

Maine's Nursing Workforce: 2001–2002 Sample

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Between September 1, 2001, and August 31, 2002, active¹ licensed practical nurses (LPNs) and registered nurses (RNs) in Maine were sent a brief survey with their license renewal information. Participation in the survey was voluntary; nurses who wished to participate were instructed to return completed surveys with their renewal materials. Completed surveys were then separated from renewal materials by the Maine State Board of Nursing and forwarded to the University of Southern Maine for analysis.

Very few active nurses elected not to return the survey. This is an important finding because concern has previously been expressed about requiring nurses to supply demographic information in order to be relicensed. Based on this study, future efforts to secure legislative approval for collecting and analyzing ongoing data on the nursing workforce should emphasize a voluntary system of data collection.

A total of 10,178 surveys (1,479 LPNs, 8,622 RNs²) were completed and returned during the 12-month period. This sample represents approximately 44% of the total nursing workforce in Maine with active licenses. (As of November 25, 2002, there were 3,326 active LPNs and 19,609 active RNs in Maine.)

As of December 2001, an additional 15,030 nurses who were licensed at one time in Maine no longer held an active license. Apart from age, little is known about the nurses on the inactive list. The Maine State Board of Nursing does not have the resources to track them, and it is likely that many no longer reside at the address they provided when they were last licensed in Maine.

Age Comparison

Table 1 compares the ages of the 2001 inactive LPNs and RNs with the ages of the 2001–2002 sample of active LPNs and RNs. Active LPNs and RNs not currently working as a nurse (mean age 54.2 years) were, on average, 8.6 years older than the active LPNs and RNs working as a nurse (mean age 45.6 years).

Table 1
Age Comparison: Inactive Versus Active Nurses in Maine

Age	2001 Inactive LPNs and RNs (N = 15,030)		2001–2002 Active sample, LPNs and RNs (N = 10,133)		2001–2002 Active sample working as a nurse (n = 8,453)		2001–2002 Active sample not working as a nurse (n = 1,680)	
	n	%	N	%	n	%	n	%
20 to 31 years	233	2	763	7	717	8	46	2
32 to 41 years	1,363	9	2,029	20	1,846	22	183	11
42 to 51 years	4,029	27	3,665	36	3,242	38	423	25
52 to 61 years	2,776	18	2,619	26	2,128	25	491	29
62 to 71 years	1,966	13	873	9	462	5	411	25
72 to 81 years	2,174	14	171	2	56	1	115	7
82 to 91 years	1,457	10	13	.1	2	.0	11	1
92 to 101 years	1,032	7						
Average age			47.0 years		45.6 years		54.2 years	

¹ Active licensed LPNs and RNs are nurses who currently have a valid nursing license to practice in Maine. Nurses with inactive licenses are not able to practice until they renew their license. In Maine, LPN and RN licenses must be renewed every two years, on the license holder's birthday.

² The question on type of nursing preparation was not answered by 77 respondents.

Employment Locations

Survey respondents were asked where they were working. Of the 1,019 LPNs working as a nurse, only 45 (4%) were working out of state and 3 (.2%) were working out of the country. In contrast, of the 6,792 RNs working as a nurse, 687 (10%) were working out of state and 54 (.8%) were working out of the country. The employment locations reported by LPNs and RNs are presented in Table 2.

Table 2
Employment Locations Reported by Maine Nurses

	2001–2002 Active Sample Working as a Nurse	
	% LPNs (<i>n</i> = 1,019)	% RNs (<i>n</i> = 6,792)
Primary County		
Androscoggin	9.4	7.9
Aroostook	9.7	4.9
Cumberland	19.2	25.0
Franklin	2.7	1.6
Hancock	5.0	2.7
Kennebec	9.8	9.3
Knox	2.9	3.0
Lincoln	1.7	1.7
Oxford	3.5	2.1
Penobscot	11.9	13.4
Piscataquis	1.2	.9
Sagadahoc	1.6	1.0
Somerset	3.1	2.0
Waldo	1.1	1.5
Washington	2.8	1.5
York	9.1	8.0
Multiple counties in Maine	.5	2.6
Out of state	4.4	10.1
Out of the country	.2	.8

Future Work Plans

The active LPNs and RNs were also asked whether they planned to be working in nursing in 5 years (see Table 3). The majority of respondents currently working in nursing, 74% of LPNs and 77% of RNs indicated that they planned to be working in nursing in 5 years. Not surprisingly, respondents not currently working in nursing who were over the age of 51 years were less likely to say for sure that they would be working in nursing in 5 years. Of the respondents not currently working in nursing, 17% of the LPNs and 19% of the RNs said they would be working in nursing in 5 years.

Description of Nurses Not Currently Working as LPNs or RNs

Of the 1,680 LPNs and RNs who responded that they were not currently working as a nurse, 1,293 (77%) provided a written explanation. After employed in family-owned business, the employment areas most commonly reported by respondents not currently working as a nurse were

- Nonnursing health-related field or career (33 respondents, 13%)
- Administration or management (29, 12%)

- Teaching K-12/education related (25, 10%), or teacher's aide position (10, 4%)
- Social work (16, 6%)
- Pharmaceutical industry (6, 2%)

Table 4 presents data on the most frequently cited reasons for not working as a nurse.

Table 3
Plan to be Working in Nursing in 5 Years

	Plan to be Working in Nursing in 5 Years		
	% Yes	% No	% Uncertain
LPNs currently working in nursing (<i>n</i> = 1,098)	74	5	21
Age 51 or younger (<i>n</i> = 615)	80	2	18
Over age 51 (<i>n</i> = 477)	67	8	25
RNs currently working in nursing (<i>n</i> = 7,346)	77	5	18
Age 51 or younger (<i>n</i> = 5,1612)	85	2	13
Over age 51 (<i>n</i> = 2,155)	60	13	27
LPNs not currently working in nursing (<i>n</i> = 369)	17	21	62
RNs not currently working in nursing (<i>n</i> = 1,254)	19	34	47

Note. Owing to rounding, percentages may not total 100.

Table 4
Reasons for Not Currently Working as a Nurse: Maine 2001–2002 Active Sample

Reason Cited	Respondents			
	<i>n</i>	%	Mean Age	Age Range
Retired	380	29	65.9	45–90
Employed in nonnursing field or family business	304	24	49.7	23–74
Own illness or disability	202	16	65.1	25–86
Child responsibilities	123	10	43.7	25–66
Time off/travel/personal preference/spouse's job	71	5	52.5	28–73
Take care of ill family member/friend	56	4	54.4	22–78
Working conditions/paperwork/pay	48	4	47.7	33–63
Resigned/unemployed/fired/position eliminated /unable to find position that meets need, in specialty area, or as LPN/haven't worked/out of date	42	3	53.2	36–80
Recently moved within or out of state	41	3	53.3	31–69
Stress and burnout	35	3	48.7	33–65
Attending school	34	3	41.0	27–53
Looking for work as a nurse	11	1	50.5	23–71
Homemaker	9	1	49.7	38–66
Interested in a refresher course	8	1	53.5	48–57
Other	14	1	48.1	30–66

Note. Owing to rounding, percentages may not total 100.

LPNs in Maine

A total of 75% of responding LPNs reported working as a nurse. LPNs working as a nurse were 49.2 years old on average (range 20–79), in contrast to LPNs not currently working

as a nurse, who were 53.3 years of age on average (range 30–86). Of the LPNs working as a nurse, 70% reported working full time. The most frequent place of work was long-term care (36%), followed by other settings³ (29%), hospital (20%), home care (8%), and mental health (7%) (see Table 5). A profile of LPNs by county of employment is provided in the Appendix.

Table 5
Work Settings and Fields Reported by Maine LPNs and RNs

Work Setting	% LPNs	% RNs
Hospital	20	50
Home care	8	9
Long-term care	36	11
Mental health	7	7
Advanced practice		6
Other	29	22
Ambulatory care	60	30
Blood services/home infusion	2	2
Consulting		2
Corrections	4	3
Durable medical equipment	.3	.1
Emergency rescue/flight nursing		1
Health education	.3	3
Insurance	1	6
Military/veterans	2	1
Nurse education	1	8
Occupational health	3	5
Private duty/traveling/staffing agency	3	3
Public or community health	3	4
Regulatory/case management (noninsurance)	.3	4
Rehabilitation	5	3
Research		1
Residential care/assisted living/boarding/adult day care	9	3
School or college health	5	14
Telephone nursing	.3	1
Other	3	8

Note. Owing to rounding, percentages may not total 100.

Differences Between Maine and National RN Workforce

To further understand the nursing workforce in Maine, the RN sample was separated from the LPN sample to allow a comparison to national data on the RN workforce. A total of 85% of Maine RNs reported working as a nurse, in contrast to 82% of RNs nationally (HRSA, 2001). Of the Maine RNs working as a nurse, 70% reported working full time and 32% reported working part time; some RNs reported working both full and part time. In contrast, 72% of RNs working nationally reported working full time and 28% reported working part time (HRSA). The most frequent place of work for the Maine sample was a hospital (50%), followed by other setting (22%), long-term care (11%), home care (9%), and mental health (7%), with some RNs reporting that they worked in more than one setting (see Table 5). The other settings most frequently reported were ambulatory care (485 RNs, 30%), school nursing (220 RNs, 14%), and

³ Most frequent other setting for LPN sample was ambulatory (195 LPNs, 60%).

nursing education (125 RNs, 8%). Nationally, 59% of RNs worked in a hospital (HRSA). The Maine nursing workforce had a higher percentage of male RNs than the national workforce, 6.9% versus 5.9%.

Maine RNs working as a nurse were 45.0 years of age on average (range 21–88), in contrast to RNs not currently working as a nurse, who were 54.3 years of age (range 18–86). Nationally, working RNs were 43.3 years of age on average (HRSA, 2001). Further analysis of the age of the RN population (see Table 6) shows that the workforce is aging, in part due to the large number of nurses from the baby-boom generation.

Table 6

Age Categories of All RNs: Nationally 1980/2000 (HRSA, 2001) and Maine 2001–2002

	Nationally 1980	Nationally 2000	Maine 2001–2002
Under age 40	52.9%	31.7%	29.8%
Under age 35	40.5%	18.3%	17.2%
Under age 30	25.1%	9.1%	8.5%

RNs had varied educational backgrounds, including preparation from a diploma program (although very few programs exist in the United States, and there are none in Maine), associate's degree, baccalaureate, master's degree, and doctorate. Table 7 compares Maine RNs with the national profile for highest educational level. A profile of Maine RNs by county of employment is provided in the appendix.

Table 7

Highest Nursing Education Level of RNs: Nationally 2000 (HRSA, 2001) and Maine 2001–2002

Highest Level	% Nationally	% Maine
Diploma	22.3	27.5
Associate's degree	34.3	28.8
Baccalaureate	32.7	33.9
Master's degree or doctorate	10.2	9.8

In summary, an RN licensed in Maine is more likely to be employed as a nurse and to be older, on average, than an RN in the national workforce. The percentage of Maine RNs under the age of 30 (8.5%) is lower than the shrinking national percentage of RNs under the age of 30 (9.1%). A Maine RN is less likely than an RN in the national workforce to work in a hospital (50% versus 59%) but is slightly more likely to be male (6.9% versus 5.9%).

Comparison of Maine Nurses Working in Hospital and Nonhospital Settings

Table 8 compares LPNs and RNs who are working in hospital versus nonhospital settings on age and gender, employment characteristics, and future plans to work in nursing. RNs working in hospitals (average age 43.1 years) are 4 years younger than RNs working in nonhospital settings (average age 47.0 years). Male RNs are more likely to work in hospital than nonhospital settings (9% versus 6%). In relation to their plans to be working in nursing in 5 years, 81% of the hospital-based RNs responded that they would be working, in contrast to 74% of the non-hospital-based RNs. This 7% difference may be due, in part, to the ages of the two groups. The LPNs who reported working in hospital settings were similar in age to the LPNs who reported working in other settings (50.0 versus 49.0 years), and similar percentages of both LPN groups reported that they planned to be working in nursing in 5 years.

The highest degree in nursing for the hospital- versus non-hospital-based nurses were as follows: diploma, 23% hospital and 26% nonhospital; associate's degree, 32% and 29%; baccalaureate, 39% and 32%; and master's degree or higher, 6% and 13%.

Table 8

Comparison of Maine Nurses Working in Hospital Versus Nonhospital Settings

	% LPNs in Setting		% RNs in Setting	
	Hospital (n = 223)	Nonhospital (n = 878)	Hospital (n = 3,698)	Nonhospital (n = 3,640)
Age range (in years)				
30 or younger	2	2	13	6
31–41	13	15	26	20
41–50	38	41	38	39
51–60	38	35	20	27
61–70	8	7	3	7
71–80	1	1	.3	1
81–90				.1
Gender				
Female	96	97	91	94
Male	4	3	9	6
Nursing employment characteristics ^a				
Full time	70	70	71	69
Part time	33	31	31	32
Direct care	47	33	57	25
Nondirect care	4	7	8	13
Plan to be working in nursing in five years				
Yes	76	74	81	74
No	5	5	4	6
Uncertain	19	21	15	20

Note. Owing to rounding, percentages may not total 100.

^aRespondents checked all that applied under nursing employment characteristics. (For example, some nurses indicated that they were working both full and part time.)

Reference

HRSA Bureau of Health Professions, Division of Nursing. (2001, February). *The registered nurse population: National sample survey of registered nurses—March 2000*. Washington, DC: U.S. Department of Health and Human Services.

Appendix: Information by County of Employment

Table A1

Profile of Maine LPNs Working as a Nurse by County of Employment (2001–2002 Active Sample)

County	Androscoggin	Aroostook	Cumberland	Franklin	Hancock	Kennebec	Knox	Lincoln	Oxford	Penobscot	Piscataquis	Sagadahoc	Somerset	Waldo	Washington	York
No. of LPNs	98	110	209	28	55	104	32	19	37	125	13	19	35	11	31	97
Descriptive Information																
Ave. age (years)	47.6	48.0	50.0	49.5	51.6	49.1	49.8	51.1	47.6	48.8	53.0	50.0	50.5	53.7	50.3	50.4
Age category																
% 30 or less	2	3	1	7	0	3	0	0	3	1	0	0	3	0	0	0
% 31–41	20	20	12	7	13	14	13	11	16	15	0	5	9	0	19	10
% 41–50	47	41	40	32	27	39	44	37	49	43	42	53	46	18	29	38
% 51–60	23	26	38	39	53	36	41	42	24	37	33	37	26	73	39	47
% 61–70	8	8	7	14	6	8	3	11	8	3	25	5	17	9	10	3
% 71–80	0	2	2	0	2	1	0	0	0	1	0	0	0	0	3	2
Gender																
% Female	95	99	98	96	98	96	94	90	97	95	100	100	97	100	97	96
% Male	5	1	2	4	2	4	6	10	3	5	0	0	3	0	3	4
Nursing Employment Characteristics ^a																
% Full time	68	69	70	54	74	64	68	69	80	73	70	81	65	55	79	65
% Part time	33	32	32	46	27	35	32	31	23	28	40	19	36	46	25	34
% Direct care	42	28	35	46	35	29	40	18	42	40	50	50	25	18	38	38
% Nondirect care	8	5	7	11	4	7	0	18	6	6	8	6	3	9	7	10
% Hospital	12	31	24	4	29	24	17	6	6	27	25	0	25	9	38	11
% Home care	7	6	8	4	10	11	3	12	11	5	0	6	3	9	0	10
% Long-term care	42	27	29	32	33	29	37	35	47	35	50	63	41	55	38	51
% Mental health	4	7	9	11	2	7	7	0	3	17	17	0	16	0	0	3
% Other ^b	35	26	32	54	20	27	30	41	28	19	33	25	28	18	24	30

County	Androscoggin	Aroostook	Cumberland	Franklin	Hancock	Kennebec	Knox	Lincoln	Oxford	Penobscot	Piscataquis	Sagadahoc	Somerset	Waldo	Washington	York
No. of LPNs	98	110	209	28	55	104	32	19	37	125	13	19	35	11	31	97
Plan to be Working in Nursing in 5 Years																
% Yes	83	75	69	67	67	63	66	83	76	72	54	69	69	82	74	71
% No	4	4	6	0	11	4	0	0	5	6	23	5	5	0	0	8
% Uncertain	13	21	25	33	22	33	34	17	19	22	23	26	26	18	26	21

Note. Owing to rounding, percentages may not total 100.

^aRespondents checked all that applied under *nursing employment characteristics*. (For example, some nurses indicated that they were working both full and part time; some indicated that they were working both in a hospital setting and in a long-term-care setting.)

^bOther: 10% or more of respondents reported working in the following *other* setting:

Androscoggin: Ambulatory care, 66%; residential/assisted/boarding/adult day care, 11%

Aroostook: Ambulatory care, 85%

Cumberland: Ambulatory care, 54%; rehabilitation, 10%; residential/assisted/boarding/adult day care, 10%

Franklin: Ambulatory care, 47%; school/college health, 13%

Hancock: Ambulatory care, 80%; school/college health, 10%

Kennebec: Ambulatory care, 54%; residential/assisted/boarding/adult day care, 15%

Knox: Ambulatory care, 44%; corrections, 44%; occupational health, 11%

Lincoln: Ambulatory care, 71%; residential/assisted/boarding/adult day care, 29%

Oxford: Ambulatory care, 70%; School/college health, 10%; occupational health, 10%; public/community health, 10%

Penobscot: Ambulatory care, 52%; Residential/assisted/boarding/adult day care, 22%

Piscataquis: Ambulatory care, 100%

Sagadahoc: Ambulatory care, 50%; public/community health, 25%; residential/assisted/boarding/adult day care, 25%

Somerset: Ambulatory care, 78%; corrections, 11%

Waldo: Ambulatory care, 100%

Washington: Ambulatory care, 57%; rehabilitation, 14%; military/veterans, 14%

York: Ambulatory care, 62%; residential/assisted/boarding/adult day care, 14%; school/college health, 10% private duty/traveling/staffing agency, 10%

Table A2
Profile of Maine RNs Working as a Nurse by County of Employment (2001–2002 Active Sample)

County	Androscoggin	Aroostook	Cumberland	Franklin	Hancock	Kennebec	Knox	Lincoln	Oxford	Penobscot	Piscataquis	Sagadahoc	Somerset	Waldo	Washington	York
No. of RNs	544	341	1,736	117	189	638	215	118	150	931	61	71	140	105	102	553
Descriptive Information																
Ave. age (years)	43.4	42.8	44.9	46.3	47.5	46.7	47.6	47.1	46.3	43.1	42.5	46.3	47.3	46.1	47.2	46.4
Age category																
% 30 or less	10	15	10	4	7	6	4	7	5	12	16	3	6	10	10	7
% 31–41	30	29	22	25	18	18	15	16	20	28	26	32	16	19	16	20
% 41–50	37	34	38	42	38	42	49	39	46	38	31	35	41	37	37	40
% 51–60	19	17	23	21	27	28	24	33	23	19	24	18	31	26	27	25
% 61–70	4	4	6	8	10	5	6	4	6	3	2	10	4	9	9	7
% 71–80	.4	1	1	0	0	1	2	1	0	1	0	1	3	0	2	.4
% 81–90	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	.2
Gender																
% Female	95	92	94	95	93	94	93	96	93	91	95	96	98	93	93	94
% Male	5	8	6	5	7	6	7	4	7	9	5	4	2	7	7	6
Highest nursing degree																
% Diploma	29	30	22	33	24	24	24	22	28	24	23	24	24	25	36	29
% Associate's	40	33	24	33	27	48	46	44	43	20	43	34	40	32	29	31
% Bachelor's	25	28	42	25	40	23	24	25	22	46	31	32	31	39	26	33
% Master's or higher	7	9	12	10	10	5	6	9	7	9	3	10	5	5	9	7

County	Androscoggin	Aroostook	Cumberland	Franklin	Hancock	Kennebec	Knox	Lincoln	Oxford	Penobscot	Piscataquis	Sagadahoc	Somerset	Waldo	Washington	York
No. of RNs	544	341	1,736	117	189	638	215	118	150	931	61	71	140	105	102	553
	Nursing Employment Characteristics ^a															
% Full time	71	74	65	59	60	74	59	61	70	73	81	54	71	73	70	67
% Part time	29	29	37	44	41	28	42	40	32	28	24	46	31	26	32	33
% Direct care	40	37	43	44	43	46	48	51	48	47	48	38	41	39	41	40
% Nondirect care	9	11	12	11	9	14	13	10	13	10	12	12	10	6	11	10
% Hospital	52	51	51	46	45	53	50	56	45	60	66	35	50	59	46	44
% Home care	10	14	6	11	9	8	11	15	17	6	10	15	7	9	6	12
% Long-term care	13	15	8	13	14	13	14	15	20	8	10	9	15	8	22	14
% Mental health	8	7	6	9	4	11	7	1	2	11	2	3	7	2	6	3
% Advanced practice	3	6	6	11	10	3	4	7	6	5	3	7	4	4	8	4
% Other ^b	20	22	25	16	20	20	22	20	22	16	16	38	17	22	19	24
	Plan to be Working in Nursing in 5 Years															
% Yes	80	79	76	73	74	76	69	81	73	78	85	75	74	75	74	73
% No	4	5	5	5	5	6	7	4	7	5	2	16	9	4	7	6
% Uncertain	16	16	19	22	21	18	24	15	20	17	13	9	17	21	19	21

Note. Owing to rounding, percentages may not total 100.

^aRespondents checked all that applied under *nursing employment characteristics*. (For example, some nurses indicated that they were working both full and part time; some nurses indicated that they were working both in a hospital setting and in a long-term-care setting.)

^bOther: 10% or more of respondents reported working in the following *other* setting:

Androscoggin: Ambulatory care, 33%; school/college nursing, 17%; nurse education, 10%

Aroostook: Ambulatory care, 35%; school/college nursing, 14%; nurse education, 13%; health education, 10%

Cumberland: Ambulatory care, 34%; insurance, 14%

Franklin: Ambulatory care, 33%; school/college health, 33%; occupational health, 11%

Hancock: Ambulatory care, 37%; school/college health, 18%; public/community health, 11%
Kennebec: Ambulatory care, 26%
Knox: Ambulatory care, 42%; corrections, 15%
Lincoln: Ambulatory care, 36%; school/college health, 32%
Oxford: School/college health, 36%; ambulatory care, 23%; occupational health, 13%
Penobscot: Ambulatory care, 26%; nurse education, 15%; school/college health, 11%
Piscataquis: School/college health, 30%; occupational health, 30%; regulatory/case management (noninsurance), 10%; consulting, 10%; private duty/traveling/staffing agency, 10%; emergency rescue/flight nursing 10%
Sagadahoc: School/college health, 42%; ambulatory care, 27%; occupational health, 15%
Somerset: Ambulatory care, 26%; nurse education, 17%; school/college health, 13%
Waldo: Ambulatory care, 27%; school/college health, 27%
Washington: Ambulatory care, 30%; public/community health, 25%; school/college health, 20% nurse education, 15%
York: Ambulatory care, 39%; school/college health, 23%

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