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RESEARCH REPORT

Registered Nurses in New York State, 2002

Volume II: Organizational Climate Factors, Organizational Commitment, and the Culture of Retention

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Table of Contents – Volume II page

Acknowledgements ..... ***iii***

Executive Summary ..... ***xv***
Summary xv
Analysis of Organizational Climate Factors xvi
Analysis of Job/Career Satisfaction and Organizational Commitment xix
Intentions to Leave, Timing to Exit and Job Seeking xxi
Nurses at Risk for Leaving the Profession xxii
RNs' Ratings of Factors Impacting Their Job Satisfaction xxiv
Support for Proposed Reforms and Incentives xxiv
Survey Results Reinforce Recommendations of the Regents Task Force on the Future of Nursing xxvi
Conclusion xxx

Chapter 1: The Climate of Retention ***1***
Background 1
Research Objectives 2
The Sampling Design and Data Collection Strategy 3
Sample Representativeness 4
Structure of the Volume II Report 4

Chapter 2: Organizational Climate in the Work Setting ***7***
Introduction 7
Analysis of Exogenous Model Variables 10
Job Stress: Workload and Role Overload 11
Job Stress and Resource Adequacy 18
General Job Stress: Frequency of Great Stress 24
Autonomy 27
Promotional Opportunity 32
Pay and Satisfaction With Salary Compensation 35
Instrumental Communication 40
Interaction With Other Nurses 43
Pulling It All Together: Worklife Profiles of Three Groups of Nurses 50

Chapter 3: Analysis of Job Satisfaction, Career Satisfaction and Organizational Commitment ***57***
Introduction 57
Nurses' Job Satisfaction 58
Career Satisfaction 65
Job Satisfaction and Organizational Commitment as a Function of Key Work Climate Factors 70
Comparing the More Satisfied and the Less Satisfied 73

A Multivariate View of Job Satisfaction and Organizational Commitment 75

Chapter 4: Analysis of Outcome Variables: Quit Intentions, Timing to Exit, and Job Seeking 79
Introduction 79
Job Seeking. 80
Career Plans of Nurses Currently Working in New York State. 89
Recommending Nursing to Others. 100

Chapter 5: Nurses at Risk of Leaving the Profession: Five Risk Groups Compared 103
Introduction 103
The Reasons RNs Give for Leaving Nursing – Younger and Older RNs Compared 106
Job Satisfaction, Career Satisfaction and Search Behavior by Risk Group. 110
Demographic Differences Among Risk Groups. 112
The Representation of Risk Groups in Different Job Settings – Where are the "Leavers" Working? 115
Proportional Representation of Risk Groups in Different Job Titles. 117
Comparing the Average Job Climate and Job Stress Scale Scores of Different Risk Groups 121
The Importance of the Nine Job Climate Measures to Global Job Satisfaction among Each of the Five Risk Groups 123
Conclusion 127

Chapter 6: The Reasons Nurses Give for Intending to Leave the Profession Within the Next 12 Months. 129
Introduction 129
Imminent Leavers.. 129
Imminent Leavers' Selections of "Top 3 Reasons" for Leaving the RN Profession. 131
Top Ranked Reason for Leaving among Imminent Leavers by Selected Characteristics. 132
Three Imminent Leaver Age Distributions: All Leavers, "Retirement" Leavers and "Stress" Leavers. 134
Stress as # 2 Ranked Reason for Leaving the Nursing Profession. 136
RNs Leaving for Family Obligations. 137
Top-Ranked Reasons for Leaving by Job Setting. 137
Top-Ranked Reasons for Leaving by Job Title. 139

Chapter 7: RNs' Ratings of Factors Impacting Their Job Satisfaction. 143
Introduction 143
Variation in Policy Preference Means by Salient Variables. 148
Policy Implications of Differing Policy Preference Scores. 158
Compensation: Most or Least Important for Nurses' Job Satisfaction? 158
Policy Implications of Nurses' Policy Preference Selections. 165

Chapter 8: Support For Proposed Reforms and Incentives..... 167
Introduction 167
Nurses' Views of Different Reform Proposals. 167
Efficacy Rankings, Percent Support, and Average Agreement Scores for the 19 Proposals..... 168
Support for Reform Proposals across Job Titles and Work Settings. 179
Minority and RNs Born and/or Educated Outside of the U.S. Call for More Health and Safety Reforms..... 185
Implications of Differential Ethnic Responses to Reform Proposals. 191
Summary of Findings and Implications 193

Appendices 197
Appendix A: The Nursing Survey..... 197
Appendix B: The Price-Mueller Model of Voluntary Turnover 225
Appendix C: The Sampling Design and Reweighting Issues 229
Appendix D: The Representativeness of the Respondent Sample 231
Appendix E: Reliability of the Price-Mueller Model 239
Appendix F: The Four-Region Taxonomy..... 243
Appendix G: National and State Initiatives for Addressing the Shortage 245

References
References 255

List of Figures – Volume II page

Executive Summary

ES.1 Modified Conceptual Model xvi
ES.2 Reported Levels of General Job-Related Stress of Nurses Working in New York State xvii
ES.3 Prime Targets for Quality Improvement Efforts: Job Climate Factors Receiving the Lowest Satisfaction Ratings and Also Having a Strong Impact on Global Job Satisfaction xx
ES.4 For Three Groups of RNs Working Overtime in New York State – Never, Sometimes, and Always Performs Overtime Work on a Mandatory Basis – The Percent within Each Group Reporting a High Level of Job Search Behavior..... xxi
ES.5 Age Distributions of RNs Who Plan on Leaving the Nursing Profession within 12 Months: Comparing "Retirement" Leavers to "All Other" Leavers xxiii

Chapter 1: The Nursing Profession in New York State: The Climate of Retention

1.1 Modified Conceptual Model 3

Chapter 2: Organizational Climate in the Work Setting

2.1 Modified Conceptual Model 9
2.2 Workload Stress Scale: Distribution of Nurses Currently Working in New York State by Scale Item 12
2.3 Workload Job Stress for Nurses Working in Hospitals by Unit Type. 14
2.4 Workload Stress by Paperwork Category for Nurses Working in Direct Patient Care. 16
2.5 Average Workload Job Stress by Overtime Category 17
2.6 Resource Stress Scale: Distribution of Nurses Currently Working in New York by Scale Item 18
2.7 Job Stress: Resources for Nurses Working in Hospitals by Unit Type 20
2.8 Reported Levels of General Job-Related Stress of Nurses Working in New York State 24
2.9 Percent of Nurses Under Great Stress Daily or Several Times Per Week by Hospital Unit 27
2.10 Autonomy Scale: Distribution of Nurses Currently Working in New York State by Scale Item. 28
2.11 Average Rating on Autonomy Dimensions and Average Autonomy Score by Patient Care Category 30
2.12 Average Autonomy Score of Nurses Working in New York State by Highest Credential. 31
2.13 Promotional Opportunity: Distribution of Nurses Working in New York by Scale Item. 33
2.14 Salary Satisfaction: Distribution of Nurses Working in New York by Scale Item. 36
2.15 Communication: Distribution of Nurses Working in New York by Scale Item 41
2.16 Nurse-Nurse Interaction: Distribution of Nurses Working in New York by Scale Item 44
2.17 Nurse-Physician Interaction: Distribution of Nurses Working in New York by Scale Item 48
2.18 Worklife Profile of Staff Nurses Working in Hospitals and Nursing Homes .. 52
2.19 Worklife Profile of Nurse Managers 53
2.20 Worklife Profile of Nurses by Experience Category 54

Chapter 3: Analysis of Job Satisfaction, Career Satisfaction and Organizational Commitment

3.1 Modified Conceptual Model 57
3.2A Job Satisfaction Scale: Distribution of Nurses Currently Working In New York State by Scale Item (Positively Phrased Items) 58
3.2B Job Satisfaction Scale: Distribution of Nurse Currently Working in New York State by Scale Item (Negatively Phrased Items) 59
3.3 Job Satisfaction by Age Category and Years in Nursing Category 62
3.4 Average Job Satisfaction by Direct Patient Care Category and Percent of Day Spent on Patient Care 63

3.5 Career Satisfaction of Nurses Working in New York State 65
3.6 Career Satisfaction by Nursing Experience Category 66
3.7A Organizational Commitment Scale: Distribution of Responses for Nurses Currently Working in New York State by Scale Item 67
3.7B Organizational Commitment Scale: Distribution of Responses for Nurses Currently Working in New York State by Scale Item (Continued) 68
3.8 Average Scale Score on Organizational Climate Factors, Job Satisfaction and Organizational Commitment 70
3.9 Bivariate Correlation Coefficients for Climate Factors and Job Satisfaction/ Organizational Commitment 72
3.10 Average Scale Score on Worklife Dimensions by Job Satisfaction Category 74
3.11 Nurses' Job Satisfaction by Patient Care Category 75

3.12 Standardized B-Coefficients for Job Satisfaction and Organizational Commitment Regression Models 76
3.13 Prime Targets For Quality Improvement Efforts: Job Climate Factors Receiving the Lowest Satisfaction Ratings and Also Having a Strong Impact on Global Job Satisfaction 78

Chapter 4: Analysis of Outcome Variables: Quit Intentions, Timing to Exit, and Job Seeking

4.1 Modified Conceptual Model 79
4.2 Search Behavior Scale: Distribution of Nurses Currently Working in New York State by Scale Item 80
4.3 Intensity of Job Search Behavior by Overtime Category 84
4.4 Average Job Satisfaction, Organizational Commitment and Career Satisfaction Rating by Job Search Category 85
4.5 Intensity of Job Search Behavior by Experience Category 86
4.6 Intensity of Job Search by Gender and Job Satisfaction Category 88
4.7A Plans to Leave Current Work Setting for Nurses Currently Working in New York State 89
4.7B Plans to Leave the Nursing Profession for Nurses Currently Working in New York State 89
4.8 Construction of Career Plan Category Based on Nurses' Plans to Leave Their Current Work Setting and Plans to Leave the Nursing Profession..... 90
4.9 Distribution of Nurses by Career Plan Category 91
4.10 Career Plans for Nurses Currently Working in New York State by Age Category 95
4.11 Career Plans for Nurses Currently Working in New York State by Race/ Ethnicity 97
4.12 Job Satisfaction, Career Satisfaction and Organizational Commitment by Career Plan Category 98
4.13 Average Job Satisfaction by Career Plan Category and Age Category 99
4.14 Recommendations for Nursing as a Career Option 100
4.15 Average Nursing Career Satisfaction by Recommendation Category 101

Chapter 5: Nurses at Risk for Leaving the Profession – Five Risk Groups Compared

5.1 Percentage of RNs Selecting Each of Eleven Reasons for Leaving Nursing as their #1 Reason for Leaving the Nursing Profession – RNs under 52 Years of Age and over 52 Years of Age Compared 107
5.2 Percentage of RNs Selecting Each of Eleven Reasons as One of Their Top Three Reasons for Leaving the Profession – RNs under 52 Years of Age and over 52 Years of Age Compared 108
5.3 Five Bar Charts Displaying Global Job Satisfaction, Career Satisfaction, Enthusiasm for Recommending RN Career, Organizational Commitment and Job Search Behavior Average Scale Scores for Each of Five Risk Groups 111

Chapter 6: The Reasons Nurses Give for Intending to Leave the Profession Within the Next 12 Months

6.1 Percentage of RNs Selecting Each of Eleven Reasons for Leaving Nursing as Their #1 Reason for Leaving the Nursing Profession 130
6.2 Percentage of RNs Selecting Each of Eleven Reasons for Leaving Nursing as One of Their Top Three Reasons for Leaving the Profession.... 132
6.3 Age Distributions of All RNs Working in NYS Planning on Leaving Nursing Profession within the Next 12 Months..... 135
6.4 Age Distributions of RNs Who Plan on Leaving the Nursing Profession within 12 months: Comparing “Retirement” Leavers to “Stress” Leavers 135

Chapter 7: RNs’ Ratings of Factors Impacting Their Job Satisfaction

7.1 Frequency Distributions for Each of Five Policy Preference Selections..... 146
7.2 Nurses’ Mean Scores (on a Scale from 0 to 4) for Each of Five Policy Preferences Related to Job Satisfaction 147
7.3 Compensation and Autonomy Policy Preference Mean Scores, by Salary Level 152
7.4 The Relative Importance of Factors Affecting Job Satisfaction Differs When Assessed by Policy Preference Means and When Assessed by Scale Correlations with Job Satisfaction 159
7.5 Job Satisfaction Preference Scores' Correlations with Corresponding Job Climate Scale Scores and Scale Questions..... 160
7.6 Frequency of Nurses within Each of Five Job Priority Categories (Selecting Policy Preference Four out of Four Times) 163

Chapter 8: Support for Proposed Reforms and Incentives

8.1 Means for Eleven General Reforms to Retain RNs within the Profession.... 171
8.2 Six Reforms for Hospital and Nursing Home Settings to Help Retain RNs .. 175

Appendices

B.1 Modified Conceptual Model 226

List of Tables – Volume II page

Chapter 2: Organizational Climate in the Work Setting

2.1 Mean Score for Dimensions of Workload Stress and Average Scale Score by Work Setting 13
2.2 Average Score for Dimensions of Workload Stress and Average Scale Score by Job Title 15
2.3 Workload Stress for Nurses Working in Direct Patient Care by Percent of Day on Paperwork Category 16
2.4 Average Score for Dimensions of Resource Stress and Average Scale Score by Work Setting 19
2.5 Average Score for Dimensions of Resource Stress and Average Scale Score by Job Title 21
2.6 Resource-Related Job Stress and Staff Nurses: Average Score for Dimensions of Resource Stress and Average Scale Score by Work Setting 22
2.7 Adequacy of Resources by Patient Care Category 23
2.8 Reported Levels of Job-Related Stress by Work Setting 25
2.9 Reported Levels of Job-Related Stress by Job Title 26
2.10 Average Score for Dimensions of Autonomy and Average Scale Score by Work Setting 29
2.11 Average Score for Dimensions of Autonomy and Average Scale Score by Job Title 30
2.12 Average Score for Dimensions of Promotional Opportunity and Average Scale Score by Work Setting 34
2.13 Mean Score for Dimensions of Promotional Opportunity and Average Scale Score by Job Title 35
2.14 Mean Score for Dimensions of Salary Satisfaction and Average Scale Score by Work Setting 37
2.15 Average Score for Dimensions of Salary Satisfaction and Average Scale Score by Job Title 38
2.16 Average Salary Satisfaction by Salary Level and Full/Part-Time Status 38
2.17 Average Salary Satisfaction by Selected Characteristics of Full- and Part-Time Nurses Working in New York State 39
2.18 Average Score for Dimensions of Communication and Average Scale Score by Work Setting 42
2.19 Average Score for Dimensions of Communication and Average Scale Score by Job Title 43
2.20 Average Score for Dimensions of Nurse-Nurse Interaction and Average Scale Score by Employment Setting 45

2.21 Average Score for Dimensions of Nurse-Nurse Interaction and Average Scale Score by Job Title 46
2.22 Average Ratings of Nurse-Nurse Interaction by Selected Characteristics of Nurses Working in New York State 47
2.23 Mean Score for Dimensions of Nurse-Physician Interaction and Average Scale Score by Employment Setting 49
2.24 Average Score for Dimensions of Nurse-Physician Interaction and Average Scale Score by Job Title 50

Chapter 3: Analysis of Job Satisfaction, Career Satisfaction and Organizational Commitment

3.1 Average Score for Dimensions of Job Satisfaction and Average Scale Score by Work Setting 60
3.2 Average Score for Dimensions of Job Satisfaction and Average Scale Score by Job Title 61
3.3 Average Job Satisfaction by Selected Characteristics of Nurses Working in New York State 64
3.4 Average Score for Dimensions of Organizational Commitment and Average Scale Score by Work Setting 69
3.5 Average Score for Dimensions of Organizational Commitment and Average Scale Score by Job Title 69
3.6 Mean, Standard Deviation and Bivariate Correlation for Organizational Climate Factors, Organizational Commitment and Job Satisfaction 71

Chapter 4: Analysis of Outcome Variables: Quit Intentions, Timing to Exit, and Job Seeking

4.1 Average Score for Dimensions of Job Search Behavior and Average Scale Score by Work Setting 81
4.2 Average Score for Dimensions of Job Search Behavior and Average Scale Score by Job Title 82
4.3 Intensity of Job Search Behavior by Selected Nurse Characteristics 87
4.4 Career Plans of Nurses Currently Working in New York State by Work Setting 92
4.5 Career Plans of Nurses Currently Working in New York State by Job Title . 94
4.6 Career Plans of Nurses Currently Working in New York State by Selected Individual and Job Characteristics 96

Chapter 5: Nurses at Risk for Leaving the Profession – Five Risk Groups Compared

5.1 Frequency Distribution of NYS Nursing Survey Respondents Assigned to Each of Five "Risk Groups" 105
5.2 Averages and Percents of Selected Demographic Characteristics for Each of Five Risk Groups 112
5.3 For RNs Working within Each of Nine Job Settings, Percent within Each

Risk Group: RNs < 52 Years of Age 116
5.4 For RNs Working within Each of Nine Job Settings, Percent within Each Risk Group: RNs > 51 Years of Age 117
5.5 For RNs Working within Each of Thirteen Job Titles, Percent within Each Risk Group: RNs < 52 Years of Age 118
5.6 For RNs Working within Each of Thirteen Job Titles, Percent within Each Risk Group: RNs > 52 Years of Age 120
5.7 Average Job Climate Scale for Each of Five Risk Groups 122
5.8 Regression Analyses Standardized Beta Weights for Predicting Global Job Satisfaction for Each of Five Risk Groups 124

Chapter 6: The Reasons Nurses Give for Intending to Leave the Profession Within the Next 12 Months

6.1 Characteristics of RNs Leaving the Nursing Profession in 12 Months, Grouped According to Their Selected #1 Reason for Leaving Nursing..... 133
6.2 Top-Ranked Reasons for Planning on Leaving the Nursing Profession within 12 Months by Job Setting 138
6.3 Top-Ranked Reasons for Planning on Leaving the Nursing Profession within 12 Months by Job Title..... 140

Chapter 7: RNs' Ratings of Factors Impacting Their Job Satisfaction

7.1 Distribution of Policy Preference Selections 145
7.2 Policy Preference Means by Age Category (Six Levels)..... 149
7.3 Policy Preference Means by Working vs. Retired Status (Two Levels)..... 150
7.4 Policy Preference Means by Highest Degree Attained (Four Levels) 151
7.5 Policy Preference Means by Four Earnings Levels, Total Annual Earnings for RNs Working Full Time or More, Only 152
7.6 Policy Preference Means by Ethnic Status (Two Levels)..... 153
7.7 Policy Preference Means by Born in U.S. vs. Born Outside of U.S..... 153
7.8 Policy Preference Means by Where Educated (U.S. vs. Other Country) 154
7.9 Policy Preference Means by Work Setting (Nine levels)..... 155
7.10 Policy Preference Means by Job Title (13 levels) 155
7.11 Means of Autonomy Policy Preference Scores by Job Title, Education Level 157
7.12 Job Satisfaction Scale Means for Nurses with Different Job Priorities (Job Priority Indicated by Selecting Policy Preference Four out of Four Times) .. 164
7.13 Job Satisfaction, Salary, and Timing to Exit Means by Priority of Compensation over Other Job Satisfaction Dimensions 165

Chapter 8: Support for Proposed Reforms and Incentives

8.1 Two Incentives to Attract Good People to the Nursing Profession Ranks, Means, Standard Deviation, and Percent in Favor 168
8.2 Eleven General "Reforms and Incentives" to Retain Good Nurses, Ranks, Means, Standard Deviation, and Percent in Favor 169

8.3 Six Hospital and Nursing Home Reforms to Improve Retention of Good Nurses, Ranks, Means, Standard Deviation, and Percent in Favor 174
8.4 Mean Agreement Scores for Proposal to Restrict Mandatory Overtime, by Overtime Work Status 178
8.5 Mean Satisfaction Scale and Timing to Exit Scale Scores by Overtime (OT) Work Status 179
8.6 Nineteen Reforms and Incentives by Nine RN Work Settings 181
8.7 Means for Two Incentives by Job Title (13 Levels) 183
8.8 General Retention "Reforms and Incentives" by Job Title (13 Levels) 184
8.9 Means for Six Hospital and Nursing Home Reforms to Help Retain RNs, By Job Title (13 Levels) 185
8.10 Mean Agreement Scores for Selected Reforms by Ethnic Minority Status .. 187
8.11 Mean Agreement Scores for Selected Reforms for Three Groups Compared: 1) Non-U.S.-Born and/or Educated and/or Ethnic Minority RNs, Not Working in NYC; 2) Non-U.S.-Born and/or Educated and/or Ethnic Minority RNs, Working in NYC; and, 3) U.S.-Born and Educated RNs, Working in NYC 188
8.12 Mean Agreement Scores for Selected Reforms by Ethnic Status 190
8.13 Mean Agreement Scores for Selected Reform Proposals by Age Level 192
8.14 Mean Agreement Scores for Childcare Reform Proposals by Children at Home Status 192

Appendices:

C.1 Sampling Strata: Using Health Service Areas and "Other States" Category 229
D.1 Comparison of Population and Sample Characteristics by Gender 232
D.2 Comparison of Population and Sample Characteristics by Ethnicity 234
D.3 Comparison of Population and Sample Characteristics by Age 235
D.4 Comparison of Population and Sample Characteristics by Degree 236
E.1 Factor Loadings and Reliability Estimates for Climate Scales 239

Volume II: Executive Summary

SUMMARY

In April 2001, the State Education Department presented the Board of Regents with a report on the nursing shortage in New York State.[1] The report was part of a series of horizon issue reports designed to address important issues affecting the future of professional regulation. The analysis offered compelling evidence of the nursing shortage projected in coming years. The report highlighted the root causes of the shortage and described how the current shortage differed structurally and demographically from previous shortages. The Board of Regents acknowledged the impending nursing shortage as having significant implications for the health care system and for public protection. As Commissioner Richard P. Mills emphasized:

> "One important role of the Board of Regents is to identify public protection issues and to take action to address them swiftly. Nothing is more important to ensure our future well-being. Health care and education go hand in hand to make our State an economic leader and a good place to live." [2]

In response to the potential crisis and in carrying out the Regents regulatory responsibility for over 300,000 licensed nurses in the State, Chancellor Carl Hayden called for the formation of a Blue Ribbon Task Force on the Future of Nursing and tapped Regent Diane O'Neill McGivern, an innovator in nursing education, to serve as Chair. Regent McGivern convened two Task Force meetings later that year. She invited 26 influential leaders in health care, education, and government to participate in the Task Force. Members were selected to represent significant areas of responsibility uniquely positioned to address the shortage. The Task Force advanced a set of recommendations focused upon the growing shortage.[3]

One of the six broad strategies recommended by the Task Force was to improve data collection and develop a reliable, centralized source of data for New York State upon which employers, policymakers, futurists, researchers and legislators may base

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[1] The New York State Board of Regents, Office of the Professions, *The Nursing Shortage*, BR (D) 6.1-2 and attachment, April 16, 2001 (Albany, NY).

[2] Commissioner Richard P. Mills, New York State Board of Regents Blue Ribbon Task Force on the Future of Nursing, available at http://www.op.nysed.gov/tfwork.htm.

[3] The recommendations are fully described in two separate Board of Regents reports: *Addressing Nursing and Other Professional Work Force Shortages* and *Follow-Up Activities on Recommendations of the Regents Blue Ribbon Task Force on the Future of Nursing,* December 4, 2001 and March 4, 2002, respectively (Albany, NY).

public policy and resource allocations. In addition, the Regents recognized that such a data source needed to include current, comprehensive information about specific characteristics, attributes, and expectations of New York's nurses. Accordingly, a large-scale randomized survey of registered nurses was designed during the summer of 2002 through a partnership with the Fiscal Analysis and Research Unit, the Office of the Professions in the New York State Education Department (SED) and other key stakeholders, including members of the Task Force and the State Board for Nursing. The survey was sent to over 31,000 nurses registered with the Department. A useable response rate of 45.6 was achieved. Four different tests of sample representativeness revealed that survey respondents mirrored very closely the characteristics of the active licensure file from which the sample was drawn.

The results of the study are presented in three volumes. Volume I describes basic demographic characteristics, education, employment status, salary, and the nursing supply. Volume II analyzes the types of organizational climate factors affecting nurses, the impact of these factors on staff turnover, and nurses' support for a variety of policy initiatives. Volume III focuses exclusively on inpatient staff RNs and includes comments from survey respondents.

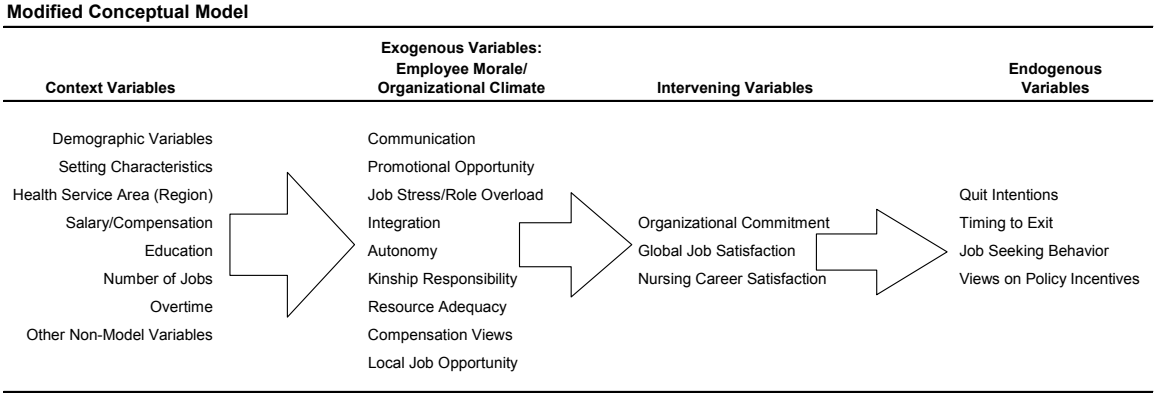
ANALYSIS OF ORGANIZATIONAL CLIMATE FACTORS

In Volume II, we describe the types of organizational "climates" nurses face in their everyday jobs, evaluate the impact of these factors upon staff turnover and highlight nurses' support for a variety of policy initiatives of interest to the Regents Blue Ribbon Task Force.

The Price-Mueller Model of Voluntary Turnover

The literature concerning the nursing shortage consistently underscores the critical importance of creating a "culture of retention." Among the research models of employee turnover in the health services sector, the work of James L. Price and Charles W. Mueller is highly regarded as an excellent conceptual model. Their model, depicted below (Figure ES.1), has guided the selection of many of the organizational culture measures reported upon in this volume.

Figure ES.1
Modified Conceptual Model

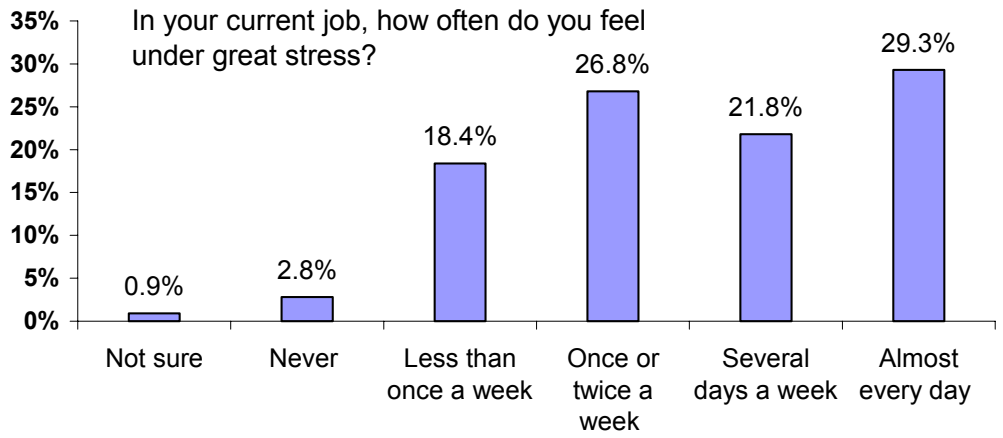


Stress in the Workplace

- Workload-induced stress is substantial according to survey respondents. **Eight of every ten nurses report they have to work very hard in their jobs. Close to two-thirds also say they have to work very fast at their jobs.**

- When questioned about the frequency of experiencing "great stress" on their jobs, **nearly one-third of RNs indicated that they felt under great stress almost every day; another fifth reported feeling under great stress several days a week**. (See Figure ES.2.)

Figure ES.2
Reported Levels of General Job-Related Stress of Nurses
Working in New York State



- **RNs in nursing homes and inpatient hospital-based settings reported the highest levels of both workload stress and stress-frequency**. Almost two-thirds of these RNs reported experiencing great stress on a daily basis or several days each week. Nursing staff in emergency, medical/surgical, geriatric and intensive care units reported experiencing the highest levels of stress.

- **Among RNs working in direct care who spend more than two thirds of their workday on paperwork, 76 percent felt they lacked sufficient time to do their job.** Among those spending less than one-third of their time on paperwork, this percent dropped to 52 percent.

- Resource-adequacy stress refers to having access to supplies or the room and equipment to do one's job well. Three or four of every ten RNs agreed that resources or equipment were inadequate or not easily accessible.

Autonomy

- Nurses' perceptions of the degree of autonomy they have within their jobs were measured by their responses to such questions as "how much freedom do you have as to how your job is done" and "how much say do you have over what happens on your job." The data indicated that **many younger nurses, new to the profession, feel they have too much autonomy, which in turn increases their stress levels. More experienced nurses and managers, however, placed a higher value on autonomy within their jobs, and for these more seasoned nurses greater job autonomy has a substantial positive relationship with greater job satisfaction.**

- Autonomy varied substantially by job setting. RNs in private practice and educational settings reported the highest levels of autonomy. The average autonomy scale score of nursing home staff was in the mid-range, and inpatient hospital staff nurses reported the least job autonomy.

- **Higher levels of formal education credentials generally equated to greater autonomy in the job**. RNs educated at the doctoral level reported significantly greater job autonomy, on average, than RNs educated at the master's level and, likewise, master's-level RNs reported significantly greater job autonomy than RNs with bachelor's degrees, associate's degrees or diplomas.

Satisfaction with Pay

- Nurses' average level of satisfaction with pay was the lowest of all the job climate satisfaction scale means. About 45 percent disagreed or strongly disagreed with the statement, "My present salary is satisfactory." In contrast, about 20 percent agreed or strongly agreed with this view (the remaining 35.9 percent expressed relatively neutral feelings). The same pattern characterized RNs' views regarding the adequacy of their pay increases. These relatively low compensation satisfaction ratings were generally consistent across settings and titles. Slightly higher than average pay satisfaction ratings, however, were reported by RNs working for HMOs, insurers, business or industry, and by RNs working in physician's offices. **The three job titles associated with the lowest levels of pay satisfaction were public/community health nurse, in-service director/instructor, and staff nurse.**

- Satisfaction with salary is greater among New York City and rural New York nurses than it is with their upstate urban/suburban and downstate suburban counterparts.

Promotional Opportunity

- Although 35 percent of the RNs working in New York State agree that "there is opportunity for advancement" in their job, over 40 percent either strongly disagree or disagree with that proposition. Similarly, 37.4 percent agree or strongly agree with the proposition that "I am in a dead-end job."

Instrumental Communication

- "Instrumental communication" refers to the extent to which an organization communicates to its members key job-related information. Between 50 and 55 percent of RNs felt they were kept well informed, or very well informed, about what needed to be done on the job, what they needed to know to do the job well, and what were the job priorities. Only 12 to 13 percent felt their organizations did a poor job of informing them about this information. These generally positive ratings contrasted with RNs' ratings of how well they were kept informed about "how well the job is done." Only 36.5 percent felt they were kept well informed about how well the job was done, and 29 percent felt they were poorly informed on that issue.

Nurse-Nurse and Nurse-Physician Interaction

- Nurses indicate overall mildly positive attitudes regarding the quality of nurse-nurse interactions within their work units. **Nursing home and inpatient hospital nurses have the lowest scores on these measures.**

- **Nurse-physician interactions yield less positive assessments: the average score on this scale is just marginally higher than neutral. Inpatient hospital RNs are the least satisfied with the quality of nurse-physician relations in their work setting**.

ANALYSIS OF JOB/CAREER SATISFACTION AND ORGANIZATIONAL COMMITMENT

Global Job Satisfaction

On balance, nurses in New York are fairly satisfied with their jobs. The average global satisfaction scale score of 3.47 statewide is midway between the neutral and positive (but not strongly positive) values. For example:

- More than 55 percent of nurses surveyed agreed or strongly agreed that they were "all in all, very satisfied" with their current jobs; and 65 percent agreed or strongly agreed that they were "fairly well satisfied" with their jobs.

- **RNs in nursing homes and hospital inpatient units, however, evidenced the lowest global job satisfaction ratings**, while nurses in education, private practice and physicians' offices were among the most satisfied. Those in direct patient care capacities were typically less satisfied with their jobs than RNs working in management, education or other roles.

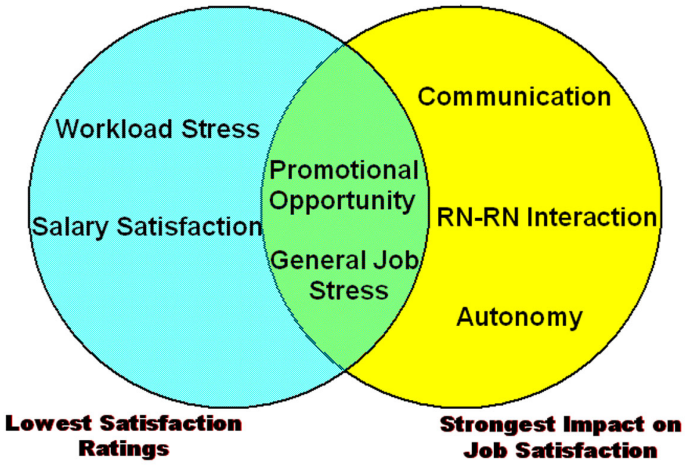
- **Among direct care nurses, job satisfaction is higher among RNs who report spending higher percentages of their day on direct patient care. Conversely, the higher the percentage of their workday they report spending on paperwork, the less satisfied direct care nurses are with their jobs.**

- Older nurses report higher levels of job satisfaction than younger nurses. Correspondingly, more experienced nurses report higher levels of job satisfaction than do less experienced RNs.

- The job climate factors receiving the lowest satisfaction ratings were workload stress, salary satisfaction, promotional opportunity and general job stress (i.e., frequency of experiencing great stress on the job). The job climate factors that multiple regression analyses indicated had the greatest impact on RNs' global job satisfaction were instrumental (supervisory) communication, autonomy, nurse-nurse interaction, general job stress and promotional opportunity. The two job climate factors that received both low satisfaction ratings and high impact ratings were general job stress (frequency of great stress) and promotional opportunity. These two factors, therefore, represent prime targets for quality improvement efforts. (See Figure ES.3.)

Figure ES.3

Prime Targets for Quality Improvement Efforts: Job Climate Factors Receiving the Lowest Satisfaction Ratings and Also Having a Strong Impact on Global Job Satisfaction



Career Satisfaction

- **Nurses are more satisfied with their *careers* than with their current jobs:** just under two-thirds of respondents agree or strongly agree with the statement that, as they look over their careers to date, they have been "very satisfied" with their careers.

- The degree of commitment nurses feel toward their organizations is less positive than their satisfaction with their jobs and careers. The statewide mean of 3.21 on this five-point scale indicates that the average level of organizational commitment is just marginally higher than a neutral response.

INTENTIONS TO LEAVE, TIMING TO EXIT AND JOB SEEKING

Job Seeking Behavior and Leave Intentions

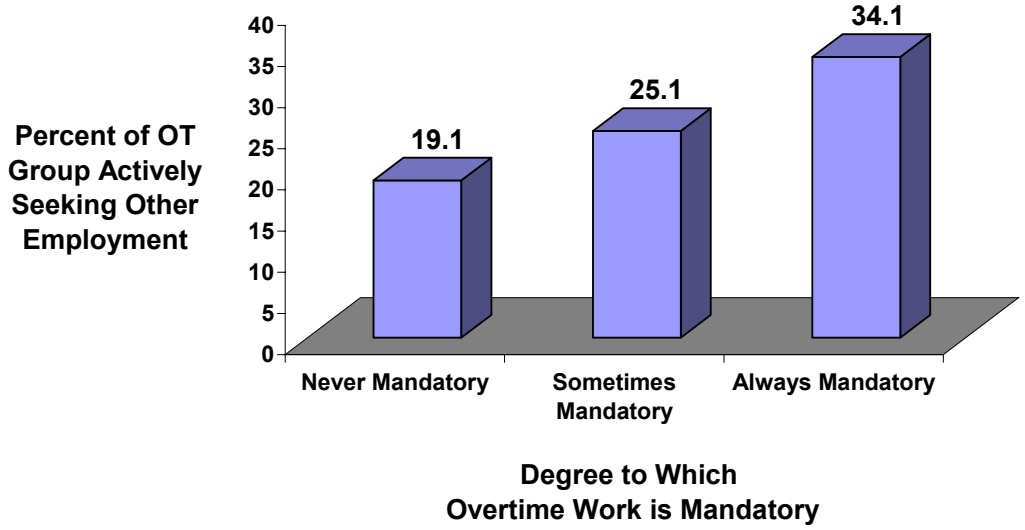
- **Job search behavior increases with the extent to which the overtime worked by nurses is mandatory**. Among nurses who work overtime, but never on a mandatory basis, only 19.9 percent report a high level of job search behavior. Among nurses who report that some of their overtime is mandatory, 25.1 percent report a high level of job search behavior. Among nurses who report that all of their overtime work is mandatory, 34.1 percent report a high level of job search behavior. (See Figure ES.4.)

Figure ES.4

For Three Groups of RNs Working Overtime in New York State -

Never, Sometimes, and Always Performs Overtime Work on a Mandatory Basis -

The Percent within Each Group Reporting a High Level of Job Search Behavior



- **Five years from now, half of New York State nurses expect that they will still be working in the same job setting, and slightly more than three-quarters expect that they will still be working in the nursing profession.**

- **Nurses working within inpatient hospital settings expressed the intention to leave their current job (not the nursing profession) within the next five years with far greater frequency** (27.6 percent**) than the average rate of job-leaving for nurses working in all other settings** (22.9 percent).

- **A survey finding of concern is the pronounced job-changing and career-changing intentions of young RNs currently working in New York State**. Among RNs 19 to 30 years of age, 50 percent expect to leave their current jobs (but remain in nursing) within the next five years. In contrast, the percentages of nurses between 31 and 60 years of age planning to leave their current jobs within five years averages around 30 percent. Fifteen percent of RNs aged 19 to 30 intend to leave the nursing profession within five years compared to 13 percent of RNs in their 30s and 40s.

Willingness to Recommend Nursing as a Career

- **Only one-quarter of RNs currently working in New York State say that they would "strongly recommend" nursing as a career to their friends**; slightly more than a third would tell their friends that nursing is an "OK" career, while just under a quarter would recommend to friends that they choose a different career. A select 5.4 percent would advise their friends not to choose nursing "under any circumstances."

- The degree of enthusiasm with which RNs would recommend a career in nursing is highly affected by their own career satisfaction. Among those who would not recommend the profession under any circumstances, the average global satisfaction scores were only 2.25 on a five-point scale. Those RNs who would strongly recommend the profession to others as a career averaged 4.24 on the same scale.

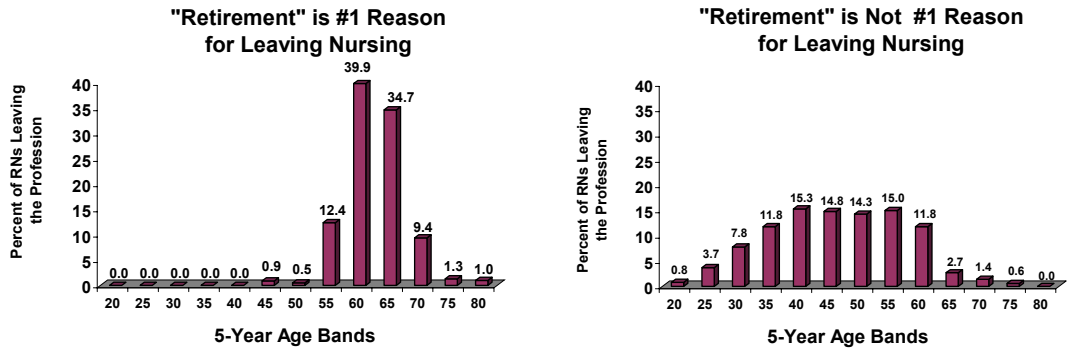
NURSES AT RISK FOR LEAVING THE PROFESSION

The responses of all RN respondents currently working in nursing in New York State were partitioned into five distinct groups at different levels of risk for leaving the profession. These five "risk groups" were defined by both age – less than 52 years of age or 52 years and older - and by intended timing for leaving the nursing profession.

- **Among RNs of all ages working in NYS who planned to leave the nursing profession within the next 12 months, the reason cited most frequently (**37 percent) **as the #1 ranked reason for leaving nursing was "retirement.**"

- Among RNs citing "retirement" as their #1 reason for leaving the nursing profession within 12 months, the average age was 62 years. **Among RNs citing any reason except retirement as their #1 reason for leaving, the average age was 47 years. In other words, RNs leaving nursing for reasons other than retirement are, on the average, 15 years younger than RNs who are planning to retire**. (See Figure ES.5.)

Figure ES.5
Age Distributions of RNs Who Plan on Leaving the Nursing Profession within 12 Months: Comparing RNs Leaving the Profession by "Retirement" (N = 138) to All Other RNs Leaving the Profession within One Year (N = 246)



- When the analysis is broadened to include the <u>three</u> top-ranked reasons for leaving given by each RN, a different pattern emerges. **"Stress" is ranked among the top three reasons for leaving the profession more frequently than any other reason.** In fact, a majority (58.6 percent) of RNs intending to leave the profession within the next 12 months cite "stress" as a primary reason for leaving. Half (49.9 percent) of these imminent leavers point to "retirement" as a primary reason, which is followed next in frequency of citation by "salary" (43.9 percent). Other prominent reasons frequently cited were: lack of recognition (33 percent), shift/hours (24.9 percent) and career change (24.2 percent).

- **Frequency of experiencing great stress on the job is the most potent predictor of job dissatisfaction for all RNs under the age of 52 years** working in New York State. The effect of stress frequency on the reported level of job dissatisfaction for the relatively young risk group of RNs leaving the profession within 12 months is three times stronger than it is for other RNs under the age of 52 working in New York State.

- **RNs motivated to leave nursing primarily because of "stress" have the lowest average job satisfaction ratings and the highest levels of workload and stress frequency. More than one-third of RNs in this "stress-leaver" cohort are younger than 43 years of age; thus their nursing careers are shortened by roughly 20 years.**

- For two of nine employment setting categories (ambulatory care and hospitals) "stress" and <u>not</u> "retirement" was the top-ranked reason for leaving the nursing profession. Among RNs working in ambulatory care settings almost four of every ten nurses listed "stress" as their primary reason for leaving**. For hospital nurses, three out of every ten indicated that stress was their primary**

reason for leaving. Moreover, this group of RNs leaving the profession because of stress was the youngest (average age = 48.8 years); **had the shortest average length of career experience** (21.3 years**); and experienced the highest frequency of stress as well as the highest measures of workload-related job stress.**

- Satisfaction with pay has a much stronger relationship with job satisfaction for the group of RNs under 52 years of age planning to leave nursing within 12 months than it does for other RNs. For this group "salary" is the second most frequently cited reason for leaving the profession – 54 percent of this group cite "salary" as among their three primary reasons for leaving the nursing profession.

RNS' RATINGS OF FACTORS IMPACTING THEIR JOB SATISFACTION

- **Nurses under 30 and over 70 report compensation as being less important to job satisfaction than nurses 40 to 49; nurses under 30 value autonomy the least, while older RNs in their 50s and 60s value it the most; nurses over 60 years of age claim technology has a greater impact on their job satisfaction than younger nurses; retired nurses report compensation as being less important to their job satisfaction than RNs currently working**.

- **Valuing compensation is related to lower job satisfaction and valuing autonomy is related to higher job satisfaction. Correspondingly, valuing compensation correlates with <u>not</u> recommending nursing as a career option to friends.**

- The greater the educational level of nurses, the more value they place on autonomy and the less value they place on compensation and technology.

- Nurses who reported their ethnicity as something other than "White/Caucasian" and nurses born outside of the US value recognition more than other RNs – they value recognition even more than they value compensation and autonomy.

- Across job titles, "autonomy" is the mean policy preference score that varies the most: nursing home and inpatient hospital staff nurses value autonomy far less than nurses in other titles and settings.

SUPPORT FOR PROPOSED REFORMS AND INCENTIVES

Respondents to this statewide survey were asked to rate the potential effectiveness of 19 different reform initiatives for recruiting and retaining high quality nurses in the profession. The initiatives included: two educational loan and scholarship initiatives; eleven "generic" reforms, ranging from health-safety and workplace-security reform proposals to a variety of financial reform incentives; and six reforms targeted to the hospital sector.

- **Incentive proposals were all very strongly endorsed**. These included: preferential state tax treatment for nurses; portable pensions/retirement benefits; reimbursement for childcare and affordable day care on the work site; and tuition assistance for continuing education, paid by one's employer. These proposals were each endorsed by 95 percent or more of those sampled.

- **Hospital and nursing home reform proposals – including reducing the maximum number of patients under the care of a single nurse, giving nurses more control over their schedules, and offering more stable work schedules – received exceptionally high levels of support by RNs working in those settings, even stronger levels of support than were given to financial incentives.** These six initiatives also included "no float staffing policies," restrictions on mandatory overtime, and "maximum hourly shift lengths." All six of these proposals received the top endorsement rating, "highly effective," more frequently than any of the other twelve proposals.

- **Among this same hospital- and nursing home-based respondent group, the reduction of nurse caseloads was the most strongly supported policy of all. It was an initiative supported by a remarkable 98.3 percent of respondents, and almost universally rated as potentially "highly effective" for recruiting and retaining good nurses.**

- The two educational reform initiatives (one involving work commitments in under-served areas in exchange for scholarship funding, and the other actual loan forgiveness for similar work commitments) were both strongly endorsed. Over 85 percent of respondents indicated that these proposals would "probably help" or "definitely help" in attracting good candidates to the nursing profession.

- Reforms given moderate to strong endorsement, but less strong than financial incentives, included: security against workplace violence and blood-borne or bodily fluid infectious exposure; peer and senior mentoring; the application of ergonomic standards to the workplace; and the availability of public transit vouchers and assistance. These incentives were viewed favorably as effective or very effective by about three-quarters of respondents, on average.

- Finally, minority RNs born and/or educated outside of the U.S. and those working in New York City had a different policy preference profile than the majority of other RNs. They were substantially more concerned about workplace violence and infectious disease controls than their non-minority, U.S.-born and/or educated counterparts. Also, unlike the majority of RNs, these nurses supported the proposal for more stringent licensing requirements. Ethnic minority RNs, working inside or outside of New York City, also more strongly supported proposals for educational loans and scholarships than did other RNs.

SURVEY RESULTS REINFORCE RECOMMENDATIONS OF THE REGENTS TASK FORCE ON THE FUTURE OF NURSING

Survey respondents provided a number of diverse opportunities for action for stakeholders positioned to address the nursing shortage. RN respondents strongly endorsed 18 of 19 reform and incentive proposals related to initiatives to recruit or retain quality RNs. Additionally, hundreds of survey respondents provided written comments and anecdotal responses. (Transcriptions of these comments are included in Supplement B of Volume III.)

Recruitment - *Expand the nursing workforce by recruiting additional numbers of men, minorities, non-practicing nurses, and recent high school graduates.*

- **Stakeholders should develop and implement strategies to make nursing more attractive to young people.** According to survey results, RNs aged 60 and older now outnumber those younger than 30 years of age by a two-to-one margin. It is recommended that steps be taken to encourage young people to become nurses. For those nurses and prospective entrants into the profession who may be entering the childbearing and child rearing stages of the life cycle, programs of child care, elder care, and more flexible work schedules may be critical in making the profession more staff-friendly.

- **Educators, government leaders, employers, associations, Regents Task Force members, and others should work to increase recruitment of members of underrepresented groups.** Focused, highly targeted recruitment efforts must be made to attract more minorities and males to the profession. Thus, scholarships, loan-forgiveness programs, and training grants targeted to these groups—and tied to service commitments in approved settings within New York State—should be supported and highly publicized.

- **Leaders in the health care community should consider targeting recruitment initiatives to regions with acute shortages.** Since our study revealed considerable inter-regional variation in RN staffing availability per 1000 population, and since considerable variation in "leave-taking" rates was also discerned among different Health Service Areas, efforts to more carefully identify regional labor markets from a "risk appraisal" perspective should be ongoing. Recruitment and incentive strategies should be structured to explicitly recognize these imminent shortage areas and loan-forgiveness commitments tied to service in these higher risk areas. The proposed National Nurse Service Corps, modeled after the National Health Service Corps, is such a model.

Education

Tuition Assistance

- Survey respondents strongly supported the proposal that employers provide greater **tuition assistance for the continuing education of RNs.** Almost 95

percent of respondents felt such assistance would help to retain good nurses within the profession.

Baccalaureate Education

- Baccalaureate degree recipients now make up increasingly smaller "shares" of the basic nursing preparation degree pool, as associate degrees have grown in popularity in recent years. Furthermore, since the average associate degree recipient defers the timing of her/his basic education training until the early thirties while the baccalaureate recipient typically completes her/his degree around 27 years of age, baccalaureate degree recipients have potentially greater career longevity than holders of associates degrees due to these timing differences. More importantly, based on our findings, baccalaureate degree recipients are more likely to extend their educational training to the master's or doctoral level than their associate-degree counterparts. These discrete educational strands suggest that especially aggressive efforts must be made at the high school level to attract and recruit prospective baccalaureate candidates for the nursing profession. Promising high school candidates must be apprised of the growing variety of scholarship, loan-forgiveness, and other financial incentives that are increasingly available to such candidates.

Educational Advancement from the Associate to the Baccalaureate Degree

- The highest degree held by 30 percent of the RN workforce is an associate's degree. Yet 37 percent of RNs whose highest credential is an associate's degree plan to further their education. This suggests that many RNs would welcome policies that help them continue their education. Structured programs of credit-bearing course work ***offered on site***—with appropriate preceptor and peer support—represent a significant, cost-effective, and attractive strategy for doing so. The Keuka College work-site based program is a program that may serve as a model for institutions throughout the United States.

Retention

Workload

- The reform proposal given almost universal endorsement, and the strongest level of endorsement, by the survey respondents was the proposal to reduce the maximum number of patients under the care of a single nurse.

- Nurses also emphatically supported the proposal to place restrictions on mandatory overtime work. The greater the extent to which respondents reported that they were required to work mandatory overtime, the less satisfied they were with their jobs, the more frequently they experienced great stress at work, and the more frequently they reported seeking other employment.

Financial Incentives

- **Increasing salary and benefit compensation packages for nursing staff should be considered a priority.**

- **Nurses say that efforts to enhance their pensions and retirement benefits and proposals to make those benefits more portable are important to them.**

- **RNs recommend legislation that would give preferential State tax treatment to nurses.**

Family Friendly Employment Practices

- Over 96 percent of respondents agreed that **reimbursement for childcare** expenses would help to retain RNs within the nursing profession.

- Over 96 percent of respondents agreed that **having affordable daycare available at the site of employment** would help to retain quality RNs. Inpatient hospital RNs have children living at home with them, especially children under six years of age, with greater frequency than RNs working in other job settings. "Inpatient hospital" is the job setting in which a greater percentage of nurses plan to leave within the next five years (to work as nurses in a different setting) than any other job setting. Inpatient hospitals would probably benefit more than other settings by providing affordable daycare on site.

Flexible Scheduling Options, Greater Stability in Their Schedules, and Greater Control over Schedules

- Over 95 percent of our respondents agreed that these measures would help to retain RNs within the profession. Many letters sent to the State Board for Nursing along with the returned surveys described how the incompatibility of respondents' work schedules and their family obligations forced them to leave their careers in nursing.

Overtime

- **Overtime practices, particularly mandatory overtime, are a major source of nurses' job dissatisfaction and add further stress to an already highly stressful work environment. Nurses say that these practices should be restricted or eliminated. They are** not **the solution to the shortage problem and may in fact exacerbate it insofar as overtime contributes to attrition.**

Autonomy

Volume II findings demonstrated that autonomy is among the job dimensions most highly valued by nurses.

- **Over 95 percent of respondents supported the proposal for "no-float" staffing policies within hospitals and nursing homes. Being "floated out" to units in which they have insufficient experience or expertise leaves RNs in the position of being substantially less at ease with making autonomous decisions.**

- **Survey respondents recommended greater recognition of, and support for, the clinical expertise of RNs, especially of highly experienced and credentialed RNs.**

- **Nurses surveyed suggested that RNs be active members of the governing bodies of health care related institutions and organizations.**

Improve Administrative and Supervisory Communication

- Survey respondents recommend concentrated efforts to improve informational delivery systems and active listening strategies in health care organizations.

- Reward and recognition strategies may be effective for highlighting individual and group success.

Workplace Safety

The majority of survey respondents agreed that enhanced workplace safety proposals would help to retain high-quality RNs. Support for these proposals was by far the strongest among ethnic minority RNs and nurses born and/or educated outside of the U.S., especially those working in New York City.

- Survey respondents recommend providing greater protection against blood-borne or bodily fluid infectious exposure.

- RNs suggest providing a higher level of security against workplace violence.

In-Service Training to Foster Awareness and Reduction of Job Stress

- In addition to reducing the sources of job stress, in-service training was recommended by nurses in nursing homes and hospitals as a potential strategy for teaching nurses a variety of stress management techniques.

Technology

- Survey respondents recommend strategies to reduce paperwork. Findings presented in this volume demonstrated that a major contributor to the high levels of workload job stress experienced by many RNs working in direct patient care is the amount of time they are required to spend completing paperwork (on average, almost one-third of their workday). The higher the percentage of their time these RNs report having to spend on paperwork, the more frequently they report not having adequate time to care for their patients. In effect, high

paperwork demands contribute not only to workload stress – but to diminished nurse/patient ratios critical to high-quality care.

- RNs suggest exploring new technologies to reduce paperwork. Technology-driven strategies such as the use of standardized software for clinical assessment, readily accessible laptop computers, voice-recognition transcription systems, etc. should be more fully exploited to minimize clinical time lost to paperwork requirements and, consequently, to alleviate the stress induced by exorbitant paperwork. Nurses report needing more time to provide direct nursing care to their patients.

- Survey respondents recommend more consistent application of ergonomic standards to the work setting. RNs also called for equipment and technology to lessen the potentially damaging physical demands of their direct patient care responsibilities. This reform proposal was supported by most RN respondents, but was endorsed with the greatest enthusiasm by older nurses. As the RN workforce continues to age, the provision of equipment and technologies that lessen the physical demands of nursing will be increasingly important for nurse retention.

- **Nurses surveyed recommend expanding distance learning opportunities to provide access to degree programs.** Distance learning and teleconferencing approaches to completion of approved credit-bearing coursework toward a bachelor's degree should be more fully exploited. Technology-driven strategies enabling nurses ***on site*** flexible access to such training are likely to both increase staff participation and garner employer support.

Data Collection and Data Analysis

- Consider recommending another nursing survey in 2010. **Just as the trend analyses presented in Volume I of this report rested upon previous surveys, ongoing efforts to monitor the nursing supply and issues of concern to nurses will depend upon the continuing collection of data. Another survey in 2010 would enable employers, policymakers, futurists, legislators, researchers, and others to understand and respond to needs arising from future changes in the nursing workforce and workplace.**

CONCLUSION

This summary has provided highlights of the Department's 2002 survey of registered professional nurses. The survey results revealed a number of opportunities for future action that reinforce the recommendations of the Regents Blue Ribbon Task Force. Addressing the nursing shortage will require continued collaboration and commitment from government leaders, association representatives, employers, educators, nurses, and all members of the health care community.

Chapter 1: The Climate of Retention

BACKGROUND

In April 2001, the State Education Department presented the Board of Regents with a report on the nursing shortage in New York State.[1] The report was part of a series designed to address important issues affecting the future of professional regulation. The analysis offered compelling evidence of the nursing shortage projected in coming years. The report highlighted the root causes of the shortage, and how the current shortage differed structurally and demographically from previous shortages. The Board of Regents acknowledged the impending nursing shortage as having significant implications for the health care system and their public protection mission. As Commissioner Richard P. Mills emphasized:

> "One important role of the Board of Regents is to identify public protection issues and to take action to address them swiftly. Nothing is more important to ensure our future well-being. Health care and education go hand in hand to make our State an economic leader and a good place to live." [2]

In response to the potential crisis and in carrying out the Regents regulatory responsibility for over 300,000 licensed nurses in the State, Chancellor Carl T. Hayden called for the formation of a Blue Ribbon Task Force on the Future of Nursing and tapped Regent Diane O'Neill McGivern, an innovator in nursing education, to lead it. Regent McGivern convened two Task Force meetings later that year (on June 28 and September 7). She invited 26 influential leaders in healthcare, education, and government to participate in the Task Force. Members were selected to represent significant areas of responsibility uniquely positioned to address the shortage. The Task Force advanced a set of recommendations focused upon the growing shortage.[3]

One of the six broad strategies recommended by the Task Force was to improve data collection and develop a reliable, centralized source of data upon which employers, policymakers, futurists, researchers and legislators may base public policy and resource allocations. In addition, the Regents recognized that the data source needed to include current, comprehensive information about specific characteristics, attributes, and expectations of New York's nurses. Accordingly, a large-scale randomized survey of

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[1] The New York State Board of Regents, Office of the Professions, *The Nursing Shortage*, BR (D) 6.1-2 and attachment, April 16, 2001 (Albany, NY).

[2] Commissioner Richard P. Mills, New York State Board of Regents Blue Ribbon Task Force on the Future of Nursing, available at http://www.op.nysed.gov/tfwork.htm.

[3] The recommendations are fully described in two separate full board Regents reports: *Addressing Nursing and Other Professional Work Force Shortages* and *Follow- up Activities on Recommendations of the Regents Blue Ribbon Task Force on the Future of Nursing,* December 4, 2001 and March 4, 2002, respectively (Albany, NY).

registered nurses was designed during the summer of 2002 in partnership with the Fiscal Analysis and Research Unit and the Office of the Professions in the New York State Education Department (SED) and other key stakeholders.

RESEARCH OBJECTIVES

The current survey is the sixth study of the New York State registered nursing population undertaken by the Department.[4] This survey, like its predecessors, attempts to provide a comprehensive, quantitative description of the currently licensed registered nurses in New York State.[5] Unlike prior SED studies, however, this one examines work conditions and organizational climate factors known to be critical in creating a positive culture of retention (i.e., a workplace that empowers and is respectful of nursing staff). Additionally, respondents in this survey were asked to directly evaluate a variety of policy initiatives intended to improve the attractiveness of the profession.

Volume I

The primary research objectives of Volume I are essentially to report on demographic data. This volume of the report:

- Describes with precision the major demographic, occupational, and educational characteristics of registered nurses in New York State (as of September, 2002);
- Compares, where possible, current demographic findings with findings from earlier nursing studies conducted in New York State;
- Synthesizes, briefly, current findings concerning projections of nursing supply and demand; and,
- Describes nurses' own views about supply and demand issues in their particular work settings and geographic locales;

Volume II

The primary research objectives of the Volume II report are far more analytic in character. The second report volume:

- Examines important conditions of the work setting, with particular attention to certain conditions of the work climate (e.g., professional autonomy, cooperation, job satisfaction, organizational commitment, promotional opportunity, etc.);
- Determines the net impact and relative importance of these climate factors upon nurses' overall job satisfaction and organizational commitment;
- Determines the net effects of global job satisfaction and organizational commitment upon actual job-search behaviors, leave-taking decisions, and recommendations to others about a career in the nursing profession;

[4] The previous studies were conducted in 1973, 1977, 1983, 1989 and 1995.
[5] More precisely, this nursing sample is based upon an extract from the nursing licensure files as of August 28, 2002.

Highlights nurses' level of support for a variety of policy initiatives of interest to the Regents Blue Ribbon Task Force and the Board of Regents; and

Proposes recommendations based upon these findings.

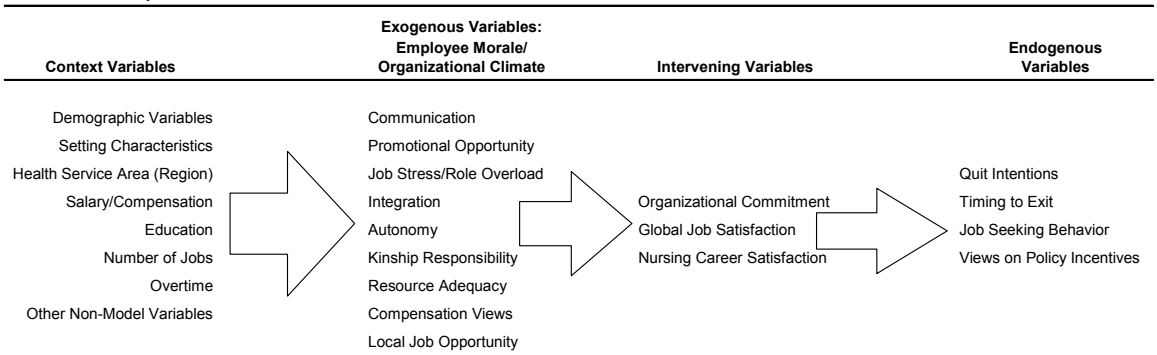
Volume III

Volume III accomplishes the same objectives as Volumes I and II, but with an exclusive focus on inpatient staff RNs. The third volume also includes comments from survey respondents. Although the survey did not ask respondents to explain their experiences and feelings towards nursing, many wrote in to express their views. Their remarks and observations help provide a context for the quantitative data analysis and offer policymakers insights into life on nursing's front lines.

The "Price-Mueller" Conceptual Model of Employee Turnover

The theoretical perspective that has shaped the choice of measures is an organizational theory of voluntary turnover. The study relies heavily upon the work of James L. Price and his colleagues at the University of Iowa.[6] The conceptual model of employee turnover (Figure 1.1) is based on the work of Price and Mueller. It is well suited to understanding problems in organizational retention, especially in the health care sector.

Figure 1.1
Modified Conceptual Model



A full description of this conceptual model and the operational measures employed in the survey questionnaire is described in Appendix B.

THE SAMPLING DESIGN AND DATA COLLECTION STRATEGY

The nurses surveyed were randomly selected from New York State Education Department's files of actively registered RNs as of August 28, 2002. The sample extract of nurses who were mailed the questionnaire was based upon systematic, disproportionate stratified sampling techniques. Major strata were defined based on

[6] See James L. Price and Charles W. Mueller, *Absenteeism and Turnover of Hospital Employees*, (Greenwich, CT: JAI Press, 1986).

each licensee's Health Service Area (HSA).[7] Sampling fractions were not uniform across all Health Service Areas; higher sampling rates were applied to more thinly populated HSAs to ensure an adequate number of respondents in the various regions of the State. A full description of the sampling design and sample reweighting requirements is described in Appendix C.

A total of 31,696 registered nurses were sent the survey in early October, together with a postage-paid, return-address envelope. In addition, a single follow-up postcard mailing was sent to all respondents several weeks after the initial mailing to improve response rates. Mailings returned to the Department which could be forwarded, were re-mailed. Extensive editing of each returned survey helped to ensure that well over 99.7 percent of the returned surveys were useable in the subsequent analysis. Subtracting undeliverable or unusable surveys from those sent resulted in a base of 31,231. In all, 14,237 useable surveys were available for analysis. Thus, the useable response rate was determined to be 45.6 percent. (See Appendix A for a copy of the survey instrument.)

SAMPLE REPRESENTATIVENESS

An important issue in a statewide survey of this type is sample representativeness. Confidence in our ability to generalize from this sample of 14,237 nurses to the entire registered population of 228,661 registered nurses statewide requires that the respondent sample mirror certain known characteristics of the entire population. In order to make the comparison, the questionnaire requested information that also existed in the Department's licensure database as of September 28, 2002.

Ideally, the respondent sample would not differ appreciably from the licensure database in terms of age, ethnicity, years of experience, etc. A series of chi-square "goodness of fit" statistical tests were conducted to determine how well certain known characteristics of the nurse respondents mirrored the total population. These tests of sample representativeness are described at length in Appendix D. Specifically, these tests permitted a direct comparison of sample and population distributions on such variables as gender, ethnicity, age, and age upon completion of one's basic nursing preparation. With minor exceptions, these tests demonstrate that sample bias has been avoided and that the sample is broadly reflective of our State's entire registered nurse population.

STRUCTURE OF THE VOLUME II REPORT

Structurally, the second volume is organized in the following sections:

Executive Summary and Policy Implications highlights the major substantive findings reported in Volume II and lays out some of the major policy implications of these findings.

[7] Health Service Areas are aggregations of counties whose local commuting patterns for hospital services appear to constitute a single, integrated market for health care; the particular HSA scheme which this study employs is based on the analysis by the federal Centers for Disease Control of 1989 hospitals.

Chapter 1 defines the major research objectives to be addressed in Volume II and provides a theoretical overview of the importance of the culture of retention to the nursing shortage problem.

Chapter 2 describes in more detail the Price-Mueller model of staff turnover and highlights major descriptive findings concerning the organizational climates in which New York's RNs work on a daily basis. Variation in nurse ratings of professional autonomy, promotional opportunity, communication and related "climate" factors are carefully explored in a variety of job titles and work settings.

Chapter 3 further elaborates the Price-Mueller model of voluntary turnover by exploring the impacts of organizational climate factors upon a nurse's organizational commitment and her/his overall global job satisfaction.

Chapter 4 examines the final links in the Price-Mueller model of staff turnover by assessing the relationship of a nurse's organizational commitment and global job satisfaction to key outcome measures. These key outcome measures include intentions to leave, timing of the "quit" intentions, and job seeking behaviors.

Chapter 5 details aspects of the entire Price-Mueller model for selected "risk groups." These groups include those who have recently left, those who plan to leave the profession very shortly even though they may be relatively young, and other risk groups of particular policy interest.

Chapter 6 further explores why selected categories of nurses want to leave the profession and examines the reasons they give for wanting to leave.

Chapter 7 examines "what nurses want" by describing their reactions to a set of five major policy preferences. In this instance, each respondent was asked to evaluate a set of policy preferences in a "paired comparison" format with every other policy preference.

Chapter 8 describes in detail nurses' support for a wide array of policy incentives. Selected incentives evaluated include educational, ergonomic, security and life-safety improvements, patient caseload and overtime restrictions. This chapter also highlights the experience of other states that have developed and implemented major nursing reform initiatives.

Chapter 2: Organizational Climate in the Work Setting

INTRODUCTION

A major research objective addressed in this report is the examination of nurses' workplace settings and the influence of organizational climate factors in those settings upon the culture of retention. Our research focus is consistent with a burgeoning nursing literature that gives high priority to retention-centered approaches for addressing the current nursing shortage. In the recent Regents Blue Ribbon Task Force *Follow-Up Report*, for example, one of six major action recommendations advanced was to develop *retention strategies* to curtail the attrition of the current nursing workforce.[1] In a similar vein, the Joint Commission on the Accreditation of Healthcare Organizations issued a white paper in 2002 which identified the development of "organizational cultures of retention" as critical in stemming the growing nursing shortage and associated threats to patient safety posed by staffing shortages.[2]

A common thread in virtually all of these recent studies has been diminishing job satisfaction, and the extraordinarily high replacement costs associated with growing rates of staff turnover. As a recent report from the Voluntary Hospitals of America noted, it costs approximately 100 percent of a nurse's salary to fill a vacated nursing position.[3] That is why, as the authors of this report also suggest:

> "…there is a strong business case for creating a culture of retention. As nurses leave, this drives up hospital costs while driving down profitability, productivity, efficiency, and quality. Monies spent on recruitment and replacement activities could obviously be better spent on creating workplace environments that value and reward employees, encourage employee loyalty, and ultimately support safe, high quality care…"

In statewide analyses of the nursing experience in Pennsylvania hospitals, Linda H. Aiken and her colleagues documented three exceptionally important points:

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[1] The New York State Board of Regents, Office of the Professions, *Follow-up Activities on Recommendations of the Regents Blue Ribbon Task Force on the Future of Nursing,* March 4, 2002, p. 1

[2] Joint Commission on Accreditation of Healthcare Organizations, *Healthcare at the Crossroads, Strategies for Addressing the Evolving Nursing Crisis,* 2002, pp. 8-9.

[3] Keith C. Kosel and Tom Olivo, "The Business Case for Workforce Stability," *Voluntary Hospitals of America*, April 2002, cited in *Healthcare at the Crossroads,* p. 9.

- Substantial *decreases* in patient mortality could result from increasing registered nurse staffing – especially for patients who develop complications following surgery. If the average patient-to-nurse staffing ratio (found to range from 4:1 to 8:1 in all 168 hospitals studied by Aiken and her colleagues) had been held statistically to the more favorable 4:1 standard across the board, roughly 1,000 deaths could have been prevented in the time period and hospitals studied. Stated differently, an increase of one additional patient per nurse was associated with a seven percent increase in patient mortality within thirty days of admission;

- Higher emotional exhaustion and greater job dissatisfaction were strongly and significantly associated with higher patient to nurse ratios, i.e., the higher the patient-nurse staffing ratios, the greater the level of burnout and job dissatisfaction experienced.

- A pronounced relationship was also confirmed between job satisfaction and intention to leave. Among nurses who reported high burnout and job dissatisfaction, 43 percent indicated they intended to leave within 12 months; in stark contrast, among those not experiencing burnout and job dissatisfaction, the comparable intent-to-leave percentage dropped to 11 percent, a 32 percentage point difference.[4]

The findings of Aiken and her colleagues call attention to both the mortality effects of inadequate nursing staffing as well as the strong association of diminished staffing upon employee job satisfaction and intention to leave. A large-scale study of hospital nursing staffing patterns and patient morbidity by Needleman, Buerhaus, et al., reported similar results.[5] In their 1997 study of 799 hospitals in 11 states they found, for example, that:

- Among medical patients, the higher the proportion of hours of care per day provided by registered nurses, the shorter the patient length of stay and the lower the rate of adverse outcomes (after controlling for patient risk of morbidity);

- Specifically, the greater the amount of care provided, the lower the rates of urinary tract infections, upper gastrointestinal bleeding, shock of cardiac arrest, pneumonia, and "failure to rescue" (i.e., death due to certain medical conditions).

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[4] Linda H. Aiken, Sean P. Clarke, Douglas M. Sloan, Julie Sochalski, and Jeffrey H. Silber, "Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Satisfaction," *Journal of the American Medical Association,* 288 (16) October, 2002: pp. 1-17.

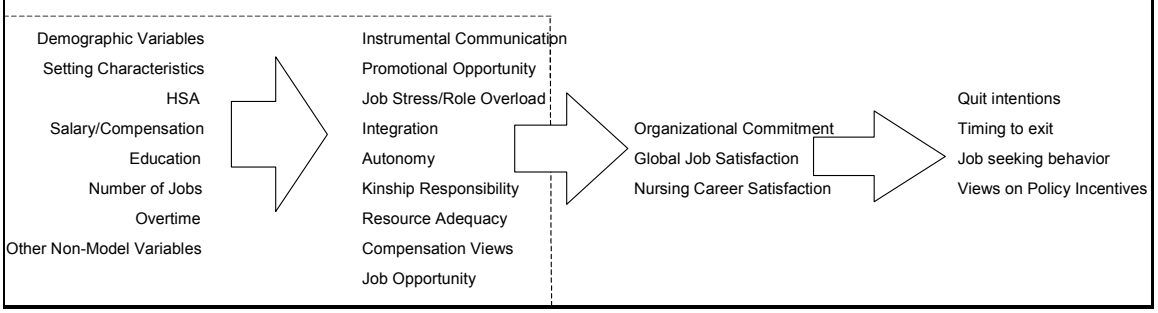
[5] See Jack Needleman, Peter Buerhaus, Soeren Mattke, Maureen Stewart, and Katya Zelevinsky, "Nursing-Staffing Levels and the Quality of Care in Hospitals," *New England Journal of Medicine,* 346 (22) May 30, 2002.

In short, the importance of nursing staffing levels to the quality of patient care is well documented in this study. And while this study was not concerned with the job-satisfaction or turnover impacts of less adequate staffing levels, these are precisely the types of impacts that we would anticipate in settings whose morbidity and mortality rates were heightened as a result of lower staffing patterns.

The Price-Mueller Model of Staff Turnover

Retention centered strategies must be clearly informed by a strong and defensible theory of what actually accounts for nurses' decisions to leave the profession. Numerous studies have been conducted in both the nursing and non-nursing fields to identify those factors that best predict nursing turnover.[6] The Price-Mueller model of voluntary turnover is possibly the most heavily tested and validated turnover model, one extensively applied in nursing. That model emphasizes key "organizational climate" conditions as the important explanatory (or "exogenous") variables in accounting for nurses' organizational commitment and subsequent leave intentions. The Price-Mueller model provides the conceptual framework for the majority of analyses presented in this volume, especially through Chapter 4. The model is described fully in Appendix B and displayed schematically in Figure 2.1.

Figure 2.1 Modified Conceptual Model



ANALYSIS OF EXOGENOUS MODEL VARIABLES

Conceptual Overview

The Price-Mueller structural model of employee turnover identifies a number of critical "organizational climate" variables that help characterize important dimensions of work life for nurses. These antecedent climate variables, in turn, are believed to lead to or directly affect intervening variables such as job satisfaction, career satisfaction and organizational commitment. In the Price-Mueller model, nursing satisfaction and

[6] For a thorough review see Stephen J. Cavanaugh, "Nursing Turnover: Literature Review and Methodological Critique," *Journal of Advanced Nursing* 14 (1989) pp. 587-596.

organizational commitment variables ultimately influence career decisions and intentions to quit.

Structure of the Chapter

The analyses discussed in Chapter 2 of this volume correspond to the left-hand side of Figure 2.1 (as indicated by the dashed line). Chapter 2 will analyze in detail each of the organizational climate factors and identify important context variables that help to explain observed differences in these conditions of work life. A brief description of each of these climate measures is provided below. A detailed description of the individual items that constitute each of the organizational climate scales and the internal reliability of these scales is provided in Appendix E.

The organization climate factors include:

- *Instrumental Communication:* refers primarily to the transmission of job related information important to job performance.

- *Promotional Opportunity:* refers to the degree of potential (vertical) occupational mobility *within* the work setting. The presumption here is that the presence of greater internal promotional opportunities will increase overall job satisfaction, and lead indirectly (through satisfaction) to lowered turnover.

- *Job Stress:* refers to the extent to which job duties are difficult to fulfill. While conceptually there are several types of job stress identified in the literature, there are three in particular that are the focus of our instrument – *role overload* (or excessive effort required to do the job well), *inadequacy of resources* (supplies, equipment, and/or space) and the *frequency of experiencing great stress* in the course of performing one's job.

- *Integration/Cooperation:* refers to the extent to which staff feel they can rely upon social support from other members of the unit for job-related problems; a separate measure of physician-nurse interaction was also drawn from the Index of Work Satisfaction developed by Paula Stamps.[7]

- *Autonomy:* refers to the extent to which an employee exercises decision-making authority over major aspects of one's job.

- *Kinship Responsibility:* refers to the existence of role obligations toward relatives living in the community. The assumption here is that the existence of nearby kin produces a greater sense of obligation (especially to parents), obligations more easily fulfilled by remaining with the current employer.

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[7] See Paula L. Stamps, *Nurses and Work Satisfaction: An Index for Measurement,* Health Administration Press, Second Edition, (Chicago, Illinois), 1997, esp. Appendix B.

- *Compensation:* refers to the salary received by nursing staff for their services. This measure was captured in both its objective dimension and its subjective dimension. The subjective dimension was captured using measures developed by Stamps in her Index of Work Satisfaction. [8]

- *Job Opportunity:* refers to the availability of alternative (local and non-local) jobs in the labor market, and is the type of measure(s) emphasized by economists.

JOB STRESS: WORKLOAD AND ROLE OVERLOAD

While the full Price-Mueller model of voluntary turnover places considerable weight on all of the organizational climate variables specified above, an especially critical component in any assessment of a nurse's daily working conditions is the stress confronted on a daily basis. The broad definition of job stress is simply the extent to which a job is difficult to perform. Three dimensions of job stress were measured by the survey – workload or role "overload", lack of resources, and the frequency of experiencing great stress on the job. This section of the chapter highlights major job-stress findings associated with workload. It describes variation in the workload-stress experienced in different job settings and by RNs in different job titles.

The survey included four questions designed to gauge the magnitude of the workload stress experienced by nurses.[9] Figure 2.2 illustrates the distribution of responses to each of the four items. As shown in the figure, RNs who were working in New York State in September 2002 viewed their workload as extremely heavy. With 80.6 percent of nurses agreeing or strongly agreeing that they must work very hard in their jobs, and 65 percent of nurses agreeing or strongly agreeing that they must work very fast in their jobs, it is clear that the average workload stress of these nurses is substantial.

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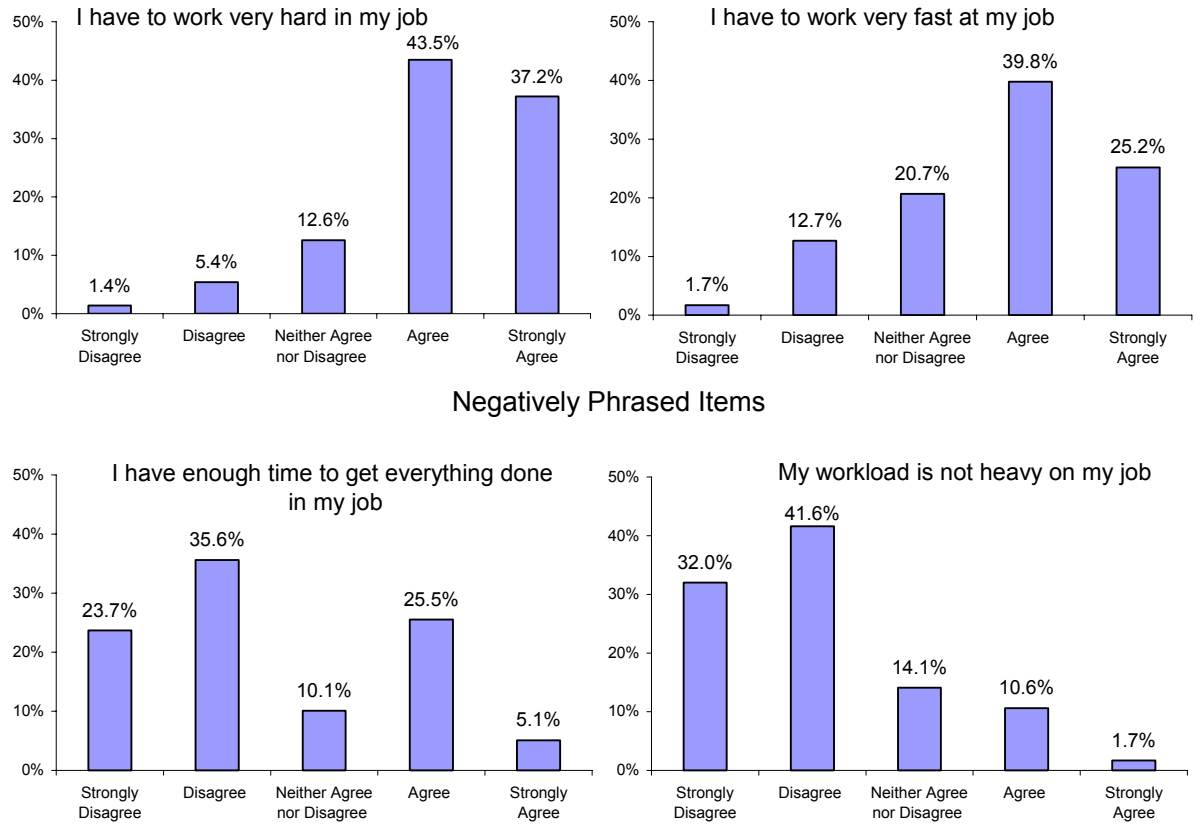
[8] Stamps, *Nurses and Work Satisfaction,* pp. 26-29.

[9] This four-item workload stress scale was developed by Price and Mueller. For a comprehensive review of the Price-Mueller model, see James L. Price, "Reflections on the Determinants of Voluntary Turnover," *International Journal of Manpower*, (MCB University Press, 2001), 22 (7): pp. 600-624.

While nurses tended to be in agreement that they have to work both very hard and very quickly in their jobs, the distribution for the third scale item shown in Figure 2.2 is bimodal. When nurses were asked whether they agreed with the statement – "I have enough time to get everything done in my job," substantial disagreement between nurses was found. Fifty-nine percent of nurses disagree or strongly disagree that they have enough time to get everything done, whereas thirty-one percent agree or strongly agree. Despite the level of disagreement on this dimension, the finding that roughly sixty percent do not feel that they have enough time to get everything done on their jobs indicates that nurses are experiencing substantial workload pressure. That pressure is likely to increase as workforce shortages grow, as the workforce ages, and as pressure on institutions intensifies to rely increasingly on overtime and extra hours of scheduling to address these shortfalls.

Figure 2.2

Workload Stress Scale: Distribution of Nurses Currently Working in New York State by Scale Item



Workload-related Job Stress and Work Setting

While nurses generally exhibit remarkable consensus about the high workload stresses experienced in their jobs, regardless of job setting, there are noteworthy differences. As shown in Table 2.1, nurses working in direct patient care, particularly

with patients requiring substantial assistance and critically in need of care, report greater levels of workload stress than their counterparts who work either in settings that require less direct care or which are more administrative in nature. Levels of workload stress, broken out by scale item and work setting, are displayed in Table 2.1. (This table, as well as subsequent tables, is sorted in descending order of average workload stress scores to permit the reader to more easily evaluate variation in stress across varied settings. As shown in the table, nurses working in direct care settings such as nursing homes and inpatient-hospitals report the greatest levels of workload stress (mean scores of 4.01 and 3.97 respectively).

Table 2.1
Mean Score for Dimensions of Workload Stress and Average Scale Score by Work Setting

		Positively Phrased Items		Negatively Phrased Items		Average Scale Score[1]
		I have to work very hard in my job	I have to work very fast at my job	My workload is not heavy on my job	I have enough time to get everything done in my job	
		1=strongly disagree		3=neither agree nor disagree	5=strongly agree	
Work Setting	n	Mean Score				
Nursing Home	877	4.22	3.73	1.85	2.05	4.01
Hospital - Inpatient	4608	4.25	3.97	1.90	2.45	3.97
Hospital - Outpatient	729	4.10	3.95	2.18	2.65	3.80
Insurance	75	3.94	3.76	2.07	2.48	3.79
Ambulatory Care	440	4.02	3.81	2.16	2.66	3.75
HMO/Managed Care	108	3.93	3.51	2.16	2.64	3.66
Govt/Professional/Health Org.	207	3.93	3.33	2.22	2.56	3.63
Home Health Agency/Home Care	745	3.85	3.24	2.33	2.44	3.58
Physician's Office	477	3.96	3.75	2.45	3.05	3.55
Nursing Education	181	3.94	3.18	2.32	2.59	3.55
Institutions of Higher Education	71	3.97	3.32	2.42	2.68	3.55
Other Health Related Setting	436	3.78	3.29	2.36	2.67	3.51
Diagnostic/Treatment Center	75	3.88	3.49	2.45	2.99	3.48
School Health Nursing Service	552	3.72	3.20	2.46	2.84	3.41
Non-Health Related Setting	50	3.70	3.15	2.45	2.98	3.35
Business or Industry	92	3.48	3.09	2.73	2.88	3.24
Private Practice	68	3.70	3.05	2.84	3.46	3.12
Overall	**9791**	**4.09**	**3.74**	**2.08**	**2.53**	**3.81**
eta		0.216	0.300	0.232	0.191	0.269
eta^2		0.047	0.090	0.054	0.036	0.072

[1] The scales for the two negatively phrased items have been reversed in the computation of the scale average. A higher score indicates greater workload stress.

Nurses in non-health related settings, business or industry and nurses working in private practice report the lowest levels of workload stress. However, even among these groups, the average level of workload stress falls well above the neutral point on the scale. Thus, while nurses working in hospitals and nursing homes report greater levels of workload stress, **all nurses** regardless of work setting report that they are working very hard, very fast, and under considerable time pressure.

To properly examine the association between a categorical variable like work setting and an ordinal or interval scale variable such as workload stress, a measure of association based upon these measurement properties is needed to describe the **strength** of the relationship. One measure for this analysis is eta or eta^2. Eta^2 is similar to the R^2 employed in multiple regression and represents the percent of variance accounted for by the categorical variable. Thus the eta^2 value of 0.072, displayed at the bottom of the right-hand column in Table 2.1, indicates that 7.2 percent of the variance

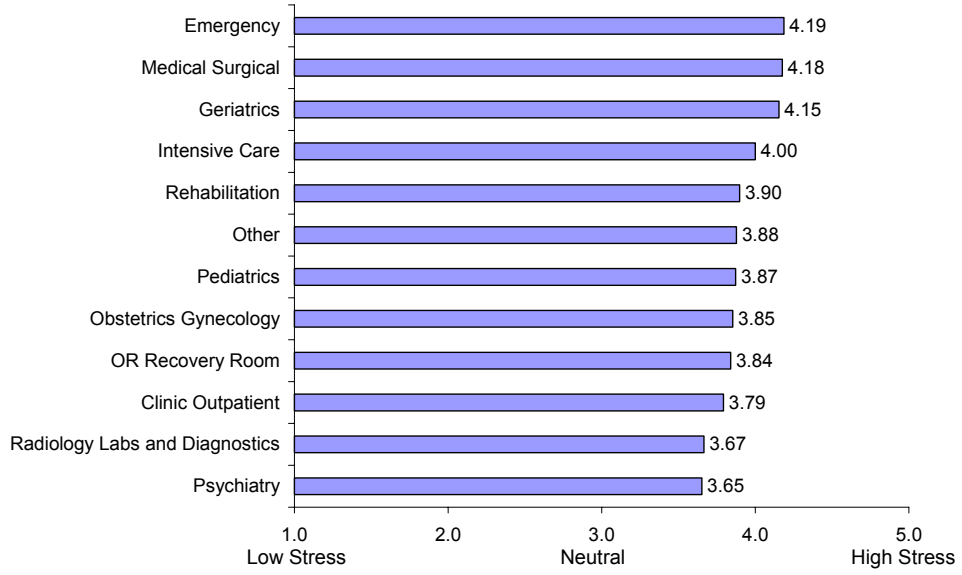
in workload stress is accounted for by *differences* in the work setting variable.[10] This finding suggests that while nurses tend to agree on issues of workload, there are differences between nurses in how they view their work and these differences are, in part, a function of the settings in which they work.

Workload-Related Job Stress in Hospitals

In our analysis of registered nurses working in New York State, 54.4 percent work in hospital settings. Hospitals are extremely complex organizations varying greatly in size, specialty, and the number of internal functional units. The survey asked nurses working in hospitals to report which unit(s) they were assigned to, thus enabling the differences in worklife dimensions to be compared for nurses working in different functional units. Figure 2.3 displays the level of workload stress for hospital nurses working in various units.

As shown in the figure, nurses working in emergency, medical/surgical units, geriatrics and intensive care units report the greatest levels of workload stress. The findings reflect the fact that these units represent some of the most challenging and clinically intense work environments for nursing staff. While nurses working in psychiatry and radiology units report experiencing substantially less stress than do their counterparts in other units, it is noteworthy that their reported levels of workload stress are still well above the "neutral" scale-reference value.

Figure 2.3
Workload Job Stress for Nurses Working in Hospitals by Unit Type



Workload-Related Job Stress and Job Title

Job title is also an important factor in accounting for differences in workload stress. Within the nursing profession, a diverse series of titles differentiate nurses in

[10] All subsequent tables displaying a relationship between a categorical variable such as work setting or job title and an ordinal measure of work environment will also report both eta and eta^2.

terms of the actual type of work that they do. Table 2.2 displays nurses' ratings of various workload-stress items and average overall scale scores by job title.

Table 2.2
Average Score for Dimensions of Workload Stress and Average Scale Score by Job Title

		Positively Phrased Items		Negatively Phrased Items		Average Scale Score[1]
		I have to work very hard in my job	I have to work very fast at my job	My workload is not heavy on my job	I have enough time to get everything done in my job	
		1=strongly disagree		3=neither agree nor disagree	5=strongly agree	
Job Title	n	Mean Score				
Nurse Manager/Patient Care Coord.	1000	4.22	3.65	1.84	2.05	4.00
Director of Nursing/VP for Nursing	297	4.22	3.56	1.86	1.99	3.98
Dean/Director/Chair Nursing Ed.	23	4.25	3.37	1.77	2.21	3.91
Staff Nurse	5508	4.18	3.98	2.01	2.54	3.90
In-service Director/Instructor	158	3.94	3.33	2.09	2.19	3.75
Quality Assurance	323	3.96	3.53	2.11	2.46	3.73
Nurse Practitioner	422	4.04	3.59	2.26	2.82	3.64
Public/Community Health Nurse	463	3.90	3.30	2.25	2.41	3.64
Clinical Nurse Specialist	172	3.93	3.51	2.30	2.69	3.62
Claims Reviewer	39	3.55	3.47	2.34	2.46	3.55
Other	904	3.89	3.39	2.33	2.75	3.55
Faculty in Nursing Ed. Program	154	3.89	3.05	2.45	2.74	3.44
Researcher	66	3.71	3.01	2.41	2.69	3.41
Consultant	72	3.70	3.23	2.65	2.95	3.33
Certified Nurse Anesthetist	38	3.77	3.38	2.44	3.61	3.27
Independent Practitioner	68	3.69	3.16	2.65	3.20	3.25
Private Duty Nurse	96	3.17	2.50	3.49	4.07	2.53
Overall	**9803**	**4.10**	**3.74**	**2.08**	**2.52**	**3.81**
eta		0.184	0.297	0.216	0.225	0.259
eta^2		0.034	0.088	0.047	0.050	0.067

[1] The scales for the two negatively phrased items have been reversed in the computation of the scale average. A higher score indicates greater workload stress.

As shown in the table, nurses in managerial and leadership roles report the greatest levels of workload stress (average scale scores were 3.9 or higher). This finding reflects the difficult operational responsibilities required of nurse managers for supervision, for training, for quality control, and for ensuring that workload requirements are met on a daily basis. As budgets are cut and staffing shortages become more problematic, the burden of creatively bridging the staffing gap falls on nurse managers.

The nurses reporting the second-highest average level of workload stress are staff nurses (average scale score = 3.90). Staff nurses working in hospitals and other direct-care settings are the front-line providers of medical care, and staff nurses represent the single largest job-title category within the nursing profession. For staff nurses, workload stress is different from the stress reported by nurse managers: it represents a measure of the direct patient-care effort required for the delivery of health care services. Since staff nurses within hospital settings already typically incur substantial overtime obligations, and since their self-reported workload stress is already "high," these two findings taken together suggest there is very little potential for "squeezing" added full-time equivalent capacity from current staffing levels as a means of compensating for staff shortages.

Private duty nurses, in stark contrast, reported substantially lower levels of workload stress compared to any other job title; their average workload stress scale score was 3.12 – well below the statewide average. Nurses in private-duty service

often care for patients on a one-on-one basis and have considerably greater autonomy in their day-to-day work; these factors may account for their reporting, on the average, less daunting workload demands.

Workload-Related Job Stress and Paperwork

Figure 2.4
Workload Stress by Paperwork Category for Nurses Working in Direct Patient Care

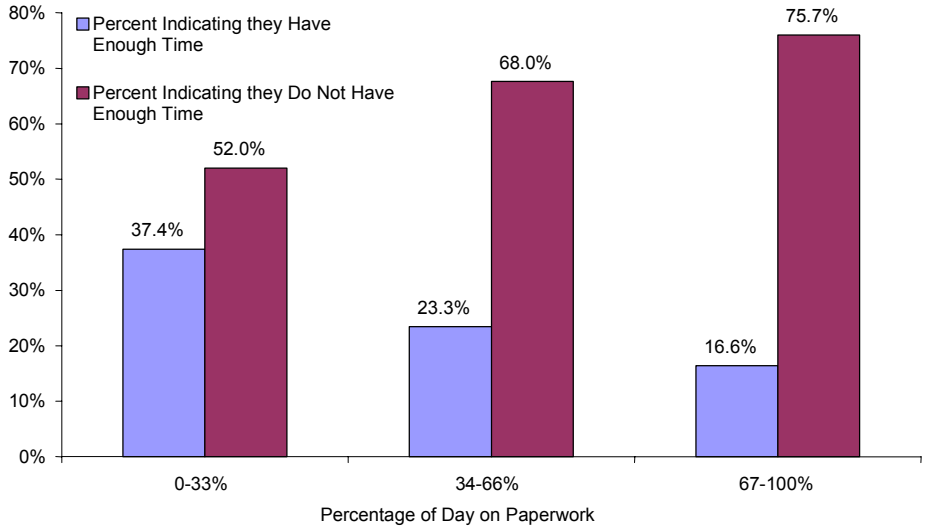


Table 2.3
Workload Stress for Nurses Working in Direct Patient Care by Percent of Day on Paperwork Category

	Percentage of Day on Paperwork							
	0-33%		34-66%		67-100%		Row Total	Row Total %
Time to Complete Work	Count	Col %	Count	Col %	Count	Col %		
Enough Time	1600	37.4%	619	23.3%	67	16.6%	**2286**	31.1%
Neutral	454	10.6%	233	8.8%	31	7.7%	**718**	9.8%
Not Enough Time	2226	52.0%	1807	68.0%	306	75.7%	**4339**	59.1%
Total	**4280**	**100%**	**2659**	**100%**	**404**	**100%**	**7343**	**100%**

One of the most commonly cited reasons nurses feel unable to spend enough time providing direct patient care is the substantial paperwork and documentation burden they shoulder as a routine part of their workload. Figure 2.4 and Table 2.3 highlight the effect of paperwork requirements upon one important facet of workload stress – having enough time to get everything done on the job. As the percentage of the daily work schedule committed to paperwork increases, nurses are far more likely to report that they simply do not have enough time to get everything done.

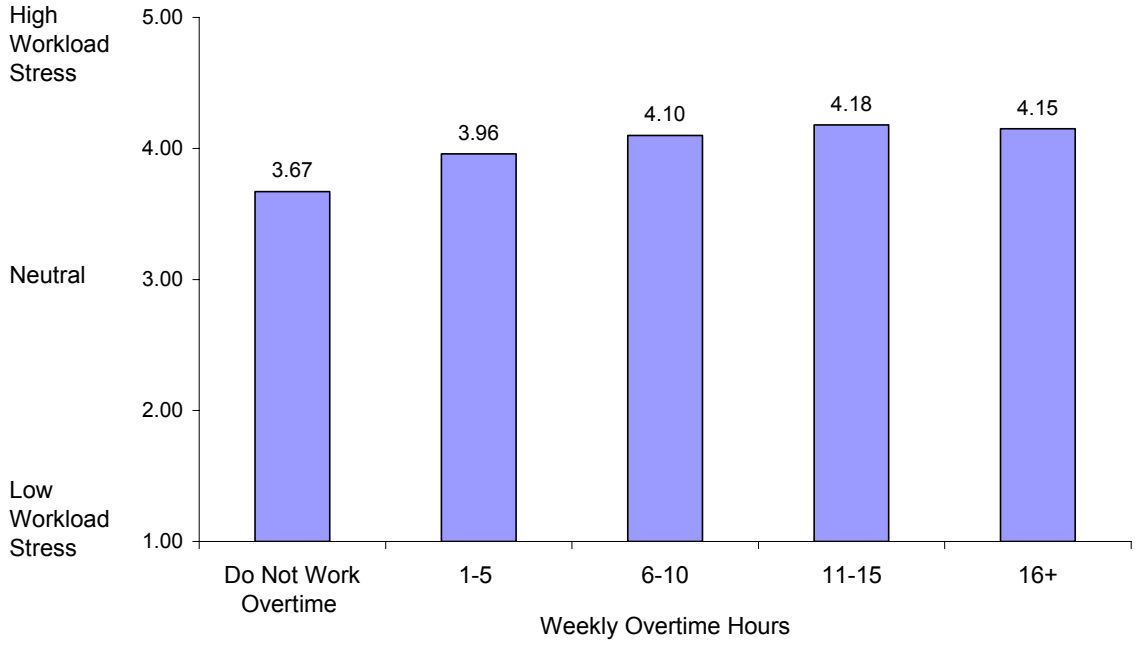
While roughly six of every ten nurses believe they do not have enough time to do their jobs, that figure increases dramatically among nurses who spend more than two thirds of their day on paperwork. For this "heavy-paperwork" group, about three out of four (75.7 percent) indicate that they do not have enough time to get everything done. Conversely, among those RNs who spend only a third of a day or less on paperwork,

the number who indicated they do not have enough time to get things done drops to 52 percent – a substantial 23.7 percentage-point difference.

Workload-Related Job Stress and Overtime

Nurses who work overtime to any considerable degree are much more likely to report higher levels of workload stress than those who do not work significant amounts of overtime. Figure 2.5 shows the average workload stress scores for nurses working varying levels of overtime. Nurses who do not work overtime report experiencing less workload-job stress (average scale score = 3.67) than nurses who incur 11 or more hours of overtime per week (average scale score = 4.18). As expected, workload stress increases progressively as the number of hours of overtime per week increases. The overtime categories shown in Figure 2.5 account for 5.2 percent of the variability in workload stress.

Figure 2.5
Average Workload Job Stress by Overtime Category

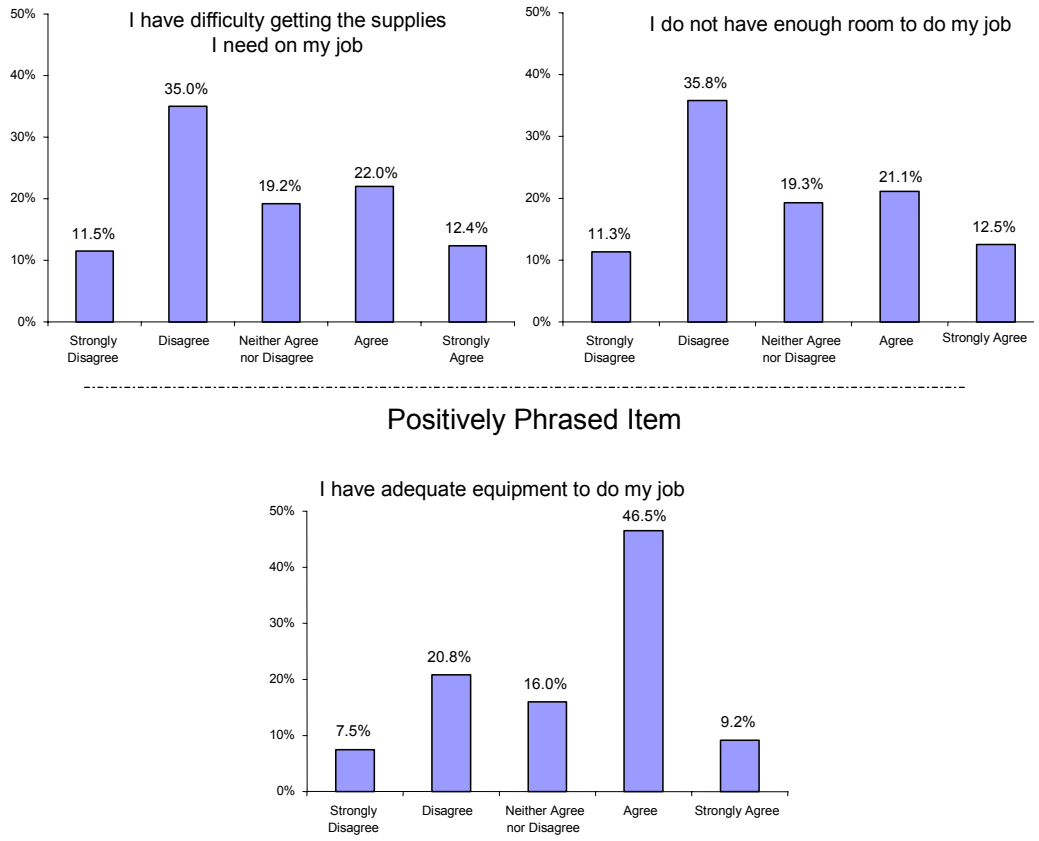


While the causal logic presented above implies that overtime work leads to greater levels of workload stress, it may be that the true underlying relationship is bi-directional, and involves reciprocal causation. Perhaps nurses who experience demanding and stressful workloads are more prone to take on overtime obligations as a strategy for coping with heavy demands. Regardless of the causal direction involved, however, the high positive association between hours of overtime work and greater levels of job stress represents an area of policy concern.

JOB STRESS AND RESOURCE ADEQUACY

The second type of job stress examined was operationally defined based upon the availability of on-the-job resources. Specifically, the survey assessed the availability of supplies, and the space and equipment needed for nurses to be well equipped to conduct their work. The distribution of responses to these three survey items is displayed in Figure 2.6.

Figure 2.6
Resource Stress Scale: Distribution of Nurses Currently Working in New York by Scale Item



As shown in the figure, approximately one third of all nurses indicate that they experience job stress related to resource issues. Specifically, 34.4 percent of nurses either agree or strongly agree that they have difficulty getting the supplies needed on their job. When asked about space, 33.6 percent also agree or strongly agree that they do not have enough room to do their job. In terms of equipment, 28.3 percent of nurses disagree or strongly disagree that they have adequate equipment to do their job.

Resource-Related Job Stress and Work Setting

The adequacy of material resources varies significantly across work settings. Table 2.4 show shows the average scale score for resource-related job stress by work setting, as well as average ratings for each of the three items comprising the entire scale.

Table 2.4
Average Score for Dimensions of Resource Stress and Average Scale Score by Work Setting

		Positively Phrased Item	Negatively Phrased Items		
		I have adequate equipment to do my job	I have difficulty getting supplies I need on my job	I do not have enough room to do my job	Average Scale Score[1]
		1=Strongly Disagree	3= Neutral	5=Strongly Agree	
Work Setting	n	Mean Score			
Hospital - Inpatient	4606	3.08	3.20	3.00	3.04
Nursing Education	181	3.11	2.90	2.85	2.88
Govt/Professional/Health Org.	208	3.33	2.93	2.95	2.85
Hospital - Outpatient	728	3.37	2.79	3.12	2.85
Nursing Home	875	3.27	2.80	2.75	2.76
Ambulatory Care	441	3.45	2.70	2.94	2.73
School Health Nursing Service	550	3.45	2.74	2.71	2.67
Other Health Related Setting	436	3.48	2.63	2.72	2.62
Diagnostic/Treatment Center	75	3.49	2.58	2.72	2.60
Non-Health Related Setting	50	3.62	2.48	2.86	2.57
Institutions of Higher Education	71	3.57	2.66	2.53	2.54
Home Health Agency/Home Care	748	3.60	2.43	2.56	2.46
HMO/Managed Care	108	3.66	2.26	2.73	2.45
Business or Industry	92	3.72	2.35	2.48	2.37
Private Practice	66	3.75	2.23	2.52	2.34
Physician's Office	477	3.87	2.10	2.60	2.27
Insurance	75	3.97	1.99	2.14	2.05
Overall	**9787**	**3.29**	**2.89**	**2.88**	**2.83**
eta		0.218	0.278	0.154	0.265
eta^2		0.048	0.077	0.024	0.070

[1] The scale for the positively phrased item (I have adequate equipment to do my job) has been reversed in the computation of the scale average. A higher score indicates greater resource stress.

Unlike workload-induced stress (which was strongly experienced in all settings across the board), resource-induced job stress scores tended to be quite low regardless of work setting. For example, the resource-related job stress scale averaged only 2.83 scale points - slightly lower than the neutral 3.0 mid-point on the scale and well below the 3.81 rating for workload stress). While these findings indicate that workload demands pose a far greater risk to nurses' stress than do basic equipment and supply issues, there are several noteworthy work-setting differences in resource-induced stress. Nurses working in hospitals, nursing education, or government settings for example report the highest levels of resource stress (scale scores of 3.04, 2.88, and 2.85 respectively). These settings are frequently subject to budgetary constraints; accordingly we would expect to find high levels of resource-induced stress.

Nurses working in private practice, physician's offices and insurance agencies report much lower levels of resource stress. The greater adequacy of resources reported for these settings perhaps reflects a lower degree of reliance on resources for work, or a greater degree of independent discretion for acquiring needed resources.

There appears to be considerably more variation in rated access to supplies among different work settings than in access to adequate physical space. Work setting differences account for 7.7 percent of the variation in the "ease of getting supplies", but only 2.7 percent of the variation in the "enough room" dimension. This finding is intriguing because it suggests that:

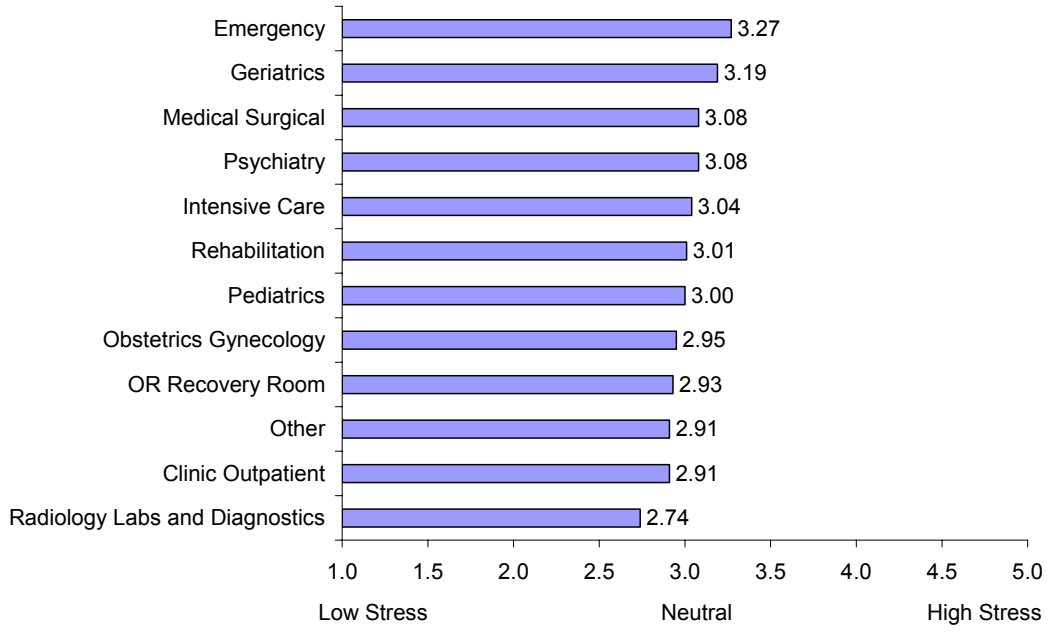
- work-setting *differences* in resource stress are more pronounced where access to supplies is concerned, even though the level of concern experienced is modest; and,

- work-setting differences with respect to the sufficiency of equipment are much less pronounced *but the average stress ratings are far higher*. In short, there is far greater unanimity of opinion across all nursing settings that equipment adequacy is a very serious concern.

Resource-Related Job Stress Across Hospital Units

Nurses working in differing functional units within hospitals require different levels of resources to do their work. It is therefore likely that resource related job stress would vary across hospital units. As shown in Figure 2.7, the reported inadequacy of resources is greatest in emergency units, geriatric, medical-surgical, and psychiatric units.

Figure 2.7
Job Stress: Resources for Nurses Working in Hospitals by Unit Type



In these particular hospital units, resource stress ratings were 3.27, 3.19, 3.08 and 3.08 respectively. At the opposite end of the resource-stress continuum were ambulatory outpatient settings and settings where the primary service involves laboratory or radiological testing. In these settings, scale scores were 2.91 and 2.74 respectively.

Resource-Related Job Stress and Job Title

In Table 2.5 we highlight resource-related stress findings by job title and array them in descending order of the average stress rating. Staff nurses report the highest levels of resource-related stress (average scale rating = 2.95). Factors underlying this stress are most likely associated with the settings in which they work, the time constraints under which they operate, and the intensive demands of direct-care work. As noted previously, the majority of staff nurses practice professionally in hospital-based settings – and it is staff nurses who experience the highest levels of resource stress.

In-service directors and instructors also report relatively high resource-related stress. Their particular concern was the sheer adequacy of the room (i.e. physical space) needed to do their job well. Their average 3.22 scale rating on this aspect of resource access is presumably indicative of the competitive demand for space whenever staff training and instructional functions are involved.

Table 2.5
Average Score for Dimensions of Resource Stress and Average Scale Score by Job Title

			Negatively Phrased Items		
		I have adequate equipment to do my job	I have difficulty getting supplies I need on my job	I do not have enough room to do my job	Average Scale Score[1]
		1= Strongly Disagree	3=Neutral	5=Strongly Agree	
Job Title	n	Mean Score			
Staff Nurse	5505	3.17	3.09	2.94	2.95
In-service Director/Instructor	158	3.23	2.76	3.22	2.92
Nurse Manager/Patient Care Coordinator	1001	3.33	2.84	2.95	2.82
Faculty in Nursing Education Program	154	3.27	2.86	2.68	2.76
Public/Community Health Nurse	466	3.42	2.74	2.77	2.69
Nurse Practitioner	422	3.49	2.68	2.85	2.68
Clinical Nurse Specialist	172	3.35	2.65	2.70	2.67
Other	904	3.49	2.56	2.76	2.61
Quality Assurance	320	3.44	2.46	2.69	2.57
Director of Nursing/VP for Nursing	297	3.55	2.39	2.59	2.48
Researcher	66	3.89	2.23	2.97	2.44
Certified Nurse Anesthetist	38	3.72	2.64	2.34	2.42
Consultant	72	3.64	2.28	2.48	2.37
Independent Practitioner	68	3.85	2.46	2.44	2.36
Dean/Director/Chair Nursing Education	23	3.60	2.44	2.18	2.34
Claims Reviewer	39	3.76	2.29	2.43	2.32
Private Duty Nurse	94	3.87	2.31	2.44	2.29
Overall	**9799**	**3.29**	**2.89**	**2.87**	**2.83**
eta		0.149	0.203	0.112	0.186
eta^2		0.022	0.041	0.013	0.035

[1] The scale for the positively phrased item (I have adequate equipment to do my job) has been reversed in the computation of the scale average. A higher score indicates greater resource stress.

As with workload stress, nurse managers and patient care coordinators report a higher than average level of resource-related job stress. It is likely that their higher stress ratings are a function of their responsibilities for ensuring that supplies and equipment are available for nurses.

The level of pattern consistency across the three resource stress indicators, by job title, is remarkable. Private duty nurses, independent practitioners, nurse anesthetists, and researchers exhibit generally low levels of overall resource stress – regardless of the resource domain involved. Careful inspection of their ratings suggest that individuals who operate in solo or independent types of practice may experience somewhat less difficulty in getting the supplies, equipment or room they need to perform their jobs well than their staff nurse or in-service director counterparts. Indeed, individuals who act in a staff nurse capacity consistently rate resource access adequacy more poorly than virtually any other job title. Since it is precisely these staff nurses that are "in the trenches" and represent such a large share of the overall RN workforce, the implications for direct patient care provide grounds for concern.

Resource-Related Job Stress and Staff Nurses

Staff nurses represent 56 percent of the statewide sample. The majority of staff nurses work in hospitals, nursing homes and other organizations providing direct patient care services. Because of the special significance of staff nurses to the current policy concerns about projected supply-demand imbalances, this section examines resource issues exclusively for staff nurses by work setting.

Table 2.6

Resource-Related Job Stress and Staff Nurses: Average Score for Dimensions of Resource Stress and Average Scale Score by Work Setting

			Negatively Phrased Items		
		I have adequate equipment to do my job	I have difficulty getting supplies I need on my job	I do not have enough room to do my job	Average Scale Score[1]
		1=Strongly Disagree	3=Neutral	5=Strongly Agree	
Work Setting	n	Mean Score			
Hospital - Inpatient	3647	3.04	3.27	3.00	3.08
Other Health Related Setting	118	3.01	3.07	3.01	3.03
Govt/Professional/Health Org.	49	3.17	3.33	2.91	3.02
Hospital - Outpatient	461	3.30	2.82	3.11	2.87
Nursing Home	325	3.21	2.96	2.62	2.79
Diagnostic/Treatment Center	36	3.48	2.93	2.89	2.78
Ambulatory Care	244	3.52	2.60	2.96	2.68
School Health Nursing Service	141	3.43	2.76	2.68	2.67
Home Health Agency/Home Care	125	3.74	2.36	2.35	2.32
Physician's Office	229	3.86	2.11	2.67	2.30
Overall	**5375**	**3.16**	**3.09**	**2.95**	**2.96**
eta		0.20	0.26	0.13	0.23
eta^2		0.04	0.07	0.02	0.05

[1] The scale for the positively phrased item (I have adequate equipment to do my job) has been reversed in the computation of the scale average. A higher score indicates greater resource stress.

Table 2.6 displays average ratings of each dimension and the average scale score for resource job stress by work setting for staff nurses, only. An examination of the average scale ratings in the right-hand column reveals that staff nurses in inpatient hospital settings report the highest level of resource stress compared to staff nurses in other work settings. Consistent with previously reported findings, the differences between nurses are greatest for the sub-dimension that deals with supplies. Staff nurses working in schools, home-health agencies and physicians' offices, for example, report the lowest levels of job stress associated with resources. Conversely, staff nurses within inpatient hospital settings indicate higher levels of resource inadequacy, in terms of both equipment and supplies.

Resource-related Job Stress and Direct Patient Care

Because the majority of nurses who spend time in the delivery of direct patient care also work in hospital settings, and because the majority of these RNs identify themselves as "staff nurses", the stress experiences of these three groups are highly correlated. In short, nurses working in direct patient care are more likely to experience difficulty getting the supplies they need to do their jobs. Table 2.7 highlights ratings on resource adequacy by patient-care category. For this purpose, the patient-care category is defined as a dichotomous measure that indicates either "No" (not working in direct care), or "Yes" (working in a direct care capacity).

Table 2.7
Adequacy of Resources by Patient Care Category

	Direct Patient Care			
	No		Yes	
	Count	Col %	Count	Col %
Supplies				
Easy to Get Supplies	1198	56.9%	3364	43.6%
Neutral	392	18.6%	1485	19.2%
Difficult to Get Supplies	514	24.4%	2866	37.1%
Total	**2104**	**100.0%**	**7715**	**100.0%**
Equipment				
Adequate Equipment	1297	61.7%	4172	54.1%
Neutral	298	14.2%	1270	16.5%
Inadequate Equipment	507	24.1%	2268	29.4%
Total	**2102**	**100.0%**	**7710**	**100.0%**
Space				
Enough Space	1076	51.1%	3545	45.9%
Neutral	331	15.7%	1571	20.4%
Not Enough Space	699	33.2%	2603	33.7%
Total	**2106**	**100.0%**	**7719**	**100.0%**

Almost four of every 10 (37.1 percent) nurses working in direct patient care indicate that they have difficulty getting the supplies they need to do their jobs, whereas 24.4 percent of nurses not working in direct care indicated difficulty in getting supplies. Nurses working in direct care were also slightly more likely to agree that they had inadequate equipment to do their jobs. For example, 29.4 percent of direct care nurses compared to 24.1 percent of non-direct patient care nurses, indicated that the equipment they needed to do the job was inadequate.

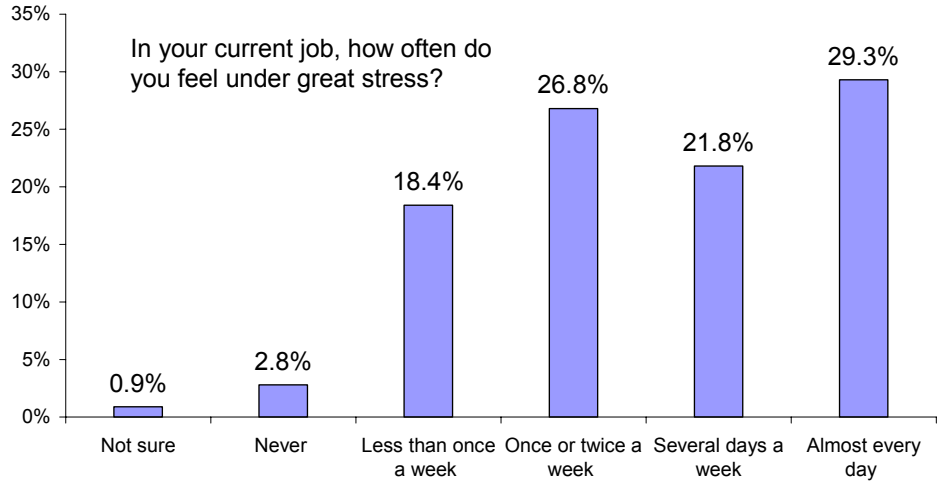
The contrasts in resource adequacy observed among the direct and non-direct care RN groups were not in evidence, however, in their responses concerning workspace. Roughly one-third of RNs in both direct and non-direct care agreed that they do not have enough room to do their jobs.

GENERAL JOB STRESS: FREQUENCY OF GREAT STRESS

In addition to stress induced specifically by workload or by deficiencies in available resources, nurses are also subjected to many other stressors in their work environments. Patient morbidity and mortality, the technical difficulties associated with the job, conflicting work demands and difficult personal interactions can all lead to a general sense of job stress. A single item was used to assess the prevalence of exposure to "great stress" during an RN respondent's normal workweek. The results are displayed in Figure 2.8.

As shown in the figure, 29.3 percent of nurses indicated that they feel under "great stress" in their current jobs on a daily basis. Another 21.8 percent indicated that they are under great stress several days per week. Only 2.8 percent of nurses indicated that they are never under great stress in their jobs.

Figure 2.8
Reported Levels of General Job-Related Stress of Nurses Working in New York State



Frequency of General Job Stress and Work Setting

Nurses' responses to the frequency of great stress item are displayed in Table 2.8 for all nurses working in New York State by major work setting categories. As shown in the table, nurses working in nursing homes and hospital settings report the highest levels of job stress. Nurses working in inpatient hospital settings represent the largest group in the sample (n=4,509 in Table 2.8). The fact that 59 percent of these nurses report being under great stress either on a daily basis or several days per week has disturbing implications for the shortage problem in New York State. As staffing shortages become more severe, job-related stress may worsen, thereby exacerbating even further voluntary turnover in the workforce.

Nurses working in private practice, business, and non-health related settings report lower levels of job stress when compared to nurses working in other settings. General job stress is very much a function of the setting in which nurses work. From the bottom right-hand corner of the table, 6.4 percent of the variability in job-related stress is accounted for by the work setting variable.

Table 2.8
Reported Levels of Job-Related Stress by Work Setting

		How often do you feel under great stress?							
Work Setting	n	Not Sure	Never	Less than once a week	Once or twice a week	Several days a week	Almost every day	Row Total	**Average Rating**
			(1)	(2)	(3)	(4)	(5)		
Nursing Home	843	0.6%	1.1%	12.0%	22.5%	25.9%	38.0%	100%	3.88
Hospital - Inpatient	4509	0.6%	1.2%	13.4%	25.7%	23.2%	35.8%	100%	3.80
Hospital - Outpatient	710	0.4%	3.4%	20.3%	29.0%	22.4%	24.5%	100%	3.44
Ambulatory Care	427	0.2%	3.7%	19.4%	30.4%	24.4%	21.8%	100%	3.41
Govt/Professional/Health Org.	201	2.0%	4.5%	21.9%	27.9%	17.4%	26.4%	100%	3.40
Home Health Agency/Home Care	722	0.8%	4.8%	24.4%	24.5%	23.4%	22.0%	100%	3.33
Other Health Related Setting	425	1.2%	6.4%	22.6%	30.4%	15.5%	24.0%	100%	3.28
Insurance	72	0.0%	9.7%	19.4%	25.0%	25.0%	20.8%	100%	3.28
HMO/Managed Care	109	0.9%	4.6%	22.0%	33.9%	23.9%	14.7%	100%	3.23
Diagnostic/Treatment Center	76	0.0%	3.9%	30.3%	32.9%	13.2%	19.7%	100%	3.15
Institutions of Higher Education	70	4.3%	5.7%	30.0%	22.9%	17.1%	20.0%	100%	3.15
Physician's Office	462	2.6%	6.1%	28.6%	31.8%	14.3%	16.7%	100%	3.07
Nursing Education	172	2.3%	4.7%	28.5%	34.3%	16.3%	14.0%	100%	3.06
School Health Nursing Service	532	1.7%	4.9%	33.5%	27.6%	16.0%	16.4%	100%	3.05
Non-Health Related Setting	49	2.0%	6.1%	32.7%	26.5%	16.3%	16.3%	100%	3.02
Business or Industry	93	0.0%	8.6%	29.0%	29.0%	23.7%	9.7%	100%	2.97
Private Practice	69	1.4%	7.2%	37.7%	23.2%	20.3%	10.1%	100%	2.86
Overall	**9541**	**0.9%**	**2.8%**	**18.4%**	**26.8%**	**21.9%**	**29.2%**	**100%**	**3.57**
eta									**0.253**
eta^2									**0.064**

General Job Stress and Job Title

The distribution of responses to the general job stress item as well as the average rating is displayed by job title in Table 2.9. As shown in the table, 65.3 percent of nursing directors, 61.5 percent of nurse managers, and 52.2 percent of deans of nursing programs report experiencing great levels of stress on either a daily basis or several days per week. These findings highlight the additional stress that accompanies

leadership positions, particularly in a field which is struggling with workforce shortages, the demographics of an aging workforce and work climate conditions.

Staff nurses also experience high stress levels with considerable, and greater than average, frequency. More than half (55.9 percent) of the staff nurses surveyed reported feeling under great stress on a daily basis or several times per week.

Private duty nurses (16.6 percent), consultants (22.9 percent), and nursing faculty (23.8 percent) report far lower frequency of exposure to job-related stress when compared to nurses in other titles. There is a considerable degree of professional latitude and control over one's work in these titles.

Table 2.9
Reported Levels of Job-Related Stress by Job Title

		How often do you feel under great stress?							
Job Title	n	Not Sure	Never	Less than once a week	Once or twice a week	Several days a week	Almost every day	Row Total	**Average Rating**
			(1)	(2)	(3)	(4)	(5)		
Director of Nursing/VP for Nursing	285	0.0%	2.1%	10.2%	22.5%	24.6%	40.7%	100%	3.91
Nurse Manager/Patient Care Coord	962	0.1%	1.7%	11.3%	25.4%	27.5%	34.0%	100%	3.81
Dean/Director/Chair Nursing Ed.	23	0.0%	0.0%	0.0%	47.8%	26.1%	26.1%	100%	3.77
Staff Nurse	5370	0.9%	1.9%	15.8%	26.5%	22.2%	32.7%	100%	3.69
Certified Nurse Anesthetist	36	0.0%	2.8%	22.2%	25.0%	19.4%	30.6%	100%	3.53
Nurse Practitioner	410	0.7%	2.4%	21.2%	34.9%	21.0%	19.8%	100%	3.35
In-service Director/Instructor	153	0.0%	3.9%	22.2%	33.3%	17.0%	23.5%	100%	3.34
Clinical Nurse Specialist	169	1.8%	5.3%	20.7%	29.6%	21.9%	20.7%	100%	3.34
Quality Assurance	319	0.6%	7.5%	22.6%	22.6%	23.2%	23.5%	100%	3.33
Public/Community Health Nurse	455	0.2%	4.0%	26.8%	25.7%	21.5%	21.8%	100%	3.31
Other	883	1.4%	4.4%	26.3%	27.1%	19.3%	21.6%	100%	3.28
Claims Reviewer	40	0.0%	7.5%	27.5%	27.5%	12.5%	25.0%	100%	3.20
Researcher	66	0.0%	1.5%	43.9%	25.8%	12.1%	16.7%	100%	2.99
Independent Practitioner	68	0.0%	10.3%	36.8%	23.5%	8.8%	20.6%	100%	2.92
Faculty in Nursing Education Prog	147	2.7%	5.4%	34.7%	33.3%	12.9%	10.9%	100%	2.88
Consultant	70	1.4%	10.0%	34.3%	31.4%	8.6%	14.3%	100%	2.84
Private Duty Nurse	96	6.3%	13.5%	38.5%	25.0%	8.3%	8.3%	100%	2.58
Overall	**9552**	**0.9%**	**2.8%**	**18.4%**	**26.8%**	**21.8%**	**29.3%**	**100%**	**3.57**
eta									**0.210**
eta^2									**0.044**

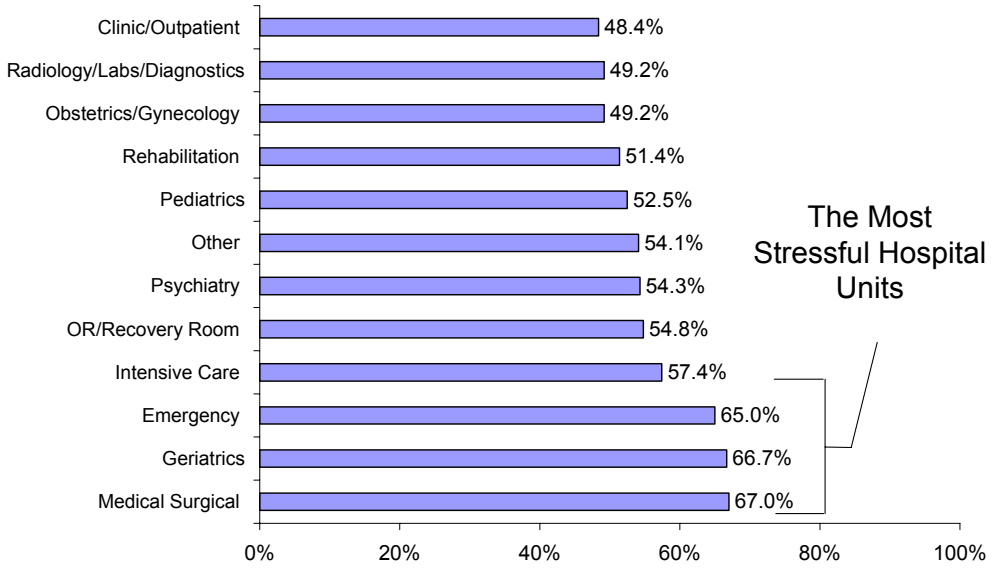
Frequency of Job Stress in Hospitals

Figure 2.9 displays the percentage of hospital nurses within selected hospital units who indicate that they experience a great deal of stress either daily or several days per week (4 or 5 on the scale).

The level of job stress is quite high across all hospital units. Nurses working in medical/surgical units, geriatrics and emergency report the greatest frequency of job-related stress. In these specific units, the percentages of RNs who experience high levels of stress on either a daily basis or during at least several days per week equal or exceed 65 percent in every instance.

To a considerable degree, we suspect that these unit differences in perceived work stress are due to the higher risk nature of the clinical interventions, the greater mortality and morbidity threats involved, as well as the higher uncertainty of clinical outcomes.

Figure 2.9
Percent of Nurses Under Great Stress Daily or Several Times Per Week
by Hospital Unit



AUTONOMY

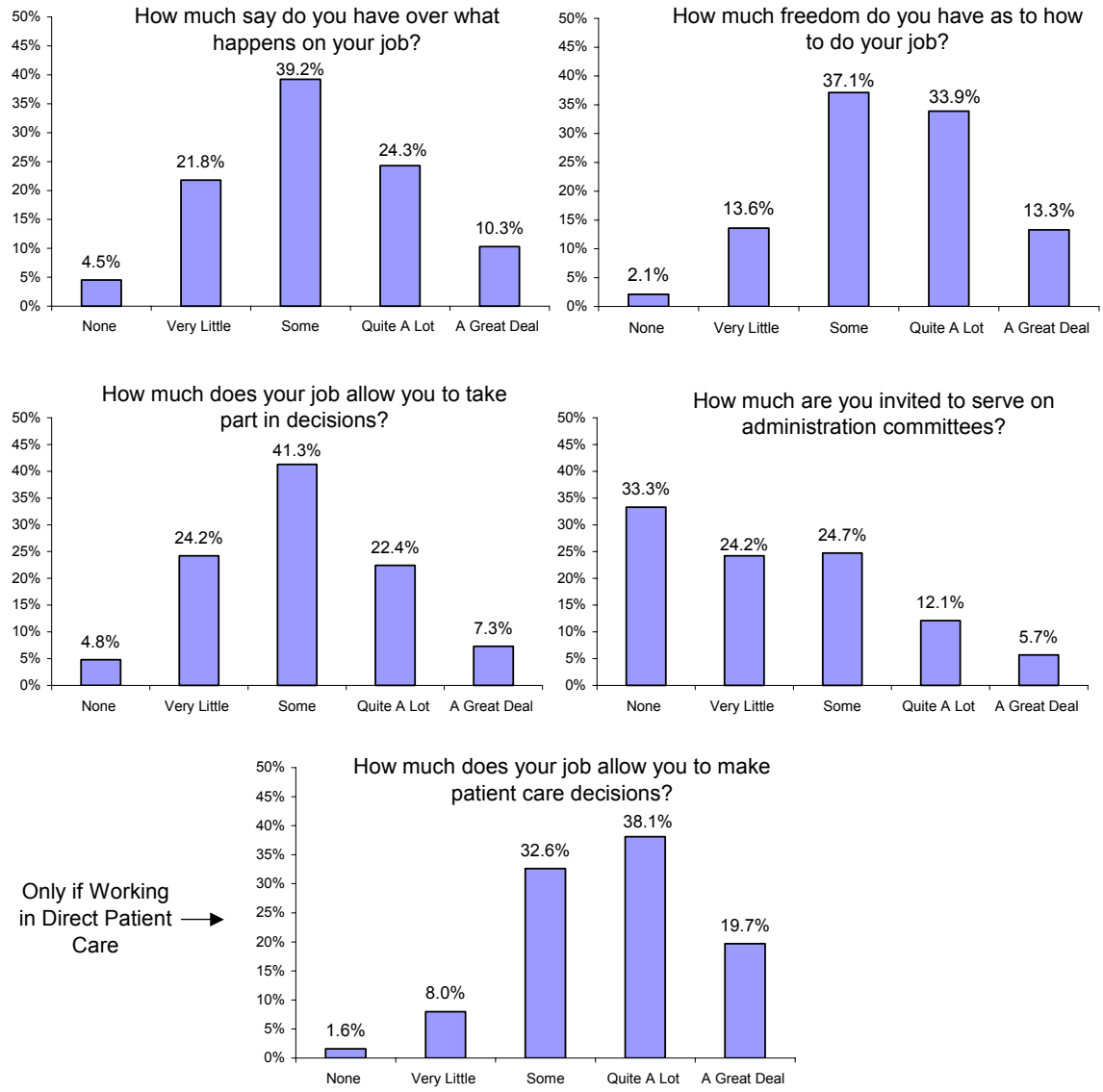
Several questions in the survey measured nurses' perception of the autonomy they experience in their daily work life. The survey items used to operationalize autonomy were based on four questionnaire items drawn from Price plus a fifth item designed to assess the extent to which individuals are invited to serve on administrative committees. [11] The autonomy scale gauges the extent to which individuals are able to exercise independent judgment in their work, and to have a direct voice in those decisions that affect the way in which they provide care. Nurses' policy preference for autonomy will be evaluated in more detail in Chapter 7 of this report.

Figure 2.10 depicts the frequency distribution of nurses on each of the five autonomy items. As shown, nurses report that they have a moderate degree of autonomy in their work. For example, nurses state that they have substantial opportunity to participate in patient care decisions. Only 9.6 percent of nurses working in direct patient care indicated that they have very little or no ability to make patient care decisions. Nurses also have quite a bit of freedom regarding how they do their work. Only 15.7 percent of nurses reported having very little or no freedom regarding how they do their work.

[11] See James L. Price, "Reflections on the Determinants of Voluntary Turnover," *International Journal of Manpower*, (MCB University Press, 2001), Vol. 22, No. 7., pp. 600-624.

Just over half, 57.5 percent of nurses, indicate very little or no invitation to serve on committees. This finding suggests that while nurses may feel relatively empowered with respect to the level of independence they have on the job, their views are not necessarily sought by their organizations for those administrative decisions that will impact on nursing staff. As the nursing profession continues to struggle for increased recognition of their professional level of contribution to the provision of health care services, increases in participation of nurses in organizational decision-making can serve as an indication of the organizational, as well as the professional, value being placed on nursing.

Figure 2.10
Autonomy Scale: Distribution of Nurses Currently Working in New York State by Scale Item



Autonomy and Work Setting

The degree of autonomy experienced professionally varies quite dramatically across work settings. In Table 2.10 we report overall autonomy scale ratings and item results; in this instance, higher numeric values on this 1 to 5 scale are indicative of greater personal autonomy. As shown, nurses working in independent positions and nurses working in the education arena appear to enjoy the greatest levels of autonomy. In contrast, nurses working in large-scale formal organizational settings whose mission is primarily associated with patient care, such as hospitals, ambulatory care clinics and HMOs, reported the lowest levels of autonomy.

Table 2.10

Average Score for Dimensions of Autonomy and Average Scale Score by Work Setting

Work Setting	n	How much say do you have over what happens on your job?	How much freedom do you have as to how you do your job?	How much does your job allow you to take part in decisions that affect you?	How much are you invited to serve on administration committees?	How much does your job allow you to make patient care decisions?	Average Scale Score[1]
		Mean Score					
			1=none	3=some	5=a great deal		
Private Practice	69	4.11	4.18	3.94	1.79	4.19	3.62
Institutions of Higher Education	71	3.50	3.86	3.53	3.22	N/A	3.56
Nursing Education	181	3.50	3.80	3.49	3.22	N/A	3.49
School Health Nursing Service	558	3.65	3.88	3.26	2.37	4.22	3.43
Business or Industry	92	3.49	3.88	3.39	2.40	4.01	3.39
Home Health Agency/Home Care	751	3.37	3.76	3.29	2.53	4.08	3.36
Other Health Related Setting	436	3.39	3.67	3.31	2.49	3.86	3.31
Physician's Office	477	3.38	3.65	3.36	2.06	3.72	3.23
Nursing Home	880	3.37	3.43	3.13	2.55	3.68	3.22
Non-Health Related Setting	50	3.34	3.77	3.34	2.01	N/A	3.21
Diagnostic/Treatment Center	75	3.26	3.41	3.16	2.38	3.46	3.16
Govt/Professional/Health Org.	211	3.16	3.53	3.04	2.53	3.59	3.14
Insurance	75	3.40	3.40	3.18	2.46	N/A	3.11
HMO/Managed Care	108	3.17	3.47	3.10	2.52	3.54	3.11
Hospital - Outpatient	729	3.10	3.35	3.02	2.34	3.72	3.10
Ambulatory Care	442	3.09	3.34	3.02	2.30	3.73	3.09
Hospital - Inpatient	4618	2.91	3.24	2.83	2.20	3.52	2.94
Overall	**9823**	**3.14**	**3.43**	**3.03**	**2.33**	**3.67**	**3.11**
eta		0.253	0.243	0.231	0.173	0.227	0.242
eta^2		0.064	0.059	0.053	0.030	0.051	0.058

Autonomy and Job Title

Nurses working in differing job titles also report substantial differences in their level of autonomy. A substantial portion (18.5 percent) of the variability in autonomy is explained by job title. As shown in Table 2.11, nurses working in leadership positions either in health care organizations or in educational institutions report the highest degree of autonomy (with mean scores of 4.12 and 4.07 respectively). Independent practitioners and consultants also report high levels of discretion in their work. At the low end of the autonomy scale are staff nurses and claims reviewers. Both of these job titles are strongly associated with large-scale organizations.

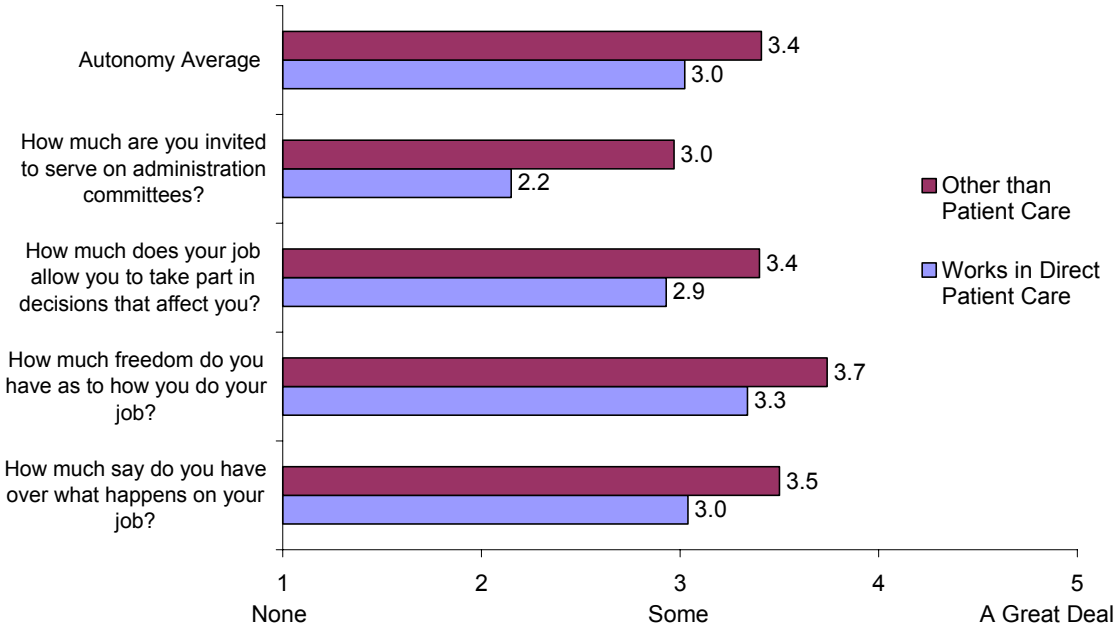
Table 2.11
Average Score for Dimensions of Autonomy and Average Scale Score by Job Title

Job Title	n	How much say do you have over what happens on your job?	How much freedom do you have as to how you do your job?	How much does your job allow you to take part in decisions that affect you?	How much are you invited to serve on administration committees?	How much does your job allow you to make patient care decisions?	Average Scale Score[1]
		Mean Score					
		1=none 3=some 5=a great deal					
Director of Nursing/VP for Nursing	298	4.12	4.12	3.96	4.21	4.21	4.12
Dean/Director/Chair Nursing Education	23	4.20	4.10	3.98	4.12	N/A	4.07
Consultant	72	3.74	4.08	3.80	2.58	N/A	3.55
Independent Practitioner	70	3.73	4.06	3.63	2.20	4.27	3.53
Faculty in Nursing Education Program	154	3.48	3.86	3.54	3.23	3.35	3.52
Nurse Practitioner	425	3.44	3.83	3.37	2.43	4.46	3.51
Nurse Manager/Patient Care Coordinator	1005	3.59	3.63	3.35	3.04	3.87	3.47
Certified Nurse Anesthetist	38	3.57	4.01	3.56	1.99	4.15	3.46
In-service Director/Instructor	160	3.41	3.79	3.41	3.19	3.45	3.44
Clinical Nurse Specialist	172	3.50	3.83	3.40	2.69	3.79	3.42
Researcher	66	3.46	3.92	3.55	2.37	3.56	3.36
Other	908	3.50	3.77	3.33	2.49	3.89	3.34
Public/Community Health Nurse	466	3.33	3.74	3.11	2.32	4.09	3.27
Quality Assurance	324	3.28	3.65	3.18	2.87	2.74	3.23
Private Duty Nurse	98	3.60	3.79	3.40	1.37	3.89	3.21
Claims Reviewer	39	3.06	3.32	3.22	2.33	N/A	2.99
Staff Nurse	5515	2.83	3.15	2.75	1.97	3.51	2.84
Overall	**9833**	**3.14**	**3.43**	**3.03**	**2.32**	**3.66**	**3.11**
eta		0.365	0.338	0.352	0.443	0.300	0.430
eta^2		0.133	0.114	0.124	0.196	0.090	0.185

Autonomy and Direct Patient Care

The previous tables suggest that nurses working in primarily direct care settings and titles – nurses working in hospital and clinic settings AND in staff level positions – experience substantially lower levels of autonomy in their work. Figure 2.11 shows the average rating on each of the sub-dimensions of autonomy and the average scale score for nurses working in direct patient care compared to nurses who do not work in direct care – regardless of title and setting.

Figure 2.11
Average Rating on Autonomy Dimensions and Average Autonomy Score by Patient Care Category

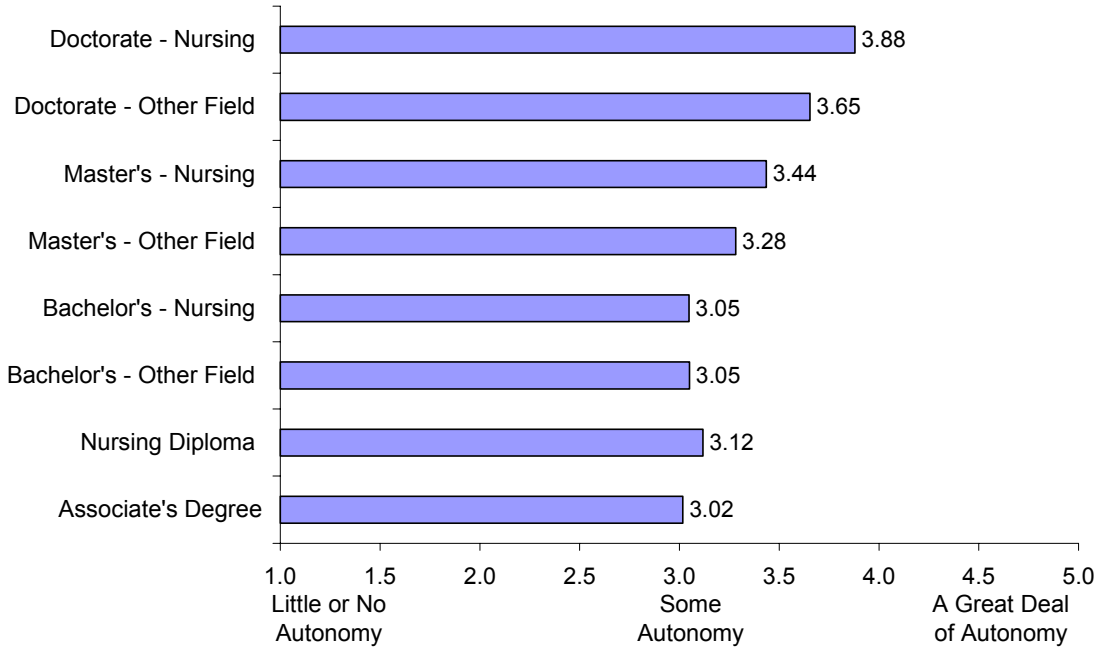


As shown in the chart, on each of the dimensions listed, nurses working in direct patient care report lower levels of autonomy. The greatest contrast between the two groups is in the scale item regarding service on administration committees, where nurses working in direct care are significantly less likely to be invited to serve on committees. This marked contrast may be due to the fact that non-patient care positions are more administrative in nature and that direct care staff are often under considerable time pressure to perform their direct-care responsibilities.

Autonomy and Highest Credential Held

The degree of autonomy experienced in the workplace is also associated with both the level and type of educational credentials that nurses hold. For example, as shown in Figure 2.12, nurses who have attained master's degree or higher-level credentials typically report more autonomy in their work than their counterparts who hold either a bachelor's, associate's or diploma credential. However, scale differences in job autonomy are virtually negligible among nurses holding associate, diploma, or baccalaureate credentials. Nurses with advanced degrees in fields other than nursing, report experiencing less work-related autonomy compared to nurses with similar degrees in nursing. For example, the average autonomy score for nurses with master's degrees in fields other than nursing is 3.28, compared to 3.44 for nurses with nursing-specific master's degrees. These mean differences while modest are statistically significant.

Figure 2.12
Average Autonomy Score of Nurses Working in New York State
by Highest Credential



Other Factors Associated with Autonomy

The degree of autonomy experienced on the job is not only a function of setting, or credentials, but also a function of professional experience. Nurses working in their jobs for long periods of time have had opportunities to gain a greater breadth of experience that they are then able to draw upon for decision making. Less experienced nurses are more limited in their ability to draw upon and apply experience and must therefore seek assistance in decisions about their work. Nurses working in the profession for five years or less report less autonomy on average when compared to nurses working in the field for more than five years (2.88 for those with 5 years or less experience in the profession, compared to 3.14 for more experienced nurses).

PROMOTIONAL OPPORTUNITY

Another known predictor of professional job satisfaction and organizational commitment is the extent to which individuals enjoy promotional opportunity. In an era of substantial expansion of professional career opportunities for women in alternative, traditionally male-dominated professions, career growth and opportunities for upward mobility take on added importance.[12]

For professional staff, promotional opportunities represent not only chances for increased salary and benefits, but offer chances to take on more challenging roles and therefore represent attractive opportunities for personal growth. When promotional opportunities are limited, either within a single organization or within the profession as a whole, individuals who value challenge, personal growth and career mobility often become dissatisfied and pursue options which offer greater opportunities.

Figure 2.13 displays frequency distributions for each of the five items included in the promotional opportunity scale. The first scale item taps the frequency dimension of promotional opportunity. Organizations in which promotions occur on a regular basis are considered to have greater promotional opportunity when compared to organizations where promotions occur less frequently. As shown in the figure, only ten percent of nurses agree (9.1 percent) or strongly agree (0.9 percent) that promotions are regular. Almost 2 out of every 3 nurses (63.8 percent) concur that promotional opportunities are not regular.

When the question is rephrased to capture the concept of promotional opportunity (regardless of regularity), only 35 percent of nurses agree or strongly agree that there is opportunity for advancement. In this instance about 4 of every 10 respondents indicated their disagreement with the statement that "there is opportunity for advancement" (41.4 percent) or that there was "a good chance to get ahead" (47 percent).

More sobering is the fact that more than a third of nurses agree with the characterization of their current employment situations as "being in dead-end jobs."

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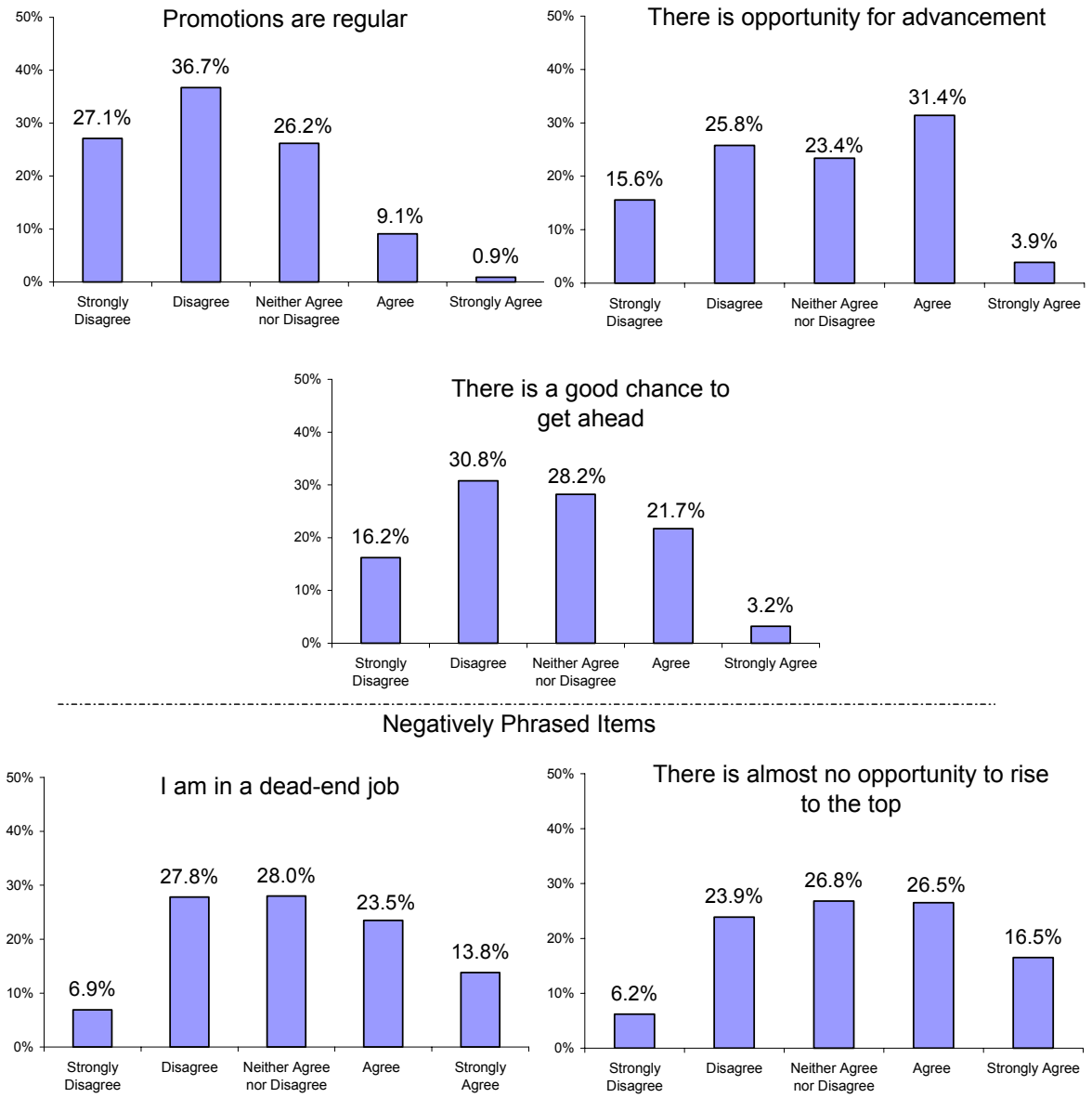
[12] See for example, Douglas O. Steiger, David I. Auerbach, and Peter Buerhaus, "Expanding Career Opportunities for Women and the Declining Interest in Nursing as a Career," *Urologic Nursing*, Vol. 21, No. 3, June, 2001.

Empirically, these findings appear remarkably consistent with salary-trend evidence in Volume I, which demonstrated that nurses have experienced only extremely modest annual growth in inflation-adjusted salary compensation over the past seven years. More specifically, unlike the earlier 1989-1995 period during which nursing salaries increased annually in constant dollar terms by 2.7 percent, during the more recent 1995-2002 period, annual wage growth dropped to a far lower constant dollar rate of a 0.9 percent increase per year. These findings demonstrating relatively stagnant wages and the perception of highly limited promotional opportunities help account for growing challenges in the recruitment and retention of RNs in New York State.

Figure 2.13
Promotional Opportunity: Distribution of Nurses Working in New York by Scale Item



Promotional Opportunity by Work Setting and Job Title

The average promotional-opportunity scale scores across all five survey items are also displayed by work setting (Table 2.12) and by job title (Table 2.13). In both cases, the strength of the relationship between these organizational variables and satisfaction with promotional opportunity are minimal (note the small eta values). Differences in average scale scores between settings or job titles are relatively small. In other words, there is relative unanimity of opinion by nurses working in different job settings and job titles that promotional opportunities within their jobs are less than satisfactory.

Table 2.12
Average Score for Dimensions of Promotional Opportunity and Average Scale Score by Work Setting

		Positively Phrased Items			Negatively Phrased Items		
		Promotions are regular	There is opportunity for advancement	There is a good chance to get ahead	I am in a dead-end job	There is almost no opportunity to rise to the top	Average Scale Score[1]
		1=strongly disagree 3=neutral 5=strongly agree					
Work Setting	n	Mean Score					
Institutions of Higher Education	64	2.43	2.92	2.90	2.80	3.06	2.88
Nursing Home	863	2.40	2.99	2.80	2.91	3.07	2.84
Nursing Education	170	2.38	2.98	2.86	2.92	3.11	2.84
Hospital - Inpatient	4556	2.18	2.95	2.75	3.02	3.14	2.75
Home Health Agency/Home Care	668	2.29	2.89	2.71	3.00	3.20	2.74
Diagnostic/Treatment Center	73	2.30	2.89	2.71	3.03	3.20	2.73
Hospital - Outpatient	715	2.20	2.72	2.57	3.19	3.35	2.59
Insurance	67	2.20	2.63	2.49	3.22	3.46	2.53
Business or Industry	79	2.30	2.61	2.57	3.44	3.48	2.51
Other Health Related Setting	405	2.10	2.58	2.50	3.24	3.39	2.51
HMO/Managed Care	104	2.12	2.60	2.40	3.13	3.49	2.50
Physician's Office	409	2.27	2.45	2.37	3.29	3.42	2.47
Ambulatory Care	430	2.02	2.53	2.45	3.36	3.42	2.44
Govt/Professional/Health Org.	203	1.94	2.55	2.31	3.34	3.44	2.40
Non-Health Related Setting	37	2.11	2.54	2.36	3.42	3.70	2.38
School Health Nursing Service	429	2.10	2.20	2.11	3.52	3.68	2.24
Private Practice	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Overall	**9272**	**2.20**	**2.82**	**2.65**	**3.09**	**3.23**	**2.67**
Eta		0.103	0.189	0.166	0.139	0.137	0.168
Eta2		0.011	0.036	0.028	0.019	0.019	0.028

[1] The scales for the two negatively phrased items (I am in a dead-end job; and there is almost no opportuntiy to rise to the top) have been reversed in the computation of the scale average. A higher score indicates greater promotional opportunity.

In light of both traditional economics and theories of consumer choice, the evidence suggests that alternative careers that promise – and deliver – greater promotional opportunity are positioned to become even more attractive in the future. And since career opportunities are increasingly seen as more promising in traditionally male-dominated professional and managerial occupations, careers with limited-mobility or blocked-mobility may not bode well for future recruitment efforts. Surveys of freshman college students taken over the last several years do *not* point to a renewed resurgence of interest in the nursing profession.

Table 2.13
Mean Score for Dimensions of Promotional Opportunity and Average Scale Score by Job Title

		Positively Phrased Items			Negatively Phrased Items		
		Promotions are regular	There is opportunity for advancement	There is a good chance to get ahead	I am in a dead-end job	There is almost no opportunity to rise to the top	Average Scale Score[1]
		1=strongly disagree 3=netral 5=strongly agree					
Job Title	n	Mean Score					
Independent Practitioner	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Director of Nursing/VP for Nursing	285	2.65	3.21	3.05	2.60	2.73	3.12
Dean/Director/Chair Nursing Ed.	22	2.67	2.93	2.91	2.62	2.89	3.00
Researcher	62	2.46	3.20	3.01	2.81	3.07	2.96
Faculty in Nursing Ed. Program	141	2.40	3.15	2.92	2.76	3.08	2.93
In-service Director/Instructor	147	2.35	2.94	2.86	2.85	3.11	2.84
Nurse Manager/Patient Care Coord.	979	2.35	2.95	2.80	2.96	3.10	2.81
Consultant	57	2.37	2.76	2.67	3.13	3.09	2.72
Certified Nurse Anesthetist	34	2.40	2.68	2.61	3.04	3.22	2.69
Clinical Nurse Specialist	158	2.33	2.80	2.64	3.09	3.30	2.68
Nurse Practitioner	387	2.30	2.63	2.61	3.05	3.25	2.64
Staff Nurse	5373	2.12	2.83	2.63	3.15	3.25	2.64
Quality Assurance	309	2.20	2.66	2.60	3.09	3.37	2.60
Other	819	2.26	2.61	2.50	3.13	3.33	2.58
Private Duty Nurse	42	2.26	2.65	2.51	3.42	3.27	2.56
Public/Community Health Nurse	418	2.07	2.66	2.48	3.22	3.38	2.52
Claims Reviewer	38	2.03	2.60	2.40	3.38	3.64	2.40
Overall	**9271**	**2.20**	**2.82**	**2.65**	**3.09**	**3.23**	**2.67**
eta		0.133	0.115	0.110	0.111	0.103	0.126
eta2		0.018	0.013	0.012	0.012	0.011	0.016

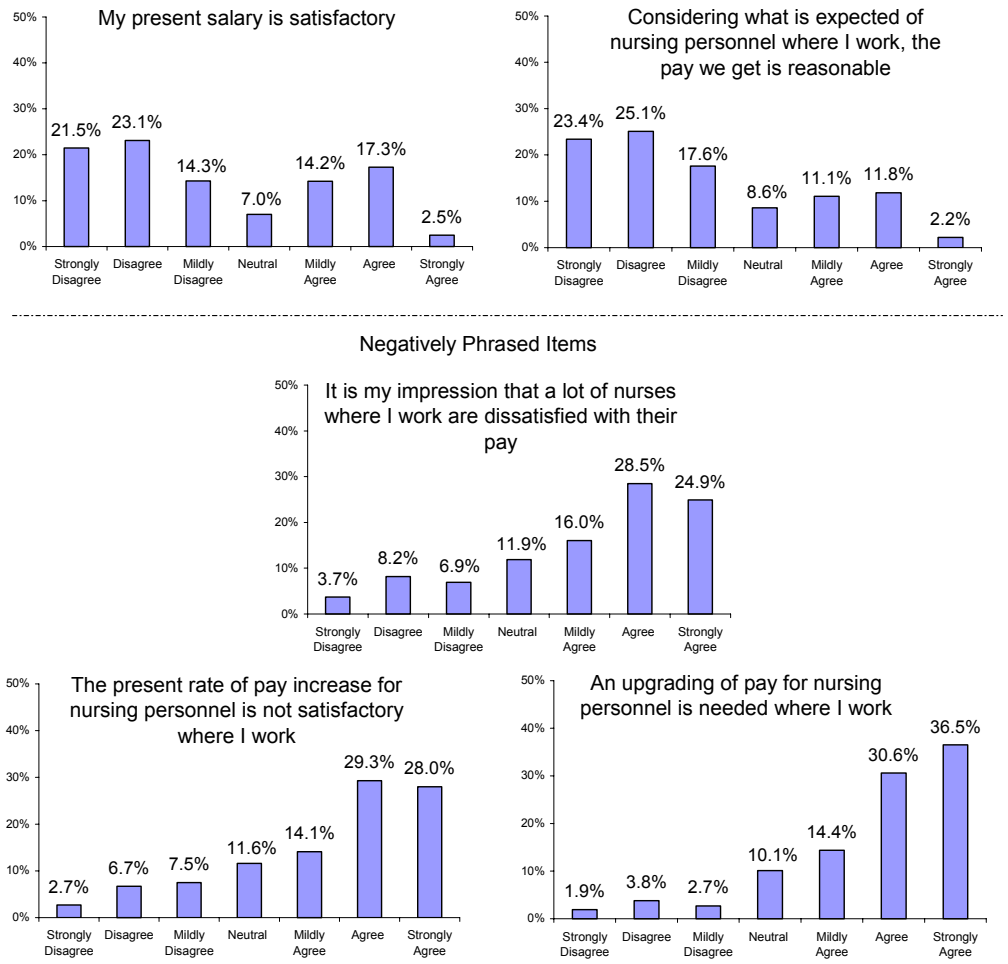
[1] The scales for the two negatively phrased items (I am in a dead-end job; and there is almost no opportuntiy to rise to the top) have been reversed in the computation of the scale average. A higher score indicates greater promotional opportunity.

PAY AND SATISFACTION WITH SALARY COMPENSATION

This section will focus on the level of pay and satisfaction with salary for nurses working in New York State. Figure 2.14 summarizes responses to the five items which comprise the salary satisfaction scale. Nurses report being highly dissatisfied with their level of pay.

Only a small fraction of nurses (8.4 percent) *disagreed* that a pay upgrading is needed in the workplace. Nearly 70 percent of nurses working in New York State indicated that they have the impression that a lot of nurses are dissatisfied with their pay, and 71.4 percent agreed that the rate of pay increase was not satisfactory. Two thirds of nurses (66.1 percent) *disagreed* that RNs were paid reasonably at their place of employment. There was somewhat more diversity of opinion regarding satisfaction with present salary – 34 percent indicated some level of agreement that their present salary was satisfactory, while 58.9 percent disagreed and the remainder were neutral.

Figure 2.14
Salary Satisfaction: Distribution of Nurses Working in New York by Scale Item



Satisfaction with Salary by Work Setting

The mean score for each of the items in the salary satisfaction scale, along with the average scale score, are displayed in Table 2.14. The average scale score for each of the work settings falls well below the neutral point (4) on this scale, indicating substantial dissatisfaction with pay. The lowest level of satisfaction with salary was found among the school nurses (2.26 out of 7), nurses working in nursing homes (2.76 out of 7) those nurses working in governmental/professional/health organizations (2.81 out of 7) and inpatient hospital settings (2.81 out of 7). It is most likely that these findings are reflective of the differences in salary levels across work settings. For example, school health nurses were found to be the most dissatisfied when compared to nurses employed in all other settings. Linking this finding to those found in Chapter 5 of Volume I, school health nurses were found to have the lowest average salary compared to other settings ($41,239 per year). Thus, while nurses in all settings are

indicating substantial dissatisfaction with pay, the minor observed differences across settings are likely due to variations in salary level associated with these settings.

Since most nurses reported dissatisfaction with their salary levels regardless of work setting, the setting in which nurses work is not a powerful predictor of views of salary. This finding is reflected in the fact that employment setting accounts for only 1.1 percent of the total variability in salary satisfaction.

Table 2.14
Mean Score for Dimensions of Salary Satisfaction and Average Scale Score by Work Setting

		Positively Phrased Items		Negatively Phrased Items			
		My present salary is satisfactory	...the pay we get is reasonable	...a lot of nurses where I work are dissatisfied with their pay	...rate of pay increase is not satisfactory where I work	...upgrading of pay for nursing is needed where I work	Average Scale Score[1]
		1=strongly disagree 4=neutral 7=strongly agree					
Work Setting	n	Mean Score					
Private Practice	N/A	N/A	N/A	N/A	N/A	N/A	N/A
HMO/Managed Care	104	3.65	3.55	4.75	4.83	5.44	3.23
Physician's Office	414	3.60	3.63	4.75	5.12	5.28	3.22
Insurance	67	3.83	3.68	4.96	4.93	5.54	3.22
Business or Industry	79	3.57	3.51	4.74	5.00	5.36	3.21
Non-Health Related Setting	37	3.82	3.58	4.89	5.04	5.48	3.19
Nursing Education	170	3.50	3.35	4.74	5.19	5.51	3.08
Diagnostic/Treatment Center	73	3.44	3.40	4.89	5.10	5.48	3.06
Hospital - Outpatient	714	3.48	3.15	5.12	5.13	5.44	2.99
Ambulatory Care	433	3.29	3.07	5.02	5.18	5.73	2.89
Other Health Related Setting	405	3.40	3.16	5.10	5.35	5.76	2.87
Institutions of Higher Education	64	3.26	2.82	4.82	5.13	5.80	2.86
Home Health Agency/Home Care	672	3.30	3.02	5.07	5.28	5.71	2.86
Hospital - Inpatient	4562	3.31	2.94	5.17	5.31	5.73	2.81
Govt/Professional/Health Org.	203	3.24	3.13	5.30	5.28	5.76	2.81
Nursing Home	865	3.28	2.99	5.34	5.35	5.80	2.76
School Health Nursing Service	434	2.55	2.60	5.32	5.42	5.97	2.49
Overall	**9296**	**3.31**	**3.03**	**5.13**	**5.27**	**5.69**	**2.85**
eta		0.104	0.117	0.086	0.060	0.099	0.106
eta^2		0.011	0.014	0.007	0.004	0.010	0.011

[1] The scales for the three negatively phrased items have been reversed in the computation of the scale average. A higher score indicates greater satisfaction with pay.

Salary Satisfaction and Job Title

Table 2.15 displays the average ratings for each item making up the salary satisfaction scale, as well as the average scale score for salary satisfaction by job title. As shown in the table, as with employment setting, nurses' satisfaction with salary is low across job titles. Public health nurses, in-service directors/instructors, and staff nurses are the most dissatisfied with their level of pay, while consultants, researchers, directors of nursing/VPs and certified registered nurse anesthetists report higher (but still low) levels of satisfaction with their level of pay. These findings are consistent with earlier findings reported in Chapter 5 of the Volume I report, where certified registered nurse anesthetists ($80,622), and directors/VPs ($67,086) were found to have the highest average salaries. Additionally, public health nurses were found to have the lowest average salary ($47,761), well below the State average salary ($52,730) and the

primary factor in explaining the level of dissatisfaction with salary reported by public/community health nurses.

Table 2.15
Average Score for Dimensions of Salary Satisfaction and Average Scale Score by Job Title

		Positively Phrased Items		Negatively Phrased Items			
	n	My present salary is satisfactory	...the pay we get is reasonable	...a lot of nurses where I work are dissatisfied with their pay	...rate of pay increase is not satisfactory where I work	...upgrading of pay for nursing is needed where I work	Average Scale Score[1]
		1=strongly disagree 4=neutral 7=strongly agree					
Job Title		Mean Score					
Independent Practitioner	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Consultant	58	4.16	3.67	4.36	4.91	5.31	3.45
Researcher	62	4.23	3.62	4.72	4.59	5.18	3.45
Director of Nursing/VP for Nursing	285	3.85	3.52	4.74	4.81	5.33	3.30
Certified Nurse Anesthetist	34	4.48	3.88	5.51	5.03	5.41	3.29
Claims Reviewer	38	3.72	3.51	4.56	4.82	5.62	3.24
Nurse Practitioner	390	3.68	3.28	4.96	5.14	5.41	3.09
Faculty in Nursing Ed. Program	141	3.40	3.23	4.69	5.09	5.62	3.04
Private Duty Nurse	47	3.64	3.20	5.07	5.32	5.27	3.02
Clinical Nurse Specialist	158	3.49	3.24	4.85	5.18	5.63	3.02
Quality Assurance	309	3.54	3.25	4.98	5.26	5.54	3.00
Other	825	3.37	3.20	5.10	5.03	5.54	2.99
Dean/Director/Chair Nursing Ed.	22	3.33	3.31	5.20	5.35	5.29	2.96
Nurse Manager/Patient Care Coord.	980	3.33	3.10	5.16	5.23	5.65	2.88
Staff Nurse	5381	3.22	2.92	5.20	5.36	5.77	2.76
In-service Director/Instructor	147	3.12	3.03	5.45	5.38	5.59	2.75
Public/Community Health Nurse	420	3.02	2.76	5.21	5.46	5.92	2.64
Overall	**9297**	**3.31**	**3.03**	**5.13**	**5.27**	**5.69**	**2.85**
Eta		0.109	0.105	0.087	0.093	0.099	0.115
Eta2		0.012	0.011	0.007	0.009	0.010	0.013

[1] The scales for the three negatively phrased items have been reversed in the computation of the scale average. A higher score indicates greater satisfaction with salary.

Salary Satisfaction and Level of Pay

Table 2.16 displays the relationship between salary level and average salary satisfaction scale score for both full-time and part-time nurses. The average satisfaction scale score increases progressively as salary level improves. The average scale score for full-time nurses earning $76-$100,000 is roughly one scale point higher than nurses making $25,000 or less. A similar positive trend holds for nurses working part time.

Table 2.16
Average Salary Satisfaction by Salary Level and Full/Part-Time Status

	Full-Time		Part-Time	
Salary Category	n	Average Salary Satisfaction	n	Average Salary Satisfaction
0-$25,000	108	2.25	896	2.86
$26,000-$50,000	2175	2.53	1368	2.84
$51,000-$75,000	3207	2.87	348	3.05
$76,000-$100,000	967	3.23	49	3.37
Greater Than $100,000	140	3.77	-	-
Total	**6597**		**2661**	

Nurses working part time are much more satisfied with their pay when compared to full-time nurses earning similar levels of salary. These part-time worker salaries, however, obviously translate into a higher average hourly wage than the wage earned by RNs earning the same salary but working full time.

Other Findings Regarding Satisfaction With Salary

Table 2.17 shows average salary satisfaction for full and part-time nurses by overtime category, employer type, facility size and geographic category. The first section of the table focuses on the relationship between salary satisfaction and overtime. Note that the counties of nursing practice which constitute the four geographic aggregations at the bottom of the table are listed in Appendix F.

Table 2.17

Average Salary Satisfaction by Selected Characteristics of Full and Part-Time Nurses Working In New York State

	Full-Time		Part-Time	
Overtime Category	n	Average Salary Satisfaction	n	Average Salary Satisfaction
Does not work overtime	3743	2.97	2091	2.99
Works overtime-never mandatory	1036	2.79	236	2.81
Works overtime-sometimes mandatory	1072	2.63	271	2.53
Works overtime-always mandatory	375	2.46	110	2.57
Total	**6226**		**2708**	
Employer Type				
State agency	667	2.55	146	2.90
Local/county agency	806	2.57	344	2.70
Not-for profit/voluntary	2695	2.90	1059	2.91
Private sector	1977	2.95	1048	2.93
Other	538	2.78	180	3.10
Total	**6683**		**2777**	
Facility Size (Hospitals and Nursing Homes Only)				
Small (99 beds or fewer)	329	2.80	161	2.80
Medium (100-299 beds)	1690	2.84	760	2.86
Large (300 or more beds)	2189	2.82	706	2.80
Total	**4208**		**1627**	
Geographic Category				
New York City	2687	2.99	655	3.16
Downstate Suburbs	1416	2.70	827	2.78
Upstate MSAs	2178	2.73	1139	2.82
Rural	526	2.79	210	3.02
Total	**6807**		**2831**	

Nurses who do not work overtime consistently report higher levels of satisfaction with pay when compared to nurses who do work overtime regardless of full or part-time status. As overtime management policies become more mandatory in nature, nurses' satisfaction with pay decreases. This finding is consistent with numerous studies on the subject, and consistent with our own findings, that both extra-hours and overtime scheduling of the existing RN workforce may represent a system-wide method of

"stretching" an existing workforce in order to address existing demand. The consequences for RN job satisfaction, however, appear to be deleterious.

When examining the employer type variable, nurses working for government both at the state and local levels report lower levels of satisfaction with pay compared to nurses working in the not-for-profit or private sector. Little difference in salary satisfaction was found among nurses working in small medium or large facilities. Additionally, only small geographic differences in salary satisfaction were observed.

INSTRUMENTAL COMMUNICATION

Instrumental communication refers to the extent to which an organization communicates key job-related information to its members. Information necessary for doing one's job and improving job performance are key elements of this dimension. The measures used in the survey are drawn from Price's six-item scale of instrumental communication. Respondents were asked to rate how well informed they are kept about procedures, job performance and equipment. This scale tells us whether nurses feel that they are getting the information needed to perform their jobs well.

As shown in Figure 2.15, nurses working in New York State report that they are kept pretty well informed about their work. With the exception of responses to only one item in the six-item scale, over 50 percent of our respondents felt that they were either well informed or very well informed about what needed to be done, what they needed to know to do the job well, or what was most important about the job. Only 12 to13 percent of nurses felt they were poorly informed or very poorly informed about what they need to do, about standard operating procedures, and other important aspects of the job.

The anomaly in this otherwise positive pattern of satisfaction with workplace instrumental communication concerned "how well the job is done." In this particular instance, 29 percent of nurses indicated that they were either poorly informed (19.4 percent) or very poorly informed (9.6 percent) about how well the job is done. This finding is important because it suggests that while nurses are kept informed regarding the work to be done as well as procedural issues, the adequacy of the feedback that they receive concerning the quality of the work they do may need to be strengthened.

Nurses' relatively low level of satisfaction with how well they are kept informed about the quality of their job performance corresponds with findings regarding the importance of "recognition" to nurses' job satisfaction explored in greater depth in Chapter 7 of this volume, as well as by other recent studies.[13] Many nurses sent back letters with the survey expressing unhappiness regarding how little recognition they receive, both from management and from the public, for the demanding and critical work they do, and the burden of responsibility they carry on a daily basis. Transcriptions of

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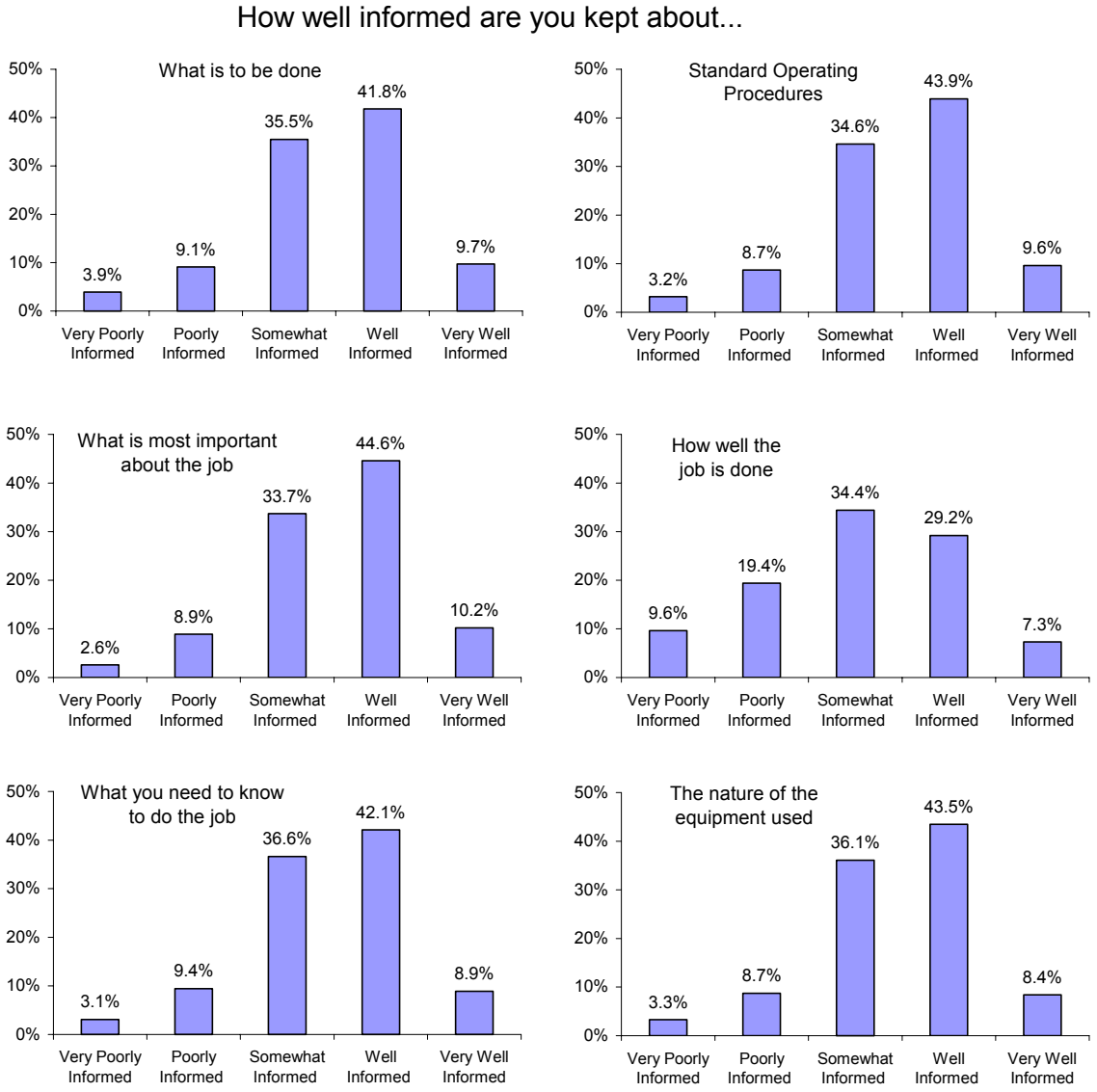
[13] See Paula L. Stamps, *Nurses and Work Satisfaction: An Index for Measurement,* Health Administration Press, Second Edition, (Chicago, Illinois), 1997.

several of these letters are included within the Volume III Supplement, *New York Nurses Speak: Views from the Field*.

Figure 2.15
Communication: Distribution of Nurses Working in New York by Scale Item



Communication and Work Setting

The reported level of communication on each scale item and the overall average scale score by work setting is displayed in Table 2.18. Nurses working in educational institutions and physicians' offices report the highest level of instrumental communication when compared to other work settings. In contrast, nurses working in hospitals, nursing homes and governmental/ professional/ health organizations report

the lowest average scores for instrumental communication. Even for these low-communication groups, the average scores are above the neutral point on the scale, indicating a fair degree and quality of supervisory communication. The single largest work setting (inpatient hospital) was found to have the lowest ratings on communication – particularly in the areas of feedback about job performance. This finding suggests that successfully informing employees about work-related issues poses a particular challenge for hospitals, work settings where multiple shifts and specialties exist and lines of authority are complex.

Table 2.18
Average Score for Dimensions of Communication and Average Scale Score by Work Setting

		How well informed are you kept about…						
		What is to be done	Standard operating procedures	What is most important about the job	How well the job is done	What you need to know to do the job	The nature of the equipment used	Average Scale Score[1]
		1=very poorly informed	2=poorly informed	3=somewhat informed	4=well informed	5=very well informed		
Work Setting	n	Mean Score						
Private Practice	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Institutions of Higher Education	64	3.64	3.71	3.65	3.44	3.66	3.69	3.63
Physician's Office	413	3.64	3.62	3.72	3.29	3.67	3.74	3.61
Nursing Education	170	3.56	3.57	3.69	3.40	3.57	3.63	3.57
Diagnostic/Treatment Center	73	3.57	3.67	3.66	3.37	3.56	3.54	3.56
Non-Health Related Setting	38	3.76	3.60	3.68	3.25	3.54	3.53	3.56
Home Health Agency/Home Care	671	3.60	3.60	3.65	3.25	3.54	3.56	3.53
Insurance	67	3.56	3.63	3.65	3.32	3.42	3.60	3.53
School Health Nursing Service	429	3.61	3.55	3.59	3.15	3.48	3.52	3.48
Business or Industry	79	3.58	3.57	3.57	3.33	3.33	3.47	3.48
Other Health Related Setting	404	3.51	3.50	3.57	3.25	3.46	3.49	3.47
Ambulatory Care	430	3.39	3.47	3.53	3.15	3.49	3.51	3.42
HMO/Managed Care	104	3.52	3.40	3.61	3.11	3.38	3.42	3.41
Hospital - Outpatient	716	3.40	3.45	3.49	3.04	3.47	3.52	3.40
Govt/Professional/Health Org.	203	3.47	3.50	3.45	3.12	3.32	3.30	3.36
Nursing Home	866	3.43	3.43	3.47	3.03	3.38	3.39	3.36
Hospital - Inpatient	4559	3.38	3.44	3.45	2.93	3.40	3.38	3.33
Overall	**9286**	**3.44**	**3.48**	**3.51**	**3.05**	**3.44**	**3.45**	**3.40**
eta		0.102	0.074	0.096	0.132	0.084	0.111	0.113
eta^2		0.010	0.005	0.009	0.018	0.007	0.012	0.013

Communication and Job Title

Average scale scores for instrumental communication and each of the six scale items are displayed in Table 2.19 by job title. Titles for which higher communication scores were reported are deans/directors of nursing education, private duty nurses, and directors of nursing. For these titles, communication is less of a problem.

Public health nurses, in-service directors and staff nurses reported receiving less satisfactory communication about work-related issues, particularly feedback on job performance. Nurses in these titles perform much of the direct patient care within the health care system and the well being of their patients relies upon their receiving clear information about what needs to be done and how it is to be done. Nurses in these titles generally work in complex, large-scale organizations where it is sometimes difficult for communication of policy, priorities and procedures to filter down to all staff.

For both work setting and job title, the eta values (.113 and .128) are low, suggesting that while there are some noted differences in communication by work setting and job title, these two categorical variables account for only modest variability in instrumental communication.

Table 2.19
Average Score for Dimensions of Communication and Average Scale Score by Job Title

		How well informed are you kept about…						
		What is to be done	Standard operating procedures	What is most important about the job	How well the job is done	What you need to know to do the job	The nature of the equipment used	Average Scale Score[1]
		1=very poorly informed	2=poorly informed	3=somewhat informed	4=well informed	5=very well informed		
Job Title	n	Mean Score						
Independent Practitioner	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Dean/Director/Chair Nursing Ed.	22	3.95	3.75	4.10	3.64	3.82	3.85	3.85
Private Duty Nurse	46	3.9	3.81	3.77	3.63	3.91	3.83	3.80
Director of Nursing/VP for Nursing	285	3.82	3.77	3.82	3.49	3.67	3.75	3.72
Certified Nurse Anesthetist	34	3.65	3.63	3.88	3.36	3.84	3.91	3.71
Consultant	58	3.72	3.71	3.83	3.60	3.62	3.50	3.66
Faculty in Nursing Ed. Program	141	3.59	3.61	3.69	3.41	3.65	3.64	3.60
Researcher	62	3.63	3.61	3.69	3.44	3.64	3.53	3.59
Claims Reviewer	38	3.7	3.48	3.65	3.29	3.41	3.48	3.50
Clinical Nurse Specialist	158	3.53	3.49	3.58	3.27	3.48	3.60	3.49
Other	824	3.54	3.55	3.59	3.18	3.48	3.47	3.47
Nurse Manager/Patient Care Coord.	980	3.55	3.57	3.57	3.15	3.41	3.50	3.46
Nurse Practitioner	388	3.45	3.43	3.60	3.15	3.57	3.53	3.45
Quality Assurance	309	3.53	3.47	3.54	3.22	3.36	3.40	3.42
Public/Community Health Nurse	418	3.48	3.46	3.51	3.09	3.39	3.43	3.39
In-service Director/Instructor	148	3.37	3.40	3.45	3.20	3.30	3.52	3.37
Staff Nurse	5376	3.36	3.43	3.44	2.93	3.42	3.40	3.33
Overall	**9287**	**3.44**	**3.48**	**3.51**	**3.05**	**3.44**	**3.45**	**3.40**
eta		0.126	0.093	0.115	0.153	0.092	0.099	0.128
eta^2		0.016	0.009	0.013	0.023	0.008	0.010	0.016

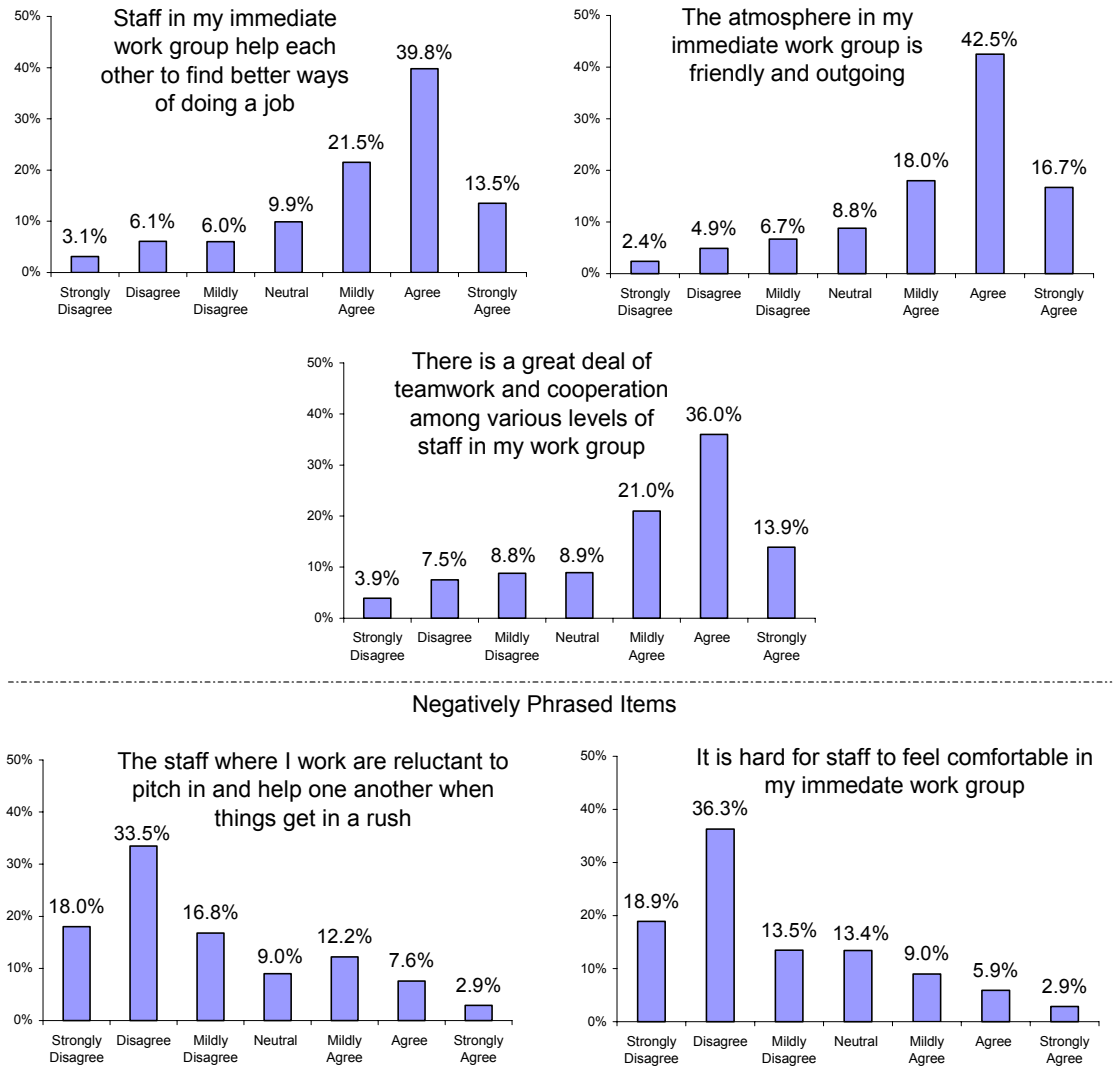
INTERACTION WITH OTHER NURSES

Personal connections among staff in work units provide a source of social interaction and support. This type of support is particularly important when workload demands are high, exposure to high levels of stress is frequent and resources are limited. In order to gauge the quality of respondents' interactions with other nursing professionals, five items were included in the survey. These items were taken from the nurse-nurse interaction scale of the Index of Work Satisfaction developed by Stamps and colleagues at the University of Massachusetts. The distribution of responses to each scale item for nurses currently working in New York State is shown in Figure 2.16.

Nurses generally report high levels of satisfaction with interactions between RNs within their immediate work units. For the three positively phrased items in the top portion of the figure, the distributions are skewed to the right, indicating a tendency towards positive ratings of interactions. Only 15.2 percent of nurses working in New York State disagreed (at any level) with the phrase "staff in my immediate work group help each other to find better ways of doing a job," indicating satisfaction with the level

of team work within the work unit. Additionally, only 14 percent disagreed that the atmosphere in their immediate work unit was friendly and outgoing. Twenty percent (20.2) of nurses disagreed that there is teamwork and cooperation between various levels of staff, suggesting interactions may be somewhat less satisfactory between staff at different levels.

Figure 2.16
Nurse-Nurse Interaction: Distribution of Nurses Working in New York by Scale Item



Nurse-Nurse Interaction and Work Setting

Average ratings on each of the scale items and the average scale scores for nurse-nurse interaction by work setting is displayed in Table 2.20. Interaction was rated highest among nurses working in physicians' offices, school health nursing services,

and nurses working in insurance settings. These settings often offer smaller work units where employees have opportunities to develop close personal relationships with their coworkers. Interaction was rated lowest (although averaging above the neutral point on the scale) among nurses working in nursing homes and hospital settings. In these settings, workload demands, and complex organizational structures combined with high levels of turnover and shift rotation may interfere with the development of personal relationships between staff – making social support, teamwork and cooperation a challenge.

Table 2.20
Average Score for Dimensions of Nurse-Nurse Interaction and Average Scale Score by Employment Setting

		Positively Phrased Items			Negatively Phrased Items		
		Staff help each other find better ways of doing a job	The atmosphere is friendly and outgoing...	...There is cooperation among levels in my work group…	...staff are reluctant to pitch in and help when things get in a rush…	It is hard for staff to feel comfortable	Average Scale Score[1]
		1=strongly disagree 4=neutral 7=strongly agree					
Work Setting	n	Mean Score					
Private Practice	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Physician's Office	401	5.43	5.70	5.34	2.67	2.55	5.45
School Health Nursing Service	406	5.31	5.70	5.30	2.71	2.43	5.43
Insurance	67	5.27	5.44	5.20	2.47	2.40	5.41
Diagnostic/Treatment Center	73	5.48	5.51	5.22	2.59	2.71	5.38
HMO/Managed Care	104	5.39	5.56	5.22	2.81	2.58	5.36
Other Health Related Setting	401	5.20	5.49	5.16	2.73	2.66	5.30
Nursing Education	167	5.13	5.46	5.09	2.80	2.73	5.23
Ambulatory Care	429	5.19	5.41	5.14	2.88	2.74	5.22
Home Health Agency/Home Care	664	5.29	5.40	5.09	2.97	2.78	5.21
Institutions of Higher Education	63	5.23	5.38	5.14	2.81	2.95	5.20
Hospital - Outpatient	714	5.16	5.35	5.08	2.87	2.79	5.19
Business or Industry	74	5.00	5.24	5.01	2.81	2.88	5.12
Govt/Professional/Health Org.	204	5.20	5.28	4.98	2.98	3.03	5.09
Non-Health Related Setting	33	4.97	5.42	4.90	3.20	2.69	5.09
Hospital - Inpatient	4544	5.08	5.18	4.90	3.05	2.98	5.03
Nursing Home	853	4.99	5.14	4.78	3.33	3.00	4.92
Overall	**9197**	**5.14**	**5.29**	**4.99**	**2.98**	**2.87**	**5.12**
eta		0.074	0.114	0.093	0.104	0.104	0.113
eta^2		0.005	0.013	0.009	0.011	0.011	0.013

[1] The scales for the two negatively phrased items have been reversed in the computation of the scale average. A higher score indicates a better degree of nurse-nurse interaction.

Nurse-Nurse Interaction by Job Title

Average ratings on the five interaction items as well as average scale scores by job title are shown in Table 2.21. Nurse-nurse interaction was rated highest among nursing directors/VPs and consultants. In contrast, the lowest ratings for nurse-nurse interaction were reported by private duty nurses, clinical nurse specialists and staff nurses.

Table 2.21
Average Score for Dimensions of Nurse-Nurse Interaction and Average Scale Score by Job Title

		Positively Phrased Items			Negatively Phrased Items		
		Staff help each other find better ways of doing a job	The atmosphere is friendly and outgoing...	...There is cooperation among levels in my work group…	...staff are reluctant to pitch in and help when things get in a rush…	It is hard for staff to feel comfortable	Average Scale Score[1]
		1=strongly disagree 4=neutral 7=strongly agree					
Job Title	n	Mean Score					
Director of Nursing/VP for Nursing	285	5.50	5.59	5.36	2.79	2.45	5.44
Consultant	55	5.33	5.55	5.47	2.65	2.68	5.41
Claims Reviewer	37	5.42	5.19	4.92	2.56	2.41	5.31
Other	793	5.20	5.52	5.17	2.80	2.61	5.30
Researcher	60	4.99	5.50	5.27	2.88	2.44	5.29
Faculty in Nursing Ed. Program	138	5.17	5.48	5.07	2.79	2.84	5.22
Certified Nurse Anesthetist	35	5.33	5.50	5.03	2.90	2.85	5.22
Nurse Manager/Patient Care Coord.	974	5.19	5.35	5.07	2.88	2.78	5.19
Dean/Director/Chair Nursing Ed.	23	5.05	5.21	5.05	2.57	2.80	5.19
In-service Director/Instructor	148	5.15	5.42	5.07	2.94	2.82	5.18
Public/Community Health Nurse	415	5.28	5.34	5.02	3.01	2.80	5.16
Nurse Practitioner	388	5.02	5.44	5.01	2.95	2.84	5.13
Quality Assurance	307	5.17	5.28	4.94	3.12	2.88	5.08
Staff Nurse	5345	5.11	5.22	4.93	3.04	2.96	5.05
Clinical Nurse Specialist	155	4.93	5.09	4.86	2.94	2.96	4.99
Private Duty Nurse	37	4.66	5.09	4.71	3.58	2.97	4.81
Independent Practitioner	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Overall	**9195**	**5.14**	**5.29**	**4.99**	**2.98**	**2.87**	**5.12**
eta		0.064	0.081	0.070	0.066	0.086	0.081
eta^2		0.004	0.007	0.005	0.004	0.007	0.007

[1] The scales for the two negatively phrased items have been reversed in the computation of the scale average. A higher score indicates a better degree of nurse-nurse interaction.

Other Factors Affecting Interaction Between Nurses

Table 2.22 displays average scale scores for the nurse-nurse interaction dimension by several categorical variables. Nurses who do not work overtime and nurses who work overtime, but never on a mandatory basis, reported the highest levels of satisfaction with the quality of interaction among nurses in their units. Nurses who indicated that some of their overtime work was done on a mandatory basis reported less satisfaction with nurse-nurse interactions, and nurses reporting that all of their overtime work was done on a mandatory basis were the least satisfied with the quality of these interactions. Nurses required to work overtime on top of their regular workweek schedule are more likely to report being stressed, and therefore may be less likely to engage with other employees on a personal level.

Nurses in smaller facilities reported more favorable nurse-nurse interaction than those working in large sized facilities. Nurses who worked in facilities with less than 100-bed capacity rated their interaction experience more favorably (5.23) than did nurses in 300 bed facilities or larger (5.00). Nurses working for state agencies (4.99) and nurses working for local government or county agencies (5.08) report somewhat lower levels of nurse interaction when compared to nurses for not-for-profit (5.16) or private sector (5.12) employers.

Table 2.22

Average Ratings of Nurse-Nurse Interaction by Selected Characteristics of Nurses Working In New York State

	n	Average Nurse Interaction Score		n	Average Nurse Interaction Score
Employment Type			Gender		
Full-Time	6554	5.09	Male	498	4.87
Part-Time	2628	5.18	Female	8559	5.13
Total	**9182**		**Total**	**9057**	
Overtime Category					
Does not work overtime	5488	5.18			
Works overtime-never mandatory	1242	5.21	Minority Status		
Works overtime-sometimes mandatory	1318	4.97	White, Non-Hsipanic	6853	5.19
Works overtime-always mandatory	470	4.78	Minority	2161	4.88
Total	**8518**		**Total**	**9014**	
Employer Type					
State agency	769	4.99			
Local/county agency	1078	5.08	Facility Size (Hospitals and Nursing Homes Only)		
Not-for profit/voluntary	3678	5.16	Small (99 beds or fewer)	478	5.23
Private sector	2842	5.12	Medium (100-299 beds)	2401	5.02
Other	659	5.05	Large (300 or more beds)	2886	5.00
Total	**9026**		**Total**	**5765**	
Geographic Category					
New York City	3228	4.94			
Downstate Suburbs	2138	5.23			
Upstate MSAs	3131	5.21			
Rural	699	5.18			
Total	**9196**				

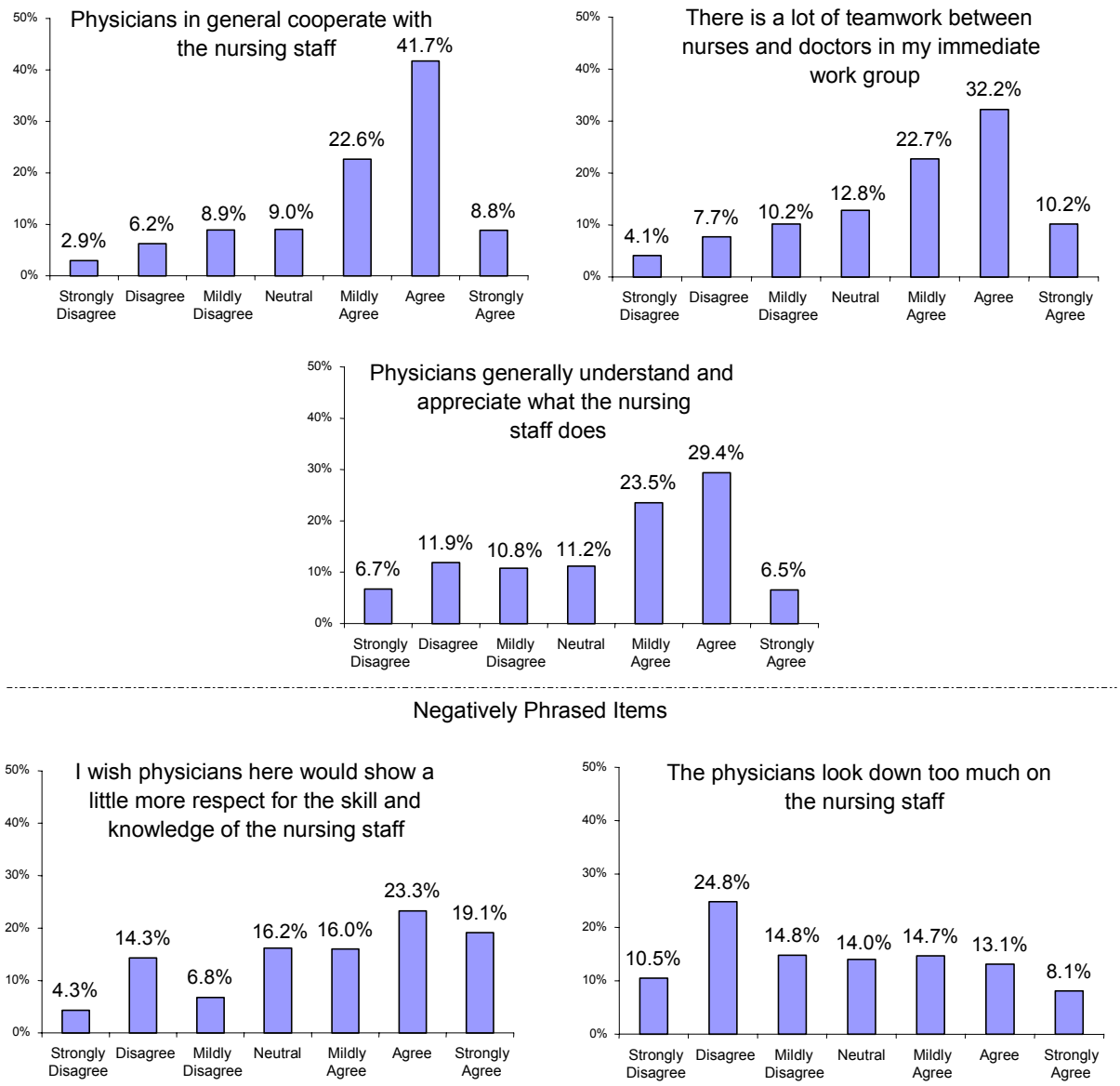
Interaction with Physicians

In inpatient settings, the quality of the nurse-physician relationship is critically important to good clinical care, especially when that care involves highly active case management (i.e., in post surgical recovery situations, or in intensive care situations). Similarly, in private practice settings (whether group or solo), the quality of the nurse-physician relationship is also of great importance, not only for the provision of optimum patient care, but also for the quality of the nurses' work life.

The survey contained five questionnaire items designed to gauge the quality of the interaction between nurses and physicians. The distribution of responses to each of the items is displayed in Figure 2.17.

Nurses tended to rate the quality of their interaction with physicians favorably. When asked whether physicians cooperate with the nursing staff, 73.1 percent of nurses agreed. Additionally, 65.1 percent of nurses agreed that there is a lot of teamwork between nurses and doctors in their own immediate work group. Fifty-nine percent of nurses indicated that physicians generally appreciate the work that the nursing staff does.

Figure 2.17
Nurse-Physician Interaction: Distribution of Nurses Working in New York by Scale Item



However, regarding issues of professional respect from physicians, nurses report much lower levels of satisfaction. While generally satisfied with the level of cooperation and teamwork between these two professions, 58.4 percent of nurses indicated that they wish doctors would show more respect for the knowledge and skill of the nursing staff. Additionally, 35.9 percent of nurses agreed (to some extent) that physicians "look down" too much on the nursing staff. While nurses generally view their working relationships with physicians in a favorable manner, many also sense that their skill and clinical experience are overlooked or subtlely devalued – a point repeatedly made in many of the handwritten qualitative comments shared with us by respondents (transcriptions of which are included in Supplement B of Volume III).

Nurse-Physician Interaction and Work Setting

The working relationship experienced with physicians by nurses varies to some degree by employment setting. As shown in Table 2.23, nurses working in physicians' offices (5.23), other health related settings (4.81) and diagnostic treatment centers (4.80) report the highest satisfaction level for interaction with physicians. These settings offer nurses the opportunity to work one-on-one with doctors, and in many cases the physician is the nurse's employer.

Table 2.23
Mean Score for Dimensions of Nurse-Physician Interaction and Average Scale Score by Employment Setting

		Positively Phrased Items			Negatively Phrased Items		
		Physicians cooperate with the nursing staff	There is a lot of teamwork between nurses and doctors...	Physicians understand and appreciate what the nursing staff does	I wish physicians would show a little more respect for the skill and knowledge of the nursing staff	The physicians look down too much on the nursing staff	Average Scale Score[1]
		1=strongly disagree 4=neutral 7=strongly agree					
Employment Setting	n	Mean Score					
Private Practice	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Physician's Office	407	5.64	5.60	5.23	3.64	2.71	5.23
Other Health Related Setting	351	5.33	5.13	4.84	3.97	3.21	4.81
Diagnostic/Treatment Center	72	5.21	5.07	4.99	4.09	3.20	4.80
HMO/Managed Care	96	5.15	5.15	4.59	4.17	2.96	4.75
Ambulatory Care	417	5.36	5.12	4.89	4.30	3.28	4.75
Non-Health Related Setting	28	5.24	5.16	4.72	4.25	3.32	4.71
School Health Nursing Service	272	5.24	4.82	4.65	3.98	3.29	4.68
Nursing Home	816	5.26	5.02	4.70	4.32	3.39	4.65
Hospital - Outpatient	708	5.13	4.99	4.63	4.48	3.54	4.55
Institutions of Higher Education	32	5.27	5.06	4.27	4.65	3.59	4.47
Business or Industry	65	5.19	4.71	4.57	4.45	3.69	4.45
Govt/Professional/Health Org.	152	5.00	4.72	4.51	4.50	3.72	4.41
Home Health Agency/Home Care	556	5.04	4.51	4.22	4.68	3.75	4.25
Insurance	57	4.57	4.36	4.11	4.43	3.77	4.22
Nursing Education	79	4.82	4.50	4.24	4.68	3.95	4.18
Hospital - Inpatient	4517	4.84	4.63	4.28	5.11	3.97	4.13
Overall	**8625**	**5.02**	**4.80**	**4.47**	**4.72**	**3.69**	**4.37**
eta		0.158	0.168	0.160	0.253	0.195	0.215
eta^2		0.025	0.028	0.026	0.064	0.038	0.046

[1] The scales for the two negatively phrased items have been reversed in the computation of the scale average. A higher score indicates a better degree of nurse-physician interaction.

In contrast, nurses working within inpatient hospitals are more routinely exposed to several different doctors in the course of their daily work, depending on the patients that are in the hospital. In these large-scale settings the instrumental dimensions of role performance take on added importance, and there may be less opportunity for close working relationships to develop. Inpatient hospital nurses reported experiencing the least satisfactory quality of nurse-physician interaction, as indicated by their lowest average rating on this scale (an average 3.87 scale rating that falls below a 4.0 "neutral" reference point). However, only 4.6 percent of the total variability in the reported quality of the nurse-physician relationship is accounted for by work setting, suggesting that the quality of nurse-physician interactions does not vary appreciably by setting.

Nurse-Physician Interaction and Job Title

The average rating on each of the nurse-physician interaction measures as well as the average scale score were examined by job title. Those results are reported in Table 2.24. Nurse practitioners and researchers report the highest level of satisfaction with nurse-physician interaction. These titles are associated with a high level of education and recognized expertise, which may impact upon their interactions with physicians. Claims reviewers, for obvious reasons, report the lowest level of satisfaction

Table 2.24
Average Score for Dimensions of Nurse-Physician Interaction and Average Scale Score by Job Title

		Positively Phrased Items			Negatively Phrased Items		
		Physicians cooperate with the nursing staff	There is a lot of teamwork between nurses and doctors...	Physicians understand and appreciate what the nursing staff does	I wish physicians would show a little more respect for the skill and knowledge of the nursing staff	The physicians look down too much on the nursing staff	Average Scale Score[1]
		1=strongly disagree 4=neutral 7=strongly agree					
Job Title	n	Mean Score					
Dean/Director/Chair Nursing Ed.	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Independent Practitioner	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Nurse Practitioner	379	5.48	5.45	4.96	3.99	3.05	4.97
Researcher	55	5.47	5.42	4.86	3.96	3.33	4.89
Consultant	36	5.24	4.92	4.60	4.41	3.23	4.64
Other	654	5.16	4.95	4.63	4.21	3.47	4.61
Director of Nursing/VP for Nursing	263	4.97	4.84	4.64	4.39	3.40	4.53
Clinical Nurse Specialist	149	4.99	4.86	4.59	4.33	3.50	4.51
Nurse Manager/Patient Care Coord.	950	5.09	4.89	4.55	4.61	3.51	4.48
Public/Community Health Nurse	345	5.17	4.75	4.49	4.59	3.64	4.43
Faculty in Nursing Ed. Program	58	5.01	4.73	4.44	4.58	3.78	4.35
Staff Nurse	5267	4.98	4.74	4.41	4.89	3.82	4.28
Certified Nurse Anesthetist	34	4.81	5.02	4.46	4.92	4.26	4.27
Quality Assurance	276	4.62	4.47	4.23	4.79	3.78	4.15
Private Duty Nurse	30	4.87	4.14	3.86	4.62	3.58	4.13
In-service Director/Instructor	93	4.74	4.30	3.95	4.98	3.94	4.02
Claims Reviewer	28	4.15	4.18	3.66	4.55	4.10	3.87
Overall	**8617**	**5.02**	**4.80**	**4.47**	**4.72**	**3.69**	**4.37**
eta		0.103	0.117	0.093	0.150	0.113	0.126
eta^2		0.011	0.014	0.009	0.023	0.013	0.016

[1] The scales for the two negatively phrased items have been reversed in the computation of the scale average. A higher score indicates a better degree of nurse-physician interaction.

PULLING IT ALL TOGETHER – WORKLIFE PROFILES OF THREE GROUPS OF NURSES

The findings presented up to this point make it clear that organizational climate characteristics vary widely among nurses holding different job titles and working in different settings. In this section, we describe the worklife profiles of three groups of nurses that findings reported previously in this chapter suggest are especially stressed or dissatisfied with their nursing employment. These include: inpatient staff nurses (working in hospitals or nursing homes), nurse managers and nurses with five years or less experience in the profession.

Three groups are being further examined because the nursing shortage in New York State is most critical in hospitals, where staff nurses and nurse managers fill almost 90 percent of the nursing positions, and three quarters of nurses under 30 years of age find employment. Also, staff nurses and nurse managers represent a very substantial portion of the existing labor market. Furthermore, in view of the dramatic shift in the shape of the RN age distribution curve, the imminent "aging out" of many seasoned professionals constitutes a very serious supply-side concern. This means that the ability to retain new professionals, to prevent early "burn out", is also critically important, and the worklife experiences reported by RNs who are newest to the profession require special scrutiny.

Staff Nurses in Hospitals and Nursing Homes

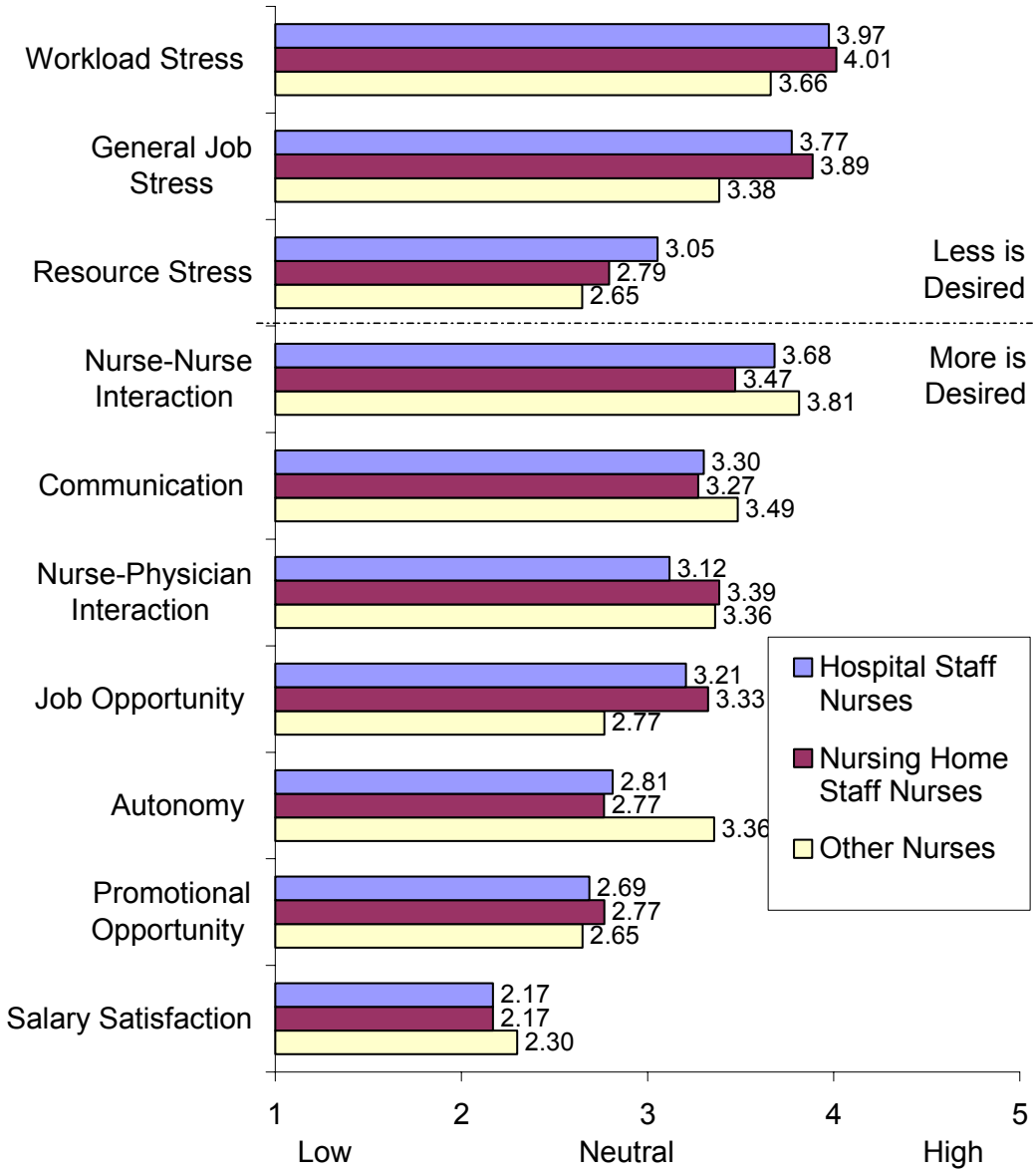
The average scale scores on all worklife dimensions are displayed in Figure 2.18 for staff nurses working in hospitals and nursing homes, and for a comparison group of all other nurses. For ease of comparison, the three seven-point scales were re-normed to five point scales – placing all scales on the same footing and making a scale score of 3 the neutral point.

Hospital staff nurses and nursing home staff nurses reported higher levels of all types of job stress than the average stress scores of the other survey respondents. Resource stress is a more serious concern for nurses working in hospitals (3.0) than for the comparison group of other nurses (2.6). Staff nurses working in either nursing homes or hospitals experience greater levels of general job stress, on average, than nurses in other settings (3.4), but staff nurses working in nursing homes report even higher levels of general job stress (3.9) and workload stress (4.0) than staff nurses working in hospitals (3.7, general job stress and 3.9, workload stress). The nurse-physician relationship is less positive among staff nurses working in hospitals (3.1) than in nursing homes (3.4) or other settings (3.4). Promotional opportunity and salary satisfaction had average ratings below the neutral point on the scales for all three groups of nurses, and views on the availability of promotions as well as the adequacy of salary did not vary significantly among nursing home staff nurses, hospital staff nurses, and all other RNs.

On average, both hospital staff nurses (3.1) and nursing home staff nurses (3.3) reported higher levels of job opportunity when compared to other nurses (2.8). This finding suggests that job market opportunity varies for groups of nurses, and the extent to which nurses are needed in hospitals and nursing homes translates into greater opportunity for nurses currently in these settings. Staff nurses working in hospitals (3.0) and staff nurses working in nursing homes (2.8) report lower levels of autonomy in their jobs when compared to nurses working in other jobs and settings (3.4).

To summarize, the findings displayed in Figure 2.18 suggest that staff nurses – particularly hospital staff nurses – report higher than average levels of all types of work-related stress. The next chapter of this report will demonstrate the important link between job stress and dissatisfaction with work. Additionally, staff nurses reported lower than average levels of satisfaction with most work climate dimensions related to job satisfaction.

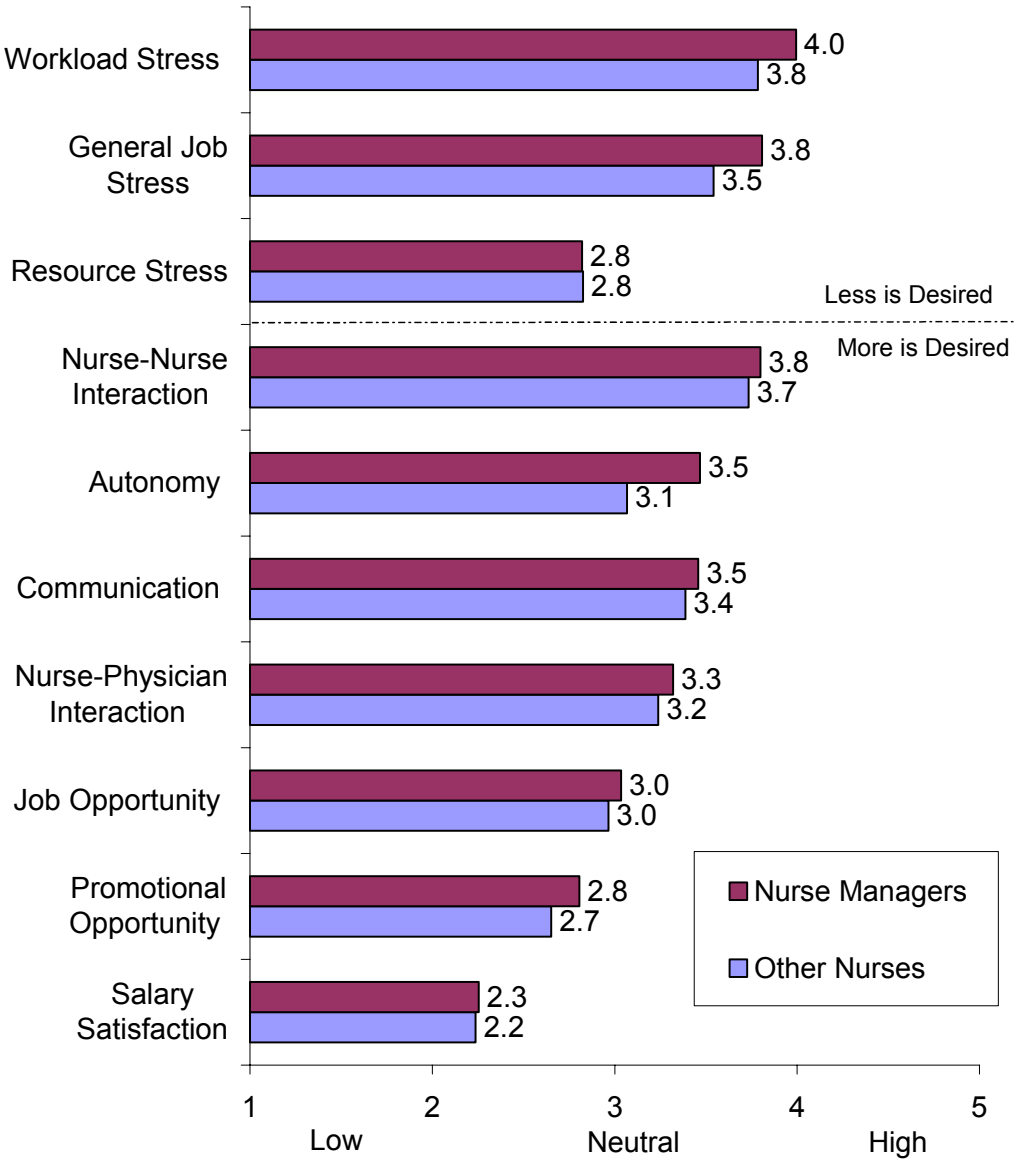
Figure 2.18
Worklife Profile of Staff Nurses Working in Hospitals and Nursing Homes



Nurse Managers

The average scale score for each of the worklife dimensions covered in the previous sections of this chapter are displayed in Figure 2.19 for both nurse managers and nurses in non-managerial roles. Nurse managers represent a critical group of concern when examining the nursing shortage problem. This group is directly impacted by the worsening shortage as they attempt to see that shifts are covered and required work completed in spite of staffing shortages.

Figure 2.19
Worklife Profile of Nurse Managers



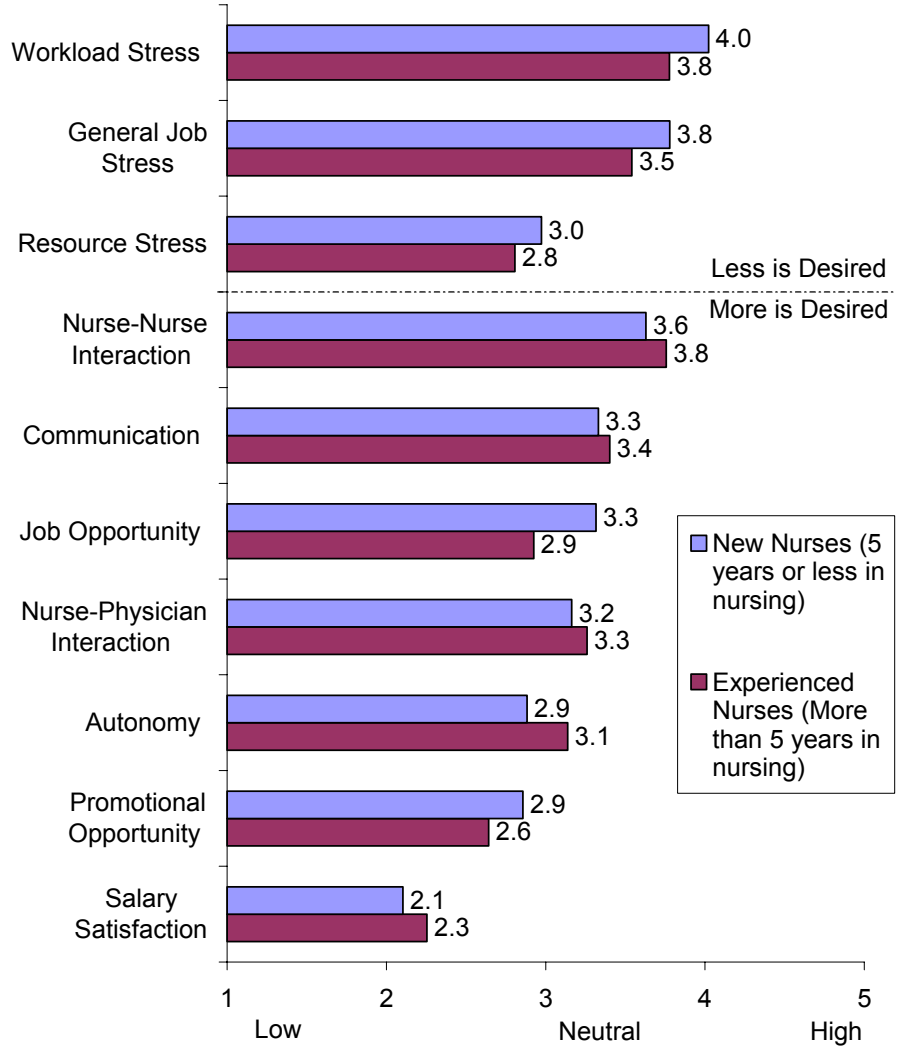
Nurse managers reported greater levels of general job stress and workload-related stress when compared to nurses in non-managerial positions. When examining the reported ratings of worklife dimensions that lead to job satisfaction (bottom portion of Figure 2.19), nurse managers report greater levels of autonomy (3.5) when compared to non-managerial nurses (3.1). Nurse managers also report slightly higher levels of satisfaction with nurse-nurse interaction, communication, and nurse-physician interaction when compared to other nurses. Nurse managers, like other nurses, report low levels of promotional opportunity and satisfaction with salary. Thus, while nurse

managers report higher ratings on factors leading to job satisfaction, they also report higher levels of work-related stress.

New Nurses

The average ratings for the different worklife dimensions are reported by experience category in Figure 2.20. The top bars represents nurses working in nursing for five years or less. The bottom bars represents nurses working more than five years in nursing. As shown in the figure, new nurses experience higher levels of all three types of work-related stress.

Figure 2.20
Worklife Profile of Nurses by Experience Category



In addition to being under greater stress, new nurses report lower levels of satisfaction with the quality of their interpersonal relationships at work, both with nurses and physicians, and with the quality of instrumental communication they receive from their organizations. The higher stress levels and work climate dissatisfactions of new nurses should be given serious attention as part of organizational retention efforts.

Newer nurses report somewhat lower levels of autonomy (2.9) when compared to more experienced nurses (3.1). Regardless of experience category, nurses report low levels of promotional opportunity and satisfaction with salary, although newer nurses rate their prospects for promotional opportunity somewhat higher than more experienced nurses. However, new nurses are slightly more dissatisfied with pay.

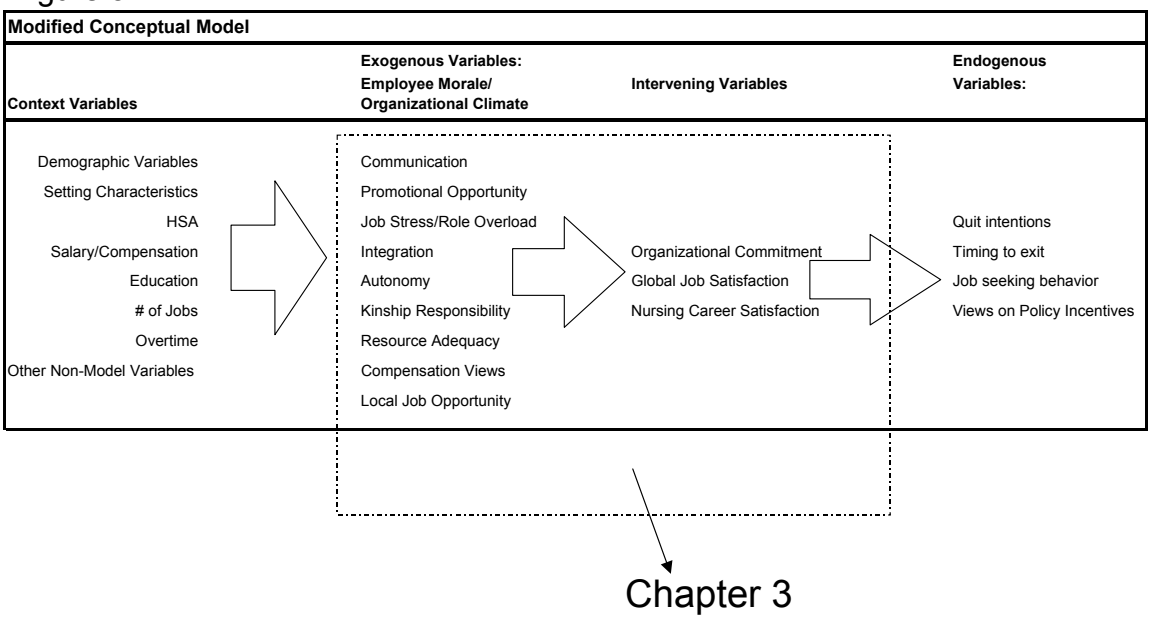
Chapter 3: Analysis of Job Satisfaction, Career Satisfaction and Organizational Commitment

INTRODUCTION

In this chapter we further elaborate findings based upon the Price-Mueller model of voluntary turnover – a critical issue in the nursing profession today. Specifically, we focus on nurses' reported levels of satisfaction with their jobs, satisfaction with their careers and level of commitment to the organizations in which they work. It is widely recognized in the research literature that an individual's sense of job satisfaction and the depth of their organizational commitment are largely a function of the organizational climate conditions examined in Chapter 2. It is also widely recognized that organizational commitment and career job satisfaction are among the most critical predictors of voluntary turnover in the workplace.

It is important that stakeholders seeking to improve the culture of retention in the nursing profession today have a clear awareness of the importance of these climate factors to long-term commitment and the strength of these organizational climate-commitment effects in different settings and titles. This section of the report will serve to examine the ways in which organizational climate factors impact nurses' job and career satisfaction. (The focus of this chapter is outlined within Figure 3.1).

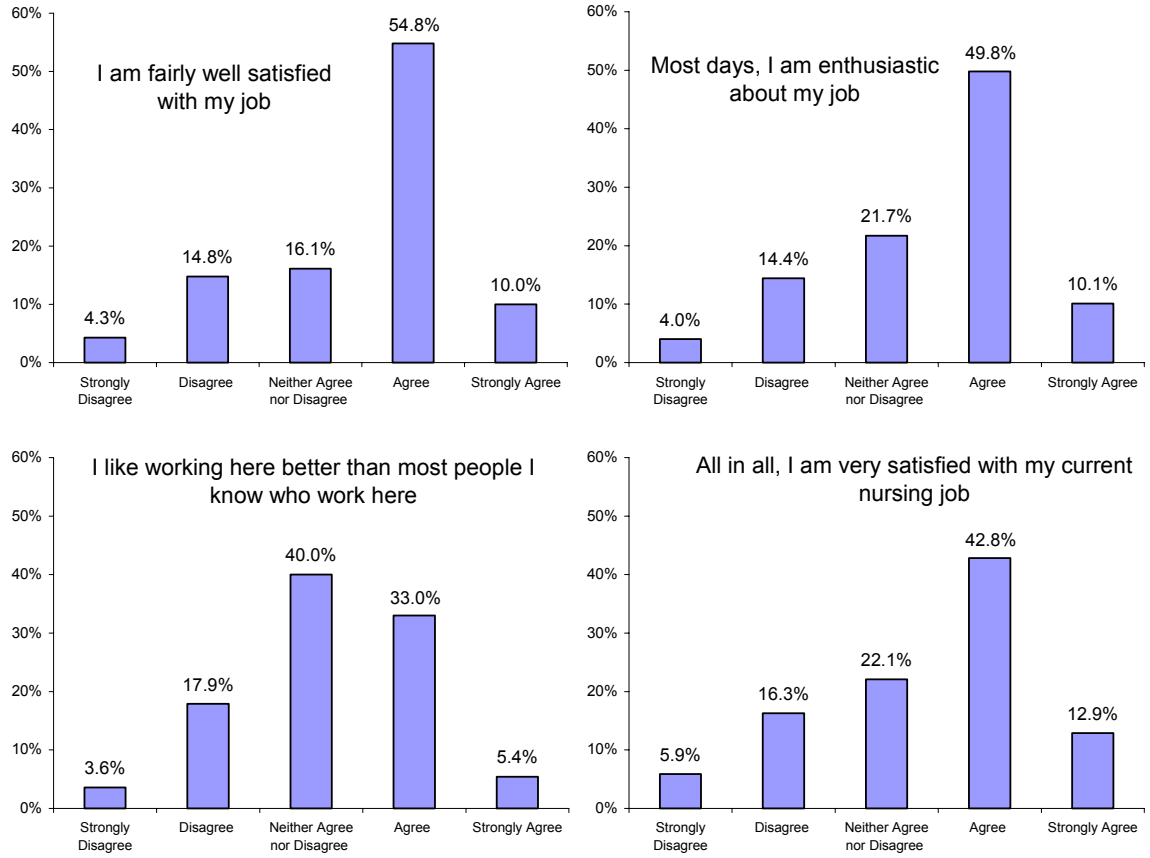
Figure 3.1



NURSES' JOB SATISFACTION

The survey included seven items intended to capture the level of job satisfaction for nurses working in New York State. Four of the questionnaire items were positively phrased so that agreement with the phrase would be considered a positive response. The distribution of nurses' responses to the four positively phrased items is displayed in Figure 3.2A.

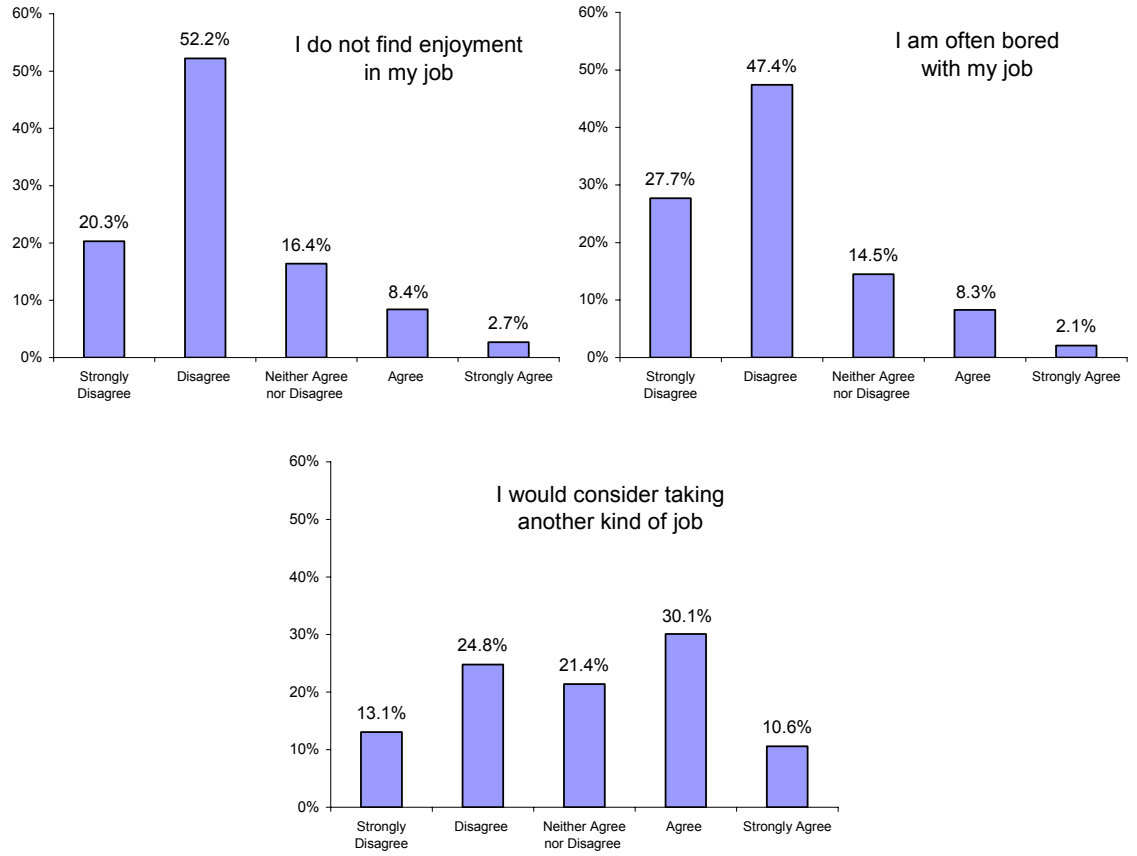
Figure 3.2A
Job Satisfaction Scale: Distribution of Nurses Currently Working in New York State by Scale Item



As shown in the figure, while the distributions of responses are skewed toward the right, indicating a greater propensity to agree with positive statements regarding job satisfaction, there are sizable proportions of nurses who report that they are dissatisfied. For example, 19.1 percent of nurses disagree that they are well satisfied with their job. For each of the other three items as well, approximately 20 percent of respondents indicated that they were not satisfied with their jobs.

There were three negatively phrased items in the scale for job satisfaction. The distribution of responses to these items is shown in Figure 3.2b. Only 11.1 percent of nurses indicated that they do not find their jobs enjoyable, and only 10.4 percent indicated that they are bored with their jobs. The chart at the bottom of the figure, however, indicates a less positive outlook – at least from the standpoint of retention.

Figure 3.2B
Job Satisfaction Scale: Distribution of Nurses Currently Working in New York State by Scale Item



When asked if they would consider taking another kind of job, 40.7 percent of nurses agreed that they would, suggesting a tenuous level of commitment to their current job setting. At the same time, 37.9 percent of nurses disagreed that they would consider taking another kind of job. This bimodal response distribution indicates that nurses' attitudes are far more divided on the issue of considering other employment than their attitudes are toward other aspects of their job satisfaction. As career opportunities for women in other professions have improved in recent decades, professions traditionally female-dominated, such as nursing and teaching, have been particularly hard hit. Not only are fewer young women entering the nursing field, but substantial numbers of current nurses are willing to explore alternative career paths, thus making the focus on nurse retention even more crucial. The bimodal nature of the

findings also raises important questions about whether this split-response pattern holds up across the board, or whether more convergent attitudes emerge within different titles or settings.

Job Satisfaction and Work Setting

The average scores on each of the seven individual job satisfaction items as well as the overall satisfaction average scale score is displayed for each work setting (as well as overall) in Table 3.1. As shown in the table, the average scores for each item and the overall job satisfaction score indicate that nurses tended to rate their satisfaction with their jobs more positively than negatively (average scale score overall = 3.47). Nonetheless, it is important to keep in mind that the preceding distributions indicate substantial proportions of nurses are currently dissatisfied with their jobs.

Table 3.1
Average Score for Dimensions of Job Satisfaction and Average Scale Score by Work Setting

		Positively Phrased Items				Negatively Phrased Items			
		I am fairly well satisfied with my job	Most days, I am enthusiastic about my job	I like working here better than most other people…	All in all, I am very satisfied with my current job	I do not find enjoyment in my job	I am often bored with my job	I would consider taking another kind of job	Average Scale Score [1]
		1=Strongly Disagree 3= Neutral 5=Strongly Agree							
Work Setting	n	Mean Score							
Private Practice	68	4.18	4.09	3.22	3.87	1.82	1.77	2.52	3.90
Nursing Education	182	3.80	3.83	3.08	3.75	2.03	1.75	2.62	3.72
School Health Nursing Service	559	3.79	3.81	3.09	3.76	1.97	2.10	2.71	3.67
Physician's Office	477	3.80	3.75	3.20	3.67	1.96	2.08	2.74	3.66
Institutions of Higher Education	70	3.64	3.86	3.23	3.57	2.06	1.86	2.75	3.66
Business or Industry	92	3.77	3.80	3.21	3.48	2.03	2.18	2.87	3.60
Hospital - Outpatient	734	3.64	3.63	3.24	3.54	2.10	2.04	2.90	3.57
Diagnostic/Treatment Center	74	3.68	3.67	3.22	3.73	2.11	2.17	3.12	3.56
Other Health Related Setting	434	3.69	3.66	3.26	3.54	2.14	2.16	3.00	3.55
Ambulatory Care	439	3.59	3.58	3.17	3.47	2.19	2.18	3.04	3.49
Home Health Agency/Home Care	746	3.58	3.58	3.05	3.46	2.08	2.14	3.05	3.49
Non-Health Related Setting	48	3.60	3.55	3.14	3.35	2.12	2.21	3.04	3.47
Govt/Professional/Health Org.	210	3.53	3.54	3.14	3.36	2.21	2.20	2.95	3.46
HMO/Managed Care	108	3.56	3.47	3.23	3.37	2.30	2.39	3.13	3.40
Nursing Home	891	3.43	3.40	3.20	3.29	2.31	2.08	3.12	3.40
Hospital - Inpatient	4622	3.38	3.31	3.21	3.28	2.31	2.09	3.07	3.39
Insurance	75	3.44	3.44	3.13	3.46	2.35	2.49	3.29	3.34
Overall	**9829**	**3.51**	**3.47**	**3.19**	**3.40**	**2.21**	**2.10**	**3.00**	**3.47**
eta		0.164	0.191	0.060	0.150	0.137	0.085	0.111	0.146
eta2		0.027	0.036	0.004	0.023	0.019	0.007	0.012	0.021

[1] The scale for the negatively phrased items has been reversed in the computation of the scale average. A higher score indicates greater job satisfaction.

Nurses working in private practice (3.90) and nursing education (3.72) reported the highest levels of job satisfaction, while nurses working in nursing homes (3.40), HMOs (3.40), hospitals (3.39) and the insurance industry (3.34) reported the lowest overall satisfaction levels. In view of the fact that inpatient hospital nurses comprise the largest single employment-setting group, their lower level of job satisfaction is especially problematic, from a retention perspective. This finding was not unexpected however, given inpatient hospital nurses' lower reported satisfaction levels on several of the work climate factors described in Chapter 2 of this Volume. Also, almost 9 out of 10 inpatient hospital nurses are staff nurses, and the lower than average satisfaction ratings of staff nurses were also documented in Chapter 2.

Job Satisfaction and Job Title

The relationship between job title and job satisfaction is displayed in Table 3.2. As shown in the table, titles in which nurses reported the highest level of global job satisfaction are certified registered nurse anesthetist (3.84), consultant (3.79) and independent practitioner (3.78).

Claims reviewers (3.15), staff nurses (3.37), and quality assurance personnel (3.45) report the lowest levels of job satisfaction compared to nurses in other job titles. Staff nurses (three quarters of whom work in hospital settings) report lower levels of satisfaction largely as a result of high stress levels, poor work climate and lower salaries (described in Chapter 2 of this report).

Table 3.2
Average Score for Dimensions of Job Satisfaction and Average Scale Score by Job Title

		Positively Phrased Items				Negatively Phrased Items			
		I am fairly well satisfied with my job	Most days, I am enthusiastic about my job	I like working here better than most other people…	All in all, I am very satisfied with my current job	I do not find enjoyment in my job	I am often bored with my job	I would consider taking another kind of job	Average Scale Score[1]
		1=Strongly Disagree 3= Neutral 5=Strongly Agree							
Job Title	n	Mean Score							
Certified Nurse Anesthetist	37	4.02	4.03	3.48	3.89	2.02	2.11	2.49	3.84
Consultant	71	3.93	3.91	3.18	3.83	1.69	2.02	2.58	3.79
Independent Practitioner	67	3.87	3.92	3.06	3.82	1.78	1.84	2.62	3.78
Faculty in Nursing Education Prog.	158	3.81	3.95	3.06	3.81	1.97	1.71	2.56	3.77
Nurse Practitioner	423	3.80	3.84	3.33	3.68	1.88	1.88	2.83	3.73
Dean/Director/Chair Nursing Ed.	23	3.88	3.96	3.04	3.60	1.93	1.75	2.87	3.70
Director of Nursing/VP for Nursing	300	3.73	3.78	3.23	3.66	1.99	1.79	2.84	3.69
Researcher	66	3.89	3.83	3.16	3.86	1.87	2.10	3.00	3.68
Private Duty Nurse	93	3.82	3.83	3.19	3.60	2.16	2.24	2.65	3.62
Other	909	3.72	3.68	3.18	3.60	2.11	2.08	2.81	3.60
In-service Director/Instructor	160	3.64	3.65	3.17	3.53	2.14	2.02	3.05	3.54
Clinical Nurse Specialist	170	3.61	3.64	3.23	3.47	2.12	2.05	3.09	3.53
Nurse Manager/Patient Care Coord	1007	3.55	3.57	3.31	3.44	2.16	2.02	2.99	3.53
Public/Community Health Nurse	466	3.60	3.59	3.15	3.54	2.02	2.19	3.01	3.52
Quality Assurance	323	3.59	3.54	3.25	3.43	2.33	2.26	3.09	3.45
Staff Nurse	5535	3.39	3.31	3.15	3.28	2.31	2.14	3.08	3.37
Claims Reviewer	39	3.21	3.21	3.11	3.24	2.54	2.90	3.23	3.15
Overall	**9847**	**3.51**	**3.47**	**3.19**	**3.40**	**2.21**	**2.10**	**3.00**	**3.47**
eta		0.160	0.202	0.070	0.153	0.153	0.124	0.106	0.169
eta^2		0.026	0.041	0.005	0.023	0.023	0.015	0.011	0.029

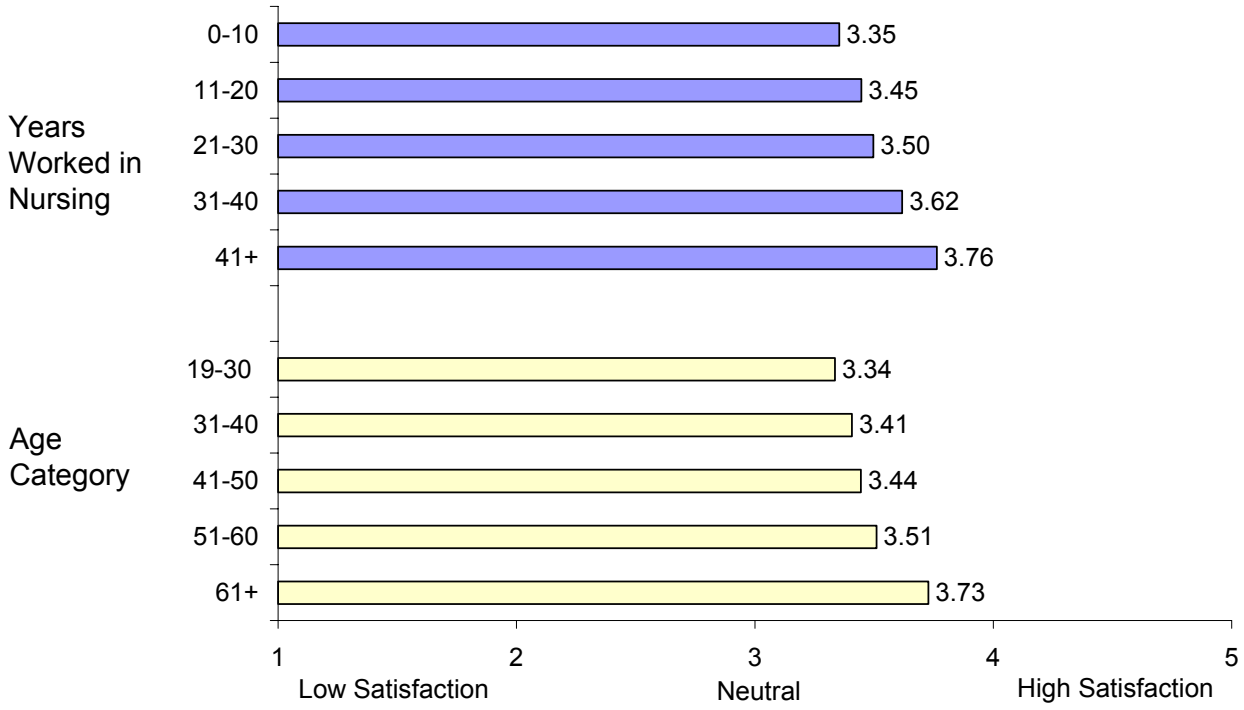
[1] The scale for the negatively phrased items has been reversed in the computation of the scale average. A higher score indicates greater job satisfaction.

Nurse managers and patient care coordinators also report somewhat low levels of job satisfaction (3.53). Their lower than average job satisfaction corresponds with the finding, presented in Chapter 2, that nurse managers report higher levels of workload stress and frequency of great stress than do nurses holding any other job title (apart from director/VP for nursing). Nurse managers must handle the tension of balancing the need to maintain a positive work climate for staff nurses with the organizational priorities of the institutions in which they work.

Job Satisfaction as a Function of Age and Experience in Nursing

Figure 3.3 displays the average scale scores for job satisfaction by both age and years of experience in nursing. As shown in the figure, job satisfaction appears to improve with both age and years of experience in nursing. Since this study is cross-sectional in nature, such generally optimistic findings must be interpreted carefully. On the one hand, it may well be the case that over the years disaffected nurses have "exited" from the field in greater numbers and at younger ages than more satisfied nurses — thereby inflating the satisfaction levels of older nurses who happened to be captured in this study snapshot. On the other hand, it may also be the case that older, more experienced nurses have achieved a level of clinical skill, knowledge and wisdom that allows them to handle complex and critical situations more efficiently and with less stress. Also, more experienced nurses may have learned to focus on the satisfiers in their jobs and not the dissatisfiers. Still, these findings have important implications for the nursing shortage. The average job satisfaction score for nurses working in the field for 41 or more years (3.76) exceeds that of nurses working in the field for ten years or less (3.35) by 0.41 scale points. Similarly, nurses in their 60s (3.73) report higher levels of job satisfaction compared to nurses in the 19-30 year age category (3.34).

Figure 3.3
Job Satisfaction by Age Category and Years in Nursing Category

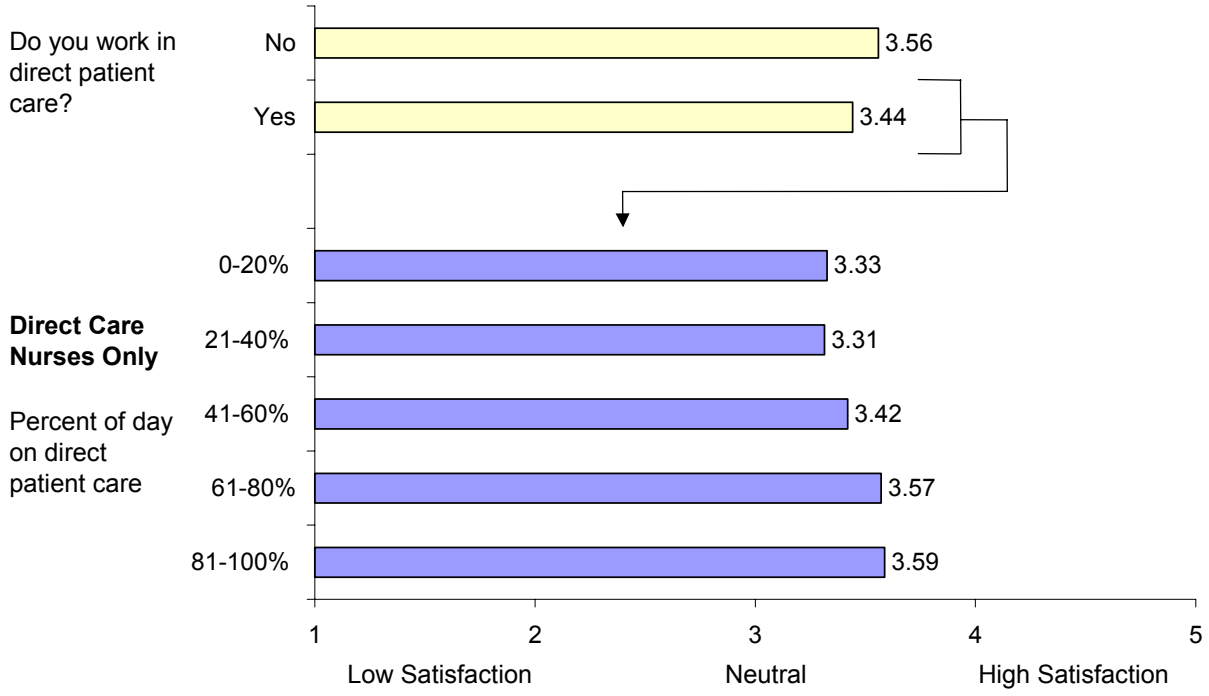


Nurses who are most dissatisfied, and therefore the most likely to leave nursing, are the youngest and those relatively new to the profession. Focusing targeted retention strategies, such as mentoring and the use of well-designed preceptorships, on young and more inexperienced nurses may help to improve job satisfaction and retention among these nurses.

Job Satisfaction and Direct Patient Care

In comparing job satisfaction for nurses working in direct patient care (3.44) with those nurses not working in direct care (3.56), job satisfaction was found to be slightly higher among non-direct care nurses (Figure 3.4). This finding might appear to contradict many of the written qualitative observations shared by survey respondents, describing how they primarily derive job satisfaction through providing direct care to their patients.

Figure 3.4
Average Job Satisfaction by Direct Patient Care Category and Percent of Day Spent on Patient Care



However, when we focused only on nurses working in direct patient care and examined their time allocations, we found that more time spent on direct patient care (as opposed to paperwork or other tasks) corresponded with higher levels of job satisfaction. As shown in Figure 3.4, nurses spending 61-80 percent of their workday or 80 percent or more of their workday on direct patient care reported average job satisfaction levels of 3.57 and 3.59 respectively. In contrast, nurses spending only 0-20 percent and 21-40 percent of their day on direct patient care reported lower satisfaction

levels, 3.33 and 3.31 respectively. The ability of nurses to spend adequate time directly caring for patients has been a critical issue in the field of nursing. Efforts to increase the ability of direct-care nurses to spend time with patients could improve their job satisfaction.

Job Satisfaction and Selected Nursing Characteristics

Table 3.3 shows the average job satisfaction levels for selected characteristic groups of nurses. As shown in the top left section of the table, overtime – particularly the use of mandatory overtime – has important implications for the job satisfaction of nurses. As overtime practice becomes more mandatory in nature, nurses report diminishing levels of job satisfaction. Some organizations resort to the use of mandatory overtime to compensate for the shrinking size of their RN staff, but nurses who work mandatory overtime are less satisfied with their jobs and more likely to seek other employment, thus decreasing the size of the RN workforce still further.

Table 3.3
Average Job Satisfaction by Selected Characteristics of Nurses Working in New York State

Overtime Category	Average Job Satisfaction	n
Do not work overtime	3.51	6080
Work OT but never mandatory	3.52	1304
Work OT - sometimes mandatory	3.38	1373
Work OT - always mandatory	3.13	504
Overall	**3.47**	**9261**

Facility Size (hospital/nursing home nurses only)		
Small (99 beds or fewer)	3.46	496
Medium (100-299 beds)	3.42	2507
Large (300 or more beds)	3.39	2959
Overall	**3.41**	**5962**

Highest Credential		
Associate's	3.45	2843
Diploma	3.60	1398
Bachelors-Other Field	3.39	742
Bachelor's - Nursing	3.40	2965
Master's Other Field	3.44	554
Master's Nursing	3.59	1043
Doctorate - Non-nursing	3.81	46
Doctorate-Nursing	3.56	49
Overall	**3.47**	**9640**

Geographic Region	Average Job Satisfaction	n
New York City	3.38	3474
Downstate Suburbs	3.46	2310
Upstate MSAs	3.54	3439
Rural	3.56	764
Overall	**3.47**	**9987**

Primary Employer Type		
State Agency	3.44	852
Local/County Agency	3.49	1180
Not-for-profit/Voluntary	3.47	3839
Private Sector	3.46	3150
Other	3.48	754
Overall	**3.47**	**9775**

For nurses working in hospitals and nursing homes, modest differences in job satisfaction were noted for nurses working in facilities of different size. Nurses working in small facilities with 99 beds or fewer report slightly higher levels of job satisfaction (3.46) compared to nurses working in medium (3.42) or large facilities with 300 or more beds (3.39).

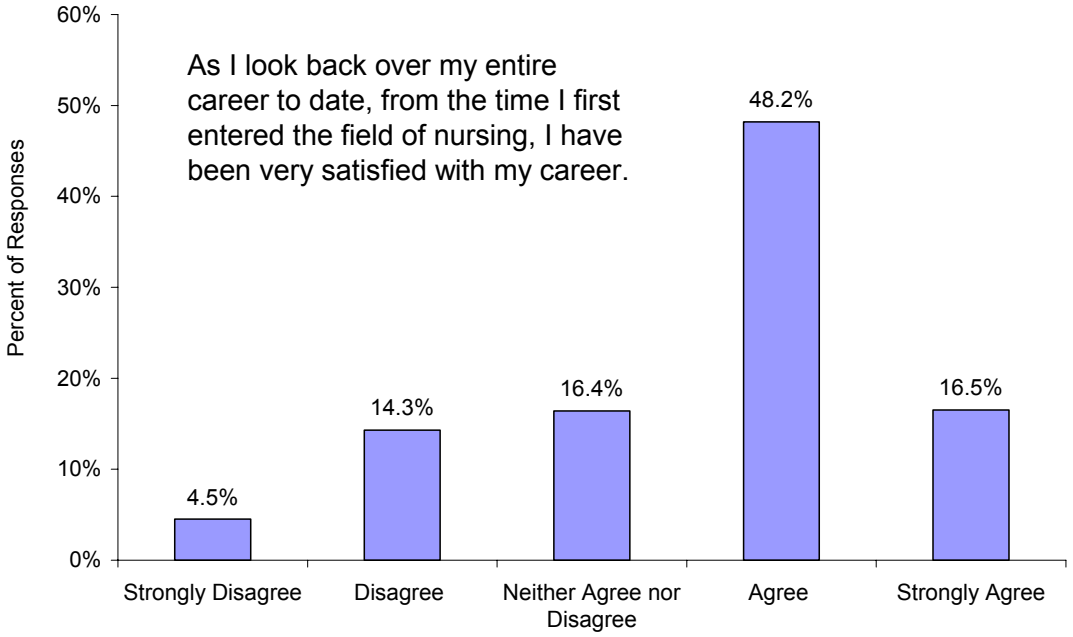
Nurses working in upstate metropolitan areas (3.54) and rural locations (3.56) report slightly higher levels of job satisfaction compared to nurses working in downstate suburban locations (3.46) and New York City (3.38). Primary employer type, on the other hand, makes little difference in the job satisfaction of nurses. Similar levels of satisfaction are observed for nurses working in state and local government, not-for-profit organizations, private sector organizations, and other organizations.

Nurses holding diplomas as their highest credential report higher levels of job satisfaction when compared to nurses in most other categories – with the exception of nurses with doctorates in a field other than nursing. This finding is no doubt related to the substantially older average age of diploma graduates compared to other graduates, since diploma programs have decreased substantially in recent years. As discussed earlier in this chapter, older nurses tend to be more satisfied with their jobs than younger nurses, possibly because of higher attrition by disaffected nurses at relatively younger ages.

CAREER SATISFACTION

In addition to considering satisfaction with a particular nursing job, the survey also assessed the reported level of satisfaction with nursing as a *career.* The latter

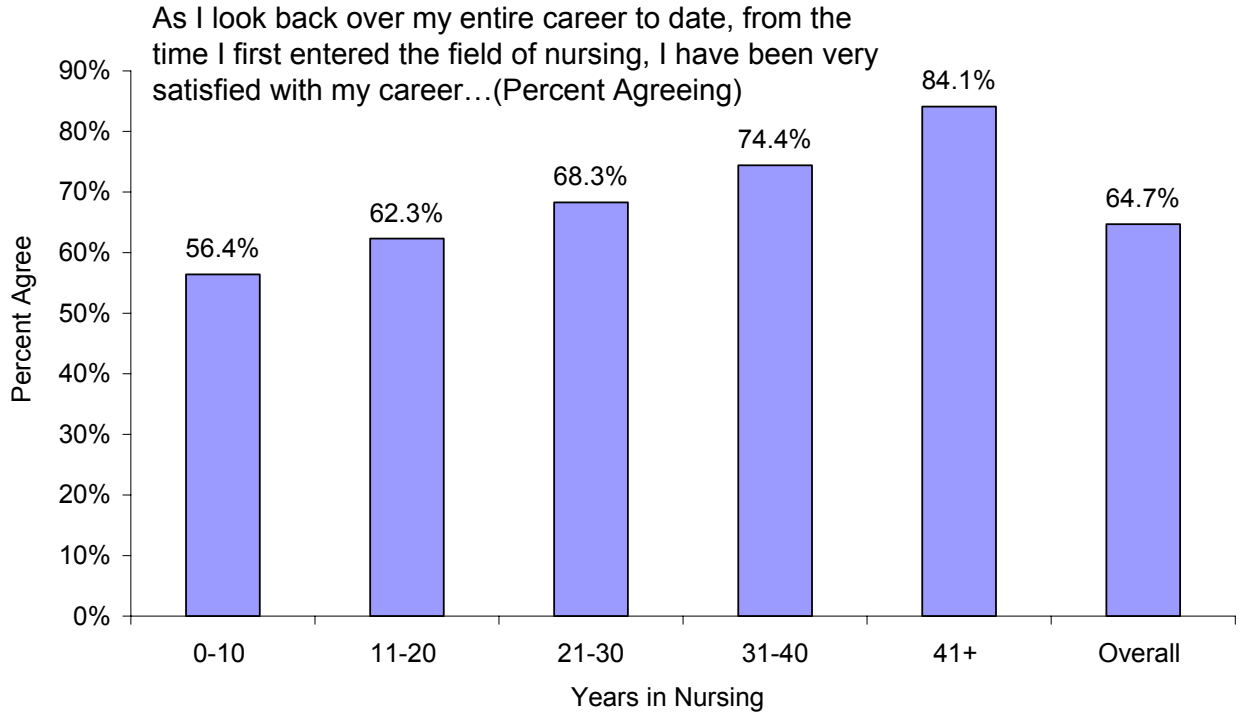
Figure 3.5
Career Satisfaction of Nurses Working in New York State



measure may be a more critical indicator of a nurse's overall commitment to the profession, regardless of his or her feelings about a nursing job at a particular time in a particular setting. Nurses reporting low levels of satisfaction with a given job for example, may be more inclined to leave their jobs in search of other jobs and may choose to remain in nursing or leave nursing depending on the type of job they are seeking. Nurses reporting low levels of satisfaction with nursing as a career, however, are more likely to leave the nursing profession altogether – thereby exacerbating the shortage. Nurses level or career satisfaction was captured with a single item and the results are displayed in Figure 3.5.

Only 18.8 percent of nurses *disagreed* that they are satisfied with nursing as a career – but a substantial proportion all the same. Almost two out of three (64.7 percent) agree that they are very satisfied with nursing as a career. As with job satisfaction, views about nursing as a career are related to the length of time spent working in the profession. Figure 3.6 displays the percent of nurses indicating that they are satisfied with nursing as a career by length of time working in the profession. Overall, for nurses of all ages, 64.7 percent report being very satisfied with their nursing careers. Among the least experienced group of nurses, those working in the field 0-10 years, only 56.4 percent agree that they are very satisfied. The percentage indicating satisfaction with their nursing careers increases with each increment in experience level, with 84.1 percent of nurses working in the field for 41 or more years reporting that they are very satisfied with their careers.

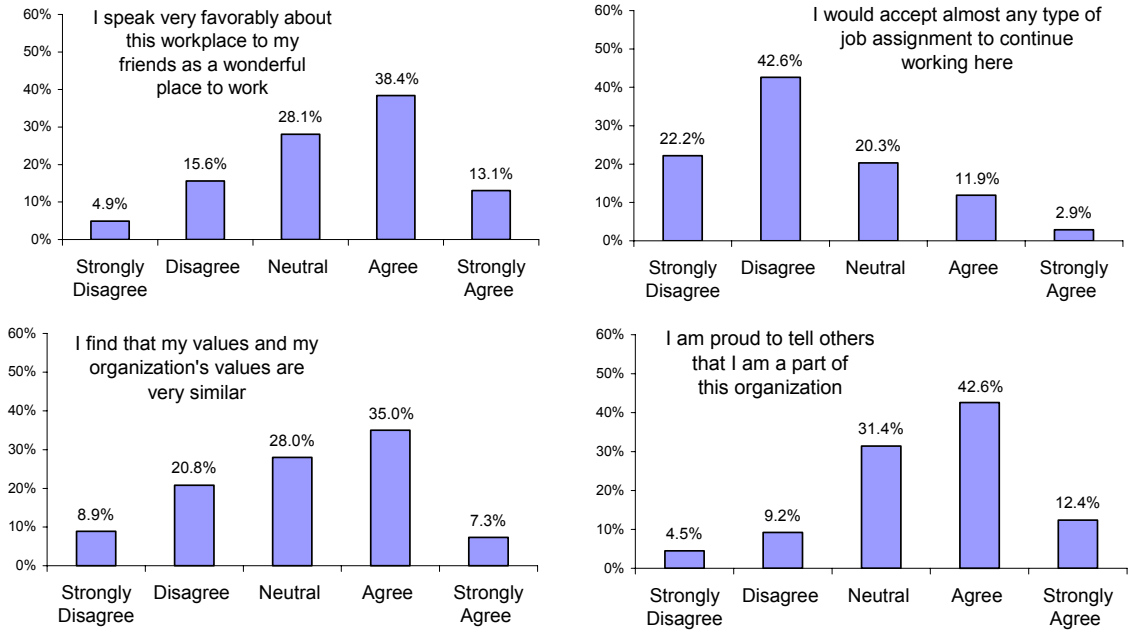
Figure 3.6
Career Satisfaction by Nursing Experience Category



Organizational Commitment

A critical element in the retention of nurses within the profession is the strength of their psychological commitment to their current workplace. Organizational commitment is the degree of loyalty that nurses feel toward the organizations in which they work. Eight items designed to assess organizational commitment were included in the survey. The distribution of responses to the items in the organizational commitment scale is displayed in Figures 3.7A and 3.7B.

Figure 3.7A
Organizational Commitment Scale: Distribution of Responses for Nurses Currently Working in New York State by Scale Item



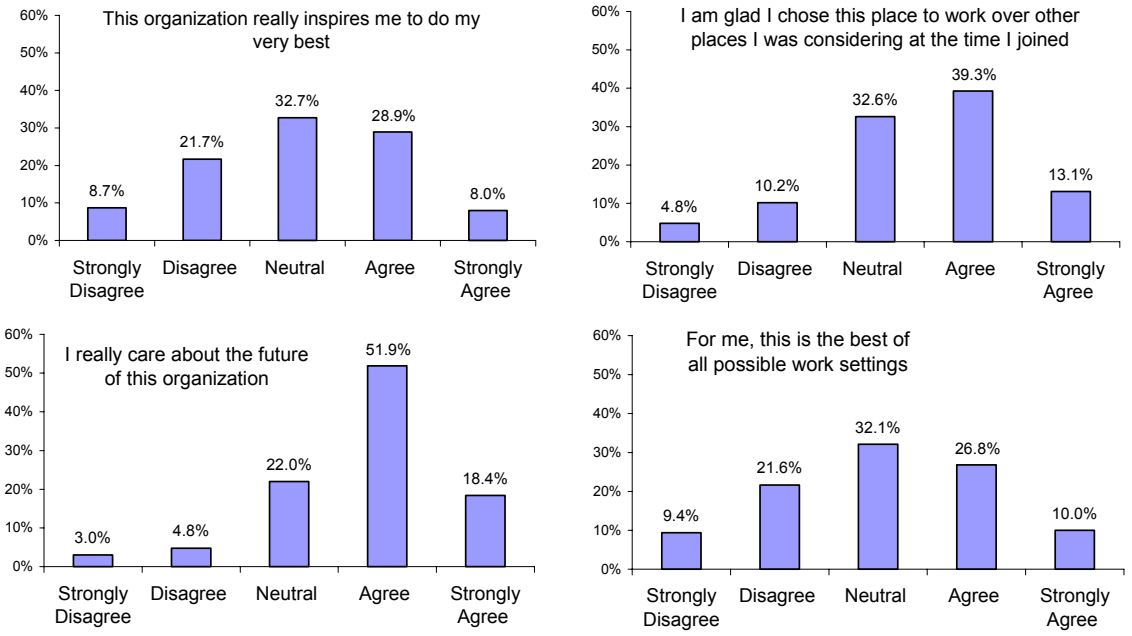
Nurses' attitudes about their organizations are complex. A little more than half (51.6 percent) of nurses agree that they speak favorably about their workplace as a wonderful place to work. Additionally, 54.8 percent agree that they are proud to tell others that they are a part of their organization (bottom right-hand quadrant).

Less than half (42.4 percent) of nurses agree that their values are similar to those of their organization. Consistency of values and beliefs is a particularly important dimension of organization commitment in fields involving high levels of professional dedication. This is especially true in the health care field. While nurses indicate that they are fairly committed to the organizations in which they work, only 15.1 percent of nurses agreed that they would accept almost any type of assignment to continue working for their organization.

According to data shown in Figure 3.7B, only 36.9 percent of nurses agreed that their organization is inspirational while 52.4 percent reported feeling satisfied with their decision to choose their organization when they were considering employer options. In

spite of some ambivalent feelings about where they work, 70.3 percent of nurses indicated that they really care about the future of their organizations.

Figure 3.7B
Organizational Commitment Scale: Distribution of Responses for Nurses Currently Working in New York State by Scale Item



Organizational Commitment and Work Setting

The average ratings for each of the organizational commitment items as well as average scale scores are displayed in Table 3.4 for each of the settings in which nurses work. Nurses working in nursing education and institutions of higher education and nurses working in physicians' offices report the highest levels of commitment. Inpatient hospital nurses, who account for roughly half of the entire statewide RN workforce, report the lowest levels of organizational commitment (3.08).

From the previous section of this chapter, nurses working in hospitals also report lower levels of job satisfaction. In concert, these two findings – low satisfaction and low organizational commitment among inpatient hospital nurses – present a serious challenge, especially in the face of a severe shortage situation. Almost 90 percent of inpatient hospital nurses are staff nurses, and both job satisfaction and organizational commitment scale scores are even lower for this subset. This theme is elaborated upon in Volume III – which focuses upon nurses working within inpatient hospitals, particularly upon the views and experiences of inpatient hospital staff nurses.

The scale eta coefficient confirms that the level of organizational commitment varies modestly as a function of work setting. Stated differently, there are differences in organizational commitment levels among the different settings shown and 3.3 percent of

the total variability in organizational commitment is explained by the settings in which nurses work.

Table 3.4
Average Score for Dimensions of Organizational Commitment and Average Scale Score by Work Setting

Work Setting	n	I speak favorably about this workplace	I would accept almost any type of assignment to continue working here	My values and my organization's values are similar …	I am proud to tell others I am a part of this organization	This org. inspires me to do my very best	I am glad I chose this place to work over others…	I really care about the future of this organization	For me, this is the best of all possible work settings	Average Scale Score[1]
		1=Strongly Disagree 3= Neutral 5=Strongly Agree								
		Mean Score								
Private Practice	--	--	--	--	--	--	--	--	--	--
Nursing Education	170	3.79	2.45	3.51	3.81	3.41	3.78	4.14	3.52	3.55
Institutions of Higher Education	63	3.59	2.31	3.62	4.02	3.43	3.72	4.15	3.39	3.53
Physician's Office	412	3.70	2.68	3.54	3.79	3.48	3.68	3.93	3.38	3.52
School Health Nursing Service	428	3.63	2.47	3.30	3.62	3.30	3.67	3.87	3.42	3.41
Business or Industry	79	3.67	2.82	3.09	3.66	3.40	3.49	3.73	3.18	3.38
Other Health Related Setting	407	3.52	2.49	3.27	3.60	3.21	3.61	3.84	3.32	3.36
Diagnostic/Treatment Center	73	3.68	2.42	3.26	3.65	3.33	3.55	3.82	3.14	3.36
Home Health Agcy/Home Care	668	3.47	2.39	3.33	3.63	3.25	3.57	3.85	3.22	3.34
Ambulatory Care	429	3.48	2.44	3.16	3.50	3.14	3.56	3.86	3.18	3.29
Govt/Professional/Health Org.	203	3.41	2.62	3.06	3.51	2.98	3.57	3.85	3.30	3.29
Non-Health Related Setting	38	3.48	2.44	3.14	3.65	3.18	3.54	3.50	3.27	3.27
HMO/Managed Care	104	3.48	2.46	3.10	3.29	3.23	3.52	3.77	3.27	3.27
Hospital - Outpatient	716	3.50	2.27	3.10	3.54	3.01	3.54	3.89	3.23	3.26
Insurance	67	3.50	2.59	3.13	3.48	3.09	3.44	3.60	3.25	3.26
Nursing Home	867	3.48	2.36	3.22	3.50	3.15	3.41	3.77	2.93	3.23
Hospital - Inpatient	4560	3.25	2.17	2.97	3.39	2.91	3.35	3.70	2.90	3.08
Overall	**9284**	**3.39**	**2.31**	**3.11**	**3.49**	**3.06**	**3.46**	**3.78**	**3.06**	**3.21**
eta		0.151	0.154	0.161	0.131	0.166	0.126	0.112	0.176	0.181
eta^2		0.023	0.024	0.026	0.017	0.028	0.016	0.012	0.031	0.033

Organizational Commitment and Job Title

An important question we also address here is the extent to which organizational commitment to a work setting varies by specific job title. Table 3.5 displays the average rating on each item and the average scale score for organizational commitment by job

Table 3.5
Average Score for Dimensions of Organizational Commitment and Average Scale Score by Job Title

Job Title	n	I speak favorably about this workplace	I would accept almost any type of assignment to continue working here	My values and my organization's values are similar …	I am proud to tell others I am a part of this organization	This org. inspires me to do my very best	I am glad I chose this place to work over others…	I really care about the future of this organization	For me, this is the best of all possible work settings	Average Scale Score[1]
		1=Strongly Disagree 3= Neutral 5=Strongly Agree								
		Mean Score								
Independent Practitioner	--	--	--	--	--	--	--	--	--	--
Director of Nursing/VP for Nursing	285	3.93	2.65	3.65	3.94	3.60	3.86	4.18	3.45	3.66
Dean/Director/Chair Nursing Ed.	22	3.72	2.21	3.70	3.92	3.50	3.90	4.14	3.34	3.57
Faculty in Nursing Education Prog.	140	3.78	2.50	3.62	3.94	3.39	3.72	4.15	3.48	3.57
Consultant	58	3.82	2.50	3.46	3.93	3.61	3.78	3.95	3.46	3.56
Nurse Manager/Patient Care Coord	982	3.64	2.42	3.35	3.69	3.25	3.63	3.99	3.17	3.39
Certified Nurse Anesthetist	34	3.71	2.12	3.26	3.61	3.35	3.86	3.85	3.30	3.38
Other	821	3.56	2.45	3.28	3.61	3.29	3.61	3.88	3.36	3.38
Researcher	62	3.79	2.44	2.96	3.73	3.16	3.72	3.87	3.35	3.38
Nurse Practitioner	387	3.61	2.28	3.25	3.65	3.19	3.64	3.93	3.22	3.35
Public/Community Health Nurse	417	3.42	2.40	3.25	3.63	3.18	3.57	3.76	3.28	3.31
In-service Director/Instructor	148	3.43	2.15	3.30	3.52	3.27	3.50	3.85	3.23	3.28
Clinical Nurse Specialist	160	3.50	2.18	3.25	3.58	3.13	3.53	3.83	3.13	3.27
Quality Assurance	309	3.50	2.32	3.18	3.46	3.13	3.48	3.80	3.29	3.27
Private Duty Nurse	44	3.27	2.57	3.45	3.21	3.05	3.19	3.26	3.05	3.13
Claims Reviewer	38	3.22	2.37	3.00	3.44	2.91	3.31	3.51	2.96	3.09
Staff Nurse	5378	3.24	2.24	2.96	3.37	2.91	3.34	3.68	2.91	3.08
Overall	**9285**	**3.39**	**2.31**	**3.11**	**3.49**	**3.06**	**3.46**	**3.78**	**3.06**	**3.21**
eta		0.187	0.107	0.182	0.171	0.179	0.155	0.163	0.170	0.205
eta^2		0.035	0.011	0.033	0.029	0.032	0.024	0.027	0.029	0.042

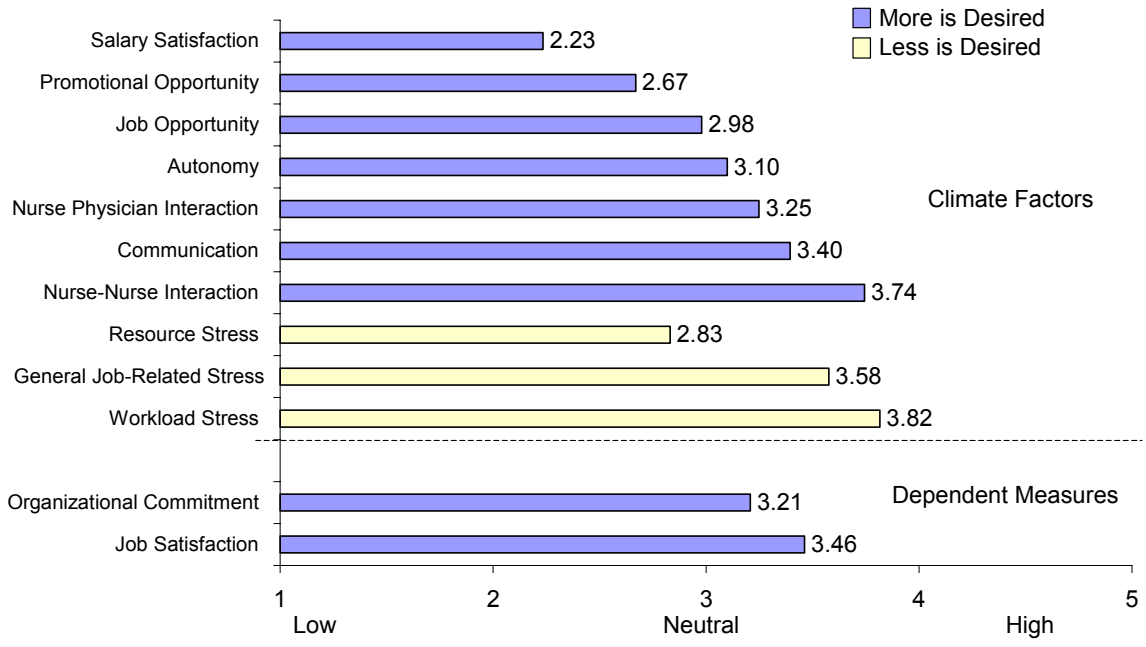
title. Clinical nurse specialists (3.66) and nurse practitioners (3.57) report the highest levels of commitment to their organizations. Staff nurses (3.08) and nurse managers (3.09) report the lowest levels of organizational commitment.

JOB SATISFACTION AND ORGANIZATIONAL COMMITMENT AS A FUNCTION OF KEY WORK CLIMATE FACTORS

This section of the report will focus on the ways in which the work climate dimensions described in Chapter 2 affect the job satisfaction and organizational commitment of nurses working in New York State. Understanding which factors are most strongly related to job satisfaction and commitment for all nurses, as well as among groups of nurses of particular policy concern - such as nurses who are new to the field, staff nurses, and nurse managers - will help inform possible interventions.

In Figure 3.8 we present a summary of each of the organizational climate, job stress, job satisfaction and organizational commitment scale measures discussed previously. The average scale scores represented by the bars are for all nurses currently working in NYS and not in solo practice. For ease of comparison, the seven-point scales have been re-scaled to five- point scales. As shown by the bar chart, higher average satisfaction ratings tended to be given for those work climate dimensions that relate to interpersonal interaction. Factors such as interaction between nurses (3.74), organizational communication (3.40) and interaction with physicians (3.25) received the highest overall marks. Satisfaction with salary levels received the lowest overall rating (2.23) and promotional opportunity was also low, with an overall rating of 2.67.

Figure 3.8
Average Scale Score on Organizational Climate Factors, Job Satisfaction and Organizational Commitment



These findings suggest that many nurses are dissatisfied with their pay levels, and that possibilities for improving pay through promotions are clearly limited – two factors which are likely contributors to the current nursing shortage. Among the stress factors shown in Figure 3.8, nurses reported very high levels of workload stress (3.82) and general job stress (3.58). Organizational commitment (3.21) and job satisfaction (3.46) were found, on average, to be rated just above the neutral point on the scales – with substantial proportions of respondents indicating dissatisfaction with their jobs and lower levels of organizational commitment.

Work Climate: A Bivariate View

The mean scores, standard deviations and bivariate correlation coefficients (r) for all work-life scales and job satisfaction and commitment were calculated and are displayed in Table 3.6. Several of the work life factors are highly correlated with each other in a predictable fashion. Thus, in general, nurses who gave lower ratings for salary, promotional opportunity, autonomy and interpersonal interaction measures such as nurse-physician interaction, interaction between nurses and instrumental communication, were more highly stressed than those who rated these climate dimensions more favorably.

Table 3.6
Mean, Standard Deviation and Bivariate Correlation for Organizational Climate Factors, Organizational Commitment and Job Satisfaction

			Correlation[a] (r)											
	Mean	Standard Deviation	SS	PO	JO	AUT	N-P	COM	N-N	RS	WS	GJS	OC	JS
Salary Satisfaction (SS)	2.23	0.91	--											
Promotional Opportunity (PO)	2.67	0.91	0.302	--										
Job Opportunity (JO)	2.98	1.08	-0.220	-0.017	--									
Autonomy (AUT)	3.10	0.77	0.218	0.357	-0.130	--								
Nurse-Physician Interaction (N-P)	3.25	0.97	0.228	0.217	-0.091	0.314	--							
Communication (COM)	3.40	0.78	0.241	0.371	-0.116	0.441	0.353	--						
Nurse-Nurse Interaction (N-N)	3.74	0.87	0.185	0.256	-0.082	0.371	0.360	0.436	--					
Resource Stress (RS)	2.83	0.94	-0.264	-0.217	0.148	-0.326	-0.314	-0.420	-0.322	--				
Workload Stress (WS)	3.82	0.80	-0.260	-0.082	0.163	-0.175	-0.228	-0.195	-0.211	0.331	--			
General Job Stress (GJS)	3.58	1.17	-0.235	-0.143	0.169	-0.225	-0.243	-0.259	-0.297	0.311	0.580	--		
Organizational Commitment (OC)	3.21	0.79	0.315	0.409	-0.208	0.481	0.382	0.551	0.467	-0.391	-0.253	-0.319	--	
Job Satisfaction (JS)	3.46	0.75	0.283	0.384	-0.170	0.445	0.352	0.481	0.441	-0.327	-0.235	-0.358	0.718	--

[a]All correlations significant at the p<.001 level, with the exception of the promotional opportunity-job opportunity relationship which was not significant

Greater levels of clinical autonomy were found to be associated with improved satisfaction with salary (r= +.22) and greater promotional opportunity (r= +.36). As we shall see in subsequent chapters, this particular finding is likely driven in large measure by the experience of inpatient hospital staff nurses, who reported having less autonomy and are routinely subject to high levels of stressful experiences.

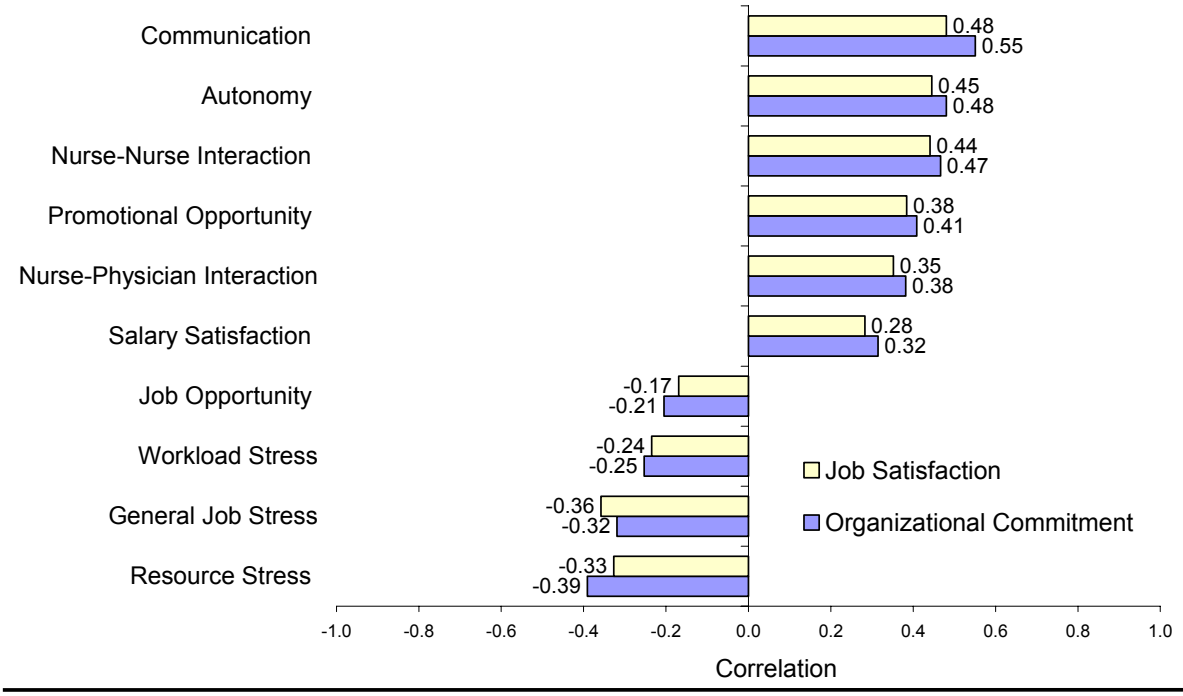
In terms of other antecedents of satisfaction and commitment, autonomy was most strongly correlated with instrumental communication (r=+.44). This finding suggests that individuals are more able to be autonomous in their work when the organizations in which they are employed do a good job of sharing information. Additionally, nurses reporting higher levels of autonomy also tended to give more

positive ratings of the quality of the relationship between nurses (r= +.37), as well as the relationship between nurses and physicians (r= +.31).

Organizational communication (r= -.42) was found to be most highly correlated with resource-related job stress. Thus, in organizations where lines of communication are strained, nurses tended to report greater difficulty in obtaining adequate supplies, equipment and space to do their jobs effectively.

The bottom two rows of Table 3.6 show the correlation for each of the work climate measures and job satisfaction and organizational commitment. There is a strong positive relationship between job satisfaction and organizational commitment (r= +.72) indicating that these two variables are conceptually interrelated. Nurses who are highly satisfied with their jobs are also very likely to be committed to the organizations in which they work. Similarly, nurses experiencing high levels of dissatisfaction with their work are quite likely to indicate very little commitment to their employing organizations. The correlation coefficients are displayed graphically in Figure 3.9. Climate factors which are associated with job satisfaction (the top bar in each case) also tend to be similarly associated with organizational commitment.

Figure 3.9
Bivariate Correlation Coefficients for Climate Factors and Job Satisfaction/Organizational Commitment



All work-life factors shown in the figure were found to be significantly correlated with job satisfaction and organizational commitment. Communication, autonomy, and the quality of interaction between nurses were found to have the strongest positive association with both job satisfaction and organizational commitment. The three types

of job stress (resource, general, and workload stress) examined in this study were found to be negatively correlated with job satisfaction and commitment – thus high levels of stress are associated with lower levels of job satisfaction and organizational commitment.

Salary satisfaction was found to be positively, but only modestly, associated with job satisfaction and organizational commitment (r= +.28 and r= +.32). This finding may indicate that salary is less important to nurses' job satisfaction relative to other dimensions of work life, or it may be a reflection of the overall agreement among nurses that salary levels are inadequate. The "restricted range" of opinion on this issue may limit the extent to which an association can be measured between salary satisfaction and overall job satisfaction.

COMPARING THE MORE SATISFIED AND THE LESS SATISFIED

The previous section has outlined the strong relationship between organizational climate/job characteristics and job satisfaction. Another useful way of validating this relationship is provided by comparing and contrasting nurses who have attained high degrees of job satisfaction in their work lives with those nurses reporting low levels of job satisfaction.

In Figure 3.10, each bar within a three-bar set represents nurses with a distinct job satisfaction level - those who reported being highly satisfied with their jobs, those moderately satisfied with their jobs, and those with low levels of job satisfaction. The specific organizational climate scale averages for each satisfaction group were then calculated. To cite one example, the communication scale averages of those with a high job satisfaction level was 3.67; for those with a moderate job satisfaction level, 3.18; and, for those with a low job satisfaction rating, a 2.72 communication scale score. Thus, in this particular case, those who were highly job satisfied also had the highest average satisfaction with instrumental communication scores, while those who were classified in the low job satisfaction group had relatively low communication scale scores.

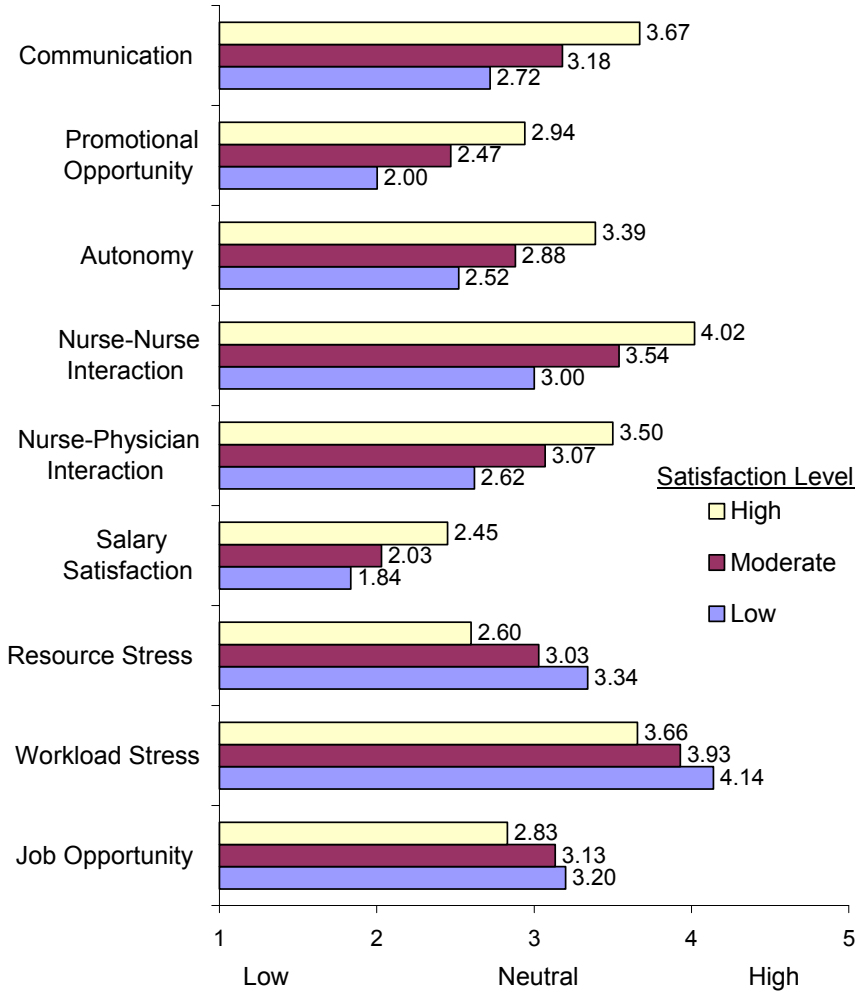
The first six work-climate factors listed are scaled so that higher scale values are associated with *higher* job satisfaction. In other words, the average scale values for these work life dimensions are highest in the "high job satisfaction" group and lowest in the "low job satisfaction" group.

The last three work-climate factors listed, the stress factors, are scaled so that higher scaled values are associated with *lower* job satisfaction. One would expect to find low stress score averages in the highly job satisfied group, and higher stress scores in the "low" job satisfied group – which we do.

In the case of job opportunity (basically, a measure of how easily the respondent could find an equally attractive job in the job market), those respondents already highly satisfied with their jobs find access to equivalently attractive jobs more difficult than those who are highly dissatisfied with their current jobs. All of these results are fully consistent with the Price-Mueller model of voluntary turnover.

One elaboration, however, of the Price-Mueller model not specifically contemplated in his conceptual model, but found in this study, was the rather pronounced relationship between time nurses spend providing direct patient care and job satisfaction. Among those RNs working in New York State who affirmed that they worked in direct patient care in their primary work setting, the greater the percentage of their workday actually spent in providing direct patient care, the greater the job satisfaction experienced.

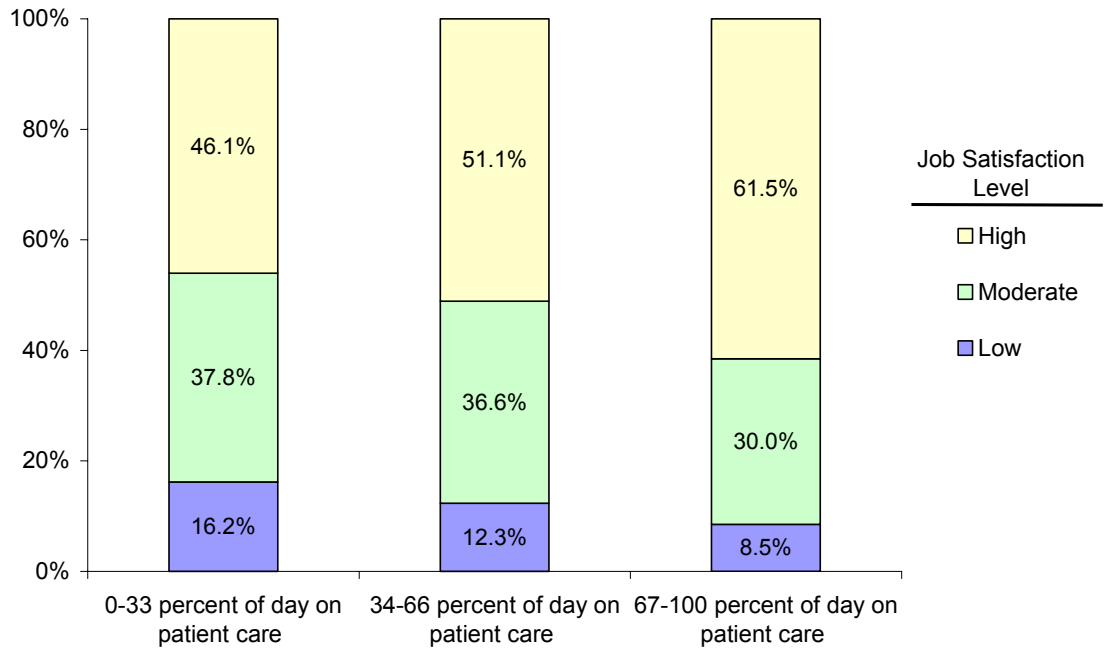
Figure 3.10
Average Scale Score on Worklife Dimensions by Job Satisfaction Category



As shown in Figure 3.11, of the nurses who reported having spent 67-100 percent of their workday on direct patient care, 61.5 percent are highly job-satisfied compared to only 46.1 percent of nurses spending a third of a day or less on direct care. The lowered satisfaction level occasioned by heavy investment in non-direct care activity (especially paperwork) is an important substantive finding since it points directly to the importance of *intrinsic* job satisfiers that make a difference (i.e., the quality of their

interaction with other nurses, the quality of the communication among staff, as well as their perception that promotional opportunity is good).

Figure 3.11
Nurses' Job Satisfaction by Patient Care Category



A Multivariate View of Job Satisfaction and Organizational Commitment

Up until this point we have examined the bivariate relationship of individual climate factors upon job satisfaction and organizational commitment, without considering the independent or direct effects of these factors upon these two important outcomes. In this last portion of the chapter, we consider briefly the 'net' impact of each factor on job satisfaction and organizational commitment in separately conducted regression analyses. In this multivariate view, the effect sizes reported represent the impact of each climate factor upon satisfaction (or commitment) while holding constant or controlling for the impact of other factors.

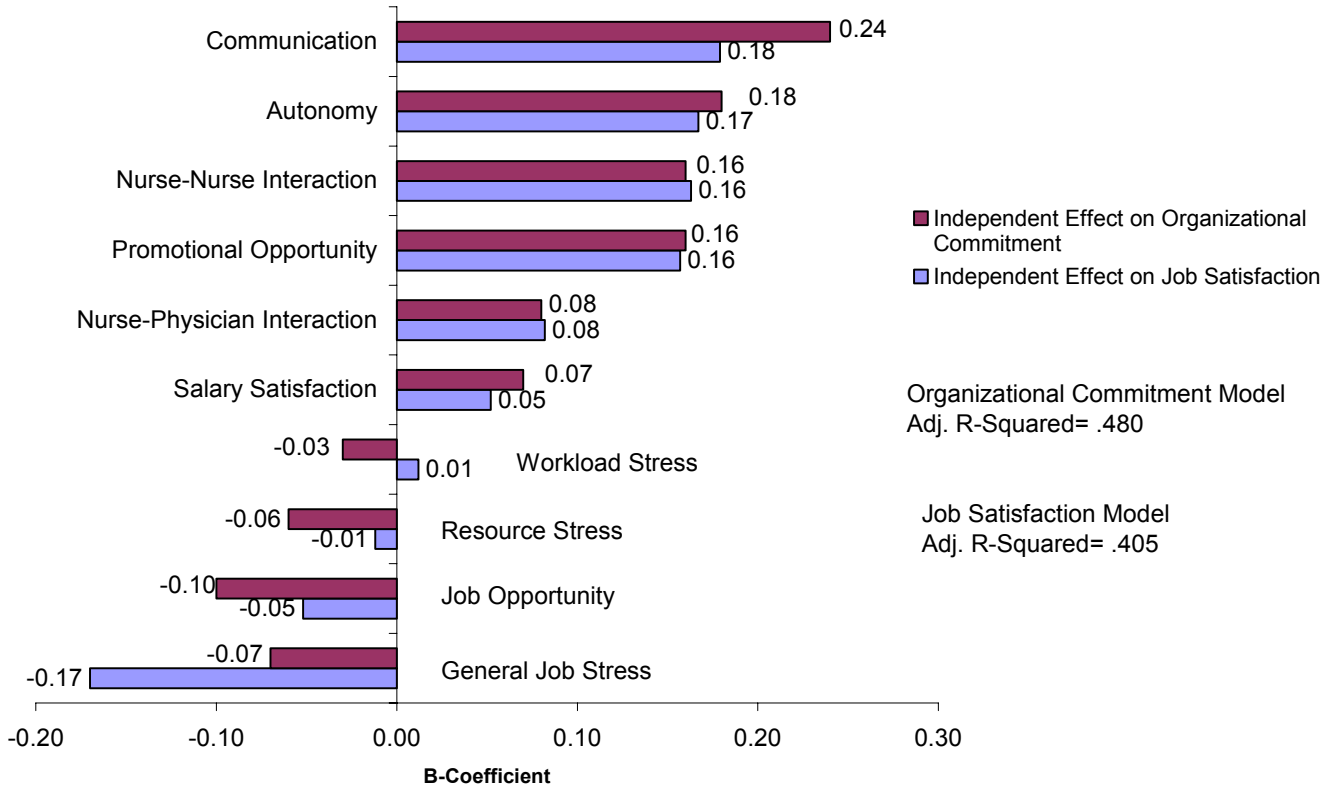
Figure 3.12 displays the independent effects of each listed organizational climate measure on job satisfaction (top bar) and organizational commitment (bottom bar). The multiple correlations between these ten climate factors and the job satisfaction and organizational commitment outcomes were .64 and .69 respectively (accounting for 40.5 percent and 48.0 percent of the variation respectively in these two critical outcome measures).

Instrumental communication has the strongest positive impact on job satisfaction and organizational commitment. The beta coefficients reported in this histogram are standardized regression coefficients which permit us to determine the relative

magnitude of each organizational climate effect *independent* of the effect of anything else. For example, a one standard deviation unit increase in a respondent's instrumental communication score is associated with a .18 standard deviation increase in job satisfaction and a .24 standard deviation unit increase in organizational commitment – substantial effects. These findings suggest that organizations with clear lines of communication and therefore well informed staff, will have employees who are more job-satisfied as well as more committed to the organizations in which they work (holding constant all other work climate factors).

The quality of the interaction between nurses, autonomy within one's job, and promotional opportunity are three other job climate factors that show substantial independent impact on both job satisfaction and organizational commitment. Nurse-physician interaction and salary satisfaction emerge in these analyses as less important

Figure 3.12 Standardized B-Coefficients for Job Satisfaction and Organizational Commitment Regression Models



to both organizational commitment and job satisfaction. [1]

The bars at the bottom of Figure 3.12 demonstrate that measures of stress had substantial negative independent effects upon job satisfaction and organizational commitment. In fact, the negative impact of general job stress on job satisfaction is just as strong as the positive impact of any of the four climate measures discussed above.[2] This finding is critical to the current nursing shortage. Previous sections of this report have shown that nurses are under tremendous work stress, and as workload pressures increase as a result of staffing shortages, it is likely that those nurses who are less job-satisfied will exit – thereby exacerbating the shortage and adding to the administrative costs of recruitment and retraining.

Taken together, instrumental communication, nurse-nurse interaction, autonomy and promotional opportunity cumulatively outweigh stress in their impact on job satisfaction. Therefore, these data can provide important clues as to which factors may provide the greatest strategic leverage in offsetting the stress-inducing effects of heavy workloads, long hours, or diminished resources.

Comparing Work Climate Effects and Ratings of Work Climate Simultaneously

One useful analytic approach is to simultaneously compare the magnitudes of the direct, net effects of each work-climate measure upon job satisfaction (i.e., the standardized partial regression coefficients) with the ratings given each of the work climate dimensions. For example, it may be the case that salary compensation, while rated very poorly by a respondent in her/his work setting, nevertheless has a weak, independent effect upon a respondent's overall job satisfaction or organizational commitment. Indeed, for individuals who often characterize their work as a "calling," other facets of the job may be more important to their overall job satisfaction.

From an action-oriented intervention perspective, however, organizational climate factors which are rated as highly unsatisfactory and which also have a powerful effect upon global job satisfaction, would be prime targets for quality improvement efforts. Thus, by considering both the rated satisfaction associated with a particular aspect of organizational climate, as well as the strength of its independent effect upon job satisfaction, a more complete picture emerges.

The bar chart in Figure 3.8, discussed earlier in this chapter, compared the average scale scores for nine organizational climate factors. The job dimensions with average scale scores reflecting the lowest levels of satisfaction are shown to be

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[1] It should be noted, however, that the average satisfaction with salary scale score was the lowest among the average climate scale scores, and the correspondingly narrow range of values for this measure "restricted" this scales measurable impact upon job satisfaction or organizational commitment. Also, the job satisfaction and organization commitment scales emphasized measures of "intrinsic" satisfaction within a job, rather than "extrinsic" factors such as salary that might affect the decision to keep or quit a job.

[2] The beta weights representing the impact of workload stress and resource stress on global job satisfaction are relatively low because these are the **independent**, i.e. residual, effects of these measures on satisfaction after the effect of "general stress," i.e., frequency of great stress, has been "removed."

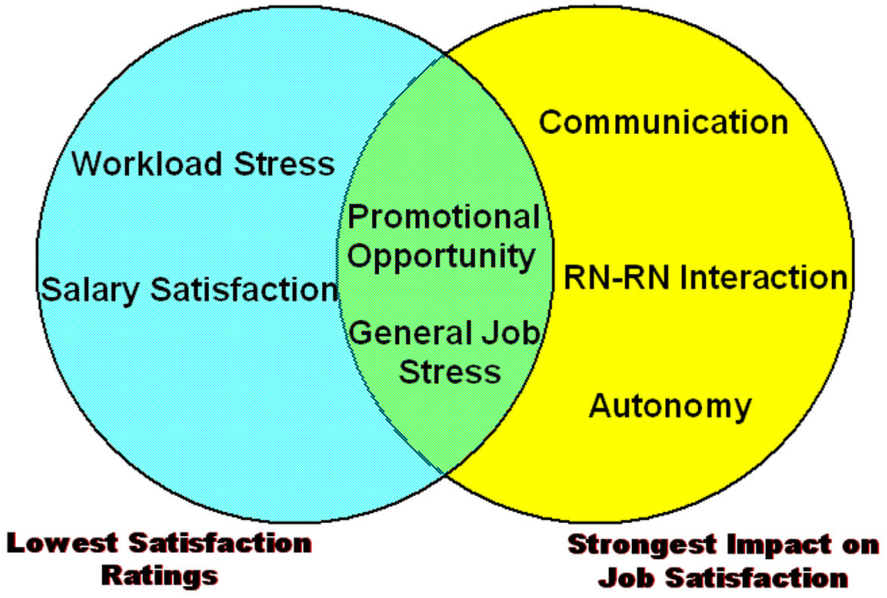
workload stress, general job stress, salary satisfaction and promotional opportunity. The B-coefficients displayed graphically in Figure 3.12 demonstrate that instrumental communication, general job stress, autonomy, nurse-nurse interaction and promotional opportunity are five job climate factors with substantial, and comparably strong, impact upon global job satisfaction.

Figure 3.13 shows graphically the intersection of these two sets of job climate factors – those with which nurses are least satisfied, and those impacting most strongly on global job satisfaction. Two job dimensions fall within both sets - general job stress (i.e. the frequency with which an RN reports experiencing great stress on the job) and promotional opportunity. Therefore, reducing the frequency with which RNs experience stress, and improving their promotional opportunities, emerge from these joint analyses as the strategies most likely to enhance RN's job satisfaction and consequently improve both the recruitment and retention of nurses.

Since promotional opportunity typically denotes not just salary compensation change, but recognition and status change, this finding additionally suggests that opportunities for status change and recognition are critical components of workplace satisfaction that can be changed and should be changed. It may also provide some important and telling clues as to why turnover in the inpatient hospital staff nurse role is so high, a phenomenon we address at great length in a special supplement in Volume III.

Figure 3.13

Prime Targets for Quality Improvement Efforts: Job Climate Factors Receiving the Lowest Satisfaction Ratings and Also Having a Strong Impact on Global Job Satisfaction

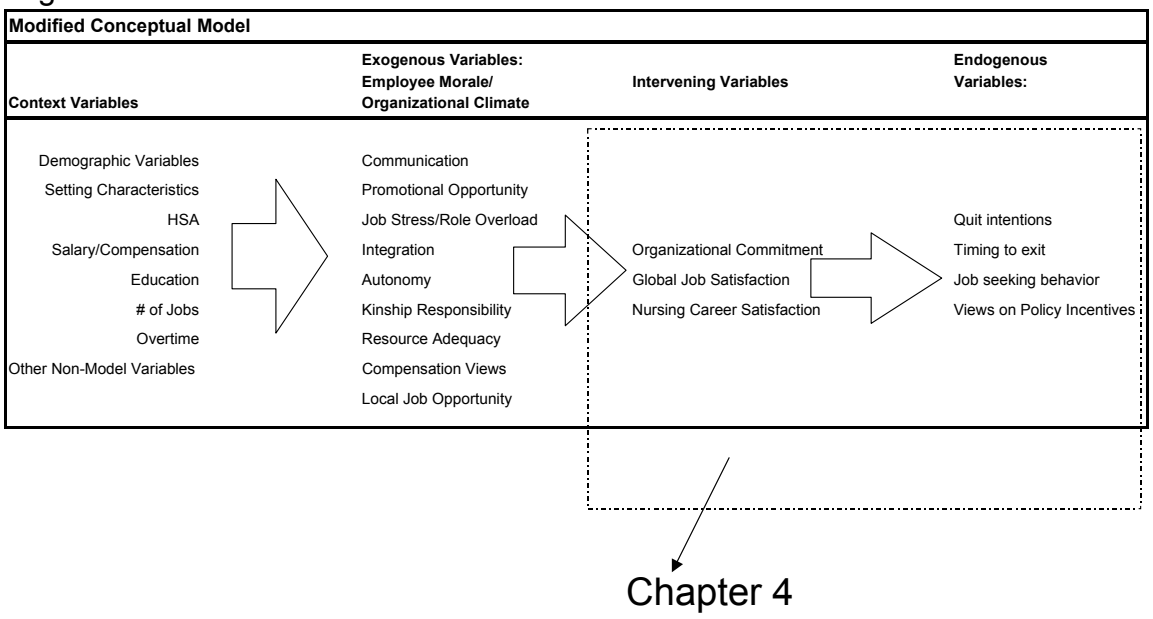


Chapter 4: Analysis of Outcome Variables – Quit Intentions, Timing to Exit, and Job Seeking

INTRODUCTION

In this chapter, we extend the Price-Mueller model of voluntary employee turnover by focusing on those outcomes viewed as the key consequences of job satisfaction, career satisfaction, and organizational commitment. Figure 4.1 highlights graphically the conceptual focus of this chapter. Since efforts to improve the culture of retention take on added importance when the demand for skilled nurses exceeds available supply, a clearer understanding of the ways in which RN job satisfaction influences leave-taking decisions is crucial. Accordingly, this chapter focuses upon key outcome variables of most concern to health care policy makers, namely, job search behavior, job change intentions and career change intentions. It will then focus on how these critical outcomes are affected by various aspects of nurses' work climate, job satisfaction, and organizational commitment.

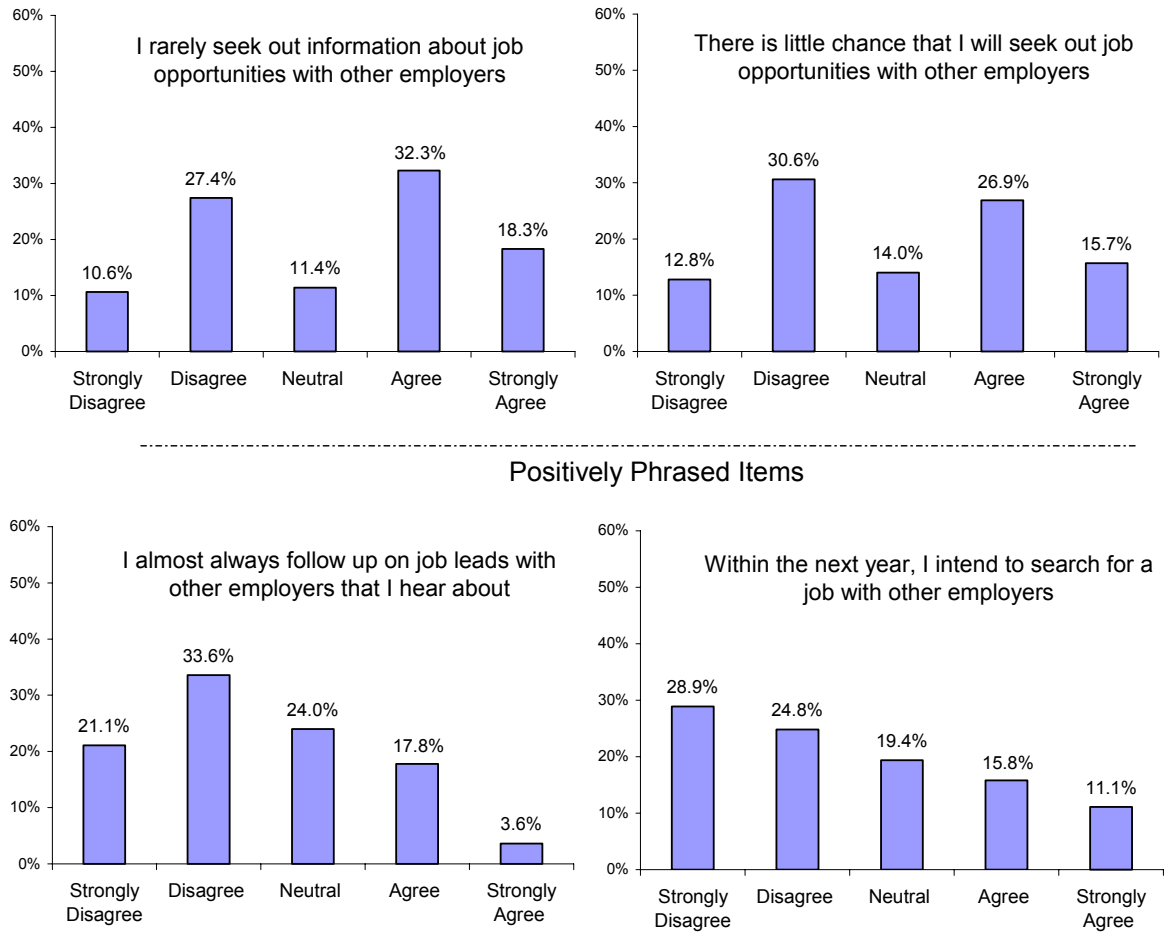
Figure 4.1



JOB SEEKING

This section reports on job search behaviors of nurses currently working in New York State. Consistent with the Price-Mueller model described in Figure 4.1, as nurses experience low levels of job satisfaction, job-seeking behaviors are hypothesized to increase, leading ultimately to higher levels of turnover in their job settings. Based on this type of causal thinking, four items designed to capture the probability and intensity of job search behaviors were operationalized. The response distributions to these four job-seeking behavior items are displayed in Figure 4.2.

Figure 4.2
Search Behavior Scale: Distribution of Nurses Currently Working in New York State by Scale Item



The shapes of these four distributions are relatively flat or even bimodal, indicating there is considerable variation among nurses regarding the frequency with which they seek information about job opportunities with other employers. Just over half (50.6 percent) of nurses surveyed agreed or strongly agreed that they rarely seek out information about job opportunities with other employers. In effect, at least half of

the currently employed workforce is not seeking information about other job options. However, 38 percent of nurses disagreed or strongly disagreed with this assertion, indicating that they do in fact seek out information about other job opportunities. A similar finding holds regarding the chances that nurses will seek out opportunities with other employers. While 14 percent of nurses were neutral and 42.6 percent agreed (or strongly agreed) that there is little chance that they would seek out opportunities with other employers, 43.4 percent of nurses disagreed with the statement, indicating that they intend to seek out opportunities.

When examining the issue of job search more directly, 21.4 percent of nurses indicated that they almost always follow up on job leads with other employers that they hear about. And almost thirty percent (26.9 percent) of currently working nurses agreed or strongly agreed that they intend to search for another job within the next year.

Job Search and Employment Setting

From a retention standpoint, one of the most important questions to be addressed is whether job-seeking behavior varies systematically by employment setting. In order to address that question, the four Likert-type job-seeking items were converted to a single search behavior scale score and average job-search scale scores

Table 4.1
Average Score for Dimensions of Job Search Behavior and Average Scale Score by Work Setting

		Negatively Phrased Items		Positively Phrased Items		
		I rarely seek out information about job opportunties with other employers	There is little chance that I will seek out job opportunties with other employers	I almost always follow up on job leads with other employers that I hear about	Within the next year, I intend to search for a job with other employers	Average Scale Score[1]
		1=Strongly Disagree 3= Neutral 5=Strongly Agree				
Work Setting	n	Mean Score				
Insurance	75	2.70	2.70	2.81	2.67	3.03
HMO/Managed Care	108	2.93	2.88	2.78	2.65	2.94
Nursing Home	875	3.09	2.93	2.58	2.71	2.82
Hospital - Inpatient	4601	3.16	2.92	2.53	2.64	2.78
Home Health Agency/Home Care	743	3.15	2.93	2.46	2.59	2.75
Diagnostic/Treatment Center	75	3.24	2.90	2.47	2.60	2.73
Other Health Related Setting	435	3.16	3.07	2.54	2.57	2.72
Ambulatory Care	441	3.22	3.05	2.57	2.59	2.71
Non-Health Related Setting	50	3.14	3.08	2.41	2.38	2.64
Business or Industry	90	3.22	3.29	2.46	2.29	2.56
Private Practice	69	3.32	3.31	2.51	2.32	2.55
Physician's Office	476	3.33	3.24	2.39	2.38	2.55
Hospital - Outpatient	729	3.42	3.23	2.34	2.32	2.50
Institutions of Higher Education	71	3.31	3.31	2.25	2.16	2.48
Govt/Professional/Health Org.	208	3.47	3.22	2.26	2.33	2.47
School Health Nursing Service	554	3.43	3.37	2.33	2.25	2.45
Nursing Education	180	3.44	3.43	2.29	2.19	2.41
Overall	**9780**	**3.20**	**3.02**	**2.49**	**2.55**	**2.71**
eta		0.094	0.121	0.087	0.112	0.120
eta^2		0.009	0.015	0.008	0.012	0.014

[1] The scale for the negatively phrased items has been reversed in the computation of the scale average. A higher score indicates a greater level of job search behavior.

calculated for each employment setting in Table 4.1.[1]

Only one employment setting (insurance) had a scale average value above the 3.0 neutral point. When employment settings were arrayed by score on the search behavior scale, nurses working in insurance, HMOs, nursing homes, and inpatient hospital settings were reported to have higher levels of job search behavior when compared to the other employment settings on the survey. Nurses working in educational settings, school health nursing and governmental organizations reported the lowest levels of job search behavior.

Job Search and Job Title

The average score for each job-seeking item as well as the average composite scale score for the four search behavior items is displayed by job title in Table 4.2. Claims reviewers, certified registered nurse anesthetists, private duty nurses and researchers reported the highest levels of job-search behaviors. Staff nurses, among

Table 4.2
Average Score for Dimensions of Job Search Behavior and Average Scale Score by Job Title

		Negatively Phrased Items		Positively Phrased Items		
		I rarely seek out information about job opportunties with other employers	There is little chance that I will seek out job opportunties with other employers	I almost always follow up on job leads with other employers that I hear about	Within the next year, I intend to search for a job with other employers	Average Scale Score[1]
		1=Strongly Disagree 3= Neutral 5=Strongly Agree				
Job Title	n	Mean Score				
Claims Reviewer	39	2.63	2.64	2.96	2.83	3.13
Certified Nurse Anesthetist	37	2.72	2.50	2.83	2.80	3.10
Private Duty Nurse	97	3.15	2.87	2.75	2.68	2.83
Researcher	66	2.85	2.90	2.66	2.34	2.82
Staff Nurse	5500	3.18	2.95	2.52	2.66	2.77
Quality Assurance	321	3.16	3.00	2.56	2.53	2.73
Nurse Manager/Patient Care Coord	997	3.18	3.02	2.45	2.56	2.71
In-service Director/Instructor	160	3.10	2.97	2.40	2.33	2.70
Nurse Practitioner	422	3.18	3.09	2.57	2.41	2.66
Director of Nursing/VP for Nursing	297	3.17	3.08	2.42	2.45	2.65
Public/Community Health Nurse	464	3.26	3.07	2.45	2.39	2.63
Clinical Nurse Specialist	172	3.30	3.15	2.37	2.39	2.59
Consultant	72	3.30	3.21	2.27	2.28	2.54
Other	905	3.41	3.33	2.34	2.26	2.47
Independent Practitioner	67	3.48	3.36	2.26	2.28	2.42
Faculty in Nursing Education Prog	153	3.46	3.47	2.37	2.21	2.41
Dean/Director/Chair Nursing Ed.	23	3.28	3.59	2.37	2.00	2.38
Overall	**9792**	**3.20**	**3.02**	**2.49**	**2.55**	**2.71**
eta		0.075	0.107	0.076	0.111	0.102
eta^2		0.006	0.011	0.006	0.012	0.010

[1] The scale for the negatively phrased items has been reversed in the computation of the scale average. A higher score indicates a greater level of job search behavior.

[1] In this table, the negatively phrased items were converted numerically to reflect the same underlying scale direction. Thus, if a respondent indicated strong disagreement with the statement "I rarely seek out information about job opportunities," the numeric "1" was recoded as a "5" in the computation of the overall scale average, indicating that the respondent in fact engages in a high level of job seeking behavior. Conversely, for one who fully agreed with this negatively phrased item, the numeric "5" was recoded to a "1" in the computation of the overall scale average, indicating that she/he does not engage

the most stressed of all nurses and found predominantly working within inpatient hospitals, are also more likely to engage in job search behaviors.

Faculty in nursing education programs and deans/directors of nursing education programs reported the lowest levels of job search behavior. Individuals in these job titles typically experience high levels of autonomy in their professional work life and often enjoy tenure agreements.

Mandatory Overtime and Job Search Behavior

As health care organizations experience greater staffing shortages, the tendency to rely on policies such as mandatory overtime is likely to increase. Unfortunately, these policies are related to diminished job satisfaction, increased stress, lowered organizational commitment and eventually, high levels of turnover (Figure 4.3).

Among nurses who indicate that they never work overtime, only 1 in 5 (21.9 percent) reported engaging in "high search behavior."[2] This percentage closely mirrors the similarly low level of "high search behavior" among nurses who do work overtime but for whom overtime work is never mandatory. For example, only about one in five nurses (19.9 percent) who do work overtime in some capacity but whose overtime obligations are never mandatory, also fall into the high search category. However, as reliance upon mandatory overtime increases in settings which require overtime work, the percentage of RNs who fall into the high job-search category also increases.

For nurses whose overtime work is always performed on a mandatory basis, 34.1 percent fall into the high job search category. Stated differently, almost 15 percent more RNs in the mandatory overtime group are likely to fall into this high job search group as contrasted with those RNs for whom overtime work is never mandatory. Thus, as organizations rely more heavily on mandatory overtime as a strategy for covering staffing shortages, it is likely that these organizations will also experience higher rates of turnover. In short, the evidence presented here, as well as in Chapter 8, strongly suggests that mandatory overtime practices may well be shortsighted and counterproductive if the employer truly seeks to enhance a culture of retention.

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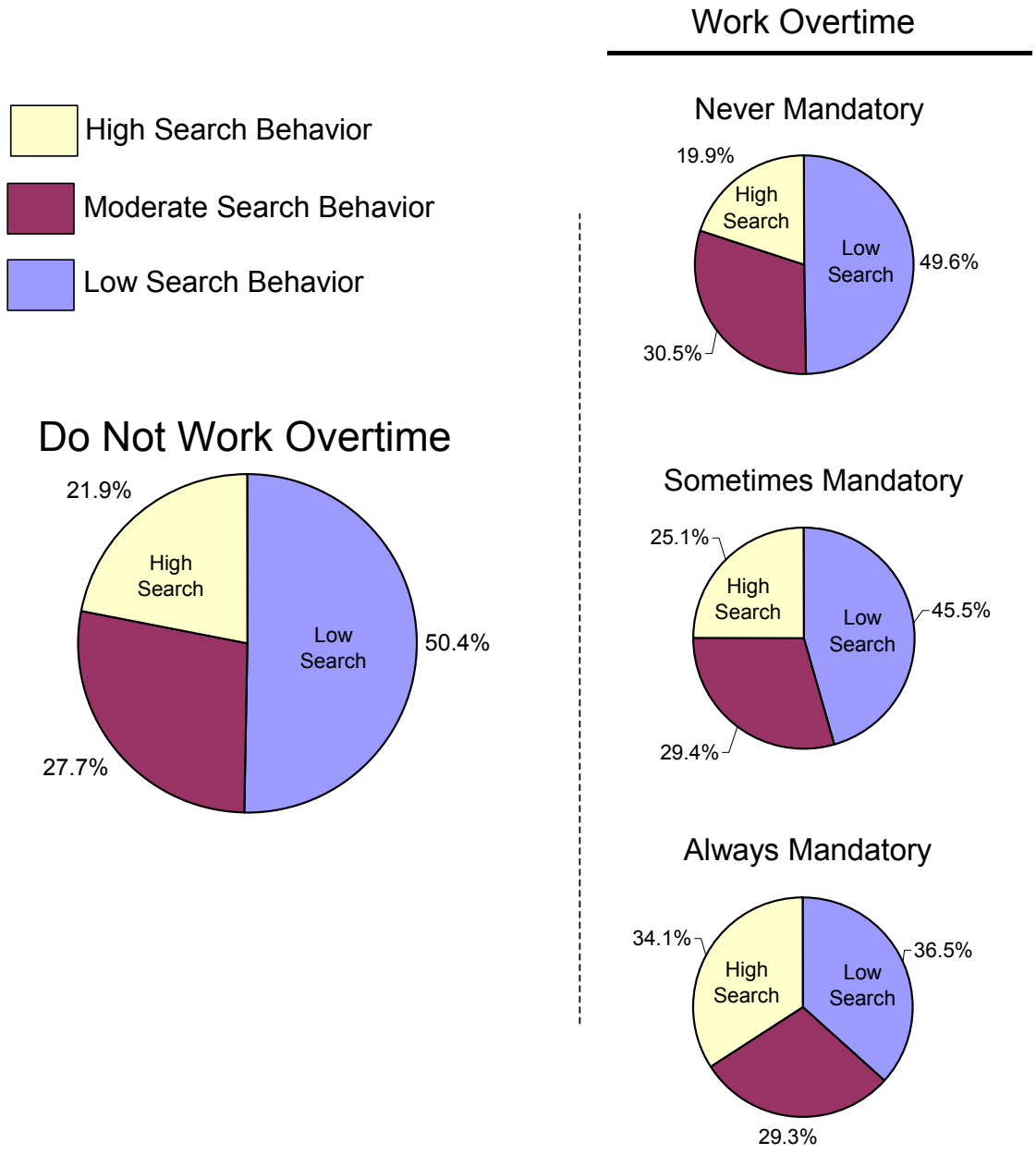
in job seeking behavior. For this reason, the average scale score shown in the right-hand column does *not* represent a simple average of a respondent's *untransformed* item scores.

[2] "High search behavior was operationalized by an average search behavior scale score that exceeded 3.5.

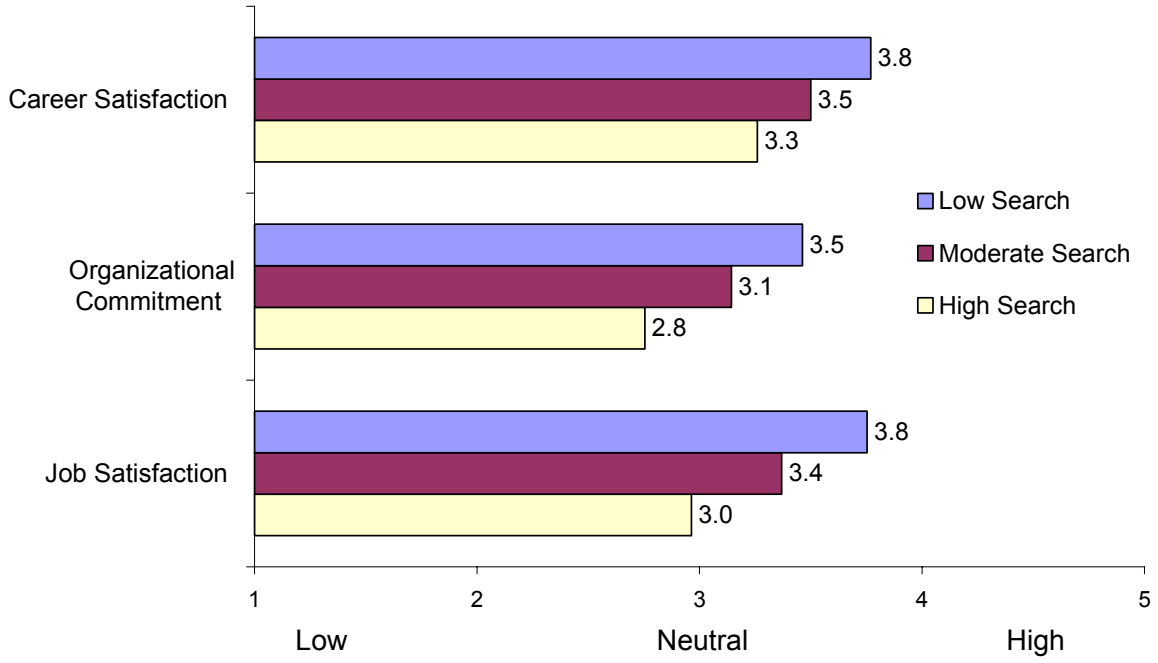
Figure 4.3
Intensity of Job Search Behavior by Overtime Category



Dissatisfied Nurses Search for Jobs More than Satisfied Nurses

As the level of nurses' dissatisfaction with their jobs and careers increases, their degree of job search behavior also increases. As shown in Figure 4.4, nurses with lower than average job search scores reported higher than average levels of job satisfaction and organizational commitment. The average job satisfaction scale score for nurses reporting low levels of job search was 3.8, compared to 3.0 for nurses reporting a high level of job search behavior. In every instance, the outcome patterns are in the directions predicted by the Price-Mueller model of voluntary turnover.

Figure 4.4
Average Job Satisfaction, Organizational Commitment and Career Satisfaction Rating by Job Search Category



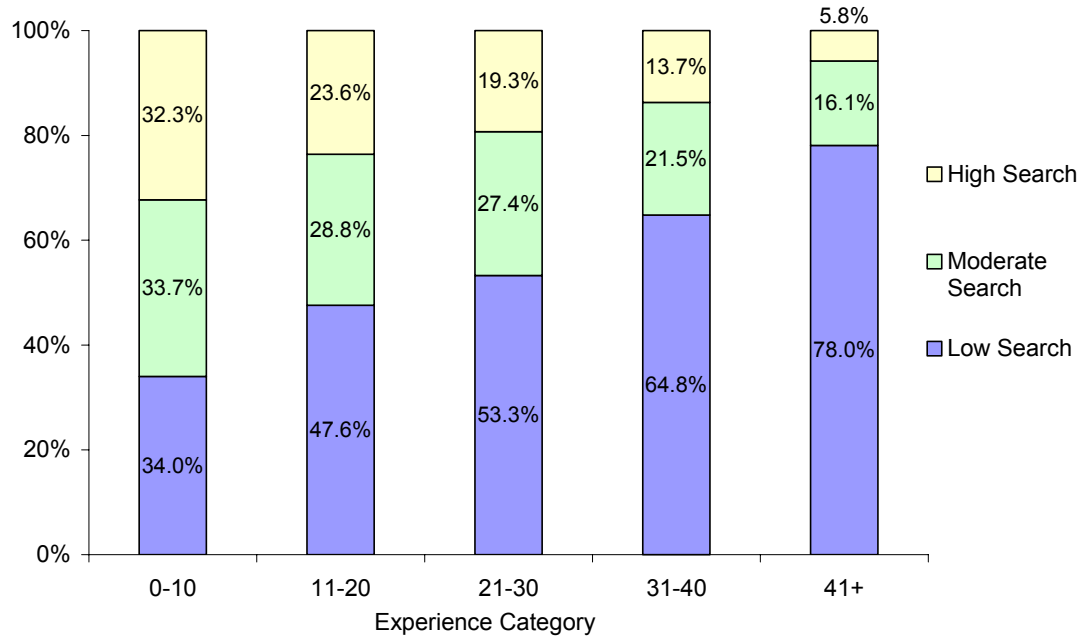
Nurses who report high levels of job search behavior are those who are at greatest risk of leaving their jobs and also tend to report lower levels of job satisfaction, career satisfaction and organizational commitment compared to nurses with lower levels of job search behavior. More importantly, the average scale point differences in the job-seeking scale are not modest but of substantial magnitude.

Job Search Behavior and Professional Experience

Job searching is much more prevalent in the early stages of nurses' careers. As individuals take on their first job in the profession, they quickly come to understand the positive and negative aspects of the job, and will likely move once or twice in order to obtain a job for which they are better matched. Figure 4.5 shows the intensity of job search behavior for nurses of differing levels of experience. Nurses who have been in

the profession for ten years or less are much more prone to job search (and therefore job turnover). Note that 32.3 percent of the least experienced RN group fall into the "high search" category and another 33.7 percent fall into the "moderate" search category.

Figure 4.5
Intensity of Job Search Behavior by Experience Category



The stacked bars illustrate that as an RN's professional experience increases, the tendency toward "high job search" behavior decreases. Among nurses in the 21-30 year experience group, only 19.3 percent characterize themselves as "high job-seeking" – a roughly 40 percent reduction compared to the proportion of "high job-seekers" in the least experienced group. High levels of job seeking behavior are rarely found among the most highly seasoned veterans who are, in effect, closing out their careers after 31 to 40 years in the field.

These findings demonstrate that it is newer entrants to the field of nursing who are at greatest risk of voluntary turnover (not considering retirement). Some of this turnover is a necessary component of the normal "sorting process," of obtaining a good employee-employer match. However, turnover is a very costly proposition in any organization which is highly professional and labor intensive. Organizations that aggressively seek ways to minimize the negative job experiences of new nurses could reduce the likelihood of losing new staff. Reduced patient caseloads for new nurses, flexible work schedules and mentoring programs are examples of organizational efforts that might help to diminish turnover among newer nurses.

Other Demographic Factors Affecting Job Search

Table 4.3 shows the level of job search behavior for nurses by gender, marital status and family responsibility. Nurses who have never been married have a greater tendency to report higher scores on the job search behavior scale than nurses who are either married or widowed/divorced/separated. Marital status might be viewed as a rough indicator of family responsibility – suggesting those with family or conjugal commitments are less mobile than those with fewer family ties.

Table 4.3
Intensity of Job Search Behavior by Selected Nurse Characteristics

		Level of Job Search Behavior				
	n	Low	Moderate	High	**Total**	Search Behavior Average
Gender						
Female	9250	49.3%	28.2%	22.6%	**100%**	2.69
Male	527	38.7%	30.7%	30.6%	**100%**	2.99
Marital Status						
Now Married	6627	50.1%	28.2%	21.6%	**100%**	2.67
Widowed/Divorced/Separated	1852	49.9%	26.6%	23.5%	**100%**	2.69
Never Married	1279	39.8%	31.3%	28.9%	**100%**	2.92
Family Responsibility						
No Children	4356	52.0%	26.2%	21.8%	**100%**	2.63
All Children Six and over	3927	48.3%	29.2%	22.5%	**100%**	2.72
Some over 6, some under 6	822	38.8%	35.4%	25.8%	**100%**	2.88
All less than 6 years old	625	41.1%	28.6%	30.2%	**100%**	2.93

As RNs move through the child-bearing and child rearing stages of the life cycle, heightened age and maturity may dampen or diminish high levels of job-seeking. It is early on in one's career (i.e., when one's children are very young) that the "testing of the waters" seems highest. A higher level of organizational commitment (implied by a lower level of job seeking) implies that an individual has already "worked through" potential choices of specific occupational roles – to find one most compatible with her or his career interests.

In terms of gender differences in job search behavior, male nurses have a greater tendency to engage in job search behavior. Whereas 49.3 percent of female nurses fall into the low search category, only 38.7 percent of male nurses reported low levels of job search. Since male nurses are typically more recent entrants to the field of nursing (and, as we have seen, higher levels of search behavior are more characteristic

of RNs early in their careers), their higher levels of job search behavior do not seem surprising.

Interaction Between Gender and Job Satisfaction

The Price-Mueller model of voluntary turnover would lead us to hypothesize that it is not the direct effect of gender, or even gender-based role differences, that lead to differences in the intensity of job search behavior. Rather, it is likely that the differences between male and female nurses in job search behavior are a result of differences in the job satisfaction they have in their current positions.

Figure 4.6
Intensity of Job Search by Gender and Job Satisfaction Category

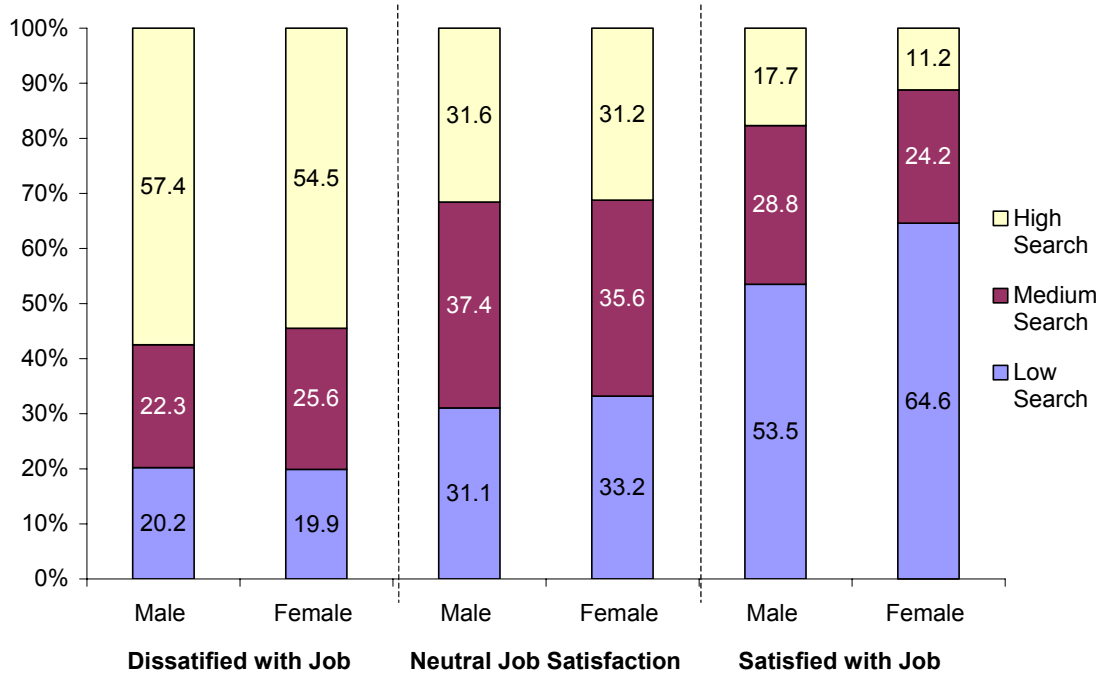


Figure 4.6 displays the intensity of job search behavior for both male and female nurses while controlling for differences in job satisfaction. Male and female differences in search behavior virtually disappear once one controls for global job satisfaction. If, for example, we confine our attention solely to nurses who are dissatisfied, job search intensity is found to be almost identical among both male and female nurses. A similar "no-difference" finding holds for nurses who are neutral in their overall job satisfaction.

The real difference in search behavior between male and female nurses occurs only in the job-satisfied category. Among nurses satisfied with their jobs, 17.7 percent of males reported high levels of search behavior compared to only 11.2 percent of females. Similarly, more job-satisfied male nurses reported medium levels of search behavior than their female colleagues (28.8 percent of male nurses compared to 24.2 percent of female nurses). Thus, when job satisfaction is high, males are more likely to engage in job search activities than female nurses. This finding probably helps account

for the much higher level of representation of males among nurse managers in hospitals proportional to their representation among inpatient hospital staff RNs. (Males represent 6.5 percent of inpatient hospital staff RNs and 9.3 percent of inpatient hospital nurse managers, see Figure 14 in Volume III, Supplement A). These findings, as well as other sociological research, suggest that male nurses seek out better employment opportunities, especially managerial employment, with greater frequency than female nurses. Other findings in this report point to child-rearing responsibilities as one explanation contributing to this difference in job-seeking behavior.

CAREER PLANS OF NURSES CURRENTLY WORKING IN NEW YORK STATE

Outcomes of lower job satisfaction and poor organizational commitment include the decision to leave a job or to leave the nursing profession altogether. As nurses become more dissatisfied with aspects of their work and careers, they are increasingly likely to leave their jobs and/or the profession as a whole. One question on the survey asked nurses when they intend to leave their current work setting and another question asked when they intend to leave the nursing profession. The distribution of responses to these two survey items is displayed in Figure 4.7a and 4.7b. As shown, more nurses reported plans to leave their current work setting than plans to leave the nursing profession itself.

Figure 4.7a
Plans to Leave Current **Work Setting** for Nurses Currently Working in New York State

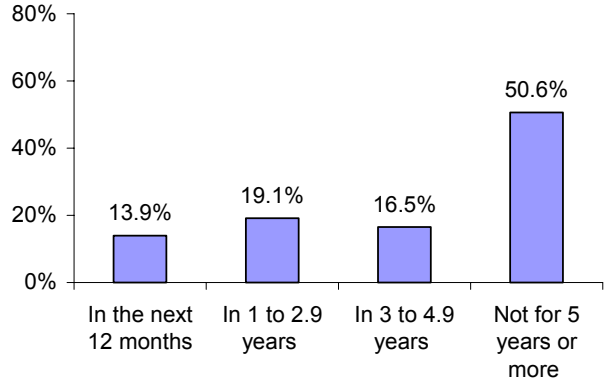
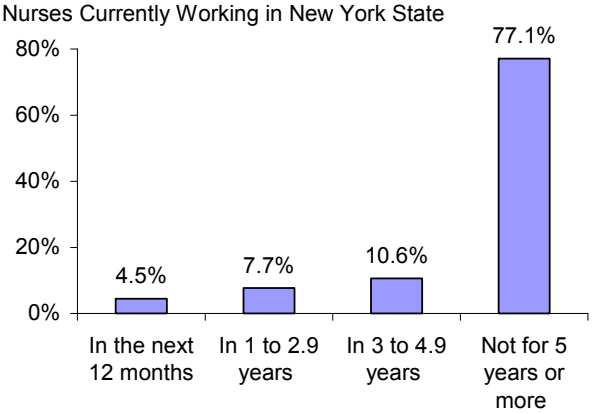


Figure 4.7b
Plans to Leave the **Nursing Profession** for Nurses Currently Working in New York State



Career-Plan Categories

Careful scrutiny of the figure makes it apparent that it is difficult to draw conclusions about how many nurses are leaving the work setting without considering how many are leaving the profession. For example, a nurse may indicate her or his intent to leave the work setting in the next twelve months. If the nurse further indicates intent to leave the profession in the next twelve months, we (now) know that she is leaving the profession rather than simply changing nursing jobs. In order to analytically

distinguish these career decisions, it was necessary to combine the responses to these two questions to create three different career-plan categories.

Figure 4.8 shows the combination of the two survey questions to form a single career-plan category. The survey responses were first converted to yes/no answers. Respondents indicating that they are leaving in 4.9 years or less were coded as "yes'" and those indicating that they are not leaving for five years or more were coded as "no." As shown in the figure, nurses who indicated that they were leaving their current work setting AND leaving the nursing profession (top-right quadrant) were classified as "leaving the nursing profession."[3] In all probability, these individuals are most likely retirees or career-changers. Regardless of the reason(s) given for leaving, these nurses represent a loss to the profession and present a succession-planning challenge.

The bottom-left quadrant represents nurses who have indicated that they are not leaving their current work setting and they are also not leaving the profession. Thus, it is safe to conclude that these nurses plan on "staying where they are" for the next five years. The bottom-right quadrant identifies nurses who will most likely change nursing jobs but remain in the profession. They have indicated that they plan to leave their current work setting, yet have no plans to leave the nursing profession.

Figure 4.8
Construction of Career Plan Category Based on Nurses' Plans to Leave their Current Work Setting and Plans to Leave the Nursing Profession

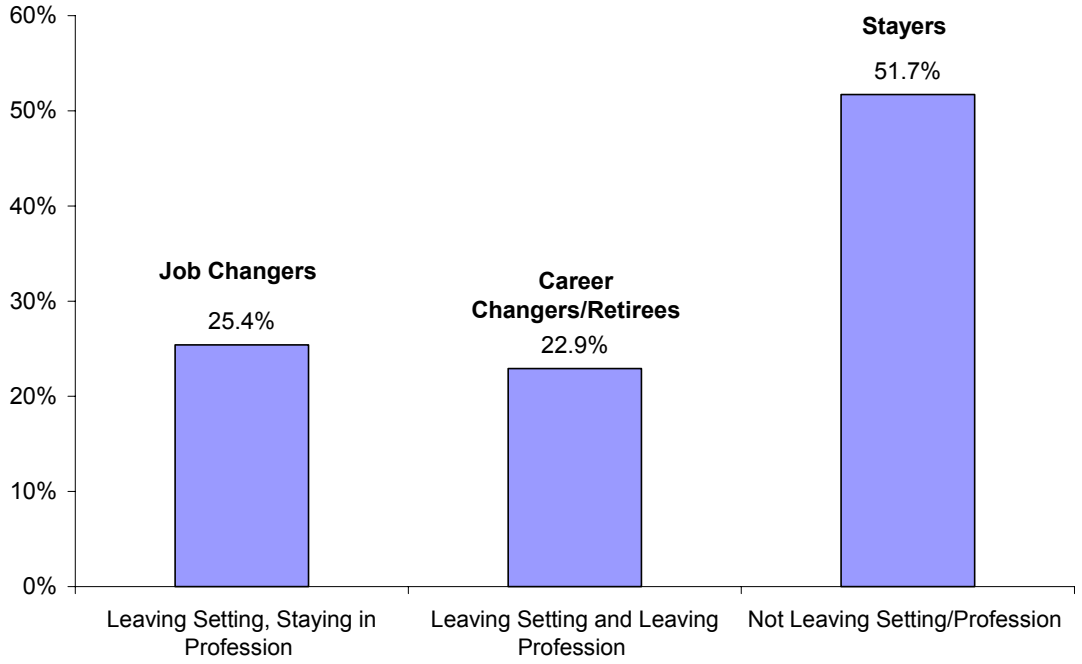
Leaving Nursing?			
	YES		Leaving the Nursing Profession
	NO	Staying Where they Are	Changing Nursing Job
		Leaving Work Setting?	

Figure 4.9 depicts the distribution of nurses by career plan category. In terms of loss of nurses from the profession, 22.9 percent of nurses indicate that they plan to

[3] A number of nurses who indicated plans to leave the profession within the next five years only provided a response to the "timing for leaving the profession" survey question, and not to the "timing for leaving current job" question. For obvious reasons, these nurses were classified as "leaving current job and leaving the nursing profession within five years", in spite of the "missing value" for job-leaving intent. In contrast, nurses indicating that they were leaving their current job within five years, but who did not respond to the survey question asking their timing intentions regarding leaving the profession, were excluded from these analyses as "missing values." This coding approach not only seemed the most rationale for interpreting the available data, but also provided consistency with the supply-side analyses results presented in Chapter 6 of Volume I.

leave nursing in the next five years. Another 25.4 percent of nurses in our sample have indicated that they intend to change nursing jobs within five years. These findings suggest that the level of turnover by New York State's RNs (both exiting the profession and changing jobs within the profession) in the next five years will be substantial (48.3 percent). Our own estimates of those RNs currently working who plan to remain in the profession five years out – coupled with projections of net new entrants to the field during the same planning horizon – suggest a continuing nursing shortage five years from now.[4] Accordingly, advocacy efforts must foster retention and recruitment initiatives that will help ensure a strong future for the nursing profession. (See Chapter 8 for a description of different reform and incentive proposals that were presented to survey respondents for evaluation of likely effectiveness.)

Figure 4.9
Distribution of Nurses by Career Plan Category



The good news is that slightly more than half (51.7 percent) of the nurses currently working in New York State indicated that they do not plan to leave their current setting or the nursing profession for five years or more.

[4] Our estimates of the number of RNs exiting the profession in the next five years are elaborated in Volume I, Chapter 6. Those analyses additionally convert numbers of departing RNs into RN FTEs (full-time equivalents) based on reported work hours/week, and combine this information with estimates of new entrants.

Career Plans by Work Setting

The distribution of currently employed nurses in each career-plan category is displayed by employment setting in Table 4.4. This type of information is of considerable interest since it allows focus directly on those sectors in which leave-taking rates are highest, and where intervention efforts must be made quickly if career leave-taking is to be diminished. Since the projected nursing shortage in coming years is most heavily impacted by the magnitude of quit behavior, employment setting data has been arrayed according to the percent of nurses leaving nursing (the rightmost column).

Table 4.4
Career Plans of Nurses Currently Working in New York State by Work Setting

		Career Plan Category		
		Not Leaving Setting or Profession	Leaving Setting, Staying in Nursing	Leaving both Setting and Profession
Work Setting	n	(Stayers)	(Job Changers)	(Career Changers/Retirees)
Non-Health Related Setting	45	46.7%	8.9%	44.4%
Institutions of Higher Education	68	44.1%	25.0%	30.9%
Private Practice	63	52.4%	19.0%	28.6%
School Health Nursing Service	533	52.9%	19.5%	27.6%
Nursing Home	867	47.5%	25.5%	27.0%
Other Health Related Setting	424	46.9%	26.4%	26.7%
Diagnostic/Treatment Center	71	47.9%	26.8%	25.4%
Home Health Agcy/Home Care	729	48.3%	27.2%	24.6%
Govt/Professional/Health Org.	203	59.1%	16.7%	24.1%
Nursing Education	179	58.1%	18.4%	23.5%
Physician's Office	461	52.7%	24.1%	23.2%
Ambulatory Care	421	52.7%	25.2%	22.1%
Hospital - Outpatient	711	56.7%	21.9%	21.4%
Hospital - Inpatient	4510	51.7%	27.6%	20.7%
HMO/Managed Care	104	59.6%	20.2%	20.2%
Insurance	73	57.5%	23.3%	19.2%
Business or Industry	88	59.1%	22.7%	18.2%
Overall	**9550**	**51.7%**	**25.4%**	**22.8%**

The percentage of nurses planning to leave the profession within the next five years varies from a low of 18.2 percent for nurses working in business or industry to a high of 44.4 percent for nurses working in non-health related settings. Institutions of higher education, for example, appear to be facing especially serious succession issues with 30.9 percent of staff planning to leave the profession in the next five years and

another 25.0 planning to change jobs – leaving only 44.1 percent of nurses in this setting who report no plans to leave in the next five years. Nursing homes and school health nursing services also have a high proportion of nurses planning to leave the profession within the next five years with 27.0 percent and 27.6 percent planning to leave respectively.

The column labeled "leaving current setting, but staying in nursing" represents those nurses who are planning to change nursing jobs. While these job-changers do not necessarily represent a loss of nurses to the profession as a whole, they do provide an indication of possible turnover risk in their organizational setting. The inpatient-hospital nurse is an excellent case in point. While a fairly low percentage of nurses in inpatient hospital settings (20.7 percent) have plans to leave the profession, they collectively represent the greatest percentage of nurses who plan to leave *their current work setting* (27.6 percent). This finding is of critical importance in addressing the current nursing shortage.

High levels of turnover within the work setting are particularly problematic for health care organizations, but particularly for health-care organizations, which are manpower intensive and also require highly skilled professional staff for the delivery of their services. The investment costs related to recruitment, staff development and continuing education can be appreciable. Setting-related turnover provides insights into the settings which can be expected to have the greatest staffing needs as nurses exit the profession. Inpatient hospitals and home health agencies are the two job settings with the greatest percentages of their nurse employees seeking nursing jobs in other work settings. This suggests that there may be an opportunity to address the pending shortage by targeting many of the reforms and incentives outlined in Chapter 8 toward these two settings.

Career Plans and Job Title

Table 4.5 shows the percentages of nurses within each career-plan category for each different job title classification. Private duty nurses and consultants indicated the greatest tendency to plan upon leaving nursing. A substantial proportion (28.3 percent) of faculty in nursing-education programs also indicated that they intend to leave the profession in the next five years. Thus, as efforts are being made to attract greater numbers of individuals to the nursing profession, the capacity of educational institutions to provide the necessary training will continue to be of concern.[5]

Claims reviewers, clinical nurse specialists and staff nurses indicated the greatest level of intent to change jobs while remaining in the nursing profession. Thus, it is important that retention efforts be targeted at hospital settings in general and staff nurses in particular.

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[5] This is a point which is explored at length in a recent white paper by the American Association of Colleges of Nursing, "Faculty Shortages in Baccalaureate and Graduate Nursing Programs: Scope of the Problem and Strategies for Expanding the Supply", (May 2003). Accessible at: http://www.aacn.nche.edu/publications/whitepaper/facultyshortages.htm

Table 4.5
Career Plans of Nurses Currently Working in New York State
by Job Title

		Career Plan Category		
		Not Leaving Setting or Profession	Leaving Setting, Staying in Nursing	Leaving both Setting and Profession
Job Title	n	(Stayers)	(Job Changers)	(Career Changers/Retirees)
Private Duty Nurse	91	38.5%	23.1%	38.5%
Consultant	71	49.3%	12.7%	38.0%
Faculty in Nursing Education Prog.	152	53.3%	18.4%	28.3%
Claims Reviewer	39	41.0%	30.8%	28.2%
Clinical Nurse Specialist	167	45.5%	28.7%	25.7%
Other	865	54.7%	19.8%	25.5%
Nurse Manager/Patient Care Coord	982	54.5%	20.9%	24.6%
Public/Community Health Nurse	448	52.2%	23.2%	24.6%
Quality Assurance	312	53.8%	23.4%	22.8%
Staff Nurse	5390	50.1%	27.8%	22.1%
Director of Nursing/VP for Nursing	293	51.9%	26.3%	21.8%
In-service Director/Instructor	157	57.3%	21.7%	21.0%
Dean/Director/Chair Nursing Ed.	23	65.2%	17.4%	17.4%
Independent Practitioner	64	67.2%	15.6%	17.2%
Researcher	65	56.9%	27.7%	15.4%
Nurse Practitioner	419	59.9%	27.7%	12.4%
Certified Nurse Anesthetist	37	67.6%	21.6%	10.8%
Overall	**9575**	**51.9%**	**25.4%**	**22.7%**

Career Plans and Age

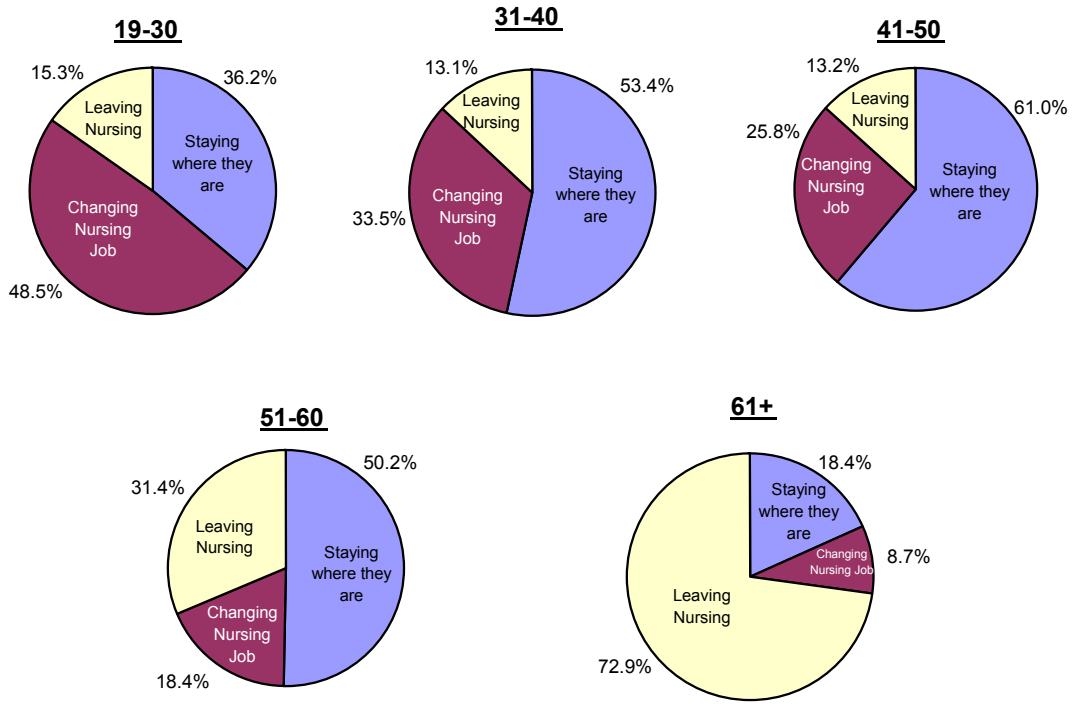
As previously noted, career plans are strongly associated with age. Younger nurses tend to change jobs more frequently than older, more experienced nurses while older nurses have a greater tendency to leave both their job and the profession, as a result of retirement. Figure 4.10 displays the percentage of nurses in each of the three career plan categories by age group.

As shown in the figure, younger nurses exhibit a far greater tendency to indicate that they plan to change nursing jobs. One out of every two RNs in the 19-30 age group (48.5 percent) indicate that they plan to change jobs within the next five years. This very high level of job shifting declines monotonically with age as expected, with only 25.8 percent and 18.4 percent of the nurses in the 41-50 year and 51-60 year age groups, respectively, indicating that they intend to change jobs. The high level of early career job shifting is part of a sorting process in which younger, less experienced entrants to the profession try to mesh their evolving career interests with specific settings.

Of the 19-30 age group, 15.3 percent plan to leave the nursing profession altogether. This figure is 2.2 percentage points higher than the contrast percentage in the 31-40 year group (13.1 percent) and 2.1 percentage points higher than the comparison figure (13.2 percent) in the 41-50 year age group. To summarize, career-changing decisions:

- are much less prevalent than job-changing decisions, occurring only one-third to one-fourth as frequently;
- appear to occur at about the same rate among middle-aged nurses as among younger nurses; decisions to leave the nursing profession are moderate in prevalence for every age group until nurses become 51 or older;
- naturally increase in prevalence as one's career longevity increases beyond twenty years. Thus, the percentage of nurses planning to leave the profession (due principally to retirement) begins to increase to 31.4 percent for the 51-60 year group and to 72.9 percent for RNs age 61 and over.

Figure 4.10
Career Plans for Nurses Currently Working in New York State by Age Category



Nurses appear to know whether the *profession* is a good match for them at the point they first enter the field. However, rates of job shifting appear to be extraordinarily high in the youngest age cohorts. This seems to suggest that employers and higher education institutions could benefit from more extensive use of strategies such as internships and field practicums to help students focus interest on specific settings.

Career Plans and Other Factors

Table 4.6 displays the percentage of nurses within each of the career plan categories by employment status, marital status and child-rearing responsibility. Nurses working in a single full-time job are more likely to report an intention to stay where they are in terms of both work setting and the nursing profession as a whole.

Table 4.6
Career Plans of Nurses Currently Working in New York State by Selected Individual and Job Characteristics

		Career Plan Category		
		Not Leaving Setting or Profession	Leaving Setting, Staying in Nursing	Leaving both Setting and Profession
	n	(Stayers)	(Job Changers)	(Career-Changers/Retirees)
Employment Status				
Full Time, 1 Job Only	5490	54.5%	23.9%	21.6%
Full Time plus 1 or More Nursing Job	1194	53.6%	30.2%	16.2%
Full Time plus 1 or More PT Non-RN Job	145	44.1%	23.4%	32.4%
Part Time, 1 Job Only	2148	45.8%	24.7%	29.5%
Part Time plus Second Job	703	47.2%	32.0%	20.8%
	9680			
Marital Status				
Now Married	6478	53.5%	24.5%	22.0%
Widowed/Divorced/Separated	1791	51.1%	23.4%	25.5%
Never Married	1258	44.9%	33.7%	21.4%
	9527			
Children at Home				
No Children at home	4227	44.0%	23.8%	32.2%
All Children Six and over	3865	59.7%	24.9%	15.4%
Some over 6, some under 6	798	54.9%	32.1%	13.0%
All less than 6 years old	619	54.0%	32.5%	13.6%
	9509			

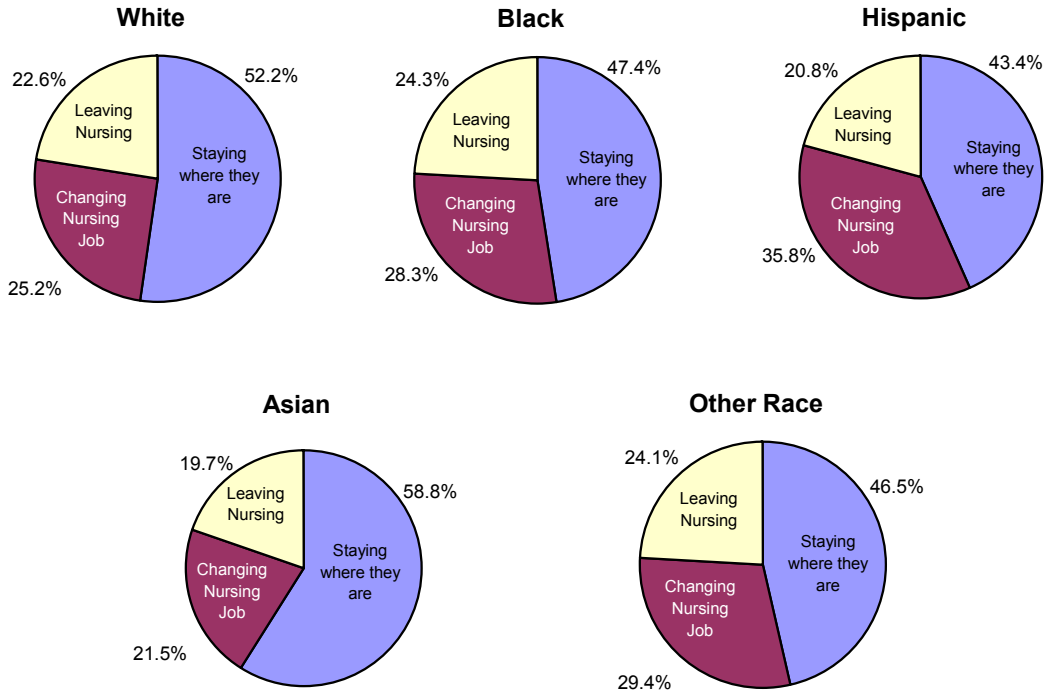
With respect to marital status, nurses who have never been married report the highest frequency of intent to change their jobs, and the lowest frequency of intent to leave the profession. Nurses who are currently married have a greater tendency to report that they will remain in their current job for at least the next five years.

The age of children at home is reflective of the stage of life and family responsibilities of nurses. The greatest degree of job-change intent exists within the categories of nurses with young children at home. These nurses tend to be younger (average age is 37.8 years), have substantial family responsibility, and may either be searching for jobs for which they are better matched or which allow them to accommodate their childcare responsibilities. Nurses with no children at home tend to be substantially older (average age is 49.7 years) and have the greatest tendency to report that they will leave the nursing profession within the next five years, probably most often for the reason of retirement.

Career Plans and Race/Ethnicity

The percentage of nurses in each of the three distinct career-plan groups is displayed by race/ethnicity in Figure 4.11. Both the lowest percentage of nurses planning to leave the nursing profession and the lowest percentage planning to change nursing jobs occurs within the category of Asian nurses. Fifty-nine percent of Asian nurses indicate that they do not plan to make either of these changes within the next five years – a substantially higher proportion than for any other group. The greatest degree of job-change intent exists within the category of Hispanic nurses, with 36 percent indicating that they intend to change work settings within the next five years.

Figure 4.11
Career Plans for Nurses Currently Working in New York State by Race/Ethnicity

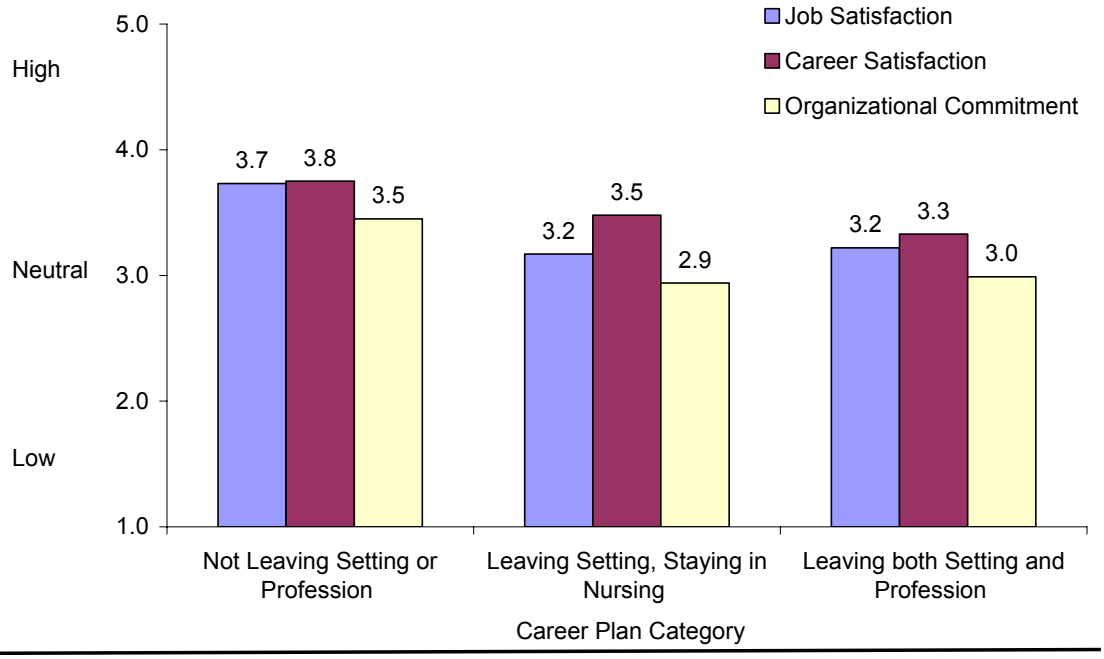


Job/Career Satisfaction, Organizational Commitment and Career Plans

As shown in the previous section of this chapter, job satisfaction, organizational commitment and career satisfaction affect nurses' level of job search behavior. Nurses reporting greater job satisfaction and organizational commitment are less likely to search for alternative jobs. A similar finding holds regarding career plans. Nurses who intend to stay where they are (leaving neither their jobs nor the profession) likewise have greater levels of job satisfaction, career satisfaction and organizational commitment.

The average level of job satisfaction, career satisfaction and organizational commitment is displayed by career intention category in Figure 4.12. Nurses who do not intend to change jobs or leave the nursing profession in the next five years have greater levels of job satisfaction (3.7) compared to nurses who intend to change nursing jobs (3.2) or exit the profession (3.2) in the next five years.

Figure 4.12
Job Satisfaction, Career Satisfaction and Organizational Commitment by Career Plan Category



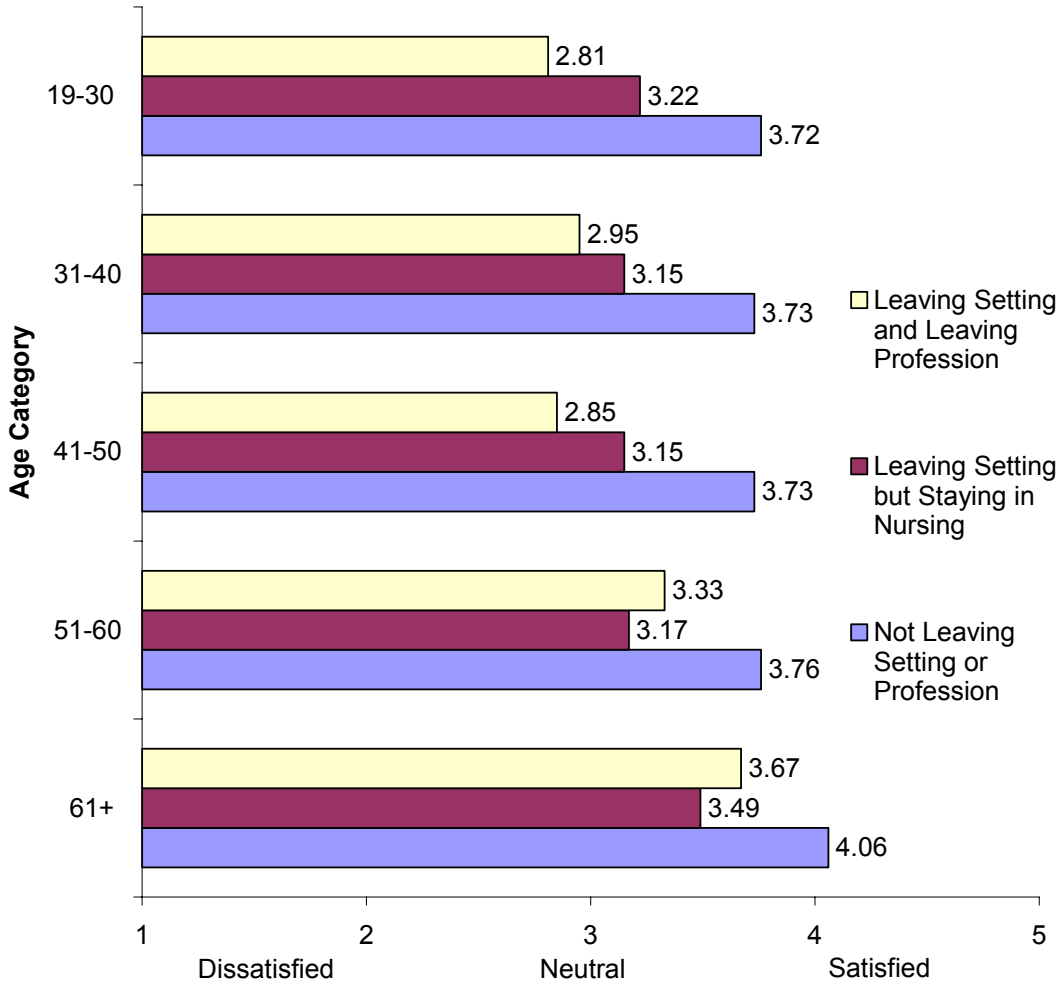
Nurses who intend to stay in their current jobs for the next five years also have higher levels of career satisfaction (3.8) and report greater organizational commitment (3.5) compared to those intending to change job settings (3.5 career satisfaction score and 2.9 organizational commitment score) or those intending to leave the profession (3.5 career satisfaction score and 2.9 organizational commitment score). Nurses who are changing jobs report similar levels of job satisfaction compared to nurses who are planning to leave the profession altogether. This finding suggests the importance of viewing effects of satisfaction on career plans for nurses within different age groups

(see Figure 4.13 below). An older nurse who is dissatisfied with her job may choose to retire as opposed to changing jobs, whereas younger nurses have a greater tendency to leave the work setting for another job when dissatisfied.

Job and Career Satisfaction, Intent to Leave, and Age

The average job satisfaction level for nurses within different age categories is shown by career plan category in Figure 4.13. Among nurses in the 19-30 age category, a moderately strong negative relationship between job satisfaction and intent to exit the profession is observed. Nurses in this age group who are leaving the profession report relatively low satisfaction with their jobs (2.81). Nurses in this same age group who are staying in the profession, but leaving the job setting, are significantly more satisfied (3.22), while nurses planning to stay in their current jobs are the most

Figure 4.13
Average Job Satisfaction by Career Plan Category and Age Category



satisfied by far (3.72). A similar relationship holds for nurses in the 31-40 age group as well as those in the 41-50 age group.

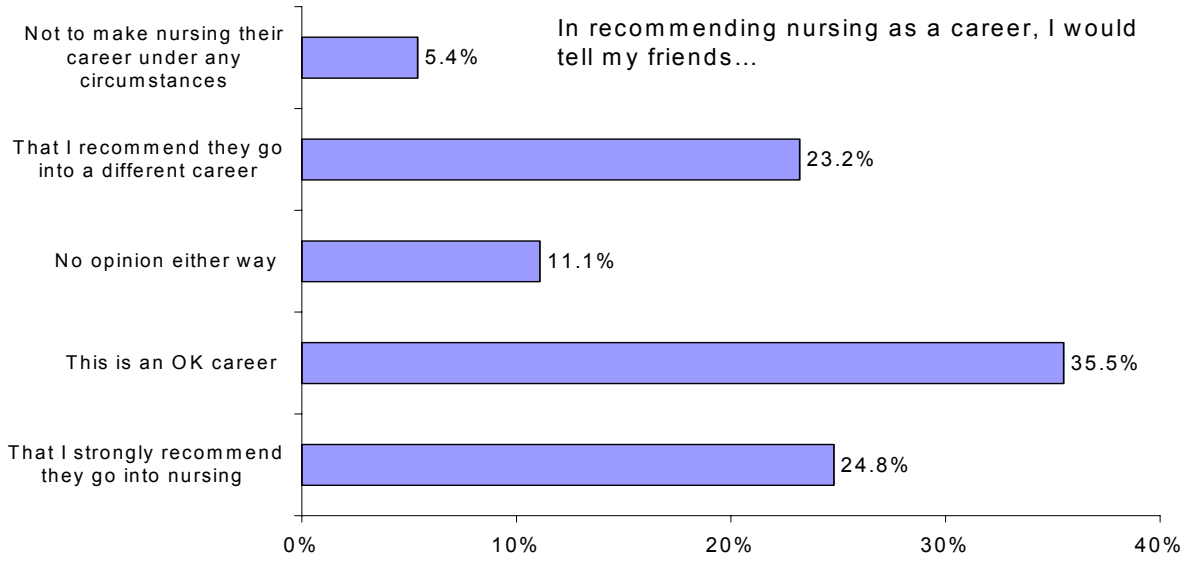
The lowest average level of job satisfaction is reported by the 19-30 year old RNs who plan to leave the profession within five years. While the actual exit rate for this group (15 percent) does not differ substantially from the career-exit rates of the two immediately older groups, a major impact of leavers within this group upon the nursing profession is a severely truncated career contribution. Also, for these young individuals, there may often be severe personal costs associated with the decision to leave.

Beyond age 50, the average satisfaction level of those leaving the profession begins to increase. For the oldest group (61 and above), the average job satisfaction of those leaving the profession (3.67) is almost as high as that of the youngest group of nurses intending to stay in their current jobs (3.72). This finding is likely a reflection of leaving due to retirement rather than job dissatisfaction. The job satisfaction reported by nurses 61 years of age or above who plan to stay in the profession for another five years is much higher than that reported by younger-age RNs with similar career plans. Those most satisfied with their jobs are also most likely to continue to work beyond retirement age. Employers who structure work in ways that accommodate the needs of these older, more experienced nurses may be able to avoid some of the turnover associated with retirements – especially if these same employers find ways to demonstrate recognition of the value of highly experienced staff.

RECOMMENDING NURSING TO OTHERS

Another important outcome of career satisfaction is the willingness of nurses currently working in the profession to recommend nursing as a career to others. This willingness has obvious and potentially powerful implications for recruitment. One of the

Figure 4.14
Recommendations for Nursing as a Career Option



survey items therefore solicited from respondents their level of willingness and/or enthusiasm for recommending nursing as a career choice – the distribution of responses to that item are displayed in Figure 4.14.

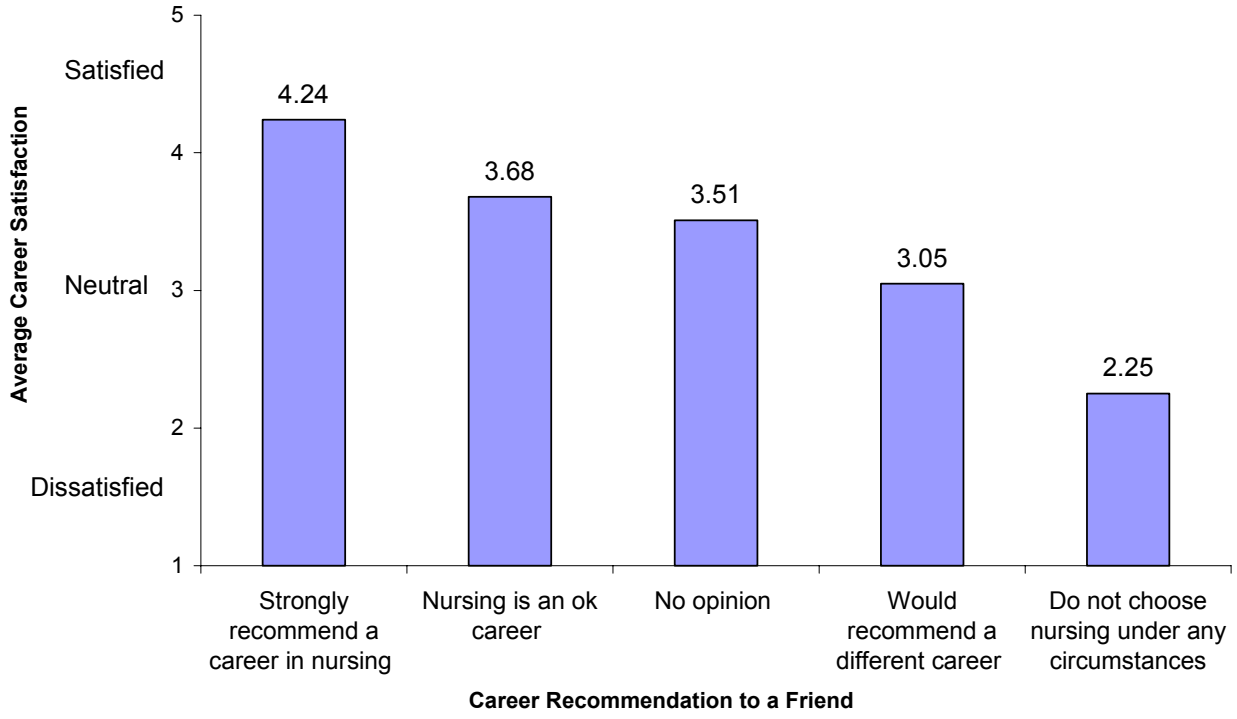
As shown in the figure, 24.8 percent of nurses would strongly recommend that their friends go into nursing and another 35.5 percent indicated that they would tell their friends that nursing is an "OK" career. Thus, 60.3 percent of nurses would give a favorable recommendation for nursing as a career choice. Conversely, 5.4 percent were prepared to strongly urge their friends not to enter nursing under any circumstances and another 23.2 percent would recommend that their friends go into a different career. Thus, somewhat more than one in four nurses in this statewide survey (28.6 percent) would recommend *against* choosing a career in nursing.

Career Recommendations and Career Satisfaction

The willingness of nurses to recommend nursing as a career to their friends is highly associated with their own personal level of career satisfaction. As shown in Figure 4.15, nurses who indicated that they would strongly recommend nursing as a career were also highly satisfied with their own careers (4.24). Nurses who would strongly urge their friends not to choose nursing as a career under any circumstances were dissatisfied with their own nursing careers (2.25).

In summary, the data reviewed in this chapter provides reasonably strong confirmation of the Price-Mueller theory of voluntary turnover. Nurses satisfied with

Figure 4.15
Average Nursing Career Satisfaction by Recommendation Category



their jobs and their careers are far less likely to engage in job search behaviors than those who are dissatisfied. The prevalence of career termination decisions appears to hold constant among younger and middle-aged groups of nurses (where retirement decisions per se do not skew these findings). However, the prevalence of job-seeking behaviors is dramatically higher in the youngest age cohort (the 19-30 year olds) – where one out of every two respondents in this age category indicated their intention to look elsewhere for a job within the next five years. The high volume of job-movement implied by these plans carries considerable individual and organizational costs. Ways of reducing this volume should be explored, especially during the formal basic preparation period itself. The savings – for individuals, for institutions, and for the nursing profession – could be significant.

Chapter 5: Nurses at Risk for Leaving the Profession – Five Risk Groups Compared

INTRODUCTION

The findings presented up to this point in Volume II have demonstrated (as predicted by the Price-Mueller model of voluntary turnover) that nurses' self-reported levels of satisfaction with various job-climate dimensions correlate substantially with their level of "global" job satisfaction. Furthermore, as shown in Chapter 4, global job satisfaction significantly affects the intensity of RNs' job search behavior as well as their planned timing to exit the nursing profession.

The significance of nurses' planned timing to quit the profession varies according to RN age. All nurses, of course, eventually plan upon leaving the profession through the natural "aging out" process of retirement. Therefore, an expressed intention to leave the nursing profession soon is not, by itself, a sufficient rationale for defining a "risk group" of special interest from the standpoint of retention. The younger the age at which an RN plans to quit the profession, the greater is the loss to the profession in terms of years of potential nursing service delivery. Therefore, age as well as "timing to exit" intentions need to be taken into account when defining risk groups of particular interest with respect to retention issues.

The analyses presented in this chapter are based upon a "risk group" classification system that uses "age," "exit intentions" and "location of practice" data to assign respondents to each of five different "risk group" categories. Only RNs currently working in NYS were assigned to these risk group categories, consistent with all the other analyses presented within this volume. Table 5.1, and the accompanying discussion, present in detail the criteria used for assigning RNs to each of the five different "risk group" categories.

Definition of "Risk Groups" – Three RN Groups <u>under</u> 52 Years of Age

The first three risk groups include RNs working in NYS under 52 years of age, grouped according to their self-reported "timing to exit" from the nursing profession. Survey respondents were asked: "At this time, do you have any plans to leave the nursing profession?" The five alternative response choices included: 1) "I have already left;" 2) "In the next 12 months;" 3) "In 1 to 2.9 years;" 4) "In 3 to 4.9 years;" and, 5) "Not for 5 years or more."

The first group, "Risk Group 1," is identified as the "young imminent leavers" group, the group of greatest policy concern from a retention standpoint. This group includes RNs under age 52 years working in NYS whose responses indicated that they were planning to leave the profession within the next 12 months. The very short time

frames within which these relatively young RNs plan to quit the profession make it especially likely that they will actually do so in the near future.[1]

"Risk Group 2" is also a group at substantial risk of quitting the RN profession before reaching retirement age, but their plans are less immediate. These RNs reported working in New York State, were again under age 52 years, and indicated they planned to exit the nursing profession within one to five years from the time they responded to the survey (October 2002).

"Risk Group 3" is a large "comparison" group of RNs, also under age 52 years, that intends to remain working within nursing for five years or more. These respondents reported currently practicing nursing within NYS and indicated no intent to leave the profession "for five years or more." Analyses presented below permit comparison of the demographics, job settings, job titles and job satisfaction measures of NYS RNs under age 52 years planning to quit the profession (Risk Groups 1 and 2) with similarly aged RN respondents not planning to do so (Risk Group 3).

Further Definition of "Risk Groups" – Two Groups over Age 52 Years

A secondary focus of analyses presented within this chapter is a comparison of *older* working NYS RNs grouped according to the timing of their intentions to leave the nursing profession. Of course, most RNs over age 51 who reported planning to leave the profession within the next five years report doing so for the reason of "retirement" (see discussion below) and so are a group of less "critical" interest with regard to retention issues. Nevertheless, as the average age of the NYS RN population continues to increase, greater attention needs to be given to differences between older nurses who choose to retire, and nurses of approximately the same age who choose to

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[1] Respondents who selected response "1" to Question 80, i.e. "I have already left (the nursing profession," are not included as a "Risk Group" for analysis for several reasons. Rather than being entirely "randomly selected" and so likely to be a "representative" sample of all RNs who *were* registered in NYS but left the profession within the past three years, there is an element of "self-selection" to membership in this group. NYS RN registrations expire every three years so it would be expected that approximately half the RNs who had left the profession within the past three years would no longer be registered. In fact, the 11.2 percent of survey respondents who reported that they had left the RN profession *more than* three years ago provided ample evidence that large numbers (though certainly not all) of RNs who are no longer actively nursing renew their NYS registration after it expires. Evidence presented in Chapter 6 of this volume demonstrates that these "self-selected" non-active RNs who nevertheless renewed their NYS registrations are proportionally "over-represented" by RNs who gave up nursing because of "family obligations." In fact, "already left RNs" under age 52 cite "family obligations" as their primary reason for leaving the profession 30.1 percent of the time, and as one of their "top three" reasons for leaving 49.3 percent of the time. The percentages citing "family obligations" for RNs under age 52 and planning to leave nursing within 12 months are much lower - 9.3 percent as "primary reason" and 21.5 percent as one of the "top three reasons" for leaving. Chapter 6 also demonstrates that "family obligation" leavers tend to have been considerably more satisfied and less stressed by their jobs than other groups of "leavers," and so the attitudes expressed by the "already left" group of respondents would not have been "representative" of all NYS RNs who left nursing within the last three years, if those who did not elect to renew their registration could have been included. An additional reason for not including "already left" RNs as a risk group was the fact that these RNs' location of practice was not required as a survey response, so analyses including this group could not have been restricted to RNs currently (or even previously) working in NYS, consistent with the other analyses within this volume.

remain actively working within the profession. Since the age distribution of RNs working in New York State is heavily skewed by the preponderance of older-aged RNs, retention of older RNs within the profession for additional years prior to retirement will be of increasingly greater importance in alleviating the nursing shortage.

Table 5.1
Frequency Distribution of NYS Nursing Survey Respondents Assigned to Each of 5 "Risk Groups" - Category Assignment Variables Pertain to Likelihood and Timing of Departure from RN Profession and Age at Departure: Analysis Limited to Respondents Working as RNs in NYS

	Count (N)	Percent of All Survey Respondents	Percent of All Risk Group Assignments
Risk Group 1:	**179**	**1.3**	**1.9**
RNs working in NYS, intending to leave the RN profession within 1 year, age < 52 years.			
Risk Group 2:	**702**	**4.9**	**7.4**
RNs working in NYS, intending to leave the RN profession within 1 to 5 years, age < 52 years.			
Risk Group 3:	**5,673**	**39.9**	**59.5**
RNs working in NYS, intending to remain in the RN profession for 5 years or more, age < 52 years.			
Risk Group 4:	**1,715**	**12.0**	**18.0**
RNs working in NYS, intending to remain in the RN profession for 5 years or more, age > 51 years.			
Risk Group 5:	**1,270**	**8.9**	**13.3**
RNs working in NYS, intending to leave the RN profession 5 years, age > 51 years.			
Total Group Assignments	**9,538**	**67.0**	**100**
Respondents excluded from Group Assignments:	**4,695**	**33.0**	*******
Survey Respondents *not* included within any of the six "Risk Group" categories: Includes 1) RNs working outside NYS; 2) RNs left nursing within past 3 years; 3) RNs left nursing more than 3 years ago; and 4) RNs with missing values for variables used for group assignments.			
Total NYS Nursing Survey Respondents	**14,233**	**100**	*******

"Risk Group 4" includes all working NYS RN respondents over age 51 who report intending to remain active in nursing for five years or more. "Risk Group 4," like "Risk Group 3," is a large "comparison" group of "stayers." In this case, the contrast group of "leavers" is "Risk Group 5" – RNs over age 51 working in NYS who intend to exit the nursing profession within five years. Not surprisingly, the average ages of these two groups differ. The average age of the "Risk Group 4" group of RNs planning upon staying in nursing is 56.1 years while the average age of the "Risk Group 5" group of RNs planning on leaving the profession within five years is 59.6 years – a difference of 3.5 years. The confounding effect of age when comparing these two groups somewhat

"dilutes" any observed relationships between demographic characteristics, job setting, job title, and job attitudes with the decision to remain actively working. That is, many RN respondents no doubt fall within the older group of "leavers" rather than the older group of "stayers" simply because they are a few years older and so ready to retire within five years, rather than because of an increased level of dissatisfaction with the profession. Consequently, observed differences between Risk Groups 4 and 5 are generally modest and should be interpreted with caution.

According to the criteria described above and presented in Table 5.1, it was possible to assign 9,538 of the survey respondents to one of the five risk group categories. The remaining 4,695 survey respondents could not be assigned to any of the five risk groups for one of the following reasons: 1) The respondent indicated s/he was currently working as an RN *outside* of NYS; 2) The respondent indicated s/he had already left nursing within the past three years; 3) The respondent indicated that s/he had left nursing more than three years ago; or 4) The respondent did not give a valid response to one or more of the questions (2, 2a, 80, 112 or 123) required to make an "assignment" decision to one of these five risk groups.

THE REASONS RNS GIVE FOR LEAVING NURSING – YOUNGER AND OLDER RNS COMPARED

Rationale for Risk Group Age Criteria – Differences by age in frequency of selection of "Retirement" as primary reason for exiting the profession

As noted, Risk Groups 1, 2 and 3 include only RN respondents less than 52 years of age, while Risk Groups 4 and 5 include only RN respondents 52 years of age or older. The rationale for using 51 years of age as the "cut off" age for inclusion in the first three risk groups is straightforward. RN respondents under age 52 who were planning to leave the profession within five years (Risk Groups 1 and 2) were most likely planning to quit the nursing profession for reasons *other than* retirement. In contrast, RN respondents at or over 52 years of age who were planning upon exiting the profession within the next five years were those most likely to do so *primarily* for the reason of retirement. The "reasons-for-leaving" data described below provides strong support for these assumptions.

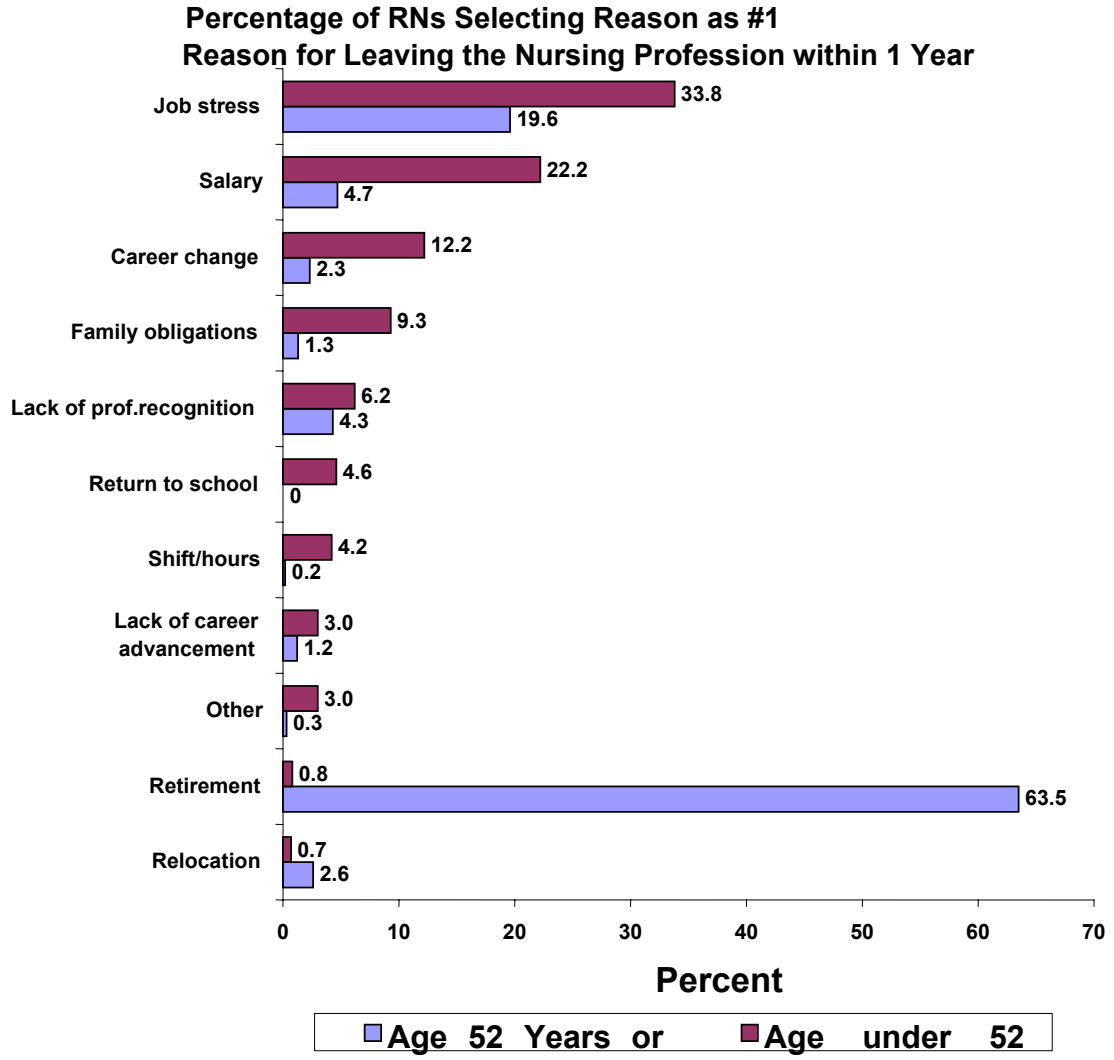
Among survey respondents currently working, only those intending to leave nursing within the next 12 months were asked their "reasons for leaving." A fixed-choice menu of eleven possible reasons for leaving nursing was presented, and eligible respondents planning to leave in 12 months were asked to select those three listed reasons that best matched their primary reasons for exiting the profession. Respondents were also asked to rank order their three selected reasons in terms of relative importance.

The bar chart shown in Figure 5.1 displays the percentages of "imminent leaver" respondents who chose each reason depicted as their #1 reason for exiting the profession. The top bar in each set depicts the response percentage for RNs less than 52 years of age and the bottom bar, the percentage of RNs 52 years of age or older who selected the reason indicated.

Figure 5.1

Percentage of RNs Selecting each of Eleven Reasons for Leaving Nursing as their #1 Reason for Leaving the Nursing Profession -

Analysis limited to RNs working in NYS indicating intention of leaving Nursing within 1 Year: RNs under 52 years of age and over 52 years of age compared

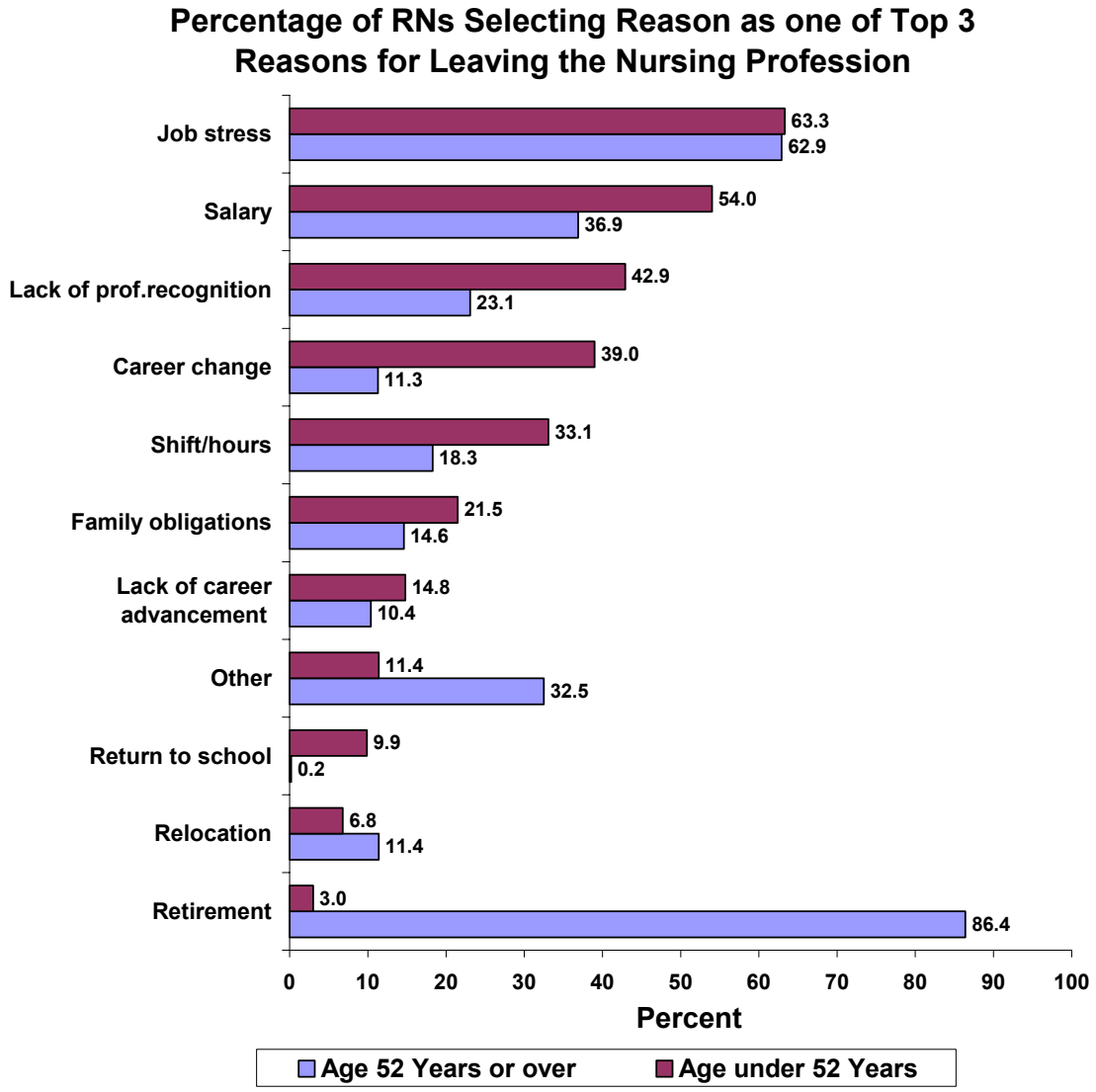


As hypothesized, among respondents 52 years or over almost 2 of every 3 nurses (63.5 percent) indicated their primary reason for exiting nursing was retirement. In sharp contrast, only 0.8 percent of respondents under the age of 52 selected "retirement" as their #1 ranked reason for leaving the profession. The 62.3 percentage point difference provides strong empirical support for the age criteria used for assignment of intended leavers to different risk groups.

This analysis shows clearly that both job stress and salary compensation play an important role in the decision to leave the profession among younger (< 52 years of age) nurses. Over one in three cite job stress as their primary motivation for leaving the

profession (33.8). Another 22.2 percent cite salary issues as their primary motivator. Clearly, any serious effort to improve the culture of retention must seek to address these two issues.

Figure 5.2
Percentage of RNs Selecting each of Eleven Reasons as one of their Top Three Reasons for Leaving the Profession:
Analysis limited to RNs working in NYS indicating intention of leaving Nursing within 1 Year: RNs under 52 years of age and over 52 years of age compared



The bar chart in Figure 5.2 once again compares those less than 52 years of age with those 52 years of age and older in terms of their response percentages to the reasons listed for leaving the profession by age category. Unlike the previous histogram however, each bar represents the percentage of RNs who selected each reason as *one of their top three ranked reasons* for leaving the profession. Thus,

reasons which may be critical to the leave-taking decision – even if only second or third-most in importance – are captured in this particular analysis. Accordingly, while the percentages depicted in the first analysis (Figure 5.1) sum up to 100 percent across all reasons listed (for each comparison group), the percentages depicted for a given comparison group in Figure 5.2, if summed, should in theory add up to 300 percent (although missing values result in somewhat lower totals).

The percentages of each age group in Figure 5.2 citing "retirement" as one of their "top three reasons" for leaving illustrates an even greater disparity between older and younger RNs than did the "#1 reason" bar chart discussed earlier. In other words, while 2 of every 3 respondents in the older age group picked retirement as their "#1 reason," this figure indicates that almost 90 percent (86.4 percent) of imminent leavers 52 years of age or older selected "retirement" as one of their top three reasons for leaving the profession, and only 3.0 percent of imminent leaver respondents younger than 52 years of age selected "retirement" as one of their top three reasons.

Other Differences by Age in the Selection of Top Reasons for Exiting the Nursing Profession

Figure 5.1 cited earlier also showed that for RNs under age 52 years (Risk Group 1), "job stress" is the most frequently selected #1 reason for quitting nursing (33.8 percent), while "salary" is the second most frequently selected #1 reason (22.2 percent). Even for RNs over age 52 years, a group whose primary reason for leaving the profession was retirement as noted (63.5 percent), the next most frequently selected reasons for departure were also "job stress" (19.6 percent) and "salary" (4.7 percent).

The parallels between the younger and older groups of nurses in selecting "job stress" and "salary" among their three most important reasons for leaving nursing are clearly seen in Figure 5.2. The percentages selecting "job stress" as one of their top three reasons are very high and remarkably uniform for the younger and older groups of nurses, 63.3 percent and 62.9 percent respectively. "Salary" is the next most often selected reason (after "stress") for both the younger nurses (54.0 percent) and the older nurses (36.9 percent). "Lack of professional recognition" also emerges as a major reason for leaving nursing for both the younger and the older group – for both groups it is the most frequently selected "top three" reason after "salary" (selected by 42.9 percent of younger RNs and 23.1 percent of older RNs).

The percentages in Figures 5.1 and 5.2 indicate that "career change," "family obligations" and "return to school" are reasons for exiting nursing which are selected more frequently by the younger group of nurses. On the other hand, "relocation" and "other" are selected relatively more frequently by the older group of nurses. The greater frequency of "relocation" as a selected reason among older RNs might be accounted for by moving to a retirement location (possibly because of a spouse's retirement). The much greater frequency of "other" as a selection choice by the older group (32.5 percent) compared to its selection by the younger group (11.4 percent) might be best accounted for by the popular "write-in" explanation for the "other" response (provided by respondents as a marginal note on the survey). Respondents selecting "other" frequently indicated that their "health" was the "other" reason. The more frequent

selection of "other" by older RNs probably is a reflection of the fact that health problems often become more frequent and serious with age.

JOB SATISFACTION, CAREER SATISFACTION AND SEARCH BEHAVIOR BY RISK GROUP

A major thesis of this report, a thesis well supported by findings presented thus far, is that nurses more dissatisfied with their jobs and their careers are more likely to seek other employment or leave the profession prior to retirement age and if, they do retire, to do so at earlier than average retirement ages than more satisfied nurses. Findings displayed graphically in Figure 5.3 provide strong support for this thesis. The five bar charts illustrated in this figure depict average scale scores for each of the five risk groups for each of the following measures: "Global Job Satisfaction," "Career Satisfaction," "Organizational Commitment," "Enthusiasm for Recommending an RN Career" and "Job Search Behavior."[2]

A visual scan of each bar chart in Figure 5.3 shows that each of the three "leaver" groups (i.e., Risk Groups 1, 2, and 5) are, on the average, less satisfied with their jobs and with nursing as a career than are the two comparison "stayer" groups (i.e., Risk Groups 3 and 4) for RNs of comparable ages. The difference in average satisfaction levels is, as expected, most pronounced between leavers and stayers under the age of 52 years. The fifth bar chart further confirms that search behavior, on the average, is substantially greater among "leavers" under age 52 (Risk Groups 1 and 2) compared to "stayers" under age 52 years (Risk Group 3).

The last two bars within each of the five bar charts shown represent RN respondents over age 51 years – which includes those intending to remain within the nursing profession more than five years (Risk Group 4) and those intending to quit nursing within the next five years (Risk Group 5). As stated above, even among these older nurses, those intending to stay more than five years are somewhat more satisfied with their jobs and with the nursing profession, on average, than those intending on leaving nursing within five years. These older nurses, however, differ from the younger nurses in that "intent to leave" the profession sooner does *not* translate into increased job search behavior. Rather, for most of these nurses, their intention to leave is linked to an imminent retirement decision.

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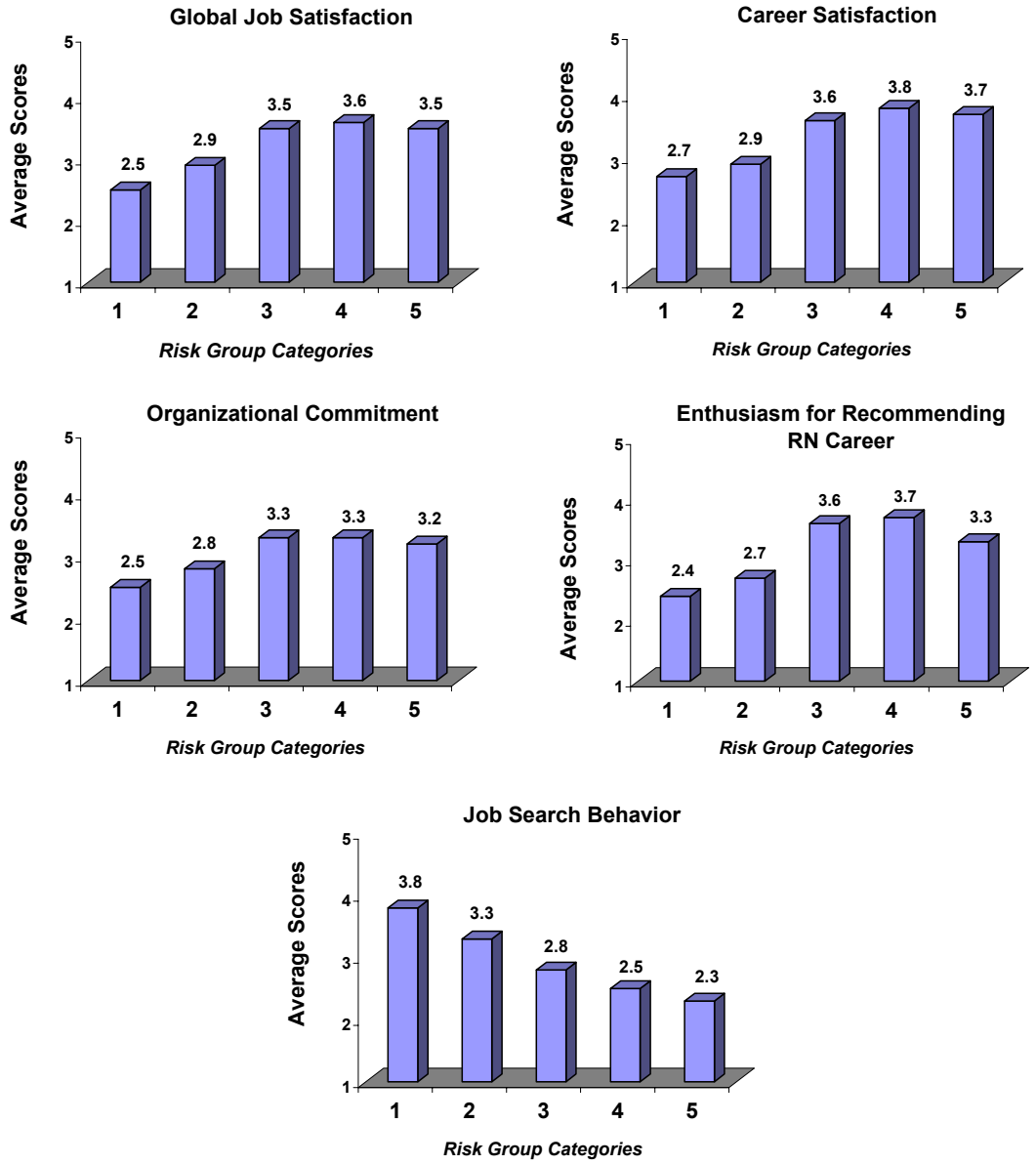
[2] Construction of the "Global Job Satisfaction," "Organizational Commitment" and "Job Search Behavior" scales from survey question responses is described in Chapter 3 and in Appendix E of this Volume II of the NYSED Nursing Survey Report. The "Career Satisfaction" measure is based on responses to survey question 77, "As I look back over my entire career to date, from the time I first entered the field of nursing, I have been very satisfied with my career." Presented alternative responses to this question included 1) "Strongly disagree," 2) "Disagree," 3) "Neither agree nor disagree," 4) "Agree" and 5) "Strongly agree." The "Enthusiasm for Recommending an RN Career" measure is based on responses to survey question 78, "How enthusiastic would you be in recommending nursing as a career to others." Once again presented alternative responses ranged from a low of "1" to a high of "5."

Figure 5.3
Five Bar Charts Displaying Global Job Satisfaction, Career Satisfaction, Enthusiasm for Recommending RN Career, Organizational Commitment and Job Search Behavior Average Scale Scores for each of Five Risk Groups



Key to Risk Group Categories:

Group 1: Working as RN in NYS, intending to leave nursing within the next 12 months, age < 52 years;
Group 2: Working as RN in NYS, intending to leave nursing between 1 and 5 years from now (October 2002), age < 52 years;
Group 3: Working as RN in NYS, intending to stay more than 5 years, age < 52 years;
Group 4: Working as RN in NYS, intending to stay more than 5 years, age > 51 years; and
Group 5: Working as RN in NYS, intending to leave nursing within 5 years, age > 51 years.

DEMOGRAPHIC DIFFERENCES AMONG RISK GROUPS

Table 5.2 displays selected statistics for a variety of demographic characteristics for each of the five risk groups. The final column in the table displays averages and percentages for the entire number of respondents (N = 9,737) assigned to each of the five risk groups (N = 9,737). In order to examine differences between "leavers" and "stayers" *under the age of 52 years*, the statistics displayed for Risk Groups 1, and 2 should be compared to the corresponding figures displayed for Risk Group 3 (the large "comparison" group of RNs under age 52 who plan on staying in nursing five years or more). Likewise, in order to examine differences between "leavers" and "stayers" who are 52 years of age or older, Risk Group 5 data may be compared to Risk Group 4 data.

Table 5.2
Averages and Percents of Selected Demographic Characteristics for Each of Five Risk Groups

Selected Demographic Variables	*Averages and Percentages for Selected Demographic Variables*					
	Group 1 Works as RN in NYS Plans to Depart < 1 yr, Age < 52	***Group 2*** Works as RN in NYS Plans to Depart 1 to 5 yrs Age < 52	***Group 3*** Works as RN in NYS Plans to Stay > 5 yrs Age < 52	***Group 4*** Works as RN in NYS Plans to Stay > 5 yrs Age > 52	***Group 5*** Works as RN in NYS Plans to Depart < 5 yrs Age > 52	***All Groups***
N	*179*	*702*	*5,673*	*1,715*	*1,270*	*9,538*
Scale Averages						
Average Age	40.3	41.8	41.5	56.1	59.6	46.4
Average Years working as RN	14.1	15.1	15.2	26.0	30.3	19.0
Average Total Hours Worked/Week[a]	39.0	39.5	39.7	39.9	35.7	39.1
Average Dollars/Hour Wages[b]	$28.40	$26.00	$26.40	$28.10	$28.20	$27.00
Average Full Time (only) Salaries	$56,800	$56,900	$58,600	$62,100	$60,800	$59,400
Scale Percentages						
% Working Full Time	60.4	68.3	71.1	75.9	63.5	70.6
% Male	10.8	8.5	5.3	4.7	4.5	5.4
% Minority[c]	22.2	23.4	23.0	25.0	22.6	23.0
% Foreign Born	14.9	20.5	19.6	20.7	20.7	19.7
% Children at Home (all ages)	59.7	61.4	69.3	33.5	19.6	55.9
% Child(ren) at Home < 6 yrs old	14.6	8.2	9.3	5.2	1.2	6.9
% Married	67.4	66.8	70.6	61.9	66.0	68.1
% Primary Caretaker - Dependent Adult	14.5	14.7	14.6	20.3	17.5	15.8
% Attained Associates or Diploma	28.8	39.3	42.8	47.6	51.3	44.1
% Attained Bachelor's Degree	53.3	46.8	41.8	28.3	29.8	38.4
% Attained Master's Degree (or above)	18.0	13.9	15.5	24.1	18.9	17.5

[a]Includes regular work week scheduled hours plus over-time plus hours from extra jobs in nursing.

[b]Total hours worked per week multiplied by 50 weeks then divided by total annual earnings from all RN employment (survey question 120).

[c]For the purpose of this analysis, "minority" status is assigned to any respondent who gave any response to survey question 117 other than "White, not Hispanic."

Age Differentials among Risk Groups

The first row of Table 5.2 displays the average age of each of the five risk groups while the second row shows the average self-reported number of years spent working as an RN.[3] Risk Group 1 is slightly younger (average age is 40.3 years) and has a slightly shorter average career length (14.1 years) compared to the other two "younger" RN risk groups. Risk Group 2 has an average age of 41.8 years and an average career length of 15.1 years. Risk Group 3, the "comparison" group, has an average age of 41.5 years with an average career length of 15.2 years. As discussed above, it comes as no surprise to find that RNs 52 years of age or older who plan to leave nursing within five years (Risk Group 5, average age, 59.6) are, on average, 3.5 years older than those RNs not planning on leaving nursing within five years (Risk Group 4, average age, 56.1 years) and also have, on average, comparably longer career lengths (30.3 years compared to 26.0 years).

Wage and Salary Differentials

The third, fourth and fifth rows of Table 5.2 show averages for total weekly hours worked, hourly wage, and full time salary data. The sixth row in the Table displays percentages of respondents within each risk group who report working full time. Taken together, these figures do not demonstrate a consistent pattern of differences between "leavers" and "stayers" with respect to average wages or annual earnings. These statistics do indicate that RNs with plans to leave the profession within five years, especially those RNs planning to leave within 12 months, tend less often to work on a full time basis compared to RNs not planning on leaving with five years. Specifically, 71.1 percent of Risk Group 3 and 75.9 percent of Risk Group 4 work on a full time basis, compared to only 60.4 percent of Risk Group 1, 68.3 percent of Risk Group 2 and 63.5 percent of Risk Group 5. This data suggests that as they approach the time of departure, many RNs phase out more gradually by reducing their work hours before actually leaving the profession altogether.

Gender Differences

The seventh row of Table 5.2 shows the percentage of males within each of the five risk groups. In view of the recommendation of the Regents Task Force on the Future of Nursing to enhance both minority and male recruitment to the profession, the disproportionate percentage of males in each of the two "younger" groups of RNs leaving the profession is disquieting. For example, in the under 52-year Risk Groups 1 and 2, 10.8 percent and 8.5 percent respectively were male, while only 5.3 percent of the "younger" group of "stayers" in Risk Group 3 were male. This finding is also consistent with the higher level of job search behavior reported by working NYS male RN respondents compared to working NYS female RN respondents discussed in Chapter 4 of this volume. One proposed strategy for addressing the nursing shortage has been to increase efforts to recruit more males into the nursing field. The greater

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[3] Career lengths are based upon RNs write-in responses to the survey question: "How many years have you worked as an RN in the field of nursing," rather than upon calculations based on their year of completion of their RN basic preparation.

frequency of males among survey respondents reporting their intention to leave the profession well before retirement age suggests that, so far, attempts to make the field more attractive to male entrants are meeting with mixed results.[4]

Minority Differentials

No consistent clear pattern of differences between "leaver" and "stayer" RNs appears with respect to ethnic minority status or status as non-U.S. born. However, Risk Group 4, the group of RNs age 52 years or older intending to remain in nursing five years or more, includes a slightly higher percentage of RNs in ethnic minority groups (25.0 percent) than does Risk Group 5 (22.6 percent), i.e., those RNs age 52 years or older who intend to leave nursing within five years.

Stage in Life Cycle and Family Responsibilities

Perhaps somewhat surprisingly, status as having "children living at home" is reported more frequently by both groups of "stayer" RNs (Risk Group 3, 69.3 percent, Risk Group 4, 33.5 percent) than by their corresponding groups of "leaver RNs (Risk Group 1, 59.7 percent, Risk Group 2, 61.4 percent, Risk Group 5, 19.6 percent). Notes sent back with surveys suggested one possible explanation for the greater likelihood of "stayers" to have children living at home with them than of "leavers" having children at home. A number of RNs wrote to us explaining that they would like to leave nursing but their financial obligations to their families precluded any decisions to change careers or to quit working. In contrast to the findings above, RNs in the young "imminent leaver" group (Risk Group 1), report having children at home under six years of age more frequently than members of any of the other four risk groups. RNs able to specifically pinpoint their intended timing for departure to within 12 months probably include a disproportionate number of expectant parents, a group more likely to have children under age six living at home with them.

In addition to this "children at home data," the next row of Table 5.2 shows the percentage of RNs within each risk group category reporting that they are currently married. Risk Group 3 RNs report their status as "married" with somewhat greater frequency than RNs in the two young "leaver" risk groups, Risk Groups 1 and 2. The slightly greater frequency with which members of this risk group report being married may be linked to the greater likelihood of their having children living at home with them, and children living at home may, in turn, contribute to their plans to remain in nursing for five years or more.

The fourth row from the bottom in Table 5.2 shows the percentages of RNs within each risk group reporting that they are the primary caregiver for a dependent adult. RNs within the two older risk groups (ages 52 years and older) are substantially more likely to report adult caregiver status than are RNs within the three younger risk groups (ages under 52 years). Older RNs planning to continue their work as nurses for at least five years, i.e. those in Risk Group 4, more frequently report that they are the primary

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[4] It should be noted, however, that according to NYSED survey results the percentage of males working as RNs in NYS increased modestly, from 3.8 percent in 1989 to 5.3 percent in 2002, a 1.5 percentage point increase and a 52.4 percent overall growth in share.

caregivers for a dependent adult (20.3 percent) than do older RNs planning to quit nursing within five years, i.e. those in Risk Group 5 (17.5 percent).

Educational Differences among Risk Groups

The bottom three rows of Table 5.2 show the percentages of RN respondents within each risk group whose highest level of educational attainment corresponded to each of three categories: 1) associate's degree or nursing diploma; 2) bachelor's degree; and 3) master's degree or above. These percentages indicate that younger RNs holding only associate's degrees (or, more rarely, diplomas) are *less likely* to quit nursing before retirement age than are RNs with more formal education. Correspondingly, RNs holding bachelor's degrees are *more likely* to quit nursing before retirement age than are other RNs. (For older RNs, these two degree attainment levels do not seem to be associated with an increased likelihood of either remaining in nursing or leaving the profession within five years.)

Quite possibly, younger RNs holding bachelor's degrees are more likely to leave the field of nursing than younger RNs holding associate's degrees because RNs with bachelor's degrees may be more readily able to transition into another career than those RNs with only associate's degrees. Also, RNs holding associate's degrees are reasonably well paid for their level of educational attainment, whereas, on the average, very little wage premium is added to the income of RNs moving from the associate's level of education to the bachelor's degree level, and the rate of compensation begins to compare less well to that of other professionals educated at the bachelor's level.

The data for younger RNs holding master's degrees or above are mixed, but among older RNs (ages 52 and older), nurses intending to continue working in nursing for more than five years more frequently report having master's or higher degrees (24.1 percent) than those planning on leaving within five years (18.9 percent). Earlier chapters in this volume demonstrated that RNs holding specialized titles usually requiring a master's degree or above, such as nurse anesthetists, nurse practitioners, clinical nurse specialists, and nurse educators are generally more satisfied and less stressed by their jobs, so it is not surprising that these RNs are apparently less inclined to plan on an early retirement than are other RNs.

THE REPRESENTATION OF RISK GROUPS IN DIFFERENT JOB SETTINGS – WHERE ARE THE "LEAVERS" WORKING?

In this section we first investigate whether or not RNs at risk of quitting the profession well before retirement age (Risk Groups 1 and 2) are concentrated in particular job settings. In Table 5.3, the percentages of RNs under age 52 years who fall within each of Risk Groups 1, 2 and 3 are displayed by job setting category. The "All Settings" row at the bottom of the table reports the same contrast percentages for all RNs comprised by these three risk groups (N = 6,554). The "All Settings" percentages are 2.7 percent for Risk Group 1, 10.7 percent for Risk Group 2, and 86.6 percent for Risk Group 3. By comparing these baseline percentages to the data reported for any risk group in any specific job setting, we can examine the over- or under-representation of our key risk groups in specific job settings.

Table 5.3
For RNs Working within Each of Nine Job Settings, Pecent within each Risk Group: Analysis Limited to RNs Age < 52 Years, Working in NYS & Assigned to a Risk Group

RN Job Settings	*For each Setting, Percent of RNs Age < 52 within each Risk Group*			
	Group 1 Works as RN in NYS Plans to Depart < 1 yr, Age < 52	***Group 2*** Works as RN in NYS Plans to Depart 1 to 5 yrs, Age < 52	***Group 3*** Works as RN in NYS Plans to Stay > 5 yrs, Age < 52	***Total***
N	*179*	*702*	*5,673*	*6,554*
Ambulatory Care	3.1	10.3	86.6	100
Government, Professional & Health Organizations	1.6	10.5	87.9	100
Home Health Agencies	2.7	12.7	84.6	100
Hospitals	2.8	10.6	86.7	100
Physician's Offices	1.9	10.9	87.2	100
Nursing Homes	2.4	11.6	86.0	100
Nursing Education	1.0	8.2	90.7	100
School Health	2.0	8.9	89.2	100
Other	3.8	10.6	85.5	100
All Settings	*2.7*	*10.7*	*86.6*	*100*

Under and Overrepresentation of Both Risk Group 1 and Risk Group 2 by Setting

Based upon this approach, it can be seen that RNs working in "Nursing Education," "School Health" and, to a more modest extent, "Government, Professional and Health Organization" settings are underrepresented among those intending to quit the nursing profession before retirement age than are RNs working in other settings. For example, only 1.0, 2.0, and 1.6 percent of Risk Group 1 respondents in these settings respectively plan to depart in less than one year (in contrast to a 2.7 percent figure across all settings for this risk group). Similarly, 8.2, 8.9, and 10.5 percent of Risk Group 2 respondents plan on early departure (in contrast to a 10.7 percent figure across all settings for this risk group).

In contrast, RN respondents working in "Home Health Agency" and "Nursing Home" settings are overrepresented in Group 2, i.e., they disproportionately more often reported planning on leaving the profession in from one to five years than did other RN respondents. On the other hand, Group 1 respondents, the "12-month leaver" RNs, did not show this same pattern of increased likelihood of departing from those two settings, so there is less solid ground for generalizing from these findings to predicting rates of early departure from these settings statewide.

Percentages are displayed in a similar fashion in Table 5.4, allowing the same kind of analysis of comparative rates of "intended leaving" for RNs at or over age 52 who work in different job settings. The table shows, for each of the nine job setting categories, the percentage of respondents working within each job setting who fall

within either Risk Group 4 (planning to remain in nursing for five years or more) or Risk Group 5 (planning to leave nursing within five years).

Table 5.4
For RNs Working within Each of Nine Job Settings, Pecent within Each Risk Group: Analysis Limited to RNs Age > 51 Years, Working in NYS & Assigned to a Risk Group

RN Job Settings	*For each Setting, Percent of RNs within each Risk Group*		
	Group 4 Works as RN in NYS Plans to Stay > 5 yrs, Age > 51 yrs	***Group 5*** Works as RN in NYS Plans to Depart < 5 yrs, Age > 51 yrs	***Total***
N	*1,715*	*1,270*	*2,985*
Ambulatory Care	61.6	38.4	100
Government, Professional & Health Organizations	57.0	43.0	100
Home Health Agencies	58.8	41.2	100
Hospitals	58.2	41.8	100
Physician's Offices	55.2	44.8	100
Nursing Homes	53.6	46.4	100
Nursing Education	59.8	40.2	100
School Health	49.8	50.2	100
Other	60.5	39.5	100
All Settings	*57.5*	*42.5*	*100*

Comparing the specific setting percentages within each column of Table 5.4 with the two "All Settings" percentages (57.5 for Risk Group 4 and 42.5 for Risk Group 5) permits identification of those job settings in which RNs are more likely or less likely to choose to remain working even though their ages fall in the range within which many RNs choose to retire. This analytic approach reveals that RNs over age 51 working within "Ambulatory Care" (61.6 percent), "Nursing Education" (59.8 percent), "Home Health Agencies" (58.8 percent) and "Other" settings (60.5 percent) report the intention to remain in nursing for five years or more with *greater* than average frequency. On the other hand, RNs over age 51 working in "School Health" (50.2 percent), "Nursing Home" (46.4 percent), and "Physician's Office" settings (44.8 percent) report their intention to remain in nursing for five years or more with *less* than average frequency.

PROPORTIONAL REPRESENTATION OF RISK GROUPS IN DIFFERENT JOB TITLES: WHAT NURSING JOBS DO THE "LEAVERS" PLAN TO LEAVE?

Tables 5.5 and 5.6 present data in the same fashion as Tables 5.3 and 5.4 above, but the percentages within each risk group are shown for each of thirteen job

titles (rather than settings). The percentages may be interpreted in the same way as discussed above to discern larger than expected concentrations of leavers working within particular job titles. Table 5.5 displays these percentages for RNs less than 52 years of age and Table 5.6 displays these percentages for RNs 52 years of age or older.

Table 5.5
For RNs Working within Each of Thirteen Job Titles, Pecent within Each Risk Group: Analysis Limited to RNs Age < 52 Years, Working in NYS & Assigned to a Risk Group

RN Job Titles	*For each Job Title, Percent of RNs Age < 52 within each Risk Group*			
	Group 1 Works as RN in NYS Plans to Depart < 1 yr, Age < 52	***Group 2*** Works as RN in NYS Plans to Depart 1 to 5 yrs, Age < 52	***Group 3*** Works as RN in NYS Plans to Stay > 5 yrs, Age < 52	***Total***
N	*179*	*702*	*5,673*	*9,610*
Inpatient Staff Nurse	3.1	11.2	85.6	100
Outpatient Staff Nurse	3.0	10.6	86.4	100
Nurse Anesthetist	0.0	3.7	96.3	100
Claims/QA/UR/ Risk Management	0.9	12.7	86.4	100
Consultant/Researcher	6.3	7.6	86.1	100
Dean or Faculty in Nursing Education Program	0.0	10.5	89.5	100
Director/VP/Chief of Nursing	3.7	6.7	89.6	100
Clinical Nurse Specialist	1.1	11.3	87.6	100
Nurse Practitioner	0.6	6.5	92.8	100
Nurse Manager/Patient Care Coordinator	2.6	10.4	87.0	100
Independent Practitioner or Private Duty Nurse	4.3	10.0	85.7	100
Public/Community Health Nurse	2.7	11.4	85.9	100
Other	2.0	10.6	87.4	100
All Job Titles	*2.7*	*10.6*	*86.7*	*100*

Under and Overrepresentation of Both Risk Group 1 and Risk Group 2 by Title

The percentages shown in Table 5.5 indicate that RNs working in NYS and less than 52 years old who are working as inpatient staff RNs (the great majority of which work within inpatient hospital settings) are both more likely to plan on leaving the profession within 12 months and to plan on leaving the profession within one to five years than are other RNs. The other specific job title percentages for Risk Groups 1 and 2, which are higher than the corresponding "All Job Titles" percentage, are not consistently higher for both Risk Groups 1 and 2, but are higher for only one group or

the other, so generalizations about "increased rates of leaving" from these job titles are less easily supported by the evidence. Nevertheless, respondents working as "Independent Practitioners or Private Duty Nurses," or as "Public/Community Health Nurses" also reported intending to leave the profession at an early age with greater than average frequency.

The difference between the 3.1 percentage of inpatient staff nurses falling within Risk Group 1 and the 2.7 percentage "All Job Titles" RNs falling within Risk Group 1 is not large in magnitude, nor is the difference between the 11.2 percentage of inpatient staff nurses falling within Risk Group 2 and the 10.6 percentage of "All Job Titles" RNs falling within Risk Group 2, but the relatively large size of the group of respondents holding the "Inpatient Staff RN" job title, compared to the numbers of RNs holding other job titles, nevertheless make these differences highly significant. Of the 6,481 RN respondents represented by the Table 5.5 data, 2,989 identified themselves as inpatient staff RNs, i.e., over 46 percent of the respondents included in the analysis.[5]

In Table 5.5, we identify job titles associated with a *greater* likelihood of intending to remain in the nursing profession among RNs less than 52 years of age. Among RN respondents in this younger age category, those working as either a "Certified Registered Nurse Anesthetist" (96.3 percent) or as a "Nurse Practitioner" (92.8 percent) fall into Risk Group 3 (the "stayer" group) with significantly greater than average frequency (86.7 percent). Correspondingly, both these job titles are associated with lower than average rates of "intended leaving," both for plans to leave within the next 12 months and for plans to leave within one to five years. RNs working in either of these titles have achieved an advanced and specialized level of education, and are paid considerably more than average even compared to other RNs holding master's degrees. These nurses report significantly more autonomy within their jobs than do other RNs. Survey data presented earlier in this volume showed that RNs in both these job titles expressed greater than average job satisfaction, so it is not surprising to find that they are correspondingly less likely to intend to leave the profession prior to retirement age.

The percentages shown in Table 5.5 similarly provide evidence, though less consistent or powerful, that RNs working in New York State as a "Dean or Faculty in a Nursing Education Program," or as a "Director, VP, or Chief of Nursing," or as a "Clinical Nurse Specialist" are also less likely to plan on leaving nursing prior to retirement age than are other RNs. Once again, incumbents of titles associated with higher probability of remaining within the profession are usually educated at the master's degree level, hold positions providing them with greater than average autonomy, and are better paid than average.

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[5] Volume III of the NYSED Nursing Survey Report, a supplement devoted almost exclusively to an examination of data pertaining to in-patient hospital staff RNs, presents extensive data demonstrating that in-patient hospital staff RNs are indeed at much higher "risk" of quitting nursing well before retirement age than are other nurses. They are also among the most stressed and dissatisfied nurses working in New York State.

Under and Overrepresentation of Both Risk Group 4 and Risk Group 5 by Title

Similar percentage data is displayed in Table 5.6, but for RN respondents at or over 52 years of age. Once again, the presented data allows examination of the increased or decreased frequency of leave-taking intentions, according to the job titles held by the respondents.

Table 5.6
For RNs Working within Each of Thirteen Job Titles, Pecent within Each Risk Group: Analysis Limited to RNs Age > 51 Years, Working in NYS & Assigned to a Risk Group

RN Job Titles	*For each Job Title, Percent of RNs within each Risk Group*		
	Group 4 Works as RN in NYS Plans to Stay > 5 yrs, Age > 51 yrs	***Group 5*** Works as RN in NYS Plans to Depart < 5 yrs, Age > 51 yrs	***Total***
N	*1,715*	*1,270*	*2,985*
Inpatient Staff Nurse	56.9	43.1	100
Outpatient Staff Nurse	55.1	44.9	100
Nurse Anesthetist	66.7	33.3	100
Claims/QA/UR/ Risk Management	58.7	41.3	100
Consultant/Researcher	57.4	42.6	100
Dean or Faculty in Nursing Education Program	58.4	41.6	100
Director/VP/Chief of Nursing	63.2	36.8	100
Clinical Nurse Specialist	62.7	37.3	100
Nurse Practitioner	68.5	31.5	100
Nurse Manager/Patient Care Coordinator	56.1	43.9	100
Independent Practitioner or Private Duty Nurse	58.8	41.3	100
Public/Community Health Nurse	51.8	48.2	100
Other	57.9	42.1	100
All Job Titles	*57.5*	*42.5*	*100*

A total group of 2,985 respondents provided data for the analysis shown in Table 5.6 (i.e., those survey respondents over 51 years of age and older who reported working in NYS in one of the thirteen job title categories). Of these nearly 3,000 older NYS working RN respondents, 57.5 percent fell into Risk Group 4 (those intending to

continue nursing five or more years) and 42.5 percent fell into Risk Group 5 (those intending on leaving the profession within five years).

RNs age 52 years and older, working as "Nurse Practitioners" (68.5 percent), as "Certified Registered Nurse Anesthetists" (66.7 percent), as "Directors, VPs, or Chiefs of Nursing" (63.2 percent), or as "Clinical Nurse Specialists" (62.7 percent) report planning on continuing to work in nursing five or more years with *greater than average frequency* (57.5 percent). These are the same job titles held by RNs less likely to quit nursing at younger ages and probably for the same reasons described above – typically, they are highly educated and specialized, have greater than average autonomy in their jobs, express greater than average satisfaction with their jobs, and are significantly better paid than most RNs.

Older RNs who are working as a "Public/Community Health Nurse" (51.8 percent), an "Outpatient Staff Nurse" (55.1 percent), a "Nurse Manager or Patient Care Coordinator" (56.1 percent), or as an "Inpatient Staff Nurse" (56.9 percent) report intending to work as an RN for five years or more with *less than average frequency* (57.5 percent). Outpatient and especially inpatient staff RNs report lower levels of job satisfaction, on average, than do most other RNs working in NYS, and RNs working as nurse managers or patient care coordinators report, on the average, exceptionally high levels of job stress. Accordingly, it is not surprising to find that older RNs holding these job titles are more heavily represented among those planning to retire within five years than among those not planning to do so. RNs working as "Public/Community Health Nurses" do not report greater than average levels of job dissatisfaction or stress, but report average hourly wages among the lowest for any job title. Possibly insufficient financial incentive contributes to the greater frequency with which they are found among the "leavers".

COMPARING THE AVERAGE JOB CLIMATE AND JOB STRESS SCALE SCORES OF DIFFERENT RISK GROUPS

The global job satisfaction and career satisfaction mean scores illustrated earlier in Figure 5.3 demonstrated that RNs in Risk Groups 1 and 2 (the two young "leaver" groups) are, on average, less satisfied with their jobs and with nursing as a career than are RNs in Risk Group 3, the large comparison group of RNs less than 52 years of age planning to remain in nursing for more than five years. Similarly, the same Figure 5.3 bar charts showed that, on average, Risk Group 5 RNs (the group of RNs age 52 years and older planning to leave nursing within five years) are also somewhat less satisfied with their jobs and with their careers, on average, than are Risk Group 4 RNs (the group of RNs age 52 years and older *not* planning on exiting the profession within five years).

Table 5.7 below displays the averages of six job climate satisfaction scale scores as well as the averages of three job stress scale scores for each of the five risk groups. These average scale scores should theoretically help pinpoint specific areas of job dissatisfaction that contribute most to the lower level of global job satisfaction expressed by RNs stating their intention to leave the profession within 12 months or within one to five years. The remarkable finding gleaned from the scale averages displayed in Table 5.7 is the uniformity of the scale averages shown. Consistent with theoretical

expectation, organizational climate scores are "poorest" and stress scores highest among the highest risk group (Group 1), and improve substantially in the "stayer" categories (Groups 4 and 5).

RNs in Risk Group 1 (those under 52 years of age planning to leave in 12 months), for instance, consistently exhibit the lowest (i.e., "poorest") job climate scores and the highest job stress scores on each of the nine measures. RNs in Risk Group 2 (those under 52 years who also plan to leave, but in 1 to 5 years) reflect the second to lowest level of job satisfaction among the five risk groups. Conversely, among the two "stayer" categories who plan on remaining in the profession for at least five more years, regardless of age, (Risk Groups 3,and 4) average scores consistently reflect patterns of higher job satisfaction and reduced stress. This same, more highly satisfied view is also characteristic of one group that also plans to exit the profession in less than five years – *but who are already over 52 years of age (Group 5).*

Table 5.7

Average Job Climate Scores[a] for Each of Five Risk Groups

Job Climate Scales	*Average Job Climate Scale Scores[a]*					
	Group 1 Works as RN in NYS Plans to Depart < 1 yr, Age < 52	***Group 2*** Works as RN in NYS Plans to Depart 1 to 5 yrs Age < 52	***Group 3*** Works as RN in NYS Plans to Stay > 5 yrs Age < 52	***Group 4*** Works as RN in NYS Plans to Stay > 5 yrs Age > 52	***Group 5*** Works as RN in NYS Plans to Depart < 5 yrs Age > 52	***All Groups***
N	*179*	*702*	*5,673*	*1,715*	*1,270*	*9,538*
Satisfaction Scales[b]						
Instrumental Communication	2.9	3.1	3.4	3.5	3.4	3.4
Autonomy	2.6	2.9	3.1	3.2	3.1	3.1
Promotional Opportunity	2.2	2.3	2.8	2.6	2.5	2.7
RN - RN Interaction	3.2	3.5	3.8	3.8	3.7	3.7
RN - Physician Interaction	2.6	2.9	3.3	3.4	3.3	3.2
Satisfaction with Pay	2.1	2.4	2.9	3.0	2.9	2.9
Stress Scales[c]						
Frequency of Great Stress	4.1	3.9	3.5	3.5	3.6	3.6
Job Stress - Resources	3.2	3.1	2.8	2.7	2.8	2.8
Job Stress - Workload	4.2	4.0	3.8	3.7	3.7	3.8

[a]Job Climate Scale Scores Range from a low of "1" to a high of "5".

[b]For satisfaction scales, higher scale scores represent greater satisfaction, a more positive job experience.

[c]For stress scales, higher scale scores represent greater stress, a more negative job experience.

The uniformity of the pattern of scale mean scores for each of the five risk groups across all nine job climate measures indicates that RNs in the two high risk leaver groups of particular policy concern, namely Risk Groups 1 and 2, are relatively more unhappy than average with virtually all dimensions of their jobs, and do not appear to be driven to this decision because of just one or two particularly acute complaints.

It should be noted, however, that "Satisfaction with Pay" is the scale with the lowest average satisfaction rating among all the RN respondents combined, and also

the lowest average satisfaction ratings for each of the five Risk Groups. "Satisfaction with Pay" is also the scale that shows the greatest drop in the average mean scale score between Risk Group 3 RNs (the large comparison group of "stayers" less than 52 years of age, mean scale score = 2.9) and Risk Group 1 (the group of RNs less than 52 years of age intending to quit nursing within 12 months, mean scale score = 2.1). Therefore, the contribution of RNs dissatisfaction with their pay to their global job dissatisfaction (and consequent increased likelihood of quitting the profession at an early age) should not be underestimated.

THE IMORTANCE OF THE NINE JOB CLIMATE MEASURES TO GLOBAL JOB SATISFACTION AMONG EACH OF THE FIVE RISK GROUPS

A more powerful analytic test of the Price-Mueller model of job satisfaction and voluntary turnover is multivariate in nature, and involves the regression of global job satisfaction upon those aspects of organizational climate examined throughout this report. This type of analysis in effect will permit us to do two things:

- to determine which aspects of organizational climate have the most powerful direct effects upon a nurse's global job satisfaction (findings that are quite useful from a tactical planning perspective); and,

- to determine whether this model "holds up" for each of the distinct "risk groups" that we have analyzed or whether alternatively the general model is highly predictive of global job satisfaction for some groups but not others.

Accordingly, five separate regression analyses were conducted for each of the five risk groups. In every instance, each respondent's global job satisfaction in their current position was regressed upon the nine job climate measures. The results of these five separate regression analyses are summarized in Table 5.8.

The multiple correlation coefficients or "R" values for each of the regression equations are shown near the bottom of Table 5.8. The multiple correlation coefficient R and the square of this value, R^2, refer to the proportion of respondent variability in global job satisfaction accounted for by the nine climate scale scores or predictors. For example, as shown at the bottom of the Group 1 column, the multiple R of .69 (when squared) indicates that 44 percent of the variance in overall or global job satisfaction is accounted for by these nine predictor variables. Similarly, the squared values of the standardized beta coefficients listed in columns for each risk group are directly proportional to the amount of variability in global job satisfaction scale scores of that risk group accounted for by each beta coefficient's corresponding climate scale score.

The multiple R values shown for each of the risk groups are moderately strong, ranging from 0.60 to 0.70 in value, and provide strong substantiation of the Price-Mueller model. In short, each of these aspects of job climate makes a significant independent contribution to employees' global job satisfaction levels. The R^2 values displayed indicate that, for each risk group, the combination of the nine climate scale measures account for between 36 percent and 47 percent of the total variability in respondents' global job satisfaction scores.

Table 5.8
Regression Analyses Standardized Beta Weights for Predicting Global Job Satisfaction for each of Five Risk Groups

Job Climate Scales	*Standardized Beta Coefficients for Predicting Job Satisfaction* [a]				
	Group 1 Works as RN in NYS Plans to Depart < 1.0 yr, Age < 52	***Group 2*** Works as RN in NYS Plans to Depart 1.0 to 5.0 yrs Age < 52	***Group 3*** Works as RN in NYS Plans to Stay > 5.0 yrs Age < 52	***Group 4*** Works as RN in NYS Plans to Stay > 5.0 yrs Age > 52	***Group 5*** Works as RN in NYS Plans to Depart < 5.0 yrs Age > 52
N	*157*	*616*	*4,938*	*1,333*	*977*
Frequency of Great Stress	**-0.35**	**-0.20**	**-0.19**	**-0.14**	**-0.18**
Instrumental Communication	**0.21**	**0.21**	**0.17**	**0.19**	**0.26**
Autonomy	0.10	**0.22**	**0.17**	**0.17**	**0.12**
Promotional Opportunity	0.10	**0.11**	**0.16**	**0.15**	**0.15**
RN - RN Interaction	**0.14**	**0.18**	**0.14**	**0.17**	**0.17**
RN - Physician Interaction	0.08	**0.09**	**0.06**	**0.07**	0.05
Satisfaction with Pay	**0.19**	**0.08**	**0.04**	**0.08**	**0.07**
Job Stress - Resources	0.06	0.01	**-0.03**	-0.03	-0.01
Job Stress - Workload	0.07	0.02	0.01	**0.08**	0.03
R	*0.69*	*0.69*	*0.60*	*0.62*	*0.64*
R^2	*0.44*	*0.47*	*0.36*	*0.39*	*0.41*

[a]Bolded standardized beta coefficients are significant at the .05 level or above.

Each column also reports the standardized partial regression coefficients, which refer to the net, independent effect of each climate variable upon global job satisfaction *after statistically controlling for the effects of all other variables in the prediction equation.* Interpretively, each coefficient represents the amount of (standard deviation unit) change in global job satisfaction associated with a 1 standard deviation unit change in a particular organizational climate variable. To take one example, a one standard deviation increase in the frequency of great stress among Group I nurses (those under 52 years of age who plan on leaving the profession in 12 months) is associated with a .35 standard deviation drop or loss in global job satisfaction – a powerful negative effect.

The reader will note that the nine job climate scales listed in Table 5.8 have been arrayed in the order of the magnitude of the standardized beta coefficients displayed for Risk Group 3. In other words, since Risk Group 3 comprises the largest group statistically (n = 4,938 in the sample) we have used this group's findings as a convenient method of establishing the listing order of the organizational climate scales shown.

Regression Results: Risk Group 3 – RNs less than 52 Planning to Stay > 5 Years

A careful examination of Table 5.8 reveals that the frequency of great stress exposure has a powerful negative effect upon job satisfaction across the board. Among Risk Group 3 respondents, the magnitude of the "Frequency of Great Stress" regression coefficient (-0.19) tops the list of climate scales. For this group, which as noted comprises the majority of RNs working in New York State, exposure to stress is the most powerful predictor of their job satisfaction.

The "Instrumental Communication" and "Autonomy" regressors follow closely with beta weights of +0.17 each. The next highest beta weights displayed are for "Promotional Opportunity" (+0.16) and "Nurse – Nurse Interaction" (+0.14). For three more scales, the standardized beta weights for predicting global job satisfaction for members of Risk Group 3 are still statistically significant, but substantially lower in value. These three scales include "Nurse – Physician Interaction" (+0.06), "Satisfaction with Pay" (+0.04), and "Job Stress – Resources" (-0.03). The last scale in the list is "Job Stress – Resources" with a statistically insignificant standardized beta weight of 0.01.[6]

In general, the magnitudes of the standardized beta weights associated with each climate scale in predicting job satisfaction for each of the other four risk groups closely parallels the pattern described above. "Frequency of Great Stress" is usually near the top of the list in the strength of its (negative) impact upon job satisfaction, along with "Instrumental Communication" and "Autonomy," both of which have positive effects. These three scales are usually closely followed by the "Promotional Opportunity" and "Nurse – Nurse Interaction" scales in the strength of their power in predicting job satisfaction.

Regression Results: The Effects of Frequently Experienced Stress – A Focus Upon Group 1

An important feature of this analysis is its revelation of significant differences *between* the five risk groups regarding the magnitudes and relative rankings of the standardized beta coefficients in the regression equations for predicting job satisfaction. For all five risk groups, the "Frequency of Great Stress" scale score is a relatively strong predictor of global job satisfaction.

However, the magnitude of the stress-frequency beta weight (-0.35) is exceptionally high for Risk Group 1 respondents. For this highly stressed and

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[6] Two reasons may help account for the very low standardized beta weight (0.01) associated with "Job Stress – Workload" in the climate scale regression equation for predicting global job satisfaction. First, much of the variability of "Workload" scale scores useful in predicting job satisfaction probably overlaps with the variability of the more powerful "Frequency of Great Stress" predictor scale scores, and the strength of that overlapping "predictor" variability is already accounted for in the much higher magnitude standardized beta coefficient associated with the "Frequency of Great Stress" scale (-.19), leaving little remaining independent variability in job satisfaction to be accounted for by the "Job Stress – Workload" scale. Second, almost all nurses reported a high level of workload stress, and the "restricted range" in responses to this measure probably substantially dampened the strength of the observed relationship between workload stress and global job satisfaction.

dissatisfied group of RNs younger than 52 years of age who intend to quit the profession within 12 months – and who emphasize stress as their primary reason for leaving the profession prematurely (see Figures 5.1 and 5.2 cited earlier), stress exposure is not only a job-satisfaction killer, it is a career-killer as well. The fact that this group's "Frequency of Great Stress" beta weight is so much higher than any of the other organizational climate beta weights listed, indicates that frequency of exposure to high stress is by far the most important job dimension among these younger RNs in terms of its impact on their job satisfaction. Reducing the frequency of stress experienced by members of this group would not simply improve their overall job satisfaction but, more importantly, would arguably have pronounced effects on their retention in the profession.

The (-0.35) magnitude of the "Frequency of Great Stress" beta weight among Group 1 RNs is not only exceptionally high compared to the other beta weights listed for that group, it is also much higher than the magnitude of the same "great-stress" beta weights among the other four comparison groups. This finding confirms that even though stress frequency has a strong (negative) satisfaction effect in all five risk groups, that effect is substantially stronger for members of Risk Group 1 than for members of any of the other four risk groups. In other words, an incremental reduction in the frequency of job stress experienced by members of Risk Group 1 would do more to increase their overall job satisfaction, on average, than a similar incremental reduction in the frequency of job stress for members of any of the other four groups. Clearly, reducing job stress will be the primary key to help retain these young RNs on the brink of quitting their nursing careers.

Regression Results: Salary Effects Upon Job Satisfaction

As noted earlier, the direct effects of the "Satisfaction with Pay" scale scores do not appear to impact substantially upon job satisfaction for members of most of the risk groups. Indeed, the magnitudes of the beta weights corresponding to pay satisfaction range between only 0.04 and 0.08 for four out of the five groups. Once again, the exception is members of Risk Group 1, for whom the "Satisfaction with Pay" scale scores have a much higher magnitude beta weight associated with the prediction of job satisfaction (+0.19).

The higher magnitude of this beta weight for Risk Group 1, compared both to the corresponding "pay satisfaction" scale beta weights for the other groups, and also to most of the other climate scale beta weights for Risk Group 1, indicates that "Satisfaction with Pay" is much more salient, in general, to the level of global job satisfaction of Risk Group 1 than to the members of the other Risk Groups. *This is an extremely important finding* since the relatively low magnitude of the correlation between "Satisfaction with Pay" scale scores and the "Global Job Satisfaction" scale scores for RNs working in NYS, compared to the much higher magnitude correlations of the other climate scales with global job satisfaction reported in earlier chapters of this volume, do not reflect the far greater impact satisfaction with pay has on the global job satisfaction of that especially distressed group of RNs younger than 52 years of age intending to quit the profession within the next 12 months (i.e., members of Risk Group 1). In other words, while the level of RN satisfaction with their pay may not be

especially important to the global job satisfaction for the great majority of RNs, it is nonetheless one of the most important contributors to the job satisfaction of those nurses planning to exit the profession at a relatively young age. Dissatisfaction with pay is probably a major contributor to the decision of these RNs to quit the profession.

The finding of relatively high magnitudes for the beta weights used to predict global job satisfaction associated with "Frequency of Great Stress" (+0.35) and "Satisfaction with Pay" (0.19) for Risk Group 1 (both compared to the corresponding beta weights of the other four risk groups and compared to the beta weights associated with other job climate scales for Risk Group 1) is consistent with the prioritization of "reasons for leaving" data for Risk Group 1 presented in the bar charts shown in Figures 5.1 and 5.2 discussed earlier in this chapter. The reader will recall (from Figure 5.2) that 63.3 percent of Risk Group 1 RNs cited "stress" as one of their top three reasons for leaving, and 54.0 percent cited "salary" as among their top three reasons. These two reasons were cited more frequently than any others as a "top three" reason for quitting the profession by these relatively young RNs (51 years of age or younger) intending to leave nursing within the next 12 months. Also, the rank order of the frequency of their selection, "job stress" first and "salary" second, corresponds to the rank order of the magnitudes of their corresponding beta weights predicting job satisfaction for Risk Group 1 – a beta weight magnitude of -0.35 for "Frequency of Great Stress" and +0.19 for "Satisfaction with Pay."

CONCLUSION

Examination of the average "years working as an RN" data presented in Table 5.2 for each of the five risk groups leads to the conclusion that RNs under age 52 working in New York State and planning to leave nursing within the next five years will be truncating their potential nursing careers by approximately half. For most RNs working in New York State, job stress is among the job dimensions most strongly impacting their job satisfaction, but "stress" is an especially salient factor for those RNs so dissatisfied with their careers that they intend to quit the profession well before retirement age. "Satisfaction with salary" is also a more salient factor influencing job satisfaction for RNs intending to leave the profession imminently than for other RNs.

This chapter has demonstrated the importance of stress to the decision of (especially) younger nurses to leave the profession both through presenting their own "testimony," i.e., the reasons they cite for leaving, and through the presentation of climate scale means and multiple regression analyses results which corroborated their testimony. Both analytic approaches identified high levels of frequent great job stress and dissatisfaction with pay as among the most important factors influencing younger RNs' decision to quit nursing. Older RNs working in New York State, i.e. those age 52 years or older, primarily identify "retirement" as their major reason for exiting nursing, but even for these older nurses "stress" and "salary" were the reasons most often cited for leaving the profession after "retirement."

Chapter 6: The Reasons Nurses Give for Intending to Leave the Profession Within the Next 12 Months

INTRODUCTION

In Chapter 4 we examined the relationship of job satisfaction and organizational commitment to several critical outcome measures, namely job seeking and intention to leave decisions. That chapter was based upon a longer, five year planning time frame and did not describe the specific reasons given by nurses for their intentions to leave the nursing profession. In this chapter, we explore in greater detail the decision to leave the profession, and focus our analysis upon survey respondents plans to exit the nursing profession within the next 12 months.

Question 80 of the survey asked respondents their intended timing to "exit" or to "quit" the nursing profession. Only RNs who indicated, "I have already left (the profession) within the past three years," or indicated their intent to do so "in the next 12 months" were asked to respond to a follow-up question (number 82). That question asked respondents to select three reasons, from among 11 fixed-choice alternatives that best represented (in rank order of importance) their own three top reasons for leaving the nursing profession.

IMMINENT LEAVERS

This chapter is focused solely on the "imminent leavers", i.e. those RNs intending to exit the nursing profession within the next 12 months. There are several reasons for focusing on this highly selected group (N = 432) rather than the somewhat larger survey sample respondent group (N = 585) who indicated that they had "already left" the profession. The "imminent leaver" group represents all currently registered nurses licensed in New York State at the time of the survey who indicated this was their plan. In contrast the "already left" group is more vulnerable to "self-selection" effects since it is based upon only those former members of the profession who *elected* to continue maintaining their RN New York State registration after it expired.[1]

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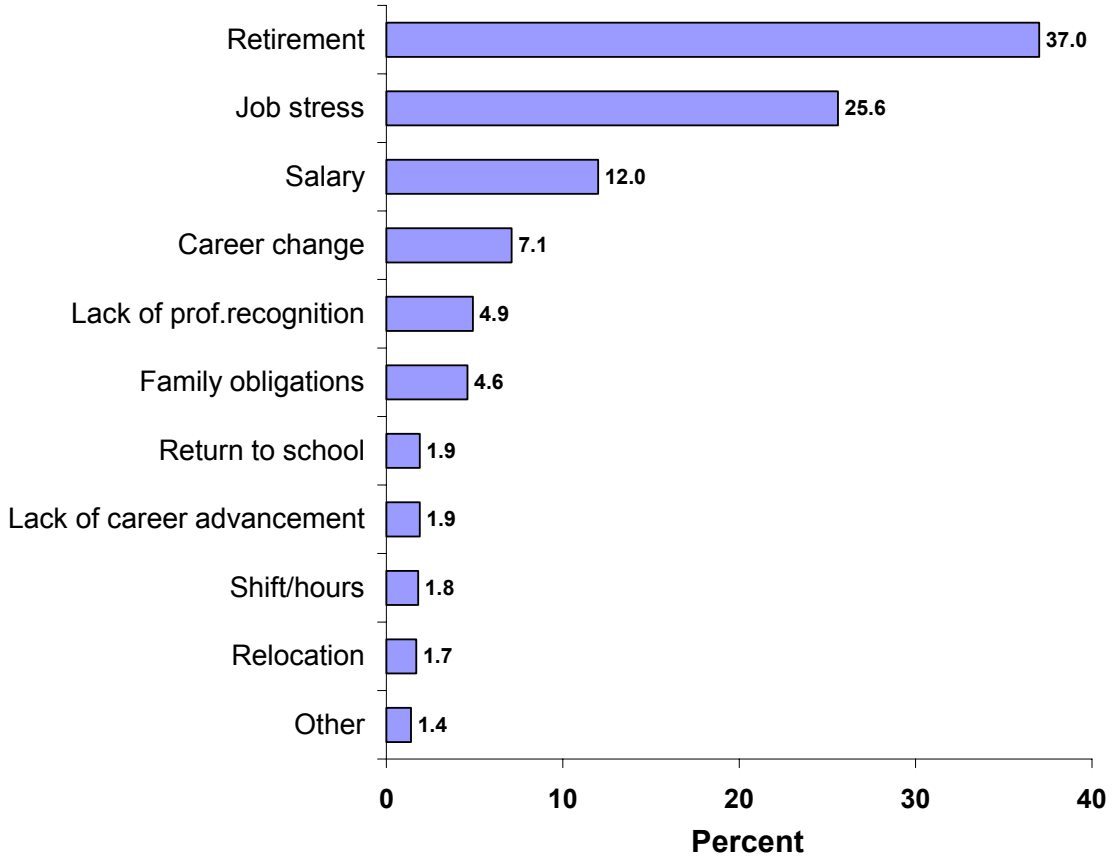
1 Evidence that many RNs maintain their NYS registration after they are no longer actively nursing came from the 11.2 percent of respondents (all active registrants in NYS) who indicated that they had not worked as RNs for over three years (NYS registration expires every three years). Further evidence that this group of self-selected "post-exit registration re-newers" is not necessarily "representative" in their attitudes toward the RN profession comes from their relative high percentages leaving for family reasons (12.8 percent = "top reason", 35.1 percent = "one of three top reasons") compared to the "12-month leaver group" (4.6 percent = "top reason", 17.2 percent = "one of three top reasons"). As will be seen in this chapter, RNs leaving for "family obligations" were the most satisfied with their jobs and least stressed group of leavers. It is not surprising, therefore, that these more satisfied nurses would me more likely to renew their NYS registrations after they expired. Their "over-representation" within the "already left" group is a major reason for not focusing on the "already left" group in this chapter.

Another reason for limiting our focus to the "imminent leaver" group was that only currently working RN respondents were asked to indicate the location of their current nursing practice. Since the location of practice was not captured for members of the "already left" group, efforts to focus our analysis upon those RNs who practiced in New York State (as we have done in other chapters) would not have been possible analytically. The one additional advantage of focusing upon those who plan to leave in 12 months is that problems of measurement error are presumably reduced. The shortness of this particular time horizon increases the accuracy of the information captured and its reliability.

The "# 1 Reason for Leaving the Nursing Profession" Given by Imminent Leavers

As explained above, all nursing survey respondents who indicated their intention to exit nursing within a year were also asked to identify their top three reasons for leaving the profession from among 11 fixed alternatives, and to rank those reasons in

Figure 6.1
Percentage of RNs Selecting Each of Eleven Reasons for Leaving Nursing as Their #1 Reason for Leaving the Nursing Profession:
Analysis limited to RNs currently working in NYS and reporting intention to leave the Profession within 12 months



order of their relative importance. Figure 6.1 shows the percentage of "imminent leavers" (within 12 months) who identified each reason listed as their top ranked "#1" choice. The percentages associated with each bar add up to 100 percent.

Figure 6.1 shows that, as expected, more nurses indicated "retirement" as their #1 reason for imminent departure than any other reason. What is more surprising is that only slightly more than one third of nurses (37 percent) indicated "retirement" as their #1 reason, a "plurality" of "imminent leavers" but certainly not a "majority." The "runner up" most preferred reason for leaving the profession was "job stress", selected by 25.6 percent of imminent leaver respondents. *The fact that a full quarter of soon-to-exit nurses cited "stress" as their #1 reason for leaving the profession is, indeed, disturbing and startling.*

The next most frequently selected "#1 reason" choices for leaving the nursing profession were "salary" (12.0 percent), "career change" (7.1 percent), "lack of professional recognition" (4.9 percent), and "family obligations" (4.6 percent). The five remaining choices, "return to school," "lack of career advancement," "shift/hours," "relocation" and "other" were nearly tied for "last place" – only about one to two percent of imminent leavers selected each of those alternatives as their #1 ranked reason for exiting the profession.

IMMINENT LEAVERS' SELECTIONS OF "TOP 3 REASONS" FOR LEAVING THE RN PROFESSION

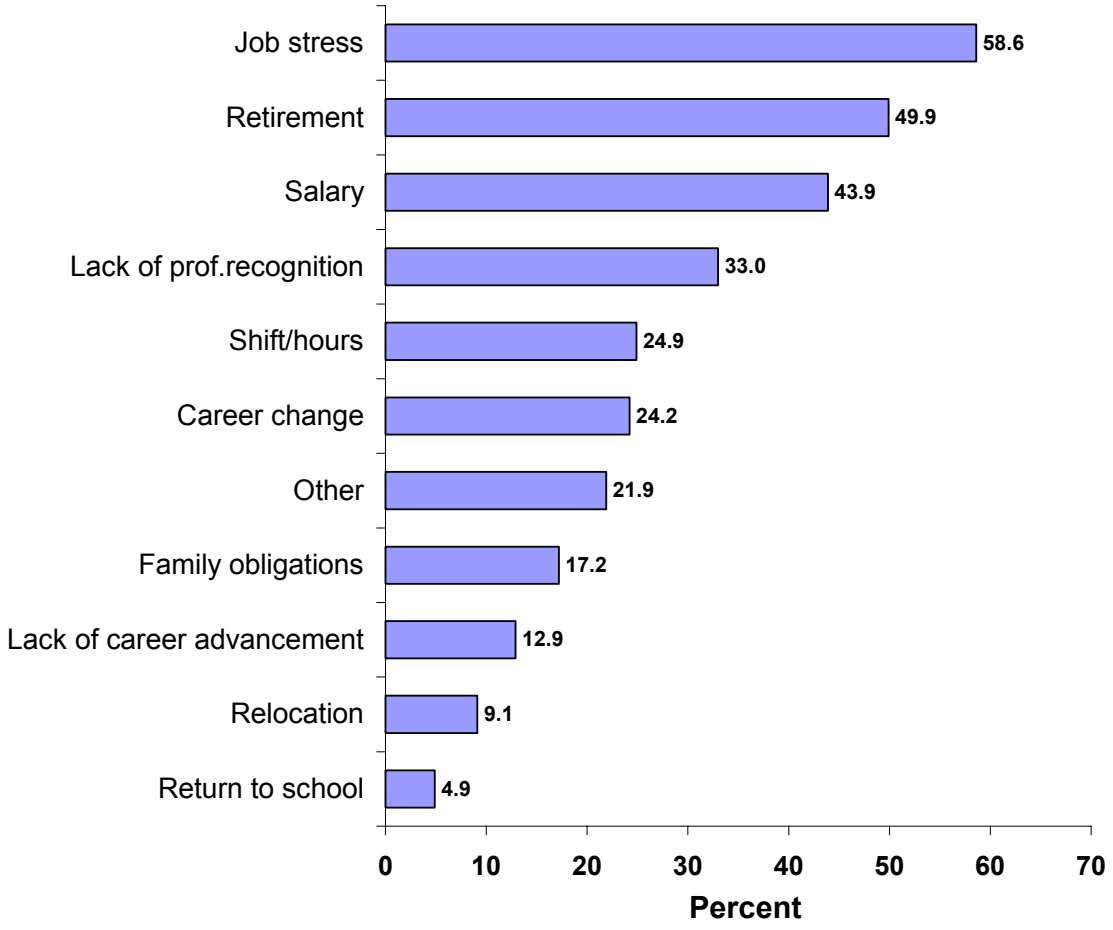
Figure 6.2 shows the percentage of imminent leavers selecting a particular reason – not as their first choice – but as any one of their *top three reasons* for leaving the nursing profession. Since the first view was based upon only the most important *single* reason selected, second and third choice reasons – even if important factors in the exit decision - were not considered. This second-step analysis permits us to more fully evaluate all top-three choices simultaneously. The response percentages in this histogram therefore add up to 300 percent, since each respondent selected three different reasons for leaving.

The percentages of RNs selecting each of their top three ranked reasons for leaving the RN profession, shown in Figure 6.2, again highlight the extraordinary significance of "stress" in RNs' decisions to quit the profession (and well before retirement age in many cases as we shall see shortly). The top bar in Figure 6.2 shows that 58.6 percent of the imminent leavers indicated that stress was among their top three ranked reasons for giving up nursing. In other words, *substantially more than half of our respondents who intended to leave nursing within one year indicated that job stress was one of the three major reasons for their decision.* No other "reason for leaving" choice garnered so many "mentions" from our soon-to-exit respondents (as one of their top three leave-taking reasons). The second most often selected choice was "retirement," a "top three" reason for leaving for 49.9 percent of the imminent leavers.

Figure 6.2 also shows that "salary" places a strong third among the reasons respondents gave for soon leaving the profession (43.9 percent selecting it as one of their "top three"), followed by "lack of professional recognition" (33.0 percent),

"shift/hours" (24.9 percent), "career change" (24.2 percent), "other" (21.9 percent) and family obligations (17.2 percent). The three least often selected reasons were "lack of career advancement" (12.9 percent), "relocation" (9.1 percent) and "return to school" (4.9 percent).

Figure 6.2
Percentage of RNs Selecting each of Eleven Reasons for Leaving Nursing as one of their Top Three Reasons for Leaving the Profession:
Analysis limited to RNs currently working in NYS and reporting intention to leave the Profession within 12 months



TOP RANKED REASON FOR LEAVING AMONG IMMINENT LEAVERS BY SELECTED CHARACTERISTICS

Table 6.1 profiles characteristics of the "imminent leavers" grouped according to their top-ranked reason for planning to exit the nursing profession within 12 months. The first column in Table 6.1 shows the number of respondents falling within each

category. The second column translates these numbers to percentages of imminent leavers (and so corresponds to the data presented in Figure 6.1)

Columns three and four in Table 6.1 display the average ages and years of experience of RNs with different top ranked reasons for leaving the profession. Not surprisingly, the 37 percent (N=144) citing "retirement" as their #1 reason for leaving the profession in the next 12 months were also the oldest (62.2 years of age), and the most highly experienced (33.4 years in the profession on average). In stark contrast, the 25.6 percent of imminent leaver RNs who cited stress as their #1 reason for leaving the profession (N=100) were about 15 years younger (47.1 years old on average), and about 14 years less experienced, i.e., they had an average career length of only 19.2 years. In fact, all groups of RNs citing any reason besides "retirement" as their #1 reason for leaving nursing were, on the average, considerably younger than the "retirement" group of leavers. The average age of the 239 imminent leavers (63 percent) selecting a #1 reason *other than retirement* was 46 years, with an average career in nursing of only 18.1 years duration.

Table 6.1
Characteristics of RNs Leaving the Nursing Profession in 12 Months, Grouped According to Their Selected #1 Reason for Leaving Nursing:
Analysis limited to RNs currently working as nurses in NYS who report intention of exiting the profession within 12 months

Top Reason for Leaving Profession in 12 Months	*For each of 11 Possible Reasons for Leaving the Nursing Profession within 12 Months: Characteristics of RNs selecting Reason as #1 Reason for Leaving*														
	N	Column %	Ave. Age	Ave. Years RN Experience	Ave. Job Satisfaction Score	Ave. Frequency of Stress Score	Ave. Workload Stress Score	% Stress = #2 "Leaving" Reason	Ave. Satisfaction - Pay	Ave. Dollars/Hour	Ave. Total Hours/Week	% Primary caregiver - dep. adult	% Children at home	% Children < 6 years	% Full time
Retirement	144	37.0	62.2	33.4	3.58	3.53	3.53	42	3.13	$28.02	32.1	10	16	0	55
Job stress	100	25.6	47.1	19.2	2.28	4.66	4.50	***	1.99	$30.09	39.0	19	43	7	62
Salary	47	12.0	45.7	18.0	2.68	4.24	4.07	36	1.68	$22.03	42.3	18	54	13	61
Career change	28	7.1	43.7	16.8	2.67	3.45	3.73	10	2.44	$28.15	29.9	12	57	12	39
Lack of professional recognition	19	4.9	48.8	18.7	2.75	4.52	3.90	35	2.72	$29.13	40.0	27	52	0	76
Family obligations	18	4.6	39.9	14.3	3.72	2.24	3.23	21	3.67	$32.94	24.3	0	66	33	32
Return to School	7	1.9	33.7	5.1	2.63	3.29	3.86	0	2.83	$23.36	42.6	0	40	13	90
Lack of career advancement	7	1.9	50.2	22.4	2.48	4.32	4.02	20	2.05	$25.06	39.3	27	55	0	65
Shift/hours	7	1.8	44.7	14.7	2.96	3.69	3.73	47	2.07	$27.22	33.7	0	83	24	58
Relocation	7	1.7	57.0	26.2	3.34	3.32	3.27	20	2.64	$30.50	37.0	18	13	0	48
Other	5	1.4	48.4	23.0	2.98	3.91	3.16	21	3.30	$21.40	43.4	30	82	0	69
Total	390	100	51.9	23.9	2.98	3.90	3.88		2.55	$27.85	35.6	14.0	38	6	57

The data presented above are quite sobering. The roughly two thirds of imminent leavers who plan to leave the profession in 12 months, *for reasons other than retirement*, are about 16 years shy of the average retirement age of the leaver group

who do so solely for "retirement" related reasons. Such findings certainly suggest that improving the climate of retention may be even more significant for curbing the nursing shortage than improving recruitment. Addressing the reasons most frequently given by nurses for leaving the profession will be of paramount importance for alleviating the shortage.

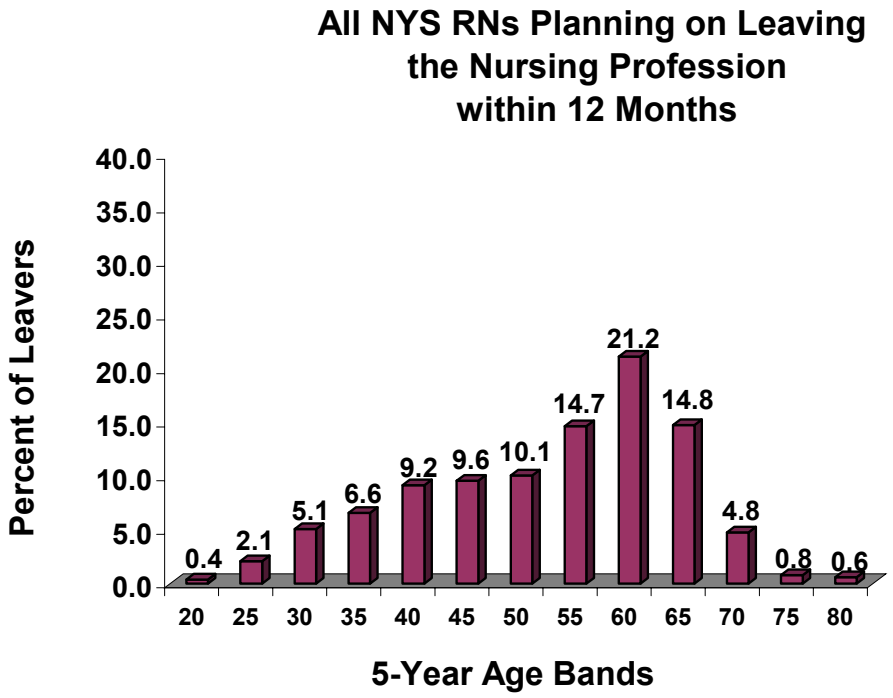
The fifth, sixth and seventh columns of Table 6.1 display the average "job satisfaction," "frequency of great stress" and "job stress – workload" scale scores for groups of RNs selecting each of the 11 reasons as their #1 reason for leaving the profession. Careful inspection of the table findings described for the 25.6 percent of imminent leavers who gave "stress" as their most important leave-taking reason, reveals that this view is strongly corroborated by the companion stress and satisfaction measures shown. For example, among this "stress-leaver" group, the average job satisfaction score of 2.28 was the lowest average satisfaction score given by any of the 11 groups listed. Similarly, their average "frequency of stress" score of 4.66, as well as their average "job stress–workload" score of 4.50 were both the highest among the 11 groups identified. In short, this additional information strongly corroborates the view that those who flagged "stress" as their number 1 reason for leaving meant it.

Three Imminent Leaver Age Distributions: All Leavers, "Retirement" Leavers, and "Stress" Leavers

Figure 6.3 displays the age distribution of all "imminent leavers," planning to leave the profession within 12 months, regardless of their reason(s) for leaving. The highest bar depicted represents 21.2 percent of RNs who plan to leave the profession within the next 12 months. This high modal response group encompasses the 5-year age range from 57.5 years to 62.5 years of age, and so includes the "average age" of RNs citing "retirement" as their #1 reason for exiting the profession (62.2 years of age). This distribution is highly skewed, however, with a long tail extending to the left, indicating that the majority of RNs leave the profession well before the typical range of "retirement" ages (beginning around age 58 for the survey respondents).

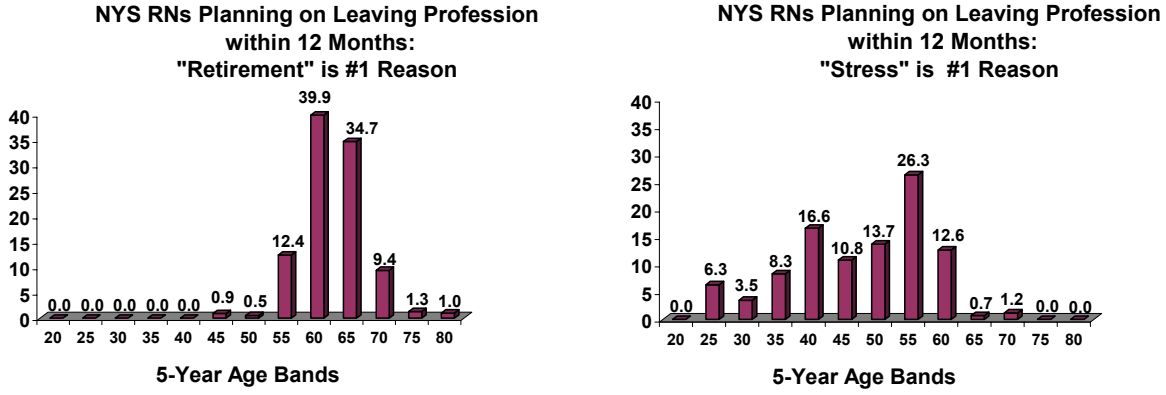
Figure 6.3 actually masks two sharply contrasting age distributions, depending upon the primary reason given for leaving. These age distributions are presented in Figure 6.4. The bar chart on the left shows the distribution of ages of RNs planning on leaving the nursing profession within 12 months who cited "retirement" as their top ranked reason. The bar chart on the right shows the distribution of ages of RNs planning on leaving the nursing profession within 12 months who cited "stress" as their top ranked reason for leaving.

Figure 6.3
Age Distributions of All RNs working in NYS Planning on Leaving Nursing Profession within the Next 12 Months: N = 424



The chart on the left in Figure 6.4 shows that 86 percent of the self-described "retirees" who plan upon leaving the profession within a year were 58 years of age or older and correspondingly, only 14 percent were 57 years of age or younger. The percentages for stress leavers, shown in the chart on the right, are precisely reversed – 86 percent of imminent "stress" leavers were 57 years of age or younger, while only 14

Figure 6.4
Age Distributions of RNs who plan on leaving the Nursing Profession within 12 months: Comparing "Retirement" Leavers (N = 138) to "Stress Leavers" (N = 97)



percent of stress leavers were 58 years of age or older. The "stress-leaver" age distribution bar chart brings home the large numbers of nurses lost to the profession at comparatively young ages due to stress "burn-out." More than a third of these "stress leavers" intend to quit nursing before the age of 43, abbreviating their careers in nursing by close to 20 years (on average) – a severe cost to the profession, indeed.

STRESS AS #2 RANKED REASON FOR LEAVING THE NURSING PROFESSION

The eighth column of Table 6.1 also shows the percentage of leavers within each "top-reason" grouping who indicated stress as their second-most important reason for leaving the nursing profession. You will recall that 37 percent (N=144) of the imminent leavers cited "retirement" as their number one reason for departure. Among this "retirement-leaver" group, however, a substantial 42 percent still identified "stress" as their second most important reason for leaving. The average age of this "soon-to-retire" RN group for whom "stress" was the second most critical factor in their leaving was only 61, 1.8 years younger than the other "soon-to-retire" RNs who *did not* identify stress as their #2 reason (their average age was 62.8 years). While this 1.8-year age differential is modest, it provides added evidence that even when stress is not the top ranked reason for leaving the profession, it may still hasten departure.

Other groups who cited "stress" as their second-most important reason for leaving in the next 12 months included the "shift/hours" group (mentioned by 47 percent), the "salary" group (36 percent) and the "lack of professional recognition" group (35 percent). It is certainly not surprising that lack of control over "shift" or "hours" is linked to stress (in fact, chapter 3 of this volume demonstrates a clear link between mandatory overtime and increased job stress).

Twelve percent of the imminent leavers gave "salary" as their foremost reason for leaving. Consistent with this rationale, column 9 of Table 6.1 show that this group's "satisfaction-with-pay" scale score (1.68) was the lowest among all eleven groups. Column 10 further corroborates this bleak compensation satisfaction rating. It shows that the average dollar-per-hour earnings of the "salary-mentioners" were only $22.03/hour, roughly 20 percent lower than the average hourly wage statewide and second from last on this wage measure among the eleven groups. The average "workload" stress score of those leaving principally for salary reasons was also very high (4.07), and was exceeded only by those respondents who identified stress as their primary reason for leaving. Consistent with this finding, about one third of the "salary-leavers" also list "stress" as their *second most important reason* for leaving the profession.

Only 4.9 percent cited lack of professional recognition as their primary, first-mentioned reason for departure. This group was younger than average (48.8 years) and among the higher salaried ($29.19 per hour). However, this lack-of-professional-respect group was also characterized by very high "frequency of great stress" average scores (4.52), and included large numbers of staff nurses and a disproportionate number of nursing executives (see Table 6.3, below) – both highly stressful occupations, even among RNs (documented in Chapter 3).

RNs Leaving for "Family Obligations"

The final five columns of Table 6.1 provide information most relevant to the 4.6 percent of leavers citing "family obligations" as their #1 reason for leaving the RN profession. As expected, this group has the highest percentage of members with children at home under six years of age (33 percent), and also includes a high percentage of members with children at home of any age (66 percent). Interestingly, no members of this group reported being the primary caregiver for a dependent adult, in contrast to the 14 percent of all imminent leavers who reported doing so.

Members of this group gave survey responses indicating that, prior to their intended quitting of the profession within a year, they had already tried accommodating their family's needs through reduced work schedules. The length of their average workweek, for example was the lowest at 24.3 hours. Only one third (32 percent) of them reported working full time, the lowest percentage among the eleven groups.

The "family obligation" leavers were the youngest (39.9 years) of any sizeable group, and so had the most severely truncated careers (aside from the 1.9 percent of "imminent leavers" who planned on returning to school whose average age was only 33.7 years). The loss of these RNs to the profession due to "family responsibility" is especially unfortunate given their comparatively high level of satisfaction with their nursing careers. Of the eleven "leaver" groups, the "family obligations" group had the highest average job satisfaction score by far (3.72), even higher than the average job satisfaction score of the imminent "retirees" (3.58). Also, their average "frequency of great stress" score (2.24) was by far the lowest of the eleven groups. Letters to the survey team from the field spoke of how difficult it was to re-enter the profession after a prolonged absence in order to rear children. Thus, finding a way to keep such relatively young and satisfied nurses from leaving the profession entirely during their childbearing and child-rearing years certainly should be a major focus of retention efforts. Chapter 8 describes a number of family-oriented reform and incentive proposals, all of which were enthusiastically endorsed by the survey respondents.

Top-Ranked Reasons for Leaving by Job Setting

Table 6.2 shows the percentages of "imminent leavers" by "top" reason given for leaving and by job setting. For all but two of the nine job setting categories, "retirement" was selected as the #1 reason for leaving the profession more often than any other reason. For both the "ambulatory care" and "hospitals" job setting categories, however "stress," rather than "retirement", was the most often selected reason for leaving nursing.

In order to provide a thumbnail indication of the relative importance of "stress" related motivation as opposed to retirement related motivation in the leave-taking decision, a ratio of the percentages citing each of these primary reasons is provided for each setting type. The ratios of "stress" leavers to "retirement" leavers are shown in Table 6.2 in the 12th row of the table, providing a rough measure of the relative contribution of "stress" to the RN attrition from each setting. You will note that in both the ambulatory care and hospital settings these "stress-mention" to "retirement -

mention" ratios were 1.21 and 1.08 respectively, meaning that in these two settings the stress factor was mentioned 21 percent and 8 percent more frequently than the retirement factor as their primary reason for leaving.

The 208 "imminent leavers" who reported "hospitals" as their job setting represent almost half of all imminent leavers. In spite of the large size of this group (which might be expected to reduce "discrepancies" from the mean), imminent leavers in hospital settings had by far the lowest average age, the least average years of experience, the highest average "frequency of great stress" score, and the highest average "job stress – workload" score. Members of this hospital-based RN group leave the profession through the natural "aging out" process of retirement less frequently (28.5 percent) than do RNs working in any other job setting. The percentage of respondents pointing specifically to "stress" as their top reason for leaving nursing (30.7 percent) is higher than for any other job setting category group (except for the 38.5 percent stress mention by the small group of 28 "imminent leavers" working in an "ambulatory care" setting). All of these data underscore a common theme: the hospital environment appears to be an exceptionally "high risk" environment for the retention of nurses, primarily stemming from unacceptably high levels of stress.

Table 6.2
For RNs working within each of Nine Different Job Setting Categories, Percentages selecting each of eleven different reasons as their Top Ranked Reason for planning on Leaving the Nursing Profession within 12 Months:
Analysis limited to RNs currently working in NYS & intending to exit the profession within 12 months

Top Reason for Leaving Profession in 12 Months	*For RNs working within each Job Setting — Percentages selecting each Reason as their #1 Reason for Leaving RN Profession*									
	Ambulatory Care	Govrmmt, Prof & Health Orgs	Home Health Agencies	Hospitals	Physician's Offices	Nursing Homes	Nursing Education	School Health	Other	Total
12-Month Leaver N	*28*	*9*	*30*	*208*	*19*	*50*	*8*	*29*	*50*	*432*
12-Month Leaver %	*6.5*	*2.1*	*7.0*	*48.2*	*4.5*	*11.5*	*1.9*	*6.7*	*11.6*	*100*
Retirement	31.9	58.2	28.9	28.5	55.3	48.9	89.0	53.4	38.1	37.0
Job stress	38.5	8.5	17.5	30.7	13.4	22.5	1.5	22.4	19.9	25.6
Salary	8.9	14.4	17.0	10.8	8.9	14.2	9.6	10.5	16.2	12.0
Career change	5.4	0.0	9.3	6.5	10.0	10.5	0.0	5.4	9.4	7.1
Lack of prof. recognition	10.3	13.6	0.5	6.4	0.0	3.1	0.0	4.9	1.9	4.9
Family obligations	4.9	3.9	0.0	7.2	1.3	0.0	0.0	0.0	6.0	4.6
Return to School	0.0	0.0	5.5	3.2	0.0	0.0	0.0	0.0	0.3	1.9
Lack of career advancement	0.0	0.0	5.5	2.0	0.0	0.0	0.0	3.2	0.0	1.9
Shift/hours	0.0	1.3	0.0	2.9	0.0	0.7	0.0	0.0	2.9	1.8
Relocation	0.0	0.0	10.4	1.3	2.3	0.0	0.0	0.0	2.9	1.7
Other	0.0	0.0	5.5	0.7	8.8	0.0	0.0	0.0	2.3	1.4
Ratio "Stress"/"Retirement"	*1.21*	*0.15*	*0.61*	*1.08*	*0.24*	*0.46*	*0.02*	*0.42*	*0.52*	*0.69*
Ave. Age	53.3	56.6	53.8	48.8	57.1	55.7	63.3	57.8	53.9	52.3
Ave. Years Experience as RN	22.9	26.5	26.7	21.3	28.9	25.3	40.9	27.0	26.7	24.0
Ave. "Frequency of Stress" Score	4.07	3.83	3.39	4.19	3.01	3.98	2.65	3.64	3.87	3.94
Ave. "Job Stress - Workload" Score	*3.82*	*3.45*	*3.44*	*4.15*	*3.40*	*4.10*	*3.20*	*3.54*	*3.58*	*3.90*
Ave. "Job Satisfaction" Score	2.66	2.72	2.98	2.89	3.40	3.09	3.62	3.11	2.87	2.95

RN imminent leavers who work primarily within a "nursing education" job setting conform to a far more traditional retirement trajectory. For this imminent leaver group, the overwhelming majority planning to leave the profession shortly do so are motivated primarily by "retirement" (89.0 percent) far more frequently than members of any other group. They are also the oldest (63.3 years) and have the greatest average years of nursing experience (40.9 years) compared to any of the other "setting" groups. This small group of imminent leavers (N = 8), largely content to remain working within the RN profession until the average retirement age, also has the lowest average "frequency of great stress" score, the lowest average "workload stress" score and the highest average job satisfaction score.

The three other job setting categories of "imminent leavers" in which the majority cite "retirement" as their primary reason for leaving the profession were "government, professional and health organizations" (58.2 percent), "physician's offices" (55.3 percent) and "school health" (53.4 percent). RNs in these three setting groups (in addition to "nursing education") were among the oldest of the imminent leavers (56.6 years, 57.1 years and 57.8 years respectively). Their job satisfaction average scores were all higher than the average scores for all imminent leavers and their average "stress" scores were lower than the average scores for all imminent leavers.

After "retirement" and "stress", "salary" was the most frequently mentioned remaining reason for leaving. The salary factor was selected with greater than average frequency by RNs working within three settings – "government, professional and health organizations", "home health agencies" and "nursing homes." The fact that RNs working within the two lowest paid settings, namely, in "physician's offices" and "school health", did not cite "salary" as their #1 leave-taking reason with greater than average frequency is at first surprising, but is apparently explained by the data presented above, RNs in these positions are relatively more satisfied with, and less stressed by, their jobs and so choose more often than average to remain in those settings until retirement age, in spite of the low pay. (In fact, a number of nurses wrote letters to the survey team explaining that they had left the high stress hospital setting to work in school health or a physician's office until they could retire; they could no longer endure the intense stress in the hospital environment, even though they missed the better "hospital" pay.)

TOP-RANKED REASONS FOR LEAVING BY JOB TITLE

Table 6.3 shows the percentages of "imminent leaver" RNs selecting each of the 11 reasons for leaving the nursing profession as their "top reason", broken down by job title. Inpatient staff RNs and nursing executives stand out as virtually "class apart" among these job title categories by reporting "stress" as their primary reason for leaving the nursing profession with far greater frequency than "retirement." In fact, inpatient staff RNs and nursing executives report "retirement" as their primary reason for exiting the profession less often than do RNs working in any other job titles – in both cases they end their nursing careers through the natural aging out process of retirement less than one quarter of the time (23.5 percent and 23.7 percent respectively).

Table 6.3
For RNs working within each of Nine Different Job Title Categories, Percentages selecting each of eleven different reasons as their Top Ranked Reason for planning on Leaving the Nursing Profession within 12 Months:
Analysis limited to RNs currently working in NYS & intending to exit the profession within 12 months

Top Reason for Leaving Profession in 12 Months	*For RNs working within each Job Title* — *Percentages selecting each Reason as their #1 Reason for Leaving RN Profession*									
	Inpatient Staff RN	Outpatient Staff RN	Claims/QA/UR/Risk Management	Director, VP, Chief of Nursing	Nurse Manager/Patient Care Coordinator	Independent Pract./Private Duty RN	Public/Community Health RN	Other - 1[a]	Other - 2[b]	Total
12-Month Leaver N	*166*	*72*	*18*	*16*	*45*	*13*	*20*	*41*	*41*	*432*
12-Month Leaver %	*38.4*	*16.7*	*4.1*	*3.7*	*10.4*	*3.0*	*4.5*	*9.5*	*9.5*	*100*
Retirement	23.5	35.8	47.7	23.7	35.9	29.6	43.2	72.3	56.5	37.0
Job stress	34.4	34.8	12.1	29.0	20.3	9.6	24.0	10.2	11.7	25.6
Salary	12.4	4.6	9.2	0.0	26.4	27.5	11.4	8.1	8.3	12.0
Career change	8.7	3.0	7.7	0.0	4.7	21.9	7.0	0.3	11.9	7.1
Lack of professional recognition	7.0	6.4	0.0	23.0	1.2	0.0	7.0	0.0	0.0	4.9
Family obligations	5.2	8.4	9.2	0.0	0.0	0.0	1.8	3.7	5.0	4.6
Return to School	3.0	0.8	0.0	10.6	0.0	0.0	0.0	0.0	2.8	1.9
Lack of career advancement	2.7	4.3	0.0	0.0	0.0	0.0	0.0	0.0	2.5	1.9
Shift/hours	2.3	0.8	0.0	4.7	0.7	0.0	0.0	5.4	0.3	1.8
Relocation	0.1	1.0	9.9	9.0	5.9	0.0	5.7	0.0	0.0	1.7
Other	0.8	0.2	4.2	0.0	4.8	11.5	0.0	0.0	1.0	1.4
Ratio: "Stress"/"Retirement"	1.46	0.97	0.25	1.22	0.57	0.32	0.56	0.14	0.21	0.69
Ave. Age	*47.4*	*53.4*	*58.9*	*54.8*	*53.7*	*63.7*	*51.5*	*57.3*	*57.5*	*52.3*
Ave. Years Experience as RN	19.3	23.4	30.6	28.3	24.9	37.2	22.1	33.4	27.9	24.2
Ave. "Frequency of Stress" Score	4.25	3.99	3.19	4.32	4.25	4.17	3.30	3.31	3.59	3.96
Ave. "Job Stress - Workload" Score	*4.22*	*4.00*	*3.43*	*3.60*	*4.18*	*3.06*	*3.37*	*3.22*	*3.79*	*3.92*
Ave. "Job Satisfaction" Score	2.74	2.79	3.13	3.05	3.01	3.44	3.18	3.34	3.18	2.94

[a]"Other-1" category includes highly educated specialists with sample population N's (for 12-month leavers) less than 13 repondents and percentages among leavers less than 3% of 12-month leavers, job titles include: "nurse anesthetist", "consultant researcher", "dean or faculty in nursing education program", clinical nurse specialist and "nurse practitioner".

[b]"Other-2" category includes all other job titles.

Corresponding with their high rates of “exiting” the RN profession because of “stress”, the “imminent leaver” inpatient staff RNs had the highest average “workload stress” score (4.22) among the 11 “job title” groups and the lowest average “job satisfaction” score (2.74). The “imminent leaver” nurse executives had the highest average “frequency of great stress” score (4.32) among the 11 groups.

Perhaps the most disturbing characteristic of the very large group (N = 166) of inpatient staff "imminent leavers" is their exceptionally young average age. An inpatient staff RN who quits the nursing profession, not just their current job, is on the average only 47.4 years of age. In other words, *inpatient hospital RNs leaving the profession for any reason, including retirement, quit nursing 15 years earlier than do those nurses reporting "retirement" as their primary reason for departure (average age = 62.2 years).*

The striking pattern of hospital RNs (Table 6.2) and inpatient staff RNs (Table 6.3) quitting the nursing profession at exceptionally young ages and citing "stress" as their primary reason makes these populations, in particular inpatient hospital staff RNs, a population of RNs of special concern – both because they report being an exceptionally distressed group of nurses, and because they are a population at especially high risk for "premature" attrition from the RN profession. These are some of the reasons why we have devoted a separate supplement (Supplement A in Volume III) to examine more closely the special characteristics and concerns of inpatient hospital staff RNs.

Chapter 7: RNs' Ratings of Factors Impacting Their Job Satisfaction

INTRODUCTION

In previous chapters, considerable attention has been given to examining the direct effects of varied organizational climate factors upon both organizational commitment and overall job satisfaction. Regression-based methods were employed to determine the relative importance of these climate factors upon satisfaction. In this chapter, a very different approach is employed to assess the importance of several key potential determinants of job satisfaction – a "paired-comparisons" approach. Question 82 of the survey was designed to operationalize this approach and to determine which job satisfaction factors nurses most value.

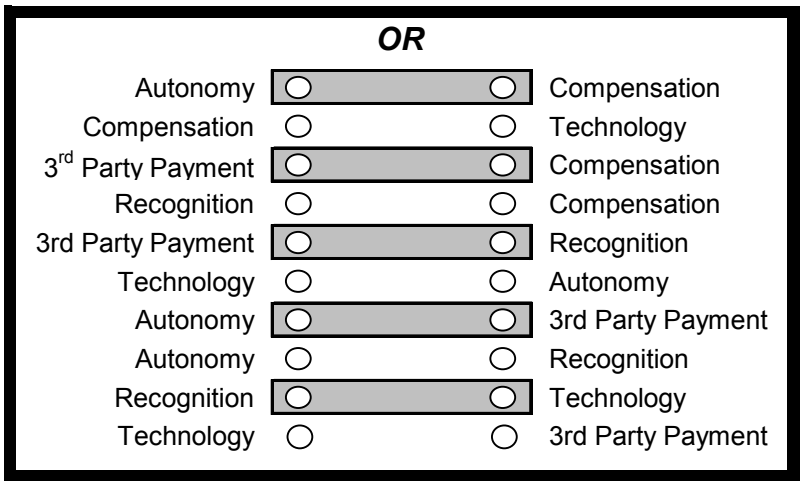
One advantage of using paired comparisons to make this determination is that the method requires respondents to make choices about what aspects of a job they value most. By being forced to prioritize job satisfaction factors, respondents often provide more discriminating information than elicited by more typical Likert scale questions that require only that the respondent rate the importance of those factors on a numeric scale. For the rating of job factors that are highly valued by most respondents, such a scale format often elicits uniformly high responses displaying little variance. Such data provides little useful information for analysts trying to identify intervention strategies.

All nurses, even those who had left the field for more than three years, were asked to respond to this question. Respondent population sizes (Ns) referenced below are sample-weighted Ns, as described in Appendix C.

Respondents were asked to consider five factors, or dimensions, known to be related to job satisfaction. Definitions of those terms were provided as follows:

- Compensation: Income that you receive as an employee, for work, including salary and fringe benefits.
- Autonomy: The extent to which you feel you can act independently in nursing practice.
- Technology: Aids to improve patient care or reduce administrative tasks.
- Third Party Payment: Direct payments to nurses for nursing services provided.
- Recognition: Formal and informal ways of valuing employees for the quality of work they perform.

Every possible combination of these five preference factors was then presented to each respondent as ten pairs of terms, as shown below, with the following instructions: "For each pair of terms that follows, decide which factor is more important for <u>your</u> job satisfaction or morale. Select one bubble in each row."



The number of times the same policy preference is chosen across these ten choice comparisons results in a *"policy preference score*" for each of the five job satisfaction dimensions, ranging from 0 to 4 in magnitude. Table 7.1 shows the frequency distribution of these preference scores for the 12,276 nurses who completed all 10 preference choices.[1]

The mean scores displayed in Table 7.1 indicate that "compensation" is the job-satisfaction dimension valued most by a plurality of nurses (i.e., less than 50 percent of nurses chose "compensation" as their first choice, but more nurses chose compensation than chose any one of the other four job dimensions). "Autonomy" and "recognition" are nearly tied for the second and third ranked choices, with "technology" following as the fourth choice, and "third party payment" a distant fifth choice.

These findings are in keeping with the nurse job satisfaction research studies of Paula Stamps, which also utilized a paired-comparisons format. That research so consistently found nurses to rank "compensation," "autonomy" and "recognition" in the preference order shown that she considered standardizing the relative "weights" of these factors for use with nurse job satisfaction scales. Subsequent research, however, indicated enough minor variation in the relative weights of these factors in different work settings that the idea of "standardizing" these weights was discarded.[2]

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[1] An additional 1,957 nurses eligible to respond to this item either left it blank or made less than the required 10 selections.

[2] (Paula L. Stamps, *Nurses and Work Satisfaction: An Index for Measurement*, 2nd ed., (Chicago: Health Administration Press, 1977)

Table 7.1
Distribution of Policy Preference Selections, N = 12,276

Frequency of Policy Preference Selection[a]	*Policy Preference Selection Frequencies*				
	Compensation Column %	Autonomy Column %	Recognition Column %	Technology Column %	Third Party Payment Column %
0	2.2	6.9	8.2	10.0	62.8
1	15.4	19.1	18.7	30.3	14.5
2	29.6	26.8	26.0	25.3	9.3
3	28.3	26.5	27.8	20.5	9.0
4	24.5	20.7	19.4	13.9	4.5
Total	100	100	100	100	100
Mean	2.57	2.35	2.32	1.98	0.78
Std. Deviation	1.08	1.20	1.21	1.21	1.20
Rank of Policy Preference	1	2	3	4	5

[a]The "frequency of policy preference selection" refers to the number of times the same job satisfaction dimension (i.e., compensation, autonomy, recognition, technology or third party payment) was chosen across the ten choice comparisons.

The data in Table 7.1 is presented graphically in Figures 7.1 and 7.2. Not all nurses responded to the paired comparisons in a rigorously logical fashion. That is, only 83 percent gave internally consistent answers – selecting one factor as a clear first choice (i.e., choosing it all four times that the factor was offered as a choice). Consequently, the percentages for nurses' first choice selections among the satisfaction factors (policy preferences) *do not add up to 100 percent.*

While a *plurality* rather than a *majority* of nurses rank "compensation" as the factor most important to their job satisfaction – the *majority* of nurses still selected three of the remaining four factors as their first choice (i.e., only 24.5 percent always selected this policy preference over any other choices). Also, the same nurses who rank compensation as the factor most important to their job satisfaction also indicate through their responses to the "Job Satisfaction Scale" questions (discussed in Chapter 3 of this report), that "recognition" and "autonomy" are more important to their job satisfaction than "satisfaction with pay" or actual salary.

Figure 7.1
Frequency Distributions for Each of 5 Policy Preference Selections

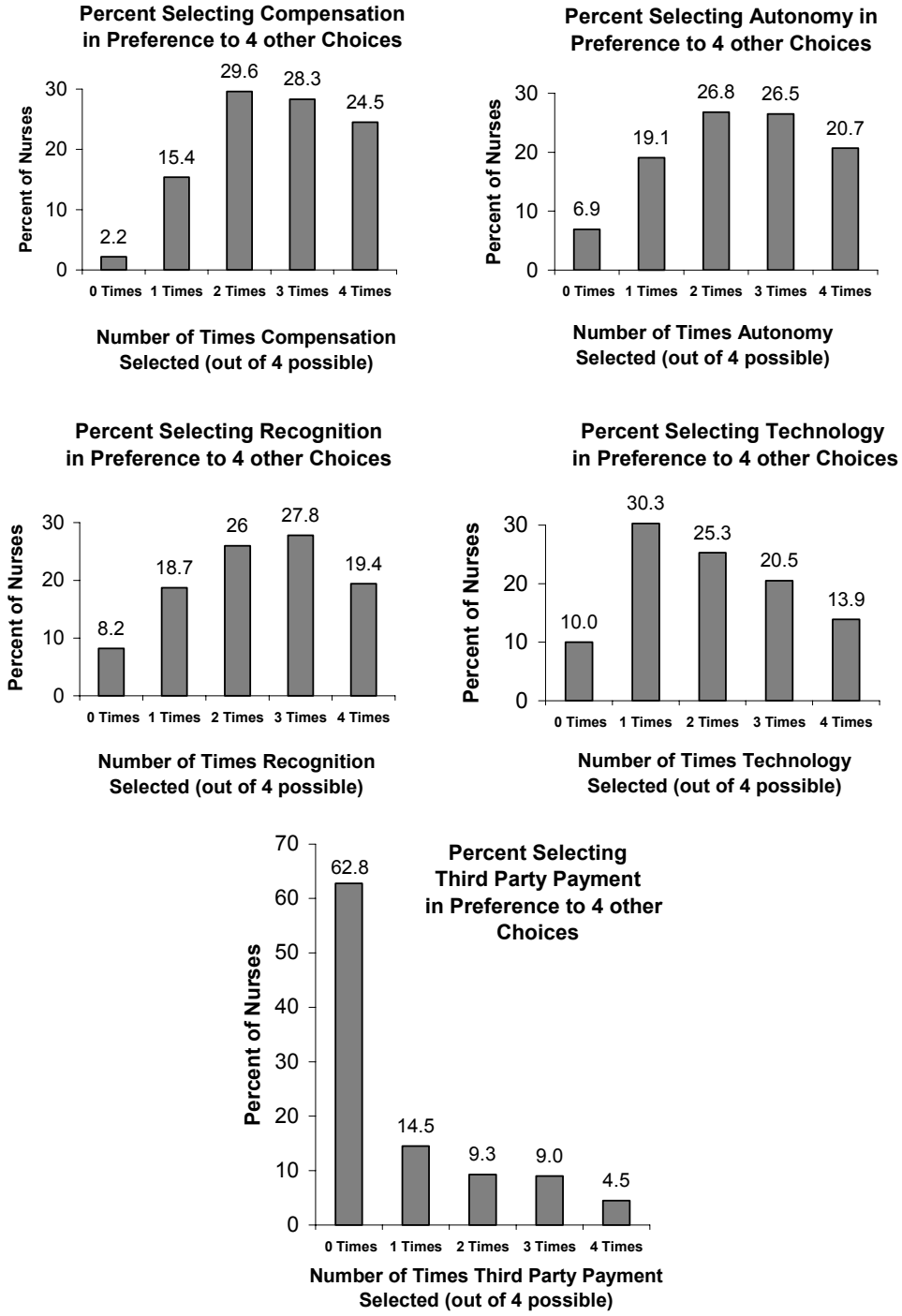
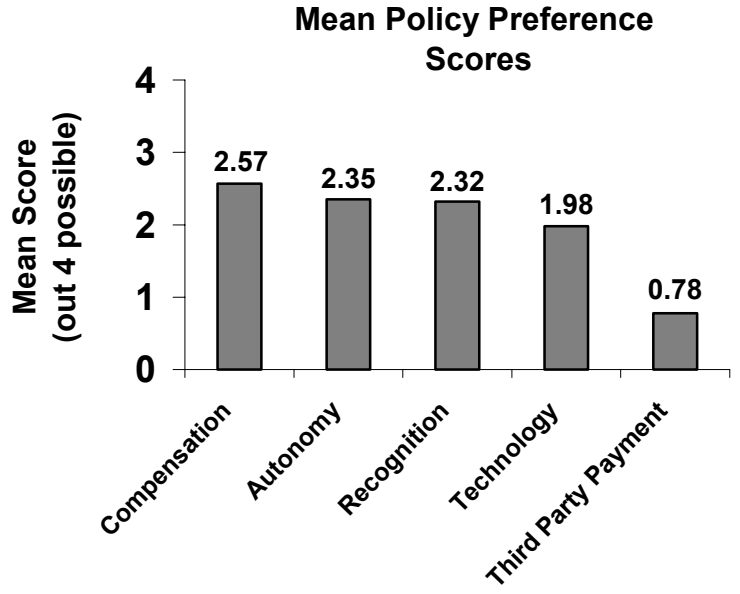


Figure 7.2
Nurses' Mean Scores (on a scale from 0 to 4) for each of Five Policy Preferences related to Job Satisfaction



The apparent inconsistency in the relative impact of compensation to RN's job satisfaction that results from the two different methods of analysis may be resolved by considering two different ways of defining "job satisfaction." The "Job Satisfaction Scale," described in an earlier chapter and based on the Price-Mueller Model, defines "job satisfaction" primarily as *finding intrinsic satisfaction in one's job* (i.e., scale questions focus on important affective aspects such as "boredom with job," "enjoyment in job," "enthusiasm for job," etc.). In contrast, the paired comparison approach provides a very different comparative frame of reference in which utilitarian considerations may take on greater weight than the intrinsically satisfying features of the job.

Along these lines, many nurses wrote to us that they are compelled to keep jobs they *do not find satisfying*, because financial considerations force "salary" to be their number one priority in selecting and keeping a job. In fact, nurses who consistently selected "compensation" first among their paired-comparison choices were less satisfied with their jobs, on the average, than were nurses who selected "autonomy," "recognition," or "technology" as the most important factor. In effect, nurses who select "compensation" as their first paired-comparison choice may be defining a "job satisfaction factor," not as the factor that provides them the greatest intrinsic job satisfaction, but as the factor that is their highest priority for getting and keeping a job. This more utilitarian interpretation of "job satisfaction" will be investigated further later in this chapter.

VARIATION IN POLICY PREFERENCE MEANS BY SALIENT VARIABLES

For the 12,276 nurses who responded to the paired-comparisons question, the policy-preference means in rank order were 2.57 (compensation), 2.35 (autonomy), 2.32 (recognition), 1.98 (technology) and 0.78 (third party payment). The most remarkable finding regarding these professed preferences, and their relative ranks and magnitudes, is how little they appear to vary across different demographic characteristics, job settings, and job titles.[3] The small magnitudes of the reported eta coefficients, in the charts that follow, demonstrate how little of the variance in these scores is attributable to job or demographic variables.[4]

While the calculated etas are small, the difference in preference scores for these different groupings is usually statistically significant at the .001 level. Moreover, certain patterns in policy preference emerge repeatedly and consistently as the data is "sliced" in different ways. The consistency of these findings makes them worth noting, even when the eta values are low.

Policy Preferences by Age

Age turns out to be a key variable for interpreting consistent patterns in variation among policy preference means. Table 7.2 displays average policy preference scores for nurses of six different age categories.

For the six age groups, differences between average preference scores are most pronounced for compensation policy preferences. Nurses under 30 or over 70 years of age attribute less importance to compensation for their job satisfaction than do nurses of other ages. Nurses from 40 to 49 years of age, often in mid-career, give the greatest weight to "compensation." This finding may be related to the fact that over half the nurses with children living with them at home fall within that age range. Also, 40 to 49 is the age range when working individuals most accelerate their rate of saving for either college tuitions or retirement. The significance of this finding is heightened by the fact that 37 percent of RNs working in New York State fall within this 40 to 49 age bracket.

Age appears also to affect the preference ranking nurses give to autonomy. Nurses under 30 years of age value autonomy least, while those in their 50s and 60s value autonomy most. The "developmental" logic here is inescapable. Many nurses wrote to us that nurses fresh from school, with little clinical experience, are often highly uncomfortable with the amount of autonomy given to them in their first job. This is especially true in a hospital setting, because new nurses may not yet feel adequately prepared to handle all the clinical situations and related decision demands they encounter. More experienced nurses usually feel competent enough to relish greater autonomy.

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[3] This same finding of the relative "invariance" of the weights of satisfaction factors has also been noted in the research by Stamps et. al., see above.

[4] The eta statistic is interpreted much like a correlation coefficient, with the squared value of eta representing the proportion of the variance accounted for by the "grouping variable" in an analysis of variance.

Table 7.2
Policy Preference Means by Age Category (6 levels)

Age Category	N	*Policy Preference Means and Ranks* [a]									
		Compensation	RANK	**Autonomy**	RANK	**Recognition**	RANK	**Technology**	RANK	**Third Party Payment**	RANK
< 30 Years of Age	605	2.54	1	***2.03***	3	***2.52***	1	1.97	4	***0.94***	5
30 - 39 Years of Age	2,095	2.61	1	2.18	3	2.35	2	1.96	4	0.90	5
40 - 49 Years of Age	4,155	***2.68***	1	2.35	2	***2.24***	3	***1.91***	4	0.81	5
50 - 59 Years of Age	3,474	2.57	1	***2.48***	2	2.31	3	1.94	4	0.71	5
60 - 69 Years of Age	1,446	2.35	2	***2.47***	1	2.35	2	2.19	4	***0.64***	5
> 70 Years of Age	262	***2.07***	4	2.21	3	***2.52***	2	***2.56***	1	0.65	5
Total	12,036	2.58		2.35		2.31		1.98		.78	
Eta		.117		.108		.060		.101		.077	
Sig.		.000		.000		.000		.000		.000	

[a]Bolded and underlined means are the highest and lowest within each column.

Another factor contributing to this "age effect" in valuing autonomy may be that younger nurses tend to hold different kinds of jobs than older nurses; younger nurses work disproportionately as hospital staff nurses, and as we shall see below, inpatient hospital staff nurses show the lowest level of preference for autonomy. Finally, nurses often attain advanced degrees and specialization certificates, as they grow more experienced. Nurses working within specialization areas requiring advanced training, for example as nurse practitioners or certified registered nurse anesthetists, show a higher level of preference for autonomy than do other nurses.

Age and Technology Preference

The age-technology preference relationship findings described in Table 7.2 are also noteworthy. Nurses over 60 years of age attribute significantly greater importance to technology for job satisfaction than do younger nurses. The relatively high rating of the importance of technology is even more pronounced among the small group of respondents to this item (N = 262) who were over 70 years of age. In fact, within this group, "technology" is ranked as the #1 most important factor contributing to job satisfaction. This is in stark contrast to the distant 4th place ranking "technology" is given by the total respondent group.

One possible explanation for this finding is that older nurses have the advantage of substantial historical perspective. As a result, they are especially aware of the profound impact of a half-century of technological innovation on health care service delivery. Having lived through an era of substantial managed-care market penetration – with the prospect of continual down-sizing and cost-containment – they may recognize even more clearly the potential benefits of technology in cost-containment oriented environments. In this same vein, findings presented in Chapter 8 indicate that the older nurses are, the more they value the application of ergonomic standards to the workplace - standards most readily attainable through the use of modern technologies.

Preferences by Retired/ Not Retired Status

In Table 7.3 below, policy preference mean scores are broken down according to nurses' employment status - either "currently working in nursing," or "retired from nursing" (and over 51 years of age). The analysis of variance (ANOVA) results strongly support the age-related findings discussed above. Retired nurses value compensation significantly less than working nurses, but value technology significantly more than working nurses.

Table 7.3
Policy Preference Means by Working vs. Retired Status (2 levels)

		Policy Preference Means and Ranks [a]									
Working vs. Retired Status	N	Compensation	RANK	Autonomy	RANK	Recognition	RANK	Technology	RANK	Third Party Payment	RANK
Currently Working RN	10,221	***2.62***	1	2.35	2	2.33	2	1.91	4	.79	5
Retired RN, Age > 51	800	2.26	4	2.33	2	2.32	2	***2.51***	1	.58	5
Total	11,021	2.59	1	2.35	2	2.32	2	1.96	4	.78	5
Eta		.086		.004		.001		.129		.046	
ANOVA Significance		.000		.670		.922		.000		.000	

[a]Bolded and underlined means are the maximum within each column *and* row.

Policy Preferences by Education Level

Table 7.4 presents policy preference rankings and scores for nurses grouped according to the highest educational degree they have attained. The policy preference patterns indicated by this data are once again consistent with the patterns noted earlier.

The higher the level of education a nurse has attained, the more she or he is likely to value "autonomy." As discussed earlier, nurses with more education and training may enjoy, and expect, greater autonomy because they are more confident in their skills. Also, they tend to work in specialty areas conducive to autonomous activity, such as working as a nurse practitioner or clinical specialist. Frequently, people with master's degrees and higher have taken management-level jobs, jobs which require more autonomous decision-making, and which attract people drawn to positions that require greater independence of judgment. Finally, almost half (46.9 percent) of RNs with diplomas, associate's or bachelor's degrees work as inpatient hospital staff nurses, compared to only 6.9 percent of RNs with master's or higher degrees. Inpatient hospital staff nurses reported to us through letters that too much autonomy can be a burden for them. These are nurses who often work under high-stress conditions and routinely have to make decisions with potentially life-threatening (and license-threatening) consequences.

Table 7.4
Policy Preference Mean Scores by Highest Degree Attained (4 levels)

Highest Degree Attained	N	*Policy Preference Means and Ranks* [a] Compensation	RANK	Autonomy	RANK	Recognition	RANK	Technology	RANK	Third Party Payment	RANK
Diploma	1,793	2.56	1	***2.13***	4	***2.39***	3	***2.24***	2	***.68***	5
Associate's	3,195	***2.60***	1	***2.13***	4	***2.27***	2	2.16	3	***.84***	5
Bachelor's	4,510	***2.63***	1	2.34	2	2.33	2	1.93	4	.77	5
Master's and Above	2,353	***2.48***	2	***2.87***	1	***2.27***	3	***1.60***	4	.78	5
Total	11,851	2.58	1	2.36	2	2.31	3	1.97	4	.78	5
Eta		.049		.227		.036		.183		.043	
ANOVA Significance		.000		.000		.002		.000		.110	

[a]Bolded and underlined means are the highest and lowest within each column.

Nurses who have not attained a degree beyond their nursing diploma tend to value the contribution of technology to job satisfaction more than do nurses with higher levels of educational achievement. Because diploma-granting programs have been largely phased out over the past few decades, most of the nurses in this group are significantly older than the rest. Their stronger preference for "technology" is probably in part a reflection of their age; as noted above, older nurses place a premium on technology for their job satisfaction, possibly because they have personally witnessed the revolution that new technologies have brought to healthcare over past decades. Also, many of these nurses are retired, and are assessing the relative importance of compensation compared to other factors retrospectively – now that they are no longer working to earn a salary. This "hind-sight" may lessen the relative weight given to "compensation," and correspondingly increase the weight given to other factors.

Policy Preferences by Compensation Level

Table 7.5 on the following page displays policy preference scores for nurses with varying levels of salary compensation. Age and level of educational attainment each have a moderately strong relationship with salary, and the pattern of policy preferences exhibited below reflects those relationships.

Once again, autonomy is the policy preference that varies most among different groups, as indicated by the highest eta coefficient (eta = .108). However, you will note that for all salary groups – except those earning $75,000 or more – compensation is the more important preference choice. As salary compensation increases, the preference score differences between compensation and autonomy progressively diminish – until the most highly compensated level is reached. Among nurses earning over $75,000, the preference for autonomy becomes in fact more important for job satisfaction than compensation (i.e., 2.61 vs. 2.58).

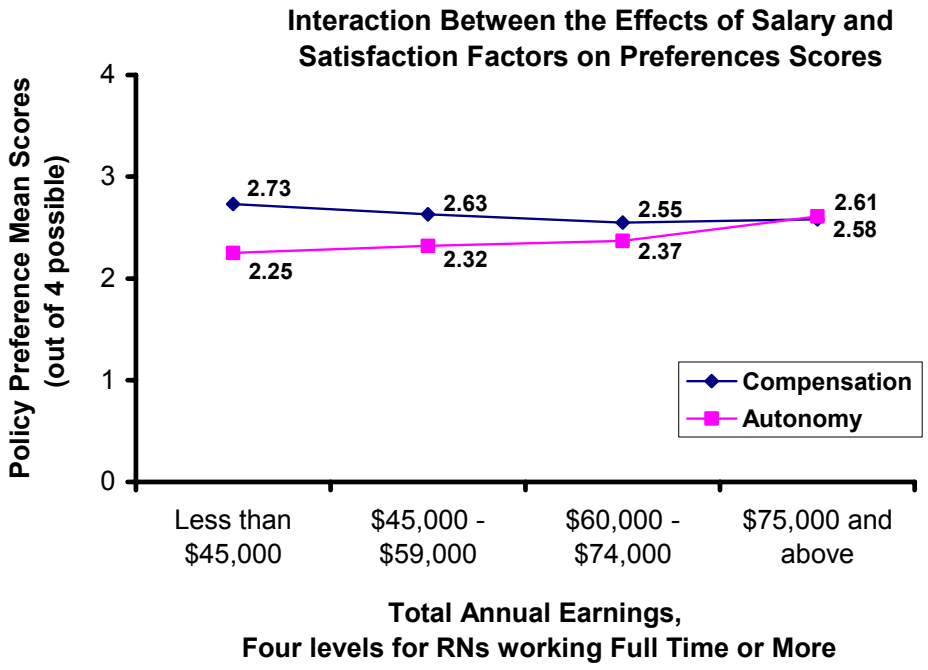
Table 7.5
Policy Preference Means by Four Earnings Levels,
Total Annual Earnings for RNs Working Full Time or More, Only

		Policy Preference Means and Ranks [a]										
Salary Level	N	Compensation	RANK	Autonomy	RANK	Recognition	RANK	Technology	RANK	Third Party Payment	RANK
Less than $45,000	1,660	***2.73***	1	***2.25***	3	***2.30***	2	1.92	4	***0.81***	5
$45,000 to $59,000	1,698	2.63	1	2.32	2	***2.30***	3	***1.98***	4	0.77	5
$60,000 to $74,000	2,549	***2.55***	1	2.37	3	***2.42***	2	1.89	4	0.76	5
$75,000 and Over	2,576	2.58	2	***2.61***	1	2.36	3	***1.76***	4	***0.70***	5
Total	6,469	2.62	1	2.38	2	2.34	3	1.89	4	0.77	5
Eta		.064		.108		.043		.067		.031	
ANOVA Significance		.000		.000		.000		.000		.110	

[a]Bolded and underlined means are the maximum and minimum within each column.

Because nurses earning higher salaries tend to be older and to have attained advanced degrees, the possible explanations for older and more-educated nurses placing a higher value on "autonomy" (presented earlier in this chapter) may very likely apply to these higher-paid nurses. Once a certain compensation threshold is achieved, other factors take on more importance – clear evidence of an interaction between the effects of salary and type of satisfaction factor (autonomy vs. compensation) upon valuation of the satisfaction factor. This interaction is shown graphically in Figure 7.3.

Figure 7.3
Compensation and Autonomy Policy Preference Mean Scores, by Salary Level



A frequent tendency observed within these analyses is for nurses to place a higher value on that which they do not have. This human tendency may help explain why nurses earning the most money place a relatively low value on "compensation" compared to nurses earning more modest salaries.

This tendency to value more highly what one lacks may help explain the pattern observed in the next three tables. Table 7.6 breaks down policy preference ratings by minority status. Table 7.7 displays arithmetic means by place of birth (U.S. vs. other country), and Table 7.8 displays means by place of RN training (U.S. vs. other country). These three tables examine the relative weight of different satisfaction factors for ethnic and cultural groups other than the plurality of RNs (who are white and U.S. born and educated).

Table 7.6
Policy Preference Means by Ethnic Status (2 levels)

Ethnic Status (White vs. All Other Ethnic Groups)	N	*Policy Preference Means and Ranks* [a]									
		Compensation	RANK	Autonomy	RANK	Recognition	RANK	Technology	RANK	Third Party Payment	RANK
White, not Hispanic	9,741	***2.64***	1	2.38	2	2.28	3	1.97	4	0.74	5
All Others	2,213	2.33	2	2.24	3	***2.47***	1	1.99	4	.97	5
Total	11,954	2.58	1	2.35	2	2.31	3	1.97	4	.78	5
Eta		.109		.046		.063		.006		.075	
ANOVA Significance		.000		.000		.000		.540		.000	

[a]Bolded and underlined means are the maximum within each column *and* row.

Table 7.7
Policy Preference Means by Born in U.S. vs. Born outside of U.S.

Place of Birth	N	*Policy Preference Means and Ranks* [a]									
		Compensation	RANK	Autonomy	RANK	Recognition	RANK	Technology	RANK	Third Party Payment	RANK
Born in U.S.	10,203	***2.62***	1	***2.37***	2	2.28	3	1.98	4	.75	5
Born outside of U.S.	1,878	2.35	2	2.24	3	***2.51***	1	1.96	4	***.95***	5
Total	12,082	2.58		2.35		2.31		1.98		.78	
Eta		.092		.041		.070		.007		.060	
ANOVA Significance		.000		.000		.000		.447		.000	

[a]Bolded and underlined means are the (significant) maximums within each column.

Table 7.8
Policy Preference Means by Where Educated (U.S. vs. Other Country)

Where Received Basic Nursing Education	N	*Policy Preference Means and Ranks* [a]									
		Compensation	RANK	Autonomy	RANK	Recognition	RANK	Technology	RANK	Third Party Payment	RANK
U.S.	11,002	***2.60***	1	***2.37***	2	2.29	3	1.98	4	.76	5
Other Country	1,093	2.33	2	2.19	3	***2.55***	1	1.95	4	***.98***	5
Total	12,095	2.58	1	2.35	2	2.31	3	1.98	4	.78	5
Eta		.072		.042		.061		.008		.053	
ANOVA Significance		.000		.000		.000		.388		.000	

[a]Bolded and underlined means are the (significant) maximums within each column.

Though the magnitude of the effect is not great, the above tables consistently indicate that ethnic and cultural groups other than the white U.S. born and educated plurality rank "recognition" as the factor most important to their job satisfaction. These groups rank recognition as even more important to them than compensation (which all respondents collectively place firmly in first place).

One explanation for this pattern may be that ethnic and/or cultural minority RNs have experienced, or fear experiencing, discrimination or lack of professional respect – and therefore place a premium on receiving recognition for their professional status and contributions. Another possible interpretation is that mainstream U.S. culture may place greater relative value on "compensation" compared to some other cultural groups.

The finding that nurses belonging to minority populations value autonomy less might also reflect the fact that minority groups are disproportionately represented among inpatient staff nurses – the job title group placing the lowest value on autonomy. Some nurses wrote to us expressing concern that granting nurses too much autonomy in high-stress, direct-care inpatient settings can become an opportunity to blame nurses when things goes wrong. Relationships between policy preferences and job titles/settings are described below.

Policy Preferences by Job Title and Work Setting

The very low ratings that staff nurses, especially inpatient staff nurses, give to "autonomy" as a factor contributing to job satisfaction is apparent in the following two tables. Table 7.9 presents policy preference average scores for nurses working in different job settings, and Table 7.10 shows policy preference averages for nurses with different job titles.

Table 7.9
Policy Preference Means by Work Setting (9 levels)

Work Settings	N	*Policy Preference Means and Ranks* [a] Compensation	RANK	Autonomy	RANK	Recognition	RANK	Technology	RANK	Third Party Payment	RANK
Ambulatory Care	565	2.55	1	2.46	2	2.30	3	1.78	4	***0.91***	5
Government, Professional, and Health Organizations	264	2.60	2	2.74	1	2.32	3	1.75	4	***0.59***	5
Home Health Agencies	816	2.64	2	2.73	1	***2.11***	3	1.81	4	0.71	5
Hospitals	5,707	2.62	1	***2.21***	3	2.34	2	2.03	4	0.80	5
Physician's Offices	536	2.58	1	2.29	3	***2.51***	2	1.80	4	0.82	5
Nursing Homes	892	2.41	2	***2.19***	3	2.43	1	***2.15***	4	0.82	5
Nursing Education	236	***2.33***	2	***2.95***	1	2.20	3	1.75	4	0.77	5
School Health	585	***2.75***	1	2.53	2	2.35	3	1.75	4	0.62	5
Other	1,137	2.62	1	2.62	2	2.34	3	***1.62***	4	0.78	5
Total	10,739	2.60	1	2.36	2	2.33	3	1.93	4	0.78	5
Eta		.073		.177		.068		.134		.052	
ANOVA Significance		.000		.000		.000		.000		.000	

[a]Bolded and underlined means are the maximum and minimum within each column.

Table 7.10
Policy Preference Means by Job Title (13 levels)

Job Titles	N	*Policy Preference Means and Ranks* [a] Compensation	RANK	Autonomy	RANK	Recognition	RANK	Technology	RANK	Third Party Payment	RANK
Inpatient Staff Nurse	4,236	2.64	1	***2.05***	4	2.33	2	***2.12***	3	0.86	5
Outpatient Staff Nurse	1,556	2.67	1	2.23	3	2.34	2	2.00	4	0.77	5
Nurse anesthetist	50	***2.78***	2	3.00	1	1.97	3	***1.13***	4	1.12	5
Claims/QA/UR/Risk Management	410	2.72	1	2.55	2	2.33	3	1.76	4	0.64	5
Consultant/Researcher	178	2.59	2	2.91	1	2.33	3	1.61	4	0.55	5
Dean or Faculty in Nursing Education Program	237	2.47	2	***3.02***	1	2.31	3	1.59	4	0.61	5
Director/VP/Chief of Nursing	351	2.53	2	2.84	1	***2.51***	3	1.87	4	***0.52***	5
In-service Educator or Clinical Nurse Specialist	383	***2.45***	2	2.80	1	2.23	3	1.74	4	0.78	5
Nurse Practitioner	467	2.46	2	2.91	1	2.20	3	1.23	4	1.21	5
Nurse Manager/Patient Care Coordinator	1,085	2.49	1	2.46	2	2.41	3	1.99	4	0.65	5
Independent practitioner or Private Duty Nurse	164	2.49	2	2.55	1	***1.80***	3	1.64	4	***1.52***	5
Public/Community Health Nurse	511	2.65	1	2.64	2	2.24	3	1.79	4	0.68	5
Other	1,116	2.64	1	2.59	2	2.41	3	1.73	4	0.62	5
Total	10,746	2.60	1	2.36	2	2.33	3	1.93	4	0.78	5
Eta		.091		.260		.078		.192		.140	
Sig.		.000		.000		.000		.000		.000	

[a]Bolded and underlined means are the maximum and minimum within each column.

Autonomy is once again the job satisfaction factor (policy preference) that varies most in its valuation among nurses in different settings and in different titles – as evidenced by eta coefficients of .177 (Table 7.9) and .26 (Table 7.10) respectively. Nursing home and hospital nurses, especially inpatient staff nurses, value autonomy far less than do nurses in other titles or settings. Indeed, inpatient staff nurses rank autonomy 4th in importance to their job satisfaction – they are the only group to rank autonomy below technology. The following quote from a letter written to us by a hospital staff nurse helps explain this sentiment:

> "I am on my own, making more decisions without the benefit of consult than I care to make. From Day One I was on my own. Most of the nurses on the floor have as much work to do as I have. There is rarely TIME to help one another. This makes for an uncomfortable work climate. I would prefer less autonomy. I have a two year degree – I am capable of making some decisions on my own, but I don't know as much as a doctor!"

Nurses working in hectic, understaffed hospital and nursing home settings are frequently confronted with the need to make direct-care decisions with potential "life or death" implications. Questionable decisions could result in loss of their license or a malpractice suit. These positions, tend to be staffed by the youngest, least experienced and least educated nurses. They also tend to be staffed by a disproportionate number of nurses born and/or educated outside of the U.S., often with limited English proficiency. It is no wonder then, that these nurses do not place a high value on autonomy.

In contrast, nurse faculty and in-service nurse educators give the highest ratings to "autonomy" and the lowest to "compensation" (compared to the ratings given by nurses in other job titles/settings). Traditionally, higher-education faculty in all fields have been underpaid relative to their educational attainments. People pursue these careers for rewards other than the level of compensation, rewards which include relative independence in the performance of their jobs. The finding that nurse educators place a premium on autonomy is also consistent with the finding, noted earlier, that nurses who have attained advanced educational degrees value autonomy more than those who have not.

Of all the correlates of preference rankings examined, the level of educational attainment and employment as an inpatient staff nurse are the two characteristics that correlate most strongly with the autonomy policy preference score. Table 7.11 illustrates the combined effect of two different levels of these two variables on the autonomy policy preference mean score.

Table 7.11
Means of Autonomy Policy Preference Scores by Job Title, Education Level

	In-Patient Staff Nurse		Not In-patient Staff Nurse			
	< Bachelor's	> = Bachelor's	< Bachelor's	> = Bachelor's	Eta	Sig.
Autonomy Policy Preference Mean Scores	1.96	2.14	2.28	2.74	.26	> .001

There is an interesting "split" in the groups who have the highest mean scores for compensation. School nurses, whose average salary is the lowest among nurses working in different job settings, value compensation very highly, as do certified, registered nurse anesthetists, who are among the highest paid RNs. School nurses, therefore, may be another example of respondents valuing most what they lack. In contrast, certified registered nurse anesthetists may have pursued their specialty in part because they value a high level of remuneration. Claims reviewers, who are among the nurses with the lowest level of job satisfaction, but are relatively well paid, may keep their jobs in spite of dissatisfaction because compensation is a priority for them.

Technology is valued substantially more by inpatient staff nurses and staff in nursing home settings than by other groups. These nurses routinely work with patients having critical medical needs and therefore benefiting tremendously from advanced technologies. Another partial explanation for the higher value these nurses place on technology is that these same nurses place a low value on autonomy (discussed above) and so disproportionately rank "autonomy" below technology. Thus by devaluing the rank of autonomy, they correspondingly increase the relative rank of technology.

Though "third party payment" never emerges above its fifth place ranking within these job setting/title groupings, it is valued significantly more by independent practitioners and private duty nurses than by nurses holding other titles. Comments sent in to us by nurses indicated that there might have been some confusion in the interpretation of the term "third party payment." Independent practitioners and private duty nurses may have interpreted this term as primarily meaning, "private nursing services are covered by insurance policies," a factor which would certainly have a substantial impact on their livelihoods.

The term "third party payment" was intended to include both: a) billing of insurance companies by hospitals and other institutions specifically for hours of nursing services rendered; and, b) having the insurance companies directly reimburse the nurses, as they currently do doctors and staff specialists. Currently, insurance companies are billed for nursing services as part of a patient's hospital "room and board" bill. The fact that this second intended interpretation of the term "third party payment" was not clearly communicated to survey respondents may help explain why independent practitioners and private duty nurses valued this factor more than other nurses.

POLICY IMPLICATIONS OF DIFFERING POLICY PREFERENCE SCORES

In conclusion, when reviewing the policy preference means and corresponding measures of association for both demographic and job title/setting breakdowns, the most striking finding remains how little the policy preference scores vary among different groupings of nurses. Nurses overall are remarkably uniform in the relative weights they attribute to compensation, autonomy, recognition, technology and third party payment as factors contributing to their job satisfaction. Nevertheless, some of the consistently found patterns in the (modest) variation of score averages discussed above may have some implications for interventions.

Nurses in management/administrative positions, who tend to hold more advanced educational degrees and to be more experienced, higher paid, and older than staff nurses, might benefit from a better understanding of ways in which their job-related values may differ from the nurses whom they supervise. Nurses in management positions may value autonomy more highly than many of their staff, especially inexperienced staff. Consequently, providing increased autonomy to inexperienced staff in nursing home and hospital settings might increase their level of stress to an extent unanticipated by management.

Chapter 3 of this report demonstrated how "instrumental communication" (defined as supervisory communication within an organization for effective job performance) had a substantially higher correlation with job satisfaction than did autonomy, especially for nursing home and hospital staff nurses. In other words, many staff nurses value clear communication from their supervisors regarding how a job is to be done and prioritization of job responsibilities more than they value the ability to act independently. Nurses' letters expressed to us the fear they have of litigation or losing their licenses if they make decisions without the support of management:

> "We currently have a system that is litigation crazy. Physicians, nurses, PA's and other medical service personnel are 'afraid of their own shadows.' Tests are performed mostly for good care, but also to protect the individual. When people become fearful instead of confident that they are doing well for others, the arena for care deteriorates…."

COMPENSATION: MOST OR LEAST IMPORTANT FOR NURSES' JOB SATISFACTION?

A reader of Chapters 2 and 3 of this report, familiar with the correlations of organizational climate scores and global job satisfaction scale scores, would conclude that *autonomy and recognition were more important for nurses' job satisfaction than compensation* (measured either by the "satisfaction with pay" scale, or the "promotional opportunity" scale, or by actual reported full-time salary). A reader of this chapter, in contrast, having noted how consistently nurses in different job titles and settings tend to rank compensation as the factor most important for their job satisfaction, would conclude that *compensation is generally more important for nurses' job satisfaction than either autonomy or recognition.*

Figure 7.4 presents a comparison of these two analytical approaches to assess the impact of component factors on global job satisfaction. The two bar charts illustrate the differential rankings of the relative importance of compensation, autonomy and recognition for nurse job satisfaction - when policy preference scores are rank ordered (shown on the left) and when correlations with job satisfaction are rank ordered (shown on the right).

Figure 7.4
The Relative Importance of Factors affecting Job Satisfaction Differs when Assessed by Policy Preference Means and when Assessed by Scale Correlations with Job Satisfaction

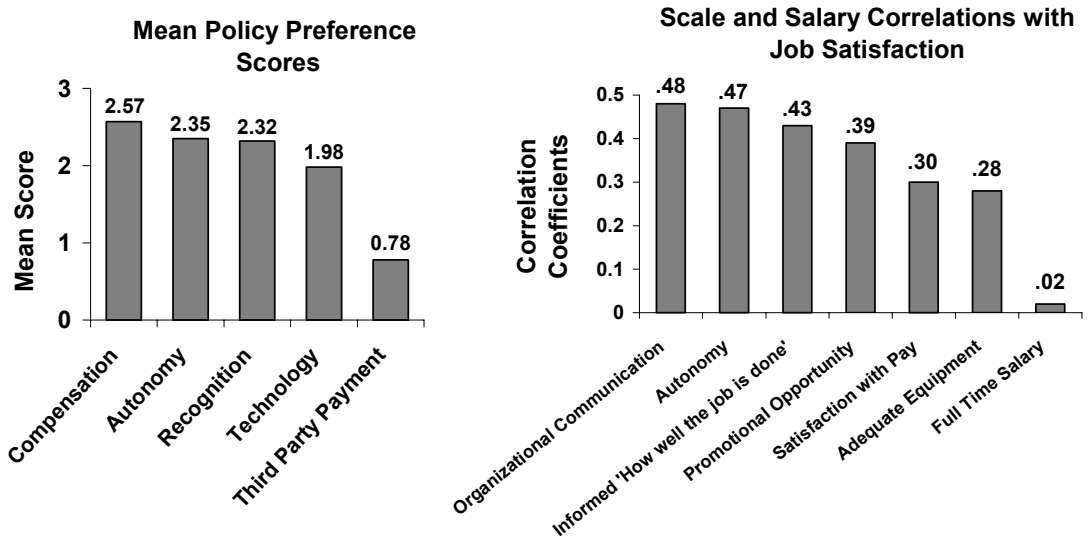
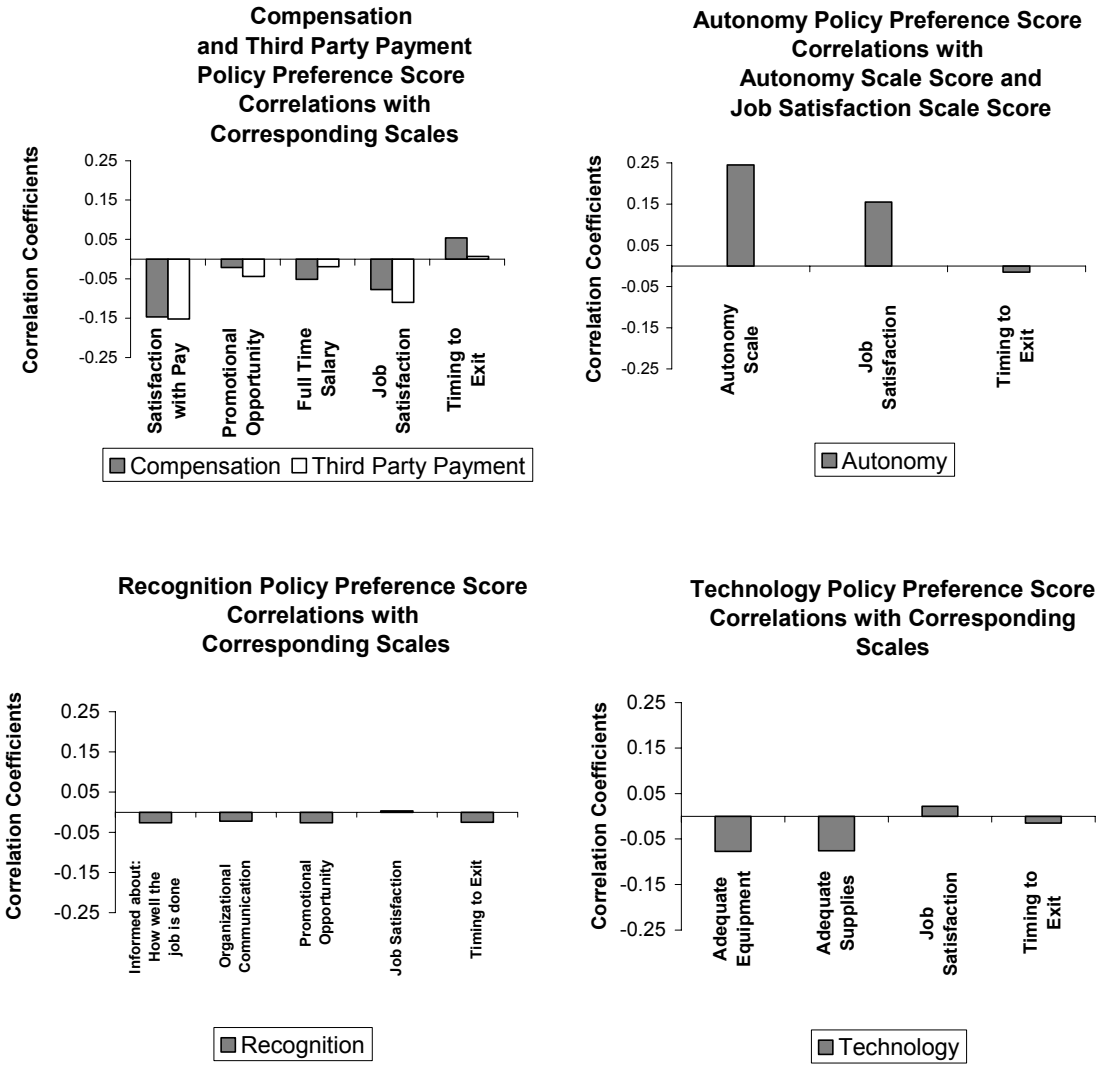


Figure 7.5 below illustrates graphically the correlations of policy preference scores with the most closely corresponding job climate scale scores (e.g., the compensation policy preference scores are correlated with the "satisfaction with pay" scale scores, and the policy preference autonomy scores are correlated with the "autonomy" climate scale scores).

The four bar charts shown in Figure 7.5 help shed light on the anomaly noted earlier – namely, job climate scale correlations that suggest that compensation is less important to global job satisfaction than either autonomy or recognition, and policy preference scale results that rank compensation as more important for job satisfaction than either autonomy or recognition. A likely explanation for these seemingly inconsistent findings was suggested earlier in this chapter. The definition of job satisfaction that the global "job satisfaction scale" tries to measure and quantify generally equates to "*finding satisfaction within one's job,*" – this "job satisfaction" construct encompasses such affective components as "enjoying one's job," "being enthusiastic about one's job," and not "being bored with one's job."

Figure 7.5
Job Satisfaction Preference Scores (from Paired Comparisons) Correlations with Corresponding Job Climate Scale Scores and Scale Questions



Note: All Correlations are significant at the 0.01 level (2-tailed), *except Technology with Job Satisfaction (significant at 0.05 level) and Recognition with Job Satisfaction (not significant at 0.05 level)*

In their ranking of the five policy preferences discussed earlier, respondents may have applied a different definition as they interpreted the instructions to "decide which factor is more important for *your* job satisfaction…" It appears likely that many nurses ranked compensation first, not because compensation provides them with the greatest satisfaction within their job, but because level of compensation is the *most important factor for them in deciding to get and keep a job*. If policy preference rankings are interpreted more broadly as "job priority" rankings, rather than strictly as ranking factors that contribute to affective satisfaction within a job, the apparent discrepancy may be

resolved. A more detailed discussion of the information contained in Figure 7.4 will support this interpretation of the data.

Valuing Compensation Most is related to Lower Job Satisfaction

The bar charts in Figure 7.4 highlight that compensation policy preference scores are negatively correlated with job satisfaction, i.e., people who rank compensation as their number one job priority are less satisfied with their jobs, on the average, than are other nurses. ("Third party payment" is the only other policy preference that also correlates negatively with job satisfaction. These two policy preference measures co vary in a very similar fashion in their relationships with other variables.) The finding that nurses who rate compensation higher than affective satisfiers are overall less satisfied with their jobs than are other nurses, supports the interpretation, discussed above, that nurses ranking policy preference dimensions (especially the compensation dimension) were doing so at least as much on the basis of their priorities for finding and keeping a job, as on the basis of what provides them with affective job satisfaction.

In contrast, nurses who value autonomy highly appear to be among the most satisfied nurses. The significant positive correlation between autonomy policy preference scores and global job satisfaction scores ($r = +.155$) is the only positive correlation between any policy preference category and job satisfaction.

The correlations between specific policy preference scores and those corresponding organizational climate scales which are conceptually similar (e.g. the correlation of autonomy policy preference scores and autonomy job satisfaction scale scores, etc.), provide a clear explanation for why nurses valuing autonomy highly tend to be more satisfied in their jobs than other nurses. Autonomy is the only job dimension for which the corresponding policy preference and satisfaction scales have a significant positive correlation. In fact, each of the other four policy preference dimensions has a significant *negative* correlation with its corresponding satisfaction scale. The significant positive correlation between the policy preference and climate scale autonomy scores means that nurses who value autonomy more than average, also rate their jobs as providing more than the average amount of autonomy. In other words, nurses who value autonomy are the only ones reporting that they actually have what they want most in a job.

Nurses valuing highly any of the other four policy preference categories are less fortunate – the significant and uniformly negative correlations these preference scores have with corresponding satisfaction scales indicate that the more these nurses value a particular policy preference category, the more likely they are to indicate less satisfaction with that factor in their current job. This finding dovetails neatly with the observation made many times above in the context of analyzing variations in policy preference means by demographic characteristics and job titles/settings – nurses, like other humans, often tend to value most what they feel they lack.

Valuing Compensation Most is Related to Planning to Remain in the Nursing Profession Longer

One final observation based on the bar charts shown in 7.4 regards the timing-to-exit nursing scale score, depicted in the right-hand most position on the horizontal axis of each bar chart. The timing-to-exit variable ranges from a value of "0" ("have already left the nursing profession"), to a value of "5" ("not leaving for five years or more"). Thus, the higher this score, the greater the likelihood of staying in the profession longer. The only policy preference scores that have a significant positive correlation with this timing-to-exit score are compensation and third party payment. In other words, *nurses who accord a higher priority to financial compensation over recognition, autonomy, or technology are likely to plan on remaining in nursing longer than nurses with other job priorities (even though they are less satisfied with their jobs than those other nurses).*

Valuing Compensation Most Dampens Predictive Power of the Price Model

"Compensation" and "third party payment" policy preference scores are variables that "dampen" the power of the Price-Mueller Model to predict timing-to-exit intentions. In the Price-Mueller Model, discussed extensively in the first chapters of this report, organizational climate scores correlate positively with a global job satisfaction score. This global satisfaction score, in turn, has a significant positive correlation with the timing-to-exit variable. Stated differently, based on the Price-Mueller Model of Voluntary Turnover, *the more nurses are satisfied with specific dimensions of their jobs, the more they tend to be globally satisfied with their jobs, and the greater their organizational commitment. The more nurses are globally satisfied with their jobs, the more likely they are to plan on retaining those jobs longer*.

And yet, based upon the paired-comparison approach discussed here, compensation and third party payment policy preferences have an *inverse* relationship with global job satisfaction and the timing-to-exit scale score. *The higher the preference priority accorded by nurses to those two financial compensation policy preferences, the less satisfied they are with their jobs. They nevertheless plan on retaining those jobs longer than more satisfied nurses who express other job priorities.* In short, these measures are related to lower job satisfaction *and are also* related to planning to remain longer in nursing. Consequently, the Price-Mueller Model prediction, that less satisfied nurses plan to leave nursing sooner than other nurses, is "dampened" for nurses who prioritize compensation over other dimensions of job satisfaction (i.e., recognition, autonomy, and compensation).

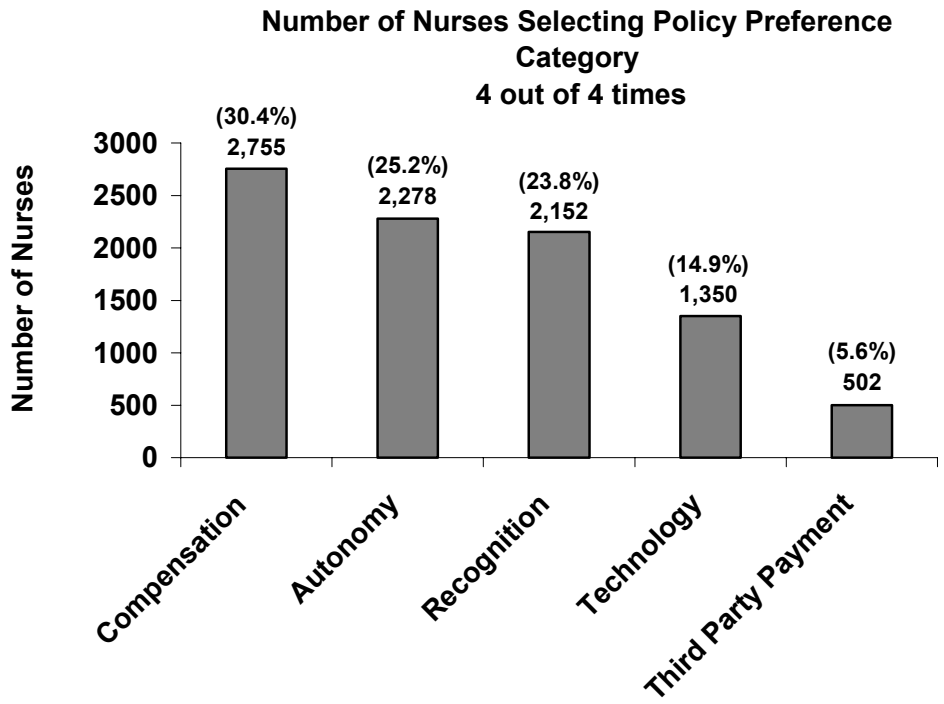
Policy Preferences and Timing to Exit Intentions

An important research question addressed in an earlier chapter concerned the relationship of organizational climate factors to job satisfaction, as well as subsequent intentions to leave the profession. At this point, we complement that earlier analysis by evaluating how nurses' policy preferences are associated with actual quit intentions.

In conducting this particular analysis, we confine our attention to those nurses who unambiguously expressed a clear first-choice preference (i.e., those who selected the same policy preference four out of four times) as the category of their first choice preference. Because not all of the 12,276 nurses who responded to the paired-

comparisons item expressed a clear first choice across all four comparison choices, only 9,037 nurses could be selected for this analysis. The bar chart in Figure 7.6 displays the frequency distribution of those nurses' whose job priority choices were consistent. Table 7.13 illustrates the organizational climate scale and global satisfaction scale scores for nurses grouped according to their consistent first choice preference priorities.

Figure 7.6
Frequency of Nurses within each of Five Job Priority Categories (Selecting Policy Preference Four out of Four Times)



The data displayed in Table 7.12 further supports the observations made earlier. Nurses selecting compensation or third party payment as their #1 job priority have the lowest global job satisfaction mean scores, and yet have higher timing-to-exit mean scores than other nurses (i.e., an average 4.51 scale score vs. 4.41 for all nurses). These findings again point to an important paradox – namely, that this "compensation first" priority group intends to remain in the profession longer, in spite of their relatively greater dissatisfaction. Very similar findings characterized those nurses (5.6 percent) who selected third party reimbursement strategies as their top policy preference. These data, therefore, further support collapsing the "compensation" and "third party payment" policy preferences into one "financial compensation is #1 job priority" category. The

remaining three policy preferences can then be collapsed into a "financial compensation is not #1 job priority" category.[5]

Table 7.12
Job Satisfaction Scale Means for Nurses with Different Job Priorities
(Job Priority Indicated by Selecting Policy Preference 4 out of 4 Times)

Job Satisfaction Scales	*Job Satisfaction Scale and Salary Means for Nurses Grouped by Preference Choice*					
	Compensation selected 4 out of 4 times	Autonomy selected 4 out of 4 times	Recognition selected 4 out of 4 times	Technology selected 4 out of 4 times	Third Party Payment selected 4 out of 4 times	All Nurses[a]
	N = 2,755	N = 2,278	N = 2,152	N = 1,350	N = 502	N = 12477
Global Job Satisfaction[b]	3.35	3.63	3.41	3.48	3.22	3.45
Satisfaction with Pay	2.58	3.15	3.00	2.99	2.40	2.86
Promotional Opportunity	2.52	2.77	2.68	2.71	2.55	2.67
Annual Earnings[c]	$51,180	$54,940	$52,780	$47,860	$49,900	$52,590
Full Time + Earnings[d]	$58,006	$61,771	$58,662	$55,432	$55,575	$60,193
Autonomy	2.11	2.54	2.15	2.07	2.13	2.21
Well informed about: How well the job is done.	3.01	3.27	2.97	3.00	2.95	3.07
Organizational Communication	3.38	3.54	3.34	3.39	3.29	3.40
Adequate supplies to do the job	3.14	3.33	3.11	2.99	2.98	3.14
Adequate equipment to do the job	3.32	3.44	3.33	3.18	3.23	3.31
Nurse-Nurse Interaction[e]	5.11	5.34	5.00	5.10	4.81	5.10
RN-Physician Interaction[e]	4.35	4.58	4.23	4.40	4.04	4.35
Stress - Workload	3.81	3.65	3.84	3.92	3.89	3.79
Frequency of experiencing great stress	3.52	3.32	3.63	3.60	3.61	3.64
Timing to Exit Nursing	4.51	4.41	4.42	4.36	4.42	4.41
Timing to Exit Setting	3.88	3.84	3.78	3.76	3.66	3.81

[a]All nurses who responded to all 10 policy preference choices, even if not "logically".

[b]All satisfaction scores (except two[e]) are based on a scale from "1" = "low satisfaction" to "5" = "high satisfaction."

[c]Total annual earnings from nursing jobs, all nurses regardless full time/ part time status.

[d]Total annual earnings from nursing jobs, for nurses working full time or more, only.

[e]Nurse-Nurse and RN-Physician interaction scores are based on scale from "1" = "low" to "7" = "high satisfaction."

Table 7.13 presents job satisfaction scale scores and timing-to-exit scale scores for nurses now grouped in two categories (collapsed from the five policy preference categories described earlier). The 3,256 nurses grouped within the category "financial compensation is #1 job priority" selected either compensation or third party payment four out of four times. The 5,780 nurses grouped within the category "financial compensation is not #1 job priority" selected "autonomy" or "recognition" or "third party payment" four out of four times. The resulting pattern of scale scores indicates that

[5] Further support for collapsing the five levels of "policy preferences" to two levels (valuing compensation vs. other job dimension as #1 job priority), were provided by the results of an exploratory factor analysis.

significant relationships exist between prioritizing compensation, job satisfaction, and intentions to leave one's current job or the nursing profession.

Table 7.13
Job Satisfaction, Salary, and Timing to Exit Means by Priority of Compensation over Other Job Satisfaction Dimensions (i.e., Recognition, Autonomy or Technology)

Salary and Job Satisfaction Scales	Financial Compensation is 1st Job Priority		Autonomy, Recognition, or Technology is 1st Job Priority	Eta	Sig.
N =	3,256		5,780		
Job Satisfaction	3.33	<	3.51	.114	.000
Organizational Commitment	3.09	<	3.25	.094	.000
Satisfaction with Pay	2.55	<	3.06	.175	.000
Promotional Opportunity	2.52	<	2.72	.104	.000
Enthusiasm for Recommending a Career in Nursing	2.22	<	2.61	.153	.000
Timing to Leave Job	3.85	>	3.80	.016	.124
Timing to Leave Nursing	4.49	>	4.40	.040	.000
Salary if Full Time	$57,660		$59,212	.036	.005

The mean job satisfaction score for nurses whose first priority was financial compensation was 3.33. Nurses whose first priority was not financial had a mean job satisfaction score of 3.51, significantly higher. In a very similar fashion, the scale scores for the compensation-directed group were lower in terms of organizational commitment (3.09 vs. 3.25); less satisfied with their current pay (2.55 vs. 3.06); and less enthusiastic about recommending the nursing profession to others (2.22 vs. 2.61). And yet – despite the generally higher level of job dissatisfaction exhibited by those nurses for whom financial compensation was their top preference priority – these are also individuals with somewhat greater propensity to remain in the field longer.

The mean timing-to-exit score for nurses valuing compensation most is 4.49. The mean timing-to-exit score for nurses valuing another job dimension most is 4.40 (statistical significance of difference exceeds .000 level). This collapsing of the data into two levels shows even more clearly what was observed earlier – *nurses prioritizing financial compensation are less satisfied with their jobs but less inclined to leave them.*

POLICY IMPLICATIONS OF NURSES' POLICY PREFERENCE SELECTIONS

The findings of this chapter provide balance to the findings presented in Chapters 2 and 3 of this report. The correlations of specific job satisfaction scales with the global job satisfaction scale indicated that satisfaction with pay was less important for job satisfaction than other job dimensions, in particular, autonomy and recognition. In this

policy preferences analysis, based upon a paired-comparisons choice procedure, nurses overall were found to attribute greater weight to "compensation" as a factor contributing to their job satisfaction, than either "autonomy" or "recognition."

The above discussion has tried to resolve this apparent paradox by showing that the valuing of compensation above other job dimensions is related to lower overall job satisfaction, yet is also related to contemplated "stays" in the nursing profession longer than other nurses. Therefore, the above analysis concludes that nurses who selected compensation or third party payment as the "factor most important for their job satisfaction" are indicating that financial compensation is *the factor most important for getting and keeping a job, rather than for finding satisfaction within a job.*

This finding suggests that many (if not most nurses) are willing to tolerate some level of job dissatisfaction in return for adequate compensation. Indeed, many nurses wrote to us that they have no choice in this regard - at this point in their lives and with the training they have, they are not qualified for any other job that will provide them comparable compensation. Moreover, many are at a point in their lives where their financial obligations prevent them from taking a lower paying, though potentially more satisfying, job.

> "Am I satisfied with my job? Absolutely not! Do I plan on leaving nursing? No. *I've invested too much time and money to leave."*

In the short run, therefore, increasing nurses' salaries may help alleviate the shortage, or at least slow the widening gap between the number of nurses needed and the number available. But our data indicates that *increasing salaries alone, without instituting other measures to enhance nurses' satisfaction within their jobs, would be a short-term solution of limited effectiveness.*

Global job satisfaction, frequency of great stress, and family responsibilities incompatible with nursing, contribute far more heavily to nurses' decisions to exit the profession than the priority they give to the compensation they receive. Moreover, nurses who have indicated to us that the level of compensation they receive is their first priority, for the most part *would recommend to their friends that they go into a different career*. Therefore, even if adequate pay serves as an inducement to retain some dissatisfied nurses within their jobs, *adequate pay alone is not sufficient inducement for these nurses to recruit others into the nursing profession*.

Chapter 8: Support for Proposed Reforms and Incentives

INTRODUCTION

The report issued by The Blue Ribbon Task Force on the Future of Nursing included many intervention recommendations, both global and specific, for ameliorating the growing nursing shortage.[1] In addition, The Blue Ribbon Task Force strongly advocated "collaboration with stakeholders" in the identification and implementation of intervention strategies. For that purpose, nineteen of the survey questions asked respondents to evaluate specific reform and incentive proposals for their potential efficacy in recruiting and/or retaining nurses. In the pages that follow, we carefully highlight their views – information that should prove quite valuable in guiding future policy discussions and development.

NURSES' VIEWS OF DIFFERENT REFORM PROPOSALS

The survey presented respondents with nineteen different policy proposals for their consideration:

- Two of the proposals involved educational incentives for recruiting new nurses to work in under-served areas;
- Eleven reform proposals had general applicability to the improved retention of nurses in a variety of job titles and job settings; and,
- Six reform proposals were more specifically applicable to retaining nurses in hospital and nursing home settings – settings in which 54.6 and 9 percent of the workforce respectively are currently working.

Respondents were asked to rate these 19 reform and incentive proposals on a five-point scale for their likely impact in either attracting or retaining nurses. While all NYS registered RN survey respondents were asked to evaluate the two educational incentive proposals and the eleven general reform proposals regardless of their working status or experience, only survey respondents with experience working in hospital or nursing home settings were asked to evaluate the six reform proposals specific to those direct care settings. Consequently, the sample weighted "N"s for those six proposals are less than the sample-weighted "N"s for the other 13 proposals.

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[1] The recommendations are fully described in two separate full board Regents reports: *Addressing Nursing and Other Professional Work Force Shortages* and *Follow-Up Activities on Recommendations of the Regents Blue Ribbon Task Force on the Future of Nursing*, December 4, 2001 and March 4, 2002, respectively (Albany, NY).

EFFICACY RANKINGS, PERCENT SUPPORT, AND AVERAGE AGREEMENT SCORES FOR THE 19 PROPOSALS

Respondent Agreement Measures for the Two Incentive Proposals

Table 8.1 below displays the means, standard deviations and percents of respondents expressing agreement that the two proposed educational incentives would be effective in recruiting people into the nursing profession. The virtually identical ratings of 4.09 and 4.10 for the "scholarship" and "loan forgiveness" incentives suggest that most RNs, on average, believe these two reforms would be moderately effective for attracting students to the nursing profession.

Table 8.1
Two Incentives to Attract Good People to the Nursing Profession
Ranks, Means, Standard Deviation, and Percent in Favor, N = 13,658

Proposed Incentives for Recruitment into the Nursing Profession	*Measures of Agreement and Dispersion*		
	Mean[a]	Standard Deviation	Percent in Agreement[b]
Scholarships for education in return for a commitment to work in an under-served area.	4.09	.94	85.4
Loan forgiveness for past education in return for a commitment to work in an under-served area.	4.10	.95	85.6
Corrected Partial Eta	.000		
Corrected significance level: GLM repeated measures	.113		

[a] Scores range from "1", "Would definitely not help (in attracting people to the nursing profession)" to "5", "Would definitely help (in attracting people to the nursing profession)".

[b] "Percent in Agreement" = percent selecting either 1 "Would definitely help" or 2 "Would probably help".

Approximately 85 percent of the respondents selected either "5" *(would definitely help*) or "4" (*might help*) as their response for each of these incentives. Thus, the large majority of nurses believe these incentive measures would be quite effective, although – as we shall see – these incentives did not receive the higher level scores associated with other initiatives.[2] Still, the evidence is compelling that these incentives were viewed as effective strategies by the registered RNs surveyed.

[2] Unlike other reform measures, response distributions to these two proposals were more bimodal in character and were the only proposals presented in a "reverse-coded" format (i.e., 1 = strong agreement and 5 = strong disagreement). Although recoded for appropriate comparison purposes, additional analysis suggested that the "reverse coded" format might have caused confusion for some respondents and responses of "strong disagreement" when "strong agreement" was intended. If this assumption is correct, the mean agreement scores and percent agreement scores for these two proposals (already highly supported), might have been even higher.

Respondent Agreement Measures for Eleven General Reform Proposals

Table 8.2 below displays average "effectiveness" ratings, ranks and percentages of respondents in agreement with eleven reform and incentive measures generally applicable to RNs working in a wide variety of settings. The reforms displayed are listed in rank order of preference. Tied ranks were used whenever the calculated score averages were "so close" as to be virtually identical from a statistical standpoint.

Unlike the two educational incentives which elicited ratings of effectiveness in attracting *new* recruits, these reform proposals were rated based upon their likely impact upon future leave-planning – a critical aspect of the entire workforce retention issue. In short, respondents were asked to consider whether the reform proposal listed would have an impact on a nurse's voluntary leave-taking by rating each proposal on a scale of "1" (*Would definitely cause someone to leave sooner*) to "5" (*Would definitely cause someone to stay longer*).

Table 8.2
Eleven General "Reforms and Incentives" to Retain Good Nurses, Ranks, Means, Standard Deviation, and Percent in Favor, N = 13,725

	Measures of Agreement and Dispersion			
Proposed Reforms and Incentives for Retention	Rank[a]	Mean[b]	Standard Deviation	Percent in Agreement[c]
Preferential state tax treatment for nurses	1	4.55	.62	95.1
Portable pensions/ retirement benefits	1	4.53	.71	94.5
Reimbursement for childcare	2	4.51	.59	96.5
Affordable day care available on site	2	4.52	.60	96.5
Tuition assistance for continuing education provided by your employer	2	4.50	.63	94.9
A higher level of security against workplace violence	3	4.15	.76	79.1
Greater protection against blood-borne or bodily fluid infectious exposure	4	4.11	.80	74.6
A system of peer or senior mentoring	5	4.06	.78	79.3
Application of ergonomic standards to the work setting	6	3.85	.75	71.8
Public transit vouchers/assistance available	6	3.86	.73	67.9
More stringent licensing requirements	7	2.76	.99	19.7
Corrected Partial Eta		.632		
Corrected significance level: GLM repeated measures		.000		

[a]Tied ranks are not statisitcally different at the .05 level.

[b]Scores range from "1", "Would definitely cause someone to leave sooner" to "5", "Would definitely ... to stay longer."

[c]"Percent in Agreement" = percent selecting either "4", "Would probably cause someone to stay longer" or "5", "Would definitely cause someone to stay longer."

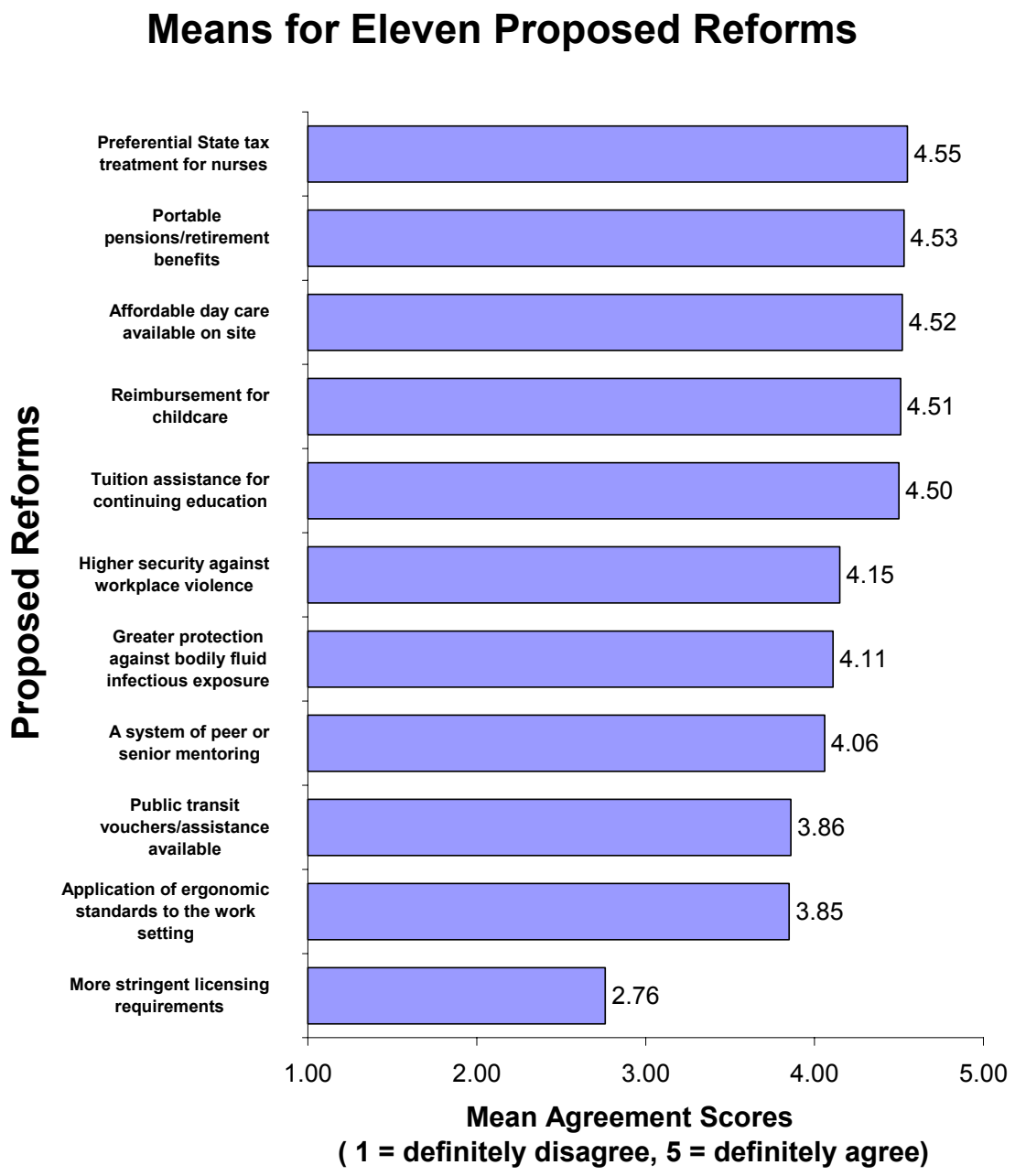
Financial Incentives are Rated as Potentially the Most Effective for Improving Retention

Nurse respondents expressed exceptionally strong support for five of the proposals, with mean agreement scores ranging from 4.50 to 4.55. Ninety-five percent or more respondents indicated their support – with "agreement" responses of either "4" or "5." *It is noteworthy that the five most strongly endorsed proposals were the five that most directly enhance financial compensation for the largest number of nurses*. Summarized in rank order they were: a) Preferential State tax treatment for nurses; b) Portable pensions/retirement benefits; c) Reimbursement for childcare; d) Affordable day care available on site; and e) Tuition assistance for continuing education provided by your employer. The attractiveness of these financial inducements should be viewed in the context of wage-findings presented earlier (in Volume I, Chapter Five). Those analyses indicated that current wage growth during the 1995-2002 period had diminished appreciably in contrast to wage growth experienced during the earlier 1989-1995 period (.09 vs. 2.7 percent). Two of the five financial incentives were also "family-friendly" – given the later age of entry into the profession in recent years, family-friendly incentives make a great deal of sense and are clearly well supported.

While financially oriented incentives, as a class, stand "head and shoulders" above any of the other reforms listed (as revealed in the right-hand column of Table 8.2), a moderate level of support was also expressed for the next five reform proposals listed. With the exception of the public-transit vouchers item, *none of these proposals involved financial inducements*. These moderately supported reforms in order of support were: a) A higher level of security against workplace violence (79.9 percent in agreement); b) Greater protection against blood-borne or bodily fluid infectious exposure (74.6 percent); c) A system of peer or senior mentoring (79.3 percent); d) Application of ergonomic standards to the work setting (71.8 percent); and, e) Public transit vouchers/assistance available (67.9 percent). The average ratings for these particular policy reforms are graphically illustrated in Figure 8.1.

One of the especially noteworthy findings regarding policies designed to reduce physical health and safety threats is that these policies, contrary to expectation, were *not* the special or most highly rated concern of those respondents working in hospital-based or ambulatory-care settings. Rather, the level of support for these health and life-safety policies was remarkably uniform, regardless of setting or position title. For example, while average scale ratings for improved workplace security and greater on-the-job protections against infectious exposure were 4.15 and 4.11 statewide, hospital-based RNs actually rated these policy items as slightly *less* important (ratings of 4.12 and 4.08 respectively).

Figure 8.1
Means for Eleven General Reforms to Retain RNs within the Profession



An improved system of peer and senior mentoring was also moderately well supported – *across the board* – and was not a special concern in any one setting or position title. The only exception in this instance was among those nursing professionals practicing in the nursing education field, or working specifically in higher-educational positions, i.e., the level of support for this policy incentive – given an

average support-rating statewide of 4.06 as seen in Figure 8.1 – was significantly stronger among those in nursing education (mean = 4.38) or serving as Deans or Faculty in Education (mean = 4.39). However, the uniformity of support across titles and across settings was otherwise remarkably consistent.

Policies designed to enhance ergonomic features of one's work (mean = 3.85) and the availability of public transit vouchers (mean = 3.86) also received a moderate, undifferentiated level of support across all job titles and work settings. Not surprisingly, public transit vouchers enjoyed significantly more support among NYC-based nursing professionals than their non-NYC colleagues.

More Stringent Licensure Requirements Were Not Supported

As Figure 8.1 illustrates, only one of the eleven generally applicable reforms and incentives was *not* supported by the majority of nurses. Indeed, the 11th and lowest ranked reform, the introduction of more stringent licensing requirements, truly stands in a class by itself. With a mean agreement score of 2.76, only 19.7 percent of survey respondents expressed the belief that strengthened licensure requirements would have a significant and desired retention effect. This finding might at first seem at odds with the conclusion shared by many research studies that a major factor influencing nurses to remain in the profession is working with other nurses who are competent. This seeming inconsistency may be resolved by a brief discussion of nurses' stance on this subject – a stance they have communicated to the New York State Education Department through letters to the State Board Office, marginal notes written on returned surveys, and positions taken by their professional organizations.

Survey respondents appeared to interpret the proposal for "stricter licensing requirements" as a recommendation for setting a higher pass-point on the NCLEX-RN examination required for licensure in New York State.[3] Nurses have made clear to us that they do not desire a more difficult licensure examination. In their letters, many nurses, however called for enhanced clinical preparation within RN degree granting programs, both at the bachelor's and associate's levels.

In their letters to the State Board Office, many nurses have also rejected proposals for mandatory continuing education requirements as a condition for maintaining licensure registration. On the other hand, RNs have always enthusiastically embraced opportunities for professional development through both formal education and less formal training pathways. As evidence, 39 percent of RN respondents report that they have already earned an additional degree beyond their basic RN preparation, and one quarter of those same RNs plan on obtaining yet another degree. An additional 18 percent of our respondent population has not yet earned an additional degree but plan to do so in the future.

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[3] The National Council of State Boards for Nursing (NCSBN) NCLEX – RN examination for 2002 had a pass rate of 86.7 percent for U.S. educated first time exam takers, and 55.4 percent for non U.S.-educated first-time exam takers.

Nurse professional organizations have taken the position that the real key to the acquisition of the specialized knowledge, skills, and experience required to provide the critical, often highly specialized care needed by many patients, is *not* secured through RN licensure itself. Rather it is best achieved through additional formal education, careful on-the-job senior mentoring and national specialty certification programs that provide validation of such specialized knowledge.[4]

It is important to note, however, that a sizeable group of RNs educated outside of the U.S., mostly working within hospitals in the New York City five-borough area, consistently express a substantially different rank order of preferences for these reforms. Those nurses express a *much* higher level of support for the three reforms related to protecting their health and safety, and the majority actually *favors* stricter licensing requirements, unlike the majority of the total respondent population. This differential ranking of reform preferences may be accounted for by differences in the patient populations served in inner-city NYC hospitals. Differential NYC and non-NYC preferences will be discussed more thoroughly following the discussion of reform proposals associated with hospital and nursing home settings.

Respondent Measures of Support for Six Nursing Home and Hospital Reforms

Table 8.3 below displays means, ranks and percentage support for six reform and incentive measures primarily applicable to RNs working in hospital or nursing home settings. Accordingly, only nurses with experience working in those settings were asked to evaluate these proposals. As a result, all of the sample-weighted frequency counts reported in the associated tables are lower than those reported earlier in response to general reform initiatives.

Once again, these hospital-focused reforms are listed in rank order of preference, in terms of their expected impact on voluntary turnover or retention. Respondents ranked the reform proposals on a scale from "1" (*Would definitely cause someone to leave sooner*) to "5" (*Would definitely cause someone to stay longer*).

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[4] On this point, see for example, the American Association of Critical Care Nurses Certification Corporation, *Safeguarding the Patient and the Profession*, (December 2002).

Table 8.3
Six Hospital and Nursing Home Reforms to Improve Retention of Good Nurses, Ranks, Means, Standard Deviation, and Percent in Favor, N = 11,447[d]

Proposed Reforms and Incentives for Retention	*Measures of Agreement and Dispersion*			
	Rank[a]	Mean[b]	Standard Deviation	Percent in Agreement[c]
Reduction in Maximum Patient to Nurse Ratio	1	4.74	.53	98.3
Control over Work Schedule	1	4.72	.56	97.4
Stable Schedules without Rotating Shifts	2	4.69	.58	96.5
"No-float" Staffing Policies	3	4.62	.62	95.3
Restrictions on Mandatory Overtime	4	4.57	.73	93.3
Maximum Hourly Shift Lengths	5	4.34	.89	86.8
Corrected Partial Eta		.277		
Corrected significance level: GLM repeated measures		.000		

[a]Tied ranks are not statistically different at the .05 level.

[b]Scores range from "1", "Would definitely cause someone to leave sooner" to "5", "Would definitely... to stay longer."

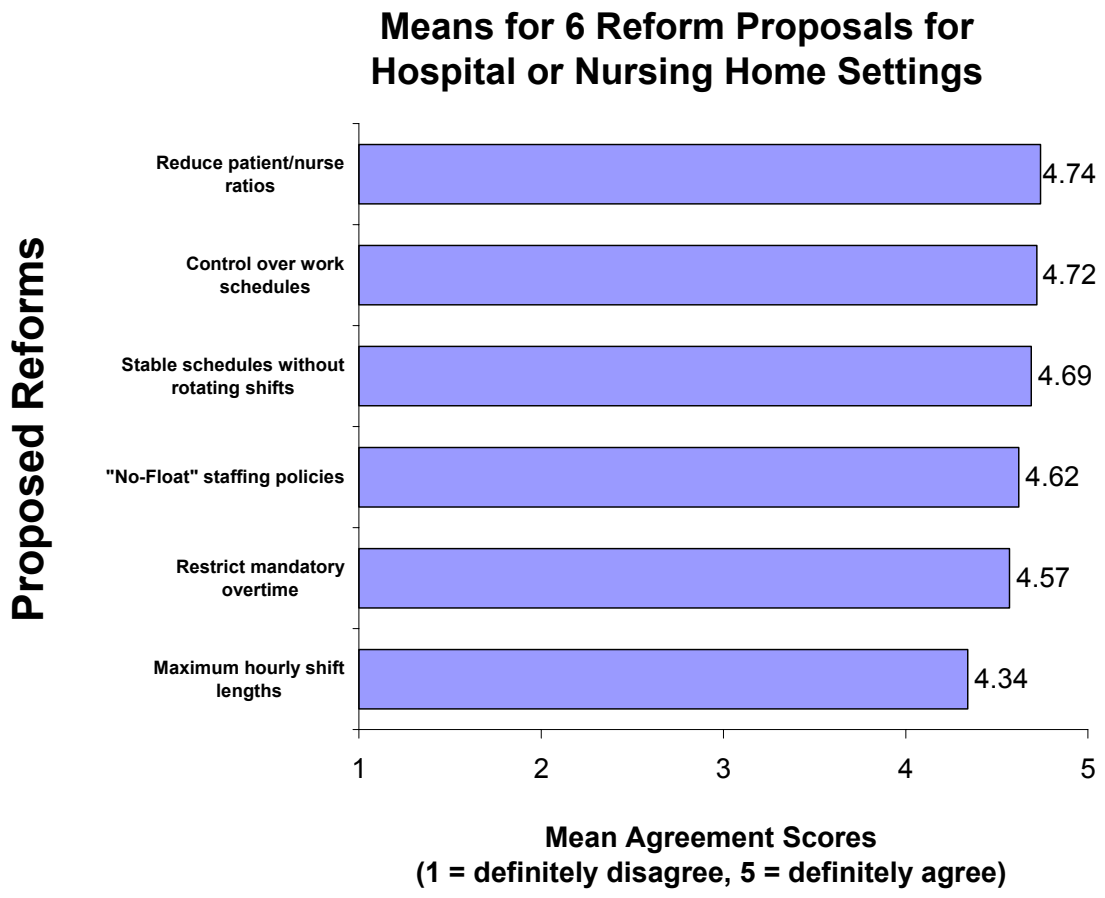
[c]"Percent in Agreement" = percent selecting either "4", "Would probably cause someone to stay longer" or "5", "Would definitely cause someone to stay longer."

[d]This sample-weighted N is smaller than the sample-weighted N for the two incentives or the 11 general reforms because only respondents who work(ed) in a hospital or nursing home were requested to rate these six reforms.

The support nurses expressed for five of these hospital and nursing home-directed reform proposals was *stronger than the level of support expressed for any of the eleven general reforms and two educational incentives designed to attract new entrants discussed earlier*. As shown in Table 8.3, between 93 and 98 percent of nurses believed these reforms would be successful in helping to retain nurses within the profession. The sixth ranked reform of this group, “maximum hourly shift lengths,” was still supported as strongly as the five most popular general reforms discussed above.[5] Figure 8.2 below graphically displays the uniformly very strong level of support expressed for each of these six reforms.

[5] Nurses might have rated this “Maximum hourly shift lengths” reform as highly as the five other hospital and nursing home setting reforms, if all respondents had interpreted the proposal as intended. The abbreviated presentation of the proposal resulted in a small but substantial minority of respondents interpreting “Maximum hourly shift lengths” to mean a *requirement to work full eight-hour shifts* as a means of addressing the shortage. Also, others feared that this proposal meant that they would not be able to work *more* than an eight-hour shift, and so earn overtime pay, even if they voluntarily chose to do so. Marginal notes written on the surveys provided evidence that these interpretations of the proposal were associated with low efficacy ratings. Absent these differing interpretations, the mean efficacy score would certainly have been higher.

Figure 8.2
Six Reforms for Hospital and Nursing Home Settings to help Retain RNs



Reducing Nurse Caseloads is Most Strongly Supported of all Reform Proposals

"A reduction in the maximum number of patients under the care of a single nurse" was the most strongly supported reform proposal of all the nineteen presented for evaluation to the survey respondents. It received an average "agreement" score of 4.74 on a scale of "1" to "5" where a "5" meant that such a reform "Would definitely cause someone to stay longer." A remarkable 98.3 percent of hospital and nursing home-based respondents expressed the belief that a reduction in nurses' caseloads would prove a highly effective strategy in retaining nurses within the profession. The inpatient hospital staff nurse supplement of Volume III of this report demonstrates both the unusually high level of workload stress and the high frequency of great stress experienced by RNs working within inpatient hospital settings. Those findings help explain the universally high level of support among inpatient RNs for improved staffing patterns.

That view was also exceptionally well captured by qualitative comments submitted by survey respondents. The following qualitative comments (see Supplement B in Volume III) are illustrative and typical of those we received concerning this particular issue:

> "I quit nursing because of the frustration of not having the time to provide *excellent* care to my patients. The patient load was too heavy. I consistently felt like I was in a hurry. I missed breaks and lunch because it was more important to care for these very ill patients. A four-year degree with a cumulative 3.8 average is left unused. BURN OUT."
>
> "I have been in situations where I was the only nurse on a unit because there was no other staff… It is a dangerous situation. If something went wrong I would have been responsible *regardless* of the staffing situation. Being overworked is not a legal defense…"
>
> "I believe one of the biggest problems in nursing is excessive workloads, which prevent anyone being able to successfully provide quality patient care… (I have been) put in dangerous situations with patient loads beyond what I could safely manage. Just six months out of nursing school I was given charge over 24 pediatric beds including preemies under six pounds on IV medications and patients on cardiac monitors, with only one float nurse (who had no pediatric background) to help me. I refused this assignment, as I had been taught to do if I felt an assignment was unsafe, and was told I had to do it, there was nobody who could stay for the evening shift…."

Recent hospital clinical research also provides a more dispassionate, but no less compelling case for staffing level reform. For example, Linda Aiken and a team of healthcare researchers at the University of Pennsylvania have recently published a landmark article about this issue: *Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction* [Journal of the American Medical Association].[3]

That article described a carefully controlled study, which adjusted for both patient and hospital characteristics, and its startling results – *for every additional patient in a nurse's caseload, the likelihood of a surgical patient dying within 30 days of admission increased by seven percent*. The likelihood of "failure to rescue" mortalities also increased by seven percent. Aiken's report concludes that adequate nurse staffing "contributes importantly to the surveillance, early detection, and timely interventions that save lives." Similar clinical studies of the nursing staffing ratio – morbidity relationship lead to precisely the same conclusion.

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[3] See Aiken, L.., Clarke, S.P., Sloane, D., et. al. (2002). "*Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction." Journal of the American Medical Association*, 288: pp. 1987-1993.

Nurses Want Control over their Work Schedules - No Rotating Shifts, No Surprise "Float" Assignments, No Mandatory Overtime

If reduction in maximum patient caseloads commanded first place, as the proposal deemed most likely to retain good nurses, "control over [one's] work schedule" was rated almost equally highly. This second-most highly rated reform proposal was accorded an average "agreement" score of 4.72 and enjoyed the support of 97.4 percent of respondents – who agreed that it would be effective as a retention strategy.

The three other reform proposals closely related to control over work schedule were also very strongly supported – "stable schedules without rotating shifts" with a mean score of 4.69 and 96.5 percent in agreement; "no-float" staffing policies" with a mean score of 4.62 and 95.3 percent in agreement; and, "restrictions on mandatory overtime work" with a mean score of 4.57 and 93.3 percent support level. Given the uniformly high level of belief in the efficacy of such reform proposals, it should come as no surprise that qualitative opinion on this point was also unambiguous. As one professional noted:

> "Mandatory overtime is totally unacceptable… I remember an excellent ICU RN lamenting, as she attended my mother, that she was 'so tired…' this was her 2nd shift. Imagine how sharp her mind must have been! …(Nurses are often) expected to work 8-10 days consecutively, (with) no lunch or coffee breaks… (They are) force 'floated' to unaccustomed areas so the schedule meets code for the State inspectors; denied even a discussion of a requested day off, let alone receive it; on-call nursing personnel are mandated to come in and work ALL day after a busy night on duty while lab, X-ray and anesthesia people are allowed off; and nurses receive the proverbial low pay for all of the above."

While "restrictions on mandatory overtime" received strong support as a reform initiative from the entire group of respondents with experience working in hospitals and nursing-homes, those nurses who *both* work overtime and further report their overtime work is typically done on a "mandatory" basis expressed almost universal agreement that this reform would "definitely cause someone to stay longer in the nursing profession." The overwhelming support for this proposal by those compelled to work mandatory overtime on a regular basis is demonstrated by the data shown in Table 8.4.

The average scores for the "mandatory overtime" reform proposal displayed in this table are broken down by four levels of overtime work status, i.e., "does not work overtime," "overtime never mandatory," "overtime sometimes mandatory," and "overtime always mandatory." The level of support for reform in this area increases progressively as mandatory overtime requirements become more restrictive.

Table 8.4
Mean Agreement Scores for Proposal to Restrict Mandatory Overtime, by Overtime (OT) Work Status

	Means for Agreement with Proposal Score (1 = Definitely Disagree to 5 = Definitely Agree)						
	Does Not Work on OT Basis	Works OT, Never Mandatory	Works OT, Sometimes Mandatory	Works OT, Always Mandatory	*Total*	Eta[a], **(3 'Works OT' Levels)**	Eta[a], **(all 4 Levels)**
Reform Proposal	*N = 5,783*	*1,389*	*1,464*	*550*	*9,185*		
Restrictions on mandatory overtime work	4.53	4.54	4.66	4.72	4.56	.103	.084

[a]Both three level and four level analyses of variance are significant above the .001 level.

Those respondents who report that all the overtime work they do is done on a "mandatory" basis have an average initiative support score of 4.72 – a rating level identical to the most strongly supported reform initiative discussed earlier, the reduction of nurse caseloads. Clearly, the exceptionally high level of endorsement this specialized subgroup gives to this reform should be given serious consideration, because members of this group are the nurses most likely to leave nursing due to their dissatisfaction with mandatory overtime practices.

The observation that nurses required to work mandatory overtime have extremely strong feelings regarding the need for reform in this area takes on added force when one considers the striking pattern of scale scores displayed in Table 8.5 below. Nurses working mandatory overtime, especially those whose overtime work is "always mandatory," report substantially lower levels of job satisfaction, and report intentions of leaving both their jobs and the nursing profession significantly sooner, than nurses whose overtime work is not performed on a mandatory basis.

The job satisfaction scale score means shown in Table 8.5 indicate that nurses who work *overtime that is never mandatory* are just as satisfied with their jobs as nurses who *never work overtime*, (although all nurses who work any type of overtime report experiencing significantly more stress at work than those who never work overtime). Nurses who report *sometimes* working mandatory overtime are substantially more unhappy in their jobs than nurses who never work mandatory overtime, and *nurses who report that all their overtime work is done on a mandatory basis are the least satisfied by far.* In a similar fashion, nurses working progressively more mandatory overtime are also increasingly less committed to their organizations and report experiencing greater levels of stress on the job.

To provide a basis for comparison, the level of satisfaction expressed by the group of nurses who never work overtime by choice is lower than the level of satisfaction expressed by any group of nurses working in any job setting or job title (see tables in Chapter 3 for satisfaction means by job setting and job title). In fact, the job title associated with the lowest mean global job satisfaction score – the "inpatient staff nurse" title, with a mean satisfaction score of 3.31 – certainly includes most of the respondents who claim to work only mandatory overtime. The exceptionally low mean

global satisfaction score (3.09) of these overtime-is-always-mandatory nurses no doubt contributes to the very low average satisfaction score of all inpatient staff nurses.

Table 8.5
Mean Satisfaction Scale and Timing to Exit Scale Scores by Overtime (OT) Work Status

Satisfaction and Timing to Exit Scales	*Means for Agreement with Proposal Score (1 = Definitely Disagree to 5 = Definitely Agree)*						
	Does Not Work on OT Basis	Works OT, Never Mandatory	Works OT, Sometimes Mandatory	Works OT, Always Mandatory	*Total*	Eta[a], **(3 'Works OT' Levels)**	Eta[a], **(all 4 Levels)**
N =	*7,637*	*1,656*	*1,646*	*626*	*11,565*		
Satisfaction Scales[b]							
Global Job Satisfaction	3.50	3.49	3.37	3.09	3.45	.176	.128
Organizational Commitment	3.26	3.25	3.08	2.84	3.21	.177	.138
How often do you feel under great stress?	3.36	3.69	3.86	3.87	3.52	.121	.188
Job Stress: Workload	3.66	3.96	4.04	4.08	3.78	.069	.206
Timing to Exit Scales[c]							
Timing to exit job setting	3.78	3.97	3.82	3.52	3.80	.116	.070
Timing to exit nursing profession	4.38	4.60	4.45	4.27	4.42	.111	.075

[a]Both three level and four level analyses of variance are significant above the .001 level.

[b]Satisfaction scale scores range from "1", "strongly dissatisfied" to "5", "strongly satisfied."

[c]Timing to Exit Scale scores range from "1", "I have already left" to "2", "planning to leave in the next 12 months", to "3", "planning to leave in 1 to 2.9 years", to "4", "… in 3 to 4.9 years", to "5", "not for 5 years or more."

The progression in overtime classification from “never mandatory” to “sometimes mandatory” to “always mandatory” mirrors a similar progression in expressed intent to leave both the current job setting and the nursing profession sooner. Thus, as overtime requirements become more mandatory, the reported timing for exit intentions grow shorter, as evidenced by diminishing mean scores of 3.97, 3.82, 3.52 and 4.60, 4.45, 4.27 respectively for leaving the job setting and leaving the profession.[6] The increased propensity of nurses working mandatory overtime to leave the profession sooner provides the most compelling reason yet to make this reform a priority.

SUPPORT FOR REFORM PROPOSALS ACROSS JOB TITLES AND WORK SETTINGS

Tables 8.6 through 8.9 demonstrate that the levels of support expressed for each of the 19 reform and incentive proposals are remarkably uniform – *regardless* of the job setting or job title of the RNs evaluating the proposals.

Table 8.6 displays the average agreement scores for each of the 19 reform and incentive proposals for nurses currently or recently (within the last three years) working within each of nine different job setting categories. One-way analysis of variance

[6] It is true that people not working any overtime express the intention to leave the profession sooner than all but those always compelled to work mandatory overtime, but this finding is probably an artifact of the fact that many older nurses tend to leave jobs requiring overtime, because the physical demands become too much. The mean age of our nurse respondents working on an overtime basis is 45.6. The mean age of our nurse respondents not working on an overtime basis is 47.9.

comparisons of "agreement" score means by work setting were conducted in order to determine whether in fact there were meaningful support differences by setting.

The eta statistic, reported in the right-hand side of the table, is a measure of association appropriate for analyses of this type. Like a Pearson correlation coefficient, it ranges in value from 0.0 to 1.0 and high values indicate that, indeed, the various groups under study differ substantially in their preference ratings. In contrast, if the strength of the observed association is low, this provides compelling evidence that support for a proposal is highly similar across all nursing categories.

These one-way analysis of variance tests resulted in 17 eta coefficients with magnitudes of .075 or below. The remaining two eta coefficients were a modest .091 and .112. Stated somewhat differently, for 17 of the 19 reform proposals, less than 0.6 percent of the variance in level of support for the proposals can be accounted for by the job setting of the respondents.[7] The greatest share of score variance for a reform proposal that can be accounted for by job setting is only 1.3 percent, for the "*no-float* staffing policies" proposal. This finding is largely accounted for by the stronger than average level of support accorded the "no-float" proposal by nurses currently working in hospital settings. The minimal strength of these measures of association has one important policy implication: *nurses are in remarkable agreement in their support for these initiatives – regardless of the setting in which they practice.*

In spite of the overall uniform level of support for each proposal across job settings, the bolded, italicized and underlined maximum and minimum scores within each row reveal an interesting pattern. An examination of the average support ratings in the "Nursing Education" job setting column demonstrates that nurse educators consistently expressed higher levels of support for 17 of the 19 reforms than did nurses within any of the other eight job setting categories. Since nurse educators often play critical advocacy roles in promulgating reform proposals, it comes as no surprise that they express greater than average enthusiasm about the likelihood of success for those reforms.

[7] The square of the eta statistic represents the percentage of the variance that can be accounted for by membership in one of the categories for which the means are computed (in this case "job setting" categories). Thus, where the eta value is only .09 (as in the case of support for greater "control over work schedule," only 0.81 percent of the variation in agreement scores can be attributed to differences in the work setting.

Table 8.6
Nineteen Reforms and Incentives by Nine RN Work Settings

Nineteen Reforms and Incentives	*Nine RN Work Settings*										
	Ambulatory Care	Govnmnt, Prof & Health Orgs	Home Health Agencies	Hospitals	Physician's Offices	Nursing Homes	Nursing Education	School Health	Other	Total	Eta[b]
N[a] =	*635*	*296*	*912*	*6,341*	*575*	*1,064*	*250*	*657*	*1,211*	*11,942*	
Two Incentives to Attract People to the Nursing Profession											
Scholarships for education in return for a commitment to work in an under-served area.	3.08	4.14	4.04	4.06	***3.99***	4.14	***4.32***	4.11	4.06	4.07	.051
Loan forgiveness for past education in return for a commitment to work in an under-served area.	3.09	4.10	4.10	4.09	***4.03***	4.08	***4.35***	4.08	4.12	4.10	.043
Eleven General Reforms to Retain Nurses											
Preferential state tax treatment for nurses	4.54	***4.69***	***4.52***	4.58	4.54	4.56	4.62	4.55	4.55	4.56	.047
Portable pensions/ retirement benefits	4.49	***4.44***	4.53	4.52	4.57	4.56	***4.65***	4.58	4.58	4.53	.048
Reimbursement for childcare	4.52	***4.45***	4.51	4.51	4.56	4.47	***4.62***	4.51	4.51	4.51	.041
Affordable day care available on site	4.52	***4.38***	4.46	4.52	4.57	4.48	***4.65***	4.52	4.53	4.51	.062
Tuition assistance for continuing education provided by your employer	4.49	4.44	***4.43***	4.48	4.55	4.49	***4.64***	4.55	4.51	4.49	.055
A higher level of security against workplace violence	4.11	4.13	***4.02***	4.12	4.10	4.10	***4.21***	4.20	***4.21***	4.13	.061
Greater protection against blood-borne or bodily fluid infectious exposure	***4.01***	***4.01***	***4.01***	4.08	4.12	4.02	***4.18***	4.21	4.15	4.08	.065
A system of peer or senior mentoring	***4.03***	4.04	4.06	***4.03***	4.11	4.09	***4.38***	4.13	4.11	4.06	.075
Application of ergonomic standards to the work setting	3.84	3.85	3.85	3.83	3.83	3.87	***3.99***	***3.79***	3.88	3.84	.040
Public transit vouchers/assistance available	3.81	***3.74***	3.82	3.85	3.86	***3.96***	3.88	3.88	3.89	3.86	.056
More stringent licensing requirements	2.76	2.69	***2.63***	2.77	2.66	2.81	***2.94***	2.69	2.76	2.75	.056
Six Hospital and Nursing Home Reforms to Retain Nurses											
N[a] =	*442*	*178*	*465*	*6,307*	*323*	*1,076*	*160*	*330*	*712*	*9,993*	
Reduction in Maximum Patient to Nurse Ratio	4.70	***4.69***	4.75	4.75	4.73	***4.69***	***4.81***	4.75	4.73	4.74	.042
Control over Work Schedule	4.74	4.67	4.67	4.73	***4.76***	***4.57***	***4.76***	4.75	4.74	4.71	.091
Stable Schedules without Rotating Shifts	4.70	4.70	4.67	4.68	4.68	4.58	***4.79***	4.70	4.72	4.67	.063
"No-float" Staffing Policies	4.63	4.61	4.51	***4.66***	4.58	***4.45***	***4.65***	4.61	4.59	4.62	.112
Restrictions on Mandatory Overtime	4.59	4.54	4.59	4.56	4.58	***4.45***	***4.69***	4.64	4.64	4.56	.066
Maximum Hourly Shift Lengths	4.36	***4.23***	4.38	4.30	4.35	4.28	***4.47***	4.42	4.44	4.32	.056

Note: The maximum and minimum level of agreement means for each proposal are bolded and underlined within each row.

[a]The sample weighted N for the two incentives and eleven general reforms is greater than the N for the six hospital and nursing home reforms because only RNs with hospital or nursing home experience were requested to respond to the six reforms related to those settings.

[b]The only eta values not significant at the .01 level were for "Application of ergonomic standards to the work setting" and "Reduction in maximum nurse to patient ratios".

Tables 8.7, 8.8 and 8.9 show the same remarkable uniformity of the level of support for each incentive or reform proposal regardless of the nurse respondents' job title. (Only nurses currently working with that job title, or nurses working within the last three years with that job title, were included within these analyses.) Once again 17 of the 19 eta coefficients have values less than .075. Thus, for each of those 17 separately analyzed reforms, job title accounts for less than 0.6 percent of the variance in the level of support nurses expressed for those reforms. Stated differently, the average support levels calculated and reported here *do not* differ from title to title. There is an unusually high degree of unanimity about these reforms.

In the specific instance of the scholarship and loan forgiveness responses shown in Table 8.7, support levels were consistently high with minimal variation observed among nurses in distinct job titles. The sole exception to this general finding was the even higher level of support for these proposals expressed by in-service educators and deans and faculty in nursing education programs. Among deans and faculty, average support ratings for the scholarship commitment proposal and the loan forgiveness program were 4.45 and 4.43 respectively – significantly higher than the support levels accorded by all staff (average agreement scores of 4.07 and 4.10 respectively).

As was the case when discussing variations in agreement scores by job setting, the greatest amount of variation in ratings accounted for by "job title" was for the reform proposal "*no-float* staffing policies" – with an eta coefficient of .115, and a squared eta value of .013 (shown in Table 8.8). Stated differently, job title differences in this case accounted for 1.3 percent of the variance in agreement scores. This finding is mostly accounted for by the higher than average level of enthusiasm for this reform among the very large group of inpatient staff nurses, who mostly work within hospital settings.

The "runner up" eta value was a modest .101 for the proposal "a system of peer or senior mentoring." As with many other reform proposals, nursing faculty were significantly more enthusiastic about the likely effectiveness of this "mentoring" proposal than were other nurses. One reason nursing faculty may endorse this proposal to a greater extent than other nurses is because many of them have probably had first-hand experience with the success of peer mentoring programs for nursing students. The use of peer mentoring as a component of nursing education has been growing in popularity, as its utility is increasingly being explored and documented.[8]

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[8] Glass, N. and Walter, R. An experience of peer mentoring with student nurses: Enhancement of personal and professional growth (2000) Journal of Nursing Education 39(4): 1-6

Table 8.7
Means for Two Incentives by Job Title (13 levels)

Job Titles	*N*	*Mean Scores (1 = Low, 5 = High)*	
		Scholarships for Education in Return for a Commitment to Work in an Under-served Area	Loan Forgiveness for Education in Return for a Commitment to Work in an Under-served Area
Inpatient Staff Nurse	4,799	4.07	4.09
Outpatient Staff Nurse	1,731	4.03	4.05
Certified Registered Nurse Anesthetist	53	4.29	4.17
Claims/QA/UR/Risk Management	431	***4.00***	***4.01***
Consultant/Researcher	184	***4.00***	***4.02***
Dean or Faculty in Nursing Education Program	258	***4.35***	***4.43***
Director/VP/Chief of Nursing	388	4.17	4.22
In-service Educator or Clinical Nurse Specialist	419	4.03	4.04
Nurse Practitioner	494	4.12	4.18
Nurse Manager/Patient Care Coordinator	1,204	4.12	4.15
Independent Practitioner or Private Duty Nurse	195	4.14	4.13
Public/Community Health Nurse	562	4.15	4.11
Other	1,236	***4.00***	4.04
Total	11,955	4.07	4.10
Eta		.065	.072
ANOVA Significance		.000	.000

Note: Bolded and underlined means are the highest and lowest values within each column.

The rows corresponding to “Consultant/Researcher” and to “Dean or faculty in a nursing education program” consistently yield some of the highest mean “agreement scores,” indicating a (statistically) significantly higher level of enthusiasm for most reforms by nurses holding those job titles than is shared by nurses with other job titles. As stated earlier, nurses in these leadership roles often act as advocates for reforms. Their job experiences as advocates and promulgators of reform initiatives may contribute to the significantly greater level of enthusiasm that they express for the potential effectiveness of these reforms.

Table 8.8
General Retention "Reforms and Incentives" by Job Title (13 levels)

Job Title	*Mean Agreement Scores (1 = Low, 5 = High)*										
	Reform[a] 1a Tax	Reform 1b Pension	Reform 2a Childcare	Reform 2b Daycare	Reform 2c Tuition	Reform 3 Security	Reform 4 Infection	Reform 5 Mentors	Reform 6a Erg.	Reform 6b Transit	Reform 7 Lic.Reqs
Inpatient Staff Nurse	4.58	4.52	4.48	4.49	4.47	4.14	4.11	4.00	3.82	3.88	2.78
Outpatient Staff Nurse	4.54	4.54	4.52	4.49	4.48	4.15	4.11	4.04	3.85	3.84	***2.68***
Certified Registered Nurse Anesthetist	***4.48***	4.50	4.50	4.57	4.48	***4.01***	4.07	3.98	***3.80***	***3.80***	2.83
Claims/QA/UR/Risk Management	4.58	4.54	4.55	4.48	4.48	4.09	***4.13***	4.10	3.83	3.81	2.79
Consultant/Researcher	4.58	4.56	4.57	4.59	4.58	4.08	4.08	4.17	3.92	3.87	2.85
Dean or Faculty in Nursing Education Program	4.55	4.60	4.54	***4.60***	4.60	***4.22***	4.11	***4.39***	***3.98***	3.86	2.86
Director/VP/Chief of Nursing	4.59	4.58	***4.62***	4.57	4.54	4.06	***3.90***	4.17	3.80	***4.01***	2.78
In-service Educator or Clinical Nurse Specialist	4.55	***4.61***	4.55	4.57	4.55	4.05	3.99	4.16	3.94	3.83	***2.87***
Nurse Practitioner	***4.61***	4.51	4.50	4.55	***4.60***	4.06	3.99	4.12	3.84	***3.80***	2.71
Nurse Manager/Patient Care Coordinator	4.57	4.53	4.56	4.55	4.51	4.10	4.01	4.11	3.89	3.84	2.75
Independent Practitioner or Private Duty Nurse	4.49	***4.47***	***4.43***	***4.46***	***4.38***	4.17	4.11	***3.97***	3.88	3.94	2.73
Public/Community Health Nurse	4.58	4.51	4.54	4.53	4.53	4.12	***4.13***	4.06	3.81	3.84	2.70
Other	4.53	4.55	4.48	4.50	4.47	4.13	4.09	4.13	3.82	3.84	2.72
Total	4.57	4.53	4.51	4.51	4.49	4.12	4.08	4.06	3.84	3.86	2.75
Eta	.037	.033	.060	.054	.062	.043	.067	.101	.050	.052	.051
ANOVA Significance	.218	.347	.000	.001	.000	.049	.000	.000	.021	.003	.007

[a]See Table 8.2 above for ranked list of unabbreviated reform proposals corresponding to Reforms 1a - 7.

Note: Bolded and underlined means are the maximums and minimums within each column.

As noted earlier, and as detailed in Table 8.9, the support accorded to each of the six reform initiatives specific to hospital and nursing home settings was higher than the level of support expressed for any of the thirteen initiatives not specific to those settings. Furthermore, support levels for these reforms were so high – and so consistently held regardless of job title – that any parsing of the slight differences between title groups would not be productive.

Table 8.9
Means for Six Hospital and Nursing Home Reforms to Help Retain RNs, By Job Title (13 levels)

Job Titles	*N*[b]	*Mean Agreement Scores (1 = Low, 5 = High)*					
		Reform[a] 1a Maximum Patient/RN Ratio	Reform 1b Control Over Schedule	Reform 2 Stable Schedules	Reform 3 "No -float" Staffing	Reform 4 Restrict Mandatory OT	Reform 5 Maximum Shift Lengths
Inpatient Staff Nurse	4,856	4.76	4.72	4.67	4.68	4.55	4.27
Outpatient Staff Nurse	1,283	4.69	4.73	4.69	4.63	4.55	4.35
Certified Registered Nurse Anesthetist	46	***4.61***	***4.90***	4.70	4.68	***4.66***	4.46
Claims/QA/UR/Risk Management	316	4.71	4.70	4.72	4.58	4.64	4.39
Consultant/Researcher	129	***4.81***	4.82	***4.79***	***4.74***	4.63	***4.59***
Dean or Faculty in Nursing Education Program	139	4.79	4.71	4.73	4.56	4.64	4.48
Director/VP/Chief of Nursing	314	4.68	***4.60***	***4.57***	4.44	4.50	4.36
In-service Educator or Clinical Nurse Specialist	343	4.71	4.71	4.67	4.57	4.60	4.40
Nurse Practitioner	358	4.66	4.72	4.68	4.56	4.58	4.41
Nurse Manager/Patient Care Coordinator	1,009	4.74	4.68	4.66	4.55	4.54	4.34
Independent Practitioner or Private Duty Nurse	121	4.75	4.65	4.66	***4.40***	***4.41***	***4.21***
Public/Community Health Nurse	297	4.80	4.73	4.71	4.60	4.65	4.32
Other	818	4.73	4.69	4.69	4.52	4.59	4.40
Total	10,028	4.74	4.71	4.67	4.62	4.56	4.32
Eta		.063	.057	.047	.115	.048	.072
ANOVA Significance		.000	.002	.038	.000	.031	.000

[a]See Table 8.3 above for list of unabbreviated reform proposals corresponding to Reforms 1a - 7.

[b]Only respondents with experience working in a nursing home or hospital setting were asked to evavaluate these six proposals.

Note: Bolded and underlined means are the maximums and minimums within each column.

MINORITY AND RNS BORN AND/OR EDUCATED OUTSIDE OF THE U.S. CALL FOR MORE HEALTH AND SAFETY REFORMS

While Tables 8.6 through 8.9 illustrate remarkably high levels of inter-title and inter-setting agreement about these reform incentives, the possible effects of different demographic characteristics upon reform support, such as age and gender, were also investigated. Once again, statistical comparison of RNs' agreement score means among different demographic groupings generally yielded small eta values, suggesting that nurses' attitudes regarding the potential effectiveness of the reform proposals did not vary among differing age or gender groups.

However, a modest but revealing exception to this uniformity of nurses' opinions regarding reforms was the pattern of differential ratings consistently given to nine of the reform proposals by certain overlapping categories of nurses. We focus closely upon these particular reform-support differences because of the tactical implications they have for potential advocacy efforts in the future. The nurses "fitting" this different response profile were: a) minority RNs[9]; b) RNs born outside of the U.S.; c) RNs educated outside of the U.S.; and, d) RNs working as nurses within the New York City metropolitan area.

The Profile Similarity of Certain Demographic Subgroups

The survey data provides ample evidence of the degree to which our sample-weighted, survey respondent minority, foreign born, foreign educated and NYC area practicing RN populations overlap with one another:

- 61.7 percent of non-U.S. born RN respondents were non-U.S. educated;
- 70.4 percent of minority respondents are non-U.S. born;
- 46.7 percent of minority respondents are non-U.S. educated;
- 70.5 percent of currently working minority RN respondents work in NYC area;
- 28.9 percent of NYC RNs are non-U.S. educated;
- 45.9 percent of NYC RNs are non-U.S. born; and,
- 53.1 percent of NYC RNs belong to ethnic minority groups.

Since more than half of NYC area RNs belong to an ethnic minority group, and because more than 70 percent of minority RNs work in the NYC area, and because most minority RNs report being non-U.S. born, and because most non-U.S. born RNs are non-U.S. educated – it is difficult to untangle the specific effects of these demographic characteristics on RNs level of support for each of the nine differentially rated reforms. Single one way analyses of variance were computed based upon each of the four demographic groupings cited earlier. However, because the results of these four separate analyses are virtually mirror images of one another, we have chosen to illustrate the major findings using the "white (non-Hispanic) vs. ethnic minority" RN comparison.[10] Thus, while the mean reform-support agreement scores shown in Table 8.10 are specifically for "minority" and "white" survey respondents, the same differential pattern of responses exhibited by ethnic minority respondents would also be exhibited by each of the other three overlapping groups – non-U.S. born RNs, non-U.S. educated

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[9] "Minority" RNs, for the purpose of these analyses, are defined as RNs who selected a response other than "White, non-Hispanic" for question 117 on the survey.

[10] This decision was based on simple statistical grounds. The eta coefficients for the comparison of ethnic minority and white (non-Hispanic) reform-support mean scores were greater than for each of the other one-way comparisons.

RNs, and NYC-based RNs – if space allowed for displaying tabulated results for each of those groups as well.

Table 8.10
Mean Agreement Scores for Selected Reforms by Ethnic Minority Status

	Mean Scores (1 = low to 5 = high)				
	Minority		White	*Total*	*Eta* [a]
N =	*2,907*		*10,481*	*13,338*	
Recruitment Incentives					
A year of service for a year of scholarship in return for a commitment to work in an under-served area	4.28	>	4.03	4.09	.109
Loan forgiveness for past education in return for a commitement to work in an under-served area	4.23	>	4.06	4.10	.074
General Reforms					
More stringent licensing requirements	2.96	>	2.71	2.76	.103
Public transit vouchers/assistance	4.11	>	3.79	3.86	.181
Greater protection against bloodborne pathogens	4.26	>	4.06	4.10	.100
A higher level of security against workplace violence	4.33	>	4.09	4.15	.130
Hospital & Nursing Home Setting Reforms					
N =	2,630		8,525	11,155	
Maximum hourly shift lengths	4.07	<	4.39	4.32	.148
Restrictions on mandatory overtime work	4.39	<	4.61	4.55	.125
Control over work schedule	4.62	<	4.74	4.71	.094

[a]All analysis of variance results are significant above the .000 level.

Differential Support for Nine Proposals

Only the nine reform incentives that each of the four overlapping groups of nurses rated significantly differently than other nurses (and for which each of the four groups individually displayed the same differential response pattern) are displayed in Table 8.10. These specific reforms included *six proposals which each of these four groups rated as potentially more effective than did other nurses and three proposals which they consistently rated less favorably than other nurses.* These six *more heavily supported reform initiatives* included:

- A year of service for a year of scholarship;
- Loan forgiveness for past education;
- More stringent licensing requirements;
- Public transit vouchers/assistance;
- Greater protection against blood-borne pathogens; and,
- A higher level of security against workplace violence.

The three proposals *rated less favorably* by the four overlapping demographic subsets included:

- Maximum hourly shift lengths;
- Restrictions on mandatory overtime work; and,
- Control over work schedule.

These pattern differences are consistent and rather subtle. They clearly point to greater concerns within NYC-based hospital settings about security (whether security from workplace violence or inadequate security addressable by universal or standard precautionary practices). Heightened concerns here most likely reflect legitimate caseload differences in HIV prevalence as well as the prevalence of other communicable diseases that involve heightened patient management. The differential (consistently higher) support accorded public transit is not surprising because each of the four over-lapping demographic groups is associated with high density, urban-practice environments.

Table 8.11
Mean Agreement Scores for Selected Reforms for Three Groups Compared:
1) Non-U.S. Born and/or Educated and/or Ethnic Minority RNs, Not Working in New York City;
2) Non-U.S. Born and/or Educated and/or Ethnic Minority RNs, Working in NYC; and
3) U.S.-Born and Educated, White (Non-Hispanic) RNs Working in NYC.

	Mean Scores (1 = low to 5 = high)						
	Non-U.S. Born or Educated or Ethnic Minority RNs, not Working in NYC		Non-U.S. Born or Educated or Ethnic Minority RNs, Working in NYC		U.S. Born & Educated, White, non-Hispanic RNs, Working in NYC	*Eta* [a]	*Eta* [b]
N =	*1,665*		*1,772*		*1,376*		
Recruitment Incentives							
A year of service for a year of scholarship in return for a commitment to work in an under-served area	4.20	<	4.30	>	4.02	.062	.146
Loan forgiveness for past education in return for a commitement to work in an under-served area	4.14	<	4.27	>	4.07	.067	.095
General Reforms							
More stringent licensing requirements	2.87	<	3.01	>	2.81	.065	.087
Public transit vouchers/assistance	3.97	<	4.17	>	3.94	.134	.151
Greater protection against bloodborne pathogens	4.16	<	4.30	>	4.07	.081	.124
A higher level of security against workplace violence	4.24	<	4.37	>	4.12	.083	.145
Hospital & Nursing Home Setting Reforms							
N =	*1,459*		*1,635*		*1,154*		
Maximum hourly shift lengths	4.06	<	4.09	<	4.46	.014	.194
Restrictions on mandatory overtime work	4.35	<	4.44	<	4.62	.049	.120
Control over work schedule	4.57	<	4.65	<	4.78	.052	.120

Note: All analysis of variance results are significant above the .000 level.

Tables 8.11 and 8.12 provide evidence that the differential response pattern to the nine reform proposals may be more a function of ethnicity than of a NYC urban work location. The means comparison analyses results displayed in Table 8.11 first controls for status as "ethnic minority and/or non-U.S. born and/or non-U.S. educated" by comparing the mean scores of members of that population who work in NYC to the

mean scores of members of that population who do not work in NYC. The results of the second analysis, also displayed in Table 8.11, controls for the NYC area work location by comparing the mean scores of members of the "ethnic minority and/or non-U.S. born and/or non-U.S. educated group" working as RNs in NYC to the mean scores of all other respondents working as RNs in NYC area.

The eta values for the second analysis displayed in this table are, overall, substantially greater than the eta values for the first analysis, indicating that the differential response pattern for the nine reform proposals is more a function of ethnic minority and/or non-U.S. birth/education status than of the NYC work location where the majority of this RN population finds employment. In fact, for the three reforms related to hospital and nursing home settings, working in NYC has the *opposite* effect than anticipated by the differential pattern. In other words, NYC RNs do *not* attribute less importance to reforms related to control over their work schedules, including maximum hourly shift lengths and restrictions on overtime work, than do RNs working in other locations. *Only minority and/or non-U.S. born/educated RNs place less importance on these work schedule-related reforms than do other RNS.*

All the same, the NYC location of practice effect does contribute modestly (and independently of minority and/or non-U.S. born/educated status) to the differential response pattern under discussion for six of the reform proposals. In other words, regardless of their race or country of birth or education, NYC RNs, more than RNs practicing elsewhere, support greater security in the workplace, both against physical violence and blood borne pathogens. Also, the ethnic minority and/or non-U.S born/educated group of RNs working in NYC is overall neutral about the proposal to raise licensing requirements, whereas minority and/or non-U.S. born/educated RNs working outside the New York City area are overall slightly against the proposal.[11]

The only reform proposal for which practicing in NYC lends support almost as much as minority and/or non-U.S. born/educated status, is the proposal to make public transit vouchers available to RNs. This finding is not surprising in light of the inflated costs related to transportation in the NYC area. What is more surprising is that minority and/or non-U.S. born/educated status, independent of working in NYC or not, has just as strong a positive relationship with support for this public transit assistance measure.

The Relationship of Ethnicity to Differential Support for Nine Reform Proposals

The results of the analysis displayed by Table 8.12 provide further insight into how ethnic minority status relates to differential levels of support for the nine reforms exhibited by each of the four overlapping demographic groups discussed above. It is remarkable how consistently all ethnic minority groups exhibit the same differential pattern of responses we have been discussing, especially the three minority ethnic groups with substantial representation (N > 150 respondents) within our sample – Black, Hispanic and Asian. The only exception to this response pattern for the nine reform

[11] When the response patterns of each of the four overlapping demographic groups are examined separately, non-U.S. educated RNs actually mildly support more stringent licensing requirements. Of the four overlapping groups, non-U.S. educated RNs are the only group to express support above the "neutral" level for the more stringent licensing requirements proposal.

proposals by these three groups of respondents is the *lower* level of support Hispanic respondents give to the "more stringent licensing requirements proposal" than do all other ethnic groups of respondents, including white, non-Hispanic.

Table 8.12
Mean Agreement Scores for Selected Reforms by Ethnic Status

	Mean Scores (1 = low to 5 = high)								
	White, Non-Hispanic	Black, Non-Hispanic	Hispanic	Asian	Native American	Other	Two or More Races	Total	*Eta* [a]
N =	*10,452*	*1,127*	*298*	*1,111*	*26*	*150*	*150*	*13,315*	
Recruitment Incentives									
A year of service for a year of scholarship in return for a commitment to work in an underserved area	***4.03***	***4.35***	4.28	4.23	4.47	4.26	4.19	4.09	.113
Loan forgiveness for past education in return for a commitement to work in an under-served area	***4.06***	***4.35***	4.25	4.14	4.29	4.25	4.03	4.10	.089
General Reforms									
More stringent licensing requirements	2.71	2.81	***2.64***	***3.25***	2.49	2.86	2.86	2.76	.149
Public transit vouchers/assistance	***3.79***	4.08	4.05	***4.19***	4.08	4.00	3.94	3.86	.187
Greater protection against bloodborne pathogens	***4.06***	4.22	4.20	***4.33***	4.11	4.23	4.14	4.10	.106
A higher level of security against workplace violence	***4.09***	4.33	4.23	***4.38***	4.38	4.26	4.26	4.15	.133
Hospital & Nursing Home Setting Reforms									
N =	*8,458*	*985*	*241*	*1,055*	*22*	*139*	*130*	*11,029*	
Maximum hourly shift lengths	***4.39***	***4.05***	4.10	4.11	3.67	3.93	4.06	4.32	.151
Restrictions on mandatory overtime work	***4.61***	4.45	4.53	***4.31***	4.51	4.20	4.44	4.55	.138
Control over work schedule	***4.74***	4.65	4.69	***4.55***	4.60	4.59	4.71	4.71	.105

Note: Bolded and underlined means within each row are the highest and lowest for the four ethnic groups of respondents with sample weighted N's > 150.
[a]All analysis of variance results are significant above the .000 level

Differential Support for Reforms by Black, Non-Hispanic RN Respondents

While all three of the larger minority ethnic groups display the same differential response pattern, some ethnic groups expressed stronger or weaker support for specific reforms compared to other ethnic groups. Black, non-Hispanic RNs are the most enthusiastic about the likely effectiveness of scholarships and loan forgiveness for recruiting nurses. Black, non-Hispanic RNs also reported the lowest level of endorsement for "maximum hourly shift lengths."

Differential Support for Reforms by Asian RN Respondents

RN respondents who identified themselves as Asian had mean response scores for the remaining six proposals that differed most from the other ethnic minority group respondents. The Asian respondents to the nurse survey were the only group that, on average, actually favored (slightly) more stringent licensing requirements. In addition, Asian respondents expressed the highest level of support for reforms that would help protect RN's physical health and safety. Unlike most other RNs, Asian nurse respondents actually rated "protection against blood borne infectious exposure" and "higher level of security" against workplace violence higher than "maximum hourly shift lengths" or "restrictions on mandatory overtime." Correspondingly, Asian RNs rated those two reforms ("maximum hourly shift lengths" and "restrictions on mandatory overtime") along with "control over work schedule" as potentially less effective for retaining nurses than did any other group of respondents.

IMPLICATIONS OF DIFFERENTIAL ETHNIC RESPONSES TO REFORM PROPOSALS

Based upon the evidence reviewed earlier, this chapter might have simply concluded that average reform-support scores were remarkably uniform – regardless of work setting or job title. A careful examination of differential response profiles of ethnic minority respondents, however, suggests that this conclusion cannot be so easily drawn. For ethnic minority, as well as for non-U.S. born and/or educated RNs, especially for those working in the New York City area, workplace health and life safety concerns are often just as important as control over work schedule issues, if not more so.

This particular group of nurses are more likely to work in inner-city healthcare settings that frequently provide treatment for HIV infected patients, as well as patients exhibiting drug and alcohol induced violent behavior. In health facilities that routinely handle such "high risk" caseloads, policies designed to provide greater on-site health, safety and security protections would probably generate even greater support than policies strictly related to control over work schedule. Healthcare employers of large numbers of minority RNs and/or non-U.S. born and/or educated RNs should be sensitive to these populations' more acute level of concern regarding their health and safety in the workplace.

Other Demographic Characteristics Influence Nurses' Level of Support for Reform Proposals

The reform measures most needed to retain nurses in a given work setting may very well depend upon specific characteristics of the setting or of the nurses working there. Additional analyses further confirm the notion that certain RN groups have their own special concerns, and that targeting reform initiatives to address those special concerns would be a very effective way to retain those particular nurses within the profession. For example, Tables 8.13 and 8.14 below show that nurses also differentially favor certain reforms according to their age status, and their stage in the life cycle.

Table 8.13 displays the mean scores for reform-support only for those proposals that, to a significant extent, receive differential endorsement ratings according to the age category of the respondents. Not surprisingly, older nurses are more enthusiastic about ergonomic reforms and work place security reforms. Nurses of childbearing and child-caring age, in contrast, give stronger support for childcare reimbursement initiatives. Also, these same nurses give higher ratings to the proposal for nurses to receive preferential State tax treatment.

The most interesting age-specific finding presented in Table 8.13 is that younger nurses express significantly stronger support for reducing the size of nurses' caseloads than do older nurses. Thus, as the bottom row of this table shows, the support for reduced caseloads is highest among the youngest age group (mean = 4.83) and progressively declines with age. This finding is consistent with earlier presented evidence that younger, less experienced nurses experience greater stress on the job. Thus, younger, less experienced nurses would probably benefit even more than veteran nurses from smaller caseloads. The "bimodal" age distribution of departure from the

nursing profession, which this survey documented in Volume I, also seems to suggest that a large group of young nurses "burn out" early in their career and exit the profession around the age of forty. Providing younger nurses with manageable caseloads may be a strategy for reducing this early burn out and the resulting early departure from the profession.

Table 8.13
Mean Agreement Scores for Reform Proposals by Age Level

	Agreement Score Means (1 = Definitely Disagree to 5 = Definitely Agree)							
	18 - 29 Years of Age	30 - 39 Years of Age	40 - 49 Years of Age	50 - 59 Years of Age	60 - 69 Years of Age	70 & up Years of Age	*Total*	*Eta* [a]
Reform Proposals *N =*	*621*	*2,246*	*4,531*	*3,867*	*1,731*	*363*	*13,359*	
Application of ergonomic standards to the work setting	3.79	3.80	3.84	3.90	3.88	3.92	3.85	.052
Reimbursement for childcare	4.59	4.61	4.48	4.49	4.51	4.50	4.51	.081
Preferential State tax treatment for nurses	4.66	4.62	4.58	4.54	4.42	4.37	4.55	.109
A higher level of security against workplace violence	4.06	4.10	4.12	4.16	4.22	4.39	4.15	.076
A reduction in the maximum number of patients under the care of a single nurse	4.83	4.79	4.75	4.71	4.68	4.60	4.74	.085

[a]All analysis of variance results are significant at the .000 level.

The mean scores displayed in Table 8.14 show how very specific the level of support for a reform can be to the specific characteristics of the nurse population. Endorsement of reimbursement for childcare is somewhat higher among all nurses of child bearing/rearing age, as shown in Table 8.13 above, but that support increases even further among those nurses with children at home less than six years of age. Once again, since certain reforms appear especially attractive to particular age or stage-of-life groupings, such reforms could – if implemented – help retain members of specific groups of nurses.

Table 8.14
Mean Agreement Scores for Childcare Reform Proposals by Children at Home Status

	Means for Agreement with Proposal Scores (1 = Definitely Disagree to 5 = Definitely Agree)					
	No Children at Home	All = or > 6 years old	Some > 6 and Some < or = 6 years old	All < 6 years old	*Total*	*Eta* [a]
Reform Proposals *N =*	*6,554*	*4,799*	*1,060*	*850*	*13,263*	
Reimbursement for childcare	4.50	4.48	4.63	4.72	4.51	.111
Affordable daycare available on site	4.50	4.48	4.63	4.72	4.52	.096

[a]All analysis of variance results are significant at the .000 level

Policy Implication of Special Nurse Groups' Differential Level of Support for Specific Reform Proposals

The differential responses of ethnic minority and NYC-based RNs, as well as other groups of RNs defined by their age, experience or stage-in-life-cycle, suggest that administrative polling of RN employees, regarding the reforms most needed at their facility, would be a prudent approach for management to take before targeting reforms for implementation. Indeed, many nurses wrote to us encouraging healthcare administrators to begin a serious, robust, dialog with their employees about frustrating, or even intolerable, work conditions.[12]

> "Why wasn't this survey done 10 years ago when nurses were starting to complain about working conditions, the paper work, the patient load, patients not getting quality care, no salary increases? Why does it take a nursing shortage for people to finally realize that nurses are the ones you should listen to? Nurses are the ones who spend the most time with patients and yet we are the last ones to have any input on changes."

SUMMARY OF FINDINGS AND IMPLICATIONS

This section summarizes the findings discussed above. It also presents research evidence supporting the implementation of some of the reform proposals most strongly endorsed by our nurse respondents. Some corresponding examples of actual state and federal legislated reform initiatives are also briefly summarized.

Nurses Strongly Endorsed 18 of the 19 Reform and Incentive Proposals

The nurses who responded to this survey evaluated nineteen different reform and incentive proposals for their potential effectiveness in both recruiting and retaining nurses. This chapter first presented the ratings that the total group of nurse respondents gave to each of these proposals. The average ratings of each proposal corresponded to a ranked level of endorsement by the entire responding RN population. Ten of the proposals were very strongly endorsed – i.e., rated by 93 percent or more of the nurse respondents as likely to be effective. Eight more proposals received at least moderate endorsement – i.e., rated by 68 percent to 87 percent of the respondents as likely to be effective. *Only one proposal, more stringent licensing requirements, was <u>not</u> endorsed by the majority* – only 19.7 percent of respondents believed this measure would be effective in helping to retain RNs within the profession.

Support for Reforms was Consistent Across Work Setting or Job Title

Analysis of variance results demonstrated that there was strikingly little difference in the level of support for individual reforms and incentives across different work settings and job titles. In other words, reform proposals that were the most popular among RNs

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[12] On the importance of "robust dialog" in the success of high performance organizations, see especially Larry Bossidy and and Ram Charan, *Execution*, Crown Business (2002), pp. 102-104

in one job title or work setting were also the most popular among RNs in another job title or work setting.

"Reduction in Caseloads" and "Control over Work Schedule" Were the Most Strongly Endorsed Reforms

Regardless of their work settings or job titles, the RN respondents gave their strongest level of endorsement to the six reform proposals related to nursing home and hospital settings – in particular, the reduction of nurse caseloads and the provision of greater control over their work schedules. A related reform proposal, the restriction of mandatory overtime, was also very strongly endorsed by almost all nurse respondents.

Many states, including New York, have introduced legislation attempting to reduce the maximum number of patients under the care of a single nurse. These reform proposals seek to limit nurse to patient ratios on a "setting by setting" basis, taking into account the "mix" of patients within caseloads and both the criticality and level of service demands of patients' needs. California has been the first, and so far the only, state to have passed such a reform bill. The stipulations of the bill have not yet been implemented because stakeholders are still negotiating the specifics of the new regulations.[13]

Restrictions on Mandatory Overtime Work was Endorsed by 93 Percent of Nurse Respondents

The proposal for "a reduction in the maximum number of patients under the care of a single nurse" was the most strongly and universally endorsed of all the nineteen proposals presented. However two other hospital and nursing home based reform proposals, "control over work schedule" and "restrictions on mandatory overtime work," received almost equally enthusiastic endorsement, and there is also solid research evidence backing these two reform proposals. New Jersey has passed, and is in the process of implementing, a bill restricting mandatory overtime work by specified healthcare workers.

Five General Reform Proposals that Enhance Nurses' Compensation Were also Supported by 95 Percent or More of RN Respondents

Five proposed measures that would directly or indirectly enhance the level of financial compensation for nurses were only slightly less popular (based on their mean rating scores) than the reform proposals discussed above (i.e. "reduction of caseloads," "control over work schedule," and "restrictions on mandatory overtime"). These five incentives included preferential State tax treatment, portable pensions/retirement benefits, tuition assistance, and reimbursement for, or provision of, childcare.

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[13] Stakeholders include the California Nurses Association, the California Hospitals Association, insurance lobbyists, patient advocacy groups and other organizations. Opponents of the law's provisions are sympathetic to its aims, but believe the resulting financial burden for already strapped health care facilities would be unmanageable.

"Loan Forgiveness" and "Scholarship" Incentives to Recruit Nurses to Work in Under-Served Areas Were Supported by 85 Percent of Respondents

The two incentive proposals presented for evaluation included scholarships and loan forgiveness in return for a commitment to work in an under-served area. These two proposals received a moderate level of endorsement by our nurse respondents, with 85 percent expressing the belief that they would be effective. (A few nurses wrote to us cautioning that many nurses who had already paid for their own education might resent this "preferential" treatment of new nurse recruits.)

The Federal *Nurse Reinvestment Act*, signed into law in August 2002, stipulates the establishment of a National Nurse Service Corps. The model for this new program is the existing National Health Service Corps. That Federal program has for years successfully recruited medical doctors, dentists and other health professionals to meet healthcare needs in under-served areas by offering two years of educational loan forgiveness for two years of service.

Ethnic Minority RNs, Nurses Born or Educated Outside of the U.S., and NYC RNs Strongly Endorse Workplace Health and Security Reforms

While the level of support for each of the 19 proposals did not vary significantly across job titles and work settings, certain overlapping groups did display a differential pattern of response for seven of the proposed reforms and incentives. Most notably, NYC-based RNs, ethnic minority RNs, and RNs born and/or educated outside of the U.S. gave stronger ratings to "a higher level of security against workplace violence" and "greater protection against blood-borne or bodily fluid infectious exposure" than did other RNs. Also, the ethnic and foreign born/educated groups correspondingly rated "control over work schedule" issues as somewhat less important than other RNs. Nurses falling within one or more of these overlapping groups would appear to be more likely to work in health care settings with patient caseloads placing them at greater risk of exposure to HIV infection or violent patient behavior, and so place higher value on enhanced security against these threats to their life and safety.

Intervention Implication of Differential Support for Reforms by Demographically Defined Groups of RNs

The differential response patterns of ethnic minority and NYC-based RNs, as well as of other groups of RNs defined by their age, experience or stage-in-life-cycle, suggest that administrative polling of RN employees, regarding the reforms most needed at their facility, would be a prudent approach for management to take before targeting reforms for implementation. Indeed, many nurses wrote to us encouraging healthcare administrators to begin a serious and robust dialog with their employees concerning frustrating, or even intolerable, work conditions.[14]

The findings presented in this chapter make a strong case for stakeholders to continue to place "reduction in nurse caseloads" and "restrictions on mandatory

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[14] On the importance of "robust dialog" in the success of high performance organizations, see especially Larry Bossidy and Ram Charan, *Execution*, Crown Business (2002), pp. 102-104.

overtime" among their priority list of reform initiatives. At the same time, the finding that groups of RNs defined by different demographic variables may vary substantially in their level of support for specific reforms suggests that administrators should consider surveying their own specific employees to determine what reforms would most likely induce them to stay.

The New York State Clearinghouse

Given the sheer pace of new reform efforts throughout the nation, the availability of a centralized repository of information concerning these efforts has become an indispensable resource. One highly utilitarian accomplishment motivated by the recommendations of the Regents Task Force was the creation by the State Education Department of the Web site: *Clearinghouse on Nursing Shortage Issues*, located on the Office of the Professions Web site at www.op.nysed.gov/nurseclearinghouse.htm.[15] This site, which is updated regularly by the Office of the State Board for Nursing, provides annotated links to information regarding initiatives, reforms, and research being pursued nationwide to address the nursing shortage. More information on the state and federal initiatives referred to in this chapter can be accessed through this Web site.

Appendix G of this report, *National and State Initiatives for Addressing the Shortage*, provides more detailed information on the reform legislation initiatives and research studies referenced above. That appendix also provides an annotated catalog of numerous other important strategies being pursued to alleviate the nursing shortage.

[15] The site was created by the New York State Education Department and is maintained by the Office of the New York State Board for Nursing.

APPENDIX A: THE NURSING SURVEY—INSTRUCTIONS AND REPRODUCTION OF THE SURVEY INSTRUMENT

✓ **Which Sections to Complete:** Use the following guide to determine which sections of the survey to complete.

> The **field of nursing** refers to work in any capacity where nursing skills or nursing knowledge are required. This definition is broad and includes all those who work in direct patient care as well as those who work in non-clinical jobs. Such duties as administrative work, research, teaching, utilization and quality management are considered to be part of the nursing field if nursing skills and knowledge are required to perform the job.

COMPLETE ALL SECTIONS IF:

You are currently working in the field of nursing

OR

⇒ You are NOT working in nursing now but did work within the field of nursing within the LAST THREE YEARS

COMPLETE ONLY QUESTIONS 1 AND 2 – AND SKIP TO QUESTION 82 IF:

⇒ *You have NOT worked in the field of nursing within the last three years, i.e., you have RETIRED from nursing or left the nursing field for three years or more*

OR

⇒ *You have NEVER worked in nursing*

Primary Employment: Most of the questions in the survey are focused on your *primary employment setting* in nursing- i.e., where you spend the most work time. Unless otherwise indicated, please respond based on your primary employment experience.

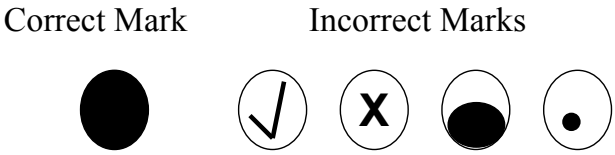
Survey Responses:

Use a No. 2 pencil only.

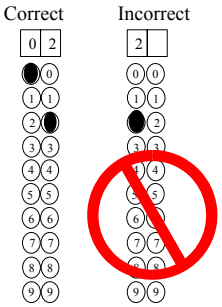
Make dark marks that completely fill the circle.

Erase cleanly any answer you change.

Do not make any stray marks on this form.



Numeric Responses: For questions where you are required to provide numbers, be sure that responses are ***right justified***. Make sure to add a leading zero where applicable. In the example to the right, two spaces are available, thus someone with a response of '2' must add a zero in the left column.



Employment

			years
1. How many years have you worked as an RN in the field of nursing? **(Write the number in the boxes provided and shade in the corresponding bubbles.)**	⓪ ① ② ③ ④ ⑤	⓪ ① ② ③ ④ ⑤ ⑥ ⑦ ⑧ ⑨	

2. Are you working in the field of nursing at this time?

○ Yes ⟶ Do you work ○ Full time or ○ Part time (GO TO QUESTION 3)

○ No – currently working outside the nursing field

○ No – currently not working or RETIRED

2a. (ONLY IF "NO" TO QUESTION 2): Have you *ever* worked in nursing?

○ Yes – Within the past three years (GO TO QUESTION 3–AND RESPOND TO ALL REMAINING QUESTIONS BASED ON YOUR LAST NURSING JOB)

○ Yes – But more than three years ago

○ No – Never

SKIP TO QUESTION 82

3. Do you have more than one job?

○ No

○ Yes ⟶ 3a. How many of these extra job(s) are in nursing?

○ none ○ 1 ○ 2 ○ 3 ○ 4 or more

If you marked 1 or more extra <u>nursing</u> positions, please answer question 3b:

3b. Approximately how many hours are you scheduled to work during a normal workweek (as defined by your organization) at these **<u>extra nursing</u>** positions you may have? **(Write the number in the boxes provided and shade in the corresponding bubbles.)**			hrs
	⓪	⓪	
	①	①	
	②	②	
	③	③	
	④	④	
	⑤	⑤	
	⑥	⑥	
	⑦	⑦	
	⑧	⑧	
	⑨	⑨	

4. How would you describe your current <u>primary</u> employment setting i.e., the setting where you spend <u>most</u> of your working time? (SELECT ONLY ONE AND GO TO QUESTION 5 UNLESS DIRECTED TO QUESTIONS 4a OR 4b).

- ○ Ambulatory care (freestanding clinic)
- ○ Business or industry
- ○ Community/Public health agency
- ○ Diagnostic/Treatment center
- ○ HMO/Managed care
- ○ Home health agency/Home care
- ○ Hospital (in-patient) – GO TO QUESTION 4a
- ○ Hospital (out-patient) – GO TO QUESTION 4a
- ○ Insurance
- ○ Insurance claims/Benefit review
- ○ Institutions of higher education
- ○ Nursing education
- ○ Nursing home – GO TO QUESTION 4b
- ○ Planning or licensing agency
- ○ Physician's office
- ○ Private practice (self-employed)
- ○ School health nursing service
- ○ Other health-related setting
- ○ Non-health-related setting

[**ONLY IF YOU IDENTIFIED A "HOSPITAL" AS YOUR PRIMARY EMPLOYMENT SETTING:**]

4a. In which of the following units are you assigned? (MARK ALL THAT APPLY AND CONTINUE TO 4b.)

- ○ Clinic/Outpatient
- ○ Emergency
- ○ Geriatrics
- ○ Intensive care
- ○ Medical/Surgical
- ○ Obstetrics/Gynecology
- ○ OR/Recovery room
- ○ Pediatrics

- O Psychiatry
- O Rehabilitation
- O Radiology/labs/diagnostics
- O Other

[ONLY IF YOU WORK IN A HOSPITAL OR NURSING HOME AS YOUR PRIMARY EMPLOYMENT SETTING:]

4b. Would you say that it is a small facility (50 or fewer beds), medium facility (51 to 125 beds) or a large facility (more than 125 beds)?

O Small (50 beds or fewer) O Medium (51 to 125 beds) O Large (125 beds +)

5. Which job title would you say best reflects your current position?

- O Staff nurse
- O Certified registered nurse anesthetist
- O Claims reviewer
- O Clinical nurse specialist
- O Consultant
- O Dean/Director/Chairperson of a nursing education program
- O Director of nursing/Vice president for nursing/Chief nursing executive or Assistant/ Associate nursing director
- O Faculty in a nursing education program
- O Independent practitioner
- O Quality assurance/Utilization review/Risk management nurse
- O In-service director, educator, or instructor
- O Nurse manager/Patient care coordinator
- O Nurse practitioner
- O Private duty nurse
- O Public/Community health nurse
- O Researcher
- O Other

6. For how long have you worked in this particular job? (ROUND TO THE NEAREST YEAR.) **(Write the number in the boxes provided and shade in the corresponding bubbles.)**			years
	⓪	⓪	
	①	①	
	②	②	
	③	③	
	④	④	
	⑤	⑤	
		⑥	
		⑦	
		⑧	
		⑨	

7. Approximately how many hours are you usually scheduled to work in a normal workweek (as defined by the organization) at your principal nursing job? If you do not work on a routine schedule, how many hours on average do you usually work during a week at your principal nursing position? **(Write the number in the boxes provided and shade in the corresponding bubbles.)**			hrs
	⓪	⓪	
	①	①	
	②	②	
	③	③	
	④	④	
	⑤	⑤	
	⑥	⑥	
	⑦	⑦	
	⑧	⑧	
	⑨	⑨	

8. Do you work on an overtime basis in this job?

- ○ No (SKIP TO QUESTION 11)
- ○ Yes

9. **(If 'YES' to Question 8)** On average, how many hours of your workweek are overtime in this job? **(Write the number in the boxes provided and shade in the corresponding bubbles.)**			hrs
	⓪	⓪	
	①	①	
	②	②	
	③	③	
	④	④	
	⑤	⑤	
	⑥	⑥	
	⑦	⑦	
	⑧	⑧	
	⑨	⑨	

10. Is this overtime work:

- ○ Always mandatory?
- ○ Sometimes mandatory?
- ○ Never mandatory?

11. Do you work in direct patient care in your primary employment setting?

○ NO (SKIP TO QUESTION 12)

○ YES → 11a. What percentage of your average workday in your primary employment setting is spent on the following activities? **(Write the percentage in the boxes provided and shade in the corresponding bubbles. Your answers should add to 100%)**

Percent of day on direct patient care				Percent of day on paperwork				Percent of day on other tasks			
			%				%				%
⓪	⓪	⓪		⓪	⓪	⓪		⓪	⓪	⓪	
①	①	①		①	①	①		①	①	①	
	②	②			②	②			②	②	
	③	③			③	③			③	③	
	④	④			④	④			④	④	
	⑤	⑤			⑤	⑤			⑤	⑤	
	⑥	⑥			⑥	⑥			⑥	⑥	
	⑦	⑦			⑦	⑦			⑦	⑦	
	⑧	⑧			⑧	⑧			⑧	⑧	
	⑨	⑨			⑨	⑨			⑨	⑨	

12. Is your principal nursing position:

○ A "solo" or independent practice position? (SKIP TO QUESTION 13)

○ In a group, agency or large organizational setting?

12a. Including yourself, how many people work in your immediate work unit during your regular workday? (Count all staff – clinical and non-clinical). **(Write the number in the boxes provided and shade in the corresponding bubbles.)**				people
	⓪	⓪	⓪	
	①	①	①	
	②	②	②	
	③	③	③	
	④	④	④	
	⑤	⑤	⑤	
	⑥	⑥	⑥	
	⑦	⑦	⑦	
	⑧	⑧	⑧	
	⑨	⑨	⑨	

12b. Including yourself, how many **licensed professionals** work in your immediate work unit during your regular workday? **(Write the number in the boxes provided and shade in the corresponding bubbles.)**				people
	⓪	⓪	⓪	
	①	①	①	
	②	②	②	
	③	③	③	
	④	④	④	
	⑤	⑤	⑤	
	⑥	⑥	⑥	
	⑦	⑦	⑦	
	⑧	⑧	⑧	
	⑨	⑨	⑨	

Job Market

In this section, we ask a series of questions about the job market in your area. The job market in your area refers to the geographic locations you can work in ***without*** changing your residence. Any jobs outside of your area, are jobs that would cause you to change your residence.

Jobs in Your Area

13. How easy do you think it would be for you or a nurse ***in your area*** to find a job with another employer in this same area that is as good, better than or much better than the one you have now?

How easy would it be:	Very easy	Quite easy	Somewhat easy	Quite difficult	Very difficult
a. To find a job as good as my current job:	○	○	○	○	○
b. To find a job better than my current job:	○	○	○	○	○
c. To find a job much better than my current job:	○	○	○	○	○

Jobs Outside of Your Area

14. As you think about the job market for nurses ***outside of your area***, how easy do you think it would be to find a job with another employer that is as good as the one you have now?

How easy would it be:	Very easy	Quite easy	Somewhat easy	Quite difficult	Very difficult
a. To find a job as good as my current job:	○	○	○	○	○
b. To find a job better than my current job:	○	○	○	○	○
c. To find a job much better than my current job:	○	○	○	○	○

Supply of Jobs and Nurses

15. Based on your experience, would you say that there is a **shortage of jobs** in this geographic area for people with your experience, training and skills?

Definitely yes	Probably yes	Probably not	Definitely not	Don't know
○	○	○	○	○

16. Is there a **shortage of qualified nurses** – in this geographic area – who have your level of experience, training and skills?

Definitely yes	Probably yes	Probably not	Definitely not	Don't know
○	○	○	○	○

Job Seeking

Please indicate your level of agreement or disagreement with each of the following four statements about job seeking with regard to all jobs- not just those in nursing.

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
17. I rarely seek out information about job opportunities with other employers.	○	○	○	○	○
18. There is little chance that I will seek out job opportunities with other employers.	○	○	○	○	○
19. I almost always follow up on job leads with other employers that I hear about.	○	○	○	○	○
20. Within the next year, I intend to search for a job with other employers.	○	○	○	○	○

21. Almost all people have some stress in their lives, but some have a great deal of stress. In your current job, how often do you feel under ***great stress?***

- ○ Almost every day
- ○ Several days a week
- ○ Once or twice a week
- ○ Less often than once a week
- ○ Never
- ○ Not sure

People at Work

Now we would like to ask your opinion about various aspects of your work setting. Please indicate the extent to which each statement accurately describes your current workload.

Workload

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
22. I have enough time to get everything done in my job.	○	○	○	○	○
23. I have to work very hard in my job.	○	○	○	○	○
24. My workload is not heavy on my job.	○	○	○	○	○
25. I have to work very fast in my job.	○	○	○	○	○
26. I have difficulty getting supplies I need on my job.	○	○	○	○	○
27. I have adequate equipment to do my job.	○	○	○	○	○
28. I do not have enough room to do my job.	○	○	○	○	○

Decision Making

	None	Very little	Some	Quite a lot	A great deal
29. How much say do you have over what happens on your job?	○	○	○	○	○
30. As you think about your own work, how much "freedom" do you have as to how you do your job?	○	○	○	○	○
31. How much does your job allow you to take part in decisions that affect you?	○	○	○	○	○

	None	Very little	Some	Quite a lot	A great deal
32. How much does your current job require that you meet or check with other people before you do something?	○	○	○	○	○
33. How much are you invited to serve on administration committees?	○	○	○	○	○
34. **(ONLY if you are in a direct patient care job)** How much does your job allow you to make patient care decisions?	○	○	○	○	○

The following sections are designed principally for nurses in group, agency, or larger organizational settings. If you work INDEPENDENTLY IN SOLO PRACTICE OR ARE SELF-EMPLOYED SKIP TO QUESTION 70.

Work Climate

Please indicate the extent to which each statement accurately describes your current work climate.

	Strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Strongly agree
35. Staff in my immediate work group help each other to find better ways of doing a job.	○	○	○	○	○	○	○
36. The atmosphere in my immediate work group is friendly and outgoing.	○	○	○	○	○	○	○
37. There is a great deal of teamwork and cooperation among various levels of staff in my immediate work group.	○	○	○	○	○	○	○
38. The staff where I work are reluctant to pitch in and help one another when things get in a rush.	○	○	○	○	○	○	○
39. It is hard for staff to feel comfortable in my immediate work group.	○	○	○	○	○	○	○

Answer Questions 40 to 44 ONLY IF YOU DEAL WITH PHYSICIANS IN YOUR JOB.	Strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Strongly agree
40. Physicians in general cooperate with the nursing staff.	○	○	○	○	○	○	○
41. There is a lot of teamwork between nurses and doctors in my immediate work group.	○	○	○	○	○	○	○
42. Physicians generally understand and appreciate what the nursing staff does.	○	○	○	○	○	○	○
43. I wish the physicians here would show more respect for the skill and knowledge of the nursing staff.	○	○	○	○	○	○	○
44. The physicians look down too much on the nursing staff.	○	○	○	○	○	○	○

Salary/Compensation

Based upon your experience in your current work setting, to what extent would you agree that the following work rewards are present?

	Strongly disagree	Disagree	Mildly disagree	Neutral	Mildly agree	Agree	Strongly agree
45. My present salary is satisfactory.	○	○	○	○	○	○	○
46. It is my impression that a lot of nurses where I work are dissatisfied with their pay.	○	○	○	○	○	○	○
47. Considering what is expected of nursing personnel where I work, the pay we get is reasonable.	○	○	○	○	○	○	○
48. The present rate of pay increase for nursing personnel is not satisfactory where I work.	○	○	○	○	○	○	○
49. An upgrading of pay for nursing personnel is needed where I work.	○	○	○	○	○	○	○

Promotional Opportunities

Listed below are statements about promotional opportunities. Indicate your level of agreement/disagreement with each statement:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
50. Promotions are regular.	○	○	○	○	○
51. I am in a dead-end job.	○	○	○	○	○
52. There is opportunity for advancement.	○	○	○	○	○
53. There is a good chance to get ahead.	○	○	○	○	○
54. There is almost no opportunity to rise to the top.	○	○	○	○	○

Feelings about Your Work Setting

Listed below are statements about your current work setting. Indicate how much you agree or disagree with each of these statements:

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
55. I am willing to put in a great deal of effort beyond what is normally expected to help my unit be successful.	○	○	○	○	○
56. I speak favorably about this workplace to my friends as a wonderful place to work.	○	○	○	○	○
57. I would accept almost any type of job assignment to continue working here.	○	○	○	○	○
58. I find that my values and my organization's values are very similar.	○	○	○	○	○

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
59. I am proud to tell others that I am a part of this organization.	○	○	○	○	○
60. This organization really inspires me to do my very best in the way of job performance.	○	○	○	○	○
61. I am extremely glad that I chose this particular place to work over other places I was considering at the time I joined.	○	○	○	○	○
62. I really care about the future of this organization.	○	○	○	○	○
63. For me, this is the best of all possible work settings.	○	○	○	○	○

Communication

As you think about your own job in your primary workplace over the past 12 months (or the most recent 12 months of your last job if you're not working now), how well informed are you kept about each of the following aspects of your job?

	Very poorly informed	Poorly informed	Somewhat informed	Well informed	Very well informed
64. What is to be done.	○	○	○	○	○
65. Standard operating procedures.	○	○	○	○	○
66. What is most important about the job.	○	○	○	○	○
67. How well the job is done.	○	○	○	○	○
68. What you need to know to do the job.	○	○	○	○	○
69. The nature of the equipment used.	○	○	○	○	○

Job Satisfaction

How much do you agree or disagree with each of the statements below about your job satisfaction? (Choose one for each of the statements.)

	Strongly disagree	Disagree	Neither agree nor disagree	Agree	Strongly agree
70. I am fairly well satisfied with my job.	○	○	○	○	○
71. Most days, I am enthusiastic about my job.	○	○	○	○	○
72. I like working here better than most other people I know who work here.	○	○	○	○	○
73. I do not find enjoyment in my job.	○	○	○	○	○
74. I am often bored with my job.	○	○	○	○	○
75. I would consider taking another kind of job.	○	○	○	○	○
76. All in all, I am very satisfied with my current (most recent) nursing job.	○	○	○	○	○
77. As I look back over my entire career to date, from the time I first entered the field of nursing, I have been very satisfied with my career.	○	○	○	○	○

78. How enthusiastic would you be in recommending nursing as a career to others? (Select only ONE statement.)

- ○ I would strongly recommend to my best friends that they go into nursing.
- ○ I would tell my friends this is an OK career.
- ○ I would not give my friends an opinion either way.
- ○ I would recommend to my friends that they go into a different career.
- ○ I would tell my friends not to make nursing their career under any circumstances.

79. At this time, do you have any plans to leave ***this work setting?*** (Select only ONE.)

- ○ In the next 12 months
- ○ In 1 to 2.9 years
- ○ In 3 to 4.9 years
- ○ Not for 5 years or more
- ○ I have already left

80. At this time, do you have any plans to leave the ***nursing profession?*** (Select only ONE.)

- ○ I have already left
- ○ In the next 12 months
- ○ In 1 to 2.9 years
- ○ In 3 to 4.9 years
- ○ Not for 5 years or more

SKIP TO QUESTION 82

81. [**Only if you have already left the nursing profession or plan to do so within the next 12 months**]:
Please indicate your top three reasons for leaving, in rank order of importance:

1st Reason	2nd Reason	3rd Reason	
○	○	○	Retirement
○	○	○	Job stress
○	○	○	Career change
○	○	○	Relocation
○	○	○	Salary
○	○	○	Shift/Hours
○	○	○	Lack of career advancement
○	○	○	Lack of professional recognition
○	○	○	Return to school
○	○	○	Family obligations
○	○	○	Other

Comparing Preferences

82. Listed below are five factors that are often involved in how people feel about "work satisfaction." Each factor has a potential impact upon satisfaction and we want to determine the relative importance of these factors to you. Please read first the brief definitions of these factors below:

Compensation: Income that you receive as an employee, for work, including salary and fringe benefits

Autonomy: The extent to which you feel you can act independently in your nursing practice

Technology: Aids to improve patient care or reduce administrative tasks

Third Party Payment: Direct payments to nurses for nursing services provided

Recognition: Formal and informal ways of valuing employees for the quality work they perform

For each pair of terms that follows, decide which factor is more important for your job satisfaction or morale.

a.	○ Autonomy	OR	○ Compensation
b.	○ Compensation	OR	○ Technology
c.	○ 3rd Party Payment	OR	○ Compensation
d.	○ Recognition	OR	○ Compensation
e.	○ 3rd Party Payment	OR	○ Recognition
f.	○ Technology	OR	○ Autonomy
g.	○ Autonomy	OR	○ 3rd Party Payment
h.	○ Autonomy	OR	○ Recognition
i.	○ Recognition	OR	○ Technology
j.	○ Technology	OR	○ 3rd Party Payment

Reforms and Incentives

Listed below are some reforms that might be adopted to attract high quality candidates to the nursing profession. For each reform/incentive listed, please indicate what impact this reform would have in attracting good people to the nursing profession.

	Would definitely help	Might help	No effect	Would probably not help	Would definitely not help	Don't know/ No opinion
83. Scholarships for education in return for a commitment to work in an under-served area. (A year of service for a year of scholarship, etc.)	○	○	○	○	○	○
84. Loan forgiveness for past education in return for a commitment to work in an under-served area. (A year of service for each year of the loan that is forgiven.)	○	○	○	○	○	○

Listed below are some reforms that might be adopted to retain high quality people in the nursing profession. For each reform/incentive listed, please indicate what impact this reform would have in retaining good people in the profession.

	Would definitely cause someone to leave sooner	Might cause someone to leave sooner	No effect	Might cause someone to stay longer	Would cause someone to stay longer	Don't know/No opinion
85. Application of ergonomic standards to the work setting	○	○	○	○	○	○
86. Reimbursement for child care	○	○	○	○	○	○
87. Portable pensions/retirement benefits	○	○	○	○	○	○
88. A system of peer or senior mentoring	○	○	○	○	○	○
89. More stringent licensing requirements	○	○	○	○	○	○
90. Public transit vouchers/assistance available	○	○	○	○	○	○
91. Affordable day care available on site	○	○	○	○	○	○
92. Preferential state tax treatment for nurses	○	○	○	○	○	○
93. Greater protections against blood-borne or bodily fluid infectious exposure	○	○	○	○	○	○
94. A higher level of security against workplace violence	○	○	○	○	○	○
95. Tuition assistance for continuing education provided by your employer	○	○	○	○	○	○

ANSWER ITEMS 96 TO 101 ONLY IF YOU WORK(ED) IN HOSPITAL OR NURSING HOME SETTINGS; IF YOU DON'T WORK IN SUCH SETTINGS, SKIP TO QUESTION 102.

96. A reduction in the maximum number of patients under the care of a single nurse	○	○	○	○	○	○
97. Maximum hourly shift lengths	○	○	○	○	○	○
98. Restrictions on mandatory overtime work	○	○	○	○	○	○
99. Stable schedules without rotating shifts	○	○	○	○	○	○
100. Control over work schedule	○	○	○	○	○	○
101. "No-float" staffing policies	○	○	○	○	○	○

Education

Now we would like to ask questions about your education and any educational plans you may have:

102. What was your ***basic*** preparation to become a registered nurse?

- ○ Diploma
- ○ Associate's degree
- ○ Bachelor's degree
- ○ Generic master's degree

103. In what year did you finish your basic nursing preparation? **(Write the year in the boxes provided and shade in the corresponding bubbles.)**

①	⑨	⓪	⓪
②	⓪	①	①
		②	②
		③	③
		④	④
		⑤	⑤
		⑥	⑥
		⑦	⑦
		⑧	⑧
		⑨	⑨

104. How long (in months) did you search for your first job? **(Write the number of months in the boxes provided and shade in the corresponding bubbles.)**

		months
⓪	⓪	
①	①	
②	②	
③	③	
④	④	
⑤	⑤	
⑥	⑥	
⑦	⑦	
⑧	⑧	
⑨	⑨	

105. Where did your basic nursing education take place?

- O U.S.– New York State
- O U.S.– outside New York State
- O Other country

106. Since graduation from your basic nursing education program, have you earned any additional degrees?

O No O Yes

107. What is the highest credential you now hold in any field?

- O Diploma
- O Associate's degree
- O Bachelor's – nursing
- O Bachelor's – other field
- O Master's – nursing
- O Master's – other field
- O Doctorate – nursing
- O Doctorate – other field

SKIP TO QUESTION 109

108. [**Only if you have at least a master's degree in nursing:**] Please select the one choice that best describes your specialty area. (Select only ONE).

- O Administration
- O Medical/Surgical or adult health
- O Community & public health
- O Family health
- O Geriatrics
- O Maternal & child
- O Neonatal
- O Nurse anesthetist
- O Nursing education
- O Obstetrics/Gynecology
- O Oncology
- O Pediatrics
- O Mental health
- O Rehabilitation
- O School Health
- O Women's health
- O Other

109. Do you plan to pursue any other degrees in nursing in the future?

- O No (GO TO Question 110)
- O Yes → 109a. What degree?

- O Associate
- O Baccalaureate
- O Master's
- O Doctorate

109b. When do you plan to do that?

- O In the next 5 months
- O In 6 to 11 months
- O In 1 to 2 years
- O In 3 to 5 years
- O More than 5 years

110. **[ONLY IF "No" to Question 109]**

Why do you have no further education plans at this time?

(Please indicate up to three reasons for leaving, in rank order.)

1st Reason	2nd Reason	3rd Reason	
O	O	O	I have already attained an advanced degree
O	O	O	Benefit does not justify tuition or time cost
O	O	O	Tuition is too high
O	O	O	It is not valued by workplace leadership
O	O	O	It is not available in my geographic area
O	O	O	I can do very well in my field without it
O	O	O	My family life would suffer
O	O	O	My work life would suffer
O	O	O	No desire for professional advancement
O	O	O	I am too old
O	O	O	No time to pursue education
O	O	O	No courses available with my work schedule
O	O	O	No programs available for my specialty area
O	O	O	I've never considered it
O	O	O	Management does not expect it
O	O	O	I haven't the intellectual interest
O	O	O	Retirement
O	O	O	I have left the nursing profession
O	O	O	Other

111. Which course of study would you recommend to someone just starting his or her basic nursing education?

- O Associate's degree
- O BSN
- O Master's (generic)
- O Entry-level doctorate

Demographic Characteristics

112. What is your age in years? **(Write the number in the boxes provided and shade in the corresponding bubbles.)**			years
	⓪	⓪	
	①	①	
	②	②	
	③	③	
	④	④	
	⑤	⑤	
	⑥	⑥	
	⑦	⑦	
	⑧	⑧	
	⑨	⑨	

113. What is your gender?

- ○ Male
- ○ Female

114. What is your current marital status?

- ○ Now married
- ○ Widowed, divorced, separated
- ○ Never married

115. Are there children who live at home with you?

- ○ No children at home
- ○ All less than six years old
- ○ All six years old or older
- ○ Some less than six and some six or older

116. Are there dependent adults for whom you are a primary caregiver?

- ○ Yes
- ○ No

117. Which best describes your race/ethnicity? **(Mark Only One)**

- O White, Non-Hispanic
- O Black, Non-Hispanic
- O Hispanic
- O Asian
- O Native American
- O Other
- O Two or more races

118. Were you born in the United States?

- O Yes
- O No

119. Are you currently a resident of New York State?

- O Yes
- O No

Complete Questions 120-123 ONLY if you are <u>CURRENTLY WORKING</u> in NURSING. Otherwise skip to 124.

120. What is your gross (i.e., before taxes are withheld) annual salary (**rounded to the nearest thousand**), from both your primary employment and any additional **<u>nursing</u>** employment you may have?

(Write the salary in the boxes provided and shade in the corresponding bubbles.)

			thousand
⓪	⓪	⓪	
①	①	①	
②	②	②	
③	③	③	
④	④	④	
⑤	⑤	⑤	
⑥	⑥	⑥	
⑦	⑦	⑦	
⑧	⑧	⑧	
⑨	⑨	⑨	

121. How many miles do you live from your primary place of employment?

(Write the number in the boxes provided and shade in the corresponding bubbles.)

			miles
⓪	⓪	⓪	
①	①	①	
	②	②	
	③	③	
	④	④	
	⑤	⑤	
	⑥	⑥	
	⑦	⑦	
	⑧	⑧	
	⑨	⑨	

122. How many minutes does it take you to travel from home to your primary place of employment? **(Write the number in the boxes provided and shade in the corresponding bubbles.)**

			minutes
⓪	⓪	⓪	
①	①	①	
	②	②	
	③	③	
	④	④	
	⑤	⑤	
	⑥	⑥	
	⑦	⑦	
	⑧	⑧	
	⑨	⑨	

123. In the first column, indicate the county of your primary practice setting; in the second column, the county where you completed your basic nursing education; and in the third, where you live. **(Select only ONE county for each)**

Practice	Education	Home	County
○	○	○	Albany
○	○	○	Allegany
○	○	○	Bronx
○	○	○	Broome
○	○	○	Cattaraugus
○	○	○	Cayuga
○	○	○	Chautauqua
○	○	○	Chemung
○	○	○	Chenango
○	○	○	Clinton
○	○	○	Columbia
○	○	○	Cortland
○	○	○	Delaware
○	○	○	Dutchess
○	○	○	Erie
○	○	○	Essex
○	○	○	Franklin
○	○	○	Fulton
○	○	○	Genesee
○	○	○	Greene
○	○	○	Hamilton
○	○	○	Herkimer
○	○	○	Jefferson
○	○	○	Kings (Brooklyn)
○	○	○	Lewis
○	○	○	Livingston
○	○	○	Madison
○	○	○	Monroe

Practice	Education	Home	County
○	○	○	Nassau
○	○	○	New York (Manhattan)
○	○	○	Niagara
○	○	○	Oneida
○	○	○	Onondaga
○	○	○	Ontario
○	○	○	Orange
○	○	○	Orleans
○	○	○	Oswego
○	○	○	Otsego
○	○	○	Putnam
○	○	○	Queens
○	○	○	Rensselaer
○	○	○	Richmond (Staten Island)
○	○	○	Rockland
○	○	○	Saratoga
○	○	○	Schenectady
○	○	○	Schoharie
○	○	○	Schuyler
○	○	○	Seneca
○	○	○	St. Lawrence
○	○	○	Steuben
○	○	○	Suffolk
○	○	○	Sullivan
○	○	○	Tioga
○	○	○	Tompkins
○	○	○	Ulster
○	○	○	Warren
○	○	○	Washington
○	○	○	Wayne

Practice	Education	Home	County
○	○	○	Wyoming
○	○	○	Yates
○	○	○	Other state in U.S.
○	○	○	Outside U.S.

You have now finished the survey. Thank you so much for your valuable time and assistance. Won't you please take a moment or two now, to review your answers to make sure that you haven't missed anything? The completed survey should be returned in the postage paid envelope by the date noted in the cover letter.

APPENDIX B: THE "PRICE-MUELLER" MODEL OF VOLUNTARY TURNOVER

In the face of growing projected nursing shortages, the loss and disruption of organizational performance due to nursing turnover has been described by the Joint Commission on Accreditation of Health Care Organizations in a recent report as an impending crisis,

> "that has the potential to impact the very health and security of our society if definitive steps are not taken to address its underlying causes."[1]

A careful reading of this report reveals clearly that among the most critical policy recommendations is the need to create a "culture of retention." High nursing turnover leads not only to higher costs and a diminished "bottom-line" but more importantly to higher mortality risks among patients. This is hardly headline news. Indeed, numerous studies over the years have identified voluntary nursing turnover as possibly **the** major problem for nursing and patient health care today.[2]

However, as Cavanaugh has emphasized, many of the nursing turnover studies are complicated by different methodologies and lack of agreement on definitions, measurement, or reporting strategies.[3] The work of James L. Price and Charles W. Mueller has served as a model for many other researchers in the field. Their model of nursing turnover has guided both the selection and definition of key constructs used throughout this survey.[4] A simplified depiction of their conceptual model is presented in Figure B.1.

Among the key independent variables, the authors distinguish between environmental or contextual variables, exogenous (organizational climate) variables, intervening (organizational commitment and global job satisfaction) variables, and key endogenous or outcome variables (such as timing to exit, and quit intentions). Volume II of this study presents the survey results in the light of this conceptual model.

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[1] See Joint Commission on Accreditation of Health Care Organizations, *Health Care at the Crossroads, Strategies for Addressing the Evolving Health Care Crisis,* 2002, p. 5. Accessed on October 28, 2002 from: http://www.jcaho.org.

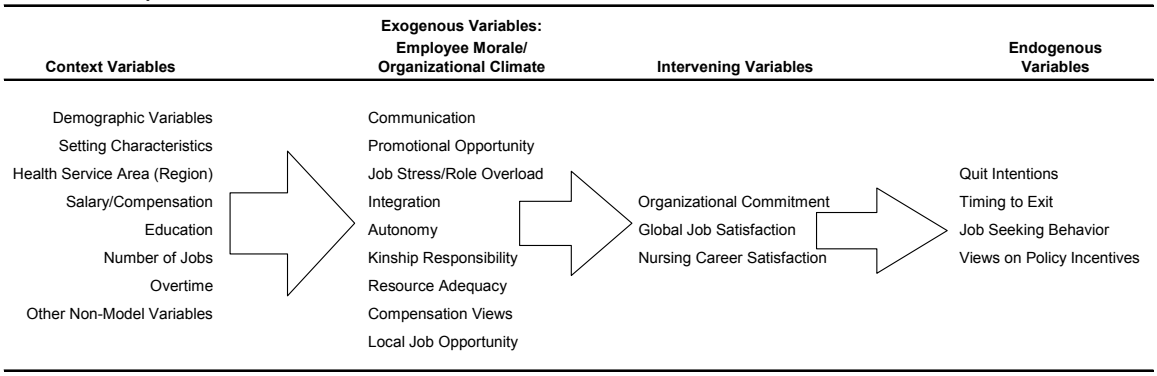
[2] For an excellent review of the nursing turnover literature see Steven J. Cavanaugh, "Nursing Turnover: Literature Review and Methodological Critique," *Journal of Advanced Nursing,* 1989,14, pp. 587-596.

[3] Cavanaugh, p. 587.

[4] See especially James L. Price, "Reflections on the determinants of voluntary turnover," *International Journal of Manpower,* 22 (7) (2001), pp. 600-624. See also, Price and Mueller, *Absenteeism and Turnover of Hospital Employees (Greenwich, CT: JAI Press, 1986)*, Appendix A.

Figure B.1

Modified Conceptual Model



Exogenous (Antecedent) Variables:

- *Instrumental Communication:* which refers primarily to the transmission of job-related information important to job performance.
- *Promotional Opportunity:* which refers to the degree of potential (vertical) occupational mobility **within** the work setting. The presumption here is that the presence of greater internal promotional opportunities will increase overall job satisfaction, and lead indirectly (through satisfaction) to lowered turnover.
- *Workload Stress:* which refers to the extent to which job duties are difficult to fulfill. While conceptually there are several types of workload stress traditionally identified in the literature, there are two in particular that are the focus of our analysis—role overload (or excessive effort required to do the job well), and resource inadequacy, which connotes inadequate resources or support to do the job.
- *Integration/Cooperation:* which refers to the extent to which staff feel they can rely upon social support from other members of the unit for job-related problems; a separate measure of physician-nurse interaction (for hospital-based settings) was also drawn from the *Index of Work Satisfaction* developed by Paula Stamps.[5]
- *Autonomy:* which refers to the extent to which an employee exercises decision-making authority over major aspects of her or his job.

[5] See Paula L. Stamps, *Nurses and Work Satisfaction: An Index for Measurement,* 2nd ed. (Chicago: Health Administration Press, 1997), esp. Appendix B.

- *Kinship Responsibility:* which refers to the existence of role obligations toward relatives living in the community. The assumption here is that the existence of nearby kin produces a greater sense of obligation (especially to parents), obligations more easily fulfilled by remaining with the current employer.

- *Compensation:* which refers to the salary received by nursing staff for their services. This measure was captured in both its objective dimension and its subjective dimension. The subjective dimension was captured using measures developed by Stamps in her *Index of Work Satisfaction*.[6]

- *Job Opportunity:* which refers to the availability of alternative (local and non-local) jobs in the labor market, is the type of measure(s) emphasized by economists.

Intervening Endogenous Variables (the Price Model):

In the Price model of nursing turnover, the previously identified exogenous variables were conceptualized as key predictors or determinants of both job satisfaction and organizational commitment.

- *Organizational Commitment:* refers to staff loyalty to the work organization. Loyal, committed employees are likely to accept the organization's goals and values, and willing to exert considerable effort to ensure the organization's success. Considerable research indicates that organizational commitment is clearly different from job satisfaction; liking the organization is **not** the same as liking one's job.

- *Job Satisfaction:* has consistently occupied a key position in virtually all organizational studies of job turnover. The satisfaction concept is usually operationalized either globally or dimensionally; that is, some studies prefer to "break out" specific aspects of the job (such as supervision, pay, peer interactions, etc.) rather than treat satisfaction globally. Following Price, we adopt a global job satisfaction measure?[7]

- *Career Satisfaction:* a global measure of an employee's satisfaction with her or his entire nursing career to date.

Outcome Variables:

While this nursing survey, unlike the Price-Mueller model of nursing turnover, was not specifically concerned with absenteeism or turnover, a number of key outcome

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[6] Stamps, *Nurses and Work Satisfaction, pp. 26-29.*

[7] For a discussion on this point see Price, *Absenteeism and Turnover*, p. 16.

variables suggested by Price and Mueller's work were captured in this survey. They include:

- *Job Search Behavior:* which refers to the extent to which the employee has actually looked for other job opportunities, or expressed the intent to do so.
- *Intent to Stay:* which was measured in two ways—with respect to the specific job currently held and with respect to the nursing profession itself.
- *Timing to Career Exit:* which measured the employee's intended timing for leaving the profession.
- *Nursing Career Recommendation to Others:* which is a measure of RNs' willingness to recommend the nursing profession to others.
- *Education Plans:* which captures information concerning intentions to pursue additional educational degrees.

Other, Non-Model Variables:

In addition, a variety of important demographic and educational control variables were incorporated in the survey. While measures such as education, highest degree held, gender, organizational setting, occupational title, etc. are simply defined as correlates of lesser importance in the specification of the Price model of employee turnover, these measures become important in carrying out the other quantitative descriptive population estimates described in the research objectives section. In addition to these types of demographic and setting characteristics, an effort was also made to determine the relative importance of five major factors often cited as key determinants of job satisfaction. Using a paired comparison approach, these "policy preferences" were examined for five major dimensions (Compensation, Autonomy, Technology, Third Party Payment, and Recognition).

Finally, all respondents were asked to consider a set of ten distinct policy incentives theorized to improve the likelihood of retention. In addition, a separate set of hospital-based incentives were presented to nurses who were working in hospital-based settings. Respondents were specifically asked what effect the incentives would have upon their leave-taking or retention.

APPENDIX C: THE SAMPLING DESIGN AND REWEIGHTING ISSUES

As noted in the main body of the report, the nurses surveyed in this study were randomly selected from the State Education Department licensure files of registered nurses as of August 28, 2002. The sample extract of 31,231 survey recipients used for mail-out purposes, was drawn based upon systematic, disproportionate stratified sampling techniques. The basis for the stratification was each licensee's Health Service Area (shown in Table C.1.). In addition, strata for certain contiguous states and other states were also defined.

Table C.1

Sampling Strata: Using Health Service Areas and "Other States" Category

	H.S.A.	Counties in H.S.A.	Licensed RNs	Pct. of Grand Total	Sampling Rate	Sampling Fraction	Systematic Mailouts Required	Actual # Received	Pop. Reweight1	Population Weight2
					Choose one in every…		=systematic fract * no. licensed	Response, but 7% of returns unknown	Total Pop/ Actual Rec'd	(Total Pop/ Actual#)*(1-Unknown%)or 84.47%
1	Long Island	Nassau, Suffolk, Queens	51910	22.70%	10.00	10.00%	5191	1862	27.88	23.55
2	Western NY	Erie, Livingston, Monroe, Niagara, Orleans, Wyoming, Genesee	26140	11.43%	10.00	10.00%	2614	1106	23.63	19.96
3	Brooklyn	Kings, Richmond	19746	8.64%	10.00	10.00%	1975	578	34.16	28.86
4	Other States	All states except - NJ, CT, MA, VT, PA	38189	16.70%	10.00	10.00%	3819	1189	32.12	27.13
5	Hudson Valley	Dutchess, Ulster, Putnam, Westchester	18688	8.17%	10.00	10.00%	1869	720	25.96	21.92
6	NYC	Bronx, Manhattan (New York)	16352	7.15%	7.00	14.29%	2336	756	21.63	18.27
7	Syracuse	Cayuga, Onondaga, Oswego	8341	3.65%	7.00	14.29%	1192	702	11.88	10.04
8	Glens Falls	Hamilton, Saratoga, Schenectady, Warren, Washington	6608	2.89%	7.00	14.29%	944	411	16.08	13.58
9	Albany	Albany, Rensselaer	5990	2.62%	7.00	14.29%	856	406	14.75	12.46
10	Newburgh	Orange, Sullivan	5399	2.36%	7.00	14.29%	771	347	15.56	13.14
11	Rockland	Rockland	5280	2.31%	7.00	14.29%	754	249	21.20	17.91
12	Utica	Herkimer, Madison, Oneida	4620	2.02%	7.00	14.29%	660	273	16.92	14.29
13	Binghamton	Broome, Tioga	3073	1.34%	5.00	20.00%	615	247	12.44	10.51
14	Finger Lakes	Ontario, Seneca, Wayne, Yates	3002	1.31%	4.00	25.00%	751	364	8.25	6.97
15	Southern Tier East	Chemung, Schulyer, Steuben	2591	1.13%	4.00	25.00%	648	291	8.90	7.52
16	North Country West	Jefferson, Lewis, St. Lawrence	2521	1.10%	4.00	25.00%	630	283	8.91	7.52
17	Plattsburgh	Clinton, Essex, Franklin	1948	0.85%	3.00	33.33%	649	284	6.86	5.79
18	South/Central NY	Chenango, Delaware, Otsego, Schoharie	1928	0.84%	3.00	33.33%	643	170	11.34	9.58
19	Columbia Greene	Columbia, Greene	1530	0.67%	2.00	50.00%	765	286	5.35	4.52
20	Southern Tier West	Allegany, Cattaraugus	1250	0.55%	2.00	50.00%	625	227	5.51	4.65
21	Jamestown	Chautauqua	1259	0.55%	2.00	50.00%	630	276	4.56	3.85
22	Gloversville	Fulton, Montgomery	1183	0.52%	1.00	100.00%	1183	520	2.28	1.92
23	Ithaca	Cortland, Tompkins	1113	0.49%	1.00	100.00%	1113	479	2.32	1.96
24	Unknown County Response		315					**2211**		16.06
	Totals		**228,661**	**100%**			**31231**	2,211	103.42	**Sum Known**
							Known Cases	**12026**		**Est.Unknown**
							Sample Size	**14,237**		**Tot. Pop. =**

The column of the table shown above (labeled "Sampling Fraction") illustrates the actual systematic sampling rate applied to each of the defined strata. In particularly thinly populated Health Service Areas (such as the Ithaca and Gloversville HSAs), the sampling rate was as large as 100 percent. This disproportionate sampling strategy was employed to ensure that adequate sample sizes would be obtained for each HSA, regardless of their registered nursing population.

Given the disproportionate stratified sampling design, two different types of sample reweighting were used in the analysis itself, depending upon the research objective involved. In one instance, our research interest was focused upon the estimation of total population parameters by reweighting the entire respondent sample

to achieve a total population estimate of 228,661 registered nurses statewide. The column labeled "Population Weight2" indicates the weight given to each respondent record in our research sample to achieve this objective (assuming, however, no "unknown" HSA identification). For example, each respondent record from the Long Island HSA would have been given a "record weight" of 23.55 in order to estimate or reconstruct the population of registered RNs from that HSA.

In other instances, and more typically, our interest was in reweighting the sample respondents to ensure HSA-level proportional representation (regardless of response rate differences), while assuming precisely the same total number of actual respondents (i.e., where the total n=14,233). Thus, while 479 respondents came from the Ithaca HSA (one of the HSAs that was heavily oversampled), proper reweighting of the entire respondent pool of 14,233 nurses involved statistical treatment of these cases as if only 59 had responded (i.e., by applying a record weight of only 0.12 to the oversampled respondents in this HSA).

A significant reweighting issue which had to be addressed was due to the fact that a certain subset of respondents—individuals not currently working in nursing—were **not** asked to supply county or HSA-identifying information. In our sample, as shown at the bottom of the column labeled "Actual # Received," 2,209 respondents, or 15.5 percent of the total, fell in this missing category. Our treatment of these individuals for reweighting purposes required making one important assumption: that the distribution of "unknowns" (largely retirees or those who have left nursing), would be distributed statistically among known HSAs in proportion to the **known** HSA-representation of nurses across each of the HSAs statewide. In effect, for sample weighting purposes, we assume that "missing cases" are distributed across the various HSAs of the state in proportion to their known distribution. The columns titled "Population Weight2" and "Sample Weight3" depict the adjusted case weighting requirements based on this assumption at both the population and sample levels respectively.

APPENDIX D: REPRESENTATIVENESS OF THE RESPONDENT SAMPLE

In view of the significant statewide policy incentives explored in this study, an issue of critical concern is the representativeness of the respondent sample. As noted earlier, confidence in our ability to accurately generalize from this cross-sectional snapshot of 14,233 nurses to the entire licensed population of 228,661 registered nurses statewide requires that the respondent sample mirror certain **known** characteristics of the entire statewide nursing population.

Several tests of sample representativeness were conducted based on sample-population comparisons of information that existed in both the licensure extract files and in the survey itself. Ideally, the respondent sample would closely mirror the entire population extract in terms of age, ethnicity, years of experience, educational experience etc. A series of chi-square (x^2) statistical tests were conducted to determine how well certain known characteristics of the nurse respondents mirrored the total population. The results of these tests are described below. **With minor exceptions, these tests demonstrate that sample bias has been avoided and that the sample is broadly reflective of our State's entire registered nursing population.**

Four specific sample-population single-sample chi-square goodness-of-fit tests were conducted. As noted, these tests were designed to:

- Determine whether the **sample** study findings on variables such as gender, age, year of licensure, or ethnicity differ significantly from known population characteristics on these same measures; and,
- Where differences were found, assess the magnitude and direction of those differences.

Important Caveats

In conducting such tests of representativeness, researchers typically hope to demonstrate that descriptive information in the sample does **not** differ in appreciable ways from the same characteristics in the larger population file from which the sample was drawn. However, in large-scale surveys of this type, even when a sample distribution matches almost precisely the population distribution on that same variable (meaning that no sampling bias has occurred), conventional statistical tests will detect even the slightest difference as being "statistically significant."

A perfect illustration of this point is seen in Table D.1. The study sample (based upon 14,233 cases), indicates that 94.5 percent of the sample was female, and that 5.5 percent was male. The gender distribution of registered RNs in the State Education Department's population file shows that females account for 94.9 percent of the entire population, and males 5.1 percent. In short, the gender distribution in the nursing sample mirrors almost perfectly the gender distribution of nurses in the Department's population file.

However, while the chi-square goodness-of-fit test results reported at the bottom of the gender-comparison table indicates that the difference between these two gender

distributions is not statistically significant (at the .01 level), the chi-square statistic reported there (x^2 = 4.60) is almost large enough to establish "statistical significance." Since statistically significant differences between sample and population findings are likely to be found in such a large data sample even when these differences are substantively negligible, we also provide information about the strength of the association or the magnitude of the observed difference.

The Sakoda's Adjusted Contingency Coefficient (C*) statistic, is a nominal measure of association ranging from 0 to 1.0. It indicates the magnitude of the difference between the two distributions.[8] Low values of this statistic can be interpreted as a clear indication that the sample and population distributions are very similar on a particular characteristic, while high values of this coefficient would indicate the opposite, that is, that the sample distribution is very unlike the population distribution. As shown in Table D.1, the magnitude of the difference between these two distributions (C* = .025) is negligible. Thus we can be quite confident that no sampling bias is involved where gender is concerned. In subsequent discussions of sampling representativeness, we encourage the reader to attend to the magnitude of the reported contingency coefficients.

Table D.1
Comparison of Population and Sample Characteristics by Gender

Gender	Population Percentage	Sample Percentage	Chi-Square Value[a]
Female	94.5%	94.9%	0.25
Male	5.5%	5.1%	4.35
Total	**100%**	**100%**	**4.60**
	Adjusted Contingency Coefficient = .025		

[a] Observed chi-square = 4.60 with one degree of freedom. Tabled chi-square required for significance at .01 level = 6.64. The result is not significant.

A second, more important caveat concerns the problem of "missing data" in the population extract file. Since any attempt to determine whether the sample is representative rests on a comparison of our sample finding with a known population finding, it is important that the population distribution used for comparison **not** be

[8] The Sakoda's Adjusted Contingency Coefficient, is described in more detail in an on-line textbook by G. David Garson at the following Internet address: http://www2.chass.ncsu.edu/garson/pa765/assocnominal.htm.

skewed in any systematic way on the variables of interest. Regrettably, in the particular case of the "ethnicity" variable, the population extract file (our normal comparison standard), was missing this key piece of information for over 26 percent of the 228,661 data base records. Extensive secondary analysis of this issue revealed several findings:

- First, the conventional assumption made in most analyses—that the ethnic distribution of the RNs whose ethnic status was **known** perfectly mirrored the ethnic distribution of those nurses who did not report their ethnicity—was untrue;
- As expected, the **direction** of the percentage-missing impact on the **known** ethnicity percentage was negative. That is, the greater the percentage missing reported, the lower the **known percentage** attributable to any ethnic group;
- What is surprising, however, is that the **strength** of the negative impact of the percentage missing upon the known ethnic percentage in the population file was not constant but varied in intensity across ethnic groups.
- For example, the negative missing-value impact upon the percentage known for a given ethnic group was far more pronounced among Whites than any other ethnic group.
- Of equal importance, this **ethnically differentiated** missing-value impact cannot be attributed to the confounding influence of licensure recency—since that variable was carefully controlled for in the analysis.
- What this means is that that Whites are heavily overrepresented in the "unknown" or "ethnicity-missing" pool, regardless of the licensure year involved.

All of this evidence points to one conclusion. The reported ethnic distribution from the Department's population extract file (as of September 2002) is flawed as a comparison standard on the ethnicity variable because of the missing value problem. Accordingly, for this particular measure we employ data drawn from the national data sample developed in 2000 by the Health Resources and Services Administration (HRSA). In any table in which the population standard used for the comparison against our study sample is the HRSA standard, we make note of that fact.

Finally, we would note that a direct comparison of the percentage distributions shown for any of the selected variables in this appendix vary slightly from companion tables shown in specific chapters of this volume. Typically, basic demographic tables displayed in other chapters are based upon all RNs licensed and working in New York State as of September 2002. In order to compare our sample findings with the entire population extract file, however, **all nurses in the sample survey had to be used for these comparisons**—including, for instance, nurses working out of state, or not working at the current moment. Thus, very small differences may be noted.

Sample Representativeness: Findings

In the discussion of sampling issues in Appendix C we noted that the sample was reweighted to mirror the population distribution of nurses across Health Service Areas. By design, therefore, the study sample and the population file are identical with respect to Health Service Area representation. In Table D.1, we compare the study sample and the SED population file on gender. As we have already shown, the study sample closely mirrors the known gender distribution in the SED population file. In Table D.2, we conduct a chi-square goodness-of-fit test for the ethnicity variable. In this instance, for reasons discussed earlier, we compare the New York State nursing study sample with a population standard based upon a national nursing study conducted by the Health Resources and Services Administration (HRSA) of the U.S. Department of Health and Human Services in 2000. The population standard referenced in Table D.2 is drawn from the New York State portion of that national data set.

Table D.2

Comparison of "Population" and Sample Characteristics by Ethnicity

Ethnicity	"Population" Percentage[a]	Sample Percentage	Chi-Square Value[b]
White	80.7%	78.1%	12.06
Black	9.0%	9.0%	0.04
Hispanic	2.2%	2.3%	1.27
Asian	6.9%	9.1%	100.02
Native American	0.2%	0.2%	0.80
Two or More Races	1.0%	1.2%	5.09
Total	**100.0%**	**100.0%**	**119.29**
	Adjusted Contingency Coefficient = .129		

[a] The "population" here is the New York data from the 2000 Heath Resources and Services Administration (HRSA) national RN survey.

[b] Observed chi-square = 119.29 with five degrees of freedom. Tabled chi-square required for significance at .01 level = 15.08. The result is significant.

As Table D.2 reveals, the nursing study sample mirrors quite closely the HRSA sample in its ethnic distribution—even though the chi-square test reveals that the two distributions are statistically different. The reported contingency coefficient (C* = .129) however is quite weak, indicating that the magnitude of the difference between these two distributions is generally negligible.

A careful review of the chi-square values shown in the third column of the table provides a clear indication of which ethnic categories are most different in the sample and the comparison "population." It is apparent, for example, that Asian American respondents in the nursing study are slightly overrepresented (6.9 percent in the HRSA data set versus 9.1 percent in our study). In general, however, the ethnic distribution of nursing study respondents corresponds closely to that of the HRSA New York sample.

In Table D.3 we turn our attention to one other comparison—one based upon the age distribution of nurses. In this instance, there is evidence that younger nurses are underrepresented in the study sample and older nurses overrepresented. The population for this comparison is the SED licensure file.

Table D.3

Comparison of Population and Sample Characteristics by Age

Age Category	Population Percentage	Sample Percentage	Chi-Square Value[a]
18 - 30	8.2%	5.6%	111.95
31 - 40	22.1%	18.4%	87.11
41 - 50	33.8%	34.6%	2.63
51 - 60	23.9%	27.7%	84.72
61 - 70	9.7%	11.4%	38.84
71 & Over	2.3%	2.4%	0.02
Total	**100.0%**	**100%**	**325.27**
	Adjusted Contingency Coefficient = .211		

[a] Observed chi-square = 325.27 with five degrees of freedom. Tabled chi-square required for significance at .01 level = 15.08. The result is significant.

Once again, a quick review of the chi-square values shown in the third column of this table indicates where the lack of correspondence between the percentages is greatest. Underrepresentation, for example, is proportionally greatest in the 18-30 age category—where only 5.6 percent of the study sample is represented versus 8.2 percent in the known population distribution. Conversely, nurses in the 51-60 age category appear to be somewhat overrepresented in the study sample (27.7 percent versus 23.9 percent in the population). In general, however, the age distribution of the 14,233 respondent sample closely approximates the known age distribution of the larger population of 228,661 registered RNs.

As a final test of sample representativeness, we also examined respondents' age at the time they finished their basic nursing preparation. These results are described in Table D.4. A review of the tabular findings reveals that the age distribution of our sample respondents at the time they received their basic nursing preparation, while technically significantly different from one another, mirror each other closely. There is a slight tendency toward an underrepresentation of RNs in younger age categories and a complementary overrepresentation in the older age categories. However, the adjusted Contingency Coefficient value is quite small (C* = .118). This statistic suggests that any differences observed in these two distributions are almost negligible. Once again, the population for the comparison is the SED licensure file.

Table D.4

Comparison of Population and Sample by Age of Basic Degree Completion

Age	Population Percentage	Sample Percentage	Chi-Square Value[a]
15-24	38.2%	37.0%	1.93
25-30	23.9%	22.8%	2.51
31-35	14.8%	13.7%	3.76
36-40	11.5%	13.1%	11.36
41-45	7.1%	7.7%	3.13
46+	4.6%	5.7%	12.73
Total	**100.0%**	**100.0%**	**35.42**
	Adjusted Contingency Coefficient = .118		

[a] Observed chi-square = 35.42 with five degrees of freedom. Tabled chi-square required for significance at .01 level = 15.08. The result is significant.

Sample Representativeness: Conclusions

Based upon the series of goodness-of-fit tests described above, we can be quite confident that the sample survey is highly representative of the population from which it was originally drawn. Comparisons of both sample and population distributions on such demographic variables as gender, ethnicity, current age, and age at the time of completion of basic nursing preparation reveals a consistently "close match." In short, we can have a high level of confidence that sampling bias has been reduced to a minimum and that generalizations based on sample findings from other variables will depict an accurate picture of the entire RN nursing population.

APPENDIX E: RELIABILITY OF THE PRICE-MUELLER MODEL

Table E.1
Factor Loadings and Reliability Estimates for Climate Scales

	Survey Location	Factor Loading	Coding
Nurse-Nurse Interaction			
Staff in my immediate work group help each other to find better ways of doing a job.	35	0.770	
The atmosphere in my immediate work group is friendly and outgoing	36	0.806	
There is a great deal of teamwork and cooperation among various levels of staff in my immediate work group	37	0.796	
The staff where I work are reluctant to pitch in and help one another when things get in a rush.	38	-0.742	Reversed
It is hard for staff to feel comfortable in my immediate work group.	39	-0.730	Reversed
Cronbach's Alpha		**0.884**	
Nurse-Physician Interaction			
Physicians in general cooperate with the nursing staff.	40	0.823	
There is a lot of teamwork between nurses and doctors in my immediate work group.	41	0.816	
Physicians generally understand and appreciate what the nursing staff does.	42	0.830	
I wish the physicians here would show more respect for the skill and knowledge of the nursing staff.	43	-0.762	Reversed
The physicians look down too much on the nursing staff.	44	-0.822	Reversed
Cronbach's Alpha		**0.903**	
Salary Satisfaction			
My present salary is satisfactory.	45	0.783	
It is my impression that a lot of nurses where I work are dissatisfied with their pay.	46	-0.702	Reversed
Considering what is expected of nursing personnel where I work, the pay we get is reasonable.	47	0.781	
The present rate of pay increase for nursing personnel is not satisfactory where I work.	48	-0.810	Reversed
An upgrading of pay for nursing personnel is needed where I work.	49	-0.820	Reversed
Cronbach's Alpha		**0.856**	
Promotional Opportunity			
Promotions are regular.	50	0.610	
I am in a dead-end job.	51	-0.776	Reversed
There is opportunity for advancement.	52	0.880	
There is a good chance to get ahead.	53	0.858	
There is almost no opportunity to rise to the top.	54	-0.780	Reversed
Cronbach's Alpha		**0.882**	

Table E.1 (Continued)
Factor Loadings and Reliability Estimates for Climate Scales

	Survey Location	Factor Loading	Coding
Instrumental Communication			
How well are you kept informed about each of the following aspects of your job?			
What is to be done.	64	0.776	
Standard operating procedures.	65	0.811	
What is most important about the job.	66	0.795	
How well the job is done.	67	0.656	
What you need to know to do the job.	68	0.801	
The nature of the equipment used.	69	0.720	
	Cronbach's Alpha	**0.916**	
Job Opportunity			
Ease of finding a job in current area that is:			
As good as my current job.	13a	0.792	Reversed
Better than my current job.	13b	0.867	Reversed
Much better than my current job.	13c	0.832	Reversed
Ease of finding a job outside current area that is:			
As good as my current job.	14a	0.821	Reversed
Better than my current job.	14b	0.876	Reversed
Much better than my current job.	14c	0.848	Reversed
	Cronbach's Alpha	**0.929**	
Job Stress - Workload			
I have enough time to get everything done in my job.	22	0.643	Reversed
I have to work very hard in my job.	23	-0.786	
My workload is not heavy on my job.	24	0.790	Reversed
I have to work very fast at my job.	25	-0.660	
	Cronbach's Alpha	**0.764**	
Job Stress - Resources			
I have difficulty getting supplies I need on my job.	26	-0.758	
I have adequate equipment to do my job.	27	0.771	Reversed
I do not have enough room to do my job.	28	-0.583	
	Cronbach's Alpha	**0.690**	

Table E.1 (Continued)
Factor Loadings and Reliability Estimates for Climate Scales

	Survey Location	Factor Loading	Coding
Autonomy			
How much say do you have over what happens on your job?	29	0.761	
How much freedom do you have as to how to do your job?	30	0.738	
How much does your job allow you to take part in decisions that affect you?	31	0.704	
How much are you invited to serve on administration committees?	33	0.529	
How much does your job allow you to make patient care decisions?	34	0.643	
Cronbach's Alpha		**0.791**	
Organizational Commitment			
I speak favorably about this workplace to my friends.	56	0.668	
I would accept almost any type of job assignment to continue working here.	57	0.608	
I find that my values and my organization's values are very similar.	58	0.672	
I am proud to tell others that I am part of this organization.	59	0.736	
This organization really inspires me to do my very best in the way of job performance.	60	0.688	
I am extremely glad that I chose this particular place to work over other places I was considering at the time I joined.	61	0.681	
I really care about the future of this organization.	62	0.588	
For me, this is the best of all possible work settings.	63	0.623	
Cronbach's Alpha		**0.902**	
Job Satisfaction			
I am fairly well satisfied with my job.	70	0.542	
Most days, I am enthusiastic about my job.	71	0.637	
I like working here better than most other people I know who work here.	72	0.594	
I do not find enjoyment in my job.	73	-0.700	Reversed
I am often bored with my job.	74	-0.608	Reversed
I would consider taking another kind of job.	75	-0.436	Reversed
All in all, I am very satisfied with my current (most recent) nursing job.	76	0.531	
Cronbach's Alpha		**0.858**	
Search Behavior			
I rarely seek out information about job opportunities with other employers.	17	0.822	Reversed
There is little chance that I will seek out job opportunities with other employers.	18	0.846	Reversed
I almost always follow up on job leads with other employers that I hear about.	19	-0.784	
Within the next year, I intend to search for a job with other employers.	20	-0.743	
Cronbach's Alpha		**0.856**	

APPENDIX F: THE FOUR-REGION TAXONOMY

The Four-Region Taxonomy Distributes New York State's Counties as Follows:

- **New York City:** Bronx, Kings, New York, Queens, and Richmond (Staten Island)
- **Downstate Suburbs:** Nassau, Putnam, Rockland, Suffolk, and Westchester
- **Upstate Metropolitan Areas:** Albany, Broome, Cayuga, Chautauqua, Chemung, Dutchess, Erie, Genesee, Herkimer, Livingston, Madison, Monroe, Montgomery, Niagara, Oneida, Onondaga, Ontario, Orange, Orleans, Oswego, Rensselaer, Saratoga, Schenectady, Schoharie, Tioga, Warren, Washington, and Wayne
- **Rural Counties:** Allegany, Cattaraugus, Chenango, Clinton, Columbia, Cortland, Delaware, Essex, Franklin, Fulton, Greene, Hamilton, Jefferson, Lewis, Otsego, Schuyler, Seneca, St. Lawrence, Steuben, Sullivan, Tompkins, Ulster, Wyoming, and Yates

APPENDIX G: NATIONAL AND STATE INITIATIVES FOR ADDRESSING THE NURSING SHORTAGE

Introduction

The reform and incentive proposals presented in the survey to New York State's RNs for their appraisal were examples of reforms currently being researched, evaluated, and in some cases implemented, by both patient and nurse advocates throughout the nation. This appendix highlights:

- selected legislative reforms at state and federal levels of particular relevance to this study; and,
- pertinent research findings that provide support for these reforms.

The New York State Clearinghouse

Given the rapid pace of new reform efforts throughout the nation, the availability of a centralized repository concerning these initiatives has become indispensable. One highly utilitarian accomplishment motivated by the recommendations of the Regents Task Force was the creation, and continuous updating by the State Nursing Board Office, of the Web site: *Clearinghouse on Nursing Shortage Issues* at www.op.nysed.gov/nurseclearinghouse.htm.[1] This site provides annotated links to information regarding initiatives, reforms, and research being pursued nationwide to address the nursing shortage.

The *Clearinghouse* Web site includes information on two bold and innovative reform bills of special relevance to readers of this report - which have been successfully passed by the legislatures of their originating states. Both states are now working out the implementation the newly legislated measures, and stakeholders nationwide are closely monitoring their efforts. The landmark nursing shortage initiatives of California and New Jersey are briefly reviewed below.

California Legislation Mandating Maximum Patient to Nurse Ratios

California has been the first, and so far the only, state in the nation to enact a law requiring safe RN staffing ratios. (Similar bills have been introduced in many other states, including New York, but none have yet passed.[2]) In October 1999, legislation was signed into law that directed the California Department of Health Services (CDHS) to set minimum, specific, nurse-to-patient ratios by unit-type for all California hospitals. The CDHS issued the official regulations, including proposed ratios, in September 2002. A public debate ensued between the California Nurses' Association, the hospital and managed care industries, and other stakeholders. After public hearings were completed,

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[1] The site was created and is maintained by the Office of the New York State Board for Nursing.

[2] A joint task force of the Texas Nurses Association and the Texas Hospital Association resulted in new hospital nurse staffing rules, which present criteria for safe staffing and provide a process for assuring nurses' into staffing decisions. These rules, however, do not have the force of law.

CDHS released revised proposed ratios in July 2003. The current California regulations propose medical/surgical unit ratios at six patients for one nurse during the first phase of implementation of the bill (mandated by January 1, 2004). That ratio would be mandated to decrease to five patients for one nurse by January 1, 2005.

Many states, including New York, have introduced legislation attempting to reduce the maximum number of patients under the care of a single nurse. These reform proposals seek to limit nurse to patient ratios on a "setting by setting" basis, taking into account the "mix" of patients within caseloads and both the criticality and level of service demands of patients' needs.

New Jersey and Other State Legislative Bills Restricting Mandatory Overtime

New Jersey was the first state in the nation to pass a law making it illegal for health care facilities to require hourly wage workers to work in excess of eight hours a day or 40 hours a week, except on a voluntary basis or in the case of an unforeseen emergency. New Jersey's governor signed the *Mandatory Overtime Bill - S2093* into law on January 2nd, 2002, making headlines nationwide. The New Jersey Health and Human Services Department expects that the bill's provisions will not be fully implemented, however, until late 2003. The proposed regulations for the implementation of the bill, including which worker categories are to be covered by the bill's provisions, are scheduled to be published in the New Jersey Register during September 2003. The New Jersey State Nurses Association was a staunch advocate for the bill, and is working to expedite its implementation.

In 2002, a total of fifteen states introduced legislation to prohibit mandatory overtime. Maryland, Minnesota and Washington were successful in enacting mandatory overtime restrictions, in addition to the success of the New Jersey bill.

New York State Initiatives for Alleviating the Shortage

New York State and her health care organizations have also been active in pursuing strategies to improve working conditions for nurses and to attract young people to the profession:

- During September 2003, the New York State Board of Regents voted to adopt as "Regents Priority Legislation" a bill that proposes the establishment of *The Empire Promise Nursing Faculty Scholarship Program*. The proposed program would seek to provide 100 awards of $15,000 annually for three to five years to experienced nurse applicants who meet certain admission criteria and who are seeking master's degrees or pursuing doctoral study. Award recipients, in return, would agree to work in an area of nursing education in New York State upon completion of the degree program.

- In March 2003 the New York State Education Department announced a new four-year pilot project – *The Empire Promise Nurse Opportunity Corps*. The program targets students from Liberty Partnership Programs (LPP) located in communities across the State. Activities such as pre-professional orientation

and workshops, summer residential programs on college campuses, and tutoring will help to prepare students for rich and rewarding careers in the nursing profession.

- In April 2002, the New York State Department of Health announced the availability of $20 million for health care worker training initiatives. The Iroquois Healthcare Association's Upstate Health Workforce Center administered $13.3 million in grant money that year from the Department of Health to recruit, train and retain individuals to health careers who met Federal need guidelines.

- In September 2002, Johanna Duncan-Poitier, Deputy Commissioner for the New York State Education Department's Office of the Professions, in conjunction with Barbara Zittel, Executive Secretary for the NYS Board for Nursing, sent a memo to all licensed nurses and health-care facilities. This memo sought to clarify the Department's position regarding actions that could be considered abandonment and lead to charges of unprofessional conduct against a nurse's license. The intention was to educate nurses and facilities regarding the right of nurses to refuse overtime work when the action could not be construed as "patient abandonment".

- Beginning in October 2002, a revised version of the Nursing Handbook, titled the *Nursing Guide to Practice*, has been mailed with licensure parchments to all newly licensed nurses in New York State. The Guide serves as a compendium of information to assist nurses to understand legal and ethical principles of practice. (Practice guidelines to clarify the legal scope of practice of nursing, including those tasks that do not require licensure, are under development.)

- All information in the Guide to Practice is also featured on an enhanced nursing page of the Office of the Professions Web site at www.op.nysed.gov/nurse.htm. This web page includes links to much useful information relevant to the shortage, including: New York State licensure requirements; licensure application forms; licensure statistics by counties; a list of NYS registered nursing programs; and all reports of the *Regents Blue Ribbon Task Force on the Future of Nursing* and reports to the Regents on the Nursing Shortage. The page also links to the valuable *Clearinghouse* Web site of initiatives and strategies for addressing the shortage, referenced above.

- The Healthcare Association of New York State has developed the Web site *Health Care Recruitment and Retention Best Practices: Members Offer Successful Strategies for Attracting and Keeping Health Care Workers*. The site is a resource providing a number of strategies for attracting and retaining healthcare workers (http://www.hanys.org).

- The New York State Nurses Association has developed *Career in Nursing Recruitment Kits*. Volunteers can use the materials within these kits for presentations to local schools and children's community groups, for the purpose of promoting nursing as a career.

- To attract students to the nursing profession and hasten their entry into the workforce, New York State offers accelerated education programs in nursing at several colleges and universities. The New York State Board for Nursing may be contacted for more information about these programs.

- Currently, 18 different bills to enact further reforms and incentives are under consideration by the New York State legislature. Measures covered by these bills include oversight of nurse caseloads and other working conditions, third party payment provisions, grants to nursing education institutions, scholarships and loan forgiveness.

Other State Initiatives Addressing the Nursing Shortage

The *Clearinghouse on Nursing Shortage Issues* Web site, referenced above, links both directly and indirectly to enormous reservoirs of information regarding reform and incentive initiatives nationwide. Many states are making scholarships and loans available to nursing students. State nurses associations, state centers for nursing and state hospital associations are sponsoring research regarding the nurse shortage within their jurisdiction. These organizations are collecting and sharing strategies for addressing the shortage, and developing advertisements, literature, public service announcements, web sites, and recruitment kits to promote the image of nursing and to recruit more caregivers into the profession.

Some states have been particularly inventive in their approaches to recruiting new nurses. The State of Florida, for example, through its Department of Community Affairs and Department of Health, partnered with Fannie Mae to help nurses and other health care workers finance a home using just $500 of their own funds. Pennsylvania, through the collaborative efforts of its Department of Health and three concerned organizations[3] sponsored the development of a "Nursing Exploration" Girl Scout Patch, and the associated program of activities, which expose girls to the variety of career opportunities in nursing and the growing need for nurses.

Recruitment Initiatives of Corporations and Not-for-Profit Foundations

Foundations and corporations have also given generously of their resources in recognition of the potentially dire implications of the growing nursing shortage:

- In 2002 Johnson & Johnson launched a $20 million national advertising and promotional campaign to attract people to nursing. As part of the campaign,

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[3] These organizations included the Pennsylvania Nurses Association, the Hospital and Health System Association of Pennsylvania, and the Pennsylvania Organization of Nurse Leaders.

the corporation is funding scholarship grants for nursing students and prospective nursing faculty.

- The Robert Woods Johnson Foundation has funded a number of projects to address the nursing shortage, collectively called "Colleagues in Caring".

- The University of Rochester recently received a $2.2 million grant from the Helene Fuld Health Trust to bring new students to the nursing profession, expand accelerated degree programs, and address the nursing shortage.

- The American Nurses Foundation continues to award grants to nursing research students.

- Nurses for a Healthier Tomorrow, a coalition of 32 nursing and health care organizations, has developed a national advertising campaign, including seven print advertisements and a television public service announcement, to recruit and retain nurses. "*Nursing, It's Real, It's Life*" targets middle- and high school age youth, as well as nurses who may have considered leaving the profession.

Federal Reforms and Incentives

Federal level initiatives addressing the nursing shortage are primarily encompassed by programs administered by the Health Resources and Services Administration (HRSA)[4]. HRSA's health professions programs (Public Health Service Act, PHSA Title VII) and nursing education programs (PHSA Title VIII) are allocated the bulk of federal funds designated for the improvement and the promotion of the nursing profession. Federal recognition of the likelihood of an impending crisis in the provision of adequate nursing services nationwide resulted in major boosts to both the scope and funding of these programs in 1998 and in 2002.

The Nurse Education and Practice Improvement Act of 1998, also known as the "Nurse Education Act", amended PHSA Title VIII to provide much greater support for nursing education programs from entry-level nursing preparation through graduate level studies. The Nurse Education Act provided funding for three new grant programs: 1) Advanced Education Nursing; 2) Nursing Workforce Diversity; and 3) Basic Nurse Education and Practice. It also funded two loan programs: 1) The Nursing Education Loan Repayment Program; and 2) The Nursing Student Loan Program.

The *Nurse Reinvestment Act*, signed into law In August 2002 by President Bush provided even greater support for the nursing profession by further amending sections of PHSA Title VIII, once again to increase programming and funding. The Nurse Reinvestment Act provided authorization for the following:

- Nurse Scholarships;
- Nurse Retention and Patient Safety Enhancement Grants;

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[4] HRSA is a division of the U.S. Department of Health and Human Services or "HHS".

- Comprehensive Geriatric Training Grants for Nurses;
- Faculty Loan Cancellation Program;
- Career Ladder Grant Program;
- Public Service Announcements, National and Local.

One promising innovation of this legislation is the proposed establishment of a National Nurse Service Corps. This program will offer loan forgiveness to nurse graduates in return for their working for a period of at least two years at a health care facility with a critical shortage of nurses. The model for this proposed new program is the existing "National Health Service Corps." That Federal program has for years successfully recruited medical doctors, dentists and other health professionals to meet health care needs in under-served areas.

In September 2003 the Senate passed an amendment to the FY 2004 Senate Labor, Health and Human Services Appropriations bill that would increase funding for the Nurse Reinvestment Act and other nursing workforce development programs (Title VIII) from last year's funding level by $50 million, bringing the total funding to almost $163 million for these vital programs. The American Association of Colleges of Nursing maintains a Web site with up to date descriptions of these Federal programs and their current funding status (www.aacn.nche.edu/government/index.htm).

Though the bulk of federal funding for the enhancement of the nursing profession is funneled through HRSA, the National Institute of Nursing Research, one of the National Institutes of Health, also contributes substantially to the development of the profession and the education of nurse educators. The Institute's mission is to train independent nurse investigators and build a foundation of nursing research. Recent funded studies have addressed the management of chronic pain, health disparities in populations, improving palliative end-of-life care, and "telehealth" technology.

Another tack taken by the U.S. Department of Health and Human Services to improve conditions for nurses has been two initiatives focused on reducing cumbersome federal regulatory and "paperwork" requirements. The Centers for Medicare and Medicaid Services has streamlined paperwork requirements for nursing homes to allow caregivers more time to spend on patient care. The Advisory Committee on Regulatory Reform, which includes doctors, nurses and other professionals, released its first report in November 2002 providing 255 recommendations for changes to "streamline unnecessarily burdensome or inefficient regulations".

The Magnet Nursing Services Recognition Program

Special mention should be given here to one distinctive and influential nationwide effort to alleviate the nursing shortage through improving working conditions for nurses - thus allowing them to provide an exemplary level of service and so derive greater satisfaction from there employment. The *Magnet Nursing Services Recognition Program for Excellence in Nursing Services*, administered by the American Nurses

Credentialing Center[5] has recently been gaining momentum. The "best practices" in the administration and delivery of nursing services, recognized and publicized by this credentialing organization as it undertakes the evaluation of nursing services within healthcare facilities, have had far greater influence than the relatively small number of institutions so far achieving official "magnet" status would indicate. These institutions have provided models of performance, and a standard of nursing services, by which other facilities can evaluate their own performance in that domain.

An excellent recent book, Magnet Hospitals Revisited: Attraction and Retention of Professional Nurses (2002), outlines the history of the "magnet" concept from its origins in a 1983 study. A group of experts on the magnet recognition program review in detail the research evidence demonstrating the superior outcomes of nursing delivery systems achieving "magnet recognition" status.[6]

Four New York State medical facilities have so far achieved the coveted "magnet" designation for excellence in nursing services. These include:

- North Shore University Hospital, Manhasset, NY;
- Long Island Jewish Medical Center, New Hyde Park, NY;
- Hospital for Special Surgery, New York, NY; and
- St. Joseph's Hospital Health Center, Syracuse, NY.

RESEARCH IN SUPPORT OF LEGISLATIVE REFORM

Research on Smaller Nurse Caseloads

Substantial research now exists that supports legislative advocacy efforts to mandate safe patient to nurse ratios. One landmark, nationally recognized research effort dates back to a 1993 congressional hearing on the delivery of nursing services in hospitals and the effect of the level of those services on patient care. Those hearings ultimately resulted in funding for a major research project conducted by the Harvard University School of Public Health under the auspices of the U.S. Department of Health and Human Services.

The study, *Nurse Staffing and Patient Outcomes in Hospitals*, was based on 1997 data from more than five million patient discharges from 799 hospitals in 11 states.[7] The official April 2001 press release of the co-sponsoring Health Resources and Services Administration (HRSA) states: *A higher number of registered nurses was associated with a 3 percent to 12 percent reduction in the rates of adverse outcomes,*

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[5] An affiliate of the American Nurses Association

[6] McClure, M., Hinshaw, S., editors. Magnet Hospitals Revisited: Attraction and Retention of Professional Nurses. American Nurses Association, Washington, D.C. August 2002

[7] Needleman J, Buerhaus P, Mattke S, Stewart M, Zelevinsky K. Nurse-staffing levels and the quality of care in hospitals. N Eng J Med. 2002; 346:1715-1722.

while higher staffing levels for all types of nurses was associated with a decrease in adverse outcomes from 2 percent to 25 percent.

Jack Needleman and Peter Buerhaus were the lead researchers on the project, and published a more technical account of this massive study's findings in the May 2002 issue of the New England Journal of Medicine. Their analysis, which carefully controlled for patient risk-level and the mix in nurses' caseloads, found an association between the number of registered-nurse-hours per day provided to patients, and six adverse outcomes among those patients. These included: 1) length of stay; 2) rates of urinary tract infections; 3) upper gastrointestinal bleeding; 4) hospital-acquired pneumonia; 5) shock or cardiac arrest; and, 6) "failure to rescue" (deaths in surgical patients who develop serious complications).

A short time later (October 2002), Linda Aiken and a team of researchers at the University of Pennsylvania published a landmark article in the Journal of the American Medical Association, *Hospital Nurse Staffing and Patient Mortality, Nurse Burnout, and Job Dissatisfaction*. The article describes her carefully controlled study, which adjusted for both patient and hospital characteristics, and its startling results – for every additional patient in a nurse's caseload, the likelihood of a surgical patient dying within 30 days of admission increased by seven percent. The likelihood of "failure to rescue" mortalities also increased by seven percent. Aiken's report concludes that adequate nurse staffing "contributes importantly to the surveillance, early detection, and timely interventions that save lives".

The Aiken study also examined the relationship between patient to nurse ratios and job satisfaction. Not surprisingly her study found that, for each additional patient added to nurses' caseloads, nurse burnout and job dissatisfaction increased substantially. She also reported that dissatisfied nurses were four times more likely to intend to leave their jobs within the next 12 months than satisfied nurses.

One of the reform proposals presented for evaluation by our respondents was: *A reduction in the maximum number of patients under the care of a single nurse*. Legislative bills with this objective are currently before the State legislature for consideration. The data analysis below shows that this proposal was the most strongly and universally endorsed of all the nineteen proposals presented.

Research Supporting the Elimination of Mandatory Overtime

The Institute of Medicine's 1999 report estimated that approximately 100,000 deaths per year in the United States are due to medical errors.[8] The report cites research conducted at two prestigious teaching hospitals, which found that about 2 out of every 100 admissions experienced a preventable adverse drug event. The result of these medication errors was an average increased hospital cost of $4,700 per admission, or about $2.8 million annually for a 700-bed teaching hospital.[9]

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[8] Kohn, L., Corrigan, J., Donaldson, M. (1999). To Err is Human. Building a safer health system. Washington, D.C.: National Academy Press. Committee on Quality of Health Care in America.

[9] Thomas, Eric J.; Studdert, David M.; Newhouse, Joseph P.; et al. Costs of Medical Injuries in Utah and Colorado. *Inquiry* 36:255-264, 1999. Cited in Ibid.

In response to a noted increase in the number of New York State nurses charged with medication errors, the Board of Regents requested an investigation on the possible effects of the workplace environment on such medication errors by registered New York State RNs. The State Board conducted an internal research study for Nursing and State Education Department in 1995. This study found that nurses disciplined for medication errors were disproportionately represented by younger, less experienced nurses compelled to work overtime because of staffing shortages within their facilities.[10]

A number of research studies have linked extended work hours for healthcare providers with adverse health and safety effects.[11] A January 2002 Briefing Paper, *Time after Time: Mandatory Overtime in the U.S. Economy*, concluded, upon exhaustive review of available research, that overtime work among healthcare workers can lead to situations that jeopardize the health of patients. The report recommended that the Federal Fair Labor Standards Act be amended to grant all employees the right to refuse mandatory overtime, except in the case of emergency.[12]

Of equal importance with regard to the nursing shortage, mandatory overtime is strongly associated with measures of nurse job dissatisfaction and intentions to quit both their current job and the nursing profession. Chapter 3 of this report demonstrated that those of our survey respondents whose overtime work is always done on a mandatory basis are among the most dissatisfied nurses in New York State, and have an especially low level of organizational commitment. Additionally, on average they express the intention to quit both their current job and the nursing profession significantly sooner than nurses not working overtime or working overtime on a voluntary basis. Those nurses forced to work mandatory overtime are also significantly less likely to recommend nursing as a career to a friend.

> "I would have stayed in hospital nursing because of my love for nursing; however, with the way nursing care is today, I had to run for my sanity and health due to stress. Nurses are mandated daily to work 16 hour days and return the next day for more of the same. Nurses are shown no respect for their knowledge or dedication to patient care by other departments or administration. More and more responsibilities are added to the nurses daily workload to compensate for cut backs in all departments. I do not understand how other departments or administrators fail to realize that without nurses a hospital cannot survive".

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[10] Protecting the Public. New York State Education Department, Office of the Professions. Available from: http://www.op.nysed.gov/taskforcereport.htm

[11] Hayashi, Kobayashi, Yamaoka and Yano. "Effect of Overtime Work on 24-Hour Ambulatory Blood Pressure," Journal of Occupational and Environmental Medicine, Vol. 38, No. 10: 1007-11, 1996; and, Iskra-Golec, Folkard, Marek and Noworol. "Health, Well-Being and Burnout of ICU Nurses on 12- and 8-Hour Shifts," *Work and Stress*, Vol. 10, No. 3 251-256, 1996.

[12] Golden, L., and Jorgensen, H., (January 2002) Time After Time: Mandatory Overtime in the U.S. Economy. Washington, D.C.: Economic Policy Institute Briefing Paper.

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