

Do Nurse Staffing Standards Work?

Evidence from a 2018 Survey of Registered Nurses

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Executive Summary

Illinois is experiencing a shortage of registered nurses. Research shows that insufficient staffing levels can exacerbate occupational hazards, make it difficult to retain nurses, and result in poor patient outcomes, such as higher rates of hospital mortality.

Illinois' nursing shortage has occurred despite enactment of the Nurse Staffing by Patient Acuity Amendment to the Hospital Licensing Act. This policy requires hospitals to create a written hospital-wide staffing plan based on the recommendation of one or more "nursing care committees." However, only 29 percent of nurses in Illinois say that their hospital has a staffing committee. Of those, just 44 percent say that the recommendations determined by the committee are implemented in daily staffing decisions.

Data suggests that current law has not been effective at promoting adequate staffing levels to address the shortage of registered nurses. Illinois lawmakers are considering whether to follow California's lead and adopt safe patient limits, which would establish patient-to-nurse ratios in Illinois' hospitals.

Results from an October 2018 national survey of over 9,000 registered nurses in hospitals across the United States provides important new evidence to inform this debate. Survey responses indicate that workplace outcomes for nurses and patient care are better in California, the only state that has enacted safe patient limits for nurses, than in Illinois and other states.

- 47 percent of nurses in California report that staffing levels are based on the needs of patients in their units compared to just 32 percent in Illinois;
- 66 percent of nurses in California care for between one and four patients at a time during a shift compared to just 35 percent in Illinois;
- The average nurse in California has 4.3 patients at one time while the average nurse in Illinois has 5.2 patients at one time;
- 40 percent of nurses in California report that the patient-to-nurse ratio in their units is safe compared to just 18 percent in Illinois; and
- 55 percent of nurses in California fear retaliation for providing input about staffing in their units compared to 61 percent in Illinois.

As the only state with safe patient limits, California's staffing standards and workplace safety have fostered an environment where more nurses feel that staffing is based on the needs of patients and more nurses feel that the patient-to-nurse ratio is safe. By reducing patient-to-nurse ratios, enacting a safe patient limits law in Illinois could improve occupational safety, increase nurse retention rates, and promote better health outcomes for patients and have little to no negative impact on the financial performance of Illinois' hospitals.

Table of Contents

Executive Summary	i
Table of Contents	ii
About the Authors	ii
Acknowledgements	ii
Introduction	1
Previous Research on Nurse Staffing Standards	1
Survey Design and Methodology	3
Analysis of the October 2018 National Survey of Registered Nurses	4
Implications for Illinois	9
Conclusion	10
Sources	10
Cover Photo Credits	12

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The authors would like to acknowledge the work of Nurses Take DC (NTDC). In 2018, NTDC conducted a national survey of frontline nurses on the effectiveness of employer-led programs that monitor staffing levels and safety concerns. The results derived from that survey offered critical data for this report. NTDC is a grassroots movement committed to improving access to safe working conditions and quality care for patients. For more information on NTDC go to www.nursestakedc.com.

Introduction

Illinois is experiencing a shortage of registered nurses. This shortage is influenced by numerous factors, including rising demand for health care services, the labor market competitiveness of Illinois nursing jobs, and insufficient staffing levels that can exacerbate occupational hazards, make it difficult to retain nurses, and undermine patient care quality (Manzo et al., 2019). Illinois' nursing shortage has occurred despite enactment of the Nurse Staffing by Patient Acuity Amendment to the Hospital Licensing Act in January 2008, which requires hospitals to create a written hospital-wide staffing plan based on the recommendation of one or more "nursing care committees" (ILGA, 2008).

In an effort to improve patient care, reduce occupational hazards for nurses, and address the nursing shortage by improving nurse retention rates, Illinois lawmakers introduced the Safe Patient Limits Act in 2019– House Bill 2604 and Senate Bill 1908– which would establish patient-to-nurse ratios in Illinois hospitals. The legislation is modeled off a similar statute enacted in California in 2004. State law in California requires that there be at least one nurse for every 2 patients in intensive care units and labor and delivery, 4 patients in pediatrics, and 5 patients in medical-surgical units (UNAC-UHCP, 2008).

This report, written jointly by the Project for Middle Class Renewal (PMCR) at the University of Illinois at Urbana-Champaign and the Illinois Economic Policy Institute (ILEPI), presents results from a national survey of registered nurses conducted by Nurses Take DC (NTDC). After a review of recent research and a brief description on the methodology of the national survey, data is presented on average patient-to-nurse ratios and the views of registered nurses on staffing standards. In particular, responses from Illinois' nurses are compared and contrasted with those from California's nurses. A concluding section discusses implications of the survey results for Nurse Staffing by Patient Acuity Amendment and the proposed Safe Patient Limits Act in Illinois.

Previous Research on Nurse Staffing Standards

Academic research finds that the understaffing of registered nurses (RNs) leads to poor patient outcomes. High patient-to-nurse ratios are associated with an increase in medical errors, patient infections, bedsores, and heart failure as well as higher rates of hospital mortality (Laschinger et al., 2006; Hughes, 2008; Aiken et al., 2007; Neuraz et al., 2015). Inadequate RN staffing levels can also cause lower levels of patient surveillance, less patient education, and fewer patients receiving timely medications. As a result, the most important factor affecting hospital patient satisfaction is the availability of registered nurses (Aiken et al., 2018).

Nurse staffing standards have been linked to better health outcomes for patients. Mortality rates of patients undergoing general surgery in hospitals with above-average nurse staffing levels are 17 percent lower than those with below-average nurse staffing levels. (Silber et al., 2016). Another 2018 study provides evidence that higher nurse staffing levels are associated with lower mortality based on over 138,000 hospital admissions from 2012 through 2015 (Griffiths et al., 2018). Another recent study on pneumonia readmission rates in hospitals has found that California has statistically lower rates of readmission than Massachusetts and New York due to the higher levels of RN staffing (Flanagan et al., 2016). In fact, after California implemented "safe patient limits" in 2004, the likelihood of in-patient death within 30 days of hospital admission fell, patient time spent in the intensive care unit fell by 24 percent, and patient time spent in surgical units fell by 31 percent (Aiken et al., 2010; Kane et al., 2007).

Since 2018, at least three reports related to nurse staffing standards have been released in Illinois. In April 2018, Professor Emily E. LB. Twarog at the Project for Middle Class Renewal (PMCR) at the University of Illinois at Urbana-Champaign surveyed 275 nurses in Illinois and found that 75 percent of nurses reported that workplace violence was a problem. Of nurses who experienced workplace violence, 90 percent experienced violence at least once in the past 12 months, with 50 percent experiencing it 6 or more times. The experiences ranged from verbal threats and name calling to physical assaults, such as pinching, punching, kicking, and having objects thrown at them. Furthermore, sexual assault and threats such as stalking, groping, and sexual harassment accounted for a significant portion of these events. Fully 34 percent of nurses feel that their current workplace polices are not effective, with many commenting that “patient to staffing ratios are unsafe” (Twarog, 2018).

After the release of this survey, PMCR reached out to the Illinois Economic Policy Institute (ILEPI) to conduct an analysis on the nursing shortage in Illinois. In March 2019, Professor Robert Bruno of PMCR and Frank Manzo IV and Jill Manzo of ILEPI jointly released a report which found that Illinois is estimated to need about 20,000 more registered nurses over the next decade. However, Illinois has the 2nd-highest injury rate for nurses in the Midwest. Paired with workplace violence, these occupational hazards are a barrier to retaining qualified nurses, with between 30 percent and 50 percent of all nurses either changing positions or leaving the profession entirely within the first three years of clinical practice. The report concluded that one way to retain nurses and resolve the workforce shortage would be to promote staffing standards that reduce stress for nurses and improve patient outcomes (Manzo et al., 2019).

At a March 2019 hearing in the Illinois House of Representatives, state lawmakers acknowledged that the intent of the safe patient limits legislation is to improve patient care outcomes and reduce occupational hazards for nurses, but asked for data on the fiscal impact of the proposed nurse staffing standards (e.g., see Morgan, 2019). In an effort to understand the effect on hospitals, ILEPI’s Frank Manzo IV published a follow-up report in April 2019. The analysis found that, if enacted, an additional 19,094 RNs would be required at Illinois hospitals due to safe patient limits. As a result, annual labor costs would increase by \$1.82 billion. However, using estimates from other academic research, the report also found that safe patient limits would reduce nurse turnover, decrease nurse injury rates, improve patient health outcomes, and lower readmission rates, producing \$1.36 billion per year in offsetting savings for hospitals. The net fiscal impact would thus be \$465 million, or approximately 1 percent of annual hospital spending in Illinois (Manzo, 2019).

The report also found that nurse staffing standards did not appreciably weaken the financial performance of hospitals in California. In the years after California became first state to enact safe patient limits, its hospitals experienced a revenue growth of 100 percent and an employment growth of 16 percent. At the same time, Illinois’ hospitals experienced a revenue growth of 59 percent and no change in employment levels. California’s hospitals also outpaced the national average (Manzo, 2019). These findings align with academic research which has found that nurse staffing standards have no negative impact on the financial performance of hospitals (Everhart et al., 2013).

Moreover, a December 2018 publication by the American Nurses Association – Illinois found significant staffing challenges among bedside nurses in Illinois (Brown, 2018). Over 700 nurses responded to a staffing survey by the American Nurses Association. Respondent nurses reported being responsible for an average of 10 patients per shift, with 55 percent saying that their workload is higher than they are comfortable with. Nurses also reported working with “dangerous” staffing levels 33 percent of the time. While Illinois has legislation requiring staffing committees based on patient acuity, 73 percent of nurses reported that they are not sure or do not have a staffing plan in their unit.

Survey Design and Methodology

In October 2018, the D.C.-based grassroots organization Nurses Take DC (NTDC) conducted a national survey of registered nurses on staffing levels and safety concerns. The survey consisted of 28 questions and was conducted through Survey Monkey using a variety of social media outlets including Allnurses.com, Facebook nursing communities, Medscape Nurses, Show Me Your Stethoscope, and Twitter. Responses were collected between October 1, 2018 and October 31, 2018 from 9,478 registered nurses (RNs) in all 50 states plus the District of Columbia.¹

Figure 1 provides background information on survey respondents. For the entire sample of 9,478 RNs, the margin of error is ± 1.0 percent. Across the United States, about three-in-five RNs (61 percent) report that they have earned a bachelor's degree or higher and nearly four-in-five respondents (78 percent) were employed at a community hospital or tertiary/academic hospital. Only half of all RNs (53 percent) report that their hospital has an acuity tool that it uses to estimate and budget for adequate nurse staffing allocations.

Figure 1: National and State-Level Summary Statistics of Survey of Registered Nurses, October 2018

State	Sample Size	Margin of Error	Bachelor's Degree or Higher	Community or Tertiary/Academic Hospital	Hospital Uses an Acuity Tool
National Average	9,478	$\pm 1.0\%$	60.8%	77.5%	53.2%
California	331	$\pm 5.4\%$	65.3%	79.1%	87.9%
Florida	729	$\pm 3.6\%$	57.2%	81.5%	41.8%
Illinois	508	$\pm 4.3\%$	63.6%	80.9%	74.9%
Massachusetts	643	$\pm 3.9\%$	69.2%	86.1%	50.0%
Michigan	335	$\pm 5.4\%$	57.0%	83.2%	52.5%
New York	338	$\pm 5.3\%$	69.8%	83.1%	44.7%
North Carolina	404	$\pm 4.9\%$	52.7%	80.8%	42.6%
Ohio	405	$\pm 4.9\%$	57.8%	76.1%	62.7%
Pennsylvania	375	$\pm 5.1\%$	57.1%	85.0%	39.6%
Tennessee	307	$\pm 5.6\%$	62.2%	78.5%	44.7%
Texas	661	$\pm 3.8\%$	63.2%	72.9%	48.3%
<u>Additional Comparison</u>					
Illinois Border States*	1,020	$\pm 3.1\%$	56.6%	73.0%	52.7%

Source(s): Authors' analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

*The five border states are Indiana (n= 254), Iowa (n= 122), Kentucky (n= 197), Missouri (n= 272), and Wisconsin (n= 175).

Figure 1 also includes background data on 11 states where at least 300 nurses replied to the survey. For these states, local margins of error range from ± 3.6 percent in Florida to ± 5.8 percent in Tennessee. The data indicates that RNs are highly educated across the United States. In most states, about three-in-five RNs report that they have earned a bachelor's degree or higher, with a range of 53 percent in North Carolina to 70 percent in New York. The data also suggests little variation in terms of place of employment. About four out of every five RNs report that they work at a community hospital or tertiary/academic

¹ Note that only select responses from the survey are presented in this paper. While NTDC and Survey Monkey collected the data, the analysis in the present study was conducted solely by PMCR and ILEPI.

hospital, with a range of 73 percent in Texas to 86 percent in Massachusetts. A notable difference, however, is apparent on the question of whether an RN’s hospital has an acuity tool to estimate nurse staffing allocations, ranging from 40 percent in Pennsylvania to 88 percent in California.

This analysis primarily compares responses from registered nurses in Illinois to those from registered nurses in California (Figure 1). While Illinois lawmakers may consider legislation in 2020 on safe patient limits to establish patient-to-nurse ratios, California has had a similar policy in effect since 2004. Of the 9,478 registered nurses responding to the national survey, fully 508 were employed in Illinois and 331 were employed in California. The respective margins of error for each state amount to ± 4.3 percent in Illinois and ± 5.4 percent in California. For completion, responses from Illinois’ RNs are also contrasted with responses from 1,020 respondent RNs from Illinois’ five border states— Indiana, Iowa, Kentucky, Missouri, and Wisconsin (Figure 1).

Analysis of the October 2018 National Survey of Registered Nurses

Registered nurses were asked whether staffing levels are based on the needs of the patients in their units. Across the United States, only 29 percent of respondent RNs said that they thought staffing was based on patient needs (Figure 2). California, however, far exceeded the national average, with 47 percent of RNs saying that staffing levels were based on patient needs. By contrast, in Illinois, only 32 percent of RNs said that staffing levels were based on the needs of patients in their units. While this result is similar to the five states that border Illinois (30 percent), it is 15 percentage points lower than in California. The difference between California, where safe patient limits have been implemented, and Illinois, where safe patient limits have been considered, is statistically significant with 99 percent confidence (Figure 3).

Figure 2: Share of Nurses Responding that Staffing is Based on Patient Needs, by State, October 2018

State	Is Staffing Based on the Needs of the Patients in Your Unit? (Percent Yes)
California	46.8%
Michigan	34.6%
Illinois	31.7%
Texas	29.5%
Ohio	27.1%
Massachusetts	26.6%
Tennessee	25.5%
Florida	25.0%
North Carolina	24.2%
New York	24.1%
Pennsylvania	22.6%
<u>Additional Comparisons</u>	
Illinois Border States*	30.4%
National Average	28.8%

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

*The five border states are Indiana (n= 254), Iowa (n= 122), Kentucky (n= 197), Missouri (n= 272), and Wisconsin (n= 175).

Figure 3: T-test on Difference Between RNs in California and Illinois – Staffing Based on Needs

State	Staffing Based on Patient Needs		
	Mean Value	Standard Deviation	Sample Size
California	0.468	0.028	327
Illinois	0.317	0.021	501
t-statistic	4.415		
Statistically Significant?	Yes		

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

Figure 4: Share of Nurses Responding that Staffing is Reassessed and Adjusted, by State, October 2018

State	Is Staffing Reassessed and Adjusted Based on Changes in Patient Conditions, Patient Needs, and Different Nurse Shifts? (Percent Yes)
California	46.5%
Michigan	36.3%
Texas	32.4%
Illinois	31.9%
Ohio	30.0%
Massachusetts	28.9%
Tennessee	26.4%
Pennsylvania	24.8%
North Carolina	24.2%
Florida	23.6%
New York	23.0%
<u>Additional Comparisons</u>	
Illinois Border States*	33.7%
National Average	30.0%

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

*The five border states are Indiana (n= 254), Iowa (n= 122), Kentucky (n= 197), Missouri (n= 272), and Wisconsin (n= 175).

Figure 5: T-test on Difference Between RNs in California and Illinois – Staffing Reassessed and Adjusted

State	Staffing Reassessed Based on Needs and Shifts		
	Mean Value	Standard Deviation	Sample Size
California	0.465	0.028	312
Illinois	0.319	0.021	483
t-statistic	4.187		
Statistically Significant?	Yes		

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

In addition, registered nurses were asked whether staffing levels are reassessed and adjusted based on changes in patient conditions, patient needs, and different shifts. Across the United States, only 30 percent of respondent RNs replied “yes” to this question (Figure 4). Once again, at 47 percent, the share

of California nurses saying that staffing levels are reassessed and adjusted accordingly was much higher than the national average. In comparison, only 32 percent of Illinois’ nurses said that their hospitals reassessed and adjusted staffing levels based on patient conditions, patient needs, and nurse shifts. This is in line with both the national average (30 percent) and regional average (34 percent) but is 15 percentage points lower than in California— a difference that is statistically significant at the 99 percent level of confidence (Figure 5).

Figure 6: Patient-to-Nurse Staffing Levels Reported by Registered Nurses, by State, October 2018

State	How Many Patients Do You Normally Have on a Shift at One Time?	
	(Percent Four Patients or Fewer)	(Average Number)
California	65.9%	4.33
Michigan	43.0%	4.77
Tennessee	41.7%	5.03
Massachusetts	40.3%	4.78
Texas	39.9%	4.92
Florida	39.9%	4.98
Ohio	39.3%	4.90
North Carolina	35.9%	5.09
Illinois	35.4%	5.23
Pennsylvania	31.2%	5.35
New York	30.5%	5.75
<u>Additional Comparisons</u>		
Illinois Border States*	38.7%	5.03
National Average	39.4%	5.07

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

*The five border states are Indiana (n= 254), Iowa (n= 122), Kentucky (n= 197), Missouri (n= 272), and Wisconsin (n= 175).

Figure 7: T-test on Difference Between RNs in California and Illinois – Average of Four Patients or Fewer

State	Average of Four Patients or Fewer		
	Mean Value	Standard Deviation	Sample Size
California	0.659	0.026	331
Illinois	0.354	0.021	508
t-statistic	9.026		
Statistically Significant?	Yes		

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

Figure 6 investigates state-level nurse staffing levels by reporting the share of nurses who normally have four patients or fewer at any one time during a shift and the average number of patients per nurse. Two-thirds of registered nurses in California (66 percent) report that they normally have one to four patients at a time. This is 23 percentage points better than the 2nd-ranked state, Michigan (43 percent), and nearly double the share of Illinois nurses who usually care for between one and four patients (35 percent). The 30 percentage-point difference between Illinois and California is statistically significant with 99 percent confidence (Figure 7). Moreover, a registered nurse cares for an average of 5.2 patients in any given shift

in Illinois (Figure 6). This patient-to-nurse ratio is similar to, but not statistically different from, both neighboring states (5.0) and the national average (5.1). However, it is meaningfully higher than in California, where the typical registered nurse cares for just 4.3 patients, on average. California has, by far, the best nurse staffing levels in the United States (Figure 6).

These findings could be used to estimate how many new nurses would be required in Illinois if the state adopted safe patient limits. Previous research has found that there were nearly 84,900 registered nurses employed either full-time or part-time at Illinois’ hospitals as of 2016 (Manzo, 2019). If the safe patient limits law were to reduce the patient-to-nurse ratio from Illinois’ current value (5.2) to the level in California (4.3), Illinois would need an estimated 20.5 percent more nurses to care for the same number of patients. Consequently, Illinois’ hospitals would need to employ about 17,500 new registered nurses. This estimate is consistent with the reported workforce shortage of 19,100 nurses and the Illinois Health and Hospital Association’s assumption of around 20,000 new nurses (Manzo et al., 2019; Manzo, 2019).

Across the country, registered nurses overwhelmingly feel that the patient-to-nurse ratio in their units is not adequate or safe (Figure 8). Only one-in-five nurses (20 percent) in the United States say that the patient-to-nurse ratio is adequate or safe. Compared to the national average, a slightly smaller share of nurses in Illinois (18 percent) say that the patient-to-nurse ratio is adequate or safe, though this 2 percentage-point difference is not statistically significant. By contrast, the proportion of nurses who report that staffing levels are safe or adequate in their units is considerably larger in California, where 40 percent of nurses reply “yes” to the question. The 22 percentage-point difference between California and Illinois— more than double the share in Illinois— is statistically significant with 99 percent confidence (Figure 9). While California’s safe patient limits law has not caused a majority of registered nurses to say that their units are safely and adequately staffed, it has greatly improved that metric relative to the rest of the United States.

Figure 8: Share of Nurses Responding that Staffing Levels are Safe or Adequate, by State, October 2018

State	Do You Feel that the Patient-to-Nurse Ratio in Your Unit is Adequate/Safe? (Percent Yes)
California	39.5%
Massachusetts	23.4%
Texas	22.6%
Michigan	20.6%
Ohio	18.8%
Illinois	17.9%
North Carolina	16.1%
Florida	15.7%
New York	14.2%
Tennessee	12.1%
Pennsylvania	10.4%
<u>Additional Comparisons</u>	
Illinois Border States*	21.9%
National Average	19.7%

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

*The five border states are Indiana (n= 254), Iowa (n= 122), Kentucky (n= 197), Missouri (n= 272), and Wisconsin (n= 175).

Figure 9: T-test on Difference Between RNs in California and Illinois – Staffing Levels are Adequate/Safe

State	Patient-to-Nurse Ratio is Adequate/Safe		
	Mean Value	Standard Deviation	Sample Size
California	0.395	0.027	329
Illinois	0.179	0.017	508
t-statistic	7.123		
Statistically Significant?	Yes		

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

Figure 10: Share of Nurses Who Fear Retaliation for Speaking Up on Staffing, by State, October 2018

State	Is Retaliation Feared for Nurses Who Provide Input About Staffing? (Percent Yes)
Florida	69.8%
Tennessee	65.5%
Pennsylvania	65.3%
North Carolina	62.3%
Illinois	61.3%
New York	60.2%
Massachusetts	59.8%
Texas	59.3%
Ohio	57.4%
Michigan	57.2%
California	55.3%
<u>Additional Comparison</u>	
Illinois Border States*	58.3%
National Average	60.9%

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

*The five border states are Indiana (n= 254), Iowa (n= 122), Kentucky (n= 197), Missouri (n= 272), and Wisconsin (n= 175).

Figure 11: T-test on Difference Between RNs in California and Illinois – Fear of Retaliation

State	Nurses Fear Retaliation for Providing Staffing Input		
	Mean Value	Standard Deviation	Sample Size
California	0.553	0.027	322
Illinois	0.613	0.017	506
t-statistic	-1.708		
Statistically Significant?	Yes*		

Source(s): Authors’ analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org.

*Statistically significant at $p < |0.10|$.

While most nurses do not feel that staffing levels in their units are adequate or safe, the majority also fear retaliation for speaking up about it (Figure 10). When asked if retaliation is feared for nurses who provide input about staffing, three out of every five U.S. nurses said “yes” (61 percent). In Florida, fully seven-in-

ten nurses said “yes” (70 percent). On this question, however, California had the lowest share of nurses who feared retaliation (55 percent). Illinois was in the middle of the pack, at 61 percent. The 6 percentage-point gap between Illinois and California is significant, but only at the 90 percent level of statistical confidence (Figure 11).

Implications for Illinois

The Nurse Staffing by Patient Acuity Amendment to the Hospital Licensing Act requires hospitals in Illinois to create a staffing plan based on the recommendation of one or more “nursing care committees” in which at least 50 percent of members are registered nurses who provide direct patient care. However, when asked whether their hospital had a staffing committee, only 29 percent of registered nurses in Illinois said “yes,” 38 percent said “no,” and 34 percent did not know (Figure 12).² This indicates that the current policy is either not being enforced or that nurses are unaware of it. Moreover, of those nurses who say that their hospital does have a staffing committee, only 45 percent report that it is composed of at least 50 percent of RNs who work directly with patients and only 44 percent say that the recommendations determined by the committees are implemented in daily staffing decisions. Combined with the previous findings which show that Illinois’ registered nurses do not report noticeably better workplace outcomes than either neighboring states or the national average, a conclusion that can be drawn is that Illinois’ current law is generally ineffective.

A more effective solution may be for the state to enact safe patient limits. As the only state with safe patient limits, California’s staffing standards and workplace safety outperform both Illinois and the national average. California’s safe patient limits law has fostered an environment where more nurses feel that staffing is based on the needs of patients, more nurses care for four patients or fewer at any one time, and more nurses feel that the patient-to-nurse ratio is safe. However, since over half of all California nurses still fear retaliation from hospital management, legislation in conjunction with collective bargaining agreements that protect workers with grievance procedures would provide nurses with more confidence to provide input on staffing levels.³

The differences in workplace outcomes reported by registered nurses in California and Illinois may contribute to higher turnover rates in Illinois (Figure 13). Between 2015 and 2017, the average annual turnover rate was 17 percent in California’s hospitals and 22 percent in Illinois’ hospitals. Previous research has found that if this 5 percentage-point difference was eliminated, nearly 5,000 more nurses would be retained in hospitals every year, saving hospitals over \$400 million annually in Illinois (Manzo, 2019). This positive fiscal effect would occur in addition to the lower occupational injuries rates, deceased

² This aligns with findings from a December 2018 survey by the American Nurses Association – Illinois, which found that 73 percent of bedside nurses reported that they were not sure (37 percent) or did not have (36 percent) a staffing committee in their units (Brown, 2018).

³ The October 2018 survey did not ask respondent nurses whether they belonged to a union or were covered by a collective bargaining agreement. However, the authors of this study conducted a state-level analysis using data from the 2018 *Current Population Survey Outgoing Rotation Groups* (CPS ORG) and found that the safe patient limits law was statistically related to each outcome while union density had a weak-to-moderate correlations. For example, in 2018, 41 percent of registered nurses in California were union members compared to 39 percent in Massachusetts, 37 percent in New York, 13 percent in Illinois, and 7 percent in Florida. Despite similar union densities as California, outcomes are statistically different in Massachusetts and New York. Across the board, outcomes in Massachusetts and New York are more similar to those in less-unionized Illinois and Florida. This indicates that California’s safe patient limits law is likely the driving factor.

instances of workplace violence, and improved patient care outcomes that would accrue if safe patient limits were implemented in Illinois (Twarog, 2018; Manzo et al., 2019).

Figure 12: Survey Responses of Illinois Nurses Pertaining to “Nursing Care Committees,” October 2018

RN Response	Responses	Yes	No	I Don't Know
Does Your Hospital have a Staffing Committee?	492	28.5%	38.0%	33.5%
If Yes, is it Composed of 50% or More RNs Who Work Directly with Patients at Least 50% of the Time?	138	44.9%	15.9%	39.1%
If Yes, are the Recommendations Determined by the Committee Implemented in Daily Staffing Census?	136	44.1%	55.9%	--

Source(s): Authors' analysis of a national survey of 9,478 registered nurses conducted from October 1, 2018 through October 31, 2018 by Survey Monkey was conducted by Nurses Take DC (NTDC, 2018). For a .txt file with selected survey results summarized using Stata, please contact author Frank Manzo IV at fmanzo@illinoisepi.org. Results shown are for registered nurses in Illinois (n= 508).

Figure 13: Annual Turnover Rate in Hospitals, California and Illinois, 2015Q1-2017Q4

State	Annual Turnover Rate in Hospitals
California	17.0%
Illinois	22.1%
Difference	-5.1%

Source(s): Authors' analysis of “Quarterly Workforce Indicators” (QWI) from the *Longitudinal Employer-Household Dynamics* dataset collected and released by the Center for Economic Studies at the U.S. Census Bureau (LEHD, 2019). Estimates are annual averages for NAICS Code 622: Hospitals between the first quarter of 2015 (2015Q1) and the fourth quarter of 2017 (2017Q4).

Conclusion

Illinois is experiencing a shortage of registered nurses caused, in part, by insufficient staffing levels that exacerbate occupational hazards and make it difficult to retain nurses. To address these issues and improve patient care, Illinois lawmakers are considering whether to follow California’s lead and adopt safe patient limits. Results from an October 2018 national survey of registered nurses reveal that California’s nurses have substantially lower patient-to-nurse ratios, are more likely to report that staffing in their hospital units is based on patient needs, and are more likely to report that staffing levels are safe than both Illinois’ nurses and the national average. If enacted, safe patient limits could produce similarly positive workplace outcomes for nurses in Illinois, improve nurse retention rates, promote better health outcomes for patients, and save lives.

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