

2006

P R A C T I C E

Acute Care Registered Nurse Retention and Satisfaction Study

Sponsored by The Nursing
Institute of West Central Ohio



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Western Ohio Research Consortium

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The Center for Urban and Public Affairs (CUPA) at Wright State University (WSU) is one of eight centers of excellence comprising the Ohio Urban University Program (UUP). The UUP links the resources of member universities to improve the state's urban regions. This 25-year partnership is unique in the nation. The State of Ohio through the Ohio Board of Regents' (OBOR) programs funds UUP institutions. State funds received by WSU are matched 3-to-1 by WSU resources and through contract research.

The Center for Urban and Public Affairs (CUPA) would like to thank the following students and Nursing Institute Advisor for their efforts and contributions making it possible to complete this research:

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Chapter One: Health Care Industry Patterns and Trends

Introduction

The field of nursing has experienced great instability over the past years. The reality is that there is a national nursing shortage, which will intensify as baby boomers continue to age. According to the American Hospital Association's June 2001 *TrendWatch*, hospitals reported 126,000 vacant positions in nursing. Today, three-quarters of all hospital vacancies are for nurses (American Hospital Association).

According to the National Sample Survey of Registered Nurses, even though the total population of registered nurses has increased from 2,558,874 in 1996 to 2,696,540 in 2000, it was the lowest increase (5.4 percent) reported since the survey began in 1980 (U.S. Department of Health and Human Services). Future trends also reveal a sobering picture. According to a 2002 study conducted by the United States Department of Health and Human Services, there will be a national shortage of 808,000 registered nurses by the year 2020 (Journal of the American Medical Association). The American Association of Colleges of Nursing reports that even though enrollment trends have consistently increased for the past five years, the federal government still projects a national shortage of 800,000 registered nurses by the year 2020 (American Association of Colleges of Nursing). Institutions of higher learning have struggled to attract, train and develop a qualified nursing workforce that will meet the growing needs in the profession. The end result has been a chronic shortage of RNs.

The state of the nursing shortage at the national level only provides an overall picture of the crisis. Each state, however, has its particular experience with the nursing shortage. In Ohio, the demand for healthcare services is also growing at an exponential rate, far outpacing the supply of healthcare practitioners. For example, in 2005, the supply of nurses was 89,288 while there was a demand for 94,204 nurses. This translated into a 5 percent shortage (Ohio Hospital Association).

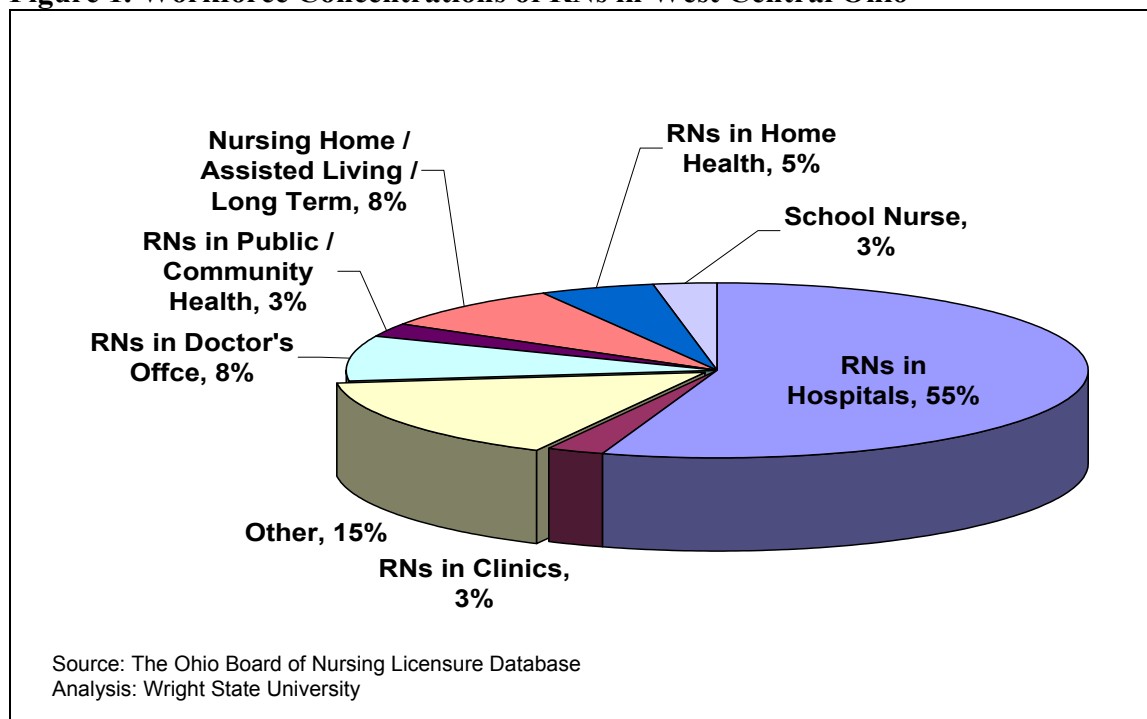
The root causes of the nursing shortage are multifaceted and range from increased employment opportunities for women to discontent with the nursing work environment. According to Heather Laschinger et al., satisfaction with the workplace environment affects employees' performance and commitment. What could be some of the root causes of this trend? Scholars have observed a number of factors that affect the level of RNs on the supply side.

Reasons more Nurses are needed in Hospitals

More Career Options for Women

One of the causes of the shortage can be traced to the more diverse career choices that women have. In the past, the nursing profession was a natural career choice for women because of societal values about a woman's role. Professions such as nurse, teacher, and social worker were predominantly occupied by women. Today, women's career options have widened to formerly male-dominated fields such as engineering, medical doctors, scientists, college professors, etc. Registered nurses have the option to work in many places (e.g., hospitals, pharmaceutical companies, health insurance companies, home health care, nursing homes/assisted living/extended care, public/ community health, universities/colleges, and schools, as some examples). *Figure 1* indicates the employment options for RNs in West Central Ohio. Over half of the nurses (55 percent) work in hospitals, which is significant because West Central Ohio has already reached the national estimate for the proportion of nurses working in hospitals in the year 2012. The Nursing home/assisted living/long-term and doctors' office categories each represent eight percent of the workforce. Registered nurses in home health represent five percent of the nursing workforce.

Figure 1. Workforce Concentrations of RNs in West Central Ohio

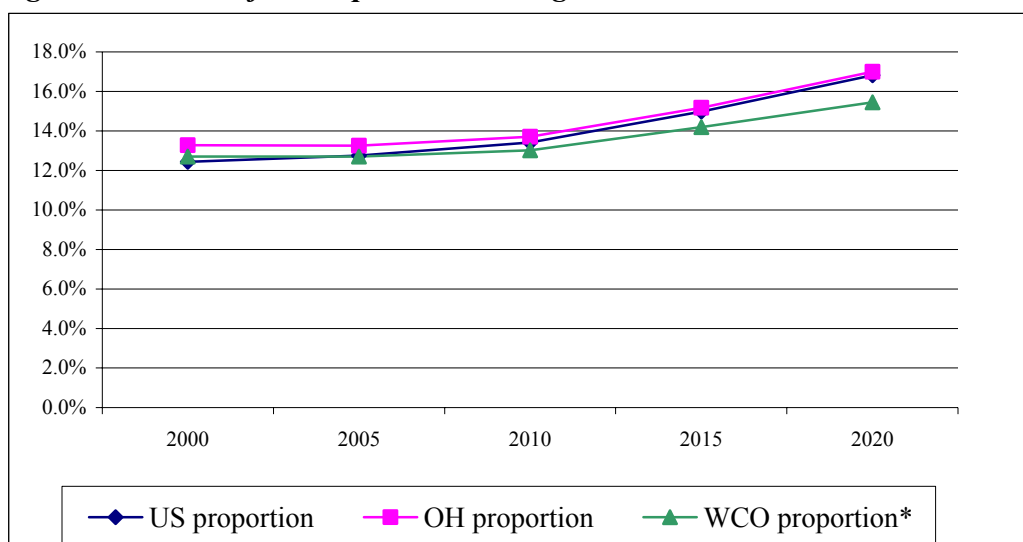


Change in Demographics – Aging Population

On the demand side, demographic changes combined with varying economic factors and a dynamic healthcare operating environment have exacerbated the need for nurses. The demand for healthcare services has significantly increased over the past decades. Some of the demographic changes in Ohio include an aging population (see *figure 2*). *Figure 2* reveals that the proportion of people 65 and over has increased nationwide. The state of Ohio has a greater proportion of people in that age bracket. The median age in Ohio is nearly one year older than the national median age of 35.3. In addition, the Dayton region has one of the oldest median ages in the state, preceding both Cincinnati and Columbus (36.6, 35.0, and 33.6, respectively).

According to the Chief Nursing Officers in hospitals, the acuity level of an aging population (i.e., patient base) is one of the most critical challenges of the hospital work environment. *Figure 2* indicates that aging and acuity will continue to pressure the health care system.

Figure 2. Portion of the Population over age 65



Source: Census for US and Ohio data

*Source: West Central Ohio projections calculated by the Ohio Department of Development

Recruitment

Competitive Labor Market

The nursing shortage has had significant economic impacts on the region. One of the first impacts is an increase in recruiting costs, which will trickle down to patients in the form of more expensive healthcare services. Experts have already predicted that, in the Southwest Central Ohio region alone, more industries and health-related occupations will compete for nurses.

In addition, studies have shown that the nursing shortage can intensify nurse staffing challenges, which can lead to poor health services for patients. Communities facing a nursing shortage could possibly end up paying more for poorer healthcare services.

Another impact of the shortage is that available nurses in the workforce may become over-stretched resulting in burnout and early retirement. Consequently, the vicious cycle continues. Since healthcare is local, a local response to the nursing shortage is not only crucial for the economic growth of the region but also to the physical health of its citizens.

Educational Pipeline

- **Interest in Nursing**

The Nursing Institute of West Central Ohio's primary goal is to create what has been coined a "magnetic culture"¹ by making the region more attractive to RNs and by training more practitioners that will meet the growing demand for skilled professionals. The Nursing Institute plans to develop and support a regional marketing plan that portrays the West Central Ohio region as a desirable place to live and work. It is partnering with organizations such as the Dayton Development Coalition to formulate a regional marketing campaign.

- **Recruitment Initiatives/Summer and Pre-college programs**

A number of strategies can be used to augment the supply of nurses. Scholars have suggested that local universities and colleges should implement specific recruitment initiatives on targeted high-school campuses. These institutions could also organize summer and pre-college programs to introduce the field of nursing to selected high schools, returning and non-traditional students, and Historically Black Colleges and Universities (HBCU) graduates through pre-nursing courses, nurse aid certificates or licenses. During the summer sessions, current nursing students and RNs could mentor these prospective students from the beginning of their study until the end of their program. These new cohorts will experience first-hand the demands, challenges, and rewards of the field of nursing.

- **Website linking partner schools/Software to track students**

Another innovative idea is to create a website linking partner schools. The internet has made the world a virtual village. Institutions of higher learning could capitalize on this interactive tool to market their programs. In addition, they can design software that will track prospective students.

- **Opportunity - Number of Slots Available in nursing programs**

There is a problem of limited opportunities. A number of constraints on the nursing program, in the form of limited enrollment and retiring nurse educators, constitute a major supply-side problem. More specifically, the number of new licenses issued by the Ohio Board of Nursing indicates a severe decline over the last ten years. In 1995, there were 4,456 new RN licenses issued in Ohio. In 2003, there were 3,060, a disconcerting 31 percent

¹ Nursing Institute of West Central Ohio

decrease. Baccalaureate nursing enrollment in Ohio decreased 62 percent over the past six years. Among pre-licensure, RN-BSN, and Master's programs, the most common constraint to program expansion was the number of faculty. Furthermore, in pre-licensure programs, funding is another constraint across the board. Most of the West Central Ohio institutions of higher learning had to turn away a significant number of applicants (a total of 315) because of lack of space, insufficient faculty and clinical training sites.

- **Nursing Professionals to teach BS and MS courses**

In the past few years, there has been a move encouraging RNs to pursue higher levels of education and fill in the vacant positions of nurse educators. The root cause of this relatively new trend is that there is an insufficient supply of nurse educators available to teach incoming nursing cohorts. It is estimated that over the next five years, there will be a 6.6 percent net loss of faculty. The Nursing Institute plans to develop a regional campaign to recruit nurse educators. Through proper training and advanced education programs, qualified RNs will be able to teach prospective bachelor or master students in Nursing.

Retention

Experts on the topic have also suggested a number of retention strategies. Ultimately, the success of recruitment and retention initiatives rests in the hands of both academic professionals and healthcare institutions. Their collaborative efforts in recruiting students and attracting nursing professionals will prove effective, efficient, and vital for the profession in the long-run.

Recently, Deans of colleges of nursing expressed concern about the inadequate level of externships, pre-licensure programs, and the lack of internship opportunities available to nursing students. Even programs that have recently expanded their capacity reported that they faced challenges in placing students in clinical experiences, finding enough clinical preceptors, and managing with fewer faculty members.

Chapter Two: Method to Explore West Central Ohio Acute Care RN Retention Issues

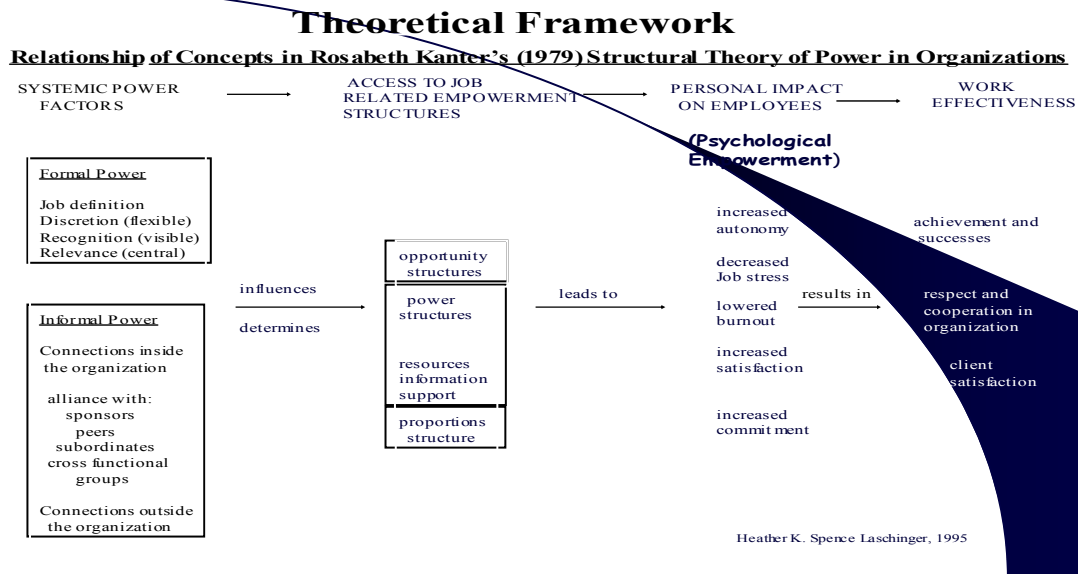
The Nursing Institute of West Central Ohio was established in 2004 to provide leadership and support for safe, effective patient care in a 16-county service area, including Auglaize, Butler, Champaign, Clark, Clinton, Darke, Fayette, Greene, Highland, Logan, Mercer, Miami, Montgomery, Preble, Shelby, and Warren counties. The vision of the Nursing Institute is to deliver a nationally recognized Nursing workforce that will provide safe, accessible, quality healthcare services. The Institute laid four primary goals as stepping stones to reach their vision: (1) recruiting high school graduates and college students to the Nursing profession, (2) educating and retaining students in degree programs, (3) retaining nursing professionals, and (4) providing professional development to the RN workforce.

Study Purpose

The purpose of this report is to examine the findings from four surveys of healthcare professionals designed to determine how workplace satisfaction affects retention among acute care registered nurses practicing in West Central Ohio.

Questionnaire Design

The survey instrument was designed by Wright State University’s Center for Urban and Public Affairs, in conjunction with the Nursing Institute of West Central Ohio. Multiple sources were referenced for the questionnaire development. The surveys were constructed based upon Kanter’s Theory of Workplace Empowerment as modified by Laschinger et al. to include psychological empowerment. Structural empowerment refers to the conditions nurses find in their work setting, such as opportunity, information, and support. Psychological empowerment is their response to these conditions, such as nurse confidence and autonomy. The impacts of positive structural and psychological empowerment are work behaviors and attitudes that lead to satisfaction, commitment, and low burnout, and result in increased work effectiveness.



In the second half of 2005, the Nursing Institute of West Central Ohio sponsored four surveys to gather information about workplace satisfaction and retention issues among West Central Ohio's acute care registered nurses (RNs). To elucidate satisfaction and retention challenges among acute care RNs, the four surveys implemented in 2005 focused on:

- The hospital workplace
 - (1) Acute care RNs
 - (2) Chief Nursing Officers (CNOs)/Directors of Nursing
- Academic settings
 - (3) Deans/Chairs of colleges and departments of nursing
 - (4) Nurse Faculty members

The surveys intended to discover differences in characteristics by geography, meaning rural versus urban locations for the hospitals and colleges/departments of nursing.

Research Questions

- I. Quantifying determinants of west central Ohio RNs' and CNOs' satisfaction and retention**
The research question for this section is: What are the determinants of satisfaction related to RN retention in acute care settings
- II. Quantifying determinants of West Central Ohio program constraints**
One research question for this section is: What are the determinants of satisfaction related to Nurse Faculty retention in urban and rural locations?
What other program constraints are limiting the number of RN enrollments?

Sampling Design

This study was conducted as a telephone survey of registered nurses (RNs)², a mail out survey to Hospital Nurse Administrators, a web-based survey to Higher Education Nurse Faculty, and a mail out survey to Deans of Nursing Colleges.

Sampling Design—RNs in Hospital Settings A random sample of 2,400 RNs was selected from the Ohio Board of Nursing licensure database. Each potential respondent was asked a set of screener questions to determine eligibility. The RN survey targeted RNs who practice in inpatient acute care settings. Acute care RNs were defined as RNs who work in settings that provide around-the-clock care seven days a week. These RNs provide direct care, more than 50% of their time, to patients as full-time, part-time, or support or reserve pool nurses.

Sampling Design—Chief Nursing Officers (CNOs) The study of chief nurse officers was conducted as a mailed survey to all 24 hospitals in the West Central Ohio collaborative. Fifteen (15) of the 24 CNOs responded.

² The survey was initiated as a web-based survey which proved to be too passive to be an effective method.

Sampling Design—Deans/Chairs The study was conducted as a mailed survey to all ten programs (i.e., colleges or departments of nursing). Two programs opted to not participate. The other eight (8) deans responded to this survey.

Sampling Design—Nurse Faculty Members The study was conducted as a web based survey to all 152 nurse faculty members in the nurse education programs in West Central Ohio. Half (48%) of the nurse faculty responded to the questionnaire.

Survey Implementation

Interviews with acute care RNs were conducted from October 1, 2005 to December 1, 2005 primarily Monday through Thursday, and Saturday and Sunday, usually between the hours of 9:00 a.m. and 9:00 p.m. Due to second and third shift work times, a toll-free number was made available to RNs so that they could arrange an interview time that would meet their schedule. Interviewers utilized a web based program to guide the interview. The web survey displayed the questionnaire on a computer screen which allowed the interviewers to enter the response directly into the computer. Such a system helps to minimize errors in gathering data.

A total of 479 acute care RNs in West Central Ohio were interviewed to obtain a 95 percent confidence level and a plus or minus 4 percent sampling error. A quota sampling method was used to ensure that a representative number of RNs from urban and rural hospitals was surveyed. The CASRO response rate for the RN survey was 25.5 percent with a cooperation rate of 52.4 percent.

Limitations

The assessment has several limitations. As with every survey, the primary limitation is that some people may refuse to participate in the survey, entering nonresponse bias. A second limitation of the study is that it is based on self-reported information. The survey included more than one question on important topics to test for internal consistency.

Chapter Three: Demographic Information

Demographic data were obtained to characterize the populations surveyed and to look for trends and patterns in responses. Tests for significant differences within the four populations—RNs, CNOs, Deans, and Nurse Educators—were explored using gender, age, education, employment, income, and residence.

Gender

The overwhelming majority of the RNs, CNOs, deans and nurse educators are women.

Figure 3. Gender Distribution

	Female	Male
RNs	97%	3%
CNOs	93%	7%
Deans	100%	0%
Faculty	97%	3%

Average Age

The figure below reveals that the nursing workforce is aging. The mean ages for both deans and faculty are close to the national averages for those groups (e.g., the national average age of Nurse Faculty is 51). The mean age for Acute Care RNs is 43.9 in West Central Ohio, while the national average age of Acute Care RNs is 41.8 years. The mean age of Chief Nursing Officers is 48.4. Leadership in hospital and academic settings is older in rural West Central Ohio than in urban counties. However, the Nurse Faculty in urban counties is substantially older than the rural counterpart.

Figure 4. Average Age by Cohort and Geography

	Urban	Rural	Total
RNs	43.9	43.9	43.9
CNOs	47.3	49.4	48.4
Deans	57.8	59.7	58.5
Faculty	51.4	46.3	50.0

Race/Ethnicity

The vast majority of RNs, CNOs, Deans, and Faculty are White, Non-Hispanic persons. This result is due in part to the influence of rural counties in the sample and due to the low number of people of color in the positions.

Figure 5. Race and Ethnicity by Cohort

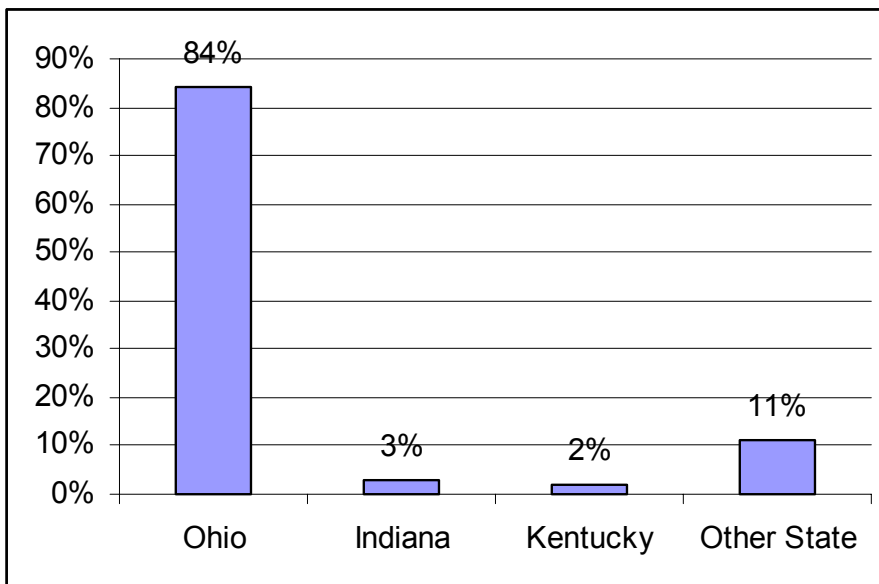
	RNs	CNOs	Deans	Faculty
White, Non-Hispanic	96%	93.3%	100%	93.2%
White, Hispanic	.2	6.7%		
Black, Non-Hispanic	2%			2.7%
American Indian or Alaskan Native	1%			4.1%
Other Race	1%			
Total	100.2%	100%	100%	100%

Education

The majority of the RNs have at least an associate degree. One out of five has a bachelor degree in nursing, while a much smaller percentage (3.3%) have a master degree. Over half of the Chief Nursing Officers have a bachelor degree. Most of the Deans also have a PhD. Nearly eight out of ten Nurse Faculty members have a PhD.

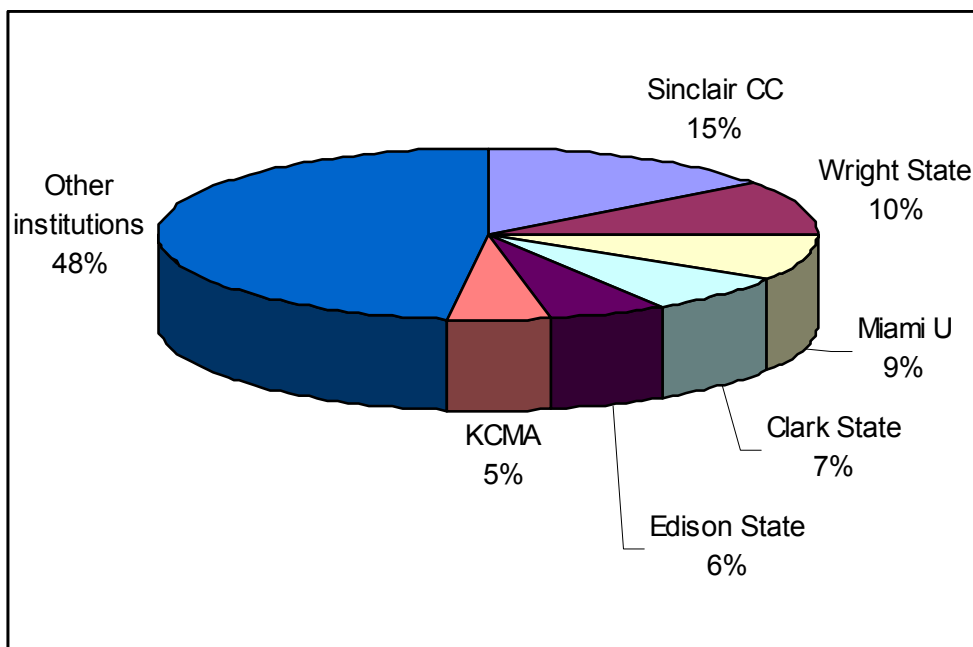
The Acute Care RNs were asked where they received their first nursing degree. Most RNs (84%) received their degree in Ohio, 5 percent received their degree from an adjacent state, and 11 percent received their first nursing degree from some other state.

Figure 6. States where RNs Completed their first Nursing Degree



Acute Care RNs were also asked to designate the college/university they attended from which they received education to qualify them to be licensed as an RN. A fair distribution in responses was given for schools in West Central Ohio, with the largest percentage receiving their education from Sinclair Community College (15%), Wright State University (10%), and Miami University (9%).

Figure 7. Institution where RNs receive Education



Employment

Nearly six out of ten RNs surveyed were full-time workers while the others worked part-time, per diem or were on contract. Almost one in five RNs (19.4%) has a second job. A cross tabulation of full-time worker with having a second job shows that 15 percent of full time acute care RNs have a second job, while 30.9 percent of part-time workers do.

Among faculty members, 86 percent of the faculty surveyed worked full-time while the other 14 percent were adjunct faculty (i.e., 10 faculty members). Of the 73 Nurse Faculty interviewed, 41 percent or 30 faculty members have a second job, meaning that 20 of the 30 Nurse Faculty with a second job are full-time faculty.

Overtime Work

Overtime work is strictly voluntary in 11 of the 15 hospitals, however, three hospital administrators state that *overtime is voluntary, but it feels like it is required*. One other hospital administrator said that overtime is a *mixture of voluntary and required*.

Income

More than half of the RNs earned less than \$45,000, with the mean wage range being \$45,000-\$50,000. All but two hospital CNOs report increased wages for RNs annually over the past three years. The income of Chief Nursing Officers was significantly higher than that of RNs and Nurse Educators, starting at \$80,000, with half of them earning between \$100,000 and \$125,000. On the academic side, administrators earned an average salary range of \$70,000 to \$80,000. The average salary range for Nurse Faculty was \$50,000 to \$55,000.

Place of Residence and Place of Work

Overall, the majority of the populations surveyed lived in an urban setting. Half of the nurses surveyed lived in an urban county. Four out of ten chief nursing officers (CNOs) live in an urban county while a little over half lived in a rural county. Nearly two out of three deans lived in an urban setting. Nearly half of all faculties lived in an urban setting.

Figure 8. Place of Residence and Place of Work by Cohort

	Urban Residence	Rural Residence	Urban Work Place	Rural Work Place
RNs	48%	48%	64%	31%
CNOs	40%	53%	47%	53%
Deans	63%	13%	63%	38%
Faculty	48%	40%	66%	29%

*The balance of respondents live or work outside of the West Central Ohio study area.

Health and other Benefits

Hospitals provide a full range of benefits to their full time employees, with all 15 hospitals providing each of the following benefits, except in the case of vision care, where 14 offer that benefit, and child care subsidies where only two offer that benefit. The one hospital that does not offer vision care is a rural hospital. The two hospitals providing child care benefits are urban hospitals. The responses regarding the provision of benefits to part-time employees follow the same pattern as that for full-time employees.

- | | |
|---|--|
| <input type="checkbox"/> Health insurance | <input type="checkbox"/> Sick leave |
| <input type="checkbox"/> Continuing education | <input type="checkbox"/> Tuition reimbursement |
| <input type="checkbox"/> Vacation | <input type="checkbox"/> Vision insurance |
| <input type="checkbox"/> Dental insurance | <input type="checkbox"/> Child care subsidy |
| <input type="checkbox"/> Retirement | |

Unionization

Unions are organized at five of the 15 hospitals. When posited with the statement, “Unionization of nurses is having a positive effect on the nursing profession,” 13 Nurse Administrators strongly disagreed with the statement, one disagreed, and one was neutral. When posited with the statement, “Unionization of nurses is having a negative effect on the quality of patient care,” 4 strongly agreed, 3 agreed, 3 disagreed, 1 strongly disagreed, and 4 were neutral.

Chapter Four: Retention

The focus of the survey and data analyses is on RN satisfaction and retention issues. The results underscore the importance of the Nursing Institute's focus on RN retention and practice environments. Generally speaking, in the hospital workplace, contentment with the work environment is the strongest predictor of worker retention. And in the hospital and academic work settings, contentment with the work environment is highly correlated with satisfaction.

The questionnaire, based on Laschinger's survey, operationalizes to some degree the Kanter/Laschinger Model presented in Chapter Two, which basically relates elements of satisfaction and work effectiveness. These elements will be further explored, compared, and contrasted in the remainder of this report.

- Systemic power structures—formal aspects of recognition and relevance and informal connections with peers and groups
- Job empowerment structures—resources, information, and support
- Personal impacts—satisfaction and commitment

Formal and Informal Workplace Structures—in the Hospitals

The Acute Care RN Perspective

A substantial percentage of RNs (21.5%) believe that their employer places little value on the work they do—an aspect of worker perception of relevance, and an important aspect of *systemic power factors* in the Kanter/Laschinger model. Receiving recognition is another important aspect of systemic power, and almost one-third of local RNs (30.9%) say they do not receive support for obtaining rewards and recognition for a job well done, while 51.6 percent do. Furthermore, just over one-third (36.3%) receive rewards for a job well done and 45.5 percent do not (18.2% were neutral on this topic).

Informal connections with peers, subordinates, and cross functional groups are essential elements of workplace power structures that influence work effectiveness. While two-thirds of RNs (64.8%) say that their primary reason for staying in their current position is that they have a supportive work environment, almost one in five RNs (17.7%) say they *do not receive help in gaining access to people who can get the job done*. And two in five RNs (39.9%) say that they *do not have the chance to work together closely with their boss*.

The CNO Perspective

There certainly appears to be a disconnect in administrative perspectives of the formal and informal structures of the hospital workplace, as Chief Nursing Officers (CNOs) perceive that one of the pluses of the workplace is recognition for a job well done (12 of 15 CNOs report this), and that in their hospitals there are excellent working relationships between nurses and management (10 of 15). Other administrative perceptions of the hospital workplace include: excellent working relationships among nursing personnel (12), excellent working relationships between nurses and physicians (10), and excellent opportunities for professional development

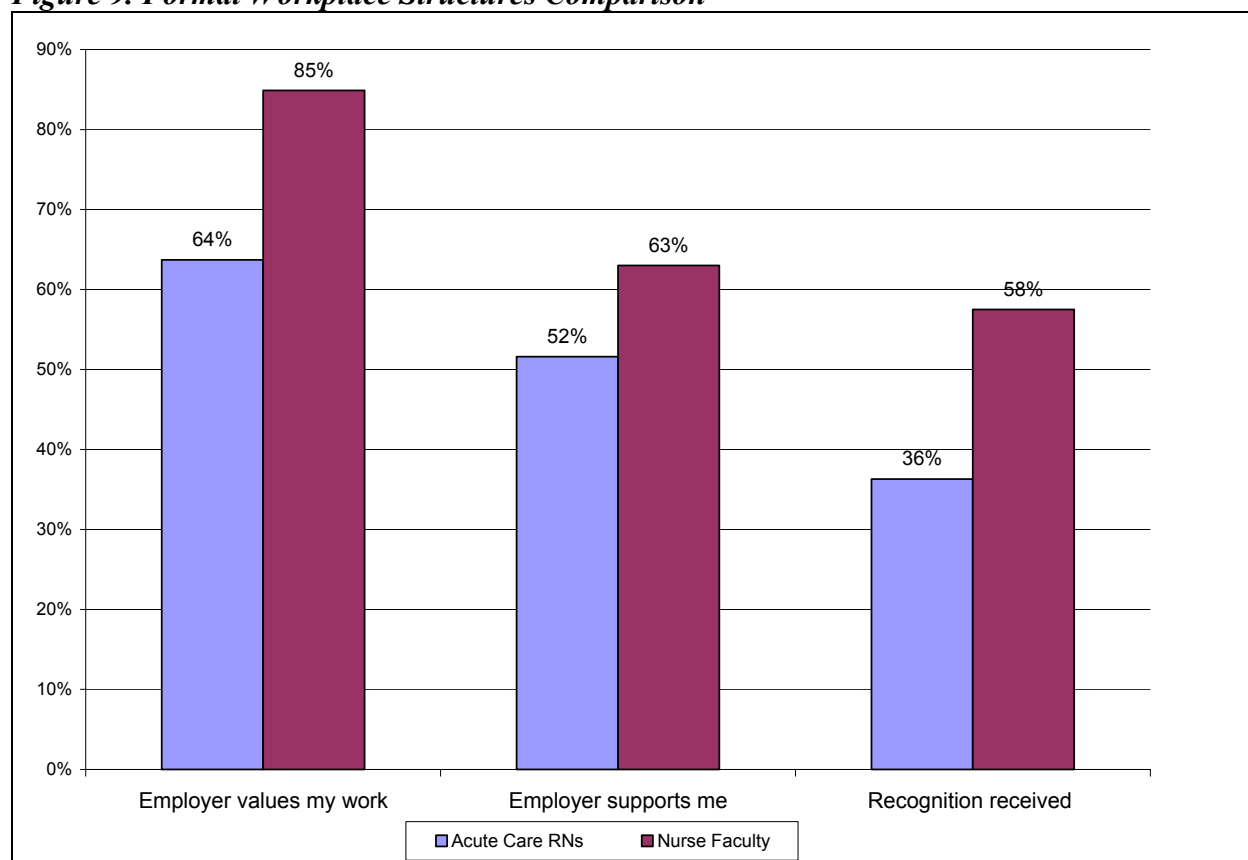
and advancement (13). On the other hand, 11 of the 15 CNOs perceive that limitations in the number of RNs result in insufficient time for nurses to collaborate with other team members, which is an essential element of the informal workplace.

Formal and Informal Workplace Structures—in Higher Education

The Nurse Faculty Perspective

Formal structures in higher education appear to be more supportive than those in hospitals, according to the RN workers in those structures. Most Nurse Faculty (84.9%) also perceive that their employer places value on their work, with 9.5 percent perceiving otherwise. Among faculty, recognition seems to be more pervasively received than among RNs in hospitals. Survey results show that 17.8 percent of Nurse Faculty do not receive support for obtaining rewards and recognition for a job well done and 63 percent do. Fully, 57.5 percent receive rewards for a job well done.

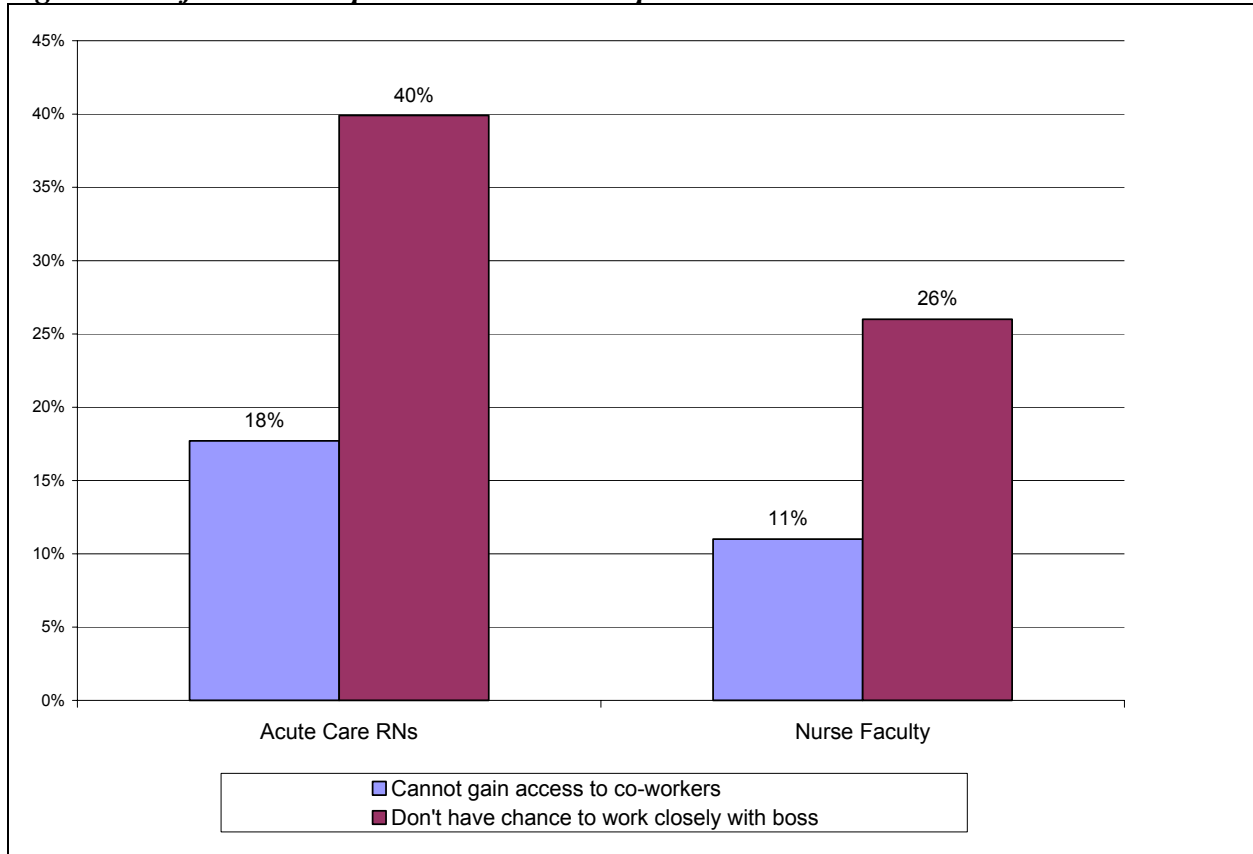
Figure 9. Formal Workplace Structures Comparison



Informal workplace structures are somewhat stronger in higher education than in hospital settings, as 73 percent of all Nurse Faculty say their primary reason for staying in their current job is because they have a supportive work environment. Connections among peers, groups, and management are the centerpiece of a supportive work environment. About two-thirds as many

Nurse Faculty as RNs report weak support structures. For example, one in 10 Faculty (11%) say they *do not receive help in gaining access to people who can get the job done*, and one in four say they *do not have the chance to work closely with their boss*.

Figure 10. Informal Workplace Structures Comparison



The Dean Perspective

Administrators of Colleges and Departments of Nursing were asked questions similar to faculty. Survey results show that most Deans/Department Chairs perceive that they are valued (only 1 Dean dissented) and *receive support for obtaining rewards and recognition in their jobs* (5 of 8, while 1 refused, 1 was neutral, and 1 dean does not receive support). In response to the statement, *I get rewards for a job well done*, again 5 deans agreed, 1 was neutral, and 2 deans disagreed. In most cases, Deans and Nurse Faculty perceive formal structures of recognition and relevance similarly. They perceive informal workplace structures similarly too; for example, 5 of 8 Deans have the *opportunity to work closely with their supervisor*.

Job Empowerment Structures—in the Hospitals

The Acute Care RN Perspective

Job empowerment structures in the Kanter/Laschinger Model essentially comprise resources, information, and support. The survey addressed resources such as having sufficient *time to accomplish job requirements*. Most Acute Care RNs (57.2%) perceive that they are given sufficient time to accomplish job requirements; however, 29.2 percent do not appear to have sufficient time, and completing paperwork in the time available is a challenge for over 40 percent of all RNs. Most RNs perceive that they receive specific information about things they do well (55.9%) and about how to do their job better (62.2%); yet 34.3 percent and 26.5 percent of RNs, respectively, have unfavorable perceptions regarding their access to information. Furthermore, 38 percent of RNs report that they *do not have access to information about the values of top management*.

The CNO Perspective

CNOs perceive that their RNS have access to appropriate equipment (13 of 15 CNOs), and training and education to use new technology (11). However, CNOs are concerned about the amount of time nurses have to carry out physician orders (10 of 15) and the amount of time nurses have to devote to each of their patients (11 of 15).

Job Empowerment Structures—in Higher Education

The Nurse Faculty Perspective

Nurse Faculty and RNs have similar views about the lack of time to accomplish job requirements. Most Nurse Faculty (53.4%) perceive that they have sufficient time to accomplish job requirements; however, 24.7 percent do not. Another 35.6 percent of Faculty do not have sufficient time to do necessary paperwork. Most Faculty perceive that they receive specific information about things they do well (63%) and about how to do their job better (75.3%); yet 23.2 percent and 16.4 percent, respectively, have unfavorable perceptions regarding their access to information. Only 12.3 percent of Nurse Faculty report that they *do not have access to information about the values of top management*.

The Dean Perspective

Deans' responses to questions regarding resources are similar to Nurse Educator responses. Specifically, most Deans perceive that there is time to accomplish job requirements (5 of 8 with 2 dissenting). Yet 5 of 8 say there is not ample time available to complete necessary paperwork.

Satisfaction and Commitment

The Acute Care RN Perspective

Among RNs, four predictors were identified as having a significant correlation with satisfaction in one's position. Being happy with the current environment has the most influence on satisfaction, followed by providing quality care and getting rewards for a job well done. As expected, employers do not value the work done by nurses, their satisfaction decreases. In

addition to these results, contentment with the work environment is very strongly correlated with plans to remain with or leave the employer. Over 63 percent of RNs who are discontent with the work environment plan to leave their employer within three years, as opposed to only 17.4 percent who are happy with their current environment.

Figure 11. Predictors of RN Satisfaction

Important Predictors of Satisfaction	Coeff.	Std. Err.	P-Value
Happy with current work environment	0.431	0.034	0.000
Satisfied with quality of care I am currently able to provide	0.096	0.030	0.002
Get rewards for a job well done	0.093	0.031	0.003
Primary employer places little value on the work I do	- 0.089	0.030	0.003

Nurses in rural versus urban settings had somewhat different motivators.

- Nurse satisfaction in urban settings was influenced positively by work environment, rewards, and quality of care they are able to provide.
- Nurse's satisfaction in rural settings was influenced positively by work environment and having the chance to work closely with their bosses; but negatively by employers placing little value on the work they do.

- *Satisfaction with Nursing as a Career and with Job Satisfaction*

The literature points out that while most RNs are satisfied with their career choice, a much smaller percentage is satisfied with their job. In this survey of RNs, nearly all RNs are satisfied with being a nurse (92%); however, one-third (32%) report that their satisfaction level has declined since last year. Later in the survey, RNs were asked if they are satisfied with their position at their primary hospital. In this case, 83 percent express satisfaction.

- *Contentment with Work Environment*

Overall, 71 percent of RNs are content with their current work environment. Analysis demonstrates that 52 percent of RN satisfaction is explained by contentment with the current work environment. In fact, 99 percent of RNs who are content with their current work environment are satisfied with their current position. And 83 percent of those who are content with their environment are committed to stay in their position.

The Nurse Faculty Perspective

- *Satisfaction with Educating Nurses as a Career and with Job Satisfaction*

Over 97 percent of Nurse Faculty say that independent of their present job, they are satisfied with being a nursing faculty member. About 93 percent are satisfied with their current position at their educational institution. However, that level of satisfaction declined since last year. Nearly 18 percent of Nurse Faculty members are less satisfied with their position this year versus last year, and 44 percent indicate no change in their level of satisfaction. Compared to RNs, however, Nurse Faculty appear to be a more satisfied group overall with their current position.

- *Contentment with Work Environment*

Overall, about 88 percent of Nurse Faculty are content with their current work environment. As with the RNs, there is a strong relationship between contentment with the current work environment and satisfaction with their current position. And 84.4 percent of those who are content with their environment are committed to stay in their position.

In general, the shortage of Nurse Faculty appears to be overwhelmingly an issue of monetary compensation, rather than contentment with the work environment. As noted earlier, 30 full time faculty have second jobs and 33 faculty are considered the primary wage earner for their households. At the same time, the average annual salary for a Nurse Faculty member is \$50,000-\$55,000 (most having a PhD) whereas the average annual salary for a Chief Nursing Officer is \$100,000-\$125,000, recognizing of course that the two jobs are not interchangeable but certainly indicating the difference in opportunity.

Among Nurse Educators, four predictors were identified as having a significant correlation with satisfaction in one's position. Being happy with the current environment has the most influence on satisfaction; having the chance to work closely with the boss and satisfaction with quality of education they are able to provide also had a positive influence on satisfaction. A surprising result is that higher agreement with not having access to information about values of top management also increased satisfaction.

Figure 12. Predictors of Nurse Educator Satisfaction

Important Predictors of Satisfaction	Coeff.	Std. Err.	P-Value
Happy with current work environment	0.614	0.094	0.000
I have the chance to work closely with my boss	0.244	0.081	0.004
Do not have access to information about the values of top management (expected a negative coefficient)	0.164	0.076	0.036
Satisfied with quality of education I am currently able to provide	0.177	0.087	0.047

Nurse Faculty in urban and rural settings had similar predictors, with the exception that having the chance to work closely with my boss was a predictor in urban settings but not rural. Importantly, while satisfaction and contentment with the work environment are strongly correlated for Nurse Educators, contentment with the work environment was not correlated with plans to remain with or leave the academic employer.

Chapter Five: Resignation and Retirement

RN Resignation and Retirement

A significant portion of the RN survey sought to quantify the number of RNs planning to resign their hospital position, leave hospital care altogether, or leave nursing altogether.

- *Plans to leave and why*

Contentment with the work environment plays a key role in plans to leave or stay in the position. Two-thirds (63%) of those who are discontent with their work environment plan to leave their position within three years, while only 17% of those who are content plan to leave their position.

Overall, nearly one out of eight (12%) RNs plan to leave the nursing field altogether (5% to retire). Another 15% are leaving their current position to take another position in nursing. These RNs are leaving their current positions primarily because of daily patient load, excessive job demands, and inadequate compensation.

As might be expected, plans to leave are correlated with the RNs' age. One-third (36%) of RNs over age 55 plan to leave, while 25% under age 55 plan to leave. Reasons for leaving are also age correlated. Those over age 55 are leaving primarily to retire, while those under age 55 are leaving to take another position in nursing (68%) or to pursue a job in another profession (12%). Of those who are leaving to take another position in nursing, less than half will go to another hospital. The others are going into community health, physicians' offices, outpatient care, or another nursing field.

Plans to leave are not statistically significant when comparing urban and rural responses, but may be substantively different—36% of RNs in urban hospitals and 27% of RNs in rural hospitals plan to leave their current position. Reasons for leaving are correlated with urban versus rural hospital settings. RNs who work in urban hospitals are more likely to leave due to daily patient load than their rural counterparts. RNs in urban hospitals are also more likely to leave to “receive a better offer” and because they experience “an inability to control their nursing practice.” RNs working in hospitals located in rural counties report, more commonly, that they are leaving due to the lack of advancement/promotion and due to poor work schedules.

CNOs/Directors Resignation and Retirement

To obtain the hospital administrators' perspective of RN staffing issues, all 24 CNOs in West Central Ohio were asked to share their views of the shortage and to report their own personal career plans.

All 15 of the CNOs believe there is a shortage of RNs in West Central Ohio. They think the primary reasons for the shortage are the expanded number of career options available to women and undesirable work hours of RNs in hospitals.

CNOs career plans indicate some volatility in this hospital leadership position. The average age of CNOs is 48, a point where job satisfaction is important and decisive career moves are made.

- *Plans to leave and why*

Three of the 15 CNOs who responded to the survey are planning to leave their current job and take positions with other hospitals. Thus, administrative leadership changes are occurring in 1 of 5 hospitals as the RN shortage widens and workplace improvements are paramount.

Deans/Chairs Resignation and Retirement

To understand some of the supply-side issues of the nursing shortage, a survey of the Deans/Chairs of the ten West Central Ohio programs was administered. Eight of the ten programs responded.

- *Plans to leave and why*

Six of the eight Deans/Chairs plan to leave their positions within two years due to retirement. The average age of Deans/Chairs is 59 years.

Nurse Faculty Resignation and Retirement

Roughly half of all Nurse Educators in West Central Ohio responded to an online survey. One of the key findings of the survey is the critical current and future shortage of Nurse Educators.

- *Plans to leave and why*

Nearly one out of five Nurse Educators plans to leave their current field within three years. Nurse Educators are leaving because of inadequate compensation, excessive job demands, and to retire. The number of faculty declined by 4% from 2003 to 2005, and another 7% decline is forecasted in West Central Ohio by 2010. The forecast, made by the Deans, may be underestimated since 7% of faculty say they will retire in three years and another 10% will leave for other reasons.

As might be expected, age is correlated with plans to leave the faculty position—36% of those over 55 will leave in the next three years, whereas 8% of those under 55 will leave. There is no statistical difference in plans to leave based upon urban or rural work location. However, Nurse Educators in rural areas express less satisfaction than their urban counterparts (e.g., 54% of faculty in urban settings feel satisfied at the end of the work day versus 33% of rural faculty members). A key predictor of greater satisfaction in urban settings is having time available to do necessary faculty paperwork. In rural settings, satisfaction is influenced by having access to people who get the job done.

“Reasons for leaving” differ by geographic location too. In rural academic settings, Nurse Educators are leaving due to the quality of education they can provide and due to the lack of specific feedback about a job well done. In urban settings, Nurse Educators’ reasons for leaving centered more on having time to meet job requirements and retirement.

Chapter Six: Recruitment, Attraction, and Workplace Challenges

Generally, labor force trends in West Central Ohio are flat compared to all the large metropolitan areas in Ohio and compared to the US. The chart below presents the relatively flat labor market growth rate predicted for the greater Dayton region, which had not rebounded to its 1994 employment levels by 2002 (the most recent year of data available). More stagnant labor market trends in West Central Ohio create a competitive environment for employers to fill slots with the existing pool.

Figure 13. Labor Market Projection

Region	Employment Growth, 2010 Projection
Cincinnati	14.3%
Columbus	16.4%
Dayton	8.6%
Ohio	11.0%

Without the in-migration of new workers, employers turn to the attraction of new workers, such as young adults, to encourage their consideration of a career in health care. All four surveys included a career-oriented question to measure each cohort's support for nursing as a career. Results from the question—*given what I know about the state of healthcare, I would recommend a student to pursue nursing*—demonstrate that those in the “trenches” so to speak are the least supportive of nursing as a career, while those managing the labor challenge, the CNOs and Deans, are most supportive (see figure below). However, each cohort leaned toward a positive response (i.e., a mean score greater than the neutral rating of 3).

Figure 14. Recommendations to Pursue Nursing

Given what I know about the state of healthcare, I would recommend a student to pursue nursing.	Mean Score
RNs	3.622
CNOs	4.867
Deans	4.500
Faculty	4.315

Challenges from the Hospital Perspective

Comparing this year to last year, most Nurse Administrators believe that RN working conditions are improving (11 of 15) or have remained unchanged (3 of 15). Thirteen of these 14 hospitals report increasing wage trends for RNs. Only one Nurse Administrator believes that conditions are worsening, and at this hospital wages are decreasing for RNs.

The impact of the RN shortage on the work environment appears relatively manageable according to most of these nurse administrators. Four hospitals noted major problems related to the shortage regarding the amount of time nurses have to devote to each of their patients, the quality of the work life of nurses, and the stress level on nurses.

Another cluster of major and minor problems related to (1) treating a more acutely ill patient population and (2) increasing numbers of new graduates and fewer experienced nurses.

Specifically, a more acutely ill population results in:

- 6 hospitals reporting major (1) and minor (5) impacts to the quality of work life of nurses
- 6 hospitals reporting major (2) and minor (4) impacts on nurse stress levels
- 5 hospitals reporting major (2) and minor (3) difficulties in devoting sufficient time to their patients
- 5 hospitals reporting major (1) and minor (4) problems with the early detection of patient complications
- 5 hospitals reporting major (2) and minor (3) problems with the amount of time nurses have to collaborate with other team members
- 5 hospitals reporting major (1) and minor (4) problems attending to patient safety

An increase in new graduates and fewer experienced nurses results in:

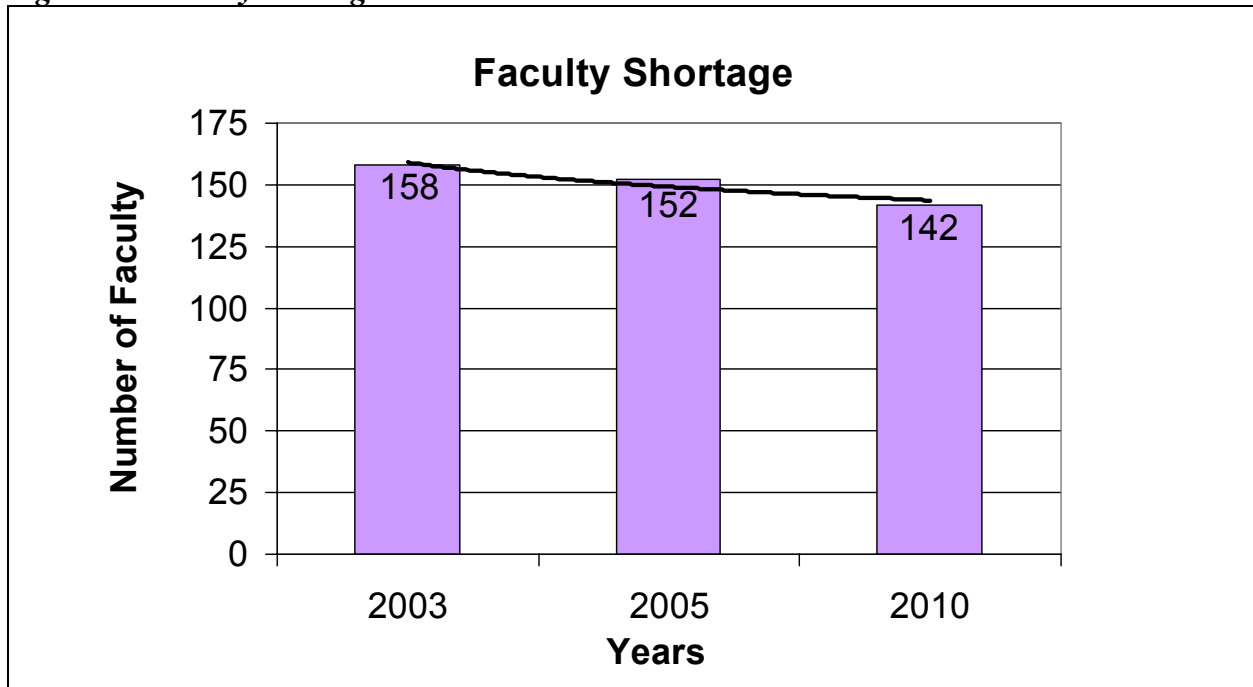
- 5 hospitals reporting major (1) and minor (4) impacts on nurse stress levels
- 5 hospitals reporting minor problems with the quality of work life of nurses
- 5 hospitals reporting minor problems associated with quality patient care
- 5 hospitals reporting minor problems attending to patient safety
- 4 hospitals reporting major (1) and minor (3) problems with the early detection of patient complications
- 4 hospitals reporting minor problems with the amount of time nurses have to collaborate with other team members

Challenges from the Academic Perspective

The primary challenges facing nursing education programs is a shortage of faculty, clinical sites, and space. In 2004, 315 applicants were denied enrollment to nursing programs in West Central Ohio due to constraints such as lack of space, and insufficient faculty and clinical sites. Among pre-licensure, RN-BSN, and Masters Programs, the most common constraint to program expansion is the number of faculty and funding.

In the survey of Deans of the Colleges/Departments of Nursing, Deans were asked to report the number of nursing faculty currently employed, the number employed in 2003, and the expected number of faculty who may be leaving due to retirement or other known reasons within the next five years. That information along with the expected influx of faculty over the next five years was netted to estimate the number of Nurse Faculty to 2010. Of note is that the average age of Nurse Faculty in West Central Ohio is 50, and nationally is 51; many faculty are poised to retire. The figure below indicates the steady decline.

Figure 15. Faculty Shortage Forecasted to Continue



Nursing programs in West Central Ohio are striving to accommodate the need for expansion. Recent program expansion statistics from the Nursing Programs report:

- 4 Pre-licensure programs plan to expand, adding 127.5 slots
- 3 RN-BSN programs, 1 will add 20 slots, 2 didn't specify
- 2 Masters programs, 1 plans to add 20 slots, the other didn't specify

Once new programs were implemented, challenges were faced in:

- Placing students in clinical experiences
- Finding enough clinical preceptors
- Limits in the number of faculty

Those challenges are not unique to new nursing programs, as most existing nursing programs in West Central Ohio noted these same difficulties. In the face of these challenges, both enrollment and graduation trends for RNs are increasing, while graduation trends are not yet meeting mid-1990 levels.

Figure 16. Enrollment Increases but more Faculty are Needed

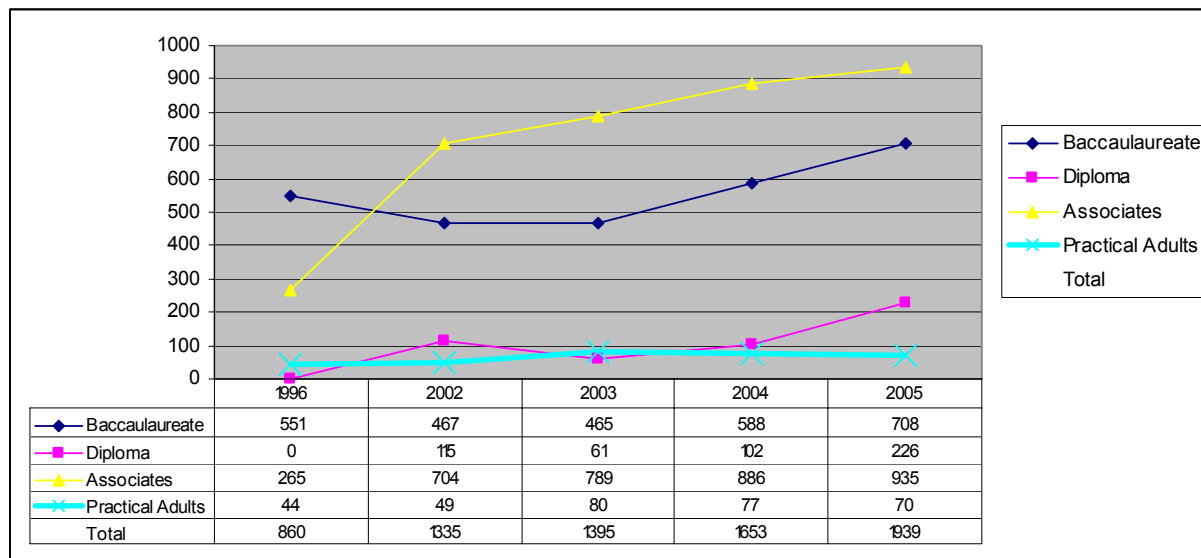
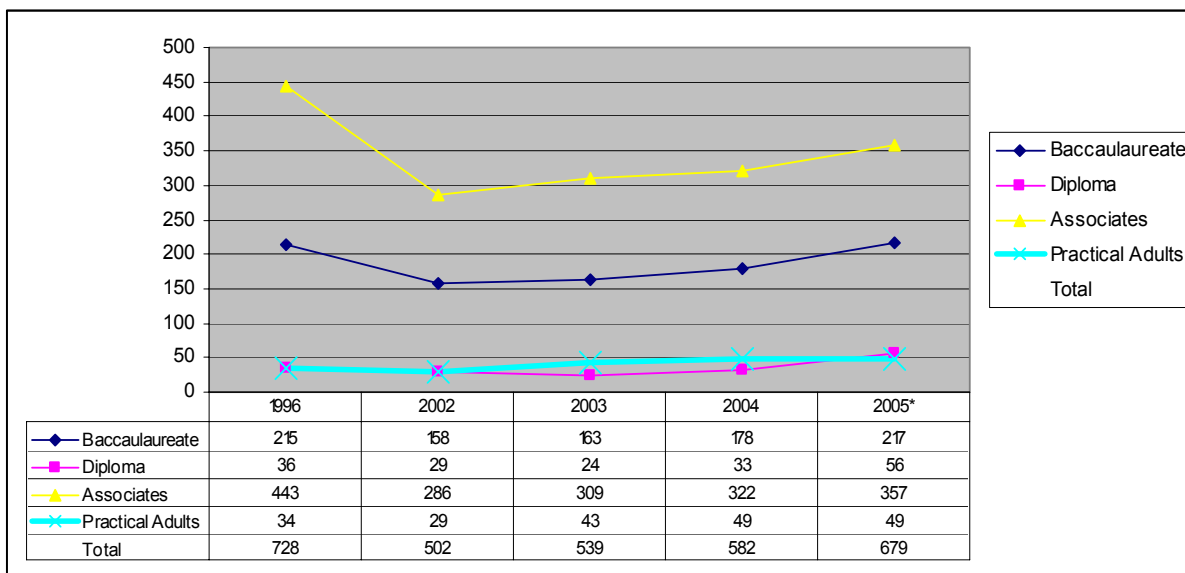


Figure 17. Some Graduation Trends are not meeting mid-1990 Levels



Chapter Seven: Conclusions

This data collection effort was undertaken to:

1. inform a regional model for projecting the supply and demand for nurses to the year 2010 and beyond
2. inform decision makers in hospital and academic settings on how they can influence the critical shortage of nurses
3. shape strategies and provide impetus to the Nursing Institute of West Central Ohio

1. Informing the Regional Projections Model

Health care is local. Local data need to drive the local projections model. In West Central Ohio, model development is currently in progress. According to the US Department of Health and Human Services (HHS), the Nursing Institute of West Central Ohio is “on the forefront of using the national HRSA model to calculate the shortage on a substate level.” The Department of HHS conducts a survey of RNs and it is called the National Sample Survey of Registered Nurses, which is an important source in HHS’ RN projection model. To follow suit, the survey of West Central Ohio’s RN population was conducted and is an important component of completing the regional projections model.

In the survey process, local program capacity issues were quantified, and will be key data for projections too, because such variables influence the number of graduates in the supply model. The survey of local academic programs to prepare nurses uncovered significant findings about the projected shortage of Nurse Educators and capacity challenges that thwarted 315 eligible nursing school applicants in 2004.

2. Informing Decision Makers in Hospitals and Academic Settings

In general, the primary predictor of Acute Care RN retention is contentment with the work environment—83% of those who are content with it plan to stay in their current position, while 63% of those who are discontent plan to leave.

Selected actions may improve the retention and recruitment of RNs and Nurse Educators, and there are different foci in urban versus rural areas. For example, retention of RNs who work in urban hospitals should focus on rewards and on enhancing RN ability to provide quality care. Relating these findings to Kanter’s and Laschinger’s model, the urban workforce may be more motivated by formal power structures influenced by workplace opportunities that lead to increased autonomy. In rural workplaces, RNs in hospitals who plan to leave are concerned about advancement opportunities and poor work schedules. The strategic response in rural settings is to provide opportunities for RNs to work closely with their bosses and to place value on the work they do.

Among Nurse Educators, the same percentage of faculty in urban and rural settings plan to leave their positions. However, there is less satisfaction among faculty in rural settings than in urban

settings. Consistent among both groups is the need for rewards and placing value on the work done. According to the American Public Health Association, higher salaries are needed for Nurse Educators and more public and private funding is needed for nursing programs. Of course, the nurse shortage challenge will not be resolved until more Nurse Educators are available to train more nurses. As in the case of RNs, shortages among nurse faculty lead to more shortages. Having time available to accomplish job requirements and to do necessary paperwork are affected by having too few colleagues to carry the load, which are strong predictors of workplace contentment, satisfaction, and retention especially in urban settings.

3. Shaping Strategies for the Nursing Institute of West Central Ohio.

The Nursing Institute (NI) of West Central Ohio is demonstrating a public-private partnership to enhance nursing programs on a local level. Clearly, the NI's focus on recruiting Nurse Educators and on identifying research and innovations to enhance the work environment are critical solutions to the local crisis in nursing. And solutions must be developed locally. The key to monitoring the NI's success, as well as hospital and academic institutional efforts to improve the workplace, is to establish a local baseline and projections regarding the demand and supply of nurses. The NI's efforts to develop a local projections model "place it on the forefront of substate analysis," according to HHS' HRSA Division. If strategies are well executed, the gap between RN supply and demand should begin to lessen, and quality health care in West Central Ohio, which relies heavily on nurses, should stabilize.