Understanding Registered Nurse Turnover in The U.S.: New Insights for a Recurring Problem



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I. Introduction

Nurse workforce shortages are not new,¹ but the pandemic exacerbated reports of shortfalls across different types of healthcare settings and raised awareness of the significant impact that nurse shortages have on the health care system.²⁻⁴ Nurses were hailed as heroes during the pandemic, caring for wave after wave of patients. Unfortunately, as the pandemic wore on, they reported high levels of burnout,⁶ frustration, exposure to workplace violence,⁷ and a lack of respect, accelerating their intent to leave the workplace and the workforce.⁸ Although nurses reported many of these same challenges prior to the pandemic,⁹⁻¹¹our understanding of how these factors might lead to actual turnover, beyond intent to leave, is limited. Without an updated understanding of nurse turnover and related factors, organizational systems and policies implemented to retain nurses may be ineffective.

Few national data sources document turnover in the nurse labor market. Also, most research on nurse turnover was conducted over a decade ago, and, with few exceptions,¹²⁻¹⁴ is largely focused on the impact of certain personal and organizational factors on nurse turnover,¹⁵ conducted at local sites,¹⁶ and small in scale.¹⁷ It is difficult to know if findings from existing studies apply beyond local institutions or narrow geographic areas, or the extent to which prior nurse turnover research is relevant today, given changes in the nursing profession and health care settings. In particular, understanding how the pandemic might have affected nurse turnover requires establishing a national baseline of turnover in the pre-pandemic period. This study sought to produce that baseline by conducting a cross-sectional analysis of data from a nationally representative survey of nurses in 2018.

II. Methods

Data from the 2018 National Sample Survey of Registered Nurses (NSSRN), a publicly available and nationally representative data source produced by the National Center for Health Workforce Analysis in collaboration with the US Census Bureau, was used to model RN turnover that occurred between December 2016 and December 2017. We conducted descriptive analyses and logistic regressions using sampling weights to examine how RN turnover varied by the following factors: sociodemographic (e.g., gender, marital status, dependents); professional (e.g., education, years of experience); employment (e.g., setting type, full-time and part-time work status, region); and economic (e.g., income).

Turnover was operationalized by using nurses' responses to a single item in the 2018 NSSRN about nurses' employment situation on December 31, 2016, relative to December 31, 2017. Turnover was further categorized as internal (i.e., changed positions in the same organization) or external (i.e., changed employers). Excluded

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UNC THE CECIL G. SHEPS CENTER FOR HEALTH SERVICES RESEARCH from the analytic sample of 50,273 observations (unweighted) were RNs not employed in nursing between December 2016 and December 2017 (n=7,929), those employed as travel nurses (n=412), and those who received their highest nursing degree in 2017 (n=504). These exclusions helped us narrow our analysis to focus on turnover that occurred during a one-year period.

III. Findings

Responses from 41,428 RNs across the U.S., representing 3,092,991 weighted observations, were used for our analysis. Of those in the weighted sample, 17% (n=524,995) reported a job turnover within the *previous year*. About 191,400 of those (6%) reported changing jobs within the organizations where they worked (i.e., internal turnover), and over 333,600 (11%) reported having changed employers (i.e., external turnover) during the previous year. The results of logistic regression are described below.

Sociodemographic characteristics. RNs who identified as Hispanic were less likely to experience internal turnover compared to White RNs (OR=0.61, 95% CI [0.39. 0.96]). Nurses who were widowed, divorced, or separated were more likely than those who were married or in a domestic partnership to experience both internal and external turnover (OR=1.37, 95% CI [1.02, 1.83]). The presence of dependents at home was not related to internal or external turnover.

Professional factors. The entry level educational preparation of nurses did not predict the likelihood of RN turnover. However, RNs who graduated from a nursing program in the U.S. were more likely to experience internal turnover than those who graduated from a nursing program outside the U.S (OR=2.32, 95% CI [1.11, 4.83]). Nurses prepared with a Diploma in nursing (OR=0.52, 95% CI [0.28, 0.95]) or an Associated Degree in Nursing (ADN) (OR=0.74, 95% CI [0.58, 0.95]) were less likely to have made an internal turnover than those with a Bachelor of Science in Nursing (BSN). RNs with a Master of Science in Nursing (MSN) as their highest degree were more likely to have made an external turnover than RNs with the highest degree of BSN (OR=1.44, 95% CI [1.17, 1.75]).

Employment characteristics. Relative to RNs working in hospitals, nurses working in Nursing Homes or Extended Care (OR=2.96, 95% CI [2.31, 3.79]); Home Health (OR=2.57, 95% CI [1.99, 3.32]); Public Health/Community Health (OR=1.61, 95% CI [1.14, 2.28]); Ambulatory Care (OR=1.78, 95% CI [1.45, 2.20]); Insurance, benefits, or utilization review (OR=2.94, 95% CI [1.97, 4.39])and other settings (OR=2.23, 95% CI [1.70, 2.93]) were more likely to have changed jobs or employers in the prior year. RNs working in academic or education settings were less likely to turnover than those working in hospitals (OR=0.39, 95% CI [0.19, 0.81]), and nurses working in ambulatory care were more likely to change jobs than RNs working in hospitals (OR=1.56, 95% CI [1.23, 1.98]). The geographic location of nurses' employment was associated with external turnover only: RNs working in the Mountain region were more likely to have experienced external turnover than those in the Middle Atlantic region (OR=1.29, 95% CI [1.01, 1.66]).

Carolina Health Workforce Research Center Program on Health Workforce Research & Policy Cecil G. Sheps Center for Health Services Research University of North Carolina at Chapel Hill *Economic factors*. External turnover was negatively related to total household income; RNs with higher total household incomes were less likely to report external turnover than those with a household income of \$50,000 or less (ORs=0.55-0.72). There was no relationship between internal turnover and household income.

Reasons for Turnover. Table 1 provides an overview of the primary reasons reported by nurses for a prior employment change. The individual factor of career advancement/promotion was the top ranked reason cited for nurses' internal turnover, while better pay/benefits, an organizational factor, was the top reason cited for external turnover. Most of the reasons cited by nurses for both internal and external turnover were organizational factors.

Internal Turnover		External Turnover	
(Weighted n= 191,366)	%	(Weighted n= 333,629)	%
1. Career advancement/promotion (I)	36.8	1. Better pay/benefits (O)	33.6
2. Burnout (O)	28.2	2. Lack of good management or leadership (O)	32.7
3. Stressful work environment (O)	26.8	3. Stressful work environment (O)	30.4
4. Lack of good management or leadership (O)	21.4	4. Inadequate staffing (O)	25.2
5. Inadequate staffing (O)	19.8	5. Burnout (O)	25.0
6. Scheduling/inconvenient hours/too many	19.7	Scheduling/inconvenient hours/too many	20.4
hours/too few hours (O)		hours/too few hours (O)	
7. Better pay/benefits (O)	17.9	Career advancement/promotion (I)	17.0
8. Career change (I)	14.4	8. Lack of advancement opportunities (O)	15.7
9. Physical demands of job (O)	12.0	9. Length of commute (I)	15.2
10. Interpersonal differences with colleagues or	9.7	10. Interpersonal differences with colleagues or	14.2
supervisors (O)		supervisors (O)	

Table 1. Top 10 Reasons Reported by Nurses for E	mployment Change
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Abbreviations: I = Individual factor/not modifiable; O = Organizational factor/modifiable

IV. Policy Implications

Nursing workforce shortages and turnover have emerged as significant concerns across the country. Having access to baseline data on RN turnover before the pandemic can help employers, policymakers, and researchers evaluate the severity of existing turnover. More importantly, information about the individual and organizational factors that may affect nurse turnover can help employers design interventions to proactively address the factors within their control that may prevent disruptions in care delivery or compromise care quality and safety. These data also shed light on the areas where health care leaders can target interventions to retain nurses most at risk of turnover. Further, policymakers can use these data to target programs tailored to meet the needs of different sociodemographic, professional, employment, and economic groups.

Carolina Health Workforce Research Center Program on Health Workforce Research & Policy Cecil G. Sheps Center for Health Services Research University of North Carolina at Chapel Hill As a readily available and representative data source on RN in the U.S., the NSSRN is invaluable for continued evaluation of how certain factors affect RN turnover, including nurses' sociodemographic, professional, employment, and economic factors. Future analyses of RN turnover data can use this analysis to help develop further hypotheses about how RN turnover may change over time and post-pandemic, and how segments of the RN workforce may change jobs and/or employers.

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