



Summary of the Wisconsin State 2016 Registered Nurse and
2017 Licensed Practical Nurse Surveys

Submitted by:
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This report summarizes the responses to the Wisconsin State 2016 Registered Nurse and 2017 Licensed Practical Nurse surveys administered by the Wisconsin Department of Safety and Professional Services as a requirement for license renewal. Per State Statute 106.30, the Department of Workforce Development (DWD) is to conduct a census of the nurses to assist policymakers in evaluating the supply of, demand for, and turnover among nurses, determine whether there are any regional shortages of nurses, shortages of nurses in any specialty areas, or impediments to entering the nursing profession in this state.

The State of Wisconsin is concerned with both the supply of nurses and the means to continue to provide quality health care. In 2009, the state legislature mandated a survey of Registered Nurses (RN) and Licensed Practical Nurses (LPN) to determine the characteristics of the nurses licensed in the state. The Department of Workforce Development compiles the results of the survey every two years to provide information on the nursing workforce in Wisconsin in accordance with WI State Statute 106.30. The Wisconsin Center for Nursing (<http://www.wicenterfornursing.org/>) conducts additional analysis on the data gathered from the survey.

The Wisconsin Department of Safety and Professional Services is responsible for the licensing of health care providers in Wisconsin. As part of the licensing and license renewal process, Registered Nurses and Licensed Practical Nurses must complete the Nurses Workforce Survey. The survey gathers information on the education, training, and practice of the nurses who live and/or work in Wisconsin.

Survey highlights:

- 14% increase in the number of RNs providing direct patient care.
- More RNs applied for a license in 2016 than in 2014. 85,370 registered nurses (RN) completed the survey in 2016 and are licensed in Wisconsin compared to . 81,190 in 2014.
 - After eliminating incomplete and unusable surveys, and those who do not work or live in Wisconsin, our final sample includes 76,781 registered nurse surveys.
 - 63,459 are currently working in Wisconsin, compared to 60,625 in 2014.
 - 52,327 provide direct patient care in Wisconsin, compared to 45,737 in 2014, an increase of 14%.
- Fewer Licensed LPNs applied for a license in 2017 than in 2015. In 2017, 10,912 licensed practical nurses (LPN) responded to the survey compared to 11,750 in 2015..
 - After eliminating incomplete and unusable surveys, and those who do not work or live in Wisconsin, our final sample included 10,356 licensed practical nurse surveys.
 - 7,889 are currently working in Wisconsin compared to 8,335 in 2015.
 - 7,207 currently provide direct patient care, compared to 7,164 in 2015.
- The nurses' population is not as diverse as the population-at-large.
 - Ninety-three percent of RNs and 95% of LPNs are female.
 - Ninety percent of LPNs and 95% of RNs are white. See table 4 for detailed information.
- The most common principal place of work for RNs are hospitals (52%) followed by Ambulatory Care (19%), and for LPNs, the most common principal place of work is extended care facilities (43%) followed by ambulatory care (30%).

Demographics

Most RNs and LPNs are white females with a median age of 47 years (RN) and 51 years (LPN). Compared to the total Wisconsin labor force, there is less diversity in the nursing population, especially within the RN group. Table 1 lists the number and percent of the RN and LPN sample of the demographic variables, and provides the Wisconsin population demographic information for comparison.

Of those in the sample, 83% of the RNs and 78% of the LPNs report they work as nurse in Wisconsin. Of those working as a nurse in Wisconsin, 82% of the RNs and 91% of the LPNs provide direct patient care. See Table 2 below for the sample distribution of those who provide direct patient care.

Education and Training

The education level of the RNs and LPNs in the sample reflect the licensing requirements. An LPN requires completion of a one year diploma program. The RN license requires completion of a two-year associate's degree program or a four-year bachelor's degree. Therefore, the majority (93%) of the LPNs have less than an associate degree while the reverse is true for the RNs. Ninety-three percent of the RNs have an associate degree or higher. About two-thirds of both groups are not currently planning additional nursing studies, while 22% plan further education within the next two years. 10% of the RNs and 14% of the LPNs are currently pursuing additional studies. The top challenges for both groups are costs and family/personal reasons. See Table 3 for a detailed breakdown of education level and continuing education plans.

Licensing and Current Employment

To begin to catalog factors that impact retention of nursing staff, the survey examined length of time working as nurse and reasons for changing positions or leaving the workforce. Table 4 displays the frequency and percentages of the responses to items assessing employment status and factors related to any change in employment. Nearly 40% of the nursing workforce held a license for less than 10 years.

Approximately one-third of the RNs and LPNs have changed their employment status in the past year. Most by either changing the hours they work or changing positions and/or employers. Regardless of type of employment status change, the two main reasons RNs leave their positions include promotions (16%) followed by dissatisfaction with the prior position (14%). For LPNs, the top reasons are dissatisfaction with the position (11%), seeking more convenient hours (11%), salary/medical benefits (11%), and retirement (11%). In total, 11% of RNs and 10% of LPNs reported leaving their nursing positions for another employer over the past year. Thirty-four percent of RNs and 33% of LPNs changed jobs due to dissatisfaction with the conditions of employment such as salary, benefits, and work hours.

RNs who took a position with another employer in the previous year stated dissatisfaction with the prior position (29%) as the top reason. Those who left the profession reported dissatisfaction (19%) and changes in personal health (18%) as the main reasons for leaving the profession.

Similarly, LPNs who left for another employer, stated that the primary factor is dissatisfaction (25%) followed by salary and benefits (19%). For those who left nursing, the main reasons were dissatisfaction (18%) and changes in personal health status (17%).

All but 6% of the RNs and 10% of the LPN report that they have training and/or a certificate in a specialty area. In addition, 23% of the RNs and 25% of the LPNs report that they are board certified in a medical specialty. Tables 5 and 6 list the specialty areas and certifications for both groups.

Advanced Practice nurses make up approximately 7% of the Wisconsin RNs. Table 7 lists the top advanced practice specialties identified by the RNs. The nurses could choose more than one response.

Urban vs Rural Distribution of Nurses in Direct Patient Care

Monitoring the changes in the numbers of nurse who provide direct patient care is an important component of evaluating quality of care. The current survey information suggests that 82% of RNs and 91% of all LPNs currently working in Wisconsin provide direct patient care. (see Table 2). In 2014/2015, 76% of RNs and 86% of LPNs provided direct patient care. Together these rates reflect an increase in RNs and LPNs who are providing direct patient care with a total gain of 6,633 direct patient care workers since the surveys in 2014/2015.

RNs and LPNs locations were examined following the five regions defined by the Area Health Education Centers (AHEC). The mission of AHEC is to improve the supply, distribution, diversity, and quality of health care professionals through academic partnerships with local communities. The five AHEC regions are defined by population size. Table 8 lists the five regions and population definitions. Each respondent's regional designation is determined by the zip code obtained from their primary work location reported in the survey. Figure 1 maps the locations of the 5 types of AHEC regions underscoring that Wisconsin is largely a rural state.

RNs and LPNs are not evenly distributed across the state. Table 9 shows the distribution of RNs and LPNs who provide direct patient care in each of the five AHEC regions.. Generally, more LPNs are employed in rural areas than RNs. Table 10 shows the distribution of work settings of the RNs and LPNs by the five AHEC regions. The distribution of work settings is similar across all regions except that those in urban regions have a greater percentage of hospital settings while the rural areas have a great percentage of extended care practice settings. There are more RNs in the hospital practice areas than LPNs and subsequently more RNs than LPNs in urban regions and more LPNs than RNs in rural areas.

Wisconsin is currently experiencing workforce shortages in health care. The Department of Workforce Development has projected an increase in job vacancies in nursing related occupations over the next 10 years. DWD projects a 9% increase in registered nursing job openings and a 5% increase in LPN job openings. See Table 11 for information on additional nursing related occupation categories. Table 12 lists the projected job openings by WDAs.

Recommendations

Follow-up Surveys. Shortages of nurses can be mitigated in two ways – one through the continued drawing of new nurses into the profession and later by providing satisfying work. Monitoring nurses job satisfaction and reducing turnover is a very important part of the equation. A sample-based workplace survey to gather more information on issues impacting retention can help identify the drivers behind employee turnover and possible solutions.

Workforce Incentives. Create incentives for nurses to work in areas with workforce shortages. One example would be providing education credits that count toward a degree program for nurses who agree to work in rural areas, extended care facilities, home health care and in other areas experiencing shortages of direct patient care workers. This approach would incur no additional costs to employers while creating a more robust pipeline to underserved areas.

Conclusion

The data provided in this survey alone cannot predict the extent of possible shortage of nurses across Wisconsin. Additional information is needed to discover the reasons behind both nursing turnover and satisfaction levels; the current state of LPN and RN workforce supply and demand equation; and insights as to where and why supply issues are occurring.

Table 1. Demographic Characteristics of Registered Nurses (RN) and Licensed Practical Nurses (LPN)

		ACS WI*	RN		LPN	
		%	n	%	n	%
Gender						
	Male	50	71,338	93	9,806	95
	Female	50	5,443	7	550	5
	Total		76,781	100	10,356	100
Age (years)						
	less than 25	16	1,163	2	221	2
	25 - 29	8	7,405	10	633	6
	30 - 34	8	9,562	12	952	9
	35 - 44	15	16,540	22	2,108	20
	45 - 54	18	16,155	21	2,106	20
	55 - 59	9	9,723	13	1,466	14
	60 - 64	8	9,101	12	1,685	16
	65 - 74	10	6,547	9	1,125	11
	75 and older	8	585	1	60	1
Race/Ethnicity						
	White	88	72,873	95	9,272	90
	Black	6	1,428	2	638	6
	Other	6	2,480	3	57	4
	Hispanic	5	1,303	2	251	2

*American Community Survey 5-year Estimates 2015

Table 2. Registered Nurses and Licensed Practical Nurses Working in Wisconsin

		RN		LPN	
		n	%	n	%
Total Working as a Nurse in Wisconsin		63,459	100	7,889	100
Provides Direct Patient Care in Wisconsin					
	Yes	52,327	82	7,207	91
	No	11,132	18	682	9

Table 3. Education and Training of Registered Nurses (RN) and Licensed Practical Nurses (LPN)

	RN		LPN	
	n	%	n	%
Total	76,781		10,356	
Education				
Nursing Diploma	5,176	7	9,654	93
Associate Degree in Nursing	27,407	36	691	7
Bachelor Degree in Nursing	35,434	46	11	<1
Master Degree in Nursing	7,873	10	-	-
Doctorate	439	<1	-	-
Unknown	251	<1	-	-
Plans for Future Education				
No plans	52,094	68	6,679	64
Currently enrolled in Associate Degree in Nursing program	-	-	1,230	12
Currently enrolled in BSN program	3,600	5	103	1
Currently enrolled in graduate program in nursing	-	-	5	<1
Currently enrolled in Master's in Nursing program	2,159	3	-	-
Currently enrolled in Master's in other health field	344	<1	-	-
Currently enrolled in Doctorate or PhD in Nursing Program	822	1	-	-
Currently enrolled in non-degree specialty certificate	832	1	47	<1
Plan to further education in next two years	16,869	22	2,292	22
Challenges to further education (select top two) *				
None	20,116	26	2,849	28
Commuting distance to education program	2,146	3	343	3
Cost of lost work time and benefits	18,242	24	3,561	34
Cost of tuition, materials, books, etc	38,127	50	3,543	34
Family/personal reasons	25,891	34	2,412	23
Lack of flexibility in work schedule	7,881	10	1,230	12
Limited access to online learning	716	1	215	2
Scheduling of educational programs offered	2,052	3	380	4
Concerned about ability to succeed in college	-	-	627	6
Other	5700	7	942	9

*Totals greater than 100% due to multiple choices. Calculated as % of respondents.

Table 4. Licensing and Current Employment of Registered Nurses and Licensed Practical Nurses.

	RN		LPN	
	n	%	n	%
Years Since First Licensed (years)	76,781		10,356	
< 10	28,773	37	3,949	38
10 - 19	17,021	22	2,247	22
20 - 29	13,416	17	1,097	11
30 - 39	11,743	15	1,587	15
40 - 49	5,035	7	1,334	13
50 - 59	756	1	137	1
60 +	37	<1	5	<1
Current Employment Status				
Actively Working as a nurse	63,492	83	8,033	78
Actively working in health care	3,093	4	590	6
Actively working in another field	1,328	2	376	4
Unemployed, seeking work in nursing	1,073	1	251	2
Unemployed, seeking work in another field	132	<1	40	<1
Unemployed, not seeking work	2,067	3	304	3
Retired	5,596	7	762	7
Has Employment Status Changed in Past Year				
No change	50,933	66	6,760	65
Changed number of hours worked	6,089	8	1,029	10
New position same employer	6,514	8	376	4
New position different employer	8,063	11	1,040	10
Was not working as a RN or LPN, but is now in a RN or LPN job	1,580	2	384	4
Was working as a RN or LPN, but not now.	1,961	3	373	4
Other	1,641	2	394	4
Most Important Factor in Change in Employment	n 28,053		n 4,008	
Retired	2,590	9	442	11
Childcare Responsibilities	1,758	6	236	6
Other Family Responsibilities	1,342	5	236	6
Salary/Medical or retirement benefits	2,364	8	438	11
Laid off	427	2	79	2
Change in spouse or partner work	562	2	98	2
Change in financial situation	679	2	156	4
Relocation/moved to a different area	1,586	6	203	5
Promotion/career advancement	4,537	16	357	9
Change in health status	1,125	4	269	7
Seeking more convenient hours	3,468	12	433	11
Dissatisfaction with previous position	4,018	14	447	11
Other	3,597	13	614	15

Table 5. Specialized Knowledge/Experience Registered Nurses and Licensed Clinical Nurse.

	RN		LPN	
	n	%	n	%
Specialized Knowledge or Two or more years' experience (check all that apply) *	76,781		10,356	
None	4,271	6	1,075	10
Acute Care /Critical Care/Intensive Care	18,680	24	965	9
Addiction/ AODA/Substance Abuse	2,920	4	643	6
Adult Health	13,956	18	2,847	27
Anesthesia	1,677	2	41	0
Cardiac Care	12,843	17	670	6
Community Health	5,444	7	666	6
Corrections	1,539	2	541	5
Dialysis/Renal	3,061	4	360	3
Emergency/Trauma	10,527	14	548	5
Family Health	5,731	7	1,828	18
Geriatrics/Gerontology	15,197	20	4,994	48
Home Health	9,206	12	1,782	17
Hospice Care/ Palliative Care	9,402	12	2,120	20
Labor and Delivery	5,911	8	283	3
Maternal-Child Health	5,540	7	322	3
Medical-Surgical	27,738	36	1,510	15
Neonatal Care	4,549	6	144	1
Obstetrics/Gynecology	6,049	8	664	6
Occupational Health/Employee Health	2,303	3	414	4
Oncology	6,192	8	397	4
Pediatrics	1,075	1	1,222	12
Parish/Faith Community	8,433	11	-	-
Public Health	3,492	5	239	2
Psychiatric/Mental Health	6,406	8	1,191	12
Rehabilitation	5,686	7	1,554	15
Respiratory Care	2,855	4	691	7
School Health (K-12 or post-secondary)	2,175	3	334	3
Surgery/Pre-op/Post-op/ PACU	11,363	15	607	6
Women's Health	4,875	6	666	6
Other, not listed	11,719	15	1,529	15

*Totals greater than 100% due to multiple choices. Calculated as % of respondents.

Table 6. Specialty Board Certification of Nurse

	RN		LPN	
	n	%	n	%
Top Medical Certifications	76,781		10,356	
Not certified	58,988	77	7,735	75
Acute Care/Critical Care	1,506	2	-	-
Adult Health	626	1	-	-
Anesthesia	764	1	-	-
Case Management Nursing	564	1	-	-
Emergency Nursing	747	1	332	3
Family Health	1,038	1	-	-
Gerontological Nursing	476	1	166	2
Hospice and Palliative Nursing	438	1	97	1
IV Certification			1,347	13
Medical-Surgical Nursing	544	1	-	-
Medical-Surgical Nursing (CMSRN®)	467	1	-	-
Mental Health			163	2
Neonatal	411	1	-	-
OB/GYN/Women's Health Care	564	1	-	-
Oncology Nursing (OCN®, CPON®, CBCN, AOCNP®, AOCNS®)	1,107	1	-	-
Pediatric Nursing	684	1	-	-
Peri-Operative (CNOR®)	564	1	-	-
Wound/Ostomy Nursing (CWOCN, CWCN, COCN, CCCN, CWON)	780	1	262	3

Table 7. Certification and Specialization of Advanced Practice Nurses

	RN	
	n	%
National Board Certification (check all that apply) *		
Nurse Practitioner	2802	4
Certified Nurse Midwife	184	<1
Certified Registered Nurse Anesthetist	725	1
Clinical Nurse Specialist	364	<1
Advanced Practice Nurse Practitioner	3510	5
Top Nurse Practitioner Specialty (check all that apply) *	n=2802	
Acute Care	273	10
Adult Nurse Practitioner	855	31
Adult Psychiatry	51	2
Gerontological	311	11
Neonatal	82	3
Nurse Practitioner Family	1860	66
OB-Gyn	240	9
Pediatric	334	12
Other	302	11
Top Clinical Nurse Specialty (check all that apply) *	n=364	
Adult Health	137	38
Adult Psychiatry and Mental Health	50	14
Acute Critical Care	48	13
Gerontological	31	9
Other	80	22

*Some totals greater than 100% due to multiple choices. Calculated as % of respondents.

Table 8. AHEC Population Regions

Region	Population
Metro Milwaukee	$\geq 1,000,000$
Urban	$\geq 50,000 < 1,000,000$
Rural 3	$\geq 10,000 < 50,000$
Rural 2	$\geq 2,500 < 10,000$
Rural 1	$\leq 2,500$

Source: Wisconsin Area Health Education Centers (AHEC), Rural-Urban Classifications 2014

Table 9. Location of Nurses Working in Wisconsin by AHEC Area

Location by Primary AHEC Area		RN		LPN	
		<u>n</u>	%	<u>n</u>	%
		62,147		7,754	
Metro Milwaukee	DPC	15,566	25	1,525	20
	Non DPC	3,546	6	174	2
Rural 1	DPC	2366	4	642	8
	Non DPC	508	1	51	1
Rural 2	DPC	5,069	8	1,098	14
	Non DPC	855	1	76	1
Rural 3	DPC	4,761	8	775	10
	Non DPC	941	2	65	1
Urban	DPC	23,500	38	3,048	39
	Non DPC	5,035	8	300	4
Total	DPC	51,262	82	7,088	91
	Non DPC	10,885	18	666	9

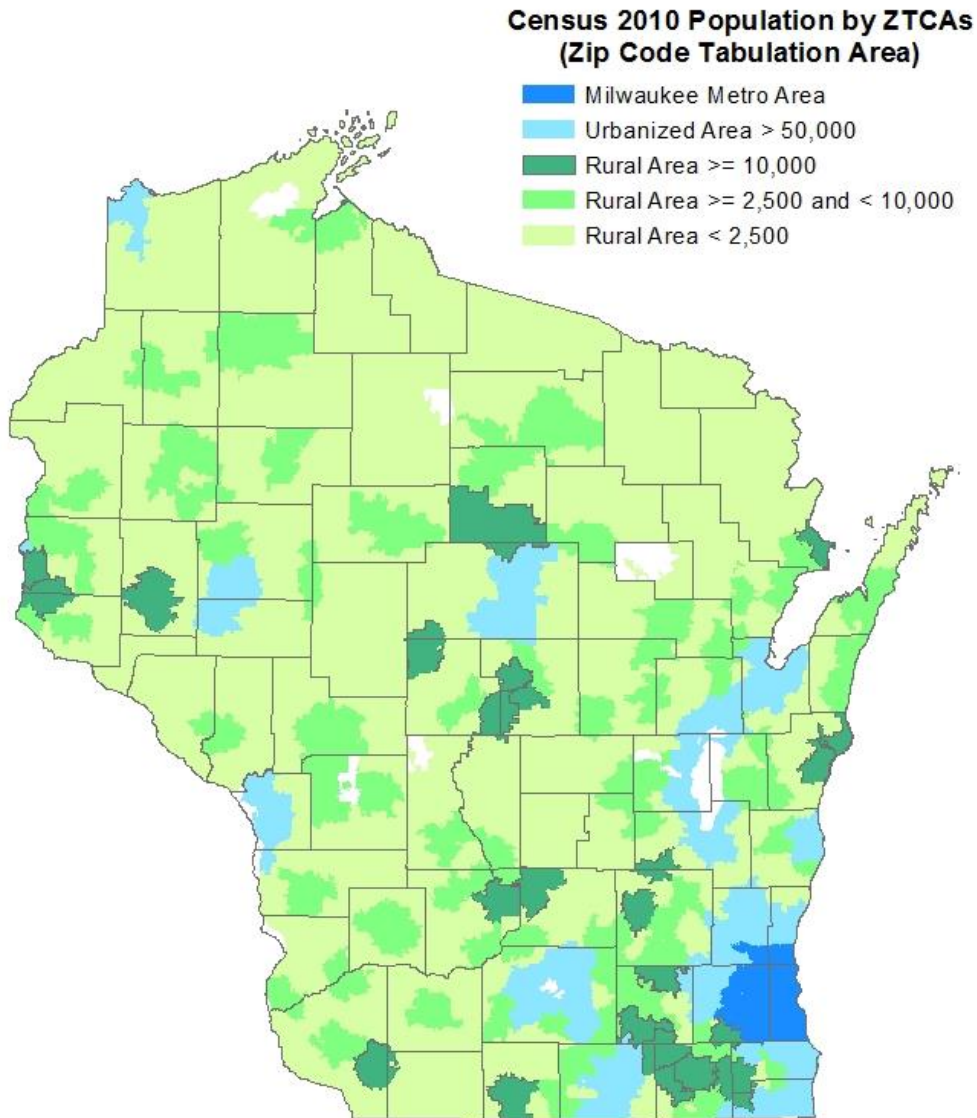
Note: zip code location data is not available for all respondents.

Table 10. Percentage Distribution of DPC RNs and LPNs Work Settings by AHEC Regions

	Milwaukee		Rural 1		Rural 2		Rural 3		Urban		Total	
	RN	LPN	RN	LPN	RN	LPN	RN	LPN	RN	LPN	RN	LPN
n =	15,566	1,525	2,366	642	5,069	1,098	4,761	775	23,500	3,048	51,262	7,088
	%	%	%	%	%	%	%	%	%	%	%	%
Hospital	64	8	30	4	48	7	52	6	57	9	57	8
Extended Care	6	56	30	61	18	55	11	38	8	35	10	46
Ambulatory Care	17	20	19	19	19	28	23	41	22	39	20	32
Home Health	5	8	7	6	6	4	6	6	5	6	6	6
Public Health	3	4	8	3	5	2	4	4	3	5	4	4
Nurse Educator	1	-	1	-	1	-	1	-	1	-	1	-
Other	3	4	6	6	3	4	4	4	3	6	3	5
Total Percent	100	100	100	100	100	100	100	100	100	100	100	100

Note: location data is not available for all respondents.

Area for Analysis of Registered Nurses and Licensed Practical Nurses*



**Based on original work of Area Health Education Center (AHEC) System, used with permission.
Final groupings by Labor Market Information, Wisconsin Department of Workforce Development, September 2015*

Table 11. Ten-year Job Opening Projections for Selected Nursing Occupations for Wisconsin.

	2014 (Base Year) Employment Estimate	2024 (Projected Year) Employment Estimate	Annual Growth Rate	10-year Projected Employment Change	10-year Percent Change	Annual Openings due to Growth	Annual Openings Due to Replacements	Total Annual Openings
Nurse Anesthetists	506	554	0.91	48	10%	5	12	17
Nurse Practitioners	2,436	2,876	1.67	440	18%	44	58	102
Nursing, Psychiatric, and Home Health Aides	42,849	49,512	1.46	6,663	16%	667	968	1,635
Home Health Aides	7,331	9,382	2.5	2,051	28%	205	166	371
Nursing Assistants	34,239	38,817	1.26	4,578	13%	458	773	1,231
Personal Care Aides	62,452	80,385	2.56	17,933	29%	1,793	505	2,298
Registered Nurses	56,212	61,539	.91	5,327	9%	533	1,326	1,859
Licensed Practical Nurse	8,651	9,052	.45	401	5%	40	246	286

Table 12. Ten-Year Projected Annual Job Openings for Selected Nursing Occupations by WDAs.

	Nurse Anesthetists	Nurse Practitioners	Nursing, Psychiatric, and Home Health Aides	Home Health Aides	Nursing Assistants	Personal Care Aides	Registered Nurses	Licensed Practical Nurse
Southeast WDA1	Suppressed	5	86	Suppressed	72	107	91	20
Milwaukee WDA2	Suppressed	25	371	118	242	629	527	51
Waukesha-Ozaukee- Washington WDA3	0	8	141	23	117	196	163	30
Fox Valley WDA4	0	8	128	Suppressed	104	95	89	26
Bay Area WDA5	3	17	171	12	158	257	195	43
North Central WDA6	3	7	130	Suppressed	107	171	111	15
Northwest WDA7	Suppressed	2	21	3	18	45	34	6
West Central WDA8	3	4	100	15	83	212	127	19
Western WDA9	Suppressed	2	101	15	81	55	135	11
South Central WDA10	2	16	318	141	168	422	283	52
Southwest WDA11	Suppressed	4	70	11	57	90	103	13