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The Relationship Between Scope of Practice Laws for Task Delegation and Nurse Turnover in Home Health

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Abstract

Objective: Nurse turnover can compromise the quality and continuity of home health care. Scope of practice laws, which determine the tasks nurses are allowed to perform and delegate, are an important element of autonomy and vary across states. In this study, we used human resource records from a multistate home health organization to examine the relationship between nurse turnover and whether nurses can delegate tasks to unlicensed aides.

Design: A retrospective, cross-sectional analysis.

Setting and Participants: The study sample included 1820 licensed practical nurses and 3309 registered nurses, who spanned 30 states. The study period was 2016 through 2018.

Methods: We used weighted least squares to study the relationship between nurse turnover for registered and licensed practical nurses and task delegation across state-years. We measured task delegation continuously (0–16 tasks) and as a binary variable (14 or more tasks, which indicated the state was in the top half of the distribution).

Results: Across state-years, the turnover rate was 30.8% for licensed practical nurses and 36.8% for registered nurses. Although there was no significant relationship between task delegation and turnover among registered nurses, we found that states in which nurses could delegate the most tasks had lower turnover rates among licensed practical nurses.

Conclusion and Implications: The ability to delegate tasks to unlicensed aides was correlated with lower turnover rates among licensed practical nurses, but not among registered nurses. This suggests that the ability to delegate tasks is more likely to affect the workload of licensed practical

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nurses. This also points to a potential and unexplored element of expanding the scope of practice for nurses: reduced turnover. Given the added work-related hazards associated with home health care, including working in isolation, a lack of social recognition, and inadequate reimbursement, states should consider whether changes in their policy environment could benefit nurses working in home health.

Keywords

Nurse turnover; scope of practice; task delegation; home health care

Nurse turnover is common and costly.^{1,2} A national survey reported that 1 in 4 nurses left their position in 2021, and studies have estimated that the inflation-adjusted costs of a single nurse's turnover can range from \$50,000 to more than \$100,000.^{3,4} There are additional downstream effects as well. Inadequate nursing care has been linked to a host of adverse outcomes for patients, including longer lengths of stay, more hospital readmissions, infection control citations, and higher mortality rates.⁵⁻⁹

Most studies of nurse turnover have focused on nurses working in hospitals and nursing homes but, increasingly, nursing care is being delivered in patients' homes, where nurses play a critical and often isolated role.¹⁰ Millions of Americans receive home health care from more than 250,000 registered nurses (RNs) and licensed practical nurses (LPNs, called licensed vocational nurses in California and Texas) every year.^{11,12}

A recent study reports that turnover in home health is high: between 2016 and 2019, the average annual separation rate of nurses employed by one of the largest home health organizations was more than 30%.¹³ Various drivers of nurse turnover have been identified in the literature, including burnout, compensation, and outside labor market opportunities.^{14,15} Nurse turnover in home health has also been linked to organizational characteristics, including for-profit status, the quality of supervisory feedback, and the extent of nurses' schedule volatility.^{13,16-18} Numerous studies, in both home health and other health care settings, have found that nurse turnover is strongly correlated with autonomy, which is defined by Skår¹⁹ as "having the authority to make decisions and the freedom to act in accordance with one's professional knowledge base."¹⁹⁻²²

An important element of nurses' autonomy is the extent of their scope of practice, which is based on state-level nurse practice acts.²³⁻²⁵ There are numerous scope of practice laws in the United States, specific to each state, that dictate what health care professionals are permitted to do and say in clinical settings. To date, researchers have largely focused on the impact of scope of practice laws for advanced practitioners, specifically nurse practitioners and physician assistants.²⁶⁻²⁸ Less research has considered scope of practice laws for other health professionals, including RNs and LPNs, in part due to the absence of validated datasets tracking state-level scope of practice laws for these provider types. For example, scope of practice laws dictate whether nurses can provide wound care, dispense medications, and insert and maintain tubes, which are common tasks in home health care. RNs have a broader scope of practice than LPNs because RNs have higher educational attainment and more training to practice.

Scope of practice laws also determine how care is allocated across provider types: each state has laws dictating whether nurses can delegate routine tasks, such as the administration of medications and the performance of ostomy care, to home health and personal care aides, who comprise the largest and fastest growing occupation category in home health.²⁹ Task delegation is “a primary mechanism for ensuring that professional nursing standards of care reach the bedside,” and qualitative research has pointed to various benefits, including less burnout.³⁰ Of note, nurse practice acts for task delegation emphasize the role of RNs but states can permit LPNs to delegate tasks to unlicensed aides.³¹

Given the increasing demand for home health care and the urgent need to reduce turnover among nurses, it is important to consider the broader impact that scope of practice laws may have on care delivery, which could inform how states approach scope of practice laws moving forward. In this study, we used human resource records from one of the largest home health organizations in the United States and presented new evidence on the association between turnover rates of RNs and LPNs working in home health and state laws pertaining to their scope of practice. We focused on whether nurses are allowed to delegate specific tasks to unlicensed aides, which relates to the ability of nurses to exercise their professional judgment and to whether nurses are required to carry out tasks that others have the skill to perform.

Task delegation could affect nurse turnover in at least 2 ways: by changing the actual workload of RNs, LPNs, and unlicensed aides, and by granting nurses more autonomy in how care is delivered to patients, and by whom. Conceptually, if fewer tasks can be delegated to unlicensed aides, the tasks must be completed by nurses. This grants nurses less authority and could make their workload more challenging if nurses are expected to complete higher-level tasks in addition to the tasks that are routine. Although the inability to delegate tasks will affect the work of RNs, we expect that tasks that cannot be delegated to unlicensed aides will generally fall to LPNs, altering their workload and preventing LPNs from working at the highest level of their training. We thus hypothesize that more restrictive task delegation will have a greater impact on LPN turnover compared with RN turnover.

Methods

Our primary data source was proprietary, administrative data provided by one of the largest home health organizations in the United States. We obtained human resource records tracking the hiring date and termination date (if applicable) for employees between January 2016 and December 2018. During this time period, the organization operated in 30 states, managed more than 200 home health agencies (ie, branches), and cared for hundreds of thousands of patients. Each branch serves a specific geographic region and maintains its own roster of RNs and LPNs.

Our dependent variable, which was derived from the proprietary, administrative data, was state-level turnover rates in 2016, 2017, and 2018 for RNs and LPNs, with turnover defined as the number of RNs (LPNs) who left their position voluntarily or involuntarily divided by the total number of RNs (LPNs) working in that year.

The independent variable of interest was the number of tasks that could be delegated by RNs to unlicensed aides, which is tracked by AARP's Long-Term Services and Supports State Scorecard and summarized in Table 1.³² Of note, AARP defines task delegation as those tasks that RNs can delegate and does not specify if LPNs can delegate tasks. In some states, LPNs are allowed to delegate tasks as RNs would, although there may be additional criteria (eg, in Vermont, an LPN can delegate tasks "only after an RN has assessed the client").^{31,33}

Most states had fewer than 100 nurses during the study period, although we found that smaller sample sizes were uncorrelated with turnover rates. We therefore used weighted least squares to study the relationship between turnover and scope of practice at the state-year level, weighting observations by the number of nurses working in a given state-year. All specifications were estimated with robust standard errors.

The outcomes were turnover rates, measured separately for RNs and LPNs for each state and year. The explanatory variable was a continuous measure of the number of tasks that nurses could delegate to home health or personal care aides, which ranged from 0 to 16 tasks. Given its skewness, we generated a binary indicator that the number of tasks that nurses could delegate was in the top 50th percentile, which amounted to 14 or more tasks.

In sensitivity analyses, we examined the relationship between turnover for RNs and LPNs and task delegation across the distribution of the number of delegated tasks (ie, we created separate indicators for 0–2 tasks, 3–6 tasks, 7–10 tasks, 11–14 tasks, and 15–16 tasks) to get a better understanding of whether states with no practice delegation, some practice delegation, or full practice delegation were driving the effect. These findings are in the supplementary appendix. Finally, we re-estimated the regression models including nurses who cross state lines, which is also in the supplementary appendix. Nurses were assigned to the state where most of their visits took place during the study period.

Covariates include the supply of RNs and LPNs per state (we take the natural log of the per capita rate), which was collected by the Area Health Resource File. We include the turnover rate for RNs in the model for LPN turnover, and the turnover rate for LPNs in the model for RN turnover. Finally, we include year fixed effects, with 2016 as the reference year.

This study was approved by the institutional review board at the University of Pennsylvania.

Results

Between 2016 and 2018, there were 13,656 unique workers across the home health branches, 7796 of whom were RNs or LPNs (see Supplementary Table 1). We excluded nurses who crossed state lines ($n = 1382$), nurses with inconsistent work arrangements ($n = 1229$), and nurses with incomplete human resource records ($n = 46$). Our final study sample included 1820 LPNs and 3309 RNs.

The nurses spanned 30 states and had the largest presence in Texas, Oklahoma, and Florida (Figure 1). The home health organization did expand during the study period: from 23 states in 2016 to 30 states in 2018. In 2017, 26 states had LPNs and 27 states had RNs, resulting in an inconsistent number of state-years.

Overall, the turnover rate was 30.8% for LPNs and 36.8% for RNs (Table 2). The average number of LPNs in a given state was 38.2 (SD = 77.2), with 11.7 terminations. The average number of RNs in a given state was 64.5 (SD = 99.0), with 23.7 terminations. On average, states permitted 10 of the 16 tasks to be delegated. The most likely task to be delegated was glucometer testing (45 states); the least likely task to be delegated was the performance of ventilator respiratory care (22 states).

When we considered task delegation as a continuous variable, the relationships between task delegation and turnover of RNs and LPNs were not statistically significant (Table 3). When we characterized task delegation as a binary indicator, categorizing states in the top half of the distribution of the number of tasks that can be delegated (14+ tasks), we found that turnover rates of LPNs were lower in states that allowed more tasks to be delegated to home health and personal care aides. However, there was no statistically significant association between the continuous or binary measures of task delegation and turnover rates of RNs.

In terms of magnitude, turnover among LPNs was 4.1 percentage points lower in states where nurses could delegate more tasks ($P < .001$). Given the overall turnover rate for LPNs of 30.8%, this amounts to 13% less turnover among LPNs in states where most tasks can be delegated. Most other covariates had a statistically insignificant relationship with nurse turnover, although we did find a statistically significant reduction in RN turnover rates in 2018 relative to 2016.

On closer inspection, we determined that the finding that states in the top half of the distribution of the number of delegated tasks had lower LPN turnover was driven by states that permitted 15 or 16 tasks to be delegated (see Supplementary Table 2). To do so, we created indicators for whether the state could delegate more than 0, 2, 6, 10, and 14 tasks. The only coefficient that was statistically significant was the indicator for more than 14 tasks (-0.06 , or -6.0 percentage points; $P < .001$). When we included nurses who crossed state lines in the analyses, findings were qualitatively similar (see Supplementary Table 3).

Discussion

Nurse turnover poses a significant challenge to home health organizations and other health systems given the amount of direct care that nurses provide to patients. A confluence of factors has been linked to nurse turnover, including autonomy. One factor that has not been studied in the context of turnover among RNs and LPNs, and which directly relates to nurses' ability to work autonomously, is their scope of practice.

We examined the relationship between scope of practice and turnover by estimating the association between the ability of nurses to delegate tasks to home health and personal care aides and nurse turnover rates. We found that turnover rates among LPNs were lower in states where nurses were able to delegate tasks to unlicensed aides, although those findings were sensitive to how we categorized the task delegation variable. While we present the findings using the median (14 tasks), we were able to determine that our finding was driven by states that permitted 15 or 16 tasks to be delegated.

Yet, turnover among RNs did not differ in states with more task delegation. One mechanism that may be driving the different findings for RNs and LPNs is that the scope of practice laws for task delegation is less likely to affect the workload of RNs and is more likely to affect the workload of LPNs, assuming that LPNs become responsible for routine tasks when nurses cannot delegate to unlicensed aides.

Another mechanism that could be driving this finding is that some states allow both RNs and LPNs to delegate tasks, which may have a (disproportionately) positive impact on LPNs' sense of autonomy relative to RNs. This may be an artifact of the differences in training and educational attainment between LPNs and RNs. According to the 2020 National Nursing Workforce Survey, more than 65% of RNs had a baccalaureate degree, whereas only 3% of LPNs had a baccalaureate degree.³⁴ Unfortunately, our data do not specify which states permit LPNs to delegate tasks, and we do not have measures of educational attainment for the RNs or LPNs in our sample.

Our findings have important implications for policymakers, and suggest that full task delegation, rather than only some of the tasks, is necessary for reducing turnover. However, we should be cautious in this interpretation. It could be that full task delegation correlates with other elements of scope of practice and nursing care, and what policymakers need is more data and research. To our knowledge, there are no studies that rigorously examine the impact of task delegation on work environments or quality outcomes. Nor are there studies that examine other elements of nursing care that are dictated by state-level scope of practice laws, such as tube maintenance or wound care.

The main limitation of this study is that we were not able to determine whether scope of practice laws had a causal relationship with nurse turnover. The lack of meaningful variation in task delegation during the study period meant that we were unable to leverage a policy change to conduct an event study and/or a difference-in-difference analysis. We were further limited by the availability of clear information about scope of practice laws, which prevented us from examining the relationship between nurse turnover and other potentially important elements of nursing practice. For example, in our manual review of nurse practice acts, clear information about whether LPNs could perform wound care was available for only 8 states, dressing changes for 12 states, and tube maintenance for 19 states, and as previously stated, there was some measurement error in whether LPNs could also delegate tasks to unlicensed aides. A final limitation is our focus on nurses within a single home health organization. Turnover may be affected by organizational-level characteristics in addition to occupational characteristics, which may limit the generalizability of our findings.

Despite these limitations, our results contribute to the literature on nurse turnover. More than 30 years ago, Edwards²² cited increased autonomy as both the “hallmark of a profession” and a key factor in addressing nurse turnover. The issue of nurse turnover is still pressing, but is now coupled with a trend toward more expansive scope of practice for nurses and other health professionals.³⁵ Our results are also timely given the continued upheaval of the COVID-19 pandemic, which has produced widespread burnout, workforce shortages, a tightening labor market, and well-documented challenges in nurse recruitment.^{36,37}

Moreover, the pandemic generated an upheaval in state-level regulations, and many states are grappling with whether changes should be made permanent.³⁸

This study further contributes to the literature on the employment effects of scope of practice laws, which has largely focused on advanced practitioners since scope of practice laws for advanced practitioners are comprehensively tracked by organizations like the National Conference of State Legislatures.^{39–42} In the case of RNs and LPNs, there is no standardized collection of scope of practice laws—notable efforts include a study from Corazzini and colleagues,²⁵ the National Council of State Boards of Nursing,⁴³ and the AARP Policy Institute,³² which compiled the task delegation variable used in this study. To better understand the relationship between state-level policies and nurse turnover, researchers and policymakers need more comprehensive data on the scope of practice of RNs and LPNs.

Conclusions and Implications

This is the first study to establish a relationship between scope of practice laws and turnover among nurses, specifically LPNs. Our results point to a potential but unexplored benefit of altering scope of practice laws that dictate task delegation: reduced turnover. Given the added work-related hazards associated with home health care, including working in isolation, a lack of social recognition, and inadequate reimbursement, states should carefully consider whether changes in their policy environment could benefit nurses working in home health.⁴⁴ States should also consider clarifying scope of practice laws for nurses, which could support more rigorous research on the impact of these policies.

Supplementary Material

Refer to Web version on PubMed Central for supplementary material.

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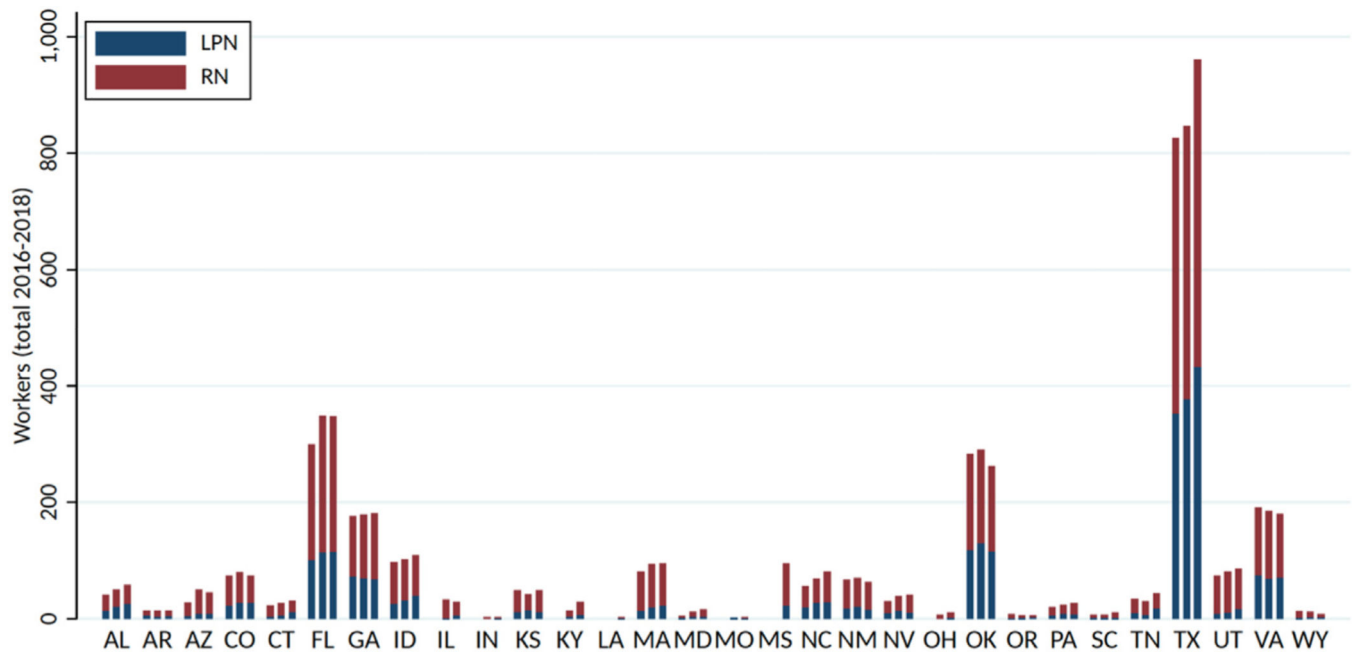


Fig. 1.
Number of nurses per state, 2016–2018.

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Table 1

	Administer Medication via Prefilled Insulin or Insulin Pen	Draw Up Insulin for Dosage Measurement	Administer Intramuscular Injection Medications	Administer Glucometer Test	Administer Medication Through Tubes	Insert Suppository	Administer Eye/Ear Drops	Gastrostomy Tube Feeding	Administer Enema	Perform Intermittent Catheterization	Perform Ostomy Care Including Skin Care and Changing Appliance	Perform Nebulizer Treatment	Administer Oxygen Therapy	Perform Ventilator Respiratory Care	Total Number of Tasks That Can Be Delegated
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	0	1	1	1	1	1	1	1	1	0	14
1	0	1	1	1	1	1	1	1	1	1	1	1	1	1	14
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
0	0	0	0	0	0	0	0	0	0	1	1	0	0	0	3
1	0	0	1	1	0	1	1	0	1	0	1	0	1	0	10
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	0	14
1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	6
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
0	0	0	0	0	0	0	0	0	0	0	1	0	1	1	9
1	0	0	0	0	0	0	0	0	0	0	1	0	0	0	9
1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	14
0	0	0	0	0	0	0	0	0	0	0	1	0	0	0	2
1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	13
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16

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	Administer Medication via Prefilled Insulin or Insulin Pen	Draw Up Insulin for Dosage Measurement	Administer Intramuscular Injection Medications	Administer Glucometer Test	Administer Medication Through Tubes	Insert Suppository	Administer Eye/Ear Drops	Gastrostomy Tube Feeding	Administer Enema	Perform Intermittent Catheterization	Perform Ostomy Care Including Skin Care and Changing Appliance	Perform Nebulizer Treatment	Administer Oxygen Therapy	Perform Ventilator Respiratory Care	Total Number of Tasks That Can Be Delegated
0	0	0	0	1	0	0	0	1	1	1	1	0	0	0	5
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	1	1	1	1	1	1	1	1	0	0	15
1	0	1	1	1	1	1	1	1	1	1	1	0	0	0	13
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	0	1	1	1	0	1	1	1	0	0	0	1	0	0	11
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	1	1	1	1	1	1	1	0	0	0	14
0	0	1	0	1	0	1	1	1	1	1	1	0	0	0	7
1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	14
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
0	0	0	0	0	0	0	0	0	1	0	1	0	0	0	2
1	1	1	0	1	1	1	1	1	1	1	1	1	0	0	13
0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	2
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	0	1	0	1	1	1	0	0	1	1	0	0	12
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	0	1	0	1	1	1	1	1	1	0	1	0	0	0	12
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	16
0	0	0	0	1	1	1	1	1	1	0	1	0	0	0	11

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	Administer Medication via Prefilled Insulin or Insulin Pen	Draw Up Insulin for Dose Measurement	Administer Intramuscular Injection Medications	Administer Glucometer Test	Administer Medication Through Tubes	Insert Suppository	Administer Eye/Ear Drops	Gastrostomy Tube Feeding	Administer Enema	Perform Intermittent Catheterization	Perform Ostomy Care Including Skin Care and Changing Appliance	Perform Nebulizer Treatment	Administer Oxygen Therapy	Perform Ventilator Respiratory Care	Total Number of Tasks That Can Be Delegated
34		27	25	45	29	38	37	37	41	35	43	32	32	22	

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 Policy Institute's Long-Term Services and Supports State Scorecard, 2020.³²

Table 2

Home Health Nurses, Turnover, and the Number of Delegated Tasks, 2016–2018

	LPNs	RNs
Number of nurses	38.19 (77.21)	64.47 (98.96)
Number of terminations	11.65 (22.24)	23.67 (36.60)
Turnover rate (%)	30.84 (20.73)	36.79 (16.41)
Number of delegated tasks	10.09 (6.30)	9.85 (6.34)
Number of states	30	30
Number of observations	79	80

Means are presented with SDs in parentheses. The number of observations is the number of state-years. The home health organization expanded from 23 states in 2016 to 30 states in 2018; one state employed RNs but not LPNs in 2017, which resulted in a difference in the number of state-years.

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Table 3

Task Delegation and Nurse Turnover Rates Using Weighted Least Squares, 2016–2018

	Continuous Measure of Tasks		Binary Measure of Tasks >50th Percentile	
	(1)	(2)	(3)	(4)
	LPN Turnover Rate	RN Turnover Rate	LPN Turnover Rate	RN Turnover Rate
Task delegation	0.00500 (0.00290)	0.000810 (0.00266)	-0.0409* (0.0189)	-0.00187 (0.0196)
log(LP _N per capita)	0.0115 (0.0426)	0.00623 (0.0373)	-0.0121 (0.0419)	0.00544 (0.0390)
log(RN per capita)	0.345 (0.173)	0.0521 (0.124)	0.0241 (0.118)	0.0150 (0.0795)
RN turnover rate	0.261 (0.147)		0.266(0.138)	
LPN turnover rate		0.146 (0.0808)		0.154 (0.0778)
Year = 2017	0.00518 (0.0269)	0.00326 (0.0221)	0.00617 (0.0196)	0.00307 (0.0224)
Year = 2018	0.00480 (0.0270)	-0.0462* (0.0231)	0.00756 (0.0239)	-0.0461 (0.0237)
Constant	1.828* (0.792)	0.610 (0.580)	0.306 (0.576)	0.442 (0.405)
Observations	78	78	78	78
R-squared	0.119	0.134	0.114	0.133

Robust standard errors are in parentheses.

* $P < .05$. Only state-years where both RNs and LPNs were employed are included in the analyses.