Baseline Demographics: RN and LPN

The Alabama Board of Nursing (ABN) collected demographic data at the time of license renewal in 2012 and 2014 for RNs and in 2013 for LPNs. The ABN generated an EXCEL database for each year of 2012, 2013, and 2014. These databases were saved into the Statistical Package for the Social Sciences (SPSS) version 19 and data were cleaned and recoded for analysis. These databases were used for the establishment of baseline demographics for Alabama RNs and LPNs. Therefore, the data analyses reported here are limited to the data as provided by the ABN where the data were not coded for data mining, there were gaps in responses, and data were missing or unknown for some variables, such as for race in the 2013 LPN database.

In presenting the data, the principal investigators and data analyst made the decision to include the category of "unknown" for variables where there were blank responses. The "unknown" category is included in the reported frequency counts and percentages for variables where applicable. Reported percentages were rounded up to the nearest tenth or hundredth, for small percentages, decimal place. The percentage change was calculated for selected variables in the 2012 RN and 2014 RN databases. The 2012 RN frequency count was used as the baseline metric and the percentage change was calculated by dividing the 2012 RN baseline frequency count into the difference between the 2012 RN frequency count and the 2014 RN frequency count multiplied by 100: % Change = [(2012 Frequency – 2014 Frequency)/2012 Frequency] x 100

In 2012, there were 58,263 RNs and in 2014, there were 66,662 RNs who presented RN license renewal applications to the Alabama Board of Nursing (ABN) which included RNs who were not advanced practice nurses (APN), as well as Certified Registered Nurse Practitioners (CRNPs), Certified Registered Nurse Anesthetists (CRNAs), Clinical Nurse Specialists (CNSs), and Certified Nurse Midwives (CNMs), (Table 1). In 2013, there were 16,488 LPNs who presented LPN license renewal applications to the ABN (Table 1).

Table 1
2012 and 2014 Alabama Registered Nurse Population

Alabama RNs	2012 RN Frequency (%)	2014 RN Frequency (%)	% Change*
RN (Not APN)	54,534 (93.6%)	61,971 (93.0%)	13.6%
CRNP	2,268 (3.9%)	3,049 (4.6%)	34.4%
CRNA	1,374 (2.4%)	1,538 (2.3%)	11.9%
CNS	68 (.1%)	81 (.1%)	19.1%
CNM	19 (.0%)	23 (.0%)	21.1%
Total	58,263 (100%)	66,662 (100%)	14.4%

*% Change = [(2012 Frequency – 2014 Frequency)/2012 Frequency] x 100

The majority of RNs in 2012 and 2014 as well as LPNs in 2013 were women (Table 2).

Table 2
Gender for Alabama RN and LPN Populations

Gender	2012 RNs Frequency (%) (N=58,263)	2014 RNs Frequency (%) (N=66,662)	RNs % Change*	2013 LPNs Frequency (%) (N=16,488)
Female	52,623 (90.3%)	60,071 (90.1%)	14.2%	15,678 (95.1%)
Male	5,640 (9.7%)	6,591 (9.9%)	16.9%	810 (4.9%)

*% Change = [(2012 Frequency – 2014 Frequency)/2012 Frequency] x 100

Data for race were collapsed according to the American Communities Survey (ACS) categories, except for the category of "Hispanic" which was collected as a separate variable by the ABN in the variable "ethnicity". In both 2012 and 2014, the majority of RNs reported race as "white" (Table 3). In the 2013 LPN ABN data base, the data for "race" were all blank.

Table 3
Race for Alabama RN Population

Race	2012 RNs Frequency (%) (N=58,263)	2014 RNs Frequency (%) (N=66,662)	RNs % Change*
White	45,165 (77.5%)	52,601 (78.9%)	16.5%
Black or African American	8,007 (13.8%)	9,216 (13.9)	15.1%
American Indian or Alaskan Native	331 (.6%)	366 (.5%)	10.6%
Asian	591 (1.0%)	725 (1.1%)	22.7%
Native Hawaiian and Other Pacific Islander	26 (.0%)	40 (.1%)	53.8%
Multiracial	329 (.6%)	351 (.5%)	6.7%
Unknown	3,814 (6.5%)	3,363 (5.0%)	(-11.8%)

*% Change = [(2012 Frequency – 2014 Frequency)/2012 Frequency] x 100

With regard to ethnicity, in the ABN databases, the majority of RNs and LPNs reported that they were not Spanish/Hispanic/Latino (Table 4).

Table 4
Ethnicity for Alabama RN and LPN Populations

Ethnicity	2012 RNs Frequency (%) (N=58,263)	2014 RNs Frequency (%) (N=66,662)	RNs % Change*	2013 LPNs Frequency (%) (N=16,488)
No, not Spanish/Hispanic/Latino	48,734 (83.6%)	60,356 (90.5%)	23.9%	14,102 (85.5%)
Yes, Mexican, Mexican American, Chicano	165 (.3%)	206 (.3%)	24.8%	62 (.4%)
Yes, Cuban	56 (.1%)	61 (.1%)	8.9%	6 (.0%)
Yes, Puerto Rican	97 (.2%)	126 (.2%)	29.9%	14 (.1%)
Yes, Other Spanish/Hispanic/Latino	202 (.3%)	326 (.5%)	61.4%	78 (.5%)
Unknown	9,009 (15.5%)	5,587 (8.4%)	(-38.0%)	2,226 (13.5%)

*% Change = [(2012 Frequency – 2014 Frequency)/2012 Frequency] x 100

Data for age were sorted into five year intervals consistent with the ACS (Table 5). The mean age for RNs in was 44.19 in 2012 and 44.61 in 2014. The mean LPN age was 45.59 in 2013.

Table 5
Age for Alabama RN and LPN Populations

Age (Five Year Intervals)	2012 RNs Frequency (%) (N=58,263)	2014 RNs Frequency (%) (N=66,662)	2013 LPNs Frequency (%) (N=16,488)
15-19 Years	1 (.0%)	0 (0%)	4 (.02%)
20-24 Years	2,448 (4.2%)	2,707 (4.1%)	589 (3.6%)
25-29 Years	6,405 (11.1%)	7,646 (11.5%)	1,356 (8.2%)
30-34 Years	6,281 (10.8%)	7,518 (11.3%)	1,634 (9.9%)
35-39 Years	6,899 (11.8%)	7,398 (11.1%)	1,997 (12.1%)
40-44 Years	7,454 (12.8%)	8,440 (12.7%)	2,342 (14.2%)
45-49 Years	7,061 (12.1%)	7,069 (10.6%)	1,999 (12.1%)
50-54 Years	7,875 (13.5%)	8,355 (12.5%)	2,159 (13.1%)
55-59 Years	7,489 (12.9%)	8,194 (12.3%)	1,975 (12.0%)
60-64 Years	3,990 (6.8%)	5,699 (8.5%)	1,396 (8.5%)
65-69 Years	1,649 (2.8%)	2,470 (3.7%)	691 (4.2%)
70-74 Years	531 (.9%)	828 (1.2%)	234 (1.4%)
75-79 Years	146 (.25%)	273 (.41%)	94 (.57%)
80-84 Years	28 (.04%)	55 (.08%)	15 (.09%)
85 Years and Over	6 (.01%)	10 (.01%)	3 (.02%)
Mode	55.00	43.00	42.00
Median	44.00	44.00	45.00
Mean	44.19	44.61	45.59
Standard Deviation	12.28	12.84	12.47
Range	68.00	69.00	70.00
Minimum	19.00	20.00	19.00
Maximum	97.00	89.00	89.00

The most frequent counties of residence, highlighted in yellow, for RNs in both 2012 and 2014 ABN databases were Jefferson, Mobile, Madison, Shelby, and Tuscaloosa (Table 6). In 2012, out-of-state RN residence accounted for 8.1% of the RNs who renewed their license in Alabama. In 2014, out-of-state RN residence accounted for 10.0% of the RNs who renewed their license in Alabama. The most frequent counties of residence for LPNs in 2013 were similar to RNs with the exception of Montgomery County versus Shelby county being among the top five counties of residence. In 2013, out-of-state LPN residence accounted for 6.1% of the LPNs who renewed their license in Alabama (Table 6).

Table 6
County of Residence for Alabama RN and LPN Populations

Alabama County of Residence	2012 RNs (N=58,263)		2014 RNs (N=66,662)		RNs	2013 LPNs (N=16,488)	
	Frequency	%	Frequency	%	% Change*	Frequency	%
Autauga	575	1.0	635	1.0	10.4%	124	.8
Baldwin	2,405	4.1	2,720	4.1	13.1%	406	2.5
Barbour	132	.2	144	.2	9.1%	134	.8
Bibb	143	.2	168	.3	17.5%	109	.7
Blount	736	1.3	793	1.2	7.7%	149	.9
Bullock	40	.1	48	.1	20.0%	34	.2
Butler	163	.3	178	.3	9.2%	130	.8
Calhoun	1,138	2.0	1,253	1.9	10.1%	474	2.9
Chambers	227	.4	248	.4	9.3%	78	.5
Cherokee	170	.3	189	.3	11.2%	94	.6
Chilton	349	.6	388	.6	11.2%	117	.7
Choctaw	101	.2	109	.2	7.9%	66	.4
Clarke	206	.4	227	.3	10.2%	160	1.0
Clay	142	.2	153	.2	7.7%	79	.5
Cleburne	76	.1	87	.1	14.5%	46	.3
Coffee	441	.8	492	.7	11.6%	217	1.3
Colbert	741	1.3	813	1.2	9.7%	173	1.0
Conecuh	125	.2	136	.2	8.8%	61	.4
Coosa	143	.2	152	.2	6.3%	64	.4
Covington	306	.5	330	.5	7.8%	254	1.5
Crenshaw	111	.2	129	.2	16.2%	94	.6
Cullman	1,051	1.8	1,145	1.7	8.9%	313	1.8
Dale	423	.7	488	.7	15.4%	225	1.4
Dallas	339	.6	369	.6	8.8%	240	1.5
DeKalb	613	1.1	690	1.0	12.6%	202	1.2

Alabama County of Residence	2012 RNs (N=58,263)		2014 RNs (N=66,662)		RNs	2013 LPNs (N=16,488)	
	Frequency	%	Frequency	%	% Change*	Frequency	%
Elmore	910	1.6	1018	1.5	11.9%	211	1.3
Escambia	317	.5	354	.5	11.7%	131	.8
Etowah	1,476	2.5	1,613	2.4	9.3%	433	2.6
Fayette	197	.3	217	.3	10.2%	95	.6
Franklin	349	.6	382	.6	9.5%	119	.7
Geneva	226	.4	248	.4	9.7%	169	1.0
Greene	54	.1	58	.1	7.4%	34	.2
Hale	147	.3	172	.3	17.0%	140	.8
Henry	292	.5	310	.5	6.2%	112	.7
Houston	1,344	2.3	1,523	2.3	13.3%	451	2.7
Jackson	508	.9	567	.9	11.6%	179	1.1
Jefferson	9,328	16.0	10,591	15.8	13.5%	1,840	11.1
Lamar	120	.2	138	.2	15.0%	92	.6
Lauderdale	1,041	1.8	1,161	1.7	11.5%	272	1.6
Lawrence	276	.5	308	.5	11.6%	107	.6
Lee	1,240	2.1	1,453	2.2	17.2%	259	1.6
Limestone	811	1.4	929	1.4	14.5%	208	1.3
Lowndes	171	.3	181	.3	5.8%	51	.3
Macon	132	.2	142	.2	7.6%	101	.6
Madison	3,649	6.3	4,209	6.3	15.3%	763	4.6
Marengo	248	.4	272	.4	9.7%	124	.8
Marion	481	.8	514	.8	6.9%	203	1.2
Marshall	828	1.4	964	1.4	16.4%	197	1.2
Mobile	4,525	7.8	5,006	7.5	10.6%	1,078	6.4
Monroe	204	.4	228	.3	11.8%	129	.8
Montgomery	1,892	3.2	2,120	3.2	12.1%	587	3.6
Morgan	1,280	2.2	1,437	2.2	12.3%	329	2.0
Perry	49	.1	59	.1	20.4%	49	.3
Pickens	206	.4	239	.4	16.0%	117	.7
Pike	186	.3	208	.3	11.8%	85	.5
Randolph	162	.3	179	.3	10.5%	77	.5
Russell	139	.2	172	.3	23.7%	91	.6
Shelby	3,509	6.0	3,902	5.8	11.2%	346	2.1
St. Clair	1094	1.9	1190	1.8	8.8%	176	1.1
Sumter	65	.1	72	.1	10.8%	31	.2
Talladega	857	1.5	937	1.4	9.3%	422	2.6
Tallapoosa	252	.4	282	.4	11.9%	48	.3

The Alabama Health Action Coalition, interested in advancing health in Alabama, is comprised of leaders from Alabama's healthcare and business industry such as the Alabama Nurse Leaders in Education and Practice, Blue Cross and Blue Shield of Alabama and the Alabama Hospital Association

Alabama County of Residence	2012 RNs (N=58,263)		2014 RNs (N=66,662)		RNs	2013 LPNs (N=16,488)	
	Frequency	%	Frequency	%	% Change*	Frequency	%
Tuscaloosa	2,506	4.3	2,804	4.2	11.9%	945	5.7
Walker	1067	1.8	1166	1.7	9.3%	395	2.4
Washington	142	.2	156	.2	9.9%	80	.5
Wilcox	49	.1	54	.1	10.2%	35	.2
Winston	292	.5	321	.5	9.9%	113	.7
Out-of-State	4,730	8.1	6,704	10.0	41.7%	1,019	6.1
Unknown	16	.0	18	.0	12.5%	2	.0

*% Change = [(2012 Frequency – 2014 Frequency)/2012 Frequency] x 100

From 2012 to 2014, in the ABN databases, there was a 13.8% increase in the number of RNs who reported being enrolled in a mobility program (Table 7). In 2013, 7.8% of the LPNs who renewed their license reported being enrolled in a mobility program (Table 7).

Table 7
Enrollment in a Mobility Program

Currently Enrolled in Mobility Program	2012 RNs (N=58,263)		2014 RNs (N=66,662)		RNs	2013 LPNs (N=16,488)	
	Frequency	%	Frequency	%	% Change*	Frequency	%
Yes	4,979	8.5	5,667	8.5	13.8	1,278	7.8
No	49,759	85.4	57,730	86.6	16.0	13,652	82.8
Retired from Nursing	-	-	-	-	-	61	.3
Unknown	3,525	6.1	3,265	4.9	(-7.38)	1,497	9.1

- Data not available
*% Change = [(2012 Frequency – 2014 Frequency)/2012 Frequency] x 100

In the ABN's 2012 and 2014 databases, RNs responded to a question concerning their highest level of education. In these databases, data concerning highest level of education were inconsistent for RNs. The majority of RNs who renewed their license in 2012 and 2014 reported their highest degree as an associate degree in nursing followed by a baccalaureate degree in nursing (Table 8). Overall, the percent change was positive in the majority of highest degrees earned. From 2012 to 2014, there was a 14.0% increase in associate degrees in nursing, a 19.9% in baccalaureate degrees in nursing, and a 27.0% increase for those holding a master's degree in nursing. The largest percent increase (35.7%) was in the area of doctoral preparation in nursing (Table 8).

Table 8
RNs Highest Degree Earned

Highest Degree Earned	2012 RNs (N=58,263)		2014 RNs (N=66,662)		RNs
	Frequency	%	Frequency	%	% Change*
Diploma-Registered Nurse	1,849	3.2	2,004	3.0	8.4
Associate Degree-Nursing	24,049	41.3	27,403	41.1	14.0
Associate Degree-Other Field	149	.3	130	.2	(-12.8)
Bachelor's Degree-Nursing	17,437	29.9	20,910	31.4	19.9
Bachelor's Degree-Other Field	2,506	4.3	2,566	3.8	2.4
Master's Degree-Nursing	5,382	9.2	6,835	10.3	27.0
Master's Degree-Other Field	1,592	2.7	1,737	2.6	9.1
Doctoral Degree-Nursing	528	.9	726	1.1	37.5
Doctoral Degree-Other Field	300	.5	344	.5	14.7
Other	327	.6	404	.6	23.55
Unknown	4,144	7.1	3,603	5.4	(-13.06)

*% Change = (2012 Frequency – 2014 Frequency)/2012 Frequency

In the ABN's 2013 database, LPNs responded to a question concerning their highest level of education. No data were collected for LPN highest degree earned. The majority (87.3%) of LPNs reported their highest level of education as a certificate (Table 9).

Table 9
LPNs Highest Level of Education

Highest Level of Education	2013 LPNs (N=16,488)	
	Frequency	%
Certificate	14,391	87.3
Diploma	1,003	6.1
Associate Degree-Nursing	33	.2
Bachelor's Degree-Nursing	1	.0
Bachelor's Degree-Other	1	.0
Unknown	1059	6.4

With regard to employment status in nursing, the ABN databases indicated that the majority of RNs and LPNs reported working full-time in nursing (Table 10).

Table 10
Employment Status in Nursing

Employment Status in Nursing	2012 RNs (N=58,263)		2014 RNs (N=66,662)		RNs	2013 LPNs (N=16,488)	
	Frequency	%	Frequency	%	% Change	Frequency	%
Full-time in Nursing	41,423	71.1	47,203	70.8	13.95	11,290	68.5
Part-time in Nursing	-	-	-	-	-	2,809	17.0
Employed Other Field	1,164	2.0	1,397	2.1	20.02	-	-
Not Employed	2,043	3.5	2,937	4.4	43.76	-	-
Not Seeking Employment	574	1.0	714	1.1	24.39	-	-
Retired from Nursing	-	-	-	-	-	61	.4
Other	9,512	16.3	11,487	17.2	20.76	937	5.7
Unknown	3,547	6.1	2,924	4.4	(-17.56)	1,391	8.4

-Data not available

The ABN databases revealed that the primary place of work for RNs in 2012 and 2014 was in public hospitals (38.0% and 36.4%, respectively) (Table 11). The majority of LPNs in 2013 reported the primary place of work was in the nursing home (29.0%) (Table 11).

Table 11
Primary Place of Work

Primary Place of Work	2012 RNs (N=58,263)		2014 RNs (N=66,662)		RNs	2013 LPNs (N=16,488)	
	Frequency	%	Frequency	%	% Change	Frequency	%
Assisted Living	161	.2	220	.3	36.6	695	4.2
College or University School of Nursing	1,223	2.0	1,427	2.1	16.7	42	.3
Doctor's Office	3,013	5.1	3,564	5.4	18.3	2,232	13.5
Federal Government Agency	932	1.5	506	.8	(-45.7)	425	2.6
Home Health	2,488	5.2	2,672	4.0	7.4	866	5.3
Hospice-Inpatient	699	1.1	920	1.4	31.6	44	.3
Hospice-Outpatient	1,406	2.4	1,630	2.4	15.9	190	1.2
Hospital-Private	6,253	10.7	5,983	9.0	(-4.3)	200	1.2
Hospital-Public	22,203	38.0	24,292	36.4	9.4	1,188	7.2
K-12 Board of Education/School Nurse	873	1.4	1,017	1.5	16.5	629	3.8
Nursing Home	-	-	2,661	4.0	-	4,785	29.0
Outpatient Center/Clinic	-	-	-	-	-	507	3.0
Psychiatric Hospital	-	-	-	-	-	222	1.3
Public Health Department	-	-	-	-	-	93	.6
Research Center	-	-	-	-	-	30	.2
Special Care Assisted Living	-	-	-	-	-	130	.8
State Government Agency	-	-	-	-	-	157	1.0
US Military	-	-	-	-	-	41	.2
Retired from Nursing	-	-	-	-	-	49	.3
Not Employed in Nursing	1,982	3.4	2,704	4.1	36.4	750	4.5
Other	12,098	20.7	14,413	21.6	19.1	1,463	8.9
Unknown	4,932	8.3	4,653	7.0	(-5.7)	1,750	10.6

- Data not available

Baseline Metrics Faculty

In the ABN databases, the primary place of employment as a college or university school of nursing was selected by 1,223 (2%) of RNs in 2012, by 1,427 (2.1%) of RNs in 2014, and by 42 (.3%) LPNs in 2013. It could not be determined if these nurses worked in faculty or non-faculty positions.

The SREB Council on Collegiate Education for Nursing's 2012 Annual Survey Results for Faculty Profiles yielded data regarding faculty race, ethnicity, gender, intent to retire, and age of full-time retired faculty members. Of the 35 Alabama schools of nursing that received the SREB survey, 18 (51%) schools responded to the survey and 17 (49%) schools did not respond to the survey. SREB data were not yet available for 2014. Data acquired from the 2012 SREB aggregate survey results indicated the majority of faculty reported race as "white" (Table 12).

Table 12
Race/Ethnicity for Alabama Faculty Profiles*

Race/Ethnicity	2012 Faculty Frequency (%) (n=440)
White	365 (83.0%)
Black	64 (14.5%)
Hispanic	5 (1.14%)
Asian	5 (1.14%)
Native Hawaiian and Other Pacific Islander	1 (.22%)
American Indian or Alaskan Native	0 (0%)
Multiracial	0 (0%)
Unknown	0 (0%)

*Based on SREB Council on Collegiate Education for Nursing's 2012 Annual Survey

Data acquired from the 2012 SREB aggregate survey results indicated the majority faculty were women (Table 13).

Table 13
Gender for Alabama Faculty Profiles*

Gender	2012 Faculty Frequency (%) (n=443)
Female	424 (95.7%)
Male	19 (4.3%)

*Based on SREB Council on Collegiate Education for Nursing's 2012 Annual Survey

Data acquired from the 2012 SREB aggregate survey results indicated that 17 faculty expressed an intention to retire in 2011-2012 academic year. The age ranges of full-time retired faculty are reported in Table 14.

Table 14
Age Ranges for Alabama Full-Time Retired Faculty*

Age Range	2012 Faculty Frequency (%) (n=6)
51-55 years	1 (16.7%)
56-60 years	2 (33.3%)
61-65 years	2 (33.3%)
66-70 years	0 (0%)
71+ years	1 (16.7%)

*Based on SREB Council on Collegiate Education for Nursing's 2012 Annual Survey