# 2017 Survey of Michigan Nurses

## Survey Summary Report

September 29, 2017

Office of Nursing Policy Michigan Department of Health and Human Services

Prepared by the Michigan Public Health Institute





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### Introduction

The *Survey of Michigan Nurses* has been supported by the Michigan Department of Health and Human Services (MDHHS) annually since 2004 to gather information about the supply of and demand for nurses in Michigan. Information gathered from this survey is used to inform state and local decision-making about the recruitment, education, and employment status of the nurse population.

This survey includes questions that primarily focus on: 1) license type and educational background; 2) employment status, including current practice setting; 3) length of time in practice and plans to continue practicing as a nurse; and 4) demographic information.

## **Methodology**

The MDHHS – Office of Nursing Policy contracted with the Michigan Public Health Institute (MPHI) to revise the annual *Survey of Michigan Nurses*, collect and analyze the data, and report findings to nursing stakeholders in a variety of formats. In partnership with the MDHHS – Office of Nursing Policy, MPHI held a stakeholder meeting with nurse-leaders in October of 2016 to discuss revisions to the 2016 survey instrument that would be incorporated into the 2017 edition. A copy of the *2017 Survey of Michigan Nurses* can be found in Appendix A.

Nurses licensed in Michigan are divided into two cohorts, based upon the year in which they first received their license, and each cohort must renew their license every two years. There were a total of 86,080 nurses scheduled to renew their license in 2017. Each of these nurses was sent a postcard from the Michigan Department of Licensing and Regulatory Affairs (LARA) informing them of their license renewal period along with instructions for beginning the online renewal process. The postcard also included an invitation for completing the 2017 Survey of Michigan Nurses which was available through two online options. The first option was to click on a survey link located at the end of the license renewal online process. The second option was to use the survey's direct URL address listed on the postcard. In previous years, surveys were also mailed to all nurses scheduled to renew their license during that year, giving nurses an option to complete the survey by mail or online. However, the mail option was discontinued for 2017 leaving the online option as the only method for completing the survey.

The license renewal period spanned from January 1 to March 31, 2017. An additional one month grace period allowed for license renewals to take place as late as April 30, 2017. Since nurses had the option to complete the survey by visiting the survey's direct URL (listed on the postcard notifications), the survey administration period was expanded beyond this interval and ran from December 15, 2016 to May 15, 2017. Because nurses were not required to go through the license renewal process to take the survey, it's possible for nurses not planning to renew their license to have also completed the survey. It was, however, anticipated that the likelihood of this occurring was fairly minimal.

#### SURVEY RESPONDENTS & RESPONSE RATES

A total of 38,926 nurses participated in the 2017 Survey of Michigan Nurses, which was twice as many as the 19,405 nurses who completed the 2016 survey. The response rate for the 33,154 RNs who responded to the survey was 45.3% (compared to 24.7% in 2016), while the response rate for the 5,772 responding LPNs was 44.9% (compared to 17.8% for 2016). The distribution of responding nurses by demographic characteristics are presented in Table 1.

Table 1: Demographic Characteristics of Survey Respondents

Demographics		RN=33,	<u> </u>		LPN=5	,772
Demographics	n	Estimate	95% CI	n	Estimate	95% CI
Age	-	_				_
<25 years	433	1.3%	(1.2%, 1.4%)	55	1.0%	(0.7%, 1.2%)
25 to 34 years	4,277	12.9%	(12.5%, 13.3%)	650	11.3%	(10.5%, 12.1%)
35 to 44 years	5,308	16.0%	(15.6%, 16.4%)	966	16.7%	(15.8%, 17.7%)
45 to 54 years	7,121	21.5%	(21.0%, 21.9%)	1,147	19.9%	(18.9%, 20.9%)
55 to 64 years	9,375	28.3%	(27.8%, 28.8%)	1,703	29.5%	(28.3%, 30.7%)
65+ years	4,438	13.4%	(13.0%, 13.8%)	801	13.9%	(13.0%, 14.8%)
Unknown	2,202	6.6%	(6.4%, 6.9%)	450	7.8%	(7.1%, 8.5%)
Gender	<u>, , -</u>		(2 22, 2 222)			( ) 1, 2 2 2 2 7
Female	29,026	87.5%	(87.2%, 87.9%)	5,061	87.7%	(86.8%, 88.5%)
Male	2,509	7.6%	(7.3%, 7.9%)	342	5.9%	(5.3%, 6.6%)
Unknown	1,619	4.9%	(4.7%, 5.1%)	369	6.4%	(5.8%, 7.1%)
Race	1,010	1.570	(1.7.70, 0.1.70)		3. 770	(0.070, 7.170)
White	27,589	83.2%	(82.8%, 83.6%)	4,114	71.3%	(70.1%, 72.4%)
Black or	21,000	03.270	(02.070, 03.070)	7,117	71.570	(10.170, 12.470)
African American	2,091	6.3%	(6.1%, 6.6%)	1,073	18.6%	(17.6%, 19.6%)
American Indian or	,		, ,	,		
Alaska Native	393	1.2%	(1.1%, 1.3%)	115	2.0%	(1.7%, 2.4%)
Asian	1,095	3.3%	(3.1%, 3.5%)	88	1.5%	(1.2%, 1.9%)
Native Hawaiian or						
Pacific Islander	82	0.2%	(0.2%, 0.3%)	11	0.2%	(0.1%, 0.3%)
Middle Eastern	475	0.50/	(0.50/ 0.60/)		0.00/	(0.40/ 0.20/)
(Arab/Chaldean/Other) Other	175 437	0.5% 1.3%	(0.5%, 0.6%)	9 92	0.2% 1.6%	(0.1%, 0.3%)
Unknown	1,952	5.9%	(1.2%, 1.4%) (5.6%, 6.1%)	444	7.7%	(1.3%, 2.0%) (7.0%, 8.4%)
	1,332	3.970	(3.070, 0.170)	777	7.770	(7.070, 0.470)
Ethnicity Hispanic or Latino	544	1.6%	(1.5%, 1.8%)	108	1.9%	(1.6%, 2.3%)
			· · · · · · · · · · · · · · · · · · ·			,
Not Hispanic or Latino Unknown	30,269	91.3%	(91.0%, 91.6%)	5,081	88.0%	(87.2%, 88.8%)
	2,341	7.1%	(6.8%, 7.3%)	583	10.1%	(9.3%, 10.9%)
Region Deningula	000	2.70/	(2.50/2.00/.)	200	6.00/	(C 10/ 7 40/)
Upper Peninsula Northwest LP	898 1,171	2.7% 3.5%	(2.5%, 2.9%) (3.3%, 3.7%)	390 148	6.8% 2.6%	(6.1%, 7.4%) (2.2%, 3.0%)
Northeast LP						
West/West Central	554	1.7%	(1.5%, 1.8%)	173	3.0%	(2.6%, 3.5%)
	4,264	12.9%	(12.5%, 13.2%)	892	15.5%	(14.5%, 16.4%)
East Central	1,624	4.9%	(4.7%, 5.1%)	403	7.0%	(6.4%, 7.7%)
East	2,561	7.7%	(7.4%, 8.0%)	511	8.9%	(8.1%, 9.6%)
South Central	1,180	3.6%	(3.4%, 3.8%)	165	2.9%	(2.5%, 3.3%)
Southwest	2,096	6.3%	(6.1%, 6.6%)	388	6.7%	(6.1%, 7.4%)
Southeast	3,151	9.5%	(9.2%, 9.8%)	479	8.3%	(7.6%, 9.0%)
Detroit Metro	9,986	30.1%	(29.6%, 30.6%)	1,445	25.0%	(23.9%, 26.2%)
MI, Unknown Region	1,416	4.3%	(4.1%, 4.5%)	210	3.6%	(3.2%, 4.2%)
Outside MI	2,910	8.8%	(8.5%, 9.1%)	242	4.2%	(3.7%, 4.7%)
Unknown	1,343	4.1%	(3.8%, 4.3%)	326	5.6%	(5.1%, 6.3%)

## **Data Analysis**

Once data collection concluded, data from the online survey tool were imported into statistical software, SPSS, and run through a number of data cleaning and validation analyses to identify out-of-range or missing values. One of the initial analyses included comparing the license type, age, and place of residence of nurses who completed the survey to that of the total nurse population based on the State's nurse licensure data provided by the LARA. A summary of the State's nurse licensure data can be found at <a href="https://www.minurse.org">www.minurse.org</a>, under "Licensure Data & Mapping" which also has additional prosperity region breakdown for employment measures only mentioned in this report.

Results from this analysis showed slight differences in the distribution of nurses who completed the survey compared to the overall nurse population (Table 2 below and continued on the next page). For example, 85.2% of nurses who completed the survey were RNs compared to 85.5% of all nurses who are licensed as RNs. Additionally, nurses over the age of 55 were overrepresented among survey respondents while younger nurses were underrepresented, which could skew the survey results toward the perspective of older nurses. To adjust for such differences in the survey sample compared to the overall nurse population, a set of weighting variables was created to increase the degree to which the survey results are representative of the overall nurse population.

<u>Table 2: Comparison of Survey Respondents to All Nurses Licensed in Michigan</u>

	Nurse Population (Licensure Data)							Survey Data	
Characteristics	20	17	20	18	Tot	tal	2017		
	#	%	#	%	#	%	#	%	
Total	86,080	-	82,533	-	168,613	-	38,926	-	
RNs	73,218	85.1%	70,916	85.9%	144,134	85.5%	33,154	85.2%	
Nurse Practitioners	3,242	4.4%	3,088	4.4%	6,330	4.4%	916	2.8%	
Nurse Anesthetists	1,399	1.9%	1,208	1.7%	2,607	1.8%	188	0.6%	
Nurse Midwives	195	0.3%	168	0.2%	363	0.3%	55	0.2%	
Age									
<25 years	884	1.2%	1,181	1.7%	2,065	1.4%	433	1.3%	
25 to 34 years	13,045	17.8%	13,231	18.7%	26,276	18.2%	4,277	12.9%	
35 to 44 years	14,606	19.9%	14,485	20.4%	29,091	20.2%	5,308	16.0%	
45 to 54 years	16,395	22.4%	16,324	23.0%	32,719	22.7%	7,121	21.5%	
55 to 64 years	19,140	26.1%	17,682	24.9%	36,822	25.5%	9,375	28.3%	
65+ years	9,135	12.5%	7,995	11.3%	17,130	11.9%	4,438	13.4%	
Unknown	13	0.0%	18	0.0%	31	0.0%	2,202	6.6%	
Region									
Upper Peninsula	2,004	2.7%	1,997	2.8%	4,001	2.8%	898	2.7%	
Northwest LP	2,491	3.4%	2,291	3.2%	4,782	3.3%	1,171	3.5%	
Northeast LP	1,209	1.7%	1,121	1.6%	2,330	1.6%	554	1.7%	
West/West Central	9,330	12.7%	9,309	13.1%	18,639	12.9%	4,264	12.9%	
East Central	3,637	5.0%	3,722	5.2%	7,359	5.1%	1,624	4.9%	
East	5,889	8.0%	5,751	8.1%	11,640	8.1%	2,561	7.7%	

Table 2: Comparison of Survey Respondents to All Nurses Licensed in Michigan (Continued)

	Nı	ırse Poj	pulation	(Licens	sure Dat	a)	Surve	y Data
Characteristics	20	17	20	18	To	tal	20	17
	#	%	#	%	#	%	#	%
Region Continued		-		_		_		
South Central	2,711	3.7%	2,521	3.6%	5,232	3.6%	1,180	3.6%
Southwest	4,761	6.5%	4,580	6.5%	9,341	6.5%	2,096	6.3%
Southeast	7,435	10.2%	7,220	10.2%	14,655	10.2%	3,151	9.5%
Detroit Metro	24,589	33.6%	24,195	34.1%	48,784	33.8%	9,986	30.1%
MI, Unknown Region							1,416	
Outside of MI	9,162	12.5%	8,209	11.6%	17,371	12.1%	2,910	8.8%
Unknown							1,343	
LPNs	12,862	14.9%	11,617	14.1%	24,479	14.5%	5,772	14.8%
Age		_						
<25 years	222	1.7%	190	1.6%	412	1.7%	55	1.0%
25 to 34 years	2,281	17.7%	2,036	17.5%	4,317	17.6%	650	11.3%
35 to 44 years	2,574	20.0%	2,455	21.1%	5,029	20.5%	966	16.7%
45 to 54 years	2,608	20.3%	2,483	21.4%	5,091	20.8%	1,147	19.9%
55 to 64 years	3,362	26.1%	2,987	25.7%	6,349	25.9%	1,703	29.5%
65+ years	1,810	14.1%	1,462	12.6%	3,272	13.4%	801	13.9%
Unknown	5	0.0%	4	0.0%	9	0.0%	450	7.8%
Region		_						
Upper Peninsula	957	7.4%	799	6.9%	1,756	7.2%	390	6.8%
Northwest LP	348	2.7%	334	2.9%	682	2.8%	148	2.6%
Northeast LP	455	3.5%	370	3.2%	825	3.4%	173	3.0%
West/West Central	2,139	16.6%	1,838	15.8%	3,977	16.2%	892	15.5%
East Central	971	7.5%	788	6.8%	1,759	7.2%	403	7.0%
East	1,175	9.1%	1,136	9.8%	2,311	9.4%	511	8.9%
South Central	398	3.1%	339	2.9%	737	3.0%	165	2.9%
Southwest	953	7.4%	840	7.2%	1,793	7.3%	388	6.7%
Southeast	1,078	8.4%	1,117	9.6%	2,195	9.0%	479	8.3%
Detroit Metro	3,682	28.6%	3,423	29.5%	7,105	29.0%	1,445	25.0%
MI, Unknown Region							210	
Outside of MI	706		633	5.4%	1,339		242	
Unknown						0.0%	326	5.6%

## Results of the 2017 Survey of Michigan Nurses

All percentages reported in this section are presented as weighted estimates that reflect Michigan's overall nurse population. Data weights were calculated and applied to the 2016 survey results as well to the 2017 survey results so comparisons between 2016 and 2017 can be made in cases where the survey questions were the same. However, survey results from 2016 and 2017 cannot be made with previous year's survey results which were not presented as weighted estimates. In addition to weighted estimates, 95% confidence intervals were calculated for selected results. Results where the accompanying confidence intervals do not overlap can be considered statistically significant.

#### **EDUCATION**

RN and LPN nurses were asked their highest level of education in nursing education (Table 3) and nonnursing education (Table 4). The highest level of nursing education for 40.9% of RNs is a Bachelor's Degree in Nursing and 38.2% hold an Associate's Degree in Nursing as their highest level of education. Almost all LPNs (93.6%) reported a LPN diploma/certificate being their highest level of nursing education. Over half of RNs and LPNs, 66.6% and 68.8% respectively, responded that non-nursing education was not applicable as shown in Table 4.

Table 3: Highest Level of Nursing-Related Education

<b>Education Level</b>	RN =	33,007	LPN = 5,743		
Education Level	Estimate	95% CI	Estimate	95% CI	
LPN diploma/certificate	0.0%	(0.0%, 0.0%)	93.6%	(92.9%, 94.2%)	
RN diploma in nursing	8.9%	(8.6%, 9.2%)	0.8%	(0.6%, 1.0%)	
Associate's degree in nursing	38.2%	(37.7%, 38.7%)	4.6%	(4.1%, 5.1%)	
Bachelor's degree in nursing	40.9%	(40.4%, 41.5%)	0.9%	(0.7%, 1.1%)	
Master's degree in nursing	10.9%	(10.5%, 11.2%)	0.1%	(0.1%, 0.3%)	
Doctorate in Nursing Practice (DNP)	0.6%	(0.5%, 0.7%)	*	*	
Doctor of Philosophy in Nursing (PhD)	0.4%	(0.4%, 0.5%)	*	*	
Other doctoral degree in nursing	0.1%	(0.1%, 0.1%)	*	*	

Table 4: Highest Level of Non-Nursing Education

Education Level	RN =	32,476	LPN = 5,669		
Education Level	Estimate 95% CI		Estimate	95% CI	
Non-nursing associate's degree	13.6%	(13.2%, 13.9%)	22.8%	(21.7%, 23.9%)	
Non-nursing bachelor's degree	13.9%	(13.5%, 14.2%)	6.6%	(6.0%, 7.3%)	
Non-nursing master's degree	5.2%	(5.0%, 5.5%)	1.5%	(1.2%, 1.9%)	
Non-nursing doctoral degree	0.8%	(0.7%, 0.8%)	0.3%	(0.2%, 0.5%)	
Not applicable	66.6%	(66.1%, 67.1%)	68.8%	(67.6%, 70.0%)	

Nurses were asked to select which level of degree/certificate qualified them for their first nursing license. As shown in Table 5, 40.3% of RNs started with an Associate's Degree in Nursing. Almost all LPNs applied for an LPN diploma/certificate (96.4%) as their first license. Almost two percent of RNs indicated that they attained a Master's degree in nursing to qualify for their initial application for nursing licensure. These are most likely individuals receiving non-clinical degrees since clinical graduate nursing programs require licensure as a criteria for participation at clinical sites.

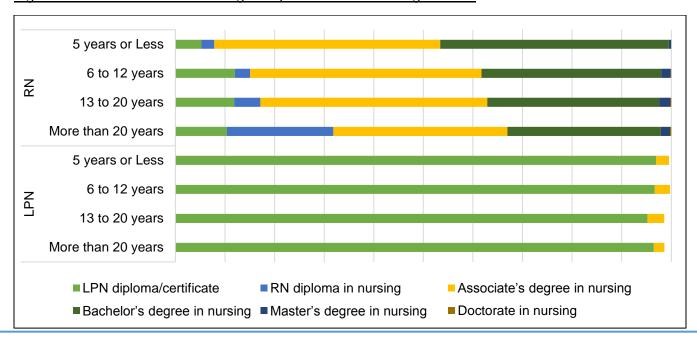
Table 5: Educational Background that Qualified for First Nursing License

<b>Education Level</b>	RN =	33,104	LPN = 5.765		
Education Level	Estimate 95% CI		Estimate	95% CI	
LPN diploma/certificate	10.0%	(9.7%, 10.4%)	96.4%	(95.9%, 96.8%)	
RN diploma in nursing	13.1%	(12.7%, 13.5%)	*	*	
Associate's degree in nursing	40.3%	(39.7%, 40.8%)	2.6%	(2.2%, 3.1%)	
Bachelor's degree in nursing	34.7%	(34.1%, 35.2%)	*	*	
Master's degree in nursing	1.8%	(1.6%, 1.9%)	*	*	
Doctorate in nursing	0.2%	(0.1%, 0.2%)	*	*	

<sup>\*</sup>While there were some responses at these education levels, there were too few to produce accurate results.

The type of degree/certificate that first qualified respondents to apply for a nursing license was also compared to how long they have been working. As shown in Figure 1, RNs working five years or less were almost equally distributed between first completing a pre-licensure Bachelor's Degree in Nursing (46.1%) and an Associate's Degree in Nursing program (45.6%) as their first nursing license. However, the majority of RNs working six or more years entered nursing after completing a pre-licensure Associate's Degree in Nursing (35.1-46.6%). Almost all of LPNs (95.2-96.9%) entered nursing after completing a pre-licensure LPN diploma/certificate, with a much smaller portion (2.1-3.4%) having indicated completion of an Associate's Degree Nursing program to qualify for LPN licensure. It is assumed these are nurses who obtained their LPN midway through a laddered associated degree nursing program that incorporated a LPN step out option.

Figure 1. Number of Years Working Compared to First Nursing License



RNs indicated if they currently held special certification as a nurse anesthetist, nurse midwife, nurse practitioner, or clinical nurse specialist (Table 6). The results show 5.1% of RNs hold certification as nurse practitioners and 1.2% are clinical nurse specialists. 1.0% of RNs are certified nurse anesthetists while only 0.3% are nurse midwifes.

Table 6: Current Specialty Certifications in Michigan

Certification	n= 33,154				
Certification	Estimate	95% CI			
Nurse Anesthetist	1.0%	(0.9%, 1.2%)			
Nurse Midwife	0.3%	(0.3%, 0.4%)			
Nurse Practitioner	5.1%	(4.9%, 5.3%)			
Clinical Nurse Specialist	1.2%	(1.1%, 1.3%)			

Nurses who responded to the survey were also asked if they were currently enrolled in a program to obtain an Associate's Degree in Nursing, Bachelor of Science in Nursing, Master of Science in Nursing, Doctor of Nursing Practice, or Doctor of Philosophy in Nursing degree (Table 7). It is estimated that 5.8% of RNs and 2.5% of LPNs are currently enrolled in a program to earn a Bachelor of Science in Nursing, while 3.6% of RNs are enrolled in a program to obtain a Master of Science in Nursing. 12.0% of LPNs are currently enrolled in a program to earn an Associate's Degree in Nursing.

Table 7: Current Enrollment in Nursing Educational Programs

Dogmoo	RN=	32,997	LPN= 5,082		
Degree	Estimate	95% CI	Estimate	95% CI	
Associate's Degree in Nursing (ADN)	0.5%	(0.4%, 0.5%)	12.0%	(11.1%, 12.9%)	
Bachelor of Science in Nursing (BSN)	5.8%	(5.5%, 6.0%)	2.5%	(2.1%, 3.0%)	
Master of Science in Nursing (MSN)	3.6%	(3.4%, 3.8%)	0.1%	(0.0%, 0.2%)	
Doctor of Nursing Practice (DNP)	0.7%	(0.7%, 0.8%)	0.0%	(0.0%, 0.1%)	
Doctor of Philosophy in Nursing (PhD)	0.2%	(0.1%, 0.2%)	0.0%	(0.0%, 0.1%)	

Nurses who indicated they were enrolled in a program to earn a Master of Science in Nursing or a Doctor of Nursing Practice degree were asked if the program was designed to earn a specialty certification (Table 8). Among the enrolled nurses, 79.0% of RNs and 66.7% of LPNs are currently enrolled to become nurse practitioners, while one third of LPNs are currently enrolled to become a clinical nurse specialist. Please note the RN and LPN designation is based on how respondents qualified themselves in the beginning of the survey questionnaire.

Table 8: Educational Preparation to Earn Specialty Certification

Certification	RN=	1,210	LPN= 47		
Certification	Estimate	95% CI	Estimate	95% CI	
Nurse Practitioner	79.0%	(76.6%, 81.2%)	66.7%	(52.4%, 78.4%)	
Nurse Midwife	2.4%	(1.7%, 3.5%)	*	*	
Nurse Anesthetist	5.7%	(4.5%, 7.1%)	*	*	
Clinical Nurse Specialist	9.8%	(8.2%, 11.6%)	33.3%	(21.6%, 47.6%)	
Advanced Public Health Nurse	3.1%	(2.3%, 4.2%)	*	*	

#### **EMPLOYMENT**

Among all licensed nurses in Michigan, 84.0% of RNs and 79.8% of LPNs are currently employed as a nurse (Table 9). The percentage of RNs who are currently employed as a nurse tends to decrease as age increases. Whereas the percentage of LPNs currently employed as a nurse increases from 18 to 24 years old (89.1%) to 25 to 34 years old (93.1%). Nurses who are 65 years and older are the least likely to be currently employed. Male RNs and LPNs are more likely to be currently employed as a nurse than female RNs and LPNs. The majority of RNs and LPNs currently reside in the Detroit Metro area (85.5% and 83.6% respectively).

Table 9: Demographic Characteristics of Employed Nurses

D		RN			LPN	
Demographics	n	Estimate	95% CI	n	Estimate	95% CI
Total	33,154	84.0%	(83.6%, 84.4%)	5,772	79.8%	(78.8%, 80.9%)
Age						
18 to 24 years	433	98.6%	(97.5%, 99.7%)	55	89.1%	(80.8%, 97.3%)
25 to 34 years	4,277	94.6%	(93.9%, 95.3%)	650	93.1%	(91.1%, 95.0%)
35 to 44 years	5,308	92.8%	(92.1%, 93.5%)	966	90.7%	(88.9%, 92.5%)
45 to 54 years	7,121	92.0%	(91.4%, 92.6%)	1,147	87.5%	(85.6%, 89.4%)
55 to 64 years	9,375	80.9%	(80.1%, 81.6%)	1,703	73.2%	(71.1%, 75.3%)
65+ years	4,438	42.6%	(41.1%, 44.0%)	801	45.4%	(42.0%, 48.9%)
Gender	T			ı		
Female	29,026	83.5%	(83.1%, 83.9%)	5,061	79.5%	(78.4%, 80.6%)
Male	2,509	89.9%	(88.8%, 91.1%)	342	85.1%	(81.3%, 88.8%)
Race						
White	27,589	83.5%	(83.0%, 83.9%)	4,114	77.2%	(75.9%, 78.5%)
Black or African			,			, ,
American	2,091	87.5%	(86.1%, 88.9%)	1,073	89.2%	(87.4%, 91.1%)
Other	2,113	89.4%	(88.1%, 90.7%)	299	79.1%	(74.5%, 83.7%)
Ethnicity						
Hispanic or Latino	544	89.9%	(87.4%, 92.5%)	108	87.0%	(80.6%, 93.3%)
Not Hispanic or						
Latino	30,269	83.9%	(83.5%, 84.4%)	5,081	79.8%	(78.7%, 80.9%)
Residency	T			Ī		
Upper Peninsula	898	82.6%	(80.1%, 85.1%)	390	78.2%	(74.1%, 82.3%)
Northwest LP	1,171	80.7%	(78.4%, 82.9%)	148	65.5%	(57.8%, 73.1%)
Northeast LP	554	78.6%	(75.2%, 82.0%)	173	79.6%	(73.6%, 85.6%)
West/West Central	4,264	84.7%	(83.6%, 85.7%)	892	78.4%	(75.7%, 81.1%)
East Central	1,624	83.6%	(81.8%, 85.4%)	403	76.8%	(72.7%, 80.9%)
East	2,561	82.4%	(80.9%, 83.9%)	511	78.9%	(75.3%, 82.4%)
South Central	1,180	83.4%	(81.2%, 85.5%)	165	79.6%	(73.5%, 85.8%)
Southwest	2,096	84.2%	(82.6%, 85.7%)	388	82.3%	(78.5%, 86.1%)
Southeast	3,151	82.9%	(81.6%, 84.2%)	479	81.0%	(77.5%, 84.5%)
Detroit Metro	9,986	85.5%	(84.8%, 86.2%)	1,445	83.6%	(81.7%, 85.5%)
Outside MI	2,910	80.5%	(79.1%, 81.9%)	242	69.4%	(63.5%, 75.2%)

Nurses were asked their current employment status to determine the size and characteristics of the workforce. Information was collected on positions requiring a nursing license, in a field other than nursing, as well as nurses who are volunteering, unemployed seeking and not seeking work as a nurse, or retired. Most RNs and LPNs, 65.1% and 61.3% respectively, are currently employed full-time in a position that requires a nurse license (Table 10).

Table 10: Current Employment Status

Employment	RN=	33,154	LPN=	5,772
Employment	Estimate	95% CI	Estimate	95% CI
Actively employed in nursing or a position that requires a nurse license full-time	65.1%	(64.6%, 65.6%)	61.3%	(60.1%, 62.6%)
Actively employed in nursing or a position that requires a nurse license part-time	13.2%	(12.8%, 13.6%)	15.0%	(14.1%, 16.0%)
Actively employed in nursing or a position that requires a nurse license on a per-diem basis	6.6%	(6.4%, 6.9%)	5.9%	(5.3%, 6.5%)
Actively employed in a field other than nursing full-time	2.1%	(2.0%, 2.3%)	3.4%	(3.0%, 3.9%)
Actively employed in a field other than nursing part-time	1.3%	(1.2%, 1.4%)	2.6%	(2.3%, 3.1%)
Actively employed in a field other than nursing on a per-diem basis	0.5%	(0.5%, 0.6%)	0.5%	(0.3%, 0.7%)
Working in nursing only as a volunteer	1.4%	(1.3%, 1.6%)	1.5%	(1.2%, 1.9%)
Unemployed, seeking work as a nurse	2.0%	(1.9%, 2.2%)	3.5%	(3.0%, 4.0%)
Unemployed, not seeking work as a nurse	3.3%	(3.1%, 3.5%)	4.2%	(3.7%, 4.8%)
Retired	10.1%	(9.8%, 10.4%)	9.8%	(9.0%, 10.5%)

The distribution of where nurses live and work with respect to Michigan's 10 Prosperity Regions is shown in Table 11. The highest proportion of RNs live (34.6%) and work (34.2%) in the Detroit Metro region. While the Detroit Metro region also has the highest proportion of LPNs living and working within this region, the percentages are somewhat lower (30.6% and 30.9% respectively). The percentage of RNs and LPNs licensed in Michigan who are employed outside of Michigan is similar to the percentage of nurses who live outside of Michigan.

Table 11: Prosperity Region of Residency & Employment among Michigan Nurses

		RI	Ns			LF	PNs		
Prosperity Region	Place Reside	_	Place of Employment		Place of Residency			Place of Employment	
8	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	Estimate	95% CI	
Upper Peninsula	2.7%	(2.5%, 3.0%)	2.9%	(2.7%, 3.1%)	7.1%	(6.3%, 7.9%)	7.6%	(6.8%, 8.5%)	
Northwest LP	3.2%	(3.0%, 3.4%)	3.4%	(3.1%, 3.6%)	2.3%	(1.9%, 2.8%)	2.6%	(2.1%, 3.1%)	
Northeast LP	1.5%	(1.4%, 1.7%)	1.4%	(1.3%, 1.6%)	3.3%	(2.8%, 3.9%)	3.3%	(2.7%, 3.9%)	
West/West Central	13.1%	(12.7%, 13.5%)	12.9%	(12.5%, 13.3%)	16.1%	(15.0%, 17.2%)	15.3%	(14.2%, 16.5%)	
East Central	5.1%	(4.8%, 5.4%)	5.4%	(5.1%, 5.7%)	6.9%	(6.2%, 7.7%)	7.0%	(6.2%, 7.8%)	
East	8.0%	(7.6%, 8.3%)	6.6%	(6.3%, 6.9%)	9.3%	(8.5%, 10.2%)	7.9%	(7.1%, 8.8%)	
South Central	3.6%	(3.4%, 3.9%)	3.9%	(3.6%, 4.1%)	3.0%	(2.5%, 3.6%)	2.9%	(2.4%, 3.5%)	
Southwest	6.5%	(6.2%, 6.8%)	6.8%	(6.5%, 7.1%)	7.6%	(6.8%, 8.4%)	8.1%	(7.3%, 9.1%)	
Southeast	10.1%	(9.7%, 10.5%)	11.0%	(10.6%, 11.4%)	9.2%	(8.3%, 10.1%)	9.3%	(8.4%, 10.3%)	
Detroit Metro	34.6%	(34.0%, 35.2%)	34.2%	(33.6%, 34.8%)	30.6%	(29.2%, 32.0%)	30.9%	(29.5%, 32.4%)	
Outside MI	11.6%	(11.2%, 12.0%)	11.6%	(11.2%, 12.0%)	4.8%	(4.2%, 5.5%)	5.1%	(4.4%, 5.8%)	

The distribution of where nurses are licensed was collected for state and country level in Table 12. Most of the RNs and LPNs are licensed only in Michigan, 84.2% and 88.9% respectively. For those RNs and LPNs licensed out of state, the majority are licensed in Ohio (20.7% and 24.2% respectively). 53.6% of RNs and 27.0% of LPNs who are licensed in another country are licensed in Canada.

Table 12: Nurses Licensed Out of State or Country

Pagion	RN =	33,154	LPN = 5,772		
Region	Estimate	95% CI	Estimate	95% CI	
Michigan Only	84.2%	(83.8%, 84.6%)	88.9%	(88.1%, 89.7%)	
Other U.S. State	14.2%	(13.8%, 14.6%)	10.8%	(10.1%, 11.7%)	
Ohio	20.7%	(19.6%, 21.9%)	24.2%	(23.1%, 25.3%)	
Indiana	13.9%	(13.0%, 15.0%)	11.7%	(10.9%, 12.5%)	
Illinois	12.0%	(11.1%, 13.0%)	4.9%	(4.4%, 5.5%)	
Wisconsin	11.5%	(10.6%, 12.4%)	9.1%	(8.4%, 9.9%)	
Florida	18.1%	(17.0%, 19.2%)	12.8%	(11.9%, 13.7%)	
Other Country	2.2%	(2.1%, 2.4%)	0.4%	(0.3%, 0.7%)	
Canada	53.6%	(50.0%, 57.2%)	27.0%	(25.9%, 28.2%)	
Other State & Country	0.6%	(0.6%, 0.7%)	0.2%	(0.1%, 0.3%)	

<sup>\*</sup>Please note the percentages reported for specific states and countries are a percentage of the Other U.S. State and Other Country categories, respectively.

Among nurses who were working part-time or on a per diem basis, 45.3% of RNs and 32.4% of LPNs indicated that they do so because they prefer to work less than full-time (Table 13). However, 47.8% of RNs and 35.7% of LPNs work part-time or on a per diem basis because they are also taking care of the home and family. Only 3.0% of RNs and 5.1% of LPNs indicated that they have had difficulty finding a full-time nursing position.

Table 13: Reasons for Working as a Nurse Part-Time or on a Per Diem Basis

Reason	RN =	5,514	LPN = 925		
Reason	Estimate	95% CI	Estimate	95% CI	
Taking care of home and family	47.8%	(46.5%, 49.1%)	35.7%	(32.7%, 38.9%)	
School	9.3%	(8.5%, 10.1%)	24.9%	(22.2%, 27.8%)	
Difficulty finding a full-time nursing position	3.0%	(2.6%, 3.5%)	5.1%	(3.9%, 6.7%)	
Prefer to work part-time or per diem basis	45.3%	(44.0%, 46.6%)	32.4%	(29.4%, 35.5%)	
Semi-retired	15.4%	(14.5%, 16.4%)	20.6%	(18.1%, 23.3%)	
Other	10.6%	(9.8%, 11.4%)	11.4%	(9.5%, 13.6%)	

Both RNs and LPNs who stated they are working as a nurse were asked to indicate how many hours per week they work in nursing or a related area (Figure 2). In general, RNs and LPNs are more likely to work 40 to 49 hours per week in nursing or a related area in comparison to other weekly hours (38.4% and 45.0% respectively). RN and LPN nurses between 35-64 years old are most likely to work between 40-49 hours per week. On the other hand, nurses who are 65 years of age or older are most likely to work fewer than 30 hours per week in nursing or a related area. The percentage of RNs working 30 to 39 hours per week in nursing or a related area decreases as age increases. For a breakdown of the number of hours worked each week by prosperity region, please see Appendix B.

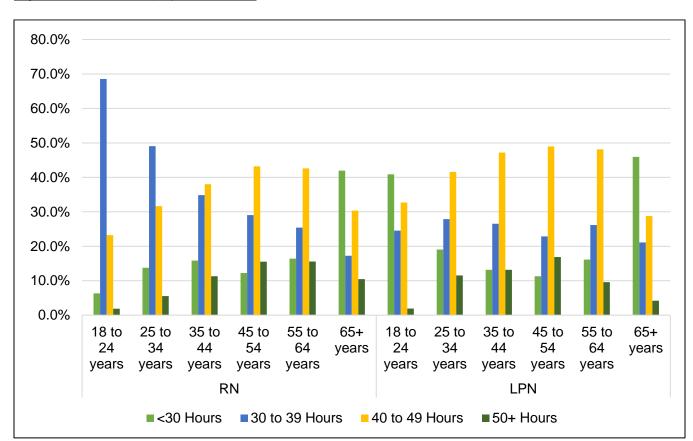


Figure 2: Current Employment Status

Nurses currently working were asked to indicate how many different nursing positions they hold (Table 14). Most of the RNs and LPNs only have one nursing position at the moment, 87.3% and 84.2% respectively.

Table 14: Number of Currently Employed Nursing Positions

Number of	RN =	27,108	LPN = 4,496		
Positions	Estimate	95% CI	Estimate	95% CI	
1 Position	87.3%	(86.9%, 87.7%)	84.2%	(83.1%, 85.3%)	
2 Position	11.0%	(10.6%, 11.4%)	13.7%	(12.8%, 14.8%)	
3+ Positions	1.7%	(1.5%, 1.8%)	2.0%	(1.6%, 2.5%)	

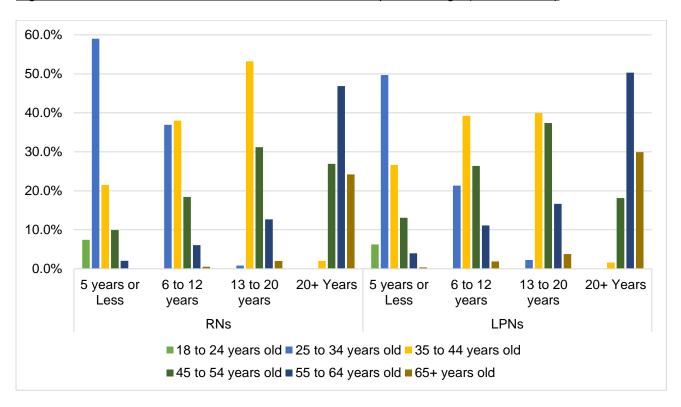
The number of years respondents have been a licensed nurse was is presented in Table 15. The majority of RNs (53.2%) and LPNS (46.9%) have been a licensed nurse for more than 20 years. 23.0% of LPNs have been employed five years or less.

Table 15: Number of Years Been a Licensed Nurse (RN and LPN)

Years	RN =	32,680	LPN = 5,643		
rears	Estimate	95% CI	Estimate	95% CI	
5 years or Less	16.2%	(15.8%, 16.6%)	23.0%	(21.9%, 24.1%)	
6 to 12 years	16.2%	(15.8%, 16.6%)	18.0%	(17.0%, 19.0%)	
13 to 20 years	14.5%	(14.1%, 14.8%)	12.2%	(11.3%, 13.0%)	
More than 20 years	53.2%	(52.6%, 53.7%)	46.9%	(45.6%, 48.2%)	

The number of years respondents have been a licensed nurse was also compared to the age of the nurse (Figure 3). In general for RNs and LPNs, most 25 to 34 year olds have been licensed five years or less while most 35 to 44 year olds have been licensed six to twenty years. RNs and LPNs 55 year olds or older have been licensed 20 or more years.

Figure 3: Number of Years been a Licensed Nurse Compared to Age (RN and LPN)

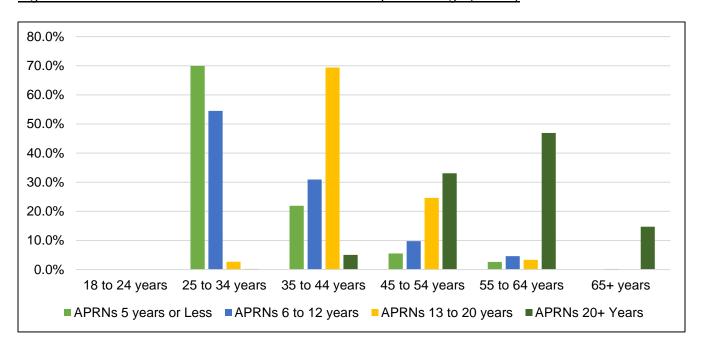


Advanced Practice Registered Nurses (APRNs) were measured as a subset of RNs. The majority of APRNs (58.5%) have also been licensed for more than 20 years (Table 16). Figure 4 compares the number of years APRNs have been a licensed nurse to their age. Most APRNS 25 to 34 years old have been licensed less than five years (69.9%), while 35 to 44 year olds have been licensed 13 to 20 years, and 45 year olds or older have been licensed more than 20 years (14.7-46.9%).

<u>Table 16: Number of Years Been a Licensed Nurse (APRN)</u>

Years	APRN =	1,139
10015	Estimate	95% CI
5 years or less	2.8%	(1.9%, 3.8%)
6 to 12 years	19.8%	(17.4%, 22.1%)
13 to 20 years	19.0%	(16.7%, 21.2%)
More than 20		
years	58.5%	(55.6%, 61.3%)

Figure 4: Number of Years been a Licensed Nurse Compared to Age (APRN)



Most RNs (63.1%) and LPNs (52.5%) have been working as a nurse for more than 10 years. Conversely, 14.6% of RNs have been working for less than three years compared to 20.7% of LPNs (Table 17).

Table 17: Number of Years Working as a Nurse (RN and LPN)

Years	RN=	26,009	LPN= 4,234		
rears	Estimate	95% CI	Estimate	95% CI	
Less than 3 years	14.6%	(14.2%, 15.0%)	20.7%	(19.5%, 21.9%)	
4 to 9 years	22.3%	(21.8%, 22.8%)	26.8%	(25.5%, 28.1%)	
10 years or more	63.1%	(62.5%, 63.7%)	52.5%	(51.0%, 54.0%)	

The number of years working was also compared to the age of the nurse (Figure 5). The majority of RNs and LPNs who have been working less than three years are 18 to 24 years old (98.6% and 93.9% respectively). RNs working four to nine years are mostly between 25 to 34 years old (51.9%) while most LPNs working four to nine years are between 35 to 44 years old (42.2%).

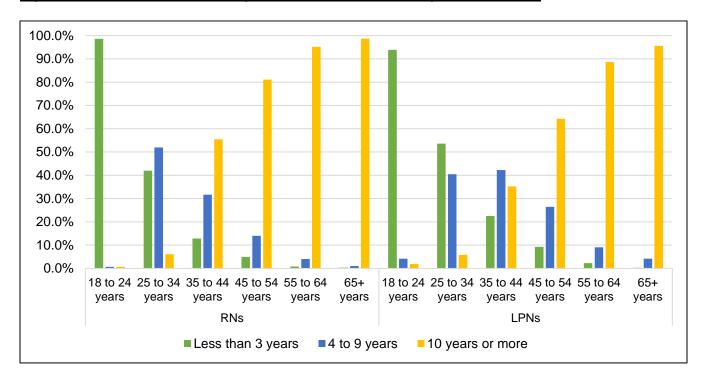


Figure 5: Number of Years Working as a Nurse Compared to Age (RN and LPN)

The number of years APRNs have been working was also measured as a subset of RNs. 77.8% of APRNs have been working as a nurse for 10 or more years (Table 18). The number of years APRNs have been working was also compared to their age (Figure 6 below). The percentage of APRNs working four to nine years are mostly between 25 to 34 years old (80.0%) while APRNs 35 years or older have been working for at least 10 years (82.5-98.9%).

<u>Table 18: Number of Years Working as a Nurse</u> (APRN)

Years	APRN= 1,013				
Tears	Estimate	95% CI			
Less than 3 years	1.1%	(0.5%, 1.8%)			
4 to 9 years	21.1%	(18.6%, 23.6%)			
10 years or more	77.8%	(75.2%, 80.4%)			

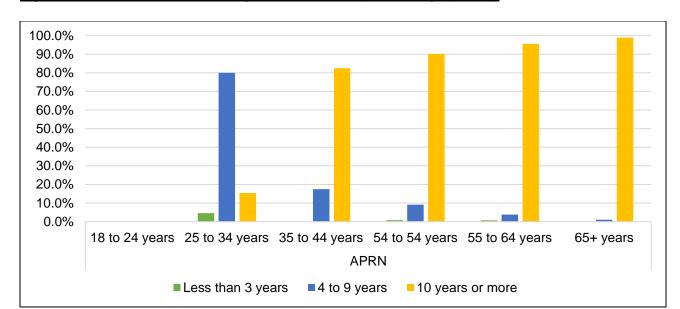


Figure 6: Number of Years Working as a Nurse Compared to Age (APRN)

To assist in projecting the supply of nurses in the future, nurses who are currently working were asked to indicate for how many more years they plan to continue working as a nurse (Table 19). Most RNs (60.2%) and LPNs (59.0%) estimated that they will continue working as a nurse for more than 10 years. A much smaller percentage of RNs (4.6%) and LPNs (3.9%) plan to work as a nurse for fewer than two additional years.

Table 19: Plans to Continue Working as a Nurse (RN and LPN)

Years	RN=	26,150	LPN= 4,251		
1 cars	Estimate 95% CI		Estimate	95% CI	
Less than 2 years	4.6%	(4.4%, 4.9%)	3.9%	(3.3%, 4.5%)	
2 to 5 years	13.4%	(12.9%, 13.8%)	13.1%	(12.1%, 14.1%)	
6 to 10 years	16.0%	(15.6%, 16.5%)	14.1%	(13.0%, 15.1%)	
More than 10 years	60.2%	(59.7%, 60.8%)	59.0%	(57.6%, 60.5%)	
Don't know	5.7%	(5.5%, 6.0%)	9.9%	(9.0%, 10.8%)	

While more than half of all RNs and LPNs indicated they planned to continue working as a nurse for 10 years or more, responses varied based upon the age of the responding nurse (Figure 7). Most RNs (45.9%) and LPNs (46.7%) who are aged 65 or older indicated that they plan to continue working as a nurse for five or fewer years. RNs and LPNs between the ages of 55 and 64 were most likely to continue working for six to ten more years (38.9% and 36.1% respectively). Nurses younger than 55 years old most frequently indicated that they plan to continue practicing as a nurse for more than 10 years.

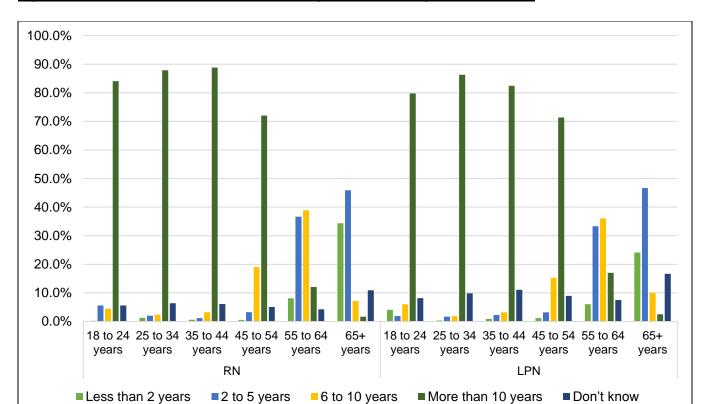


Figure 7: Plans to Continue to Practice Nursing (in years) by Age (RN and LPN)

APRNs plans to continue working as a nurse was also measured as a subset of RNs. 63.4% of APRNs estimated that they will continue working as a nurse for more than 10 years, while 2.8% plan to work as a nurse for fewer than two additional years (Table 20). APRNs plans to continue working was also compared to their age (Figure 8 below). APRNs aged 65 or older indicated that they plan to continue working as a nurse for five or fewer years (55.2%). APRNs between the ages of 55 and 64 were most likely to indicate they plan to continue working for six to ten more years (43.3%). The APRNs 55 years or younger plan to continue working for more than 10 years.

<u>Table 20: Plans to Continue Working as a Nurse</u> (APRN)

Years	APRN=	1,026
Tears	Estimate	95% CI
Less than 2 years	2.8%	(1.8%, 3.8%)
2 to 5 years	12.5%	(10.5%, 14.6%)
6 to 10 years	17.9%	(15.6%, 20.2%)
More than 10		
years	63.4%	(60.5%, 66.4%)
Don't know	3.3%	(2.2%, 4.4%)

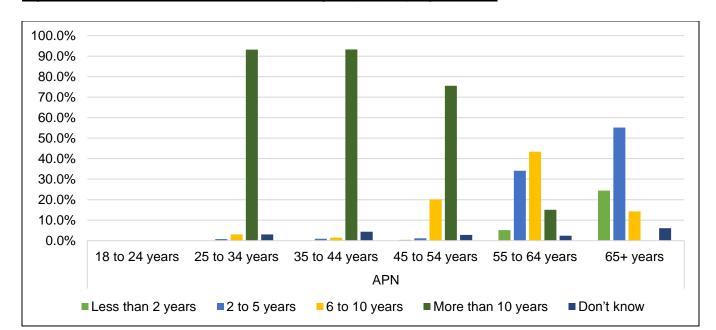


Figure 8: Plans to Continue to Practice Nursing (in years) by Age (APRN)

RNs and LPNs plans to continue working as a nurse was also compared to the prosperity region in which they are currently working (Table 21). The majority of both RNs and LPNS across all prosperity regions plan to continue working more than 10 years (43.7-65.6%).

Table 21: Plans to Continue Practice Nursing (in years) by Prosperity Region

	RN					LPN				
Prosperity Region	Less than 2 years	2 to 5 years	6 to 10 years	More than 10 years	Don't Know	Less than 2 years	2 to 5 years	6 to 10 years	More than 10 years	Don't Know
Upper										
Peninsula	4.3%	14.7%	15.6%	59.6%	5.9%	4.7%	12.4%	15.3%	61.5%	6.1%
Northwest LP	5.2%	17.3%	18.7%	53.9%	5.0%	8.9%	20.8%	19.5%	43.7%	7.1%
Northeast LP	3.8%	14.4%	15.0%	60.5%	6.2%	2.3%	13.8%	15.9%	60.8%	7.2%
West/West Central	4.4%	12.2%	14.6%	64.8%	4.0%	4.3%	17.6%	16.1%	53.9%	8.1%
East Central	4.6%	12.2%	14.8%	63.6%	4.8%	3.9%	15.0%	15.6%	56.1%	9.4%
East	3.7%	12.5%	15.1%	63.8%	5.0%	4.1%	16.0%	15.1%	55.1%	9.7%
South Central	4.5%	15.6%	14.9%	61.0%	4.1%	5.1%	7.9%	13.8%	65.6%	7.5%
Southwest	5.3%	14.0%	17.1%	59.3%	4.2%	3.3%	12.5%	16.7%	61.1%	6.4%
Southeast	5.2%	13.8%	14.4%	61.1%	5.6%	2.6%	10.7%	12.0%	64.8%	9.8%
Detroit Metro	4.8%	13.2%	16.1%	59.0%	7.0%	3.4%	11.8%	13.0%	59.9%	11.9%

#### **DIRECT CARE**

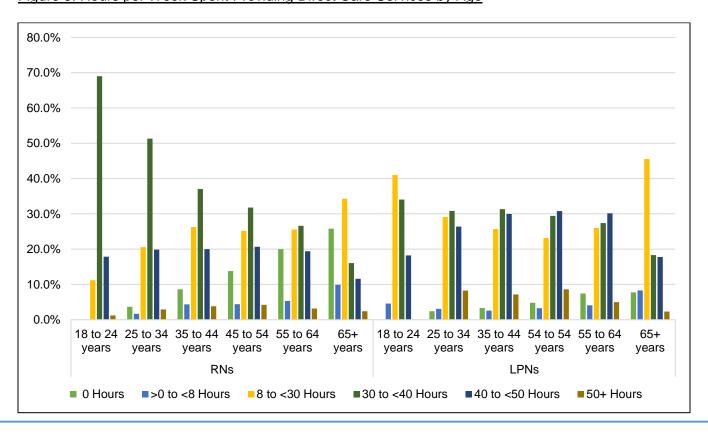
Table 22 shows the average number of hours per week nurses provide direct care services to patients and their families. About 25% of RNs provide direct care services 8 to 29 hours per week, and 35% provide direct care services 30 to 39 hours per week. However, LPNs provide direct care services almost evenly between 30 to 39 hours per week and 40 to 49 hours per week (28.9% and 28.3% respectively).

Table 22: Hours per Week Spent Providing Direct Care Services

Ноима	RN=	26,583	LPN= 4,351		
Hours	Estimate	95% CI	Estimate	95% CI	
0 Hours	12.6%	(12.2%, 13.0%)	4.7%	(4.1%, 5.3%)	
>0 to <8 Hours	4.3%	(04.1%, 04.5%)	3.7%	(03.1%, 04.2%)	
8 to <30 Hours	24.9%	(24.3%, 25.4%)	27.6%	(26.3%, 29.0%)	
30 to <40 Hours	35.4%	(34.8%, 36.0%)	28.9%	(27.6%, 30.3%)	
40 to <50 Hours	19.5%	(19.0%, 19.9%)	28.3%	(27.0%, 29.7%)	
50+ Hours	3.4%	(3.2%, 3.7%)	6.7%	(6.0%, 7.5%)	

The number of hours RNs and LPNs provide direct care services was also compared to the age of the nurse, as seen in Figure 9. For the most part, the percentage of RNs and LPNs providing direct patient care services for 30 to 39 hours per week tends to decrease with age. Conversely, the likelihood of RNs and LPNs providing direct patient care services for 40 or more hours per week increases with age until they reach 55 years of age and then decreases for nurses 55 years or older.

Figure 9: Hours per Week Spent Providing Direct Care Services by Age



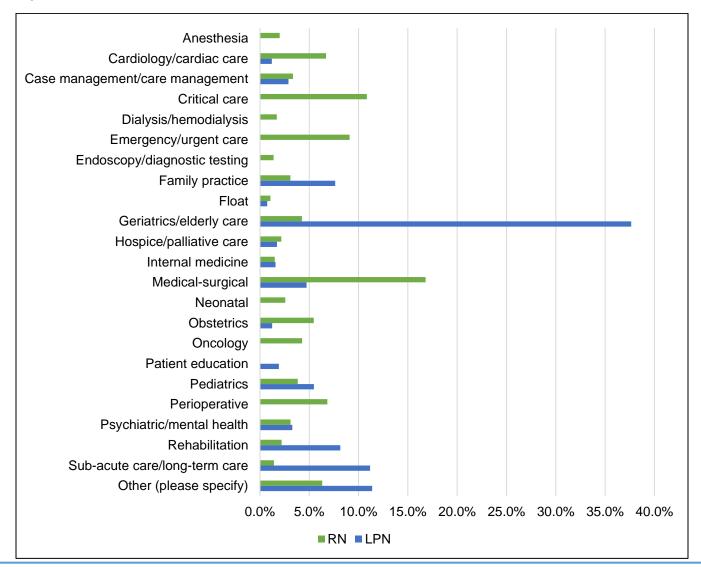
Slightly more than three-quarters (77.6%) of RNs provide direct patient care. Among RNs who do provide direct patient care, 13.5% plan to stop working within five years while 31.2% of RNs who do not provide direct patient care plan to stop working within the same five year period (Table 23).

Table 23: Plans to Stop Working in the Next 5 Years

Plans to Stop		RNs			LPNs		
Working in Next 5 Years	n	Estimate	95% CI	n	Estimate	95% CI	
Provides Direct Patient Care	13,644	13.5%	(13.0%, 14.0%)	2,373	14.2%	(12.9%, 15.6%)	
Does Not Provide Direct Patient Care	4,510	31.2%	(30.6%, 31.9%)	323	31.3%	(29.6%, 33.1%)	

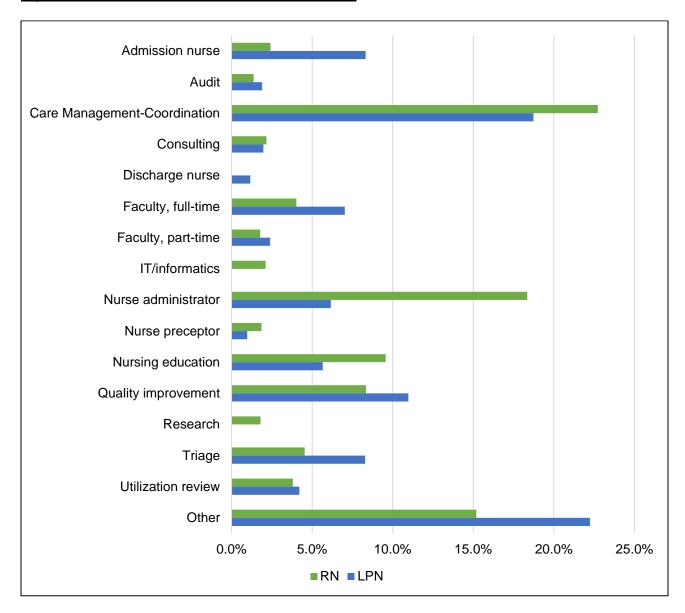
Licensed nurses who are employed as a nurse and provide direct patient care work in a wide variety of practice areas (Figure 10). Greater than one-third of LPNs mainly work in geriatrics or elderly care (37.6%). RNs work in a variety of practice settings, but the largest percentage of RNs (16.8%) work in the medical-surgical field followed by critical care (10.8%)

Figure 10: Direct Care Main Practice Area



Some licensed nurses who are employed in nursing do not provide direct patient care services as part of their main nursing role or provide non-direct care services as well as direct care (Figure 11). These nurses work in a variety of other roles including care management-coordination (22.7% of RNs and 18.7% of LPNs). 18.4% of RNs are nurse administrators, while 11.0% of LPNs are involved in quality improvement.

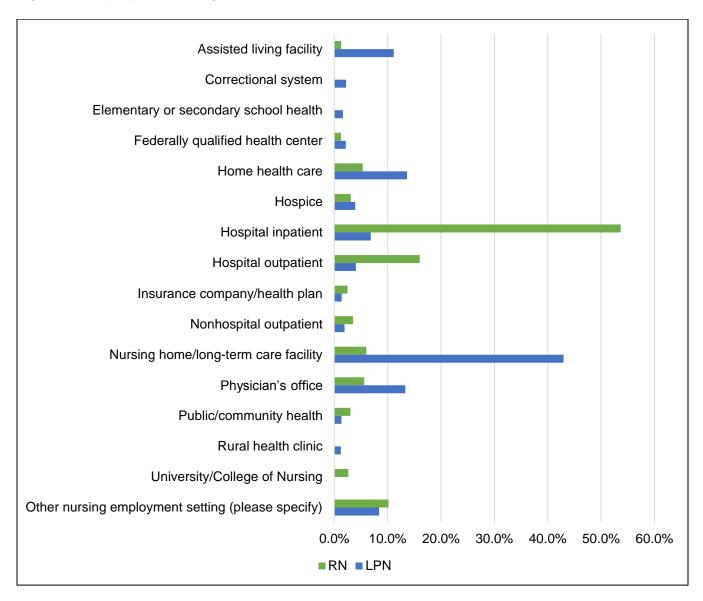
Figure 11: Main Role Outside of Direct Patient Care



#### **PRACTICE SETTING**

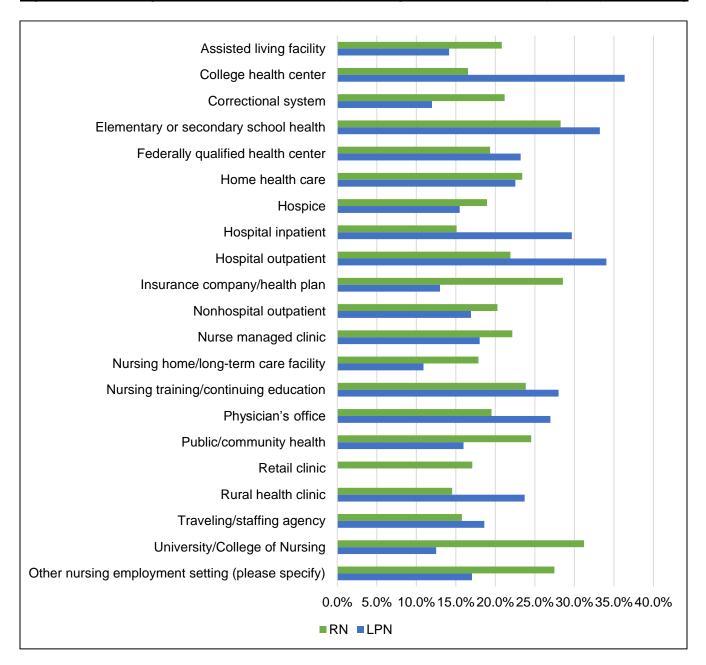
Both RNs and LPNs are employed in a wide variety of practice settings. The largest percentage of RNs (53.7%) are estimated to be working in a hospital inpatient setting and LPNs (43.0%) are estimated to be working in a nursing home or long-term care facility (Figure 12). RNs (16.0%) are also likely to be employed in a hospital outpatient setting. LPNs are likely to work in a physician's office (13.3%), home health care (13.7%), or assisted living facility (11.1%).

Figure 12: Employment Setting



For each practice setting where nurses work, Figure 13 shows the percentage of those who plan to stop working within the next five years. Among RNs, the practice settings with the highest percentage of nurses who plan to stop working in the next five years are universities or colleges of nursing (31.2%) followed by elementary or secondary school health (28.3%). Among LPNs, the practice settings with the highest percentage of nurses who plan to stop working within the next five years are college health centers (36.4%) followed by elementary or secondary school health (33.2%). For a breakdown of RNs and LPNs who plan to stop working in the next five years by employment setting compared to the prosperity region they are working in, please visit our website <a href="https://www.minurse.org">www.minurse.org</a>.

Figure 13: Percentage of Nurses who Plan to Stop Working in the Next 5 Years by Employment Setting



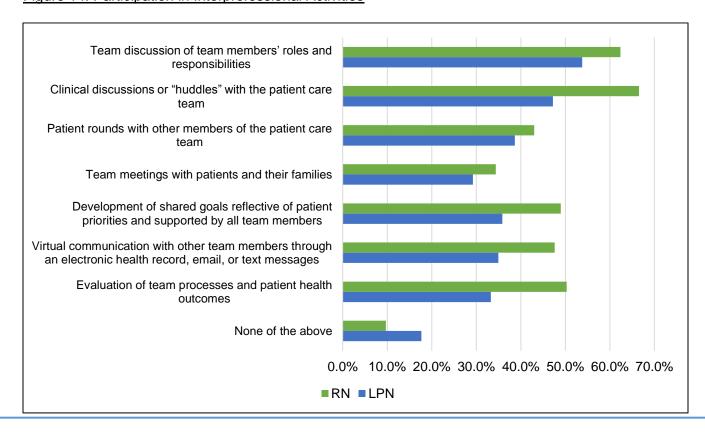
Employed nurses were asked to indicate the number of interprofessional activities they are engaged in as part of their regular work flow. 90.4% of RNs and 82.4% of LPNs engage in at least one interprofessional activity as part of their regular nursing duties (Table 24). Furthermore, about half (49.1%) of RNs engage in four or more interprofessional activities while about one-third (34.0%) of LPNs engage in the same number of interprofessional activities.

Table 24: The Number of Interprofessional Activities

Number of	RN= 25,604		LPN= 4,161	
Interprofessional Activities	Estimate	95% CI	Estimate	95% CI
0	9.6%	(9.2%, 10.0%)	17.6%	(16.5%, 18.8%)
1	13.4%	(13.0%, 13.9%)	19.3%	(18.1%, 20.5%)
2	13.8%	(13.4%, 14.2%)	15.0%	(14.0%, 16.1%)
3	14.0%	(13.6%, 14.4%)	14.1%	(13.1%, 15.2%)
4	13.3%	(12.8%, 13.7%)	10.9%	(10.0%, 11.9%)
5	12.1%	(11.7%, 12.5%)	9.0%	(8.1%, 9.9%)
6	10.1%	(9.7%, 10.4%)	6.2%	(5.5%, 7.0%)
7	13.7%	(13.3%, 14.2%)	7.9%	(7.1%, 8.8%)

Nurses participate in a variety of interprofessional activities as part of their regular nursing responsibilities. Two-thirds of RNs (66.5%) participate in clinical discussions or "huddles" with the patient care team (Figure 14). Over half of LPNs (53.8%) reported participating in team discussions of team members' roles and responsibilities.

Figure 14: Participation in Interprofessional Activities



Nurses who made a change in employment setting in the past three years were asked to indicate what type of change they made (Table 25). The majority of RNs (80.1%) and LPNs (81.8%) have not made an employment change in the past three years. Of the RNs who made an employment change, the largest percentage (32.7%) indicated that they made a change from an inpatient setting to an outpatient setting, with the next most common change being direct to non-direct patient care (25.9%). LPNs were also most likely (23.7%) to indicate that they made a change from an inpatient setting to an outpatient setting, with the next most common change being direct to non-direct patient care (22.4%). To see a breakdown of change in employment setting for each prosperity region, please visit <a href="https://www.minurse.org">www.minurse.org</a>.

Table 25: Change in Employment Setting

Change in Employment	RN= 27,232		LPN= 4,528	
Setting	Estimate	95% CI	Estimate	95% CI
Did not make a change	80.1%	(79.6%, 80.5%)	81.8%	(80.7%, 82.9%)
Made a change	19.9%	(19.5%, 20.4%)	18.2%	(17.1%, 19.3%)
Of those who made a change:				
An inpatient setting to an outpatient setting?	32.7%	(31.4%, 34.0%)	23.7%	(20.8%, 26.9%)
An outpatient setting to an inpatient setting?	12.1%	(11.2%, 13.0%)	10.5%	(8.5%, 12.9%)
A primary care setting (e.g., family practice, general medicine)?	10.4%	(9.6%, 11.3%)	16.8%	(14.3%, 19.7%)
A specialty care setting to a primary care setting?	6.1%	(5.5%, 6.8%)	11.9%	(9.8%, 14.5%)
A sub-acute care setting to an acute care setting?	9.8%	(9.0%, 10.7%)	10.8%	(8.7%, 13.2%)
An acute care setting to a sub-acute care setting?	7.0%	(6.3%, 7.7%)	8.6%	(6.8%, 10.8%)
A direct patient care setting to a non-direct patient care setting?	25.9%	(24.7%, 27.1%)	22.4%	(19.6%, 25.5%)
A non-direct patient care setting to a direct patient care setting?	8.9%	(8.2%, 9.7%)	12.2%	(10.0%, 14.8%)

#### **Additional Information**

For additional information related to the 2017 Survey of Michigan Nurses results, past years' reports, and data produced from Michigan's nurse licensure data, please visit <a href="www.minurse.org">www.minurse.org</a>. For questions or comments related to the content presented in this report, please contact Christopher Wojcik, Associate Program Director, Michigan Public Health Institute (<a href="cwojcik@mphi.org">cwojcik@mphi.org</a>).

# Appendix A: 2017 Survey of Michigan Nurses Data Collection Tool

<b>Question Number</b>	Question	Response Options
#1	Are you a licensed practical nurse (LPN), a registered nurse (RN), or both? (Mark ONE. If you are both an LPN and an RN, complete only one survey.)	• LPN • RN
#2	In what year did you qualify for your first U.S. nursing license?	
#3	What type of nursing degree/credential qualified for you for your first U.S. nursing license? (Mark ONE.)	<ul> <li>LPN diploma/certificate</li> <li>RN diploma in nursing</li> <li>Associate's degree in nursing</li> <li>Bachelor's degree in nursing</li> <li>Master's degree in nursing</li> <li>Doctorate in nursing</li> </ul>
#4	Are you licensed to practice nursing anywhere outside of Michigan? (Mark ONE.)	<ul> <li>Yes, in other state(s); please specify</li> <li>Yes, in other country(ies); please specify</li> <li>Yes, in other state(s) AND other country(ies); please specify</li> <li>No.</li> </ul>
#5	What is your highest level of nursing education? (Mark ONE.)	<ul> <li>LPN diploma/certificate</li> <li>RN diploma in nursing</li> <li>Associate's degree in nursing</li> <li>Bachelor's degree in nursing</li> <li>Master's degree in nursing</li> <li>Doctorate in Nursing Practice (DNP)</li> <li>Doctor of Philosophy in Nursing (PhD)</li> <li>Other doctoral degree in nursing</li> </ul>
#6	What is your highest level of non-nursing education? (Mark ONE.)	<ul> <li>Non-nursing associate's degree</li> <li>Non-nursing bachelor's degree</li> <li>Non-nursing master's degree</li> <li>Non-nursing doctoral degree</li> <li>Not applicable</li> </ul>
#7	Are you certified in Michigan to practice as a (Mark ALL that apply.)	<ul><li>Nurse Anesthetist?</li><li>Nurse Midwife?</li><li>Nurse Practitioner?</li><li>Clinical Nurse Specialist?</li></ul>
#8	Are you currently enrolled in a program to obtain any of the following degrees? (Mark ALL that apply.)	<ul> <li>Associate's Degree in Nursing (ADN)</li> <li>Bachelor of Science in Nursing (BSN)</li> <li>Master of Science in Nursing (MSN)</li> <li>Doctor of Nursing Practice (DNP)</li> <li>Doctor of Philosophy in Nursing (PhD)</li> </ul>
#9	If you are enrolled in a program to obtain an MSN or DNP, is the program designed to prepare you for specialty certification as a (Mark ONE.)	<ul> <li>Nurse Practitioner?</li> <li>Nurse Midwife?</li> <li>Nurse Anesthetist?</li> <li>Clinical Nurse Specialist?</li> <li>Advanced Public Health Nurse?</li> </ul>
#10	What is your current employment status? (Mark ONE.)	<ul> <li>Actively employed in nursing or in a position that requires a nurse license full-time</li> <li>Actively employed in nursing or a position that requires a nurse license part-time</li> </ul>

		<ul> <li>Actively employed in nursing or in a position that requires a nurse license on a per-diem basis</li> <li>Actively employed in a field other than nursing full-time</li> <li>Actively employed in a field other than nursing part-time</li> <li>Active employed in a field other than nursing on a per-diem basis</li> <li>Working in nursing only as a volunteer</li> <li>Unemployed, seeking work as a nurse</li> <li>Unemployed, not seeking work as a nurse</li> <li>Retired</li> </ul>
#11	Please indicate the reason(s) why you are not currently employed. (Mark ALL that apply.)	<ul> <li>Taking care of home and family</li> <li>School</li> <li>Difficulty finding a full-time nursing position</li> <li>Prefer to work part-time or on a per-diem basis</li> <li>Semi-retired</li> <li>Other (please specify)</li> </ul>
#12	In how many positions are you currently employed as a nurse? (Mark ONE.)	<ul><li>One</li><li>Two</li><li>Three or more</li></ul>
#13	How many hours do you work during a typical week in all of your nursing positions?	
#14	Of those hours, how many hours are spent providing <u>direct care services</u> to patients/families?	
#15	Identify your current employment setting(s). (Mark ALL that apply.)	<ul> <li>Assisted living facility</li> <li>College health center</li> <li>Correctional system</li> <li>Elementary or secondary school health</li> <li>Federally qualified health center</li> <li>Home health care</li> <li>Hospice</li> <li>Hospital inpatient</li> <li>Insurance company/health plan</li> <li>Nonhospital outpatient</li> <li>Nonhospital outpatient</li> <li>Nonhospital outpatient</li> <li>Other nursing employment setting (please specify)</li> </ul>
#16	If you provide direct care services, please identify your main practice area. (Mark ONE.)	<ul> <li>Anesthesia</li> <li>Cardiology/cardiac care</li> <li>Case management/care management</li> <li>Critical care</li> <li>Dialysis/hemodialysis</li> <li>Emergency/urgent care</li> </ul> <ul> <li>Internal medicine</li> <li>Medical-surgical</li> <li>Neonatal</li> <li>Obstetrics</li> <li>Oncology</li> <li>Patient education</li> <li>Pediatrics</li> <li>Perioperative</li> <li>Psychiatric/mental health</li> </ul>

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#17	If you work in an area of nursing that does NOT include direct patient care services, please identify your main role. (Mark ONE.)	<ul> <li>Endoscopy/diagnostic testing</li> <li>Family practice</li> <li>Float</li> <li>Geriatrics/elderly care</li> <li>Hospice/palliative care</li> <li>Accreditation review</li> <li>Admission nurse</li> <li>Audit</li> <li>Case manager</li> <li>Care coordination</li> <li>Consulting</li> <li>Discharge nurse</li> <li>Faculty, part-time</li> <li>Rehabilitation</li> <li>Sub-acute care/long term care</li> <li>Women's health</li> <li>Other (please specify)</li> <li>IT/informatics</li> <li>Nurse administrator</li> <li>Nurse preceptor</li> <li>Nursing education</li> <li>Quality improvement</li> <li>Research</li> <li>Triage</li> <li>Utilization review</li> <li>Other (please specify)</li> </ul>
#19	As part of your regular nursing responsibilities, does your role include participation in any of the following interprofessional activities? (Mark ALL that apply.)	<ul> <li>Team discussion of team members' roles and responsibilities</li> <li>Clinical discussions or "huddles" with the patient care team</li> <li>Patient rounds with other members of the patient care team</li> <li>Team meetings with patients and their families</li> <li>Development of shared goals reflective of patient priorities and supported by all team members</li> <li>Virtual communication with other team members through an electronic health record, email, or text messages</li> <li>Evaluation of team processes and patient health outcomes</li> <li>None of the above</li> </ul>
#20	If you made a change in your employment setting within the past three years was it a change from (Mark ALL that apply.)	<ul> <li>An inpatient setting to an outpatient setting?</li> <li>An outpatient setting to an inpatient setting?</li> <li>A primary care setting (e.g., family practice, general medicine, internal medicine, or general pediatrics) to a specialty care setting?</li> <li>A specialty care setting to a primary care setting?</li> <li>A sub-acute care setting to an acute care setting?</li> <li>An acute care setting to a sub-acute care setting?</li> <li>A direct patient care setting to a non-direct patient care setting?</li> <li>A non-direct patient care setting to a direct patient care setting?</li> <li>I made some other type of employment change.</li> </ul>
#21	In total, how long have you been employed as a practicing nurse? (Mark ONE.)	<ul> <li>Less than 3 years</li> <li>4 to 9 years</li> <li>10 years or more</li> </ul>
#22	To assist us in projecting the supply of nurses in the future, please tell us how much longer you plan to practice nursing. (Mark ONE.)	<ul><li>Less than 2 years</li><li>2 to 5 years</li><li>6 to 10 years</li><li>More than 10 years</li></ul>

		T
		Don't know
#23	Where is your primary place of	<ul><li>Michigan</li><li>Other state in the U.S.</li></ul>
20	employment? (Mark ONE.)	<ul><li>Canada</li><li>Other nation</li></ul>
#24	If you work in the U.S., what is the ZIP Code of your <u>primary</u> place of employment?	
#25	Where is your primary place of residence? (Mark ONE.)	<ul><li>Michigan</li><li>Other state in the U.S.</li><li>Canada</li><li>Other nation</li></ul>
#26	If you live in the U.S., what is the ZIP Code of your primary place of residence?	
#27	In what year were you born?	
#28	What is your gender? (Mark ONE.)	<ul><li>Female</li><li>Male</li></ul>
#29	What is your ethnicity? (Mark ONE.)	<ul><li>Hispanic or Latino</li><li>Not Hispanic or Latino</li></ul>
#30	What is your race? (Mark ALL that apply.)	<ul> <li>White</li> <li>Black or African American</li> <li>American Indian or Alaska Native</li> <li>Asian</li> <li>Native Hawaiian or Pacific Islander</li> <li>Middle Eastern (Arab/Chaldean/Other)</li> <li>Some other race</li> </ul>

**Appendix B: Number of Hours Worked Each Week for Each Prosperity Region** 

TT YAT I		RN	LPN	
Hours per Week	Estimate	95% CI	Estimate	95% CI
Total	n=	26,923	n=	4,441
<30 Hours	16.1%	(15.6%, 16.5%)	17.6%	(16.5%, 18.7%)
30 to 39 Hours	33.5%	(33.0%, 34.1%)	25.4%	(24.2%, 26.7%)
40 to 49 Hours	38.4%	(37.8%, 39.0%)	45.0%	(43.5%, 46.5%)
50+ Hours	12.0%	(11.6%, 12.4%)	11.9%	(11.0%, 12.9%)
Upper Peninsula		n= 721		: 292
<30 Hours	16.4%	(13.9%, 19.3%)	16.5%	(12.7%, 21.2%)
30 to 39 Hours	33.9%	(30.5%, 37.4%)	21.6%	(17.3%, 26.7%)
40 to 49 Hours	39.3%	(35.8%, 43.0%)	57.7%	(52.0%, 63.2%)
50+ Hours	10.4%	(8.4%, 12.8%)	4.2%	(2.4%, 7.1%)
Northwest LP		n= 921		= 96
<30 Hours	16.8%	(14.6%, 19.4%)	15.3%	(9.5%, 23.9%)
30 to 39 Hours	40.0%		37.3%	
		(36.9%, 43.2%)		(28.3%, 47.3%)
40 to 49 Hours	32.1%	(29.2%, 35.2%)	40.0% 7.3%	(30.8%, 50.0%)
50+ Hours	11.0%	(9.1%, 13.2%)		(3.6%, 14.3%)
Northeast LP		n= 420		: 137
<30 Hours	10.6%	(8.0%, 13.9%)	12.4%	(7.9%, 19.0%)
30 to 39 Hours	27.2%	(23.2%, 31.7%)	31.6%	(24.4%, 39.8%)
40 to 49 Hours	47.3%	(42.5%, 52.1%)	45.9%	(37.8%, 54.2%)
50+ Hours	14.9%	(11.8%, 18.6%)	10.1%	(6.1%, 16.3%)
West/West Central		= 3,498		675
<30 Hours	21.3%	(19.9%, 22.6%)	22.1%	(19.2%, 25.4%)
30 to 39 Hours	36.9%	(35.3%, 38.5%)	25.5%	(22.4%, 28.9%)
40 to 49 Hours	31.9%	(30.4%, 33.5%)	42.9%	(39.2%, 46.7%)
50+ Hours	9.9%	(9.0%, 10.9%)	9.4%	(7.4%, 11.9%)
East Central	n=	= 1,332	n=	: 297
<30 Hours	13.0%	(11.3%, 14.9%)	16.9%	(13.1%, 21.6%)
30 to 39 Hours	33.7%	(31.2%, 36.3%)	27.0%	(22.3%, 32.4%)
40 to 49 Hours	41.8%	(39.2%, 44.5%)	44.4%	(38.8%, 50.1%)
50+ Hours	11.4%	(9.8%, 13.3%)	11.7%	(8.5%, 15.8%)
East	n=	= 2,033	n=	: 391
<30 Hours	14.5%	(13.0%, 16.1%)	19.5%	(15.9%, 23.7%)
30 to 39 Hours	30.7%	(28.7%, 32.7%)	26.3%	(22.2%, 30.9%)
40 to 49 Hours	43.7%	(41.6%, 45.9%)	40.8%	(36.0%, 45.7%)
50+ Hours	11.1%	(9.8%, 12.5%)	13.4%	(10.4%, 17.2%)
South Central		n= 956		: 118
<30 Hours	16.0%	(13.8%, 18.5%)	20.3%	(14.0%, 28.4%)
30 to 39 Hours	35.4%	(32.5%, 38.5%)	18.7%	(12.7%, 26.7%)
40 to 49 Hours	36.0%	(33.0%, 39.1%)	46.6%	(37.8%, 55.6%)
50+ Hours	12.5%	(10.6%, 14.8%)	14.4%	(9.2%, 21.9%)
Southwest		= 1,709		: 313
<30 Hours	16.7%	(15.0%, 18.5%)	19.9%	(15.9%, 24.7%)
30 to 39 Hours	32.2%	(30.1%, 34.5%)	20.7%	(16.6%, 25.6%)
40 to 49 Hours		(36.5%, 41.1%)	46.9%	(41.4%, 52.4%)
50+ Hours	38.8% 12.3%	(10.8%, 14.0%)	12.5%	(9.3%, 16.6%)
Southeast		= <b>2,546</b>		: 376
<30 Hours	16.5%	(15.1%, 18.0%)	14.5%	(11.3%, 18.5%)
30 to 39 Hours	35.1%	(33.3%, 37.0%)	22.3%	(18.4%, 26.8%)
40 to 49 Hours	38.7%	(36.8%, 40.6%)	51.2%	(46.2%, 56.2%)
50+ Hours	9.6%	(8.5%, 10.8%)	11.9%	(9.0%, 15.6%)
Detroit Metro		= 8,332		1,185
<30 Hours	16.4%	(15.6%, 17.2%)	14.1%	(12.2%, 16.2%)
30 to 39 Hours	33.8%	(32.8%, 34.8%)	28.1%	(25.6%, 30.7%)
40 to 49 Hours	38.2%	(37.1%, 39.2%)	43.5%	(40.7%, 46.3%)
50+ Hours	11.7%	(11.0%, 12.4%)	14.4%	(12.5%, 16.5%)