent reduction of personnel turnover. Although some market segments continued to demonstrate higher rates of pay in the private nonprofit sector, there was no conclusive evidence to support this belief.

The idea of oligopsony was discussed in Chapter 2 and is addressed again here, as supported in the literature, as a potential force operating in hospital labor markets.

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[37]Ibid., 6.

[38]Harsh Thacker, Wage Setting and Evaluation: Economic Principles for Registered Nurses (Kansas City: American Nurses Association, 1983), 18.

Sloan and Steinwald[39] studied hospital labor markets from 1960 to 1975 using four different sources of data. They concluded monopsonistic (some times used interchangeably for oligopsonistic) elements may be important for specialized workers such as staff nurses. They further noted the difficulty in classifying the economic model used to explain hospital labor because the goal of the institution or industry as a whole was not singularly to maximize profit; estimation of hospital labor force activity was viewed as more complicated. They cited monopsony as the strongest argument for relatively low wages in hospitals, due to the fact that in many local communities, there may be few alternatives to hospital employment and in multihospital locations, collusion may occur to restrict growth in wages. The authors admitted, however, that results of their study were still not very convincing.

Altman,[40] on the other hand, asserted his belief that hospitals had controlled wages. He argued that hospitals exhibited control over nursing and wages, and further explained it was possible in this type situation for a market to be in equilibrium where a positive number of unfilled vacancies existed.

Support for the neoclassical model of wage setting was reinforced perhaps more as a default than through empirical evidence. This model, as presented in Chapter 2, depicts the direct relationship between supply, demand, and wages as determinants of employment. Additionally, the standard model when applied accounted for length of

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[39]Frank A. Sloan and Bruce Steinwald, Hospital Labor Markets (Lexington, Lexington Books, 1980).

[40]Stuart H. Altman, Present and Future Supply of Registered Nurses (Bethesda: U.S. Department of Health, Education, and Welfare, 1971), 9-12, DHEW Publication No. (NIH) 72-134.

time period, the structure of the product and factor markets, and other attributes about the work that would affect monetary and nonmonetary aspects of the job and wage differentials.

The force that appeared dominant as the major determinant of wage rates was demand. This was especially true for workers with skills that could not be substituted, such as staff nurses. With a long-run supply curve present in nursing showing continuous upward growth, the strength of demand in both the short and long-run had the greatest effect on wages. Demand expressed the relationship between the price of the product (wages of the nurse) and the quantity (of nursing services) demanded. Demand also implied that the consumer (hospital industry) was willing and able to pay for the product.[41] It was important to examine long-run effects in this study because nurses have always enjoyed mobility in a national market and long-run analysis allowed a look at the market, given time for individuals to act on job changes. The lack of substitution strengthened the concerns about inelastic supply and reinforced the notion that demand was more functional in determining wages in short- and long-run analysis.

Sources repeatedly pointed to infusion of monies into hospitals from Medicare and Medicaid cost reimbursement as the key determinant of improving staff nurse wages from 1966 to 1972.[42] This was true for actual wages, but when adjusted for

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[41]Thacker, 5.

[42]Sloan and Steinwald; Linda H. Aiken, Robert J. Blendon, and David E. Rogers, "The Shortage of Hospital Nurses: A New Perspective," Annals of Internal Medicine 95 (September 1981); Cynthia C. Dittmar, Salaries of Registered Nurses (Kansas City: American Nurses Association, 1983).

inflation, real wages showed only slight growth (refer to Figure 5-2). The infusion of funds, also thought to have boosted hospital bills, was viewed as a boon to demand for hospital services. The common thinking, referred to as Roemer's Law, proposed that the supply of hospital beds generated their own demand under insurance.[43] The growth of insurance coverage provisions tapered off in the seventies at a time when the public had savored a new appetite for varied and improved services. Real personal per capita income had also grown in the sixties making the purchase of additional services possible; this growth tapered off as well in the seventies. The skill mix had also changed in hospitals in the sixties allowing for improved worker quality as well as keeping on track with changing services.

Supply-side factors that influenced wage increases in the sixties and seventies included enactment of minimum wage legislation in 1967 and extension of collective bargaining activities through hospital amendments to the National Labor Relations Act in 1974. Hospitals employed a large number of low wage workers and encountered higher costs for these workers. The extension of collective bargaining rights to private sector employees opened up the industry to contract negotiations after more than thirty years of protection. Given the era of cost controls the total impact was not experienced immediately. Registered nurses, although activities escalated, benefitted at rates much less than lower paid workers; union effects on staff nurse salaries averaged less than 5%.

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[43]Starr, 364; Sloan and Steinwald, 84.

Staff nurse and other hospital worker wages were in a "catch up" period from 1960 to 1972. Sloan and Steinwald believed real wages peaked for hospital employees in 1972 and suffered mild decline throughout the remainder of the decade; they further classified hospitals as generally low-paying employers.[44] Gains made in the late sixties and early seventies gave way to regulatory changes aimed at controlling rising health care costs.

Capital expenditures were encumbered through the requirements of a certificate of need and/or state planning agency approvals for expenditures over $100,000 to insure full reimbursement at a later time. Capital regulation was also viewed as a means to render Roemer's Law inactive, so by not funding expansion of capital, bed utilization would be curbed as well.[45]

Statutory regulation, which brought about cost containment, resulted in restricted growth in earnings for all hospital workers as a result of limited growth in employer revenues. Utilization review programs, set up under state Medicaid and Blue Cross programs, as well as Professional Standards Review Organizations (PSRO), were focused on cost as well as quality control. Hospital workers' real earnings rose only an average of 1% per year from 1970-1975, a rate lower than would normally have occurred in the absence of cost and revenue controls.[46]

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[44]Sloan and Steinwald, 123.

[45]Starr, 399.

[46]Sloan and Steinwald, 101.

Summary of Hospital Industry Changes
Affecting the Nurse Market

Hospitals enjoyed the effects of funding from the Hill Burton Act of 1946 and subsequent expansion in 1961. They were able to grow in size and services. Medicare and Medicaid, the watershed events in health care financing passed in 1965, secured the incentives and demand for hospital care, as did the availability and desirability of lucrative cost-based payments from private insurers.

With secured revenue lines, hospitals began to operate more like businesses. They were geared to profits, sought diversification, and explored alternate forms of ownership. Uncontrolled growth, rising costs, and high industry inflation came to an end with President Nixon's Economic Stabilization Program in 1971. Cost controls were enacted through the National Health Planning and Resources Development Act requiring health systems planning. Many states enacted certificate of need laws, which slowed down the process and permission for spending and expansion. Hospital earnings were curbed, and workers' earnings were also restricted.

The eighties promised more pressure to control costs, increasing technology and complexity of care, greater demands from the elderly, and a new sense of competition. The prospective payment system fundamentally changed reimbursement from a cost-based retrospective system to one based prospectively on diagnosis-related groups. This system led to greater involvement of the federal government in all health care regulation. A greater utilization of ancillary services began to take place in order to maximize DRG income.

The labor market was affected to a small extent by passage of the Health Care Amendments to the National Labor Relations Act in 1974. Nurses' wages did not benefit substantially from the extension of collective bargaining rights.

Arguments were forwarded in support of philanthropic and monopolistic, as well as traditional, labor market function for registered nurses. Studies at the time were not conclusive in characterizing the national market.

Efforts on Behalf of the Profession to Improve Wages and Working Conditions

The American Nurses Association

The ANA has been a constant voice in the advocacy of improved wages and working conditions for registered nurses in this country. ANA has had formal programs aimed at protecting the rights and welfare of working nurses has produced numerous educational materials about work issues including economic concerns, and has collaborated with other organizations, private and public, to influence the economic status of nurses and the profession. Persistent challenges of adequate income, improved benefits and pensions, improved professional standing and autonomy, establishment of the baccalaureate degree as the educational base for professional practice, and recurrent shortages of nurses, have been the focus of the profession's efforts for many years.

Through its E&GW Program, the ANA has effectively influenced wages, conditions of employment, control of nursing practice, and worker safety for almost fifty years. The original Economic Security Program (ESP), established in 1946,

enabled the profession's goals for education and practice. At the time, nurses supporting the program believed the profession needed to be made more attractive to compete successfully for the most capable young entrants. They also acknowledged that the economic status of nursing needed improvement in order to command the respect and recognition of other professions and to act as a social force and exert influence in health care decisions. Despite all the positive attributes this broad scale program embodied, it was continually plagued by a tendency to equate economic security solely with collective bargaining. Many nurses and the public held the narrow view that higher salaries was the only goal, not recognizing the broader role that economic incentives played in furthering the profession's goals. Flanagan[47] proposed that many nurses were able to embrace collective bargaining because they believed in a direct correlation between working conditions and the quality of care, that standards of care are linked to working conditions. The program's efforts to improve working conditions helped legitimize collective bargaining for some as the Association tackled problems such as limited staffing, unscheduled floating to different care areas, burdens of nonnursing tasks, determining standards of care, participation in setting policy related to patient care, and recognition and benefits comparable to those of other health care professionals.[48]

Review of the ANA's convention proceedings for thirty years revealed a consistent effort to improve wages and working conditions for nurses. Most efforts were directed

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[47]Lyndia Flanagan, Collective Bargaining and the Nursing Profession (Kansas City: American Nurses Association, 1983), 3, 27.

[48]Ibid., 3.

toward hospital nursing, although occasionally specific actions were targeted to other employment settings such as nursing homes and educational institutions.

In 1960, the ANA House of Delegates adopted a resolution supporting a strong public information campaign for the Economic Security Program (ESP) that was to stress the shortage of nurses, low salaries, and unsatisfactory employment conditions. A series of pamphlets to educate, nurses titled What Every Nurse Should Know About Economics, was published. The three titles included in the series were The Need for Economic Security, Types of Employment Relationships, and Professional Nurses and Collective Bargaining. Part of the effort to implement the House action included an informative pamphlet aimed at the public, titled Good Nursing Care . . . Is it There When You Need It? It was a vehicle to communicate nursing's goals to improve nursing care to the public and outlined how the public could help nurses meet those goals by supporting their efforts to improve salaries and working conditions.[49] In addition to educating nurses and the public, there was strong sentiment that nursing education curricula should introduce students to the idea that they are economic beings and that there is an important link between economics and the standards of professional practice.

The profession's major thrust of activity in 1962 was targeted at modifying Executive Order 10988, issued by President Kennedy but later revised by President Johnson. The provisions of this order allowed federal employees the same rights to bargain collectively as employees in private industry, with the exception of a no strike

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[49]American Nurses Association, House of Delegates Reports (New York: American Nurses Association, 1962), 30.

clause. A narrowly interpreted "conflict of interest" section stipulated that individuals could not participate in the management of an employee organization, putting in question the ability of nurses to hold office at any level of ANA governance structures. The decision of representation became very difficult, and in 1964 the ANA advised all State Nurses Associations (SNA) to refrain from seeking recognition as the representative of Veterans Administration nurses in labor disputes; the position was later withdrawn in 1967.

Beginning in 1963, the General Duty Section of the ANA issued Minimum Employment Standards addressing salaries, hours of work, vacations, leaves of absence, and retention of benefits. The number of SNAs reported to have adopted such standards varied over the years from 45 to 50. The last year that information was published indicating these Standards were in place was 1971 in Facts About Nursing.

In the early sixties, the ANA supported automatic wage progression based on length of service, as well as some system of educational increments to improve salaries. The concept of improved salaries for better education was supported both for entry level and experienced career nurses. There was concern that proposing a salary differential by educational level might produce a negative down substitution effect; this was never realized nor was the proposed differential successfully implemented with significant lasting effects.

On the heels of substantial contractual gains in New York and San Francisco[50]

[50]Contractual gains that were over and above salary provisions included: tuition refund for advanced courses; salary differentials for educational preparation and previous experience; and joint

including salary increases in excess of 25%, the 1966 ANA House of Delegates adopted a "National Salary Goal for Entrance into Nursing," which stated, "In 1966, a registered nurse should enter the profession at a yearly salary of not less than $6,500 . . . ."[51]

Nursing leaders wanted to focus the attention of the public on the economic needs of the profession. They also wanted to dramatize the group effectiveness and success of collective bargaining efforts on each coast. The efforts occurred at a time of renewed interest in health care with the advent of Medicare and Medicaid.

The ANA had always been active in the legislative arena and labor issues were no exception. The mid-sixties were a time of intense lobbying to remove the exemption of nonprofit hospitals from provisions of the National Labor Relations Act (NLRA). The ANA also supported extension of the Fair Labor Standards Act (minimum wage and hour law) to cover all private hospitals, extension of unemployment insurance laws to nonprofit hospitals, and mandatory coverage of nonprofit hospitals under the Social Security program; all eventually became law.

Three commissions were formed in 1966 in the revised ANA structure: Education; Nursing Service; and Economic and General Welfare (E&GW). The E&GW program had seen unparalleled growth over the past two decades and proposed expansion in order to meet the needs of nurses across the country. This culminated in adoption of a program called "New Approach to Economic Security" in 1968, which was targeted to

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committees to evaluate non-nursing tasks carried out by nurses.

[51]American Nurses Association, Convention Proceedings (New York: American Nurses Association, 1966), 23.

provide more assistance directly to states to organize and escalate the Economic Security Program. The New Approach accelerated ANA's efforts to lift nursing's economic standards by representing more nurses, seeking exclusive representation rights for federally employed nurses, and implementing a new salary goal. The 1968 goal stated,

> The 1968 ANA Salary Pronouncement for entrance of registered nurses into the practice of nursing shall be a minimum of $7,500 for those with a diploma or associate degree in nursing, and $8,500 for those with a baccalaureate degree in nursing.[52]

The ANA also rescinded its no strike policy in 1968, after it had stood for eighteen years. Arguments for rescinding the policy were founded on the belief that it was voluntary for the nurse to give up the right to strike, as well as lack of enforceability at a national level.

ANA's E&GW program claimed great success in the latter part of the sixties citing salary and contract gains, which were primarily attributed to setting and selling the 1966 salary goal. The year 1966 was seen as a "breakthrough" year for ANA's economic security activity. What might also have been a significant event was a vote in 1970 that defeated a resolution to define the relationship between practice and compensation as justification of the previously stated salary goals. The work that would be assigned within the ANA as a result of this resolution would not be assigned to the E&GW Commission, so delegates defeated the resolution believing it created

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[52]American Nurses Association, Convention Proceedings (New York: American Nurses Association, 1968), 22. It was interesting to note that the National Education Association (NEA) had adopted a minimum salary goal for teachers in the prior year. The minimum annual salaries were $8000 for teachers without a degree and $8500 for a teacher with a baccalaureate degree.

unhealthy competition within the organization. The insulation of many economic issues continued until 1990 when structural changes in the Association brought a new vision of the relationship between practice and economics.

The seventies were rather quiet in comparison with the sixties and seemed to be a time when efforts were redirected to improving working conditions and benefits rather than salaries. The ANA continued to work to win exclusive, national, recognition rights to represent Veterans Administration nurses and reform federal classification systems and associated pay practices. ANA leaders also spoke out on some new issues including support of the Equal Rights Amendment, improved benefits for Social Security and retirement, and new provisions for child care. Nixon's Economic Stabilization Program with its wage-price freezes put a damper on most activity in the industry relative to wage adjustments. The ANA did have some voice in reacting to the Administration through the appointment of Rosamond Gabrielson (then Treasurer and later ANA President) to the Health Services Industry Committee whose job it was to determine postfreeze controls in health care.

Despite the Health Care Amendments to the NLRA in 1974, collective bargaining activities did not escalate dramatically in the constrained health care economic environment. As discussed previously, wages were artificially restrained throughout the seventies, and the ANA was helpless to do much more than support the states in their individual endeavors.

The early eighties saw the ANA on the offensive again in fighting use of Medicare monies to reimburse hospitals for fees paid to consulting firms for union busting. This practice had been stopped in 1979 but was reactivated in 1982.

In 1982 the ANA endorsed the concept of Comparable Worth that "recognized equal compensation for employees performing work of comparable worth or value regardless of their sex."[53] The ANA assisted states and filed amicus briefs as appropriate to support legal efforts to win cases based on this concept. No real gains were realized although several test cases, brought at great expense with little or no remuneration to the plaintiffs, were heard.

Another issue of concern was the threatened withdrawal of nonprofit hospitals from the Social Security Program. It was estimated that more than 40,000 registered nurses would have been affected by such employer withdrawal.[54] The passage of TEFRA, which was best known for its genesis of prospective payment, also required nonprofit organizations to participate in the Social Security System and removed inequities and discrimination in pension plans. Pension improvements were primarily in the areas of shorter vesting for predominantly lower income and female employees; earlier provisions in pension regulations permitted break-in-service policies to affect pension credits for women taking maternity leave. ANA's concerns about pension coverage were expressed throughout the study period including a call for a National

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[53]American Nurses Association, Convention Proceedings (Kansas City: American Nurses Association, 1983), 83.

[54]Richard C. McKibbin, Nursing in the 80s: Key Economic and Employment Issues (Kansas City: American Nurses Association, 1983), 5.

Retirement Plan with portable pension rights in 1967. The plan was to include an individual money-purchase plan for savings and a fixed benefit level plan for retirement. Renewed interest was expressed in the late eighties, and a pilot plan for nurses to contribute into was established in 1990.

Collaborative Efforts

The arrival of prospective payment in the early eighties alerted nurses to changing employment conditions and threats of substitution of nurses to carry out work of ancillary personnel who had been laid off or eliminated from hospital work forces. A national economic recession and higher than usual national unemployment sent nurses back to work and increased the hours they contributed to the work force such that vacancies dropped dramatically in the period 1983-84. At the same time nurses were enjoying positive changes in the delivery systems, such as all registered nurse staffs and primary nursing. The Institute of Medicine had formed the National Commission on Nursing in 1980 to determine if the shortage of nurses was real or perceived. The larger mission was to reach consensus on approaches to resolve problems related to providing high quality nursing care in hospitals. The Commission reviewed nursing literature from 1975 and, through a variety of methods, studied nursing practice and education. In the third and concluding year of the study, the Commission offered 21 recommendations to address nursing-related problems, issues, and future directions. A National Commission on Nursing Implementation Project (NCNIP) was later funded by the Kellogg Foundation under the leadership and direction of the American Nurses

Association, the American Association of Colleges of Nursing, the American Organization of Nurse Executives (AONE), and the National League for Nursing. The Project's multiple efforts encompassed a massive public information campaign in addition to work within the profession to address persistent controversial issues and plan for future resolution. The Project concluded its work in 1991.

An intensive effort in the latter half of the eighties was launched by the ANA, engaging the collaboration and support of numerous other national nursing organizations to combat the most recent wave of nurse shortage. Distinguishing this shortage was the precipitous drop in students enrolled in nursing programs, the already high labor force participation rate, the threat of women seeking alternative careers to nursing, and the future diminishing supply of total entrants to college and the labor force. Collaborative activities had been unparalleled prior to the efforts to capture the attention and support of the federal government, as well as the public. Nurse leaders perceived a severe dynamic shortage of nurses was responsible for many vacant staff nurse positions in a variety of settings in almost every location in the country. Corrective measures were aimed at increasing the attractiveness of nursing as a profession to new entrants, improving salaries and benefits, alleviating wage compression, removing nonnursing tasks from the staff nurse role, providing greater autonomy, and promoting better utilization of staff.

Significant attention focused on nursing's shortage problems and the inability to meet current demand for hospital nurses when former Secretary of Health and Human Services, Otis Bowen, convened the Secretary's Commission on Nursing in 1987.

Once again, activities focused intently on assessment and future implications of the nurse shortage.

The profession's involvement was very visible in the Commission, and nurses were well represented from a variety of organizations, roles, and settings. A six volume monograph series, The Nursing Shortage: Opportunities and Solutions, was published jointly by the ANA and the AONE in 1990; it explored a variety of issues and solutions to the current shortage. The ANA worked with over 30 specialty groups to implement strategies to alleviate the shortage. Groups cooperated in data collection and dissemination in order to address emerging issues expeditiously and to respond to the challenges of prolonged vacancies and an impatient, threatening hospital industry.

The magnitude of effort and wide scale attention paid to the shortage, which emerged in mid-1986 and persisted beyond 1990, served as an example of collective action that was possible. Evidence was not convincing that the numerous recommendations embodied in the Secretary's Commission report, in particular those dealing with wage adjustments, were, in fact, implemented. As was reported earlier, however, the wage spread between entering and maximum salaries rose to 50% in 1988, with most change occurring throughout the 1980s. It was very likely the attention placed on improving economic rewards in a demand-driven shortage was primarily responsible for the quick movement to reduce the shortage in many locations over a 2- to 3-year period of time.

Specific ANA House of Delegates action in 1988 directed ANA to

> initiate activities for improving compensation for nursing practice that will focus on raising the awareness of key health care decision makers and payers

> regarding (a) the nature, extent, and consequences of salary compression in nursing, (b) inadequate nurses' salaries, and (c) the lack of real improvement in nurses' compensation over time.[55]

They acknowledged the interrelationship between supply and demand, wages, and reimbursement in the industry.

At the same time, a realignment of work responsibilities took place so that demand for registered nurses could be decreased. Once again, hospitals as purchasers of services were evaluating the purchase price of a registered nurse and acknowledging the need for assistive personnel at a lower price. The assistants were needed to do work that was neither cost effective nor satisfying for staff nurses to perform.

Concurrently in the latter half of the eighties, spurred on by efforts to combat the acute shortage, the ANA House of Delegates took action to strengthen the E&GW programs in both collective bargaining and noncollective bargaining states. The concept of "workplace advocacy" was put forth as a means to address improvement in all work settings regardless of union representation. The ANA also pursued its challenge in support of the National Labor Relations Board's authority to determine that an all registered nurse bargaining unit was an appropriate unit for representation. This case was successfully battled and resolved by the U.S. Supreme Court. Lobbying efforts were targeted to diverse legislative issues, such as support for family and parental leave provisions and opposition to mandatory employee testing for Human Immunodeficiency Virus (HIV) infection.

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[55]American Nurses Association, House of Delegates Reports (Kansas City: American Nurses Association, 1988), 50.

Summary of Professional Efforts

The ANA developed an Economic Security Program in 1946 to advocate for the nurse and to educate the public. State Nurses Associations set minimum employment standards beginning in 1963. Two national salary goals were issued in 1966 and 1968 with a national portable pension plan proposed in 1967; in 1968 the no strike policy was rescinded.

Despite the opening up of hospitals to collective bargaining, the seventies were quiet. In the eighties the ANA actively pursued policy implications contained in the National Commission on Nursing's Report and was an integral part of the National Commission on Nursing Implementation Project.

Attention was diverted almost exclusively to another dynamic shortage or registered nurses in the second half of the eighties. The ANA rallied with other specialty nursing organizations and was a key player on the Secretary's Commission of Nursing from 1987-1988 and with groups that continued to study the issues. The ANA supported the wage adjustment proposals and sought to highlight solutions to wage compression and career opportunity issues as a means of alleviating the shortage. Efforts turned to work place advocacy and redefining the role of the nurse as long-term answers for correcting the labor market problems.

When analyzing the efforts of the profession to improve wages and working conditions throughout the study period, two themes were evident. First, there was both a stated and implied linkage between standards of practice and economics and working conditions. The second was an engagement of the public sentiment to further

nursing's causes. Mustering public support may have been viewed as being self-serving on one hand, but reinforcing the profession's responsibility to the public on the other.

At no time was the profession, or ANA, its recognized collective voice, silent or withdrawn as an advocate for nurses' improved working conditions or wages. Sometimes cloaked in the quest for improved quality of care, working conditions were addressed through the back door. The adopting of standards, rewriting of nurses' roles through career ladder designations, rewarding certification, creating other categories of assistive personnel, and allowing flexibility in staffing patterns, have all contributed to improvement in the delivery of nursing services and the conditions of hospital staff nurse work.

Through consistent involvement in the political arena, collective bargaining, persistent public education, and interorganizational efforts, the ANA has demonstrated leadership decade after decade to improve the salaries and working conditions for staff nurses in the larger context of protecting the economic and general welfare of all nurses.

There was no measurable cause and effect relationship between the efforts described in this section and salary gains for staff nurses. What was evident, however, was the professional presence and persistence to advocate for the changes that occurred throughout the study period. The constant barrage of information released to the media and to government officials in the most recent shortage demonstrated great strength and influence on the part of the nursing profession.

CHAPTER 6

CONCLUSIONS AND IMPLICATIONS

Nursing struggled with increasing demands for services amidst a hospital staff nurse vacancy rate of 23.2% in the early sixties. Industry demands had grown with the surge in new funds provided by the Hill Burton legislation to build new facilities and expand existing services. New revenue streams were also realized under Medicare and Medicaid beginning in 1965, a watershed for hospitals and health services providers. The poor and elderly were able to access and acquire the care they needed, and providers were reimbursed at cost by the federal government. Employed individuals enjoyed expansion of health care benefits and became active consumers of health care services. Incentives to use less expensive means of attaining care outside the hospital were nonexistent. Individuals also had greater personal income and could purchase additional health care as new services became available.

In response to the increased demand for nurses, women responded by reentering the work force, in part because of increased wages, but also in response to rebellion to domesticity and stereotyped femininity resulting from a resurgence of the feminist movement. Oddly enough, women were seeking employment in an industry profoundly affected by patriarchal systems that were slow to respond to the fact that

nurses contributed greatly to the new systems of health care delivery. Nurses had made possible the very expansion of services that allowed hospitals to flourish.

Nurses benefitted from the flow of revenue to hospitals. During the latter half of the sixties, wages rose and nurses actually made some gains over inflation. Nurses also made small gains through collective bargaining.

Nursing education had begun its shift from hospital-based diploma programs to baccalaureate and associate degree programs based in institutions of higher education. The major impact of the shift was the diminution of uncompensated labor that had always been supplied in the form of nursing students, both registered nurse and licensed practical nurse.

In stark contrast, growth was camouflaged in the seventies to avoid scrutiny by those seeking to curb spiraling health care costs. The nation was experiencing severe inflation, and the federal government sought to control the health care industry that had been unable to deliver on voluntary cost control measures. Salary growth for all health care workers was dismal during this period. Nurses, despite attention to maldistribution and shortage in the seventies, fared no better. A series of governmental regulations put into place controls that restricted revenue growth in hospitals, making even less capital and operating funds available to pass along to employees.

Professional efforts were steady but not forceful enough to surmount the pressures of the U.S. economy and federal cost controls. Wages did not even keep up with

inflation, and nurses' wages fell behind teachers', a common cohort for comparison.[1] Federal control culminated in planning to overhaul the Medicare program by changing from cost reimbursement to prospective reimbursement in the early eighties. Following several years of pilot studies, prospective payment arrived on the scene in 1983 in a five-year phase in plan. The ramifications for hospitals and nurses were great. Of import to hospitals was their financial survival. Those that were able to compete within the system fared well and actually were able to maximize the reimbursement schemes; others folded or were purchased by more successful corporate entities.

Nurses became recognized as very cost effective workers and were targeted to take on the responsibilities of ancillary workers who had been terminated in anticipation of lost revenues with the PPS. At a relatively low price, the nurse could do the job of a staff nurse plus substitute for other less expensive workers. Once employers established stable revenue streams under new systems, they moved out of survival patterns and began to find ways to maximize income again through product diversification, integration, competition through aggressive marketing, and changes in their market mix of patients to a higher paying population.

Patients required more nursing care because the prospective system encouraged and demanded earlier discharge to home or community services. Nurses were being called upon to do more and more with an increasingly short supply. In 1986, recognition of another significant shortage sparked a flurry of activity on the part of the profession to

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[1]Linda H. Aiken, "The Nurse Labor Market," The Journal of Nursing Administration 14 (January 1984): 19.

open the eyes of employers to issues of salary compression, wage discrimination, and misutilization of the staff nurse performing nonnursing tasks. Strides were made in initiating change in all these areas including recruitment efforts that addressed threats to supply, role changes in job descriptions, testing of differentiated practice models to use registered nurses according to educational preparation, and development of clinical ladder systems that defined levels of work and compensation rewarding higher levels of practice. In addition, hiring practices favored the staff nurse and fueled competition in local markets. Incentives for retention were also the focus of many employers. At the same time, larger issues such as pay equity and comparable worth were being attacked by the professional organization. The apathy to fight oppression and domination by males in employment was giving way to renewed efforts to right decades of wrongs.

Analysis of the Interaction of Supply, Demand and Wages

This historical review provided an examination of supply, demand, and wages, the three main variables operating in any labor market. Significant trends across the study period affected each variable.

Supply

The activity rate for nurses steadily increased to an all time high of 80% in 1988 (see Figure 6-1).

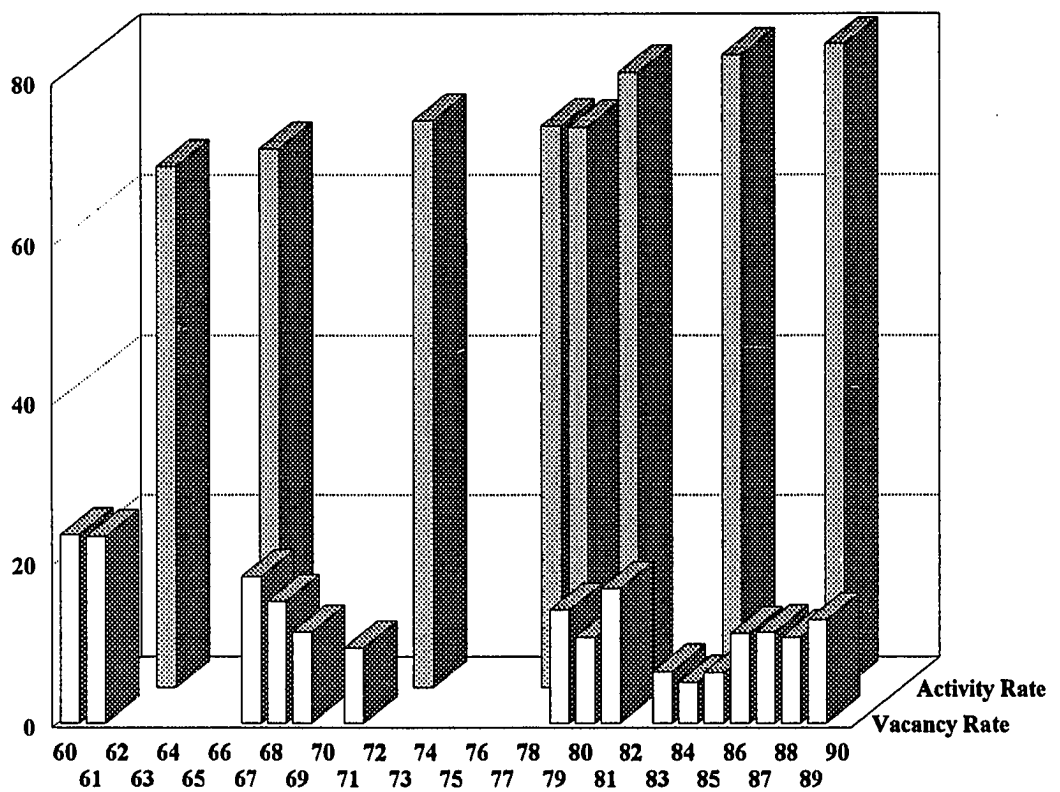


Figure 6-1 Activity Versus Vacancy Rate

The increase in activity rate was directly linked to increasing the supply or active work force of nurses. Part of increasing supply occurred as a result of entrants of new graduates in a steady upward stream from 1978 with a slight decline and rebounds through 1985 and then a threatening drop off from 1985 to 1989. Supply also rose as a result of inactive workers returning to the labor force, also evidenced by the increased activity rate. The ratio of full- to part-time workers, considered problematic, has been constant since 1977 despite efforts to entice nurses to contribute more hours to the work force. Further, the drop off in graduations in the late eighties did not significantly alter the upward trajectory of the supply curve (see Figure 6-2).

Demand

The reported vacancy rates with the exception of four years, 1971 and 1983-1985, remained above 10%, an accepted shortage indicator. The absence of data for 1972-1979 tends to support the idea that nonreporting may have occurred when rates fell below 10%. Regardless of the movement of vacancy rates, supply continued to climb paradoxically.

Wages

Nurses' wages grew little beyond inflation over thirty years. Increases in real wages were greatest from 1963 to 1972, after which time they remained relatively flat

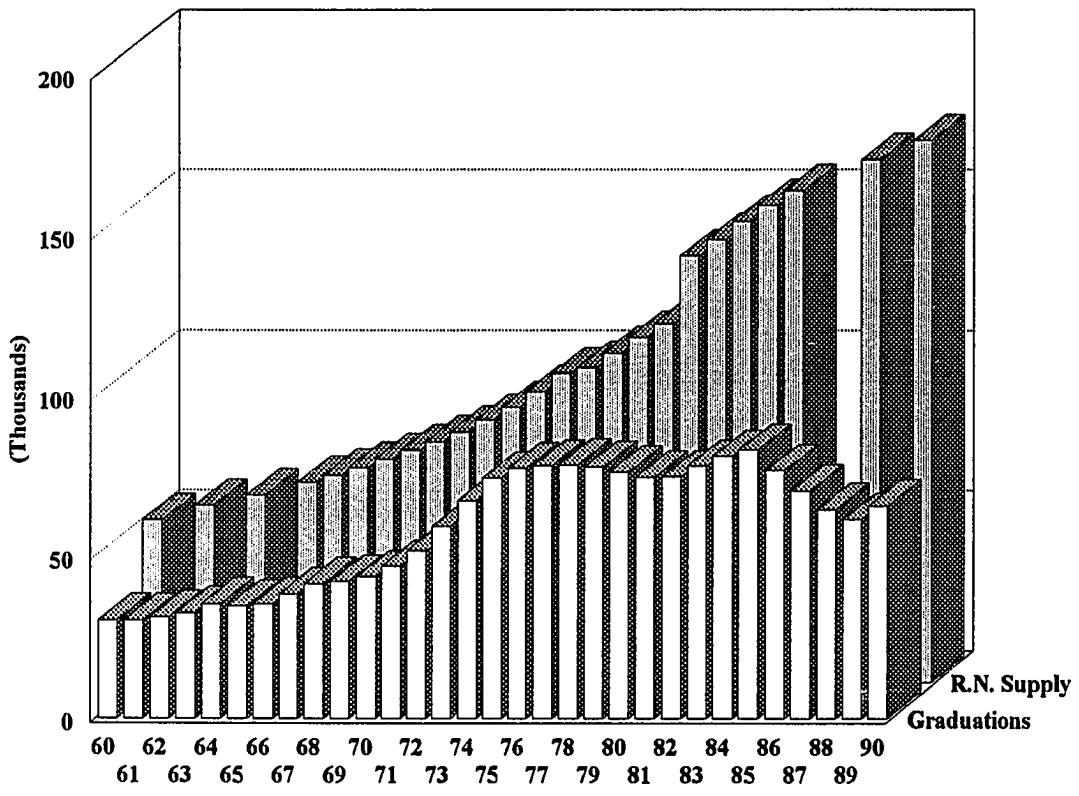


Figure 6-2 Analysis of Registered Nurse Supply and Graduations

after correction for inflation. Actual wages showed steep gains from 1978 to 1988. Some movement occurred in widening salary ranges to improve compression for experienced nurses.

This study concludes that wages never rose sufficiently to cause a reduction in demand such that employers paid more for a valuable commodity and the market was in equilibrium with an acceptable vacancy rate below 10%. Instead, the market equilibrated with vacancy rates at or above 10% most years (see Figure 6-3). Further, no wage adjustments, called for periodically in the literature, ever truly came about, defying the recommendations of experts on how to correct the market on either a short- or long-term basis; nurses remained relatively low cost workers, supporting the oligopsonistic view of hospitals as employers.

In relation to these findings then, the supply of nurses showed no dramatic growth as a result of wage incentives. The closest response might have been a renewed interest with higher activity rates in the late eighties. Supply has been relatively unaffected by changes in the market with a steady upward growth.

Demand has been intriguing because it should have been the mediator of wages in this market. Relatively flat earnings growth in light of shortage level vacancies (see Figure 6-4) is not consistent with normal labor market corrections in commonly accepted theoretical models of derived demand. Because demand is employer reported, there is perhaps a spurious nature to its accuracy. The paradox of increasing supply and increasing demand has only compounded the interaction with wages.

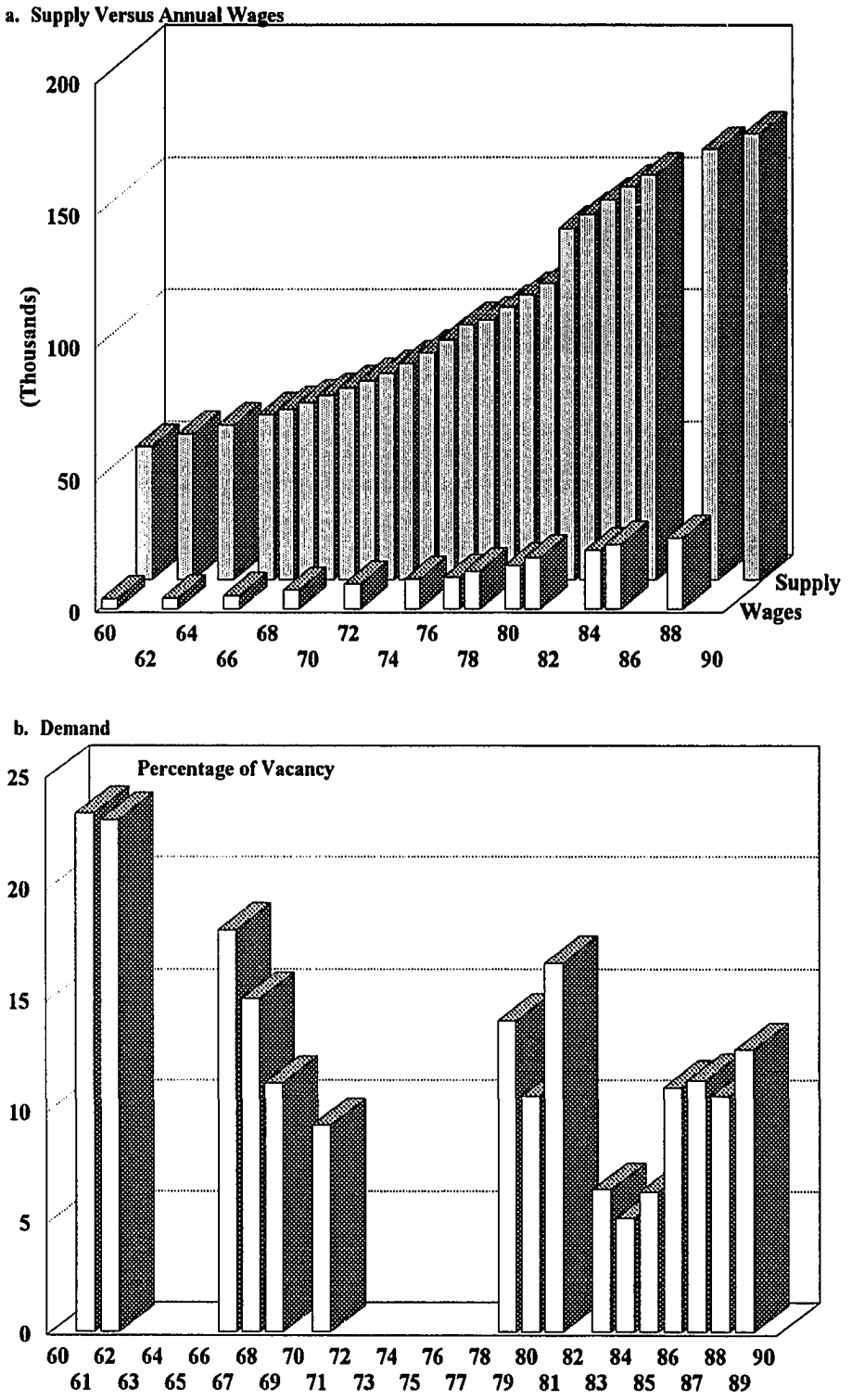
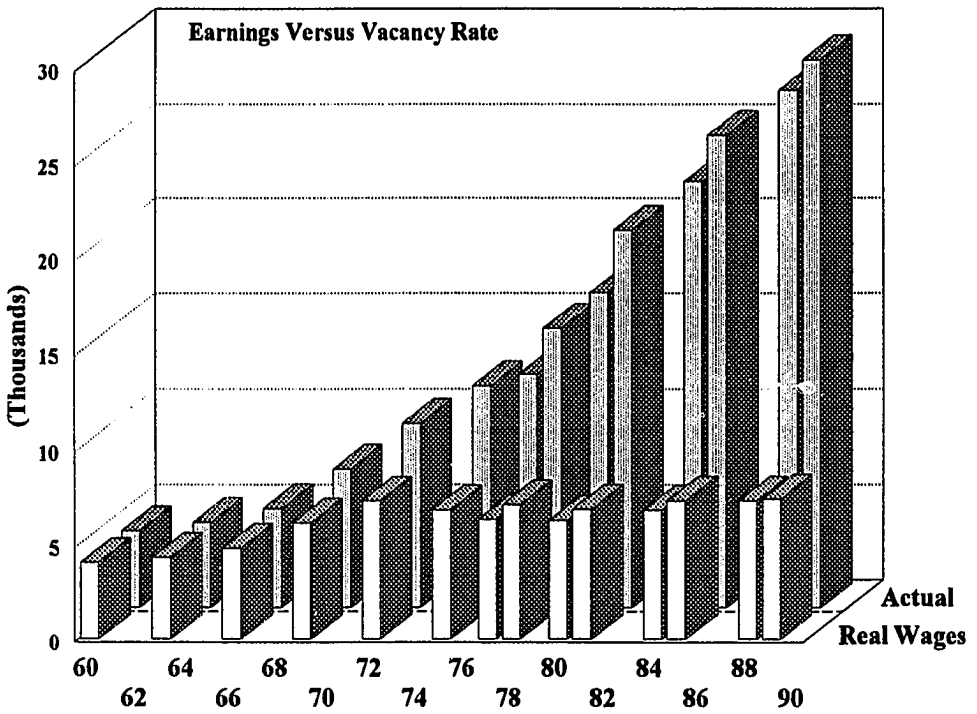


Figure 6-3 Supply-Demand-Wage Analysis

a. Actual versus Real Wages



b. Vacancy Rate

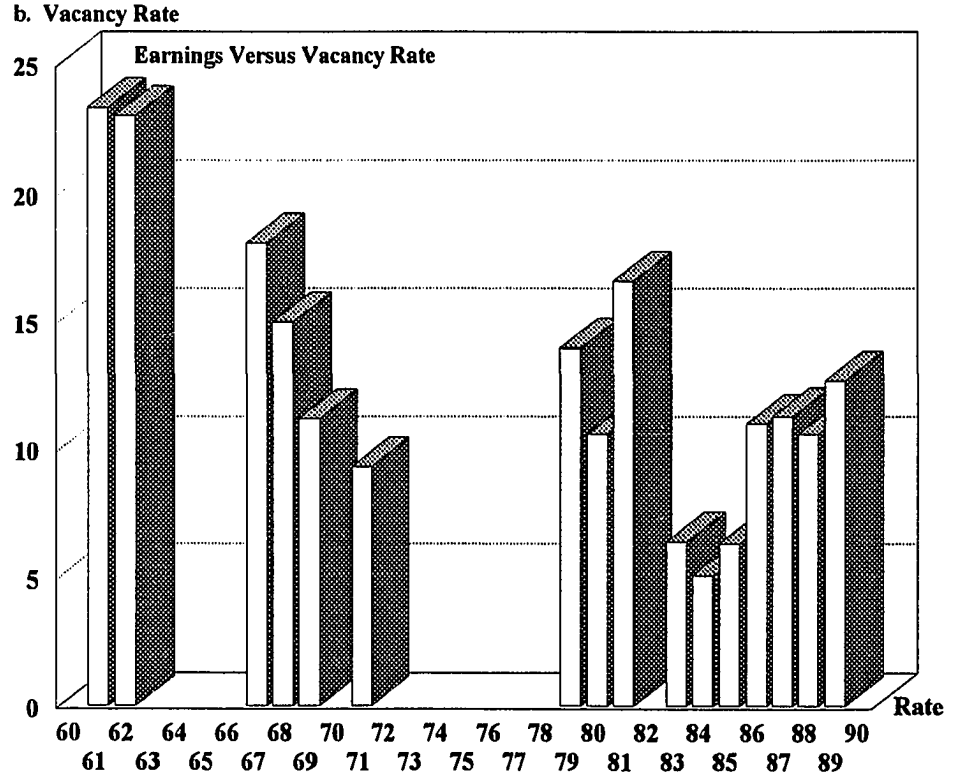


Figure 6-4 Earnings Versus Vacancy Rate Actual and Real Wages

References in the literature consistently pointed to nursing as inadequately compensated with insufficient gains in comparison to reference groups, e.g., teachers. Studies conducted over the course of the study period did not always support the same conclusions. When the findings in this study are compared to these classic economic studies, several items stand out. Several researchers claimed wages have a significant impact on the number of nurses supplied. These studies supported the thesis that increasing nursing wages would increase the number of hours worked including movement of inactive workers into the active work force.[2] Bishop, in 1973, proposed that the elasticity or responsiveness of the market bore attention in short-run supply planning. Due to the recognized elasticity, with respect to wages in these studies, Sloan and Richupan strongly supported increasing salaries as much more cost effective than investing large dollars into creating greater numbers of new graduates from the educational pipeline. Only one major study found no link with wage adjustments.[3]

Benham, Ezrati, and Sloan and Richupan also found a negative relationship to high spouse/household income and labor force participation by nurses. The question of children in the home received some attention, but studies varied on reported effects.[4]

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[2]Saad A. Hassanein, "On the Shortage of Registered Nurses," Nursing and Health Care 12 (March 1991). Linda H. Aiken, "The Hospital Nursing Shortage. A Paradox of Increasing Supply and Increasing Vacancy Rates," Western Journal of Medicine 151 (July 1989). Frank A. Sloan and Somchai Richupan, "Short-run Supply Responses of Professional Nurses: A Microanalysis," The Journal of Human Resources 10 (1975). Christine E. Bishop, "Manpower Policy and the Supply of Nurses," Industrial Relations (February 1973). Lee Benham, "The Labor Market for Registered Nurses: A Three-Equation Model," The Review of Economics and Statistics (August 1971).

[3]M.F. Bognanno, J.S. Hixson, and J.R. Jeffers, "The Short-run Supply of Nurse's Time," The Journal of Human Resources (Winter 1974): 74.

[4]Benham, "The Labor Market for Registered Nurses," found a positive relationship with children in the home. Janet Bostrum Ezrati, "Labor Force Participation of Registered Nurses," Nursing Economics 5 (March-April 1987) also found a positive relationship. Bognanno, Hixson, and Jeffers,

Hassanein, in a recent study of the labor market, concluded that prior studies did not adequately or consistently address both supply and demand sides of the market. He advocated strongly that a systematic macroanalysis of the registered nurse market should be conducted.[5]

Historical review of the nurse labor market has provided the opportunity to examine events over time, make inferences, and draw conclusions. It is clear that changes in health care financing and changes in the U.S. economy have affected the compensation, supply, and demand of staff nurses. Fluctuating reports of expressed demand for nurses and professional efforts to improve wages and working conditions have not had as profound effects. A summary time line (see Figure 6-5) allows a look at some of these events.

Limitations

The availability of data bases that provided a reliable trend line was less than desirable. Unfortunately, this resulted from lack of coordination of data collection methods among organizations interested in nurse manpower.

Methods organizations used to collect data and conduct surveys were inconsistent, and consequently the ability to compare information over time was lost. Thus, the time series of salaries constructed for this study was done so with minimal data points. The nurse labor market, although studied in the aggregate, is complex with many

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"The Short-run Supply of Nurse's Time," found no relationship.

[5]Hassanein, "On the Shortage of Registered Nurses."

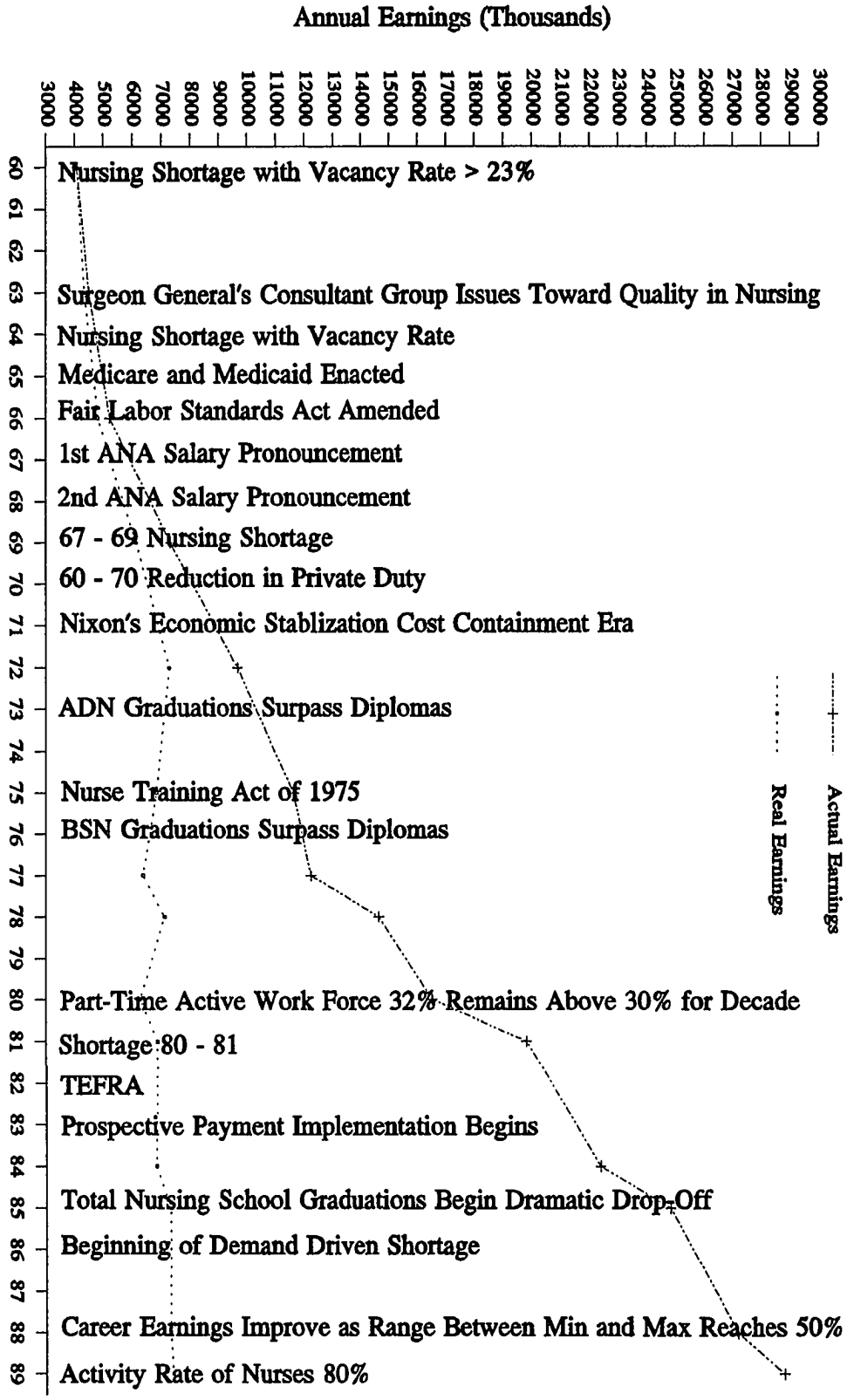

Figure 6-5 Summary Time Line

submarkets that could not be represented in this study or probably any other similar study.

The complexity of the nurse labor market added a challenge to interpretation, analysis, and synthesis of data in this study. The labor market model is not without question by experts and rarely operates perfectly in theory. Changes in the industry were great during the study period, as were changes in the profession. Sociological, economic, technological, and professional changes all interacted in a dynamic industry such that interactive effects were bound to have occurred although they were not separable or perhaps even decipherable. As hospitals now anticipate sweeping health care reform changes in the United States, they can neither brace themselves nor forecast with certainty what the future brings.

Implications

The implications of this study relate to desired national policy changes affecting nurses and the delivery of hospital nursing services as well as health care in this country. The nursing profession cannot address policy needs in a vacuum but must forge partnerships with public and private groups to secure support to accomplish desired outcomes.

Policy implications lie in five areas: data collection, labor market analysis, redefining demand, wage adjustments, and stabilization of supply stream. Each will be addressed briefly.

Standardization of data collection about the registered nurse work force stands out as an important means to respond to changes in the nurse labor market. The Project HOPE study conducted for the Health Resources Services Administration was significant and corroborated the problems with national nursing data sources. Conclusions from the HOPE study were clear that a national minimum data set for the nurse labor market is imperative. The research herein reported the need for a nurse labor force minimum data set. Coordination of funding efforts as well as planning must occur between public and private interests in order to address the issues and make the data set a reality.

In addition to standardization of currently collected data, the minimum data set should address other measures of compensation such as overtime, differentials, special pay, and benefits such that adjustments to real wages and benefits can be calculated on an annual basis. A more complete data base about nurses is essential for accurate policy planning and decision making.

The registered nurse as staff nurse is a critical component in today's health care delivery system. It is crucial to establish an accurate model for the nurse labor market. Existing studies contradict one another while both leaders of the profession and representatives of the federal government attempt, over and over again unsuccessfully, to correct the market's problems. Rather than merely lobbying for renewed federal support for education, perhaps a renewed effort to conduct research that explains and directs necessary changes in supply, demand, and wages would be more beneficial to nursing and the public.

Following closely with labor market analysis is the need to redefine demand for nurses' services and the method for quantifying the measure. Redefining demand for the future, an activity that is shaping industry changes today, will affect education and practice in the short term, and the profession's research foci in the long-term. Future scenarios must be studied to determine the need and demand for nurses in hospitals as well as other settings as health care becomes a precious service sold to consumers. Nurses have traditionally supported the delivery of illness care by concentrating the work force in hospitals. Moving toward the twenty first century, nurses must consider how the work force will be used to actualize a long-standing commitment to wellness, health promotion, and health care reform.

The standard industry measure of hospital vacancy rates is inaccurate and inadequate. Vacancy rates fail the industry, the profession, and the public when trying to correct problems beyond the local employer. A standard method of measurement is needed that will be easy to calculate, consistent over time, and meaningful to local and national markets.

To accomplish nursing's long standing goals of improving autonomy in practice and improving quality of care, it is important to study once again the linkages of economics and standards of practice. Roles and rewards must be futuristic and protect the contribution the professional nurse makes to providing hospital nursing services and health care. Members of the profession must exert pressure to implement changes that will force wage adjustments, particularly for experienced workers, not new entrants. New entrants already enjoy a competitive entry salary commensurate with

education, whereas wage compression for nurses with experience hinders retention efforts and limits economic rewards for some of the most productive workers.

Improving benefits should be a goal to enhance retention and meet workers' needs. Nurses have already joined forces with other groups to lobby for improved benefits, such as family leave provisions.

The supply stream of nurses must be considered given the interaction of variables in the market place. If other changes occur that affect demand and wages, supply also should change. As demand is redefined or reconceptualized, educational institutions will have to respond accordingly. Nurses in the active labor pool may need to select or alter their work patterns. If the role of the hospital staff nurse becomes one limited to coordination and management of care, then fewer positions will be required. Nurses seeking hospital employment will need to be educated with a strong management focus and less emphasis on psychomotor skill performance. Nurses already working in the hospital will have to choose between patient care management and delivery of direct patient care. Nurses wishing to remain active in direct patient care may elect to change their practice setting to one offering a care giver role.

The part-time work force must also be examined as a microcosm of workers affecting the total pool of labor. Leaders in the profession must determine if, in fact, maintaining a significant proportion of part-time workers enhances or detracts from delivery of care and act on those findings.

All of these desired outcomes are intimately tied to the uncertainty of national health care policy. Future changes in health care financing will certainly affect the

market for registered nurses. Policy analysis should help forecast the impact of decisions made by bureaucrats and legislators. Health professionals have a duty to protect the public, as well as a responsibility to seek solutions to effect long-term stabilization of the nurse labor market. The profession's efforts must seek a healthy balance between reforming the health care system and acting as advocates for consumers and acting as advocates for nurses, their economic status, their control of practice, and the continual professionalization of nursing.

Recommendations for Further Study

The policy implications of this study quite naturally lead to identifying areas for further research. Devising and testing a new economic theoretical model, or refining and/or revising an existing model for the nurse labor market would assist nurses, economists, and policy makers to understand the movement and performance of the market. An improved model would also aid in predicting and forecasting more accurate estimates of nurse supply and demand.

Explaining the existing nurse labor market also requires study of retention factors that account for the high labor force participation rate, low attrition, and willingness to accept seemingly low wages. These conditions have been associated with prohibiting market accommodation to an equilibrium where wages rise to correct fluctuations in demand and supply.

The current work force reflecting changed demographics must be studied. Today's nurse is older, and with the influx of second career students, it is important to assess

the composite of older workers. Not only will it be important to study the number of years they will spend in the active work force, which is important for supply stream estimates, but it also may be helpful to look at the pattern of educational preparation and career movement across settings and roles.

Evidence in this study suggests the need for a new characterization and measure of demand for nursing. The existing demand data (vacancy rates) are spurious and often ignored. Research is needed to identify an accurate measure that is acceptable, easily understood, and easily reported by nurse administrators and employers.

Study of the nursing minimum data set for the work force must include measures that will capture all earnings. Straight time earnings may not nearly approximate total pay when such items as overtime, differential, bonus, and special work plans are factored into the total. The data set must also profile workers accurately, eliminating duplication of information and reflecting all work sites, patterns of work, actual hours worked versus paid, and total dollars considered compensation. The ANA and other appropriate nursing organizations should work jointly to collect and evaluate the data with the Division of Nursing, Department of Labor, and other groups that will identify and recommend policy implications.

Alternative Choices for the Profession

The nursing profession can create an agenda for systematically correcting the nurse labor market problems. The solutions may appear controversial, contradictory, and perhaps unpopular. Some may be unacceptable to many nurses and leaders in the

profession. What is certain is that any solution requires collaboration and compromise on the part of nurses in both academic and service settings.

The nursing profession's most powerful solutions lie in manipulating the market forces within the profession's control so that the labor market operates more freely and nurses set their price. The following scenarios are proposed for consideration by the profession.

Differentiated Wages

For years there has been interest in effecting a differential in pay for nurses with more education as well as differentiating the role by educational preparation. An immediate step could be taken to place nurses on different pay scales based on academic credentials. The licensing examination process would be changed immediately to offer a separate examination for nurses graduating from baccalaureate programs. The professional literature and Association positions have supported differentiated practice for many years; the regulatory agencies must respond to this call for a second examination.

Redefine the Role of the Nurse in the Hospital

The continued high demand for hospital staff nurses with seemingly low wages suggests a low purchase price for the registered nurse. Repeatedly, the nurse has been used to substitute for other lower paid workers. The trend is clear. A practice model staffed with master's and baccalaureate prepared nurses should predominate in the

hospital setting. There must be a redefinition of the role of the staff nurse in the hospital to one of patient care manager. The nurse who assumes the care manager position would be baccalaureate prepared, and direct patient care providers would be technically prepared. The master's prepared nurse would manage patient outcomes and use of resources within the larger health care system. The number of baccalaureate staff nurse positions would decrease by at least 50% of current staff nurse positions, shifting the other positions to direct care giver roles, thereby reducing supply and allowing wages to equilibrate at a higher level. The result would be a redefinition of demand for a better educated and more expensive worker. The other benefit would be a reduction in total labor costs to the employer when wage deflation occurs for the work force of technical workers.

Shutting Down the Supply Stream

A more dramatic approach might be to schedule the closing of a specified number of baccalaureate degree programs to constrain the influx of new entrants. The number of programs remaining would be sufficient to produce an estimated annual supply of graduates to fill patient care manager roles. Associate degree programs would no longer produce nurses to assume the full scope of nursing practice as carried out by individuals with baccalaureate degrees. Associate degree programs would either close or modify their curricula to prepare a more cost effective technical worker for the hospital. The new technical care givers would be supervised by the baccalaureate prepared nurse. By shutting down the supply stream of baccalaureate nurses and

eliminating the equivalent position of the associate degree nurse, employers would need to meet a redefined demand for the new baccalaureate prepared nurse role. With this new demand held constant, but with a decreased supply, wages would rise; eventually long-term demand would be reduced.

Internship Model

An ongoing goal for nursing's economic agenda has been to boost lifetime earnings. One way to accomplish this goal is to upset the balance in wages by paying less for the entry, unseasoned and unskilled nurse. A one- to two-year internship requirement, during which the new graduate nurse learns to provide services in the role of patient care manager, with a salary more commensurate with a novice, would allow greater flexibility for the employer to funnel personnel dollars to workers with more experience, thereby alleviating some of the wage compression of staff nurses. Competition for experienced workers would then replace competition for entry level workers.

An alternative method to accomplish the same outcome would be to place a moratorium on raising entry wages and to restart the hiring scale with a decreased number of positions for staff nurses. In this system, wages for experienced workers would be increased, and entry wages would be deflated to a level commensurate with other professions requiring a baccalaureate degree for initial employment. This approach is similar to changes made in the airline industry when pilots' salary scales were altered to save a failing industry.

Limiting Supply by Attrition

With the aging of America's nurses, it may be possible to forecast a phase-out of staff nurse positions as nurses begin to reduce their hours due to age. As more nurses retire, the estimated FTEs for hospital staff nurses could be reduced. The same result of decreased supply with demand held constant would be achieved with equilibration at higher wages.

Because so many nurses are already working, simply calling for increased wages will potentially reduce the demand employers are willing to meet. It is already established that shifting demand to a higher level causes employers to continue to hire more nurses at the old wage rate, creating dynamic shortages. Increased wages have not resulted in eventual equilibration with a smaller supply. Greater demand has resulted in small wage increases as well as continuously increasing supply. In order for the nursing profession to exert some control over this paradox, the most likely point of attack is on supply stream, but in the opposite direction than has been the approach in the past. If accompanied by redefinition of role and demand, this is achievable.

Any number of ideas proposed here could be used in combination to achieve desired results. Some ideas build systematically and might better be placed as points within a constellation of activities that map the future of nursing education and preparation of tomorrow's work force. The political casualties, however, within the nursing profession would be innumerable and expensive to bear. Nursing leaders must

be willing to take risks and find themselves in unpopular positions in order to remedy decades of unresolved problems within the nurse labor market.

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