

Technical Documentation for the 2018 National Sample Survey of Registered Nurses (NSSRN)



**U.S Department of Health and Human Services
Health Resources and Services Administration
Bureau of Health Workforce
National Center for Health Workforce Analysis**



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Suggested citation:

U.S. Department of Health and Human Services, Health Resources and Services Administration, National Center for Health Workforce Analysis. 2019. Technical Report for the National Sample Survey of Registered Nurses, Rockville, Maryland.

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Acronyms Used in This Report

AAPOR	American Association for Public Opinion Research
APRN	Advanced Practice Registered Nurse
ATAC	Automated Tracking and Control
BON	Board of Nursing
CBN	California Board of Nursing
EQA	Email Questionnaire Assistance
FAQ	Frequently Asked Question
FPC	Finite Population Correction
HHS	U.S. Department of Health and Human Services
HRSA	Health Resources and Services Administration
iCADE	integrated Computer-Assisted Data Entry
KFI	Keying from Image
LMR	Late Mail Return
LPN	Licensed Practical Nurse
MOE	Margin of Error
NCHWA	National Center for Health Workforce Analysis
NCSBN	National Council of the State Boards of Nursing
NP	Nurse Practitioner
NPI	National Provide Identifier
NSSRN	National Sample Survey of Registered Nurses
NSSNP	National Sample Survey of Nurse Practitioners
OCR	Optical Character Recognition
OMR	Optical Mark Recognition
PIK	Protected Identification Key
PVS	Person Identification Validation System
RN	Registered Nurse
TQA	Telephone Questionnaire Assistance
UAA	Undelivered as Addressed

Abstract

Objective

This report details the plan, development, and operations for the 2018 National Sample Survey of Registered Nurses (NSSRN). The survey is designed to estimate the characteristics of registered nurses (RNs) and nurse practitioners (NPs) in the workforce at the state and national levels. The 2018 NSSRN experienced a comprehensive redesign that included changes in the frame construction, sample selection, questionnaire design, data collection operations, and missing data treatment. In addition, the survey extended its focus by incorporating a questionnaire section on NPs and an oversample of NPs. Funding and direction for this survey was provided by the Health Resources and Services Administration's (HRSA) National Center for Health Workforce Analysis (NCHWA) within the U.S. Department of Health and Human Services (HHS). The U.S. Census Bureau conducted the survey on behalf of HRSA.

Methods

A sample of 102,520 registered nurses were selected from a sampling frame compiled from files provided by the National Council of the State Boards of Nursing (NCSBN) and individual state Boards of Nursing (BONs). The sample was stratified by licensing state. Within each state there were two strata: one for RNs holding an NP license and another for all other RNs. To ensure reliable state estimates for RNs and NPs at the state level, different sampling rates were used across states and for RNs and NPs within each state.

There was a significant questionnaire redesign for the 2018 NSSRN due to changes in the health care system and best practices in survey methodology since its last administration in 2008. New concepts were added to the survey, including, but not limited to, a section focused on NPs that was based upon the 2012 National Sample Survey of Nurse Practitioners (NSSNP). An expert review was conducted to determine how to best implement the survey concepts, followed by cognitive interviews to evaluate these enhancements.

Data collection for the 2018 NSSRN began on April 30, 2018 and extended to October 12, 2018. Survey invitations were mailed to potential respondents that gave them the opportunity to participate via a web instrument or a paper questionnaire. Additionally, sampled RNs had access to a staffed questionnaire assistance telephone line where they could receive login assistance, language support, or complete the interview with a Census telephone interview agent. Potential respondents were sent up to eight invitations and reminders.

Results

The weighted overall response rate for the 2018 NSSRN was 49.0% (50.1% unweighted).¹ A total of 50,273 questionnaires were completed from April 2018 to October 2018. Weighted estimates from the NSSRN data generalize to state and national RN and NP populations.

¹ American Association for Public Opinion Research (AAPOR) Response Rate 3 was used to calculate the NSSRN Response Rate. For more details, please see the Response Rate Section of this report.

Introduction

The 2018 National Sample Survey of Registered Nurses (NSSRN) is the tenth cycle of the NSSRN. This study was conducted with registered nurses (RNs) who held an active RN license as of December 31, 2017.

This document details the objectives, methodologies, and results of the 2018 NSSRN. It is organized in 9 sections.

- Survey History. The 2018 NSSRN is the first production implementation following the redesign and merging of the previous NSSRN and the National Sample Survey of Nurse Practitioners (NSSNP).
- Frame and Sample Specifications. The 2018 NSSRN utilized a sampling frame built from a list of registered nurses compiled from the National Council of State Board of Nursing (NCSBN) and from individual state Boards of Nursing (BONs). Sampling was done independently within each of the 50 states and the District of Columbia. There were two sampling strata per state: The first group is RNs holding an NP license to represent NPs. The second is for all other RNs.
- Content Development and Instrument Specifications. Data were collected using a web instrument and/or paper questionnaire. Respondents could also complete the questionnaire through telephone questionnaire assistance.
- Data Collection. This section discusses the mail schedule and data capture methods for web, paper, and telephone questionnaire assistance operations.
- Response Analysis. This section discusses the calculation of the response rates.
- Data Processing and Editing. Web and paper survey responses were unduplicated, standardized across modes, and prepared for analysis.
- Weighting Specifications. Weights ensure the sample estimates are representative of the target populations of NPs and RNs in one or more states in the U.S. They incorporate the differential probabilities of selection, and an adjustment for duplication in the sample, nonresponse, and ensuring the sample estimates weight up to the population counts in the sampling frame.
- Imputation Specifications. Hot deck imputation was used to treat item nonresponse and create rectangular data set for data analysis. For each imputed variable, correlated variables were selected to form imputation classes and serve as sorting variables to improve the quality of the imputation.
- Estimation and Data Usage. This section discusses best practices for data users and limitations of the 2018 NSSRN.

Survey History

Since the 1970s, NSSRN has served as the cornerstone of nursing workforce data. The 2018 NSSRN is the study's tenth cycle. The NSSRN was previously fielded in the past years; 1977, 1980, 1984, 1988, 1992, 1996, 2000, 2004, and 2008.

The NSSRN was collected to assist in fulfilling the goals of the congressional mandates of the Public Health Service Act 42 U.S.C. Section 294n(b)(2)(A). These mandates ensure the development of information describing and analyzing the health care workforce and workforce related issues, and provide necessary information for decision-making regarding future directions in health professions and nursing programs in response to societal and professional needs. In addition, Public Health Service Act 42 U.S.C. Section 295k (a)-(b) states:

“The Secretary shall establish a program, including a uniform health professions data reporting system, to collect, compile, and analyze data on health professions personnel ... The Secretary is authorized to expand the program to include, whenever he determines it necessary, the collection, compilation, and analysis of data ... health care administration personnel, nurses, allied health personnel...in States designated by the Secretary to be included in the program.”

The 2018 NSSRN is the first time that the U.S. Census Bureau administered this survey. The U.S. Census Bureau conducts the NSSRN on behalf of the HHS under Title 13, United States Code, Section 8(b), which allows the Census Bureau to conduct surveys on behalf of other agencies.

The NSSRN is designed to provide necessary data to understand the characteristics and distribution of RNs throughout the United States, including education, employment, licensing and certification, and demographics. These data provide the means for evaluation and assessment of evolving demographics, education qualifications, and career employment patterns of RNs.

In 2018, the NSSRN incorporated concepts previously measured in the NSSNP and provides estimates for both RNs and NPs at the state and national levels. In 2012, HRSA conducted the NSSNP to collect detailed information on NPs to address data gaps in the education, training, employment, and practice patterns of NPs. The 2018 NSSRN oversampled NPs and included a representative sample of NPs and a detailed section on NPs in the questionnaire to reduce redundancy in data collection and lower the response burden that is associated with the administration of two separate surveys.

There was a significant redesign of the questionnaire for the 2018 NSSRN. The NSSRN was last fielded in 2008, thus the 2008 questionnaire underwent an extensive content review to make improvements based on changes in health care policy and best practices in survey methodology. More information about the changes in questionnaire content from the 2008 to the 2018 NSSRN can be found in the Content Development section of this report.

Frame and Sample

Overview

The target population for the 2018 NSSRN were the U.S. resident population holding an active nursing license in one or more U.S. states. The 2018 NSSRN utilized a sampling frame of RNs built from a list of registered nurses compiled from the NCSBN and from individual State Boards of Nursing. Sampling was done independently within each of the 50 states and the District of Columbia. There were two sampling strata per state: one for nurses that hold a NP license and another for all other RNs. The sampling rates for RNs and NPs differed across and within each state in order to produce reliable estimates for RNs and NPs within each state. A total of 102,520 nurses were sampled, including 50,265 NPs and 52,255 RNs.

Frame Development

The sampling frame of RNs was compiled from the NCSBN list of RN licenses and lists from individual State Boards of Nursing. While most states provide their nursing data to the NCSBN, there were nine states that did not. These nine states provided their data directly to the U.S. Census Bureau for inclusion in the sampling frame. As the licensing data was compiled during year 2017, the survey is not designed to fully capture nurses newly licensed in 2017 or new graduates from nursing schools in the most recent year(s).

For some states additional data was needed to identify nurse practitioners in order to ensure that reliable estimates could be produced for NPs at the state level. To identify NPs for sampling purposes, 27 states provided individual advanced practice registered nurse (APRN) files. In seven states, the APRN records did not distinguish NPs from clinical nurse specialists, certified nurse midwife, or certified registered nurse anesthetists. In each of these states, all of the APRN records are flagged as being a nurse practitioner to guarantee that there would be nurse practitioners in the NP stratum. In two of these states, the record counts were sufficiently larger than benchmark estimates so sampling rates were increased.

Since nurses can hold multiple licenses within the same state or across a number of states, multiple records for a nurse may exist. The U.S. Census Bureau's Person Identification Validation System (PVS) was used to assign a unique person identifier to identify duplicate nurse records within and across the state files. The PVS uses probabilistic matching to assign a unique Census Bureau identifier to each person.² The unique identifier, referred to as the Protected Identification Key (PIK) is the key linking variable used to match among Census Bureau data and administrative records. The PIK was used to match administrative data to fill missing demographic information when it was not provided by the NCSBN or individual state nursing board files, including race, ethnicity, date of birth, and sex. These demographic data were used to sort the list of nurses prior to sampling and were used in the weighting process.

² For additional details on the PVS process, please see Wagner and Layne (2014).

Universe Creation

Removing Ineligible Records

First, the following records were made ineligible for sampling:

1. Nurses in the split-half frame for the California Survey of Registered Nurses conducted by the California Board of Nursing (CBN)³
2. Nurses who had passed away
3. Licensed Practical Nurses (LPNs)
4. Addresses that were out of the country
5. Inactive nurses based on license status
6. Addresses that were incomplete (i.e. not mailable)
7. Nurses whose license expired prior to January 1, 2016⁴
8. NCSBN records from New Jersey, Pennsylvania, South Carolina and Utah (since duplicate information was received from the BON of these states)
9. Sample cases from the 2017 National Nursing Workforce Survey from NCSBN, to avoid excessive respondent burden on selected individuals

After the removal of these ineligible cases, the sampling frame consisted of 4,485,011 records.

Identifying a Single Record for Nurses with More Than One License

Because nurses can hold more than one license within the same state or across multiple states, 1,407,003 records were identified that had at least another record for the same nurse in the sampling frame. In order to deduplicate the records to obtain one record for each nurse, the duplicate records were handled in the following ways:

1. Duplicate records were sorted by control number (a unique identifier for each nurse), RN and NP status, and descending order of license expiration date.
2. If an NP record existed along with RN record(s), the NP record remained eligible and the other records were made ineligible. The license state for the nurse was the license state of the NP license. When there were multiple NP records, the remaining steps below were used to allocate the NP to a license state.
3. When a nurse had multiple records and at least one record contained a missing expiration date, the ranking of the license states was used to determine which record would be used for the nurse. The nurse was placed in the license state with the smallest ranking. The ranking for the 50 states and the District of Columbia were assigned by sorting from the smallest to the largest total number of nurses, with 1 being the smallest total number of nurses by licensing state to 51 being the largest total number of nurses by licensing state.
4. If a nurse had multiple records that each contained an expiration date, the record that had the latest expiration date remained eligible, while the other record(s) were made ineligible.

³ Half of the records with California as the licensing state was removed from the frame in order to unduplicate the samples for the 2018 NSSRN and the 2018 California Survey of Registered Nurses conducted by the California Board of Nursing (CBN). Records with a licensing state of California were sorted by zip code then systematically assigned to one of two strata, alternating between the two strata with each record. One stratum was used for the 2018 NSSRN and the second stratum for the 2018 California Survey of Registered Nurses. The stratum used for the NSSRN was sent to the California Board of Nursing so that they could avoid sampling any of these nurses in their survey.

⁴ This was determined to be a reasonable cutoff given the timing of acquiring the files from the Nursing Boards. Only licenses well over a year past their expiration data were deleted.

5. When a nurse had multiple records and the expiration dates were the same for each record, the record where the license state was the same as the state of residence was made eligible and the other record(s) were made ineligible. When none of the license states were the same as the nurse's state of residence, the ranking of the license states was used to determine which license state to allocate the nurse to.

After deduplication, the number of records in the sampling frame was reduced by 833,700 leaving a total number of 3,651,311 unique records.

Sample Selection

Each record on the sampling frame was assigned to a sampling stratum associated with the licensing state and whether it was an NP license. In most cases, the license state was determined by data provided by the NCSBN and the individual state BONs. In some rare situations the license state variable did not match the state file from which the record was received. In these situations, we reassigned license state to match the state file from which the record was received. Additionally, all nurses residing in Alaska or Hawaii, were assigned to the license state matching their state of residence.⁵ Nurses with a license from Guam or the Virgin Islands were assigned the license state matching their state of residence.

There were two strata per state: Stratum 1 includes all RNs that do *not* have an NP license. Stratum 2 contains nurses with an NP license. There were different sampling rates across states and for RNs and NPs within a state in order to produce reliable state estimates of each population.

The size of the sample allocated to each stratum depended on response rates from prior surveys and the estimate of the nurses employed in each state. The expected response rate for each state in the RN stratum was assumed to be the 2008 NSSRN rate. The expected response rate for each state in the NP stratum was estimated as the lowest response rate observed between the 2008 NSSRN and the 2012 NSSNP. Since the primary estimates of interest were employed nurses, we take into account the employed in the state rate from the 2008 NSSRN.⁶ For each stratum, we specified a minimum sampling rate and a Margin of Error (MOE), such that the overall sample size was close to 100,000.⁷ Priority was given to having more states with a MOE of approximately 0.041 over having a design with the lowest standard error on the national estimates. Consequently, the design does not give the lowest possible standard error for national estimates. See Table 1.

⁵ It was assumed that nurses living in AK or HI would be licensed and employed in those states, given the extreme distance they would have to travel to work in another state.

⁶ See Table 3 for a list of the state level response rates and the 2008 NSSRN estimates of the percent employed in nursing.

⁷ The calculation of the variance for the state estimates of RNs is $\left(\frac{N_1}{N}\right)^2 \frac{.5^2}{n_1} \left(\frac{N_1-n_1}{N_1}\right) + \left(\frac{N_2}{N}\right)^2 \frac{.5^2}{n_2} \left(\frac{N_2-n_2}{N_2}\right)$ and the calculation of the variance for the state estimates of NPs is $\frac{.5^2}{n_2} \left(\frac{N_2-n_2}{N_2}\right)$, where N and N_i are total and stratum population counts and n and n_i are total and stratum sample sizes. We assume a conservative estimate of 50% from the base of employed RNs and NPs. The state level variances include a finite population correction factor since the NP sample is a large portion of the NP population in many states. The MOE is half the width of the 95% confidence interval, which is 1.96*standard error.

Table 1. 2008 NSSRN Employed in State Rate,
2008 NSSRN and 2012 NSSNP Response Rates by License State

License State	2008 NSSRN Response Rate	2008 NSSRN Employed in State Rate	2012 NSSNP Response Rate
Alabama	0.612	0.860	0.552
Alaska	0.617	0.816	0.716
Arizona	0.531	0.871	0.577
Arkansas	0.628	0.758	0.519
California	0.531	0.739	0.584
Colorado	0.674	0.898	0.646
Connecticut	0.668	0.730	0.577
Delaware	0.643	0.770	0.620
District of Columbia	0.572	0.506	0.545
Florida	0.557	0.908	0.571
Georgia	0.544	0.839	0.582
Hawaii	0.572	0.621	0.634
Idaho	0.701	0.751	0.679
Illinois	0.575	0.815	0.624
Indiana	0.672	0.849	0.619
Iowa	0.688	0.818	0.660
Kansas	0.670	0.779	0.601
Kentucky	0.632	0.890	0.648
Louisiana	0.606	0.878	0.540
Maine	0.656	0.744	0.687
Maryland	0.637	0.697	0.640
Massachusetts	0.673	0.799	0.641
Michigan	0.680	0.742	0.715
Minnesota	0.723	0.904	0.701
Mississippi	0.561	0.694	0.553
Missouri	0.686	0.927	0.653

Montana	0.674	0.684	0.838
Nebraska	0.713	0.871	0.583
Nevada	0.544	0.703	0.564
New Hampshire	0.684	0.806	0.512
New Jersey	0.606	0.706	0.602
New Mexico	0.496	0.720	0.639
New York	0.539	0.701	0.574
North Carolina	0.656	0.924	0.608
North Dakota	0.704	0.896	0.606
Ohio	0.679	0.898	0.636
Oklahoma	0.575	0.749	0.611
Oregon	0.701	0.894	0.702
Pennsylvania	0.672	0.749	0.637
Rhode Island	0.627	0.722	0.633
South Carolina	0.590	0.830	0.586
South Dakota	0.716	0.760	0.683
Tennessee	0.596	0.857	0.610
Texas	0.558	0.985	0.569
Utah	0.686	0.748	0.579
Vermont	0.651	0.775	0.654
Virginia	0.638	0.691	0.593
Washington	0.696	0.857	0.609
West Virginia	0.606	0.764	0.517
Wisconsin	0.748	0.810	0.678
Wyoming	0.712	0.594	0.854

This design produces a MOE of 0.041 for RN and NP estimates with a sample size of 102,690. In Stratum 1, only two states were sampled with the minimum sampling rate, in all other states, the sampling rate was just large enough to ensure a MOE of 0.041 on an estimate of 50% at the 95% confidence level. In Stratum 2, two states were sampled at the minimum sampling rate, while 43 states were sampled using the rate that was just large enough to ensure a MOE of 0.041.⁸ For 6 states: Delaware, Hawaii, South

⁸ The sampling rates for CT and UT were inflated slightly to ensure an adequate state sample size of NPs. The APRN files we received for these 2 states included other types of APRNs than just NPs without any designation for NPs and the record counts were larger than those posted on the website for the American Association of Nurse Practitioners. For five other states – DE, IN, NJ, NV, and SC, no distinction was given for NPs on the APRN file, but our record counts were close or smaller than AANP’s estimate so no adjustment was made to the sampling rates in these states.

Dakota, Vermont, Wyoming, and the District of Columbia, the entire frame were included in the sample. Consequently, these states have no sampling variance. See Table 2.

Table 2: Summary of the Sampling Design		
	Stratum 1 - RNs	Stratum 2 – NPs
Sample size	52,255	50,265
Minimum sampling rate	0.0037	0.063
States with min. sampling rate	2 (CA, TX)	2 (FL, TX)
States with sampling rate = 1.0	0	6 (DC, DE, HI, SD, VT, WY)
Margin of Error (MOE)	0.041	0.041
Minimum state sample size	765	357
Maximum state sample size	1532	1561
Average state sample size	1025	990
Average state intv&empl sample	501	463
SE of national estimate	0.0043	0.0044
CV of national estimate	0.9%	0.9%
MOE for national estimate	0.0083	0.0086

The

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NP records nationwide. Table 3 shows the size of the frame, and the sampling rate used for each stratum by license state.

frame includes 3,418,363 and 232,948

Table 3: Frame Size and Sampling Rate by License State and Stratum

License State	Stratum 1: Registered Nurses		Stratum 2: Nurse Practitioners	
	Frame Size	Sampling Rate	Frame Size	Sampling Rate
Alabama	59,424	0.0159	4,264	0.2502
Alaska	7,303	0.1238	705	0.8950
Arizona	71,116	0.0152	5,489	0.2128
Arkansas	31,773	0.0334	2,094	0.5482
California	184,277	0.0073	10,986	0.1297
Colorado	56,774	0.0145	3,857	0.2243
Connecticut	41,858	0.0233	3,885	0.3506
Delaware	9,659	0.1081	589	1.0000
District of Columbia	10,798	0.1387	1,427	1.0000
Florida	247,748	0.0040	17,815	0.0633
Georgia	93,175	0.0116	8,379	0.1467
Hawaii	21,409	0.0716	533	1.0000
Idaho	13,875	0.0683	777	0.8378
Illinois	150,572	0.0074	7,702	0.1480
Indiana	83,420	0.0112	4,407	0.2187
Iowa	43,111	0.0213	2,163	0.3893
Kansas	35,083	0.0276	2,597	0.3931
Kentucky	51,548	0.0167	4,679	0.1953
Louisiana	45,965	0.0201	3,520	0.2949
Maine	17,308	0.0602	1,163	0.6922
Maryland	59,097	0.0191	4,091	0.2772
Massachusetts	101,208	0.0091	7,904	0.1360
Michigan	130,365	0.0080	6,155	0.1888
Minnesota	80,189	0.0099	4,268	0.1860
Mississippi	35,447	0.0345	3,588	0.3581
Missouri	95,102	0.0086	5,805	0.1506
Montana	11,094	0.0955	759	0.9710
Nebraska	22,401	0.0359	1,419	0.5673
Nevada	20,343	0.0641	1,236	0.8277
New Hampshire	14,191	0.0626	1,208	0.7773
New Jersey	93,349	0.0125	7,064	0.1898
New Mexico	18,201	0.0761	1,342	0.8413
New York	236,521	0.0058	19,965	0.0740
North Carolina	110,399	0.0077	6,328	0.1473
North Dakota	8,759	0.0873	540	0.9537
Ohio	164,096	0.0052	10,048	0.0942
Oklahoma	38,248	0.0316	1,920	0.5370
Oregon	39,186	0.0206	2,669	0.2825
Pennsylvania	177,807	0.0060	9,617	0.1213
Rhode Island	12,638	0.0860	779	0.9987
South Carolina	38,451	0.0280	2,111	0.4472
South Dakota	11,158	0.0825	537	1.0000
Tennessee	77,397	0.0118	9,224	0.1519
Texas	260,312	0.0037	16,366	0.0632
Utah	28,502	0.0329	2,310	0.6182
Vermont	7,574	0.1279	478	1.0000
Virginia	82,360	0.0135	6,762	0.1906
Washington	65,104	0.0127	4,775	0.2050
West Virginia	19,156	0.0563	1,414	0.7298
Wisconsin	77,787	0.0109	4,878	0.1927
Wyoming	5,725	0.1925	357	1.0000
National	3,418,363		232,948	

The frame was sorted by age, sex, race, ethnicity, and zip code within each of the sampling strata prior to sample selection in order to improve the distribution of these variables in the sample and decrease the variance of survey estimates.

In reviewing the initial sample selected approximately 1,500 nurses did not have an address that could be standardized. This had a significant effect on the coverage rates of nurse practitioners for two states. For Rhode Island only 65% of the nurse practitioner addresses could be standardized. For Tennessee only 83% could be standardized. The majority of these cases were business addresses with incorrect data in the address fields. The address fields were manually corrected to coincide with a standard address.

Additionally, some duplication was found in the sample that was not identified during the frame creation. In all instances, date of birth was missing from at least one of the cases, making it impossible for the case to be matched to a Protected Identification Key and therefore linked to administrative records. The most significant duplication was observed in Utah, where about 11% of the original sample were duplicates. Nurse practitioners were listed twice, once with an APRN license and once with an APRN – Controlled Substance license.⁹ The Utah Board of Nursing advised using the record associated with the APRN license, as it would have the most up-to-date information.

An additional sample of 2,628 nurses was selected to account for the duplicate records and the addresses that could not be standardized in the initial sample. To select the additional sample, two times the total number of addresses that could not be standardized for each license state and stratum were selected. In Rhode Island, there were only 50 NPs left in the population so we included the remaining 50 NPs in the sample with a couple exceptions. For Utah, two times the total number of duplicates that were removed from the sample and the addresses that could not be standardized were selected. Adding the initial sample and the additional sample, the total sample size was 102,690. After removing the duplicates, the final sample size was 102,520. Table 4 shows the initial sample, the additional sample, the duplicates that were removed, and the final sample size by license state and stratum.

⁹ The second part of the license number indicating APRN is 4405 and APRN – Controlled Substance is 8900.

Table 4: Sample Size by License State and Stratum

	Stratum 1: Registered Nurses				Stratum 2: Nurse Practitioners				Total
	Initial Sample Size	Additional Sample Size	Duplicates Removed	Final Stratum 1 Sample Size	Initial Sample Size	Additional Sample Size	Duplicates Removed	Final Stratum 2 Sample Size	Final Sample Size
Alabama	935	8	0	943	1,059	8	0	1,067	2,010
Alaska	885	20	-1	904	627	4	0	631	1,535
Arizona	1,056	28	0	1,084	1,118	50	0	1,168	2,252
Arkansas	1,040	20	0	1,060	1,140	8	0	1,148	2,208
California	1,327	22	-1	1,348	1,417	8	0	1,425	2,773
Colorado	819	4	-1	822	857	8	0	865	1,687
Connecticut	968	10	-2	976	1,312	50	0	1,362	2,338
Delaware	974	70	0	1,044	589	0	0	589	1,633
District of Columbia	1,478	20	0	1,498	1,427	0	0	1,427	2,925
Florida	980	18	0	998	1,105	22	0	1,127	2,125
Georgia	1,047	38	0	1,085	1,171	58	0	1,229	2,314
Hawaii	1,492	40	0	1,532	533	0	0	533	2,065
Idaho	937	10	0	947	645	6	0	651	1,598
Illinois	1,098	14	0	1,112	1,134	6	0	1,140	2,252
Indiana	897	34	0	931	962	2	0	964	1,895
Iowa	908	12	0	920	836	6	0	842	1,762
Kansas	935	36	-4	967	999	22	0	1,021	1,988
Kentucky	844	16	0	860	904	10	0	914	1,774
Louisiana	916	8	0	924	1,036	2	0	1,038	1,962
Maine	998	44	0	1,042	785	20	0	805	1,847
Maryland	1,115	14	0	1,129	1,128	6	0	1,134	2,263
Massachusetts	909	12	-1	920	1,039	36	0	1,075	1,995
Michigan	1,026	22	-1	1,047	1,034	128	0	1,162	2,209
Minnesota	782	10	0	792	794	0	0	794	1,586
Mississippi	1,192	32	0	1,224	1,282	4	-1	1,285	2,509
Missouri	793	22	0	815	858	16	0	874	1,689
Montana	1,039	20	0	1,059	707	30	0	737	1,796
Nebraska	795	10	-1	804	801	4	0	805	1,609
Nevada	1,294	10	0	1,304	1,021	2	0	1,023	2,327
New Hampshire	850	38	0	888	939	0	0	939	1,827
New Jersey	1,146	22	-2	1,166	1,241	100	0	1,341	2,507
New Mexico	1,349	36	0	1,385	1,121	8	0	1,129	2,514
New York	1,280	84	0	1,364	1,467	10	0	1,477	2,841
North Carolina	839	8	0	847	932	0	0	932	1,779
North Dakota	759	6	0	765	511	4	0	515	1,280
Ohio	828	20	0	848	945	2	0	947	1,795
Oklahoma	1,186	22	0	1,208	1,022	10	-1	1,031	2,239
Oregon	788	20	0	808	750	4	0	754	1,562
Pennsylvania	1,018	40	0	1,058	1,129	38	0	1,167	2,225
Rhode Island	1,077	18	-8	1,087	729	50	-1	778	1,865
South Carolina	1,034	44	0	1,078	923	22	-1	944	2,022
South Dakota	912	8	0	920	533	4	0	537	1,457
Tennessee	887	28	-2	913	1,052	354	-5	1,401	2,314
Texas	937	20	0	957	1,015	20	0	1,035	1,992
Utah	935	2	0	937	1,243	318	-133	1,428	2,365
Vermont	937	32	0	969	478	0	0	478	1,447
Virginia	1,099	10	0	1,109	1,285	4	0	1,289	2,398
Washington	824	2	0	826	977	2	0	979	1,805
West Virginia	1,043	40	-4	1,079	1,030	2	0	1,032	2,111
Wisconsin	828	22	0	850	930	10	0	940	1,790
Wyoming	1,098	4	0	1,102	357	0	0	357	1,459
National	51,133	1,150	-28	52,255	48,929	1,478	-142	50,265	102,520

Instrument Specifications

2018 Survey Content

The following provides an overview of the key questionnaire topics included in the 2018 National Sample Survey of Registered Nurses.

Section A: Eligibility and Education – Questions about initial nursing education, education following their first license, and education preparation for advanced practice nursing.

Section B: Primary Nursing Employment – Included questions about the nursing position in which the nurse spent the largest share of their working hours on December 31, 2017 to include geographic location, employment setting, hours worked, level of care or type of work, patient population, clinical specialty, earnings and whether they have remained in this position since December 31, 2017.

Section C: Left Primary Nursing Position Held on December 31, 2017 – For nurses that have left the primary nursing position held on December 31, 2017, this section contained questions on their reason for leaving the position, if they will continue to work in nursing, when they plan to retire from nursing and how long they expect to work in the geographic area of the primary nursing position.

Section D: Remained in Primary Nursing Position Held on December 31, 2017 – For nurses that have remained in the primary nursing position they held on December 31, 2017.

Section E: Secondary Employment in Nursing – Included questions about the employment settings, earnings, and the hours and weeks worked in secondary employment.

Section F: Nurse Practitioners – Questions for those who are Nurse Practitioners included areas of certification, characteristics of their patient population, billing and insurance, perceptions of and satisfaction with their work and the presence of physicians where they work.

Section G: Nurses Not Working in Nursing – For nurses who were not working on December 31, 2017, this section included questions on their intention of returning to nursing and reasons for not working in nursing.

Section H: Prior Nursing Employment – Included questions about the reasons for job change, geographic location of prior employment, and prior employment setting.

Section I: National Practitioner Data Bank – Questions on opinions and experiences with the National Practitioner Data Bank.

Section J: License and Certification Detail – Questions on specific certifications and licensing information.

Section K: General Information – Contained questions about the responding RN's demographics and other background information.

Section L: Name and Address Information – Provided the responding RN an opportunity to correct name and address information.

Content Development and the 2018 Redesign

There was a significant content redesign for the 2018 NSSRN. Because the NSSRN was last fielded in 2008, the 2008 questionnaire underwent an extensive content review to make improvements based on changes in health care delivery system and best practices in survey methodology. To reduce redundancies in data collection efforts of the NSSNP, a section was added for nurse practitioners. The following list of topics were among the new content added. A full detailed list of the questions added to the 2018 NSSRN can be found in Appendix A, Table C.

- Experience and training in team-based care
- Military and deployment status
- Orientation and preceptor programs
- Usage of Electronic Health Record or Electronic Medical Record systems
- The National Practitioner Data Bank
- Telehealth

Appendix A also includes detailed tables showing questions that were on the 2008 questionnaire but were not on the 2018 questionnaire (Appendix A, Table B), modified questions asked in both the 2008 and 2018 questionnaires (Appendix A, Table A).

As part of the process in updating the 2008 questionnaire to fit current best practices in survey methodology, the questionnaire underwent an expert review and cognitive interviews to evaluate potential enhancements to the 2008 paper questionnaire. U.S. Census Bureau survey methodology experts reviewed the 2008 paper questionnaire by examining the question wording, question ordering, consistency, layout, and how to best convey the survey concepts.

After the expert review, a draft of the 2018 instrument was created and a series of cognitive interviews were conducted in early 2017. Cognitive interviews with RNs and NPs lasted about 60 to 90 minutes and were used to gain an understanding of how well the questions worked when administered to a sample of the survey's target population. A total of 13 nurses were interviewed (6 NPs and 7 RNs) from the Washington, D.C./Baltimore metro areas. Participants were paid \$100 each. Participants were instructed to read each question aloud, think aloud while forming a response, and then provide the response to the interviewer. The interviewer administered scripted and spontaneous probes to collect more information regarding the participants' perception of questions and the cognitive process they used to retrieve information and formulate answers to questions.

Web Instrument Specifications

All sampled nurses selected to participate in the 2018 NSSRN received an invitation by mail to respond to the survey by web. The invitation included the website URL and a unique 8-digit Login ID. The initial invitation for about half of the sample included a paper questionnaire and information for completing the web instrument. In each follow-up reminder, the letter contained the website URL and the Login ID regardless of whether a paper questionnaire was included in the package or not.

After logging into the website using their Login ID and reviewing a Privacy Act statement, respondents were asked two question to verify they were the correct sampled person. If the respondents did not verify they were the correct sampled nurse, then the survey concluded and they were removed from future follow-up mailings. After verifying that they were the correct sampled nurse, the respondent was taken to the PIN-assignment screen, which assigned a 4-digit PIN in case they wanted to save their answers and

return later to finish the survey. Respondents were also asked to set up a security question in case they forgot their PIN.

After receiving their PIN and setting up their security question, respondents were asked the following screener question to determine if they were a registered nurse as of December 31, 2017: *As of December 31, 2017, were you actively licensed to practice as a Registered Nurse (RN) in the U.S. (whether or not you were employed in nursing at that time)?*” If the respondent said they were a RN, they continued on with the rest of the survey. If the respondent said they were not a RN as of the reference date, they were asked a follow-up question to confirm their response: *“On the prior question you indicated that you were NOT a registered nurse on December 31, 2017. Is this correct?”* If the respondent answered “No” they returned to the survey starting with the first question that followed the screener question. If the respondent answered “Yes”, they were taken to a Thank You screen and the respondent was then removed from all future mailings.

After the final question in the survey, respondents were presented with a screen that indicated they were about to submit their answers. After clicking “Submit” on this screen, a submission confirmation screen appeared with the date and time of completion. Once respondents submitted their survey, they could login to the web instrument again, but they could only view the submission confirmation screen. Respondents were not able to alter any of the answers to the questions in the survey after submitting.

Programming and Testing the Web Instrument

The web survey was conducted using the U.S. Census Bureau’s Centurion system for internet data collection. This software presented the questionnaire on a screen of a computer or mobile device, and the interview was self-administered by the respondent.

There were several hard edits programmed into the web instrument which required the respondent to provide a valid answer before continuing. These answers were necessary for determining if the respondent was a RN, if the respondent was employed in the nursing field, and if the nurse was a certified NP. There were other questions in the survey that had soft edits, prompting the respondent to provide an answer to the question; however, if the respondent clicked “Next” after seeing these prompts and without answering the question again, they would be able to skip that question without answering. These soft edits were only used in a few questions that were critical for determining whether the respondent should receive a series of questions or not. There were also several soft edits to prompt respondents that the answer they were entering was invalid; however, the respondent was able to skip past these as well. Overall, the web instrument guided respondents through skip patterns and established legitimate ranges for numerical write-ins.

Once programming of the instrument was completed, the various requirements of the instrument, such as, respondent login, skip pattern implementation, fills, data output, were tested to ensure that the Centurion system was functioning correctly.

Usability testing of the web instrument was conducted in November and December 2017 by the Center for Behavioral Science Methods (formerly the Center for Survey Measurement) within the U.S. Census Bureau. The goal of the testing was to uncover usability issues with the original design and recommend enhancements to ensure that the web survey performed optimally during data collection. There were 15 nurses (8 RNs and 7 NPs) that participated in usability testing. During usability testing, the respondents completed the initial version of the web instrument, while under observation by a U.S. Census Bureau test

administrator. Respondents were instructed to answer the questions as they applied to their own situations and were asked to “think aloud” as they were completing the survey. Eye tracking data was also collected for seven of the participants. Once the participants finished the survey, they were asked to complete a satisfaction questionnaire that included questions on general usability aspects of the survey and the comprehension of general survey terminology. Finally, some screenshots of select new questions on the survey were shown and discussed. Usability testing was done using a range of devices including laptops, smartphones, and tablets. Design recommendations based on the results were implemented into the final version of the web instrument.

With respondent consent, each session was video- and audio-recorded. Each session last about one-and-a-half hours and participants were offered a \$100 incentive. Many sessions were also observed by other researchers and U.S. Census Bureau and NCHWA employees. Most of the sessions were conducted at U.S. Census Bureau headquarters where observers watched and listened in a separate area from the participant. For some sessions that were conducted in libraries in the Washington, D.C. metro area, there was a separate device recording the participant’s interactions with the web instrument so that observers could watch the feed without hovering over the respondent.

Paper Instrument Specifications

The paper questionnaire and web questionnaire were designed to be as similar as possible to minimize the influence of mode on responses. While automatic skips and hard or soft edits cannot be implemented in the paper instrument, the questionnaire did include skip instructions within the question wording to mimic the web instrument.

Paper questionnaires were designed using Amgraf One Form Plus software, which enables the design of scannable forms. Returned forms were processed by integrated Computer-Assisted Data Entry (iCADE), which automatically extracts all check box entries (optical mark recognition (OMR)) and preselected answer fields (optical character recognition (OCR)), then captures and displays an image of all other entries to an operator for keying from image (KFI). Specific keying procedures were written for the 2018 NSSRN and keyers were trained on the NSSRN KFI procedures. Questionnaires were printed, trimmed, and assembled by a commercial printer. The printing and assembly of the NSSRN questionnaires was monitored by U.S. Census Bureau staff for quality assurance.

Data collection

Data collection efforts for the 2018 National Sample Survey of Registered Nurses (NSSRN) began on April 30, 2018 and closed on October 12, 2018. Potential respondents were sent up to eight invitations and reminders. The 2018 NSSRN was conducted as a Web Push Plus Mail mixed-mode format after contacting by mail. Sampled RNs were randomly assigned to either the Web First Group or the Paper First Group. In the initial mailing, the Web First Group was asked to respond electronically via the Centurion web instrument. The Paper First Group received a paper questionnaire in the first mailing and the web survey URL and a unique login ID.

Within the Web First and Paper First Group, about half of potential respondents received a non-monetary incentive in the first mailing (M1) and the other half served as the control group and did not receive an incentive in the first mailing. Therefore, there were four separate mailing groups (1) Web First, Received Incentive in M1, (2) Web First, No Incentive in M1, (3) Paper First, Received Incentive in M1, and (4) Paper First, No Incentive in M1.

The initial invitations for the Paper First, No Incentive in Mailing 1 (M1) and the Web First, No Incentive in M1 groups were sent on April 30, 2018. The initial invitations for the Paper First, Received Incentive in M1 and Web First, Received Incentive in M1 groups were sent on May 15, 2018 and May, 17, 2018, respectively.

Sampled RNs in the Web First Group received up to a total of eight mailings and up to two paper questionnaires. The fifth and the seventh mailings included a paper questionnaire for the Web First Group, if they had not yet responded. The Paper First Group received up to six mailings, including up to three paper questionnaires. The Paper First Group received paper questionnaires in the first, and would receive a paper questionnaire in the third and fifth mailings if they had not responded by that point. Each of the letters included the web URL for the web instrument and the sampled RN's unique login ID. Once the sampled RN submitted a web survey, returned a paper questionnaire, explicitly refused to participate, or indicated that the sampled person was not eligible for the survey, follow-up mailing ceased for the individual.

Figure 1 shows the mail dates and describes the packages sent for each of the four mail groups. The detailed mailout schedule including the dates for the label file creation and late mail return (LMR) pulls is provided in Table 5. In addition, Appendix B shows the contact letters by the mailout schedule and the FAQ used in the data collection. A label file is created for each mailing that includes the names, addresses, and additional details necessary for assembling the package for mailout. In order to assemble the packages in time for the next mailout, the label files are created several weeks prior to the mailing and often include individuals that may respond between the label file creation and mailout. To reduce the number of individuals who receive a follow-up mailing after submitting their response, a LMR file is created. The LMR dictates which packages should be pulled and destroyed before mailout to prevent those who have already responded from receiving another mailing.

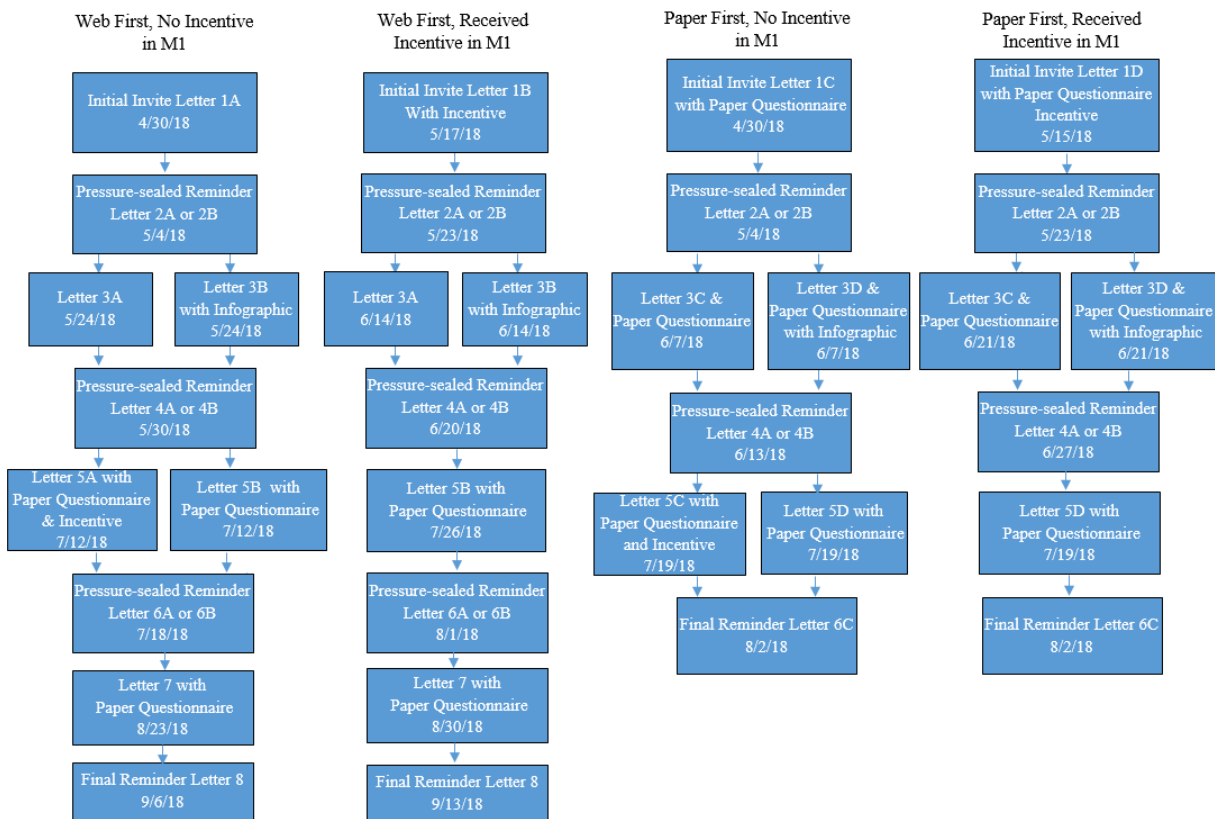
Mailout Specifications

In the initial mailing all sampled RNs received instructions for participating by web. The letter included the web survey URL along with their unique login ID. Sampled RNs in the Paper First Group also received a paper questionnaire in this mailing. About half of sampled RNs in each the Web First and Paper First groups received an inscribed lanyard as an incentive for participating. The remaining sampled

RNs represented the control group and did not receive an incentive. Potential respondents were randomly assigned to the non-monetary incentive group and the control group.

A week after the initial mailing, all sampled RNs received a reminder mailing that included the web survey URL and the individual’s unique login ID. The reminder letter was either a bi-fold or tri-fold pressure-sealed envelope. About half of all sampled RNs were randomly assigned to receive the bi-fold reminder and the other half received a tri-fold reminder.

Figure 1. NSSRN Detailed Mailout Schedule



In the third mailing, about half of those who had not yet responded received an infographic that provided additional details about the survey. The letters contained instructions for responding via the web instrument, including the web survey URL and the unique login ID. For sampled RNs in the Paper First Group, the third mailing also contained a replacement paper questionnaire. About a week after the third mailing, a reminder letter was sent in a bi-fold or tri-fold pressure-sealed envelope. The reminder mailing contained the web survey URL and the unique login ID.

The fifth mailing included paper questionnaires for all sampled RNs who had not responded, and the web survey URL and their unique Login ID. Mailing 5 also included a pen and lanyard incentive for a random half of non-respondents who did not receive the incentive in the first mailing. The other half of non-respondents who did not receive the incentive in the first mailing served as the control group and did not receive the pen and lanyard incentive in the fifth mailing. All sampled RNs who received an incentive in

the first mailing did not receive an incentive in mailing 5.¹⁰ Mailing 5 was the first time that the Web First Group received a paper questionnaire. For those in the Paper First Group, this was their final replacement paper questionnaire. At mailing 5, letters were sent to another address on file for the potential respondent if an undelivered as addressed (UAA) notice was received by the Census Bureau without an address correction. If an address correction was provided, mailing 5 was sent to any non-respondents using the address correction. In other mailings, if a case had received two UAA notices, the case was pulled from future mailing. In total a second address was used for 6,112 cases. Among these cases, 23% ended up completing the survey after the second address was used for the mailing.

The sixth mailing was the Paper First Group's final reminder in a manila envelope. This final reminder letter contains the web survey URL and the individual's unique login ID. The sixth mailing for the Web First Group is either a bi-fold or tri-fold pressure-sealed envelope. This reminder contains the web survey URL and the unique login ID.

The seventh and eighth mailings were only for the Web First Group. Non-respondents in the Web First Group received a replacement paper questionnaire in the seventh mailing. The letter also contained the web survey URL and the unique login ID. About a week later, a final reminder mailing was sent to the Web First Group that contained the web survey URL and the unique Login ID.

¹⁰ The Web First, Received Incentive in M1 only received letter 5C in the fifth mailing and the Paper First, Received Incentive in M1 only received letter 5D in the fifth mailing since neither of these groups were eligible for an incentive in the fifth mailing.

Table 5. NSSRN Mailout Schedule

MAILING 1				
	Letter	Label File Date	LMR Date	Mail Date
Web First, No Incentive in Mailing 1 (M1): Initial Web Invite	1A	3/26/2018	N/A	4/30/2018
Web First, Received Incentive in M1: Initial Web Invite with Lanyard Incentive	1B	3/26/2018	N/A	5/17/2018
Paper First, No Incentive in M1: Initial Letter with First Paper Questionnaire	1C	3/26/2018	N/A	4/30/2018
Paper First, Received Incentive in M1: Initial Letter with First Paper Questionnaire and Lanyard Incentive	1D	3/26/2018	N/A	5/15/2018
MAILING 2				
Web First or Paper First, No Incentive in M1: Pressure-sealed Reminder	2A/2B	3/26/2018	N/A	5/4/2018
Web First, Received Incentive in M1: Pressure-sealed Reminder	2A/2B	3/26/2018	N/A	5/24/2018
Paper First, Received Incentive in M1: Pressure-sealed Reminder	2A/2B	3/26/2018	N/A	5/18/2018
MAILING 3				
Web First, No Incentive in M1: Follow-Up Letter without an Infographic	3A	5/9/2018	N/A	5/24/2018
Web First, No Incentive in M1: Follow-Up Letter with an Infographic	3B	5/9/2018	N/A	5/24/2018
Web First, Received Incentive in M1: Follow-Up Letter without an Infographic	3A	5/31/2018	N/A	6/14/2018
Web First, Received Incentive in M1: Follow-Up Letter with an Infographic	3B	5/31/2018	N/A	6/14/2018
Paper First, No Incentive in M1: Follow-Up Letter & Paper Questionnaire, No Infographic	3C	5/22/2018	6/5/2018	6/7/2018
Paper First, No Incentive in M1: Follow-Up Letter & Paper Questionnaire, with Infographic	3D	5/22/2018	6/5/2018	6/7/2018
Paper First, Received Incentive in M1: Follow-Up Letter & Paper Questionnaire, No Infographic	3C	5/31/2018	6/19/2018	6/21/2018
Paper First, Receive Incentive in M1: Follow-Up Letter & Paper Questionnaire, with Infographic	3D	5/31/2018	6/19/2018	6/21/2018

MAILING 4				
	Letter	Label File Date	LMR Date	Mail Date
Web First, No Incentive in M1: Pressure-sealed Bi-fold or Tri-fold Reminder	4A/4B	5/9/2018	N/A	5/30/2018
Web First, Received Incentive in M1: Pressure-sealed Bi-fold or Tri-fold Reminder	4A/4B	5/31/2018	N/A	6/20/2018
Paper First, No Incentive in M1: Pressure-sealed Bi-fold or Tri-fold Reminder	4A/4B	5/22/2018	6/4/2018	6/13/2018
Paper First, Received Incentive in M1: Pressure-sealed Bi-fold or Tri-fold Reminder	4A/4B	5/31/2018	6/19/2018	6/27/2018
MAILING 5				
Web First, No Incentive in M1: Follow-Up Letter with Paper Questionnaire and a Pen and Lanyard Incentive	5A	6/14/2018	7/6/2018	7/12/2018
Web First, No Incentive in M1: Follow-Up Letter with Paper Questionnaire	5B	6/14/2018	7/6/2018	7/12/2018
Web First, Received Incentive in M1: Follow-Up Letter with Paper Questionnaire	5B	7/5/2018	7/24/2018	7/26/2018
Paper First, No Incentive in M1: Follow-Up Letter with Final Paper Questionnaire and a Pen and Lanyard Incentive	5C	6/28/2018	7/17/2018	7/19/2018
Paper First, No Incentive in M1: Follow-Up Letter with Final Paper Questionnaire	5D	6/28/2018	7/17/2018	7/19/2018
Paper First, Received Incentive in M1: Follow-Up Letter with Final Paper Questionnaire	5D	7/12/2018	7/31/2018	8/2/2018

MAILING 6				
	Letter	Label File Date	LMR Date	Mail Date
Web First, No Incentive in M1: Pressure-sealed Bi-fold or Tri-fold Reminder	6A/6B	6/14/2018	7/10/2018	7/18/2018
Web First, Received Incentive in M1: Pressure-sealed Bi-fold or Tri-fold Reminder	6A/6B	7/5/2018	7/24/2018	8/1/2018
Paper First, No Incentive in M1: Final Reminder	6C	6/28/2018	7/17/2018	8/2/2018
Paper First, Received Incentive in M1: Final Reminder	6C	7/16/2018	7/31/2018	8/15/2018
MAILING 7				
Web First, No Incentive in M1: Follow-Up Letter with Final Paper Questionnaire	7	8/2/2018	N/A	8/23/2018
Web First, Received Incentive in M1: Follow-Up Letter with Final Paper Questionnaire	7	8/16/2018	N/A	8/30/2018
MAILING 8				
Web First, No Incentive in M1: Final Reminder	8	8/22/2018	N/A	9/6/2018
Web First, No Incentive in M1: Final Reminder	8	8/29/2018	N/A	9/13/2018

Telephone Questionnaire Assistance

Invitations for the survey included a toll-free telephone number for respondents to contact the U.S. Census Bureau if they had questions on the survey, wanted to complete the interview over the phone, or wanted to submit feedback. All invitation letters, the web instrument, and the paper instrument identified this toll-free number.

The telephone line was answered by NSSRN trained interviewers at the U.S. Census Bureau’s call center in Tucson, Arizona. During data collection for the 2018 NSSRN, there were 1,145 calls made to the toll-free line. If the potential respondent requested to respond to the survey over the phone or was having difficulty completing the instrument on their own, the Telephone Questionnaire Assistance (TQA) interviewer would administer the survey using the Centurion web instrument. Table 6 lists all possible TQA purpose codes that could be assigned during a call or an interview. TQA Code 60 expanded to cover 13 additional frequently asked question (FAQ) codes and definitions that interviewers could use to categorize a question.

Table 6. TQA Purpose Codes Used for 2018 NSSRN Calls	
TQA Purpose Codes	Definitions
01	Internet instrument completed over the phone with TQA operator
02	Refusal to participate
04	Person does not live or work at this address
05	Not an RN
11	Not living in the US
12	Deceased
13	Institutionalized or terminally ill
20	Status of mailed paper questionnaire
30	Questions about non-monetary incentives
31	Request replacement questionnaire
40	Trouble filling out the paper questionnaire
49	PIN request
50	Login ID request
51	Problem logging into Internet instrument
52	Other instrument issues
53	Request account reset
60	Question regarding the survey (General FAQ)
80	Comments

TQA interviewer training was conducted prior to the initial 2018 mailing. There were a total of 57 interviewers trained to answer respondent questions about the NSSRN and conduct interviews over the phone using the web instrument. A background of the survey was provided, along with details on the mailout schedule and non-monetary incentives used. Interviewers were trained on how to determine and assign the correct purpose codes in Automated Tracking and Control (ATAC) system. They were given examples on how to search for respondent’s cases in the web instrument and how to administer the survey over the phone. Finally, they were trained on how to properly close out the case and assign a purpose code to identify the web questionnaire had been completed over the phone. TQA interviewers were given a manual that included these details and answers to frequently asked question that they were able to reference during the 2018 NSSRN production cycle.

Call monitoring sessions of recorded TQA calls were scheduled throughout data collection. If any changes were needed to the ATAC TQA instrument based on comments received from interviewers, the survey team coordinated programming updates. All updates to procedures were communicated to the TQA interviewers. Incoming call volumes were also monitored throughout data collection and scheduling of the interviewers was adjusted accordingly. See table 7 for breakout of why potential respondents contacted NSSRN TQA.

Table 7. TQA Purpose Codes Used for 2018 NSSRN Calls	
Reason for Call	Percentage
Complete Survey	27%
Non-respondent	9%
Ineligible	11%
Technical Support	53%

Email Questionnaire Assistance

Potential respondents were also able to interact with Census Bureau staff via email. An email address (nssrn@census.gov) was listed in all invitations and on the web and paper instruments. Emails were answered by NSSRN call center staff in Tucson, Arizona. Staff checked the email inbox daily, and replied to messages within 24 hours when possible. Emails were logged in a tracking spreadsheet and cases were assigned TQA purpose codes listed in Table 6.

Email Questionnaire Assistance (EQA) agents employed scripted responses for common concerns and questions. These scripts ensured consistent and accurate information. When replying to the messages, agents removed any information in the response email that could be considered personally identifiable (e.g. address and name). The EQA operation responded to 149 potential respondents.

Confidentiality

Participation in the 2018 NSSRN was voluntary, and all data collected that could potentially identify an individual person are confidential. Data are kept private in accordance with applicable law. Respondents are assured of the confidentiality of their replies in accordance with 13 U.S.C. Section 9. All access to Title 13 data from this survey is restricted to Census Bureau employees and those holding Census Bureau Special Sworn Status pursuant to 13 U.S.C. Section 23(c). In compliance with this law, all data released to the public are only in a statistical format. No information that could personally identify a respondent or household may be released. The Census Bureau ensured that all HRSA staff obtained Special Sworn Status prior to receiving access to any confidential data. The 2018 NSSRN public use data files went through a thorough disclosure review process and were approved by the Census Disclosure Review Board prior to release.

Efforts to Maximize Response Rates

The data collection process for the 2018 NSSRN was carefully designed to encourage participation from potential respondents. A series of tools were used to help maximize response rates including following best practices in instrument design for the web and paper instruments, using multiple modes for data collection, providing a toll-free telephone line for respondents, sending non-monetary incentives to a portion of the sample, using of follow-up reminders, cleaning frame address information to determine the best contact address, and using replacement addresses for mailings that were undeliverable to attempt to reach the potential respondent.

To increase cooperation, attention was placed in various design elements when constructing the questionnaire. In developing questions, concrete question wording was used with simple grammar. Efforts were made to provide clear instructions on how to answer questions, as necessary. Questions were

grouped according to subject matter areas within the instrument. To reduce burden, complicated items were restructured and simplified, long lists of response options were shortened, and unnecessary items were removed from the questionnaire altogether. Cognitive interviews were conducted to evaluate these enhancements.

For the paper instrument, the design and format maximized readability to include the appropriate spacing between questions, font size and type, and clear skip instructions. The web instrument was mobile-optimized to ensure readability on a variety of devices. Usability testing was completed on the web instrument, which provided feedback on the instrument's design features for improving potential respondent's interactions with the web instrument.

Data collection involved a series of mailings and follow-ups designed to grab the attention of the potential respondent and pique their interest in the subject matter. FAQs were provided in several mailings to give potential respondents more details on the survey. The FAQ used in the data collection is included in Appendix B. Several strategies and experiments were employed as part of these mailings to encourage response, including providing a non-monetary incentive and an infographic that provided more details on the 2018 NSSRN and how these data will be used. The mailing strategy used the 2018 NSSRN was based on recommendations from Dillman et al (2009) for maximizing response rates:

- *Invitation Letter:* An invitation letter was mailed to all potential respondents providing details about the study, a web URL with a login ID for accessing the web version of the questionnaire, and a toll-free number for the individual to call if there were any questions or comments. About half of the sample received a paper questionnaire in the initial mailing. In addition about half the sample also received a token of appreciation (an inscribed lanyard).
- *Additional Mailings:* The NSSRN employed multiple contacts with nurses to maximize responses. For non-respondents in the Web First Group, up to eight mailings were sent that included up to three web invitation letters, three pressure-sealed reminder letters and two paper questionnaires. For non-respondents in the Paper First Group, up to six mailings were sent that included up to three web invitation letters with a paper questionnaire, two pressure-sealed reminder letters and a final reminder letter in a manila envelope.

Response Rate

An outcome code was assigned to each case at the end of data collection in order to calculate the response rate. These outcome codes were categorized into (1) complete returns, (2) unknown eligibility, and (3) ineligible. Table 8 provides a summary of the final outcome codes for the 2018 NSSRN and how they were categorized into these three larger groups.

Complete returns are defined as those who answered three critical items as well as at least 50% of a subset of 28 questions. To be eligible for the survey and counted as a complete return, respondents had to have an active nursing license as of December 31, 2017 and be living in the United States.

For some potential respondents, we did not receive sufficient information to determine whether or not the individual was eligible to participate in the survey. These cases included those where the individual refused to complete the survey or did not complete a sufficient portion of the survey to yield a ‘complete’ status. The unknown eligibility category also includes cases where the mailings were undeliverable with the address we had on file and those whose mailings were delivered, but never responded.

Potential respondents were ineligible if they did not have an active nursing license as of December 31, 2017 or did not live in the U.S. Those who were deceased at the time of the survey or who were terminally ill or institutionalized were also ineligible for the survey.

Final Disposition	Description of Outcome Codes	Count
Complete Return	Complete Returns	50,273
Unknown Eligibility	Refusals/Incompletes	1,605
	Undeliverable as addressed	7,025
	Delivered, but no response received	42,505
Ineligible	Not a Registered Nurse	1,069
	Deceased	
	Not living in the US	
	Terminally Ill/Institutionalized	

The response rate was calculated using the American Association for Public Opinion Research Response Rate #3 definition (RR-3).¹¹ RR-3 is defined as the number of completed returns divided by the number of completed returns plus an estimate of the number of eligible cases among all unresolved cases. The proportion that were eligible out of all resolved cases was 97.9%. This figure was multiplied by the number of cases with unknown eligibility to estimate the number of eligible cases among all unresolved cases.

$$\text{Response Rate} = \frac{\text{Complete Returns}}{\text{Complete Returns} + e(\text{Unknown Eligibility})}$$

where e is the proportion that were eligible out of all responses received: $e = \frac{\text{eligible}}{(\text{eligible} + \text{ineligible})}$

¹¹ The American Association for Public Opinion Research. 2016. *Standard Definitions: Final Dispositions of Case Codes and Outcome Rates for Surveys*. 9th edition. AAPOR.

The national weighted response rate for the NSSRN was 49.0% (50.1% unweighted). The weighted response rate accounts for the sample design and the probabilities of selection due to disproportional selection in some states and strata in the sample.

Data Editing

We processed the data for cases identified as ‘complete’ for inconsistent, out-of-range, and out-of-path responses, and constructed new indicators from respondent answers that were useful for analysis by end users.

Completeness and De-duplication

Complete returns were defined as responding to three critical items and at least 50% of a subset of 28 questions throughout the instrument. Backfill edits on the three critical items were run prior to determining the completeness. Once there were a set of completed cases, we needed to deduplicate those cases where the respondents utilized both the web and paper instruments for responding. Completed web surveys were always selected over completed paper returns.

Because there are multiple follow-up mailings, it was also possible that respondents received more than one paper questionnaire and sent back two paper submission. In these cases, data from only one of the returned paper questionnaires was included in the data file. The paper return with the higher level of completeness as defined by the completion criteria above was selected for inclusion in the data file for cases where multiple paper questionnaires were returned.

Paper to Web Standardization

Responses need to be standardized across web and paper so they could be appended in a single data file. Although the majority of the survey questions had the same valid values for paper and web instruments, sometimes the variables names and response values differed due to the data collection systems. Generally, paper responses were reformatted to match the web output. If a respondent selected more than one response category in a “Mark One” question in the paper survey, the first response category listed on the form was generally selected. However, if the list was hierarchical in nature, such as degree, we chose the highest degree selected in the list. For example, ED_NP_CRED asks for the *highest* credential the respondent received for preparation as a nurse practitioner. If a respondent selected “Master’s Degree” and “Doctorate – DNP” on a paper questionnaire then the data file would contain “Doctorate – DNP” as the selected response.

Data Processing

The 2018 NSSRN raw output was processed to manage inconsistent and invalid responses in the following sequential steps:

- Range Edit. If a value falls outside the bounds of a defined minimum and maximum for that item, the value is replaced with an indicator that the response is missing in error. The minimum and maximum are selected to represent a reasonable range of possible responses to the item.

- **Backfill Edit.** The backfill edit imputes values to items based on responses to subsequent items that indicate the correct response to the edited item. Backfill edits apply almost exclusively to paper questionnaires, which cannot prevent a respondent from skipping a root item but answering follow-up questions. For example, if a nurse practitioner responded that they have ever billed under their National Provide Identifier (NPI) number (NP_NPIBILL=1), but had not selected a response to whether they had an NPI number (NP_NPINUM), then the correct response would be “Yes” to NP_NPINUM and the variable would be backfilled to a “1”.
- **Yes/No Edit.** In the NSSRN, there are question series that ask the respondent to select all response items that apply. Prior to the Yes/No edit, the variables corresponding to each response item are set to 1 if the item is selected and may be blank or 0 (depending on response mode) if it was not selected. If the respondent selects the response, the value will be set to 1 to signify a “Yes” response. If the respondent does not select the response, the value will be set to 2 to indicate a “No” response for the item. If none of the items in a select all that apply list are selected, then the entire set of variables that correspond to the response list are set to missing and imputed after the rest of the edits are completed.
- **Consistency Edit.** If responses to two items in the survey have conflicting data, one response is maintained and the other one is either updated to a consistent value with the one that is maintained or set to missing and imputed.
- **Legitimate Skip Edit.** If the item is not part of the respondent’s path, then the value for the item is set to ‘.L’.
- **Missing in Error Edit.** If the item is part of the respondent’s path, but the respondent did not provide a valid answer, the item is set to ‘.M’. In most cases, .Ms were imputed using hot deck imputation. Please see the Item Nonresponse and Imputation Section for more details.
- **Disclosure Edit.** If published, some survey answers could reveal the respondent’s identify and comprise confidentiality. Disclosure edits involve removing entire items or suppressing rare or unique values.

Open-ended Coding and Back coding

The NSSRN had several questions that contained an “Other, specify” option that allowed respondents to write-in their own responses. These write-ins were back coded and several new categories were formed. Any new categories created from open-ended coded are labeled as “OTHER (NEW CATEGORY)” in the dataset. This notation is used to differentiate those categories that had been listed on the questionnaire and those categories that were derived from open-ended coding.

Reserved Codes

The following reserve code values are:

- .L = Legitimate Skip
- .M = Unknown or Missing

Derived Variables

The following descriptive notes explain the meaning derived or constructed variables. For presentation in this document, derived variables are grouped into the following categories:

- Demographic Constructed Variables
- Education Constructed Variables
- Employment Constructed Variables
- Geographic Constructed Variables
- Advanced Practice Nursing, Licensure, and Professional Certification Constructed Variables
- Survey Administration Constructed Variables

The documentation includes the derived variable narrative, which briefly describes the variables, formulae, and concepts used in the preparation of the derived variables. The narrative provides the name of the derived variable and the response categories or levels.

Demographic Constructed Variables

The demographic constructed variables include

- Age;
- Race/ethnicity;
- Languages spoken;
- Marital status; and

Age of Nurse in 2018 (AGE_PUF)

Age of the respondent was determined by subtracting the year of birth from the year of the survey. AGE_PUF is created by applying bottom and top codes to age of the respondent. The bottom code groups all ages 26 years old or younger together. The top code groups all ages 78 years old and older.

Age of Nurses – Grouped (AGE_GP_PUF)

AGE_GP_PUF is a derived variable that aggregates ages into eleven categories:

- =<29
- 30 to 34
- 35-39
- 40 to 44
- 45 to 49
- 50 to 54
- 55 to 59
- 60 to 64
- 65 to 69
- 70 to 74
- >=75

Racial Background (RACE)

RACE summarizes racial background as follows in seven categories:

- American Indian/Alaska Native only and no other race(s) identified
- Asian only and no other race(s) identified
- Black or African American only and no other race(s) identified
- Native Hawaiian or other Pacific Islander only and no other race(s) identified
- White only and no other race(s) identified
- Some other race and no other race(s) identified
- Multiracial where more than one racial category was identified

Race/Ethnic Background (RAC_ETHN_PUF)

RAC_ETHN_PUF summarizes racial/ethnic background as follows in eight categories:

- Hispanic
- White only and no other race(s) identified, non-Hispanic
- Black or African American only and no other race(s) identified, non-Hispanic
- Asian only and no other race(s) identified, non-Hispanic
- American Indian/Alaska Native only and no other race(s) identified, non-Hispanic
- Pacific Islander only and no other race(s) identified, non-Hispanic
- Some other race only and no other race(s) identified, non-Hispanic
- Multiracial where more than one racial category was identified, non-Hispanic

Race/Ethnic Background Summary (RACE_GP)

RACE_GP summarizes racial/ethnic background as follows in two groups:

- White only and no other race(s) identified, non-Hispanic
- Other – either races other than White or Hispanic

Marital Status and Other Adults at Home Being Cared for Aside from Children at Home (MAR_ADULT)

MAR_ADULT, with its four categories, combines information from on marital status (with its three original levels of married or in a domestic partnership, widowed/divorced/separated, and never married) with information on whether there are adults being provided significant care by the nurse at the nurse's own home. The coverage of this variable includes such individuals as parents and other dependents.

These four constructed categories of MAR_ADULT are as follows:

- Married with adults being cared for at home;
- Widowed/separated/divorced with adults being cared for at home;
- Never married with adults being cared for at home; and
- No adults being cared for at home.

Marital Status and Children at Home Being Cared for (MAR_CHLD)

MAR_CHLD has twelve categories combines information on marital status (with its three original levels of married or in a domestic partnership, widowed/divorced/separated, and never married) with information on those children being provided significant care at home by the nurse. This is a mark-all-that-apply item that includes no children at home, children at home age less than 6 years, and children at home age 6-18 years as options.

These twelve constructed categories of MAR_CHLD are as follows:

- Married with children under 6 years;
- Married with children 6-18 years;
- Married with children of any age;
- Married with no children at home;
- Widowed/separated/divorced with children under 6 years;
- Widowed/separated/divorced with children 6-18 years;
- Widowed/separated/divorced with children of any age;
- Widowed/separated/divorced with no children at home;
- Never married with children under 6 years;
- Never married with children 6-18 years;
- Never married with children of any age;
- Never married with no children at home.

Additional Languages Spoken by Nurse (ADDLANG)

ADDLANG indicates if the nurse speaks languages in addition to English.

Education Constructed Variables

These derived variables are based on responses to one or more education questions. The following education-related derived variables are summarized:

- Initial nursing education preparation;
- Years since graduation; and
- Highest level of education achieved.

Year of Graduation from Initial RN Program -- Grouped (GRAD_YR_PUF)

GRAD_YR_PUF is a derived variable that groups the nurse's year of graduation from their initial RN education program into eleven intervals, defined as follows:

- before 1964;
- 1965 to 1969;
- 1970 to 1974;
- 1975 to 1979;

- 1980 to 1984;
- 1985 to 1989;
- 1990 to 1994;
- 1994 to 1999;
- 2000 to 2004;
- 2005 to 2009;
- 2010 to 2014;
- 2015 and after.

Age at Initial RN Program Graduation (AGE_GRAD_PUF)

AGE_GRAD_PUF is the difference between the year of graduation and the year of birth.

AGE_GRAD_PUF includes bottom coded and top coded groups. The bottom code groups all ages 18 years old or younger together. The top code groups all ages 73 years old and older.

Graduated from a U.S. or non-U.S. Initial RN Program (GRAD_WHR)

GRAD_WHR indicates whether the nurse's initial RN education program was located in the U.S., U.S. Territories, or a foreign country.

Years since Graduation from Initial RN Program (YR_SINCE_PUF)

YR_SINCE_PUF identifies the number of years between graduation from the initial RN program and the year of the survey. YR_SINCE_PUF groups together 3 years or fewer since graduation and groups together 56 years or more since graduation.

Years since Graduation – Grouped (YRSNC_GP_PUF)

YRSNC_GP_PUF is a derived variable that groups years since graduation from the initial RN program into nine groups, defined as follows:

- 0 to 5 years;
- 6 to 10 years;
- 11 to 15 years;
- 16 to 20 years;
- 21 to 25 years;
- 26 to 30 years;
- 31 to 35 years;
- 36 to 40 years;
- 41 years and over.

Highest Nursing or Nursing-Related Educational Preparation (HIGHPREP_PUF)

HIGHPREP_PUF reports the RN's highest level of nursing or nursing-related education across eight categories. It is derived from the respondent's responses to questions on the respondent's initial nursing educational preparation and additional degrees. Nursing-related degrees are those where the RN indicated that the non-nursing degree was related to their career in nursing. Nursing-related degrees are reported as the highest preparation only if they are at a more-advanced educational level than the highest nursing degree. The eight categories are defined as follows:

- Diploma in nursing;
- Associate's degree in nursing or Associate's degree in nursing related field;
- Bachelor's degree in nursing;
- Bachelor's degree in nursing related field;
- Master's degree in nursing;
- Master's degree in nursing related field;
- Doctorate in nursing;
- Doctorate in nursing related field.

Summary of Highest Nursing or Nursing-Related Educational Preparation (PREP_SUM_PUF)

PREP_SUM_PUF summarizes the RN's highest level of nursing or nursing-related education into four generic groups regardless of whether the highest educational degree is nursing or nursing-related. It is derived from the highest nursing or nursing related preparation. The four groups are defined as follows:

- Diploma in nursing;
- Associate's degree in nursing or nursing related field;
- Bachelor's degree in nursing or nursing related field;
- Master's degree or Doctorate in nursing or nursing related field.

Highest Nursing Educational Preparation (HIGHNURS)

HIGHNURS reports the RN's highest level of nursing education, excluding any nursing-related education that may have been earned across five categories. It is derived from the respondent's responses questions on nursing related education. The five categories are as follows:

- Diploma in nursing;
- Associate's degree in nursing;
- Bachelor's degree in nursing;
- Master's degree in nursing;
- Doctorate in nursing.

Highest Educational Preparation (HIGHEDU)

HIGHEDU reports the RN's highest level of education across five categories, regardless of whether or not that education was nursing, nursing-related, or non-nursing, and whether it is before or after the initial RN education. The five categories are as follows:

- Diploma;
- Associate's degree;
- Bachelor's degree;
- Master's degree;
- Doctorate.

Year of Graduation from Highest Nursing or Nursing-Related Education (H_YEAR_PUF)

H_YEAR_PUF denotes the year when the respondent received the highest nursing or nursing-related education. It is derived from the year in which the highest degree was received. All degrees received before 1962 are captured in one category (1962 or before). All degrees received since 2017 are captured in one category (2017 or after).

Year of Graduation from Highest Nursing Education (HN_YEAR_PUF)

HN_YEAR_PUF denotes the year when the respondent received the highest degree from a nursing education program, excluding any nursing-related education that may have been earned. All graduation years before 1962 are captured in one category (1962 or before). All graduation years since 2017 are captured in one category (2017 or after).

Age Received Highest Nursing Educational Preparation (HN_AGE_PUF)

HN_AGE_PUF denotes the respondent's age at the time of receiving the highest degree from nursing-education, excluding any nursing-related education that may have been earned. HN_AGE_PUF was determined by using the award year of highest education then subtracting the year of birth, from this year of highest nursing educational preparation. The bottom code groups all ages 18 years old or younger together. The top code groups all ages 76 years old and older.

Years Between Initial and Highest Nursing Educational Preparation (YR_IN_HN_PUF)

YR_IN_HN_PUF is the number of years between the respondent's initial RN educational preparation and highest nursing educational preparation. Actual years between initial and highest education were determined by subtracting age at graduation from age. The range for this variable is 0-54, with 54 indicating 54 years or more years in-between.

Current Enrollment in an Academic Degree Upgrade Program (EDU_ENRLD_PUF)

EDU_ENRLD_PUF combines information concerning academic degree upgrade programs that nurses are currently pursuing. The following six categories for EDU_ENRLD_PUF have been coded:

- Bachelor's in nursing or nursing related program;
- Master's in nursing;
- Master's in a nursing-related program;

- Post master’s certificate, nursing or nursing related program;
- Doctorate in nursing or nursing related program;
- Other educational programs whether or not they are nursing-related (in another field outside of nursing, an associate degree, or a certificate);

Sources of Financing for Initial RN Education, Count of Sources (NFINANCE)

NFINANCE is a count of the number of sources that the RN reported using to finance the initial RN education. It is coded as follows in four categories:

- One source;
- Two sources;
- Three sources;
- Four or more sources.

Employment Constructed Variables

These variables are constructed from responses to the employment section of the questionnaire. These variables summarize information about:

- Employment status;
- Employment setting;
- Hours worked;
- Salary;
- Position and dominant function from employment in nursing;
- Reasons for employment change; and
- Prior health-related employment.

Detailed Employment Status (EMP_STAT)

EMP_STAT summarizes the nurse’s current employment status on December 31, 2017, using responses to employment in nursing, full time/part time employment in nursing, and months worked per year. Categories are as follows:

- Employed in nursing full time;
- Employed in nursing part time;

Nurse Practitioner’s Detailed Employment Status (NP_EMPL_17)

EMP_STAT summarizes the nurse’s employment status on December 31, 2017. The following three values are generated:

- Employed as a nurse practitioner;
- Not employed as a nurse practitioner, but employed in nursing;
- Not employed in nursing.

RN's Employment Status in 2017 (EMPL_17)

EMPL_17 indicates the RN employment status on December 31, 2017. It is derived from current employment status in nursing. The following three values are generated:

- Employed in nursing full time;
- Employed in nursing part time; or
- Not employed in nursing.

RN's Employment Status in 2016 (EMPL_16)

EMPL_16 indicates the RN employment status in nursing on December 31, 2016. It is determined from whether or not working in nursing one year prior, and fulltime/part-time employment status one year prior. The following three values are generated:

- Employed in nursing full time;
- Employed in nursing part time; or
- Not employed in nursing.

RN's Employment Status in 2017 in Comparison to 2016 (EMP17_16)

EMP17_16 compares the RN's employment status in nursing on December 31, 2017 (EMPL_17), to the employment status in nursing on December 31, 2016 (EMPL_16). It reflects changes in full time and part time status as well as any overall changes with the employment in nursing. Nine categories are defined as follows:

- Full time employment in nursing in both years;
- Full time employment in nursing in 2017 and part time employment in nursing in 2016;
- Full time employment in nursing in 2017 and not employed in nursing in 2016;
- Part time employment in nursing in 2017 and full time employment in nursing in 2016;
- Part time employment in nursing in both 2017 and 2016;
- Part time employment in nursing in 2017 and not employed in nursing in 2016;
- Not employed in nursing in 2017 and full time employment in nursing in 2016;
- Not employed in nursing in 2017 but part time employment in nursing in 2016;
- Not employed in nursing in either 2017 or 2016.

Employment through Temporary Employment Service (EMPL_TES_PUF)

EMPL_TES_PUF captures whether a respondent employed in nursing is employed by a temporary employment service in any of their primary or secondary nursing position(s). The derived variable categorizes primary and secondary employment of the RN into three categories, as follows:

- Temporary employment service in their primary employment in nursing;
- Temporary employment service in only their secondary employment in nursing;
- Not having any nursing employment through a temporary employment service.

Employment through Organization or Facility (EMPL_ORG_PUF)

EMPL_ORG_PUF captures whether a respondent employed in nursing is employed by an organization or facility in any of their primary or secondary nursing position(s). The derived variable categorizes principal and secondary employment of the RN into three categories, as follows:

- Employed through an organization or facility only in the primary employment in nursing;
- Employed through an organization or facility in secondary employment in nursing;
- Not having any nursing employed through an organization or facility.

Self-Employment in Nursing (EMPL_SELF_PUF)

EMPL_SELF_PUF captures whether a respondent employed in nursing is self-employed, per diem, or working as needed in any of their primary or secondary nursing position(s). The derived variable categorizes principal and secondary employment as follows:

- Self-employed in the primary employment in nursing;
- Self-employed only in secondary employment in nursing;
- Not self-employed in nursing.

Number of States where Working in Nursing (NWKSTATE)

NWKSTATE captures the number of States in which an RN is working in their primary and secondary nursing positions. Values for the derived variable are as follows:

- Working in nursing in only one State;
- Working in nursing in exactly two States;
- Working in nursing in three or more States.

2017 Employment Setting Summary (SETSUM17)

For RNs employed in nursing in 2017, SETSUM17 identifies the health care setting for their primary nursing position on December 31, 2017. The health care settings are grouped into the following four categories:

- Hospital setting;
- Other inpatient setting;
- Clinic or ambulatory care setting;
- Other types of settings.

2016 Employment Setting Summary (SETSUM16)

For RNs employed in nursing in 2016, SETSUM16 identifies the health care setting for their primary nursing position on December 31, 2016. The health care settings are grouped into the following four categories:

- Hospital setting;
- Other inpatient setting;
- Clinic or ambulatory care setting;
- Other types of settings.

Employment Setting 2016 versus 2017 (SET16_17)

SET16_17 summarizes changes in employment setting between 2016 and 2017 for nurses who were working in nursing in both 2016 and 2017. SET16_17 indicates whether the RN is employed in the same setting or in a different setting.

Estimated Work Hours per Year in Primary Nursing Position (HRS_YR_PUF)

HRS_YR_PUF estimates paid work hours on an annual basis in the primary employment in nursing. The estimate includes regular and overtime hours worked. HRS_YR_PUF includes bottom coded and top coded groups. The bottom code groups 4 hours per year or less together. The top code groups 4,100 hours or more together.

Estimated Work Hours per Year in all Nursing Positions (TOTRNHRS_YR_PUF)

TOTRNHRS_YR_PUF estimates paid work hours on an annual basis in both the primary and secondary employment in nursing. The estimate includes regular and overtime hours worked. TOTRNHRS_YR_PUF includes bottom coded and top coded groups. The bottom code groups 4 hours per year or less together. The top code groups 6,368 hours or more together.

Total Salary or Earnings From All Nursing and Non-Nursing Employment (TOTSAL_PUF)

TOTSAL_PUF is sum of all reported Salary and Earnings from the three types of employment addressed in the survey: primary position in nursing, secondary positions in nursing, and employment outside of nursing. If salary for any nursing or non-nursing employment was not known but the RN reported holding the corresponding type of employment, TOTSAL_PUF was coded as unknown. TOTSAL_PUF includes a top coded group of \$352,000 or more.

Dominant Function in Principal Nursing Position (DOMFUNCT_PUF)

DOMFUNCT_PUF identifies the function, which occupies more than 50 percent of time in the RN's primary nursing position during a usual workweek. DOMFUNCT_PUF categories are as follows:

- Patient care;
- Care coordination;
- Supervision;

- Research;
- Teaching;
- Other;
- No dominant function.

Summary Reasons for Nurse Changing Positions in the Past Year from Previous Nursing Employment (CH_CAREER, CH_PERSFAM, CH_RETIRE, CH_WRKPLCE, and CH_OTHER)

A nurse who changed positions in the past year was asked for the primary reasons as to why the nurse made that change in position. In all such cases, the nurse was employed in nursing a year earlier in 2017. The list of reasons for position change have been grouped into summary categories that describe a series of general reasons for changing positions in nursing since a year ago.

In each of the derived variables, CH_CAREER, CH_PERSFAM, CH_RETIRE, CH_WORKPLACE, and CH_OTHER, summary themes are described as to reasons why the individual nurse has changed positions over the past year from the 2017 position in nursing. These themes include changing positions due to: personal career opportunities, personal or family circumstances, retirement reasons, lack of inviting workplace, or other reasons.

These summary derived variables that describe reasons for employment change include the following, each of which is coded either yes or no:

- CH_CAREER is a summary variable that reports change in position due to alternate career, or schooling opportunities;
- CH_PERSFAM is a summary variable that reports change in position due to personal or family reasons;
- CH_RETIRE is a summary variable that reports change in position due to retirement reasons;
- CH_WORKPLACE is a summary variable that reports change in position due to concerns or negative feelings towards the nursing workplace ;
- CH_OTHER is a summary variable that reports change in position for reasons not best described by the above four general summary reasons.

Number of Reasons for Position Change (NCHREASN)

Nurses were asked to report the primary reason for change in the principal nursing position. NCHREASN provides a count of the number of reasons for position change reported by the RN. This count of reasons ranges from 1 to 4 or more.

Summary Reasons for Nurse Not Currently Working in Nursing (NOT_CAREER, NOT_PERSFAM, NOT_RETIRE, NOT_WORKPLACE, and NOT_OTHER)

Nurses who were not working in nursing in 2018 at the time of the survey were asked for the primary reasons as to why they were not working in nursing. The list of reasons for not working in nursing have been grouped into summary categories that describe a series of general reasons for not working in nursing in 2018.

In each of the derived variables, NOT_CAREER, NOT_PERSFAM, NOT_RETIRE, NOT_WORKPLACE, and NOT_OTHER, summary themes are described as reasons why the individual nurse is not working in nursing. These themes include not working due to: personal career opportunities, personal or family circumstances, retirement reasons, lack of inviting workplace, or other reasons.

These summary derived variables that describe reasons for not working in nursing include the following, each of which is coded either yes or no:

- NOT_CAREER is a summary variable that reports primary reasons for not working in nursing due to career change, schooling opportunities, or concerns regarding nursing;
- NOT_PERSFAM is a summary variable that reports primary reasons for not working in nursing due to personal or family reasons;
- NOT_RETIRE is a summary variable that reports primary reasons for not working in nursing due to retirement reasons;
- NOT_WORKPLACE is a summary variable that reports primary reasons for not working in nursing due to concerns with the nursing workplace;
- NOT_OTHER is a summary variable that reports primary reasons for not working in nursing due to other miscellaneous reasons which are not best described by the above four general summary reasons.

Number of Reasons for Not Working in Nursing (NNOTRN)

Nurses were asked to report the primary reason for not working in nursing in 2018. NNOTRN provides a count of the number of reasons for not working in nursing as reported by the RN. This count of reasons ranges from 1 to 4 or more in 4 categories.

Years Since Last Worked for Pay as an RN (LST_WRKD)

RN's who report not being employed in nursing in 2018 at the time of the survey were asked to report the number of years since they were last employed as an RN. The variable LST_WRKD groups the response into six categories, as follows:

- Less than 1 year
- 1 to 2 years;
- 3 to 4 years;
- 5 to 9 years;
- 10 to 19 years;
- 20 or more years.

Number of Health-Related Jobs before Initial RN education (NHLTHJOB_PUF)

Nurses were asked to report all of the health-related jobs they had before completing their initial RN education. NHLTHJOB_PUF provides a count of the number health-related jobs held before completing the initial RN education. This count of ranges from 0 to 3 or more.

Number of Helpful Training Topics (NTRAIPTOPIC)

Nurses were asked to report all of the helpful training topics they encountered. NTRAIPTOPIC provides a count of the number helpful training topics encountered. This count of ranges from 0 to 4 or more.

Number of Reasons to Remain at Primary Employment (NREMAINJOB)

Nurses were asked to report all of reasons for remaining with their primary employment. NREMAINJOB provides a count of the number of reasons for remaining with their primary employment. This count of ranges from 1 to 4 or more.

Summary Reasons for Nurse Changing Employment in the Past Year from Previous Nursing Employment (LVEPN_CAREER, LVEPN_PERSFAM, LVEPN_RETIRE, and LVEPN_WRKPLCE)

A nurse who changed employment in the past year was asked for the primary reasons as to why the nurse made that change. The list of reasons for employment change have been grouped into summary categories that describe a series of general reasons for changing employment since a year ago.

In each of the derived variables, LVEPN_CAREER, LVEPN_PERSFAM, LVEPN_RETIRE, and LVEPN_WRKPLCE, summary themes are described as to reasons why the individual nurse has changed employment over the past year from the 2018 position in nursing. These themes include changing employment due to: personal career opportunities, personal or family circumstances, retirement reasons, or lack of inviting workplace.

These summary derived variables that describe reasons for employment change include the following, each of which is coded either yes or no:

- LVEPN_CAREER is a summary variable that reports change in employment due to alternate career, or schooling opportunities;
- LVEPN_PERSFAM is a summary variable that reports change in employment due to personal or family reasons;
- LVEPN_RETIRE is a summary variable that reports change in employment due to retirement reasons;
- LVEPN_WORKPLACE is a summary variable that reports change in employment due to concerns or negative feelings towards the nursing workplace.

Number of Reasons for Employment Change (NLVEPN)

Nurses were asked to report the primary reason for change in the primary nursing employment. NLVEPN provides a count of the number of reasons for employment change reported by the RN. This count of reasons ranges from 1 to 4 or more.

Summary Reasons for Nurse To Leave Employment (RELVEPN_CAREER, RELVEPN_PERSFAM, RELVEPN_RETIRE, RELVEPN_WRKPLCE, and RELVEPN_OTHER)

Nurses were asked what would contribute to making a decision to leave their position (among those who remained in the same primary nursing position as in 2017, but had considered leaving this position). The list of reasons that would contribute to a decision to leave their position have been grouped into summary categories that describe a series of general reasons.

In each of the derived variables, RELVEPN_CAREER, RELVEPN_PERSFAM, RELVEPN_RETIRE, RELVEPN_WRKPLCE and RELVEPN_OTHER, summary themes are described as to reasons why the individual would consider leaving their position. These themes include changing positions due to: personal career opportunities, personal or family circumstances, retirement reasons, lack of inviting workplace, or other reasons.

These summary derived variables that describe reasons for considering leaving employment in nursing include the following, each of which is coded either yes or no:

- RELVEPN_CAREER is a summary variable that reports whether the nurse would consider leaving their primary nursing position due to alternate career, or schooling opportunities;
- RELVEPN_PERSFAM is a summary variable that reports whether the nurse would consider leaving their primary nursing position due to personal or family reasons;
- RELVEPN_RETIRE is a summary variable that reports whether the nurse would consider leaving their primary nursing position due to retirement reasons;
- RELVEPN_WORKPLACE is a summary variable that reports whether the nurse would consider leaving their primary nursing position due to concerns or negative feelings towards the nursing workplace;
- RELVEPN_OTHER is a summary variable that reports whether the nurse would consider leaving their primary nursing position due to other reasons.

Number of Reasons for Leaving Employment in Nursing (NRELVEPN)

A nurse who remained in the same primary nursing position as in 2017, but had ever considered leaving this position was asked for the primary reasons that would contribute to making a decision to leave their position. NRELVEPN provides a count of the number of reasons that would contribute to them leaving their primary nursing position reported by the RN. This count of reasons ranges from 1 to 4 or more.

Number of Reasons for Not Working as a NP (NNOTNP_PUF)

NPs were asked to report the primary reasons for not working as a NP. NNOTNP_PUF provides a count of the number of reasons for no longer working as a NP reported by NPs. This count of reasons ranges from 1 to 2 or more.

Employment Setting in 2017 (PN_EMPSET_COMB_PUF)

Respondents were asked to report their employment setting as of December 31, 2017. PN_EMPSETP_COMB_PUF categories are as follows:

- Critical access hospital;
- In patient unit – not critical access hospital;

- Emergency department – not critical access hospital;
- Hospital sponsored ambulatory care (outpatient, surgery, clinic, urgent care, etc.);
- Hospital ancillary unit;
- Hospital nursing home unit;
- Hospital administration;
- Hospital other, specify;
- Hospital other (consultative setting);
- Nursing home unit not in hospital;
- Rehabilitation facility/ long-term care;
- Inpatient mental health;
- Correctional facility;
- Other inpatient setting, specify;
- Nurse managed health center;
- Private medical practice (clinic, physician office etc.);
- Public clinic (rural health center, fqhc, Indian health service, tribal clinic etc.);
- School health service (k-12 or college);
- Outpatient mental health/substance abuse;
- Ambulatory surgery center (free standing);
- Clinic other, specify;
- Home health agency/service;
- Occupational health or employee health service;
- Public health or community health agency (not a clinic);
- Government agency other than public/community health or correctional facility;
- Outpatient dialysis center;
- University or college academic department;
- Case management/disease management insurance company;
- Call center/telenursing center;
- Other, specify;
- Other (consultative setting).

Employment Setting 2016 (NH_EMPSET_COMB_PUF)

Respondents who worked in a different primary nursing position in 2017 and 2016 were asked to report their employment setting as of December 31, 2016. NH_EMPSETP_COMB_PUF categories are as follows:

- Critical access hospital;
- Inpatient unit - not critical access hospital;
- Emergency department - not critical access hospital;
- Hospital sponsored ambulatory care (outpatient, surgery, clinic, urgent care, etc.);
- Hospital administration;
- Hospital other, specify;
- Hospital other (consultative setting);
- Nursing home unit not in hospital;
- Rehabilitation facility/ long-term care;
- Other inpatient setting, specify;
- Private medical practice (clinic, physician office etc.);

- Ambulatory surgery center (free standing);
- Clinic other, specify;
- Home health agency/service;
- University or college academic department;
- Case management/disease management insurance company;
- Other (consultative setting).

Advanced Practice Nursing Constructed Variables, RN Licensure, and RN Professional Certifications

This section covers derived variables related to:

- Preparation as an advanced practice RN;
- Nursing certifications; and
- RN licensure.

Clinical Nurse Specialist Status (APN_CNS)

In order to be identified as having received preparation as a Clinical Nurse Specialist. (APN_CNS = 1) the RN must have satisfied the following:

- Completion of a formal Clinical Nurse Specialist (CNS) training program; and
- Receipt of a master's degree, post-master's certificate, or doctoral degree in any of the
- following alternate pathways:
 - Receipt of a master's or doctoral degree in nursing, and having received that award since 1953; or
 - Receipt of a nursing-related master's or doctoral degree, having received that award since 1953, and with a public health or community health focus

Nurse Practitioner Status (APN_NP)

In order to be identified as having received preparation as a Nurse Practitioner (APN_NP=1), the RN must have satisfied the following:

- Active certification, license, or other legal recognition to practice as an NP; or
- National certification in a recognized NP specialty (ED_NP_PREP)
 - Receipt of a master's or doctoral degree in nursing/nursing related field (HIGHPREP_PUF=5-8), with a clinical focus.

Nurse Anesthetist Status (APN_NA)

In order to be identified as having received preparation as a Nurse Anesthetist (APN_NA=1), the RN must have satisfied the following:

- Active certification as an NA; or
- National NA certification; or
- National certification in a recognized NA specialty (ED_NA_PREP); and

- Receipt of a master’s or doctoral degree in nursing/nursing related field (HIGHPREP_PUF=5-8), with a clinical focus.

Nurse Midwife Status (APN_NM)

In order to be identified as having received preparation as a Nurse Midwife (APN_NM=1), the RN must have satisfied the following:

- Active certification as an NM; or
- National NM certification; or
- National certification in a recognized NM specialty (ED_NM_PREP); and
 - Receipt of a master’s or doctoral degree in nursing/nursing related field (HIGHPREP_PUF=5-8), with a clinical focus.

Advanced Practice Nurse Status (APN_COMBOS_PUF)

APN_COMBOS_PUF identifies whether the RN meets a set of criteria for having status as being prepared in one or more of the four advanced practice RN areas:

- Clinical Nurse Specialist (CNS);
- Nurse Anesthetist (NA);
- Nurse Midwife (NM);
- Nurse Practitioner (NP).

RNs may be prepared in more than one advanced practice area. APN_COMBOS_PUF uses the derived variables APN_CNS, APN_NP, APN_NA, and APN_NM to summarize the combinations of advanced practice preparation as follows:

- Nurse Midwife (NM) only or with other certificate;
- Nurse Anesthetist (NA) only;
- Nurse Practitioner (NP) only;
- Clinical Nurse Specialist (CNS) only;
- Combination of NA, NP, and CNS certificates;
- No advance practice RN preparation.

Number of States in which RN Currently Licensed (RN_LICST_CT)

RN_LICST_CT tallies the count of the number of States in which the RN was licensed in 2018 as reported by the respondent. This count of number of States in which the RN is currently licensed ranges from 1 to 4 or more.

Number of States in which NP Currently Licensed (NP_LICST_CT_PUF)

NP_LICST_CT_PUF tallies the count of the number of States in which the NP was licensed in 2018 as reported by the respondent. This count of number of States in which the RN is currently licensed ranges from 1 to 2 or more.

Whether the Nurse's State of Permanent Residence is Part of the Nurse Licensure Compact (NLC)

NLC captures whether the nurse has an RN license in the reported State of the nurse's permanent residence and where the State of the permanent residence participates in the national Nurse Licensure Compact. At the time of the 2018 Survey, 30 States participated in the Nurse Licensure Compact. This Compact provides specific allowances for nurses to practice in another State outside the State of permanent residence without having the nurse obtain an additional RN license in the second State. The categories for NLC are as follows:

- Compact nurse;
- Nurse lives in the compact State, but is not a compact nurse;
- Nurse does not live in a compact State.

State RN Obtained First License versus State of Employment/Residence for 2017 (LI_RESST)

LI_RESST indicates if the RN is employed or otherwise resides in the State in which they obtained their first license to practice (LI_RESST = 1).

Number of National Skill-Based Nursing Certifications Held (NSKLCERT)

NSKLCERT is a derived variable, which provides a summarized count of the number of reported national skill-based certifications. This count of number of the number of reported national skill-based certifications ranges from 0 to 4 or more.

Number of National Advanced Practice RN Certifications Held (NAPNCERT_PUF)

NAPNCERT_PUF is a derived variable, which provides a summarized count of the number of reported advanced practice RN certifications. This count of the number of reported advanced practice RN certification ranges from 0 to 2 or more.

Geographic Constructed Variables

These geographic variables describe:

- Location of initial RN education;
- Location of residence in 2016 and 2017;
- Location of employment in 2016 and 2017;
- Changes in these locations over time.

Geocode for State in 2016 One Year Prior to Survey (G_ST16_PUF)

G_ST16_PUF is the numeric FIPS State code that identifies the State for the RN as of December 31, 2016 or if the RN was outside of the United States.

Geocode for State in 2017 at Time of Survey (G_ST17_PUF)

G_ST17_PUF is the numeric FIPS State code that identifies the State for the RN as of December 31, 2017.

State of Graduation versus Place of Employment/Residence (GD_GEOST)

GD_GEOST compares the State in which the RN received initial RN education to the State in which the RN is located in 2017. The categories are as follows:

- The State of initial RN education is the different from the current state;
- Living outside the United States.

Geocode for Census Division in 2016 (G_RG16_PUF)

G_RG16_PUF is the geocode for the Census Division where the RN primarily worked or lived on December 31, 2016. The Census Division categories are as follows:

- New England;
- Middle Atlantic;
- East north central;
- West north central;
- South Atlantic;
- East south central;
- West south central;
- Mountain;
- Pacific.

Geocode for Census Division in 2017 (G_RG17)

G_RG17 is the geocode for the Census Division where the RN primarily worked or lived on December 31, 2017. The Census Division categories are as follows:

- New England;
- Middle Atlantic;
- East north central;
- West north central;
- South Atlantic;
- East south central;
- West south central;
- Mountain;
- Pacific.

County of Residence the Same in 2016 and 2017 (RCTY_SME_PUF)

RCTY_SME summarizes the comparison between the responses to the RN's County of residence as of December 31, 2016, and the RN's State of residence on December 31, 2017. The categories for RCTY_SME_PUF are as follows:

- Same county;
- Different county.

Division Where Received Initial Nursing Education (REG_B_ED)

REG_B_ED is the geocode for the Census Division where the respondent received initial nursing education. The Census Division categories are as follows:

- Outside the United States;
- New England;
- Middle Atlantic;
- East north central;
- West north central;
- South Atlantic;
- East south central;
- West south central;
- Mountain;
- Pacific.

Division of Employment (REG_EMPL)

REG_EMPL is the geocode for the Census Division for the RN's place of principal employment as of December 31, 2017. The Census Division categories are as follows:

- New England;
- Middle Atlantic;
- East north central;
- West north central;
- South Atlantic;
- East south central;
- West south central;
- Mountain;
- Pacific.

Division of Residence 2017 (REG_RESI)

REG_RESI is the geocode for the RN's Division of residence as of December 31, 2017. The Census Division categories are as follows:

- New England;
- Middle Atlantic;
- East north central;
- West north central;
- South Atlantic;
- East south central;
- West south central;
- Mountain;
- Pacific.

Survey Administration Constructed Variables and Weight Variables

Mode by Which Survey Response was Received (SOURCE)

SOURCE is a descriptive variable, which identifies the specific means, or mode, through which the completed survey was administered. The three modes of administration for this survey are:

- Paper survey;
- Web Survey.

Date of Receipt of the Response from the Nurse (SUBMISSION_DATE)

SUBMISSION_DATE identifies the date when the response was received. If the nurse submitted multiple responses, the date is the date of first complete response received.

Final Adjusted Weight for the Sample (RKRNWGTA)

RKRNWGTA is an RN-level full sample weight generated for responding RNs who are eligible to be included in the sample. A weight was assigned to each eligible registered nurse, who held an active license. This weight reflects the original probability of selection of the RN, adjusting for nonparticipation (nonresponse), multiple license assignment, and age.

Weight for Replicate Samples (RKRNWGTA1-RKRNWGTA100)

RKRNWGTA1 to RKRNWGTA100 are the replicate weights for subsamples, which are used in the calculation of variances. When data are collected as part of a complex survey, there is often no easy way to produce approximate unbiased design consistent estimates of variance analytically. The variance of survey statistics from regular SAS and SPSS procedures for simple random samples are inappropriate and generally too small. A technique called jackknife replication method is used for estimating variances from the NSSRN.

Suppressed and Collapsed Variables

To protect respondent confidentiality, disclosure edits were completed on some released variables to create range caps, suppressed values, or collapsed categories. Variables where disclosure edits were

applied are marked by a “_PUF” at the end of the variable name. The Census Bureau top-codes certain variables before making that information publicly available, recoding any amount over a certain maximum value to that maximum. In other words, variables on the public use data files have a ceiling value. A few variables, such as age, may be bottom-coded if they pose a disclosure risk.

Weighting

This section presents an overview of calculating the weights for the nurses in the 2018 NSSRN sample. These weights incorporate the differential probabilities of selection, an adjustment for duplication not previously identified, an adjustment for nonresponse, and an adjustment to ensure the sample estimates weight up to the population counts derived from the sampling frame.

All cases selected were assumed to be eligible, considering they were eligible at the time the nursing boards created the files for Census. Completed questionnaires were coded as interviews, with all others coded as non-interviews.¹²

The following variables from the sampling frame were used in the weighting procedure: License State, Census Region, License Type (RN only or RN with an NP license), Sex, Race, Ethnicity, and Date of Birth. Person identifiers were used to match to administrative data to fill in demographic information (sex, race, ethnicity, and date of birth) that was not provided by the nursing boards. Not all missing data was able to be filled in using administrative records, thus missing information was imputed based on the distribution of the corresponding non-missing variables by license state, RN/NP stratum and other frame variables where possible. The imputation rate is small, between 1.7% and 6.3% for age, gender, ethnicity and race by RN/NP stratum.

Weighting Steps

Each interviewed nurse in the 2018 NSSRN sample was assigned a positive weight and non-interviewed nurses received a zero weight. Steps to calculate the weights were similar to the 2008 NSSRN. Base weights were assigned as the inverse of the probability of selection for the sampling stratum from which the nurse was selected. Base weights for nurses identified as having a multiple chance of selection were adjusted accordingly. Every sampled case was assigned to a non-interview adjustment cell and interviewed cases were weighted up to account for the non-interviews in each cell. Large non-interview weights were trimmed to reduce the variance. In the last step of the weighting, all interviewed cases were assigned to the appropriate cells and their weights were adjusted so that the sum of the survey weights matched the sum of the population control for each cell.

Base Weight

The base weight is the inverse of the probability of selection of a nurse for each stratum. There are different probabilities of selection for each license state and stratum. Within the sample selected, 170 nurses were found to have been listed more than once within or across the sampling strata. The base weight for these cases was adjusted by $\frac{1}{\frac{1}{w_1} + \frac{1}{w_2}}$ where w_1 and w_2 are the base weights associated with the

¹² It is acknowledged that this is a different treatment of ineligibles than in the calculation of the response rate. The motivation is to represent the 2017 nurse population as well as possible, since that is the information obtained from the nursing boards.

two stratum in which they were found. The Protected Identification Key (PIK) process assigns a unique person identifier to federal, commercial, census, and survey data to facilitate linkages across and within files. PIKs identified the bulk of the duplication, but was unsuccessful when one or more of the duplicate records was missing date of birth. If there were no nonresponses and the survey frame was complete, using the base weight would give us unbiased estimates for the survey population.

Non-interview Adjustment

The non-interview adjustment inflates the weights of the interviewed nurses to account for the non-interviewed nurses. All interviewed and non-interviewed nurses are categorized by age group, sex, and race within census region and RN/NP stratum. Age groups are less than 30, 30-39, 40-49, 50-59, and 60 +. Race categories are white non-Hispanic, black non-Hispanic, and other. These variables determine the non-interview cell assignment. Non-interview cells with fewer than 30 interviewed nurses were collapsed across race. The non-interview adjustment factor is calculated as the sum of the base weights for the interviewed and non-interviewed cases divided by the sum of the base weights for the interviewed cases. The non-interview adjustment factor is then applied to the base weight for each interviewed case.

Weight Trimming

A weighting trimming adjustment was implemented to minimize the effect of “stratum jumpers,” i.e., nurses who were sampled in the RN stratum but responded that they held an NP license or were RNs (or NPs) sampled from one state but held licenses from other states.¹³ This adjustment was necessary due to the large difference in the base weights between the RN and NP strata and across states. Consequently, reducing the extremely large weights has the effect of lowering the variance. The cutoff thresholds were determined by balancing the need to reduce the large weights while minimizing the number of weights trimmed. Cutoff values were chosen for each state x RN/NP stratum. On average, the cutoffs were set at 7 times of the median weight by stratum within a state. Weights were trimmed directly after the non-interview adjustment.

Second Stage Adjustment

The second stage adjustment increases the precision of survey estimates, by adjusting weighted counts of interviewed nurses to the 2018 NSSRN population totals using an iterative raking process (see Brick and Kalton (1996)). Through this process, the weighted counts of interviewed nurses will converge to the set of marginal distributions formed from the 2018 NSSRN population totals.

Fifty three dimensions are employed, fifty one state specific dimensions and two national dimensions. For the state specific dimensions, the totals are based on the count of unique RNs and NPs within each license state and the overall number of unique nurses across all license states on the 2018 NSSRN universe file. There are control totals for three groups: 1) nurses with an RN license but no NP license in that state 2) nurses with an RN license and an NP license in that state 3) nurses without an RN license in that state. For women, control totals include details for race (White Non-Hispanic and Non-White) and age (<45, 45+). For each of the 51 state specific dimensions, there are 15 control totals. The last two dimensions are national totals based on the sampling strata (RN/NP) and sex. One dimension will include

¹³ Given the sampling frame was created from files received from the nursing boards in early 2017, this sample will not be representative of nurses newly licensed in 2017 and 2018.

five age groups (<30, 30-39, 40-49, 50-59, and 60+) and the other dimension will include five race groups (White Non-Hispanic, Asian Non-Hispanic, Black Non-Hispanic, Other Non-Hispanic, and Hispanic). There are 20 control totals for each of these dimensions. The national control totals are created from the overall number of unique nurses across all license states in the 2018 NSSRN universe file. Table 9 below illustrates the cells associated with each dimension.

Table 9. Second Stage Cell Assignment

Dimension	Cell Number	License State Name	Stratum	Gender	Race	Age Group
1	1	Alabama	RN Only	Female	NonWhite	<45
	2			Female	NonWhite	45+
	3			Female	White Non-Hispanic	<45
	4			Female	White Non-Hispanic	45+
	5			Male		
	6			Female	NonWhite	<45
	7		Female	NonWhite	45+	
	8		RN and NP	Female	White Non-Hispanic	<45
	9			Female	White Non-Hispanic	45+
	10			Male		
	11		Not Licensed in Alabama	Female	NonWhite	<45
	12			Female	NonWhite	45+
	13			Female	White Non-Hispanic	<45
	14			Female	White Non-Hispanic	45+
	15			Male		
... Continue with dimensions 2 – 51, the remaining second stage cells for all license states ...						
52	1	National	RN	Female		<30
	2					30-39
	3					40-49
	4					50-59
	5					60+
	6			Male	<30	
	7				30-39	
	8				40-49	
	9				50-59	
	10				60+	
	11		NP	Female	<30	
	12				30-39	
	13				40-49	
	14				50-59	
	15				60+	
	16			Male	<30	
	17				30-39	
	18				40-49	
	19				50-59	
	20				60+	

Table 9. Second Stage Cell Assignment

Dimension	Cell Number	License State Name	Stratum	Gender	Race	Age Group
53	1	National	RN	Female	Asian	
	2				Black Non-Hispanic	
	3				Hispanic	
	4				Other Non-Hispanic	
	5				White Non-Hispanic	
	6			Male	Asian	
	7				Black Non-Hispanic	
	8				Hispanic	
	9				Other Non-Hispanic	
	10				White Non-Hispanic	
	11		NP	Female	Asian	
	12				Black Non-Hispanic	
	13				Hispanic	
	14				Other Non-Hispanic	
	15				White Non-Hispanic	
	16			Male	Asian	
	17				Black Non-Hispanic	
	18				Hispanic	
	19				Other Non-Hispanic	
	20				White Non-Hispanic	

Weights of interviewed nurses are controlled to the population totals for each license state: RNs without an NP license, RNs with an NP license, and the balance of the total number of unique nurses across all license states and then to the national population totals. Total for each dimension will be the number of unique nurses across all license states.

Population controls will be created using the sample universe file with a few modifications. Cases split from the California license file for the 2018 California Survey of Registered Nurses, nurses in the NCSBN sample, and duplicate records for nurse’s licenses in multiple states were added back into the file. A total of 51 indicator variables, one for each license state, indicate if a nurse is licensed in a particular state and whether that includes an NP license or not. These variables were used to create population totals for each license state, ensuring that a nurse licensed in multiple states is counted in the control for each state he or she holds a license.

When classifying interviewed nurses into state specific second stage cells, survey responses on the state license and demographic data are used as much as possible. Whenever the demographic data was missing

in the survey data, it was filled in with the corresponding frame variable or imputed using a hot deck imputation. Every state license reported in the survey data was used, even if it differed from the universe file. When an RN holds licenses in more than 4 states, the universe file was used to add additional license states to the nurse's survey response data.

Second stage adjustment factors are created for each cell in every dimension starting with dimension 1. The population control is divided by the sum of the non-interview weights and this factor is applied to all the cases in the cell. Next, these new weights are summed for each of the cells in dimension 2 and a new adjustment factor is calculated using these and the population controls for dimension 2. The weights are adjusted with this new factor and they are used as the starting weights for dimension 3. This process proceeds through the 53 dimensions. One iteration of creating the second stage adjustment factors starts with the first license state and then ends with the national level dimensions. After each iteration of creating adjustment factors for every license state and national dimension, the weighted totals are compared to the controls. If the weighted counts are within 100 of the controls for every cell then the raking is complete, if not, the process is repeated by performing another iteration across all the dimensions. The weights produced after the final iteration are the final survey weights.

Replicate Weights

A set of 100 replicate weights for each interviewed nurse in the 2018 NSSRN sample was produced using the Jackknife replication method of variance estimation. Sample cases were sorted by license state, stratum, and various demographic variables and then assigned to 100 random groups systematically. New base weights were calculated for each of the 100 replicates dependent on the random group assignment. For replicate 1, all nurses assigned to random group 1 got a new base weight of 0 while all others got a new base weight of $100/99 * original\ baseweight$. This process continues to form 100 replicates. At the end of the process each nurse has 100 new base weights, each one associated with a different replicate. The entire weighting procedure is run separately for each of the replicates, using these new base weights, producing the replicate weights. The replicate weights are used to calculate standard errors that incorporate the complex sample design of the 2018 NSSRN.

Nonresponse Bias Analysis

Nonresponse in sample surveys can impact the quality of survey estimates. The resulting error in the estimates is known as nonresponse bias. The degree of the nonresponse bias depends on both the response rate and how much the respondents and non-respondents differ on survey variables of interest. Weighting adjustments, both the nonresponse adjustment and the raking to population totals, are expected to reduce the nonresponse bias.

Table 1 summarizes the results of comparing the estimates of the frame variables for the full sample and for respondents only and the weighted response rates by sex, age group, race, and ethnicity. Two sample distributions are provided for the respondents, one weighted by the base weight and the other weighted by the non-interview-adjusted weight. The relative difference is calculated by dividing the difference between respondents and all sampled cases by the percentage of all sampled cases. A positive relative difference indicates the group is being overrepresented in the interviewed sample, while a negative difference indicates the group is being underrepresented. Using the base weight, we see that men, age groups less than 30 and 30-45, Black Non-Hispanics, Other Non-Hispanics, and Hispanics are all underestimated in the interviewed sample by at least 13%. Asian Non-Hispanics, and nurses 60 years old and older are overestimated by 10% and 32%, respectively. After the non-interview adjustment, we see

that differences almost all disappear except for Asian Non-Hispanics and Hispanics. Asian Non-Hispanics are overestimated by about 33% and Hispanics are underestimated by about 26%, since the combination of these two groups defined the non-interview cells, i.e., they were not adjusted for separately due to small cell sizes. After the raking adjustment, using the final weights, Asian Non-Hispanics are underestimated by about 17% and Hispanics are overestimated by about 19% compared to the full sample distribution.

The analysis of the frame characteristics indicate potential nonresponse bias associated with sex, age, race, and ethnicity prior to applying the non-interview adjustment. Once the non-interview adjustment is complete, the relative differences are reduced to less than 5% for each subgroup except for Asian Non-Hispanics (overestimated by about 33%) and Hispanics (underestimated by about 26%). The raking adjustment that follows the non-interview adjustment treats these two groups separately and reduces the differences to a 17% underestimation for Asian Non-Hispanics and a 19% overestimation of Hispanics compared to the full sample distribution.

Table 10. Comparison of Estimates for Frame Variables											
	All Sampled Cases			Respondents							
		Base Weight		Base Weight		Non-interview Adjusted Weight		Trimmed Non-interview Adjusted Weight		Final Weight	
	Frequency	Weighted Response Rate (%)	Percent	Percent	Relative Difference (%)	Percent	Relative Difference (%)	Percent	Relative Difference (%)	Percent	Relative Difference (%)
Sex											
Male	9,618	42.2	9.8	8.4	-13.8	9.7	-1.2	9.7	-1.3	9.7	-1.2
Female	91,790	49.7	90.2	91.6	1.5	90.3	0.1	90.3	0.1	90.3	0.1
Age Group											
<30	6,059	37.1	8.6	6.6	-23.5	8.3	-3.2	8.4	-2.3	8.5	-1.5
30-39	26,254	38.5	22.6	17.9	-20.8	22.6	-0.2	22.5	-0.3	22.4	-1.1
40-45	12,202	41.0	10.6	9.0	-15.4	10.0	-5.7	10.0	-5.5	10.4	-2.5
45-49	12,221	44.5	11.5	10.5	-8.3	11.8	3.1	11.8	2.8	11.4	-0.2
50-59	21,899	51.9	21.9	23.4	6.8	21.7	-0.8	21.7	-0.8	21.8	-0.4
60+	22,773	65.0	24.8	32.6	31.5	25.5	2.9	25.5	2.8	25.6	3.1
Race & Ethnicity¹⁴											
White Non-Hispanic	80,869	52.6	74.9	80.4	7.3	75.5	0.8	75.7	1.1	74.3	-0.7
Black Non-Hispanic	7,490	35.3	8.3	6.0	-27.4	7.9	-4.2	7.8	-5.1	8.2	-1.0
Asian Non-Hispanic	4,565	53.6	6.3	7.0	10.3	8.4	33.0	8.3	31.5	5.2	-17.1
Other Non-Hispanic	2,181	39.7	1.9	1.5	-18.5	1.8	-5.1	1.7	-7.4	1.9	3.5
Hispanic	6,303	29.4	8.7	5.1	-40.6	6.4	-25.6	6.4	-25.7	10.3	19.2

Source: U.S. Census Bureau, 2018 National Sample Survey of Registered Nurses internal data

¹⁴ Due to using a combination of respondent data, frame data, and imputed data for race and ethnicity, the distribution using the base weights differs slightly from the distribution of the final weights.

Item Level Response and Imputation

There are two types of nonresponse in surveys: unit nonresponse and item nonresponse. Unit nonresponse occurs when a sampled respondent did not respond to any items in the survey. Unit nonresponse is reflected in the calculation of the response rate and in weighting through nonresponse adjustment. Item nonresponse occurs when a sampled respondent did not provide answers to one or more individual questions appropriate for that individual. This results in a missing value for one or more survey items. Statistical imputation is a common practice to treat item nonresponse. Imputation is widely used, and a lot of research has been done on the topic. However, one should not consider imputation as the remedy for nonresponse phenomenon in surveys, but rather as the last resort after trying to get respondent answers.

For item nonresponse in the 2018 NSSRN data, the missing information was assigned values in two steps. First, use information from the frame files (licensure lists) when possible. The variables typically available on the frame include demographic characteristics (date of birth, race/ethnicity, and gender), RN school location (country or US state), home address, RN licensing states and NP licensing states. Not all states provided these variables, and data for them could be very sparse even when the variable was included in the frame. Note that, for confidentiality reasons, the information from the Census Personal Identification Verification System (PVS) was not used in the imputation. Second, when item nonresponse persisted after taking information from the sample frame file, statistical imputation was used to assign values for missing data. The 2018 NSSRN imputation protocol relied on the imputation method commonly referred to as “Hot Deck”, which randomly fills in a missing value from the completed cases with similar characteristics.

Statistical Imputation Methods

In Hot Deck imputation, each missing value is replaced with an observed response from a “similar” unit (Kalton & Kasprzyk, 1986). The goal of statistical imputation procedures is to identify a value that not only would probably be appropriate for the respondent but would also maintain the (conditional) distribution of that variable. For example, the survey items “Nurse’s year of graduation from initial nursing education” and “Year of first licensure” are highly correlated. If the year of licensure is missing from an RN’s record but not the year of graduation, the missing year of licensure value can be imputed using a value reported by a randomly selected RN who has a similar year of graduation.

As the imputed value comes from a reported value, hot-deck imputation can avoid nonsensical values. Imputation classes are formed based on auxiliary variables that are observed for both donors and recipients. Within each imputation class, additional auxiliary variables are used as sorting variables to locate donors that have similar characteristics with the recipient.

There is a component of variation associated with the generation of imputed values that is generally not reflected in survey estimates of variance. As a result, treating the imputed values as observed can result in an understatement of the variance in survey estimates. The degree to which estimates of variability have been understated is generally considered negligible if the imputation rate is low (less than 10 percent). However, if the imputation rate is more than 20 percent, the degree of underestimation may be nontrivial.

Imputation Procedures

Sometimes, missing values can be precisely deduced. For example, if variables A and B are percentages that are supposed to be summed to 100. If A is present and B is missing, then B should be $(100 - A)$. Such imputation is called deterministic imputation. This step was included in data cleaning and not

discussed here. The majority of missing values however, cannot be deduced with certainty. These missing values are prime candidates for statistical imputation.

Imputation was not attempted for some variables because imputation was unnecessary or impractical (such as the —Other Specify variables). The —other-specify variables were not imputed, not because their imputation was too difficult, but because non-missing answers were unique in the sense that the respondents could not find appropriate answers among the common categories provided in the questionnaire and their answers were individualistic so that using them as donors for missing cases does not make sense. Further, some variables were simply too difficult to impute coherently while maintaining complex inter-relationships with other variables, such as location variables including city, county and zip code.

Variables that were not statistically imputed for 2018 NSSRN include the following:

- Survey eligibility and nursing employment status (questions A1a, B1 and F1a). These items were considered essential for survey completion and therefore did not have missing values;
- Address fields except State in questions B2, H6, K1, K2;
- All —other-specify variables;
- Other names on a nursing license (questions J1).

The Hot Deck imputation was implemented in the following steps:

1. Identify skip patterns and use leading questions as imputation class variables;
2. Use variables that need to be conceptually consistent (in consistency checks in editing) as class variables;
3. Select sorting variables including the ones with high chi-square values from simple logistic regressions or simple linear regressions, and/or demographic variables;
4. For variables created from a “mark all” item, impute all variables together;
5. Edit the data to reflect skip patterns based on imputed values on the leading question. For example, if the leading question NP_INS_DK was imputed to be 1, then all variables under the corresponding skip pattern (NP_INS_PRIV, NP_INS_CARE, NP_INS_CAID, NP_INS_TRI, NP_INS_VA, NP_INS_IHS, NP_INS_SELF, and NP_INS_OTH) was coded as logical skip. Note that these edits are not counted in the computation of imputation rates.

Results and Implications on Variance Estimates

For each imputed variable a conditional imputation rate was computed. Conditional rate is defined as the ratio of the number of imputed applicable cases by the total number of applicable cases in the data set. The conditional rate allows the analyst to see impact of imputation on data analysis.

Greater than ninety percent of the imputed variables for the 2018 NSSRN have imputation rates below 10 percent, roughly 8 percent are borderline (imputation rate of 10-19 percent), and 6 variables (1 percent of all survey variables) have an imputation rate greater than 20 percent.¹⁵ There are 4 of the 6 variables on the public use file. The variables are: NN_EMP_YRS_PUF, ED_CNS_CRED_PUF, SN_HRSPW_JOB3_PUF and NN_EMP_YRS_PUF. When these variables are analyzed, the analyst should be aware of the potential underestimation of the variance. Further information on imputed variables and flag variables for imputed variables are included in the 2018 NSSRN codebook.

¹⁵ Imputation rates were computed as the ratio of the number of imputed cases of that variable to the total number of applicable cases in the data set.

Table 11. Imputation Rates		
Imputation Rate	Number of variables	% of variables
0% (no imputation)	15	2.6%
Up to 1.00%	26	4.5%
1.01% to 3.00%	208	36.3%
3.01% to 5.00%	177	30.9%
5.01% to 10.00%	97	16.9%
10.01% to 20.00%	44	7.7%
20.01% and over	6	1.0%
Total	573	100.0%

Variance Estimation and Hypothesis Testing

The NSSRN estimates are based on a sample; they may differ somewhat from the figures that would have been obtained if a complete census had been taken. This difference is known as sampling error and can be estimated from the survey data. While the simplest calculations of sampling error assume simple random sampling, these will underestimate the sampling error for the 2018 NSSRN. This is because different sampling rates were used across the two sampling strata, as well as across states, making the 2018 NSSRN a complex sample design.

The sampling error of an estimate is measured by its variance. The square root of the variance, or the standard error, can be used to construct confidence intervals around the survey estimates. By calculating the confidence intervals, one can say with a specified confidence that the average estimate derived from all possible samples is included in the confidence interval.

The variance for the NSSRN estimates can be obtained using the Jackknife replication method (Wolter, 2007). Estimates are created using the full sample weight and the 100 replicate weights. The variance is calculated as:

$$Var(y) = \frac{99}{100} \sum_{m=1}^{100} (y_m - y)^2$$

Where y is the estimate using the full sample weight and y_m is the estimate using replicate weight m .

Note: Because the population of Nurse Practitioners was small in most states, and sample sizes were set to produce reliable state estimates, quite a few states had very large sampling fractions. In forty states, the sample selected was 20% of the population or greater. In nine of these states, the entire population was included in sample. Due to these high sampling rates, the proportions of respondents in the NP frame within state level sampling strata are also high and Finite Population Correction (FPC) factors are needed to adjust the variance estimates. When calculating state estimates for Nurse Practitioners licensed in these states, the variance should be reduced by multiplying the FPC factor given in Table 12.

The calculation of the finite population correction started with one minus the ratio between the unweighted interview count (the counts of the nurses reporting having an NP license in a particular state) and the frame count within each stratum. As a portion of those reporting having an NP license in a state were sampled from other strata, to calculate state estimates for NPs reported being licensed in the state, the finite population corrections were adjusted upward to account for this difference. This adjustment was based on the comparison of variance estimates by licensing state assuming the reported licensing states are all consistent with the sampling strata versus the actual estimates when a portion of the estimates came from outside of the sampling strata.

Table 12. Finite Population Correction Factors (FPCs) for NP estimates by licensing states	
State	Correction Factor
Alabama	1
Alaska	0.6
Arizona	1
Arkansas	1
California	1
Colorado	1
Connecticut	1
Delaware	0.6
District of Columbia	0.6
Florida	1
Georgia	1
Hawaii	0.7
Idaho	0.7
Illinois	1
Indiana	1
Iowa	1
Kansas	1
Kentucky	1
Louisiana	1
Maine	0.7
Maryland	1
Massachusetts	1
Michigan	1
Minnesota	1
Mississippi	1
Missouri	1
Montana	0.6
Nebraska	0.8
Nevada	0.7
New Hampshire	0.7
New Jersey	1
New Mexico	0.7
New York	1
North Carolina	1
North Dakota	0.7
Ohio	1
Oklahoma	0.8
Oregon	1
Pennsylvania	1
Rhode Island	0.7
South Carolina	1
South Dakota	0.6
Tennessee	1
Texas	1
Utah	0.8
Vermont	0.5
Virginia	1
Washington	1
West Virginia	0.8
Wisconsin	1
Wyoming	0.6

The standard error (the square root of the variance) can be used to form confidence intervals and conduct hypothesis testing. A confidence interval is a range about a given estimate that has a known probability of including the result in a complete enumeration. For example, if all possible samples were selected, each of these being surveyed under essentially the same conditions and using the same sample design, and if an estimate and its standard error were calculated from each sample, then approximately 95 percent of the intervals from two standard errors below the estimate to two standard errors above the estimate would include the average result of all possible samples. A 95 percent confidence interval for an estimate x can be constructed as

$$x \pm 1.96 * (\text{standard error of } x)$$

We can say with 95 percent confidence that the average estimate derived from all possible samples is included in this confidence interval.

Standard errors can also be used for hypothesis testing, which is a procedure for distinguishing between population characteristics using sample estimates. The most common type of hypothesis test is determining if two sample estimates are different. Tests may be performed at various levels of significance, where a level of significance is the probability of concluding that the characteristics are different when, in fact, they are identical.

To perform the most common test, compute the difference $x_a - x_b$, where x_a and x_b are sample estimates of the characteristics of interest. Let the standard error of this difference be s_{diff} . If $x_a - x_b$ is between $(-1.96 * s_{diff})$ and $(+1.96 * s_{diff})$, no conclusion about the characteristics is justified at the 5 percent significance level. If, on the other hand, $x_a - x_b$, is smaller than $(-1.96 * s_{diff})$ or larger than $(+1.96 * s_{diff})$, the observed difference is significant at the 5 percent level. Some of the time this conclusion will be wrong. When the characteristics are the same, there is a 5 percent chance of concluding that they are different.

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Appendix A – Questionnaire Content Changes from 2008 to 2018



Section A - 2008 NSSRN Questionnaire Content Changes for 2018

Questionnaire items from the 2008 NSSRN that have been changed for the 2018 survey are itemized in the table below. At left are images of the questions as they appeared in the 2008 questionnaire. At right are images displaying the enhanced questions as they appear in the 2018 questionnaire.

Enhancements include:

- Revised question and response option wording,
- Restructured response formats and locations of write-in boxes
- Enhanced instructions

NOTE: The table below does not include questions where the only change was to remove parentheses from italicized instructional text.

Table A-1. Questionnaire changes between 2008 and 2018

2008 Version	2018 Version
<p>1. On March 10, 2008, were you <u>actively licensed</u> to practice as a registered nurse (RN) in any U.S. State or the District of Columbia (whether or not you were employed in nursing at that time)?</p> <p><input type="checkbox"/> Yes → Go to Question 2 <input type="checkbox"/> No → <i>If No, you do not need to complete this questionnaire. Please mark "no" <u>and return this questionnaire</u> so we know you are not eligible.</i></p>	<p>A1a. As of December 31, 2017, were you <u>actively licensed</u> to practice as a Registered Nurse (RN) in the U.S. (whether or not you were employed in nursing at that time)?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → <i>If No, you do not need to complete this questionnaire. Please mark "No" <u>and return this questionnaire in the envelope provided so we know you are not eligible.</u></i></p>
<p>If there are <u>any</u> corrections to the "State(s) Where Actively Licensed", please relist <u>ALL</u> of the States where you are actively licensed.</p> <p>State(s) Where Actively Licensed: State 1, State 2, State 3</p> <p>Web site URL: www.nssm.org Access Code: [XXXXXXXX]</p> <p>OMB No.: 0915-0276</p> <p>Corrections to the State(s) Where Actively Licensed</p>	<p>A1b. What state(s) issued the license(s)? <i>List up to 4.</i></p> <p>State State State State</p> <p><input type="checkbox"/> Check this box if you were issued a license by more than 4 states.</p>
<p>2. In what U.S. State were you issued your <u>first</u> RN license?</p> <p>State: <input type="text"/> <input type="text"/> Year: <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>	<p>A2. In what state and year were you issued your <u>first</u> U.S. RN license?</p> <p>State Year</p> <p><input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/></p>

2008 Version

2018 Version

3. Which type of nursing degree or nursing credential qualified you for your first U.S. RN license? Mark one box only.

- Diploma Program
- Associate Degree
- Bachelor's Degree
- Master's Degree
- Doctorate
- Other

Specify

A3. Which type of nursing degree qualified you for your first U.S. RN license? Mark one box only.

- Diploma
- Associate
- Bachelor's
- Master's
- Doctorate - PhD
- Doctorate - DNP
- Other

4. In what month and year did you graduate from this nursing program?

Month: Year:

A4. In what month and year did you graduate from this RN program?

Month Year

5. In which U.S. State (including the District of Columbia), U.S. Territory, or foreign country was this program located?

State: Philippines

Canada

United Kingdom

Nigeria

Other

Specify

A5. Where was this program located?

In the U.S.
Print state abbreviation. →

Outside the U.S.
Print name of foreign country or U.S. territory. ↴

6. Please indicate all post-high-school degrees you received before starting your initial RN educational program. Mark all that apply.

None → Go to Question 8

- Associate Degree
- Bachelor's Degree
- Master's Degree
- Doctorate
- Other

Specify

A6. What post-high school degree(s) did you receive before starting your first RN program? Mark all that apply.

- Associate
- Bachelor's
- Master's
- Doctorate
- Other
- None

2008 Version

2018 Version

8. Have you ever been licensed as a licensed practical nurse (LPN) or licensed vocational nurse (LVN) in the U.S.?

- Yes
- No

A7. Have you ever been licensed as a Licensed Practical Nurse (LPN) or Licensed Vocational Nurse (LVN) in the U.S.?

- Yes
- No

9. Were you ever employed in any of the following health-related jobs before completing your initial RN education? *Mark all that apply.*

- No health-related position before RN education
- Nursing Aide or Nursing Assistant
- Home health aide or assistant
- Licensed Practical or Vocational Nurse
- Emergency Medical Technician (EMT) or Paramedic
- Medical assistant
- Dental assistant
- Allied Health technician or technologist (radiological technician, laboratory technician)
- Manager in health care setting
- Clerk in health care setting
- Military medical corps
- Medical doctor
- Midwife
- Another type of health-related position

Specify

A8. Were you ever employed in any of the following health-related jobs before completing your first RN program? *Mark all that apply.*

- Nursing aide or nursing assistant
- Home health aide or assistant
- Licensed Practical or Vocational Nurse
- Community health worker
- Midwife
- Other health-related job
- Not employed in any health-related jobs before RN

10. How did you finance your initial RN education?

Mark all that apply.

- Earnings from your health-care-related employment
- Earnings from your non-health-care-related employment
- Earnings from other household members
- Personal household savings
- Other family resources (parents or other relatives)
- Employer tuition reimbursement plan (including Veterans Administration employer tuition plan)
- Federal traineeship, scholarship, or grant
- Federally-assisted loan
- Other type of loan
- State/local government scholarship or grant
- Non-government scholarship or grant
- Other resources

A9. How did you finance your first RN degree? *Mark all that apply.*

- Self-financed (personal savings, earnings from employment, money from spouse or family members, etc.)
- Employer tuition reimbursement plan
- Department of Veterans Affairs employer tuition plan
- Health Resources and Services Administration Support (e.g., National Health Service Corps, Nurse Corps Loan Repayment, Faculty Loan Repayment)
- Other federal traineeship, scholarship, or grant
- Federally-assisted student loan
- Other type of student loans
- State/local government scholarship or grant
- Non-government scholarship or grant
- Other resources

2008 Version

13. Did you earn any additional academic degrees after graduating from your initial registered nurse education program that you described in Question 3? Do not include degrees you are currently working towards.

- Yes → Please complete all columns of the following table for each degree you earned.
 No → Go to Question 14 on page 5

Type of Degree	A Did you receive this degree? Mark all that apply.	B What was the primary focus of this degree? Enter two-digit code from table below.	C Has this degree been related to your career in nursing?	D In what year did you receive the degree?	E In what state or country was this educational program located?	F Was this degree program undertaken through a distance-based learning program? (with more than 50% of coursework through correspondence or online)
Nursing Degrees						
a. Associate degree in nursing	<input type="checkbox"/>	→	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
b. Bachelor's degree in nursing	<input type="checkbox"/>	→	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
c. Master's in nursing	<input type="checkbox"/>	<input type="checkbox"/>	→	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
d. Another Master's in nursing	<input type="checkbox"/>	<input type="checkbox"/>	→	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
e. Doctorate in nursing (PhD, ScD, DNS, ND, DNP)	<input type="checkbox"/>	<input type="checkbox"/>	→	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
Non-nursing Degrees						
f. Associate degree in non-nursing field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
g. Bachelor's degree in non-nursing field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
h. Master's in non-nursing field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
i. Another Master's in non-nursing field	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No
j. Doctorate in non-nursing field (PhD, JD, MD, EdD)	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> Yes <input type="checkbox"/> No

For Column B, enter the two-digit code for your Bachelor's, Master's, or Doctorate degree above.

Primary Focus of Degree

01 Clinical Practice	07 Humanities, Liberal Arts, or Social Sciences
02 Administration/Business/Management	08 Informatics
03 Education	09 Computer Science
04 Public health/community health	10 Research
05 Law	11 Social Work
06 Biological or Physical Sciences	12 Other health field
	13 Other non-health field

2018 Version

A10. Did you earn any additional academic degrees after acquiring your first RN degree that you described in Question A3? Do not include degrees you are currently working towards.

- Yes → Please complete all rows of the table below for each degree you earned
 No → SKIP to Question A11 on page 4

	Nursing Degrees				
	Associate in nursing	Bachelor's in nursing	Master's in nursing	Another Master's in nursing	Doctorate in nursing (PhD, ScD, DNS, ND, DNP)
A10a. In what year did you receive this degree?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A10b. In what U.S. state or foreign country was this program located?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A10c. Was 50% or more of the coursework for this degree online or through correspondence?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
A10d. What was the primary focus of this degree? Enter two-digit code from the table at the bottom of the page.	N A	N A	<input type="text"/>	<input type="text"/>	<input type="text"/>

	Non-nursing Degrees				
	Associate (Non-nursing)	Bachelor's (Non-nursing)	Master's (Non-nursing)	Another Master's (Non-nursing)	Doctorate in non-nursing field (PhD, JD, MD, EdD)
A10e. In what year did you receive this degree?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A10f. In what U.S. state or foreign country was this program located?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
A10g. Was 50% or more of the coursework for this degree online or through correspondence?	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Yes <input type="checkbox"/> No
A10h. What was the primary focus of this degree? Enter two-digit code from the table below.	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Primary focus of degree

01 Clinical Practice	05 Public Health/Community Health	09 Information Technology/Informatics
02 Clinical Nurse Leader	06 Law	10 Research
03 Administration/Business Management	07 Biological or Physical Sciences	11 Other health field
04 Education	08 Humanities, Liberal Arts, or Social Sciences	12 Other non-health field

2008 Version

14. Since graduating from the initial nursing program you described in Question 3, have you completed a formal educational program preparing you as a Nurse practitioner, Clinical nurse specialist, Nurse-midwife, or Nurse anesthetist?

Yes → Go to Question 14a
 No → Go to Question 15 on page 6

Information on preparation and credentials:	A Nurse Practitioner (NP)	B Clinical Nurse Specialist (CNS)	C Nurse-Midwife (NM)	D Nurse Anesthetist (NA)
14a. Did you receive preparation as a ...? <i>Mark each column if yes.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
14b. What was the length of the program? 1. Less than 8 months 2. 8-12 months 3. 13-36 months 4. 37 months or more	(Mark one) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(Mark one) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(Mark one) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(Mark one) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
14c. What was the highest credential you received in that program? 1. Certificate/Award 2. Bachelor's degree 3. Master's degree 4. Post-Master's Certificate 5. Doctorate	(Mark one) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(Mark one) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(Mark one) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	(Mark one) <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
14d. In what year did you receive this credential?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
14e. Do you have certification from a national certifying organization for this specialty? <i>IF YES:</i> Is this certification required by your employer for your job?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A
14f. Do you have licensure, certification, or recognition from a State Board of Nursing for this specialty? <i>IF YES:</i> Is this license, certification, or recognition required by your employer for your job?	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A	<input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> N/A

- 14g. Which specialties were the focus of your NP, CNS, NM, or NA studies? *Mark all that apply.*
- | | | |
|---|--|--|
| <input type="checkbox"/> Acute Care | <input type="checkbox"/> Geriatrics or Gerontology | <input type="checkbox"/> Palliative Care |
| <input type="checkbox"/> Adult Health | <input type="checkbox"/> Home Health | <input type="checkbox"/> Pediatrics |
| <input type="checkbox"/> Anesthesia | <input type="checkbox"/> Maternal-Child Health | <input type="checkbox"/> Psychiatrics or Mental Health |
| <input type="checkbox"/> Cardiac Care | <input type="checkbox"/> Neonatal | <input type="checkbox"/> Rehabilitation |
| <input type="checkbox"/> Community Health | <input type="checkbox"/> Nurse-Midwifery | <input type="checkbox"/> School Health |
| <input type="checkbox"/> Critical Care | <input type="checkbox"/> Obstetrics or Gynecology | <input type="checkbox"/> Women's Health |
| <input type="checkbox"/> Family Care | <input type="checkbox"/> Occupational Health | <input type="checkbox"/> Other |
| <input type="checkbox"/> General Medical Surgical | <input type="checkbox"/> Oncology | <input type="checkbox"/> Other: <input type="text"/> |

2018 Version

A11. After acquiring your first RN degree, which you described in Question A3, have you completed a formal U.S. education program preparing you to be a Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist?

Yes
 No → SKIP to Question A12a

	Nurse Practitioner	Clinical Nurse Specialist	Nurse-Midwife	Nurse Anesthetist
A11a. Did you receive preparation as a...? <i>Mark each column if yes.</i>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
A11b. What was the highest credential you received in that program? 1. Certificate/Award 2. Bachelor's Degree 3. Master's Degree 4. Post-Master's Certificate 5. Doctorate – PhD 6. Doctorate – DNP 7. Doctorate – other	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/>
A11c. In what year did you receive this credential?	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

15. On March 10, 2008, were you enrolled in a formal education program leading to an academic degree or certificate?

Yes
 No → Go to Section B

16. Was this formal education program...? *Mark one box only.*

- In nursing
 In a non-nursing field to enhance your career/employment in nursing
 In a non-nursing field to allow you to pursue career/employment opportunities outside of nursing
 In an area of personal interest without regard to future employment

A12a. During the Fall term of 2017, were you enrolled in a formal education program leading to an academic degree or certificate?

- Yes, in nursing
 Yes, in a non-nursing field
 No → SKIP to Section B on page 5

2008 Version

2018 Version

17b. What percent of your coursework was distance-based (online or correspondence)?

- 0%
- 1-25%
- 26-50%
- 51-75%
- 76-100%

A12c. What percentage of your coursework in this program was distance-based (online or correspondence)?

- ≤ 50%
- > 50%

18. What type of degree or certificate have you been working toward in this program? *Mark one box only.*

- Associate Degree
- Bachelor's Degree
- Master's Degree
- Doctorate
- Post-Master's Certificate
- Other Certificate

A12d. What type of degree or certificate were you working toward in this program?

Mark one box only.

- Certificate/Award
- Associate Degree
- Bachelor's Degree
- Master's Degree
- Post-Master's Certificate
- Doctorate – PhD
- Doctorate – DNP
- Doctorate – other

19. On March 10, 2008, were you employed or self-employed in nursing? (Employed in nursing includes working for pay in nursing, even if on temporary leave.)

- Yes
- No → **Go to Section D on page 10**

B1. On December 31, 2017, were you employed or self-employed in nursing? *Employed in nursing includes working for pay in nursing, even if on temporary leave.*

- Yes
- No → **SKIP to Section F on page 13**

For all the questions in this section (Questions 20 - 32), your principal nursing position is the nursing position, on March 10, 2008, in which you spent the largest share of your working hours.

For all the questions in this section (Questions B2 - B28), your primary nursing position is the nursing position, on December 31, 2017, in which you spent the largest share of your working hours.

2008 Version

2018 Version

21. Where was the location of the principal nursing position you held on March 10, 2008? (If you are not employed in a fixed location, enter the location that best reflects where you practice.)

City/Town:

County:

State (or country if not U.S.A.)

ZIP+4 code -
(if available)

B2. Where was the location of the primary nursing position you held on December 31, 2017? *If you were not employed in a fixed location, enter the location that best reflects where you practiced.*

City/Town

County

State (or country if not U.S.A.)

Zip

20. Are you required to maintain an active RN license in order to hold your principal nursing position?

- Yes
- No

B7. Were you required to maintain an active RN license for the primary nursing position you held on December 31, 2017?

- Yes
- No

22. In the principal nursing position you held on March 10, 2008, were you...
Mark one box only.

- An employee of the organization or facility where you were working?
- Employed through an employment agency, but not as a traveling nurse?
- Employed through an employment agency as a traveling nurse?
- Self-employed, per diem, or working as-needed?

B10. For the primary nursing position you held on December 31, 2017, which of the following best describes your employment situation?
Mark one box only.

- Employed through an employment agency as a traveling nurse
- Employed through an employment agency, but not as a traveling nurse
- Employed by the organization or facility at which I was working
- Self-employed or working as needed

2008 Version

23. Which one of the following best describes the employment setting of the principal nursing position you held on March 10, 2008? *Mark one box only.*

- Hospital (including all types of care at a hospital location)**
- Community hospital or medical center, Non-Federal, short stay**
- Inpatient unit
 - Nursing home unit in hospital
 - Outpatient clinic/medical practice owned by a hospital
 - Outpatient clinic/medical practice located at a hospital but not owned by the hospital
 - Other administrative or functional area
- Specialty hospital, Non-Federal (children's, heart, burns, cancer)**
- Inpatient unit
 - Outpatient clinic/medical practice owned by a hospital
 - Outpatient clinic/medical practice located at a hospital but not owned by the hospital
 - Other administrative or functional area
- Long-term hospital, Non-psychiatric, Non-Federal**
- Inpatient unit
 - Nursing home unit in hospital
 - Other administrative or functional area
- Psychiatric hospital, Non-Federal**
- Inpatient unit
 - Nursing home unit in hospital
 - Outpatient clinic/medical practice owned by a hospital
 - Outpatient clinic/medical practice located at a hospital but not owned by the hospital
 - Other administrative or functional area
- Federal Government hospital (Military, VA, NIH or IHS-supported)**
- Inpatient unit
 - Nursing home unit in hospital
 - Outpatient clinic/medical practice located at a hospital
 - Other administrative or functional area
- Hospital unit in an institution (infirmary, correctional facility)**
- All types
- Other Type of hospital**
- Inpatient unit
 - Nursing home unit in hospital
 - Outpatient clinic/medical practice owned by a hospital
 - Outpatient clinic/medical practice located at a hospital but not owned by the hospital
 - Other administrative or functional area
- Specify:*
- Nursing Home/Extended Care Facility**
- Nursing home/extended care facility (not in a hospital)
 - Facility for mentally retarded or developmentally disabled
 - Residential care/assisted living facility
 - Other type of extended care facility
- Specify:*
- Home Health Setting**
- Visiting nurse service (VNS/VNA)
 - Home health service unit (hospital-based)
 - Home health agency (non-hospital based)
 - Private duty in a home setting
 - Hospice
 - Other home health setting
- Academic Education Program**
- Nursing aide and/or home health aide program
 - LPN/LVN program
 - Diploma program (RN)
 - Associate degree RN program
 - Bachelor's and/or higher degree RN program
 - Associate degree RN and LPN/LVN program
 - Associate degree RN and BSN program
 - Other education program, not patient education
- Specify:*
- Public or Community Health Setting**
- State Health or Mental Health Agency
 - City or County Health Department
 - Correctional Facility (non-hospital)
 - Community mental-health organization or clinic
 - Substance abuse center/clinic
 - Other community setting
- Specify:*
- School Health Service**
- School or school system (K-12)
 - College or university
 - Other school health setting
- Occupational Health (Employee Health Service)**
- Private industry
 - Government occupational health services
 - Other occupational health setting
- Ambulatory Care Setting, not located in a hospital**
- Medical/physician practice
 - Nurse practice
 - In-store or retail clinic
 - Community health center
 - Federal clinic (Military, VA, NIH or IHS-supported)
 - Federally-supported clinic (not a community health center)
 - Hospital-owned *off-site* clinic or surgery center
 - Ambulatory surgical center, not hospital-owned
 - Urgent care
 - Dialysis center or clinic, not in a hospital
 - Other ambulatory setting
- Specify:*
- Insurance Claims/Benefits/Utilization Review**
- Government insurer/benefits department: federal, state, or local
 - Insurance company or other private claims/benefits/utilization review organization
- Other**
- Policy, planning, regulatory, or licensing agency
 - Consulting organization or self-employed
 - Home-based self-employment
 - Telehealth, telenursing, or call center
 - Pharmaceutical/medical device/medical software
 - Other
- Specify:*

25. For the principal nursing position you held on March 10, 2008, did you work...? *Mark one box only.*

- Full-time (including full-time for an academic year)
- Part-time (including working only part of the calendar or academic year)

26. For the principal position you held on March 10, 2008, how many months would you normally work per year?

months

2018 Version

B13. Which one of the following best describes the employment setting of the primary nursing position you held on December 31, 2017? *Mark one box only.*

- Hospital (not mental health)**
- Critical Access Hospital (CAH) – a rural community hospital that receives cost-based reimbursement from Medicare
 - Inpatient unit, not Critical Access Hospital
 - Emergency Department, not Critical Access Hospital
 - Hospital sponsored ambulatory care (outpatient, surgery, clinic, urgent care, etc.)
 - Hospital ancillary unit
 - Hospital nursing home unit
 - Hospital administration
 - Hospital other, *Specify:*
- Other inpatient setting**
- Nursing home unit NOT in hospital
 - Rehabilitation facility/long-term care
 - Inpatient mental health/substance abuse
 - Correctional facility
 - Inpatient hospice
 - Other inpatient setting, *Specify:*
- Clinic/Ambulatory**
- Nurse managed health center
 - Private medical practice (clinic, physician office, etc.)
 - Public clinic (Rural Health Center, FQHC, Indian Health Service, Tribal Clinic, etc.)
 - School health service (K-12 or college)
 - Outpatient mental health/substance abuse
 - Urgent care (not hospital based)
 - Ambulatory surgery center (free standing)
 - Other, *Specify:*
- Other types of settings**
- Home health agency/service
 - Occupational health or employee health service
 - Public health or community health agency (not a clinic)
 - Government agency other than public/community health or correctional facility
 - Outpatient dialysis center
 - University or college academic department
 - Insurance company
 - Call center/telenursing center
 - Other, *Specify:*

B11. For the primary nursing position you held on December 31, 2017, did you work full-time or part-time? *Mark one box only.*

- Full-time (including full-time for an academic year)
- Part-time (including working only part of the calendar or academic year)

B12. For the primary nursing position you held on December 31, 2017, how many months did you normally work per year?

months per year

2008 Version

2018 Version

27. For the principal nursing position you held on March 10, 2008, please provide information about the number of hours you work in a typical week.

Hours
(enter 0 if none)

- a. Number of hours worked, including all overtime and on-call hours, except on-call hours that were stand-by only
- b. Number of hours you stated above in "a" that were worked from on-call duty. Do not include stand-by hours
- c. Number of hours you stated above in "a" that were paid as overtime
- d. Number of paid overtime hours you stated above in "c" that were mandatory overtime
- e. Number of paid or unpaid on-call hours that were stand-by only
- f. Number of stand-by hours you stated above in "e" that were paid at an on-call stand-by rate

B14. Next, we will ask for information about how much you worked in a typical week for the primary nursing position you held on December 31, 2017. *Include on-call hours except on-call hours that were standby only.*

Hours
(enter 0 if none)

- a. Number of hours scheduled in a typical week
- b. Number of hours worked in a typical week
- c. Number of hours per week worked at the regular pay rate
- d. Number of hours per week worked at a differential rate: evening, weekend, night, or charge
- e. Number of hours per week worked at the overtime pay rate
- f. Number of hours unpaid in a typical week

28. For the principal nursing position you held on March 10, 2008, please estimate the percentage of your time spent in the following activities during a usual workweek. *Do not use decimal places.*

- a. Patient care and charting %
- b. Non-nursing tasks (housekeeping, locating supplies) %
- c. Consultation with agencies and/or professionals %
- d. Supervision and management %
- e. Administration %
- f. Research %
- g. Teaching, precepting or orienting students or new hires (include preparation time) %
- h. Other %

The total should equal 100% 100%

B15. For the primary nursing position you held on December 31, 2017, please estimate the percentage of your time spent in the following activities during a typical workweek. *Do not use decimals.*

- a. Patient care and charting %
- b. Care coordination (including consultation with agencies and/or professionals) %
- c. Management, supervision, and administrative tasks %
- d. Research %
- e. Teaching, precepting or orienting students or new hires (include preparation time) %
- f. Non-nursing tasks (e.g., housekeeping, locating supplies) %
- g. Other %

Total = 100%

2008 Version

29a. For the principal nursing position you held on March 10, 2008, in what level of care or type of work did you spend the majority of your time? *Mark one or more boxes.*

- General or specialty inpatient
- Critical/intensive care
- Step-down, transitional, progressive, telemetry
- Sub-acute care
- Emergency
- Urgent care
- Rehabilitation
- Long-term care/nursing home
- Surgery (including ambulatory, pre-operative, post-operative, post-anesthesia)
- Ambulatory care (including primary care, outpatient settings, except surgical)
- Ancillary care (radiology, laboratory)
- Home health
- Public health/community health
- Education
- Business, administration, review, case management
- Research
- Other

Specify

2018 Version

B16. For the primary nursing position you held on December 31, 2017, in what level of care or type of work did you spend most of your time? *Mark one box only.*

- General or specialty inpatient
- Ambulatory care (including primary care outpatient settings, except surgical)
- Ancillary care (radiology, laboratory)
- Care coordination/patient navigation
- Critical/intensive care
- Education
- Emergency
- Health care management/administration
- Home health/hospice
- Informatics
- Long-term care/nursing home
- Public health/community health
- Rehabilitation
- Research
- School nurse
- Step-down, transitional, progressive, telemetry
- Sub-acute care
- Surgery (including ambulatory, pre-operative, post-operative, post-anesthesia)
- Urgent care
- Other, *Specify:* ↴

2008 Version

29b. For the principal nursing position you held on March 10, 2008, with what patient population did you spend at least 50% of your patient care time? *Mark only one box.*

No patient care → Go to Question 30

- Adult
- Geriatric
- Pre-natal
- Newborn or neonatal
- Pediatric and/or Adolescent
- Multiple age groups (less than 50% time spent with any of the above)

Specify

2018 Version

B17b. For the primary nursing position you held on December 31, 2017, please estimate the percentage of your patient care time spent with each population below. *Do not use decimals.*

Pre-natal %

Neonatal, Newborn, or Infant (less than 2 years old) %

Pediatric (2 to 11 years old) %

Adolescent (12 to 17 years old) %

Adult (18 to 65 years old) %

Geriatric (more than 65 years old) %

Total = 100%

2008 Version

29c. For the principal nursing position you held on March 10, 2008, in what type of clinical specialty did you spend most of your patient care time? *Mark one or more boxes.*

- No patient care
- General medical surgical
- Critical care
- Cardiac or cardiovascular care
- Chronic care
- Dermatology
- Emergency or trauma care
- Gastrointestinal
- Gynecology (women's health)
- Hospice
- Infectious/communicable disease
- Labor and delivery
- Neurological
- Obstetrics
- Occupational health
- Oncology
- Primary care
- Psychiatric or mental health (substance abuse and counseling)
- Pulmonary/respiratory
- Radiology (diagnostic or therapeutic)
- Renal/dialysis
- No specific area
- Other specialty for a majority of my time

Specify

2018 Version

B17c. For the primary nursing position you held on December 31, 2017, in what type of clinical specialty did you spend most of your patient care time? *Mark one box only.*

- General medical surgical
- Ambulatory care
- Cardiac or cardiovascular care
- Chronic care
- Critical care
- Dermatology
- Emergency or trauma care
- Endocrinology
- Gastrointestinal
- Gynecology (women's health)
- Home health/hospice
- Infectious/communicable disease
- Labor and delivery
- Neurological
- Obstetrics
- Occupational health
- Oncology
- Ophthalmology
- Orthopedics
- Otolaryngology (ear, nose and throat)
- Primary care
- Psychiatric or mental health (substance abuse and counseling)
- Pulmonary/respiratory
- Radiology (diagnostic or therapeutic)
- Renal/dialysis
- Other specialty, *Specify:* ↴

58. How satisfied are you with your principal job, or most recent job if you are not now working? *Mark one box only.*

- Extremely satisfied
- Moderately satisfied
- Neither satisfied nor dissatisfied
- Moderately dissatisfied
- Extremely dissatisfied
- Neither currently nor previously employed

B24. How satisfied were you with the primary nursing position you held on December 31, 2017?

- Extremely satisfied
- Moderately satisfied
- Moderately dissatisfied
- Extremely dissatisfied

2008 Version	2018 Version
<p>30. Please estimate your 2008 pre-tax annual earnings from your principal nursing position. Include overtime and bonuses, but exclude sign-on bonuses.</p> <p>\$ <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> .00 per year</p>	<p>B26. Please estimate your 2017, pre-tax annual earnings from your primary nursing position. Include overtime and bonuses, but exclude sign-on bonuses.</p> <p>\$ <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> , <input type="text"/> <input type="text"/> <input type="text"/> <input type="text"/> .00</p>
<p>31. Were you represented by a labor union or collective bargaining unit in the principal nursing position you held on March 10, 2008?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>	<p>B27. Were you represented by a labor union or collective bargaining unit in the primary nursing position you held on December 31, 2017?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No</p>
<p>32a. Do you plan to leave or have you left the principal nursing position you held on March 10, 2008?</p> <p><input type="checkbox"/> Yes, have left or will leave within the next 12 months <input type="checkbox"/> Yes, in 1 year to 3 years <input type="checkbox"/> No plans to leave within next 3 years <input type="checkbox"/> Undecided</p> <p>→ Go to Question 33 on page 10</p>	<p>B28. Have you left the primary nursing position you held on December 31, 2017?</p> <p><input type="checkbox"/> Yes → Continue to Section C <input type="checkbox"/> No → Skip to Section D on page 11</p>
<p>32b. Do you plan to work in nursing after you leave that position?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No <input type="checkbox"/> Unsure</p>	<p>C2. Did you continue to work in nursing after leaving this position?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section E on page 13</p>
<p>33. Aside from the principal nursing position you just described, did you hold any other positions in nursing for pay on March 10, 2008?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → Go to Section E on page 11</p>	<p>E1. Aside from the primary nursing position you just described, did you hold any other positions in nursing for pay on December 31, 2017?</p> <p><input type="checkbox"/> Yes <input type="checkbox"/> No → SKIP to Section F</p>
<p>34. In your other nursing position(s), are you...? Mark all that apply.</p> <p><input type="checkbox"/> An employee of the organization or facility for which you are working? <input type="checkbox"/> Employed through an employment agency, but <u>not</u> as a traveling nurse? <input type="checkbox"/> Employed through an employment agency as a traveling nurse? <input type="checkbox"/> Self-employed, per diem, or working as needed?</p>	<p>E2. Which of the following best describes your employment with the other nursing position(s) held on December 31, 2017? Mark all that apply.</p> <p><input type="checkbox"/> Employed through an employment agency as a traveling nurse <input type="checkbox"/> Employed through an employment agency, but not as a traveling nurse <input type="checkbox"/> Employed by the organization or facility at which I am working <input type="checkbox"/> Self-employed or working as needed</p>

2008 Version

2018 Version

35. What type of work settings best describe where you work for your other nursing position(s)? *Mark all that apply.*

- Hospital
- Nursing home/Extended care facility
- Academic education program
- Home health setting
- Public or community health setting
- School health service
- Occupational health
- Ambulatory care setting
- Insurance claims/benefits
- Telehealth, telenursing or call center
- Other

Specify

E3. What type(s) of work setting(s) best describe where you worked for the other nursing position(s) held on December 31, 2017? *Mark all that apply.*

- Hospital
- Nursing home/extended care facility
- Academic education program
- Home health setting
- Public or community health setting
- Rehabilitation facility/long-term care
- Mental health/substance abuse
- School health service
- Occupational health
- Physician practice (individual or group)
- Ambulatory care clinic
- Insurance claims/benefits
- Telehealth, telenursing or call center
- Other, *Specify:* ↴

36. In your additional nursing position(s), please indicate how much you work, and where the job is located:

	Weeks per year	Average hours per week, during weeks of work	Locations of where most of work is done (state, or country)
Additional job #1	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	
Additional job #2	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	
All other jobs	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	N/A

E4. In your other nursing position(s) held on December 31, 2017, please indicate how much you worked, and where the job was located:

	Weeks per year	Average hours per week, during weeks of work	Location where most work was done (state or country)
Additional job #1	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	
Additional job #2	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	
All other jobs	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	<input style="width: 20px; height: 20px;" type="text"/> <input style="width: 20px; height: 20px;" type="text"/>	N/A

2008 Version	2018 Version
<p>37. Please estimate your 2008 pre-tax annual earnings from all your <u>other nursing position(s)</u>. Do not include earnings from your principal nursing position.</p> <p>\$ <input type="text"/> , <input type="text"/><input type="text"/><input type="text"/> , <input type="text"/><input type="text"/><input type="text"/><input type="text"/> .00 per year</p>	<p>E5. Please estimate your 2017, pre-tax annual earnings from all of the nursing positions that you reported in Question E4. Do not include earnings from your principal nursing position.</p> <p>\$ <input type="text"/><input type="text"/><input type="text"/><input type="text"/> , <input type="text"/><input type="text"/><input type="text"/><input type="text"/> .00</p>
<p>If you were working for pay in nursing on March 10, 2008, please go to Section E on page 11.</p>	<p>If you were working for pay in nursing on December 31, 2017, please SKIP to Section H.</p>
<p>38. What are your intentions regarding paid work in registered nursing? <i>Mark one box only.</i></p> <p><input type="checkbox"/> Have returned to nursing since March 10, 2008 ↳ Go to Section E on page 11</p> <p><input type="checkbox"/> Actively looking for work in nursing</p> <p><input type="checkbox"/> Plan to return to nursing in the future, not looking for work now ↳ Go to Question 41</p> <p><input type="checkbox"/> No future intention to work for pay in nursing ↳ Go to Question 42 on page 11</p> <p><input type="checkbox"/> Undecided at this time ↳ Go to Question 42 on page 11</p>	<p>G1. What are your intentions regarding paid work in nursing? <i>Mark one box only.</i></p> <p><input type="checkbox"/> Actively looking for work in nursing</p> <p><input type="checkbox"/> Plan to return to nursing in the future, not looking for work now → <i>SKIP to Question G4</i></p> <p><input type="checkbox"/> No future intention to work for pay in nursing → <i>SKIP to Question G5a</i></p> <p><input type="checkbox"/> Undecided at this time → <i>SKIP to Question G5a</i></p> <p><input type="checkbox"/> Have returned to nursing since December 31, 2017 → <i>SKIP to Section H</i></p>
<p>39. How long have you been actively looking for paid work in nursing?</p> <p><input type="text"/><input type="text"/> Months (if one or more)</p> <p><input type="checkbox"/> Less than one month</p>	<p>G2. How long have you been actively looking for paid work in nursing? <i>Enter zero if less than one month.</i></p> <p><input type="text"/><input type="text"/> Month(s)</p>
<p>40. Are you looking for a position that is ...?</p> <p><input type="checkbox"/> Full-time</p> <p><input type="checkbox"/> Part-time</p> <p><input type="checkbox"/> Either</p> <p>↳ Go to Question 42 on page 11</p>	<p>G3. Are you looking for a position that is full-time or part-time?</p> <p><input type="checkbox"/> Full-time → <i>SKIP to Question G5a</i></p> <p><input type="checkbox"/> Part-time → <i>SKIP to Question G5a</i></p> <p><input type="checkbox"/> Either → <i>SKIP to Question G5a</i></p>
<p>41. When do you plan to return to paid work in nursing?</p> <p><input type="text"/><input type="text"/> Years (if one or more)</p> <p><input type="checkbox"/> Less than one year</p>	<p>G4. When do you plan to return to paid work in nursing? <i>Enter zero if less than one year.</i></p> <p><input type="text"/><input type="text"/> Year(s)</p>

2008 Version

2018 Version

42. How long has it been since you last were employed or self-employed as a registered nurse?

Years (if one or more)

- Less than one year
- Never worked as a Registered Nurse

G5b. How long has it been since you were last employed or self-employed as a nurse?
Enter zero if less than one year.

Year(s)

43. What are the primary reasons you are not working in a nursing position for pay? *Mark all that apply.*

- Retired
- Taking care of home and family
- Burnout
- Stressful work environment
- Scheduling/inconvenient hours/too many hours
- Physical demands of job
- Disability
- Illness
- Inadequate staffing
- Salaries too low/better pay elsewhere
- Skills are out-of-date
- Liability concerns
- Lack of collaboration/communication between health care professionals
- Inability to practice nursing on a professional level
- Lack of advancement opportunities
- Lack of good management or leadership
- Career change
- Difficult to find a nursing position
- Travel
- Volunteering in nursing
- Went back to school
- Other

Specify

G6. What are the primary reasons you were not working in a nursing position for pay on December 31, 2017? *Mark all that apply.*

- Burnout
- Career change
- Difficulty finding a nursing position
- Disability/illness
- Family caregiving
- Inability to practice nursing on a professional level
- Inability to practice to the full extent of my license
- Inadequate staffing
- Lack of advancement opportunities
- Lack of collaboration/communication between health care professionals
- Lack of good management or leadership
- Liability concerns
- Physical demands of job
- Retirement
- Salaries too low/better pay elsewhere
- Scheduling/inconvenient hours/too many hours/too few hours
- School/educational program
- Skills are out-of-date
- Stressful work environment
- Other, *Specify:*

50. For this question count only the years you worked at least 50% of the calendar year in nursing. Since receiving your first U.S. RN license, how many years have you worked in nursing?

Years (if one or more)

- Less than one year

H1. How many years have you worked in nursing since receiving your first U.S. RN license? Count only the years in which you worked at least 6 months. *Enter zero if less than one year.*

Year(s)

2008 Version	2018 Version
<p>51. Have you left work in nursing for one or more years since becoming an RN?</p> <p><input type="checkbox"/> Yes <input type="text"/> <input type="text"/> Total years (if one or more)</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Have not worked in nursing more than one year</p>	<p>H2. Have you left work in nursing for one or more years since becoming an RN?</p> <p><input type="checkbox"/> Yes → For how many years? <input type="text"/> <input type="text"/></p> <p><input type="checkbox"/> No</p>
<p>52. Were you employed in nursing one year ago (March 10, 2007)?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → Go to Section G on page 14</p>	<p>H3. Next, we are going to ask about your employment approximately one year ago. Were you employed in nursing on December 31, 2016?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → SKIP to Section I on page 20</p>
<p>53. For the principal nursing position you held on <u>March 10, 2007</u>, did you work...? <i>Mark one box.</i></p> <p><input type="checkbox"/> Full-time (including full-time for an academic year)</p> <p><input type="checkbox"/> Part-time (including working only part of the calendar or academic year)</p>	<p>H4. For the primary nursing position you held on December 31, 2016, did you work full-time or part-time? <i>Mark one box only.</i></p> <p><input type="checkbox"/> Full-time (including full-time for an academic year)</p> <p><input type="checkbox"/> Part-time (including working only part of the calendar or academic year)</p>
<p>54. How would you describe the principal nursing position you held on <u>March 10, 2007</u>?</p> <p><input type="checkbox"/> Same position/same employer as principal nursing position on March 10, 2008 ↳ Go to Section G on page 14</p> <p><input type="checkbox"/> Different position/same employer as current one</p> <p><input type="checkbox"/> Different employer than current one</p>	<p>H5. How would you describe the primary nursing position you held on December 31, 2016?</p> <p><input type="checkbox"/> Same position and same employer as primary nursing position on December 31, 2017 → SKIP to Section I on page 20</p> <p><input type="checkbox"/> Different position but same employer as primary nursing position held on December 31, 2017</p> <p><input type="checkbox"/> Different employer than primary nursing position held on December 31, 2017</p>

2008 Version

55. What was the location of the principal nursing position you held on March 10, 2007? (If you were not employed in a fixed location enter the location that best reflects where you practice.)

City/Town:

County:

State (or country if not U.S.A.)

ZIP+4 code -
(if available)

2018 Version

H6. What was the location of the primary nursing position you held on December 31, 2016? *If you were not employed in a fixed location, enter the location that best reflects where you practiced.*

City/Town

County

State (or country if not U.S.A.)

Zip

2008 Version

56. Were any of the following the primary reason(s) for your employment change? *Mark all that apply.*

- Burnout
- Stressful work environment
- Interested in another position/job
- Lack of advancement opportunities
- Lack of collaboration/communication between health care professionals
- Lack of good management or leadership
- Career advancement/promotion
- Inadequate staffing
- Interpersonal differences with colleagues or supervisors
- Physical demands of job
- Opportunity to do the kind of nursing that I like
- Pay/benefits better
- Scheduling/inconvenient hours/too many hours
- Relocated to different geographic area
- Reorganization that shifted positions
- Laid off/downsizing of staff
- Sign-on bonus offered
- Personal/family
- Went back to school
- Retired
- Disability
- Illness
- Other

Specify

2018 Version

H7. What were the primary reason(s) for your employment change? *Mark all that apply.*

- Better pay/benefits
- Burnout
- Career advancement/promotion
- Career change
- Change in child's school
- Disability/Illness
- Family caregiving
- Inability to practice to the full extent of my license
- Inadequate staffing
- Interpersonal differences with colleagues or supervisors
- Lack of advancement opportunities
- Lack of collaboration/communication between health care professionals
- Lack of good management or leadership
- Laid off/downsizing of staff
- Length of commute
- Patient population
- Physical demands of job
- Relocation to different geographic area
- Retirement
- Scheduling/inconvenient hours/too many hours/too few hours
- School/educational program
- Sign-on bonus offered
- Spouse's employment opportunities
- Stressful work environment
- Other, *Specify:* ➤

2008 Version

57. Which one of the following best describes the employment setting of the principal nursing position you held on March 10, 2007? *Mark one box only.*

Hospital (including all types of care at a hospital location)	
<input type="checkbox"/> Community hospital or medical center, Non-Federal, short stay	<input type="checkbox"/> Academic Education Program
<input type="checkbox"/> Inpatient unit	<input type="checkbox"/> Nursing aide and/or home health aide program
<input type="checkbox"/> Nursing home unit in hospital	<input type="checkbox"/> LPN/LVN program
<input type="checkbox"/> Outpatient clinic/medical practice owned by a hospital	<input type="checkbox"/> Diploma program (RN)
<input type="checkbox"/> Outpatient clinic/medical practice located at a hospital but not owned by the hospital	<input type="checkbox"/> Associate degree RN program
<input type="checkbox"/> Other administrative or functional area	<input type="checkbox"/> Bachelor's and/or higher degree RN program
<input type="checkbox"/> Specialty hospital, Non-Federal (children's, heart, burn, cancer)	<input type="checkbox"/> Associate degree RN and LPN/LVN program
<input type="checkbox"/> Inpatient unit	<input type="checkbox"/> Associate degree RN and BSN program
<input type="checkbox"/> Outpatient clinic/medical practice owned by a hospital	<input type="checkbox"/> Other education program, not patient education
<input type="checkbox"/> Outpatient clinic/medical practice located at a hospital but not owned by the hospital	Specify: <input type="text"/>
<input type="checkbox"/> Other administrative or functional area	Public or Community Health Setting
<input type="checkbox"/> Long-term hospital, Non-psychiatric, Non-Federal	<input type="checkbox"/> State Health or Mental Health Agency
<input type="checkbox"/> Inpatient unit	<input type="checkbox"/> City or County Health Department
<input type="checkbox"/> Nursing home unit in hospital	<input type="checkbox"/> Correctional Facility (non-hospital)
<input type="checkbox"/> Other administrative or functional area	<input type="checkbox"/> Community mental-health organization or clinic
<input type="checkbox"/> Psychiatric hospital, Non-Federal	<input type="checkbox"/> Substance abuse center/clinic
<input type="checkbox"/> Inpatient unit	<input type="checkbox"/> Other community setting
<input type="checkbox"/> Nursing home unit in hospital	Specify: <input type="text"/>
<input type="checkbox"/> Outpatient clinic/medical practice owned by a hospital	School Health Service
<input type="checkbox"/> Outpatient clinic/medical practice located at a hospital but not owned by the hospital	<input type="checkbox"/> School or school system (K-12)
<input type="checkbox"/> Other administrative or functional area	<input type="checkbox"/> College or university
<input type="checkbox"/> Federal Government hospital (Military, VA, NIH or IHS-supported)	<input type="checkbox"/> Other school health setting
<input type="checkbox"/> Inpatient unit	Occupational Health (Employee Health Service)
<input type="checkbox"/> Nursing home unit in hospital	<input type="checkbox"/> Private industry
<input type="checkbox"/> Outpatient clinic/medical practice located at a hospital	<input type="checkbox"/> Government occupational health services
<input type="checkbox"/> Other administrative or functional area	<input type="checkbox"/> Other occupational health setting
<input type="checkbox"/> Hospital unit in an institution (infirmary, correctional facility)	Ambulatory Care Setting, not located in a hospital
<input type="checkbox"/> All types	<input type="checkbox"/> Medical/physician practice
<input type="checkbox"/> Other Type of hospital	<input type="checkbox"/> Nurse practice
<input type="checkbox"/> Inpatient unit	<input type="checkbox"/> In-stores or retail clinic
<input type="checkbox"/> Nursing home unit in hospital	<input type="checkbox"/> Community health center
<input type="checkbox"/> Outpatient clinic/medical practice owned by a hospital	<input type="checkbox"/> Federal clinic (Military, VA, NIH or IHS-supported)
<input type="checkbox"/> Outpatient clinic/medical practice located at a hospital but not owned by the hospital	<input type="checkbox"/> Federally-supported clinic (not a community health center)
<input type="checkbox"/> Other administrative or functional area	<input type="checkbox"/> Hospital-owned off-site clinic or surgery center
<input type="checkbox"/> Specify: <input type="text"/>	<input type="checkbox"/> Ambulatory surgical center, not hospital-owned
<input type="checkbox"/> Nursing Home Extended Care Facility	<input type="checkbox"/> Urgent care
<input type="checkbox"/> Nursing home extended care facility (not in a hospital)	<input type="checkbox"/> Dialysis center or clinic, not in a hospital
<input type="checkbox"/> Facility for mentally retarded or developmentally disabled	<input type="checkbox"/> Other ambulatory setting
<input type="checkbox"/> Residential care/assisted living facility	Specify: <input type="text"/>
<input type="checkbox"/> Other type of extended care facility	Insurance Claims/Benefits/Utilization Review
<input type="checkbox"/> Specify: <input type="text"/>	<input type="checkbox"/> Government insurance/benefits department, federal, state, or local
<input type="checkbox"/> Home Health Setting	<input type="checkbox"/> Insurance company or other private
<input type="checkbox"/> Visiting nurse service (VNS-VNA)	<input type="checkbox"/> Claims/benefits/utilization review organization
<input type="checkbox"/> Home health service unit (hospital-based)	Other
<input type="checkbox"/> Home health agency (non-hospital based)	<input type="checkbox"/> Policy, planning, regulatory, or licensing agency
<input type="checkbox"/> Private duty in a home setting	<input type="checkbox"/> Consulting organization or self-employed
<input type="checkbox"/> Hospice	<input type="checkbox"/> Home-based self-employment
<input type="checkbox"/> Other home health setting	<input type="checkbox"/> Telehealth, telemonitoring, or call center
	<input type="checkbox"/> Pharmaceutical/medical device/medical software
	<input type="checkbox"/> Other
	Specify: <input type="text"/>

2018 Version

H8. Which one of the following best describes the employment setting of the primary nursing position you held on December 31, 2016? *Mark one box only.*

<input type="checkbox"/> Hospital (not mental health)	<input type="checkbox"/> Critical Access Hospital (CAH) – a rural community hospital that receives cost-based reimbursement from Medicare	<input type="checkbox"/> Inpatient unit, not Critical Access Hospital	<input type="checkbox"/> Emergency Department, not Critical Access Hospital	<input type="checkbox"/> Hospital sponsored ambulatory care (outpatient, surgery, clinic, urgent care, etc.)	<input type="checkbox"/> Hospital ancillary unit	<input type="checkbox"/> Hospital nursing home unit	<input type="checkbox"/> Hospital administration	<input type="checkbox"/> Hospital other, Specify: <input type="text"/>
<input type="checkbox"/> Other inpatient setting	<input type="checkbox"/> Nursing home unit NOT in hospital	<input type="checkbox"/> Rehabilitation facility/long-term care	<input type="checkbox"/> Inpatient mental health/substance abuse	<input type="checkbox"/> Correctional facility	<input type="checkbox"/> Inpatient hospice	<input type="checkbox"/> Other inpatient setting, Specify: <input type="text"/>		
<input type="checkbox"/> Clinic/Ambulatory	<input type="checkbox"/> Nurse managed health center	<input type="checkbox"/> Private medical practice (clinic, physician office, etc.)	<input type="checkbox"/> Public clinic (Rural Health Center, FQHC, Indian Health Service, Tribal Clinic, etc.)	<input type="checkbox"/> School health service (K-12 or college)	<input type="checkbox"/> Outpatient mental health/substance abuse	<input type="checkbox"/> Urgent care (not hospital based)	<input type="checkbox"/> Ambulatory surgery center (free standing)	<input type="checkbox"/> Other, Specify: <input type="text"/>
<input type="checkbox"/> Other types of settings	<input type="checkbox"/> Home health agency/service	<input type="checkbox"/> Occupational health or employee health service	<input type="checkbox"/> Public health or community health agency (not a clinic)	<input type="checkbox"/> Government agency other than public/community health or correctional facility	<input type="checkbox"/> Outpatient dialysis center	<input type="checkbox"/> University or college academic department	<input type="checkbox"/> Insurance company	<input type="checkbox"/> Call center/tele nursing center
	<input type="checkbox"/> Other, Specify: <input type="text"/>							

69. Please provide any other names under which you may have held a nursing license.

J1. Please provide any other names under which you may have held a nursing license. *If none, leave blank.*

First name	M.I.
<input type="text"/>	<input type="text"/>
Last name	
<input type="text"/>	
First name	M.I.
<input type="text"/>	<input type="text"/>
Last name	
<input type="text"/>	

2008 Version

70b. Which of the following skill-based certifications do you currently have? *Mark all that apply.*

- No current skill-based certifications
- Life Support (BLS, ALS, BCLS, and others)
- Resuscitation (CPR, NRP, and others)
- Emergency Medicine/Nursing (EMT, ENPC, and others)
- Trauma Nursing (TNCC, ATCN, ATN, and others)
- Other

Specify

Other

Specify

2018 Version

J2. On December 31, 2017, which of the following skill-based certifications did you have? *Mark all that apply.*

- No skill-based certifications
- Ambulatory Care Certification
- Critical Care Certificate
- Emergency Medicine/Nursing (EMT, ENPC, etc.)
- Life Support (BLS, ACLS, BCLS, etc.)
- Resuscitation (CPR, NRP, etc.)
- Trauma Nursing (TNCC, ATCN, ATN, etc.)
- Other, *Specify:*

70a. Do you currently have any National nursing certifications?

- Yes
- No → **Go to Section I on page 16**

70c. Which of the following Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist certifications do you currently have? *Mark all that apply.*

- No current Nurse Practitioner, Clinical Nurse Specialist, Nurse Midwife, or Nurse Anesthetist certifications

Nurse Practitioner (NP)

- Acute Care NP
- Adult NP
- Diabetes Management NP
- Family NP
- Gerontological NP
- Hospice and Palliative Care NP
- Neonatal NP
- Oncology NP
- Pediatric NP (CPNP/CPNP-PC/CPNP-AC)
- Psychiatric & Mental Health NP - Adult
- Psychiatric & Mental Health NP - Family
- School NP
- Urologic NP
- Women's Health Care NP
- Other

Specify

J3. On December 31, 2017, did you have any active national nursing certifications as a Clinical Nurse Specialist, Nurse-Midwife, or Nurse Anesthetist?

- Yes
- No → **SKIP to Section K on page 22**

J4a. On December 31, 2017, did you have an active certification as a Clinical Nurse Specialist(CNS)?

- Yes
- No → **SKIP to Question J5a on page 22**

J4b. Was this certification required by your employer for your job?

- Yes
- No

J4c. Was this certification from a national certifying organization?

- Yes
- No

Continues on next page

Continues on next page

2008 Version

Clinical Nurse Specialist (CNS)

- Acute Care/Critical Care CNS
- Adult Health CNS
- Community Health/Public Health CNS
- Diabetes Management CNS
- Gerontological CNS
- Home Health CNS
- Hospice and Palliative Care CNS
- Medical-Surgical CNS
- Oncology CNS
- Pediatric CNS
- Psychiatric & Mental Health CNS - Adult
- Psychiatric & Mental Health CNS - Child/Adolescent
- Psychiatric & Mental Health CNS - Family
- Urologic CNS
- Other

Specify

Nurse Midwife

- Nurse Midwife (CNM)

Nurse Anesthetist

- Nurse Anesthetist (CRNA)

	A	B	C	D
	Nurse Practitioner (NP)	Clinical Nurse Specialist (CNS)	Nurse-Midwife (NM)	Nurse Anesthetist (NA)
Information on preparation and credentials				

...

14e. Do you have certification from a <u>national certifying organization</u> for this specialty?	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
IF YES: Is this certification required by your employer for your job?	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A
14f. Do you have licensure, certification, or recognition from a <u>State Board of Nursing</u> for this specialty?	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
IF YES: Is this license, certification, or recognition required by your employer for your job?	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes	<input type="checkbox"/> Yes
	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No	<input type="checkbox"/> No
	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A	<input type="checkbox"/> N/A

2018 Version

J4d. Which of the following Clinical Nurse Specialist (CNS) certifications did you have?
Mark all that apply.

- Acute Care/Critical Care
- Adult Health
- Community Health/Public Health
- Diabetes Management
- Gerontological
- Home Health
- Hospice and Palliative Care
- Medical-Surgical
- Oncology
- Pediatric
- Psychiatric & Mental Health - Adult
- Psychiatric & Mental Health - Child/Adolescent
- Psychiatric & Mental Health - Family
- Other, Specify:

J5a. On December 31, 2017, did you have an active certification as a Nurse-Midwife?

- Yes
- No → SKIP to Question J6a

J5b. Was this certification required by your employer for your job?

- Yes
- No

J5c. Was this certification from a national certifying organization?

- Yes
- No

J6a. On December 31, 2017, did you have an active certification as a Nurse Anesthetist?

- Yes
- No → SKIP to Section K

J6b. Was this certification required by your employer for your job?

- Yes
- No

J6c. Was this certification from a national certifying organization?

- Yes
- No

2008 Version

2018 Version

Section K.
General Information

The next set of questions are about your personal characteristics.

59. Where do you currently reside? This information is critical for producing State estimates of the nursing workforce.

City/Town:

County:

State (or country if not U.S.A.)

ZIP+4 code - (if available)

K1. Where did you live on December 31, 2017? This information is critical for producing state/county estimates of the nursing workforce.

City/Town

County

State (or country if not U.S.A.)

Zip

61. Where did you reside a year ago? This information is critical for producing State estimates.

City/Town:

County:

State (or country if not U.S.A.)

ZIP+4 code - (if available)

K2. Where did you live on December 31, 2016? This information is critical for producing state/county estimates.

Same address reported in Question K1

City/Town

County

State (or country if not U.S.A.)

Zip

2008 Version

2018 Version

62. What is your gender?

- Male
- Female

K3. What is your sex?

- Male
- Female

63. What is your year of birth?

1 9

K4. What is the year of your birth?

64a. Are you of Latino or Hispanic ethnicity?

- Yes
- No

K5. Are you of Hispanic, Latino, or Spanish origin?

- Yes
- No

64b. Which one or more of the following would you use to describe your race? *Please see page 16 for definitions. Mark all that apply.*

- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander

K6. What is your race? *Mark all that apply.*

- White
- Black or African American
- Asian
- American Indian or Alaska Native
- Native Hawaiian or Other Pacific Islander
- Some other race

65. What languages do you speak fluently, other than English? *Mark all that apply.*

- No other languages
- Spanish
- Filipino language (Tagalog, other Filipino dialect)
- Chinese language (Cantonese, Mandarin, other Chinese language)
- French
- German
- American Sign Language
- Other
- Other
- Other

K7. What languages do you speak fluently, other than English? *Mark all that apply.*

- No other languages
- Spanish
- Filipino language (Tagalog, other Filipino dialect)
- Chinese language (Cantonese, Mandarin, other Chinese language)
- Russian
- Korean
- Vietnamese
- American Sign Language
- Other language(s)

2008 Version	2018 Version
<p>66. Which best describes your current marital status?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Married or in domestic partnership <input type="checkbox"/> Widowed, divorced, separated <input type="checkbox"/> Never married 	<p>K8. What is your marital status?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Married or in domestic partnership <input type="checkbox"/> Widowed, divorced, separated <input type="checkbox"/> Never married
<p>67. Describe the children/parents/dependents who either live at home with you or for whom you provide a significant amount of care. <i>Mark all that apply.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> No children/parents/dependents at home <input type="checkbox"/> Child(ren) less than 6 years old at home <input type="checkbox"/> Child(ren) 6 to 18 years old at home <input type="checkbox"/> Other adults at home (i.e., parents or dependents) <input type="checkbox"/> Others living elsewhere (i.e., children, parents or dependents) 	<p>K10. Which of the following best describes the children/parents/dependents who either live at home with you or for whom you provide a significant amount of care? <i>Mark all that apply.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Child(ren) less than 6 years old at home <input type="checkbox"/> Child(ren) 6 to 18 years old at home <input type="checkbox"/> Other adults at home (e.g., parents or dependents) <input type="checkbox"/> Others living elsewhere (e.g., children, parents or dependents) <input type="checkbox"/> None
<p>68. Including employment earnings, investment earnings, and other income of all household members, what is your current, pre-tax annual total <u>household</u> income? <i>Pick one appropriate category.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> \$15,000 or less <input type="checkbox"/> \$15,001 to \$25,000 <input type="checkbox"/> \$25,001 to \$35,000 <input type="checkbox"/> \$35,001 to \$50,000 <input type="checkbox"/> \$50,001 to \$75,000 <input type="checkbox"/> \$75,001 to \$100,000 <input type="checkbox"/> \$100,001 to \$150,000 <input type="checkbox"/> \$150,001 to \$200,000 <input type="checkbox"/> More than \$200,000 	<p>K11. Including employment earnings, investment earnings, and other income of all household members, what was your 2017, pre-tax annual total household income? <i>Mark one box only.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> \$25,000 or less <input type="checkbox"/> \$25,001 to \$35,000 <input type="checkbox"/> \$35,001 to \$50,000 <input type="checkbox"/> \$50,001 to \$75,000 <input type="checkbox"/> \$75,001 to \$100,000 <input type="checkbox"/> \$100,001 to \$150,000 <input type="checkbox"/> \$150,001 to \$200,000 <input type="checkbox"/> More than \$200,000
<p style="text-align: center;">Thank You. Please return this survey and any duplicate surveys in the enclosed, postage-paid envelope.</p>	<p style="text-align: center;">Thank you for your participation. Please return this survey in the enclosed, postage-paid envelope.</p> <p><small>The U.S. Census Bureau is conducting the National Sample Survey of Registered Nurses on the behalf of the U.S. Department of Health and Human Services (HHS) under Title 13, United States Code, Section 8(b), which allows the Census Bureau to conduct surveys on behalf of other agencies. Public Service Act 42 U.S.C. Section 294n(b)(2)(A) and Title 42 U.S.C. Section 295k(a)-(b) allows HHS to collect information for the purpose of understanding the nursing workforce in the United States. Federal law protects your privacy and keeps your answers confidential under 13 U.S.C. Section 9. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data. All access to Title 13 data from this survey is restricted to Census Bureau employees and those holding Census Bureau Special Sworn Status pursuant to 13 U.S.C. Section 23(c) as identified in SORN Census-3 Demographic Survey Collection (Census Bureau Sampling Frame). Any information you provide will be shared among a limited number of Census Bureau and HHS staff only for work-related purposes identified above and as permitted under the Privacy Act of 1974 (5 U.S.C. Section 552a). Participation in this survey is voluntary and there are no penalties for refusing to answer questions. However, your cooperation in obtaining this much needed information is extremely important in order to ensure complete and accurate results.</small></p>

Section B – 2008 NSSRN Questionnaire Content Removed for 2018

Questionnaire items from the 2008 NSSRN that were not included in the 2018 survey are itemized in the table below.

Table B-1. Questionnaire items removed for 2018

2008 Questionnaire Items Removed for 2018

7. What was the field of study for your highest degree identified in Question 6? *Mark one box only.*

- Health-related field
or
- Non-health related field
- Biological or Physical Science
- Business or Management
- Education
- Liberal Arts, Social Science, or Humanities
- Law
- Computer Science
- Social Work
- Other non-health related field

Specify

11a. Within the past year, have you received or provided emergency preparedness training, in any of the following areas? *Mark all that apply.*

- None → **Go to Question 12**
- Chemical accident or attack
- Nuclear/radiological accident or attack
- Infectious disease epidemics
- Biological accident or attack
- Natural disaster
- Other public health emergencies

11b. Please specify the total number of hours spent in the above training(s) within the past year.

(enter 0 if none)

Hours of training received

Hours of training provided

11c. Thinking about the area in which you are best prepared for an emergency, are you...?

- Very prepared
- Adequately prepared
- Somewhat prepared
- Not at all prepared

2008 Questionnaire Items Removed for 2018

12. How well do you know the disaster/emergency plan at your place of employment?

- Full understanding
- Some understanding
- Little or no understanding
- No plan exists at my place of employment
- Do not have a place of employment

24. Which one of the following best corresponds to the job title for the principal nursing position you held on March 10, 2008? *Mark one box only.*

- Staff nurse or direct care nurse
- Charge nurse or team leader
- First-line management (head nurse, floor supervisor)
- Middle management/administration (assistant director, house supervisor, associate dean, department head)
- Senior management/administration (CEO, vice president, nursing executive, dean)
- Certified Registered Nurse Anesthetist (CRNA)
- Clinical Nurse Specialist (CNS)
- Certified Nurse-Midwife (CNM)
- Nurse practitioner (NP)
- School nurse
- Public health nurse
- Community health nurse
- Patient educator
- Staff educator or instructor in clinical setting
- Staff development director
- Instructor/lecturer
- Professor
- Patient care coordinator, case manager, discharge planner
- Quality improvement nurse, utilization review nurse
- Infection control
- Advice/triage nurse
- Informatics nurse
- Consultant
- Legal nurse
- Researcher
- Surveyor/auditor/regulator
- No position title
- Other

Specify:

44. On March 10, 2008, were you employed for pay in an occupation other than nursing?

- Yes
- No → Go to Section F on page 12

45. On March 10, 2008, was this non-nursing employment with a health-related organization or in a health-related position?

- Yes
- No

2008 Questionnaire Items Removed for 2018

46a. Please select from the list below the item that best describes the field of your principal position outside of nursing. *Mark one box only.*

- Computer services
- Consulting organization
- Emergency response (ambulance, fire, police)
- Financial, accounting, and insurance services
- Legal
- Education, elementary and secondary
- Food services
- Government
- Health-related services, outside nursing
- Pharmaceutical, biotechnology, or medical equipment
- Real estate
- Retail sales and services
- Other

Specify

46b. Which of the following best describes your job title for your principal position outside of nursing? *Mark one box only.*

- Business owner or proprietor
- Management
- Sales
- Instructor or professor
- Administrative or clerical support
- Consultant
- Other type of employee

Specify

47. How many months would you normally work per year in this principal position outside of nursing?

months per year

48. What is the average number of hours you work per week in your principal position outside of nursing?

hours per week

49. Please estimate your 2008, pre-tax annual earnings from your principal position outside of nursing.

\$, , .00 per year

2008 Questionnaire Items Removed for 2018

70d. Other than those previously listed, what other National nursing certifications do you currently have? *Specify name or acronym and organization below.*

- No other current National nursing certifications
↳ Go to Section I on page 16

Certification Name: _____

Certifying Organization: _____

Certification Name: _____

Certifying Organization: _____

Certification Name: _____

Certifying Organization: _____

Section I. Contact Information/Comments

71. If we need to contact you about any of your responses, please provide your e-mail address and telephone number, as well as the best time of day to reach you.

E-mail address: _____

Telephone No.: Home Work Cell () -
Area Code Telephone Number

Time of day/week best to contact you by phone: _____

72. Do you have any recommendations for how this survey could be improved? *Please print clearly.*

Section C – New NSSRN Questionnaire Content for 2018

Questionnaire items that are new for the 2018 NSSRN are itemized in the table below.

Table C-1. Questionnaire items added for 2018

New Questionnaire Items for 2018		Corresponding Construct from Previous Surveys
<p>B3. Thinking about the primary nursing position you held on December 31, 2017, had you been working for <u>this employer</u> for less than 5 years?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → <i>SKIP to Question B7</i></p>		
<p>B4. How long were you actively looking for new employment before accepting a position with this employer?</p> <p><input type="checkbox"/> 1 - 6 months</p> <p><input type="checkbox"/> 7 - 12 months</p> <p><input type="checkbox"/> More than a year</p> <p><input type="checkbox"/> I was not actively looking for new employment</p>		Note: this item should not be confused with the 2018 NSSRN questions G1 and G2 that correspond to the 2008 NSSRN questions 38 and 39, which ask a similar construct for nurses not currently working in nursing. Refer to Appendix A.
<p>B5. Did you go through an orientation program for the primary nursing position you held on December 31, 2017?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → <i>SKIP to Question B7</i></p>		
<p>B6. Did you have a preceptor assigned to you during this orientation program?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>		
<p>B8. In your primary nursing position did you use an Electronic Health Record (EHR) or Electronic Medical Record (EMR) system? <i>Do not include billing record systems.</i></p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Don't know</p>		A similar question was asked in the 2012 National Survey of Nurse Practitioners (NSSNP) (question 14) and was modified to collect this information for all employed nurses in the 2018 NSSRN.

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys																																																						
<p>B9. As of December 31, 2017, what type(s) of training have you received to facilitate team-based care? <i>Team-based care refers to comprehensive health services by at least two health professionals working collaboratively to provide safe, quality care. Mark all that apply.</i></p> <p><input type="checkbox"/> Formal classroom training at my college or university</p> <p><input type="checkbox"/> Formal classroom training offered by my place of employment</p> <p><input type="checkbox"/> Online educational videos offered by my place of employment</p> <p><input type="checkbox"/> Informal training (e.g., on the job)</p> <p><input type="checkbox"/> No training at all</p> <p><input type="checkbox"/> Other, <i>Specify:</i> ↴</p> <div style="border: 1px solid black; height: 20px; width: 250px; margin-left: 20px;"></div>																																																							
<p>B17a. Did the primary nursing position you held on December 31, 2017, include any <u>patient care</u>?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → <i>SKIP to Question B18 on page 9</i></p>	<p>A similar question was asked in the 2012 NSSNP (question 34, “Do you provide any direct patient care in your main NP position?”) and modified for the 2018 NSSRN.</p>																																																						
<p>B18. Thinking about the primary nursing position you held on December 31, 2017, to what extent did you...</p> <table border="1"> <thead> <tr> <th></th> <th>A great extent</th> <th>Somewhat</th> <th>Very little</th> <th>Not at all</th> <th>Not applicable</th> </tr> </thead> <tbody> <tr> <td>Participate in team-based care?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Feel confident in your ability to effectively practice in interprofessional teams?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Effectively use Health Information Technology (HIT) in your practice to manage the health of your patient population?</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table> <p>B19. For the primary nursing position you held on December 31, 2017, to what extent did you observe your organization emphasizing the following?</p> <table border="1"> <thead> <tr> <th></th> <th>A great extent</th> <th>Somewhat</th> <th>Very little</th> <th>Not at all</th> <th>Not applicable</th> </tr> </thead> <tbody> <tr> <td>Care coordination</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Discharge planning</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Team-based care</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> <tr> <td>Evidence-based care</td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> <td><input type="checkbox"/></td> </tr> </tbody> </table>		A great extent	Somewhat	Very little	Not at all	Not applicable	Participate in team-based care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Feel confident in your ability to effectively practice in interprofessional teams?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Effectively use Health Information Technology (HIT) in your practice to manage the health of your patient population?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>		A great extent	Somewhat	Very little	Not at all	Not applicable	Care coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Discharge planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Team-based care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	Evidence-based care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	
	A great extent	Somewhat	Very little	Not at all	Not applicable																																																		
Participate in team-based care?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		
Feel confident in your ability to effectively practice in interprofessional teams?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		
Effectively use Health Information Technology (HIT) in your practice to manage the health of your patient population?	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		
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Care coordination	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		
Discharge planning	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		
Team-based care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		
Evidence-based care	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>																																																		

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>B20. As of December 31, 2017, what training topics would have helped you do your job better? <i>Mark all that apply.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Evidence-based care <input type="checkbox"/> Patient-centered care (care that is responsive to patient preferences, needs and values, and ensures that patient values guide clinical decisions) <input type="checkbox"/> Team-based care <input type="checkbox"/> Practice management and administration <input type="checkbox"/> Social determinants of health (e.g., impact of race and social-economic status) <input type="checkbox"/> Working in an underserved community <input type="checkbox"/> Caring for medically complex/ special needs patients <input type="checkbox"/> Population-based health <input type="checkbox"/> Quality improvement <input type="checkbox"/> Value-based care <input type="checkbox"/> Mental health <input type="checkbox"/> Other, <i>Specify</i> → <input style="width: 150px; height: 20px;" type="text"/> <input type="checkbox"/> None 	
<p><i>In the following questions, the term telehealth refers to communication technology, such as remote conferencing through phone and/or video, used to connect geographically dispersed practitioners.</i></p> <p>B21. For the primary nursing position you held on December 31, 2017, did your workplace use telehealth?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> No → <i>SKIP to Question B24 on page 10</i> <p>B22. Did you personally use some form of telehealth in the primary nursing position you held on December 31, 2017?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> No → <i>SKIP to Question B24 on page 10</i> 	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>B23. Which type(s) of telehealth did you use in the primary nursing position you held on December 31, 2017? <i>Mark all that apply.</i></p> <p><input type="checkbox"/> Provider to provider consults</p> <p><input type="checkbox"/> RN to patient direct calls (e.g., care management/home monitoring) by phone and/or video)</p> <p><input type="checkbox"/> NP primary care e-visits</p> <p><input type="checkbox"/> Other, <i>Specify:</i> ↴</p> <div style="border: 1px solid black; height: 20px; width: 250px; margin-left: 20px;"></div>	
<p>B25. In that primary nursing position, were you able to practice to the full extent of your knowledge/education/training?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	<p>A similar construct was measured in the 2012 NSSNP, where NPs were asked if their skills were being fully utilized (question 40).</p>

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>C1. Which of the following reasons contributed to your decision to leave the primary nursing position you held on December 31, 2017? Mark all that apply.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Better pay/benefits <input type="checkbox"/> Burnout <input type="checkbox"/> Career advancement/promotion <input type="checkbox"/> Career change <input type="checkbox"/> Change in child's school <input type="checkbox"/> Disability/illness <input type="checkbox"/> Family caregiving <input type="checkbox"/> Inability to practice to the full extent of my license <input type="checkbox"/> Inadequate staffing <input type="checkbox"/> Interpersonal differences with colleagues or supervisors <input type="checkbox"/> Lack of advancement opportunities <input type="checkbox"/> Lack of collaboration/communication between health care professionals <input type="checkbox"/> Lack of good management or leadership <input type="checkbox"/> Laid off/downsizing of staff <input type="checkbox"/> Length of commute <input type="checkbox"/> Patient population <input type="checkbox"/> Physical demands of job <input type="checkbox"/> Relocation to different geographic area <input type="checkbox"/> Retirement <input type="checkbox"/> Scheduling/inconvenient hours/too many hours/too few hours <input type="checkbox"/> School/educational program <input type="checkbox"/> Sign-on bonus offered <input type="checkbox"/> Spouse's employment opportunities <input type="checkbox"/> Stressful work environment <input type="checkbox"/> Other, Specify: <input style="width: 50px;" type="text"/> 	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>C3. Approximately when do you plan to retire from nursing?</p> <p><input type="checkbox"/> Already retired → <i>SKIP to Section E on page 13</i></p> <p><input type="checkbox"/> Within a year</p> <p><input type="checkbox"/> In 1-2 years</p> <p><input type="checkbox"/> In 3-5 years</p> <p><input type="checkbox"/> More than 5 years from now</p> <p><input type="checkbox"/> Undecided</p>	<p>A similar question was asked of NPs in question 23 of the 2012 NSSNP, and was adapted for the 2018 NSSRN for questions C3 and D8.</p>
<p>C4. How long do you plan to work in the geographic area of the principal nursing position you held on December 31, 2017?</p> <p><input type="checkbox"/> Already left the geographic area</p> <p><input type="checkbox"/> Less than a year</p> <p><input type="checkbox"/> 1-2 years</p> <p><input type="checkbox"/> 3-5 years</p> <p><input type="checkbox"/> More than 5 years</p> <p><input type="checkbox"/> Not sure</p>	
<p>D1. Have you ever considered leaving the primary nursing position you held on December 31, 2017?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → <i>SKIP to Question D7 on page 12</i></p>	
<p>D2. Have you considered leaving this position in the past year?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p>	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>D3. Which of the following reasons would contribute to your decision to leave your primary nursing position? Mark all that apply.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Better pay/benefits <input type="checkbox"/> Burnout <input type="checkbox"/> Career advancement/promotion <input type="checkbox"/> Career change <input type="checkbox"/> Change in child's school <input type="checkbox"/> Disability/illness <input type="checkbox"/> Family caregiving <input type="checkbox"/> Inability to practice to the full extent of my license <input type="checkbox"/> Inadequate staffing <input type="checkbox"/> Interpersonal differences with colleagues or supervisors <input type="checkbox"/> Lack of advancement opportunities <input type="checkbox"/> Lack of collaboration/communication between health care professionals <input type="checkbox"/> Lack of good management or leadership <input type="checkbox"/> Length of commute <input type="checkbox"/> Patient population <input type="checkbox"/> Physical demands of job <input type="checkbox"/> Relocation to different geographic area <input type="checkbox"/> Retirement <input type="checkbox"/> Scheduling/inconvenient hours/too many hours/too few hours <input type="checkbox"/> School/educational program <input type="checkbox"/> Sign-on bonus offered <input type="checkbox"/> Spouse's employment opportunities <input type="checkbox"/> Stressful work environment <input type="checkbox"/> Other, Specify: <input type="text"/> 	<p>A similar construct was measured of nurses who no longer work in the nursing field in the 2008 NSSRN (question 56).</p>

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>D4. When do you plan to leave this position?</p> <p><input type="checkbox"/> Less than one year from now</p> <p><input type="checkbox"/> 1-3 years from now</p> <p><input type="checkbox"/> More than 3 years from now</p> <p><input type="checkbox"/> Not sure</p>	<p>A similar construct was measured in the 2008 NSSRN (question 32a) and the 2012 NSSNP (question 22).</p>
<p>D5. Do you plan to work in nursing after you leave this position?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Not sure</p>	
<p>D6. How long do you plan to work in the geographic area of the primary nursing position you held on December 31, 2017?</p> <p><input type="checkbox"/> Less than a year</p> <p><input type="checkbox"/> 1-2 years</p> <p><input type="checkbox"/> 3-5 years</p> <p><input type="checkbox"/> More than 5 years</p> <p><input type="checkbox"/> Not sure</p>	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>D7. What factors contribute to your decision to remain in your primary nursing position? <i>Mark all that apply.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Ability to provide full scope of services <input type="checkbox"/> Availability of loan repayment financial support <input type="checkbox"/> Availability of resources to do my job well <input type="checkbox"/> Availability of training opportunities <input type="checkbox"/> Balanced schedule/hours <input type="checkbox"/> Commitment to underserved communities <input type="checkbox"/> Cost of living <input type="checkbox"/> Difficulty finding another job <input type="checkbox"/> Experience at site <input type="checkbox"/> Length of commute <input type="checkbox"/> Opportunities for advancement <input type="checkbox"/> Proximity to desirable school district <input type="checkbox"/> Proximity to extended family/parents/siblings <input type="checkbox"/> Proximity to spouse's employment opportunities <input type="checkbox"/> Salary and benefits <input type="checkbox"/> Sense of community with peers <input type="checkbox"/> Use of Electronic Health Records <input type="checkbox"/> Use of telehealth <input type="checkbox"/> Other, Specify: <input type="text"/> 	<p>A similar construct was measured of nurses who no longer work in the nursing field in the 2008 NSSRN (question 56).</p>
<p>D8. Approximately when do you plan to retire from nursing?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Already retired <input type="checkbox"/> Within a year <input type="checkbox"/> In 1-2 years <input type="checkbox"/> In 3-5 years <input type="checkbox"/> More than 5 years from now <input type="checkbox"/> Undecided 	<p>A similar question was asked of NPs in question 23 of the 2012 NSSNP, and is adapted for the 2018 NSSRN for questions C3 and D8.</p>

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>NOTE: Although new to the NSSRN, the following questions were taken from the 2012 National Sample Survey of Nurse Practitioners: F1a, F1b, F2, F5 - F10a, F13, F14, F19 - F26. Questions were altered slightly to fit the context of the NSSRN.</p> <div style="background-color: #e0f2f7; padding: 10px;"> <p>F1a. On December 31, 2017, did you have an active certification, licensure, or legal recognition to practice as a Nurse Practitioner (NP) from a <u>State Board of Nursing</u>?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → SKIP to Section G on page 17</p> </div>	
<div style="background-color: #e0f2f7; padding: 10px;"> <p>F1b. What state(s) issued the license/certification/recognition? List up to 4.</p> <p>State State State State</p> <div style="display: flex; justify-content: space-around;"> <div style="border: 1px solid #ccc; width: 40px; height: 25px; margin: 2px;"></div> <div style="border: 1px solid #ccc; width: 40px; height: 25px; margin: 2px;"></div> <div style="border: 1px solid #ccc; width: 40px; height: 25px; margin: 2px;"></div> <div style="border: 1px solid #ccc; width: 40px; height: 25px; margin: 2px;"></div> </div> <p><input type="checkbox"/> Check this box if you were issued certification/licensure/recognition by more than 4 states.</p> </div>	
<div style="background-color: #e0f2f7; padding: 10px;"> <p>F2. On December 31, 2017, in which area(s) were you certified by a national certifying organization for NPs? Mark all that apply.</p> <p><input type="checkbox"/> Acute Care, adult</p> <p><input type="checkbox"/> Acute Care, pediatric</p> <p><input type="checkbox"/> Adult</p> <p><input type="checkbox"/> Family</p> <p><input type="checkbox"/> Gerontology</p> <p><input type="checkbox"/> Neonatal</p> <p><input type="checkbox"/> Pediatric</p> <p><input type="checkbox"/> Psychiatric & Mental Health</p> <p><input type="checkbox"/> Women's Health</p> <p><input type="checkbox"/> Other, Specify: <input style="width: 50px;" type="text"/></p> <p><input type="checkbox"/> None</p> </div>	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>F3. To what extent did your master's or doctoral training prepare you to be a licensed independent practitioner?</p> <p><input type="checkbox"/> A great extent</p> <p><input type="checkbox"/> Somewhat</p> <p><input type="checkbox"/> Very little</p> <p><input type="checkbox"/> Not at all</p> <p>F4. Did you complete an NP post-graduate residency or fellowship program?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>F5. Do you have a National Provider Identifier (NPI) number?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → SKIP to Question F7</p>	
<p>F6. Do you or have you ever billed under your NPI number?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p><input type="checkbox"/> Don't know</p>	
<p>F7. On December 31, 2017, were you employed in any positions that required state certification/licensure/recognition to practice as an NP?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → SKIP to Question F26 on page 16</p>	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>F8. Thinking about the main NP position you held on December 31, 2017, what type of professional relationship did you have with the physician(s) you worked with? <i>Mark all that apply.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> In my main NP position, there were no physicians on site <input type="checkbox"/> I collaborated with a physician at another site <input type="checkbox"/> I collaborated with a physician on site <input type="checkbox"/> I was considered an equal colleague to the physician(s) I worked with <input type="checkbox"/> I was accountable to a physician who served as a medical director <input type="checkbox"/> I was supervised by a physician, and I had to accept his/her clinical decision about the patients I saw <input type="checkbox"/> A physician saw and signed off on the patients I saw <input type="checkbox"/> Other, <i>Specify:</i> ↴ <div style="border: 1px solid black; height: 20px; width: 250px; margin-left: 20px;"></div>	
<p>F9. Thinking of all the NP positions you held on December 31, 2017, indicate your level of agreement with the following statements.</p> <p>F9a. In my NP position(s), I could practice to the fullest extent of my state's legal scope of practice.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Strongly agree <input type="checkbox"/> Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Strongly disagree <p>F9b. In my NP position(s), my NP education was fully utilized.</p> <ul style="list-style-type: none"> <input type="checkbox"/> Strongly agree <input type="checkbox"/> Agree <input type="checkbox"/> Disagree <input type="checkbox"/> Strongly disagree 	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>F10. In the NP position(s) you held on December 31, 2017, did you provide patient care?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → SKIP to Question F19</p> <p>F10a. Across all of the NP positions you held on December 31, 2017, about how many patients did you see in a typical week? If none, enter zero.</p> <p><input type="text" value="000"/> Patients</p> <p>F11. Were you providing patient care as an NP in 2013?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → SKIP to Question F13</p>	
<p>F12. Did your overall patient population size increase, decrease, or stay the same since 2013?</p> <p><input type="checkbox"/> Increased</p> <p><input type="checkbox"/> Decreased</p> <p><input type="checkbox"/> Stayed the same</p> <p><input type="checkbox"/> Don't know</p> <p>F13. Across all NP positions you held on December 31, 2017, did you have a panel of patients that you managed, where you were the primary provider? A panel is a group of patients that you see across a period of time.</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → SKIP to Question F19</p> <p>F14. Across all of your NP positions, on average, about how many patients were on your panel?</p> <p><input type="text" value="0000"/> Patients</p>	
<p>F15. What percentage of your panel were patients from racial/ethnic minority groups?</p> <p><input type="text" value="000"/> %</p> <p>F16. What percentage of your panel were patients with limited English proficiency?</p> <p><input type="text" value="000"/> %</p>	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>F17. Please estimate the percentage of your patient panel that was covered by the following types of insurance. <i>Do not use decimals.</i></p> <p>Private insurance <input type="text"/> <input type="text"/> <input type="text"/> %</p> <p>Medicare, for people 65 and older, or people with certain disabilities <input type="text"/> <input type="text"/> <input type="text"/> %</p> <p>Medicaid, Medical Assistance, or any kind of government-assistance plan for those with low incomes or a disability <input type="text"/> <input type="text"/> <input type="text"/> %</p> <p>TRICARE or other military health care <input type="text"/> <input type="text"/> <input type="text"/> %</p> <p>VA <input type="text"/> <input type="text"/> <input type="text"/> %</p> <p>Indian Health Service <input type="text"/> <input type="text"/> <input type="text"/> %</p> <p>Self-pay/uninsured <input type="text"/> <input type="text"/> <input type="text"/> %</p> <p>Other <input type="text"/> <input type="text"/> <input type="text"/> %</p> <p><input type="checkbox"/> Don't know</p> <p style="text-align: right;">Total = <u>100%</u></p>	
<p>F18. How were medical expenses reimbursed for the majority of your panel of patients? <i>Mark one box only.</i></p> <p><input type="checkbox"/> Fee-for-service (e.g., PPO and Original Medicare)</p> <p><input type="checkbox"/> Capitated fees per patient (e.g., HMO)</p> <p><input type="checkbox"/> Other</p> <p><input type="checkbox"/> Don't know</p> <p>F19. Did you have hospital admitting privileges on December 31, 2017?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>F20. Were you covered by malpractice insurance on December 31, 2017?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → <i>SKIP to Question F22 on page 16</i></p>	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>F21. Who paid for your malpractice insurance?</p> <p><input type="checkbox"/> Self</p> <p><input type="checkbox"/> Employer</p> <p><input type="checkbox"/> Both</p> <p>F22. Did you have prescriptive authority?</p> <p><input type="checkbox"/> Yes → <i>SKIP to Question F24</i></p> <p><input type="checkbox"/> No</p> <p>F23. Why didn't you have prescriptive authority? <i>Mark all that apply.</i></p> <p><input type="checkbox"/> Was in the process of applying</p> <p><input type="checkbox"/> MD or other NP wrote all of my prescriptions</p> <p><input type="checkbox"/> State scope of practice regulations</p> <p><input type="checkbox"/> Other, <i>Specify:</i> ↴</p> <div style="border: 1px solid black; height: 20px; width: 250px; margin-left: 20px;"></div>	
<p>F24. On December 31, 2017 did you have a personal Drug Enforcement Administration (DEA) number?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No</p> <p>F25. In any of your NP positions, did you have the title Hospitalist?</p> <p><input type="checkbox"/> Yes → <i>SKIP to Section H on page 17</i></p> <p><input type="checkbox"/> No → <i>SKIP to Section H on page 17</i></p>	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>F26. What are the reasons that you were NOT working as an NP on December 31, 2017? <i>Mark all that apply.</i></p> <ul style="list-style-type: none"> <input type="checkbox"/> Overall lack of NP job opportunities <input type="checkbox"/> Lack of NP job opportunities in desired location <input type="checkbox"/> Lack of NP job opportunities in desired specialty <input type="checkbox"/> Lack of NP job opportunities in desired type of facility <input type="checkbox"/> Limited scope of practice for NPs in the state where practice was desired <input type="checkbox"/> Lack of experience or qualification <input type="checkbox"/> Inadequate salary/benefits <input type="checkbox"/> Working outside the field of nursing <input type="checkbox"/> Family caregiving <input type="checkbox"/> Disability/illness <input type="checkbox"/> Chose not to work <input type="checkbox"/> Retirement <input type="checkbox"/> Other, <i>Specify:</i> ↴ <div style="border: 1px solid black; height: 20px; width: 250px; margin-left: 20px;"></div>	
<p>G5a. Have you ever been employed or self-employed in nursing?</p> <ul style="list-style-type: none"> <input type="checkbox"/> Yes <input type="checkbox"/> No → <i>SKIP to Question G6</i> 	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>I1. The National Practitioner Data Bank (NPDB), which includes the Healthcare Integrity and Protection Data Bank (HIPDB), is a nationwide repository of negative actions taken against health care professionals. Its primary function is to aid employers in making well informed hiring decisions. Currently, certain entities are required to query the NPDB on physicians and dentists, prior to making decisions on hiring and clinical privileges. Do you think the query requirement should be expanded to other health care professions?</p> <p><input type="checkbox"/> Yes, it should be expanded to all health care professions</p> <p><input type="checkbox"/> Yes, it should be expanded to some but not all health care professions</p> <p><input type="checkbox"/> No, it should not be expanded</p> <p><input type="checkbox"/> I am unfamiliar with the National Practitioner Data Bank → <i>SKIP to Section J on page 21</i></p>	
<p>I2. Have you been reported to the NPDB or the HIPDB?</p> <p><input type="checkbox"/> Yes</p> <p><input type="checkbox"/> No → <i>SKIP to Question I5</i></p> <p>I3. Who submitted the report(s)? <i>Mark all that apply.</i></p> <p><input type="checkbox"/> State licensing board</p> <p><input type="checkbox"/> Medical malpractice payer, such as an insurance company</p> <p><input type="checkbox"/> Hospital</p> <p><input type="checkbox"/> Federal agency</p> <p><input type="checkbox"/> Unknown</p> <p><input type="checkbox"/> Other, <i>Specify:</i> ↴</p> <div style="border: 1px solid black; height: 20px; width: 250px; margin-left: 20px;"></div>	
<p>I4. Did the NPDB report impact your career? <i>Mark all that apply.</i></p> <p><input type="checkbox"/> Yes, the report had a negative impact on my position (e.g., reprimand, termination)</p> <p><input type="checkbox"/> Yes, the report made it difficult to obtain employment</p> <p><input type="checkbox"/> No, the report did not impact my career</p>	

New Questionnaire Items for 2018	Corresponding Construct from Previous Surveys
<p>15. When making hiring decisions, do you feel that health care employers should consider prior negative health care related actions taken against prospective employees?</p> <p><input type="checkbox"/> Yes, they should consider prior negative actions</p> <p><input type="checkbox"/> No, they should not consider prior negative actions</p>	
<p>16. The NPDB collects reports on adverse actions taken against a physician that affect that physician's clinical privileges. Many nurse practitioners currently perform job functions similar to primary care physicians. Do you feel the NPDB should also collect reports on adverse actions against a nurse practitioner that could affect their clinical privileges?</p> <p><input type="checkbox"/> Yes, they should be reported</p> <p><input type="checkbox"/> No, they should not be reported</p>	
<p>17. Do you think nurse practitioners who are supervised by a physician should be subject to the same reporting requirements as physicians, less strict reporting requirements, or more strict reporting requirements?</p> <p><input type="checkbox"/> The same reporting requirements as physicians</p> <p><input type="checkbox"/> Less strict reporting requirements for nurse practitioners who are supervised by a physician</p> <p><input type="checkbox"/> More strict reporting requirements for nurse practitioners who are supervised by a physician</p>	
<p>K9. Have you ever served on active duty in the U.S. Armed Forces, Reserves, or National Guard? <i>Mark one box only.</i></p> <p><input type="checkbox"/> Never served in the military</p> <p><input type="checkbox"/> Only on active duty for training in the Reserves or National Guard</p> <p><input type="checkbox"/> Now on active duty</p> <p><input type="checkbox"/> On active duty in the past, but not now</p>	

Appendix B – Contact Letters by Mailing Schedule and FAQ in Data Collection



UNITED STATES DEPARTMENT OF COMMERCE
Economics and Statistics Administration
U.S. Census Bureau
Washington, DC 20233-0001

NSSRN Mailing 1A

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

Nurses play a critical role in the lives of patients across the country. That is why the U.S. Census Bureau and the U.S. Department of Health and Human Services are dedicated to providing you, policy makers, and researchers with the most comprehensive data on U.S. Registered Nurses and Nurse Practitioners. To accomplish this, **we need your help.**

Please complete the **2018 National Sample Survey of Registered Nurses**. This vital national survey is the primary source of data on the nursing workforce, the largest group of healthcare providers.

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

Your response is important. Please complete the survey even if you do not work, are retired, or currently work in a field other than nursing. For more information, see the back of this letter for answers to frequently asked questions, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you in advance for participating in this important survey.



NSSRN Mailing 1B

A Message from the Director, U.S. Census Bureau:

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In appreciation of your survey participation, we have enclosed an inscribed lanyard and pen.

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Thank you in advance for participating in this important survey.

Enclosure



NSSRN Mailing 1C

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Please complete and mail back the enclosed **2018 National Sample Survey of Registered Nurses** paper questionnaire in the postage-paid envelope provided. This vital national survey is the primary source of data on the nursing workforce, the largest group of healthcare providers.

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Login ID:

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Enclosure



NSSRN Mailing 1D

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Login ID:

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Thank you in advance for participating in this important survey.

Enclosure



NSSRN Mailing 2A

**First Reminder
Please Respond now**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

Last week, we sent you a request to participate in the **2018 National Sample Survey of Registered Nurses**. If you already completed the survey, thank you very much. If you have not responded, please use the website provided to **complete the survey**.

Did you know...employment settings change as nurses age? The vast majority of registered nurses under 30 years old work in hospitals, but over 50 percent of registered nurses 55 years or older work in non-hospital employment settings. Information like this from the survey helps policymakers and the healthcare sector plan for future staffing needs.

You were scientifically selected for this survey and your response is very important. For help or additional information, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you for your contribution to this important survey.

FOLDLINE



National Sample Survey of Registered Nurses

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

5





NSSRN Mailing 2B

**First Reminder
Please Respond now**

A Message from the Director, U.S. Census Bureau:

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Did you know...employment settings change as nurses age? The vast majority of registered nurses under 30 years old work in hospitals, but over 50 percent of registered nurses 55 years or older work in non-hospital employment settings. Information like this from the survey helps policymakers and the healthcare sector plan for future staffing needs.

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Thank you for your contribution to this important survey.

FOLDLINE



National Sample Survey of Registered Nurses

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

6





NSSRN Mailing 3A

**Second Reminder
Your response is
important**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

A few weeks ago, we sent you a request to participate in the **2018 National Sample Survey of Registered Nurses**. Information from this survey is used to help identify shortages in nursing resources that may affect the care of patients across the country. If you have already responded, thank you.

Results from this survey allow you and others to find information such as employment status and setting, job satisfaction, and educational background of nurses at the state and national level.

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

The success of this survey depends on your participation; we cannot substitute anyone else for you. For help or additional information, see the back of this letter for answers to frequently asked questions, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you in advance for responding to this important survey.

Enclosure



NSSRN Mailing 3B

**Second Reminder
Your response is
important**

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Login ID:

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Thank you in advance for responding to this important survey.

Enclosure



NSSRN Mailing 3C

**Second Reminder
Your response is
important**

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Results from this survey allow you and others to find information such as job satisfaction, employment setting, and educational background of nurses at the state and national level.

You may complete and mail back the enclosed paper questionnaire by returning it in the postage- paid envelope provided. If you prefer to complete the survey online:

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

The success of this survey depends on your participation; we cannot substitute anyone else for you. For help or additional information, see the back of this letter for answers to frequently asked questions, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you in advance for responding to this important survey.

Enclosure



NSSRN Mailing 3D

**Second Reminder
Your response is
important**

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Login ID:

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Thank you in advance for responding to this important survey.

Enclosure



NSSRN Mailing 4A

**Third Reminder
Please respond
today**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

Recently, the U.S. Census Bureau sent you several requests to participate in the **2018 National Sample Survey of Registered Nurses**. If you have already responded, thank you.

If you have not yet participated, **we would greatly appreciate your help**. The information you provide is necessary to evaluate and project the supply and demand of nursing requirements at the state and national level. The survey also assesses the number of registered nurses; their educational background; employment setting, position, and specialty areas; job satisfaction; and, salaries.

For additional information:

- Email: nssrn@census.gov
- Call toll-free: 1-888-369-3598

Thank you for your contribution to this important survey.

FOLD LINE



National Sample Survey of Registered Nurses

Please respond at: <https://respond.census.gov/nssrn>

Login ID:





NSSRN Mailing 4B

**Third Reminder
Please respond
today**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

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For additional information:

- Email: nssrn@census.gov
- Call toll-free: 1-888-369-3598

Thank you for your contribution to this important survey.

FOLD LINE



National Sample Survey of Registered Nurses

Please respond at: <https://respond.census.gov/nssrn>

Login ID:





NSSRN Mailing 5A

**Fourth Reminder
Your participation
is important**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

The U.S. Census Bureau has contacted you several times over the past month to request your participation in the **2018 National Sample Survey of Registered Nurses**. If you have already completed the survey, we appreciate your help.

If you have not responded, **now is the time to do so**. Your individual response is critical to the success of this survey and provides valuable information about the trends in nurse characteristics such as education and training, employment, income, and demographics.

You may complete and mail back the enclosed paper questionnaire by returning it in the postage- paid envelope provided.

In appreciation of your survey participation, we have enclosed an inscribed lanyard and pen. If you prefer to complete the survey online:

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

For help or additional information, see the back of this letter for answers to frequently asked questions, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you in advance for responding to this important national survey.

Enclosure





NSSRN Mailing 5B

**Fourth Reminder
Your participation
is important**

A Message from the Director, U.S. Census Bureau:

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Please respond at: <https://respond.census.gov/nssrn>

Login ID:

For help or additional information, see the back of this letter for answers to frequently asked questions, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you in advance for responding to this important national survey.

Enclosure



NSSRN Mailing 5C

**Fourth Reminder
Your participation
is important**

Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

The U.S. Census Bureau has contacted you several times over the past month to request your participation in the **2018 National Sample Survey of Registered Nurses**. If you have already completed the survey, we appreciate your help.

If you have not responded, **now is the time to do so**. Your individual response is critical to the success of this survey and provides valuable information about the trends in nurse characteristics such as education and training, employment, income, and demographics.

You may complete and mail back the enclosed paper questionnaire by returning it in the postage-paid envelope provided.

In appreciation of your survey participation, we have enclosed an inscribed lanyard and pen.

If you prefer to complete the survey online:

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

For help or additional information, see the back of this letter for answers to frequently asked questions, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you in advance for responding to this important national survey.

Enclosure



NSSRN Mailing 5D

**Fourth Reminder
Your participation
is important**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

The U.S. Census Bureau has contacted you several times over the past month to request your participation in the **2018 National Sample Survey of Registered Nurses**. If you have already completed the survey, we appreciate your help.

If you have not responded, **now is the time to do so**. Your individual response is critical to the success of this survey and provides valuable information about the trends in nurse characteristics such as education and training, employment, income, and demographics.

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For help or additional information, see the back of this letter for answers to frequently asked questions, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you in advance for responding to this important national survey.

Enclosure



NSSRN Mailing 6A

**Fifth Reminder
Your response is
important**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

Since March, we have sent you several requests for your participation in the **2018 National Sample Survey of Registered Nurses**. Your individual response is important, **even if you do not work, are retired, or work in a field other than nursing**. If you have already responded, thank you.

By participating in this survey, nurses like you can help identify areas of education and training that would benefit the nursing workforce and the patients they care for across the country.

For help or additional information, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you for your contribution to this important national survey.

FOLD LINE



National Sample Survey of Registered Nurses

Please respond at: <https://respond.census.gov/nssrn>

Login ID:





NSSRN Mailing 6B

**Fifth Reminder
Your response is
important**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

Since March, we have sent you several requests for your participation in the **2018 National Sample Survey of Registered Nurses**. Your individual response is important, **even if you do not work, are retired, or work in a field other than nursing**. If you have already responded, thank you.

By participating in this survey, nurses like you can help identify areas of education and training that would benefit the nursing workforce and the patients they care for across the country.

For help or additional information, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you for your contribution to this important national survey.

FOLD LINE



National Sample Survey of Registered Nurses

Please respond at: <https://respond.census.gov/nssrn>

Login ID:





NSSRN Mailing 6C

**Final Reminder
Survey Ends Soon**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

The U.S. Census Bureau has sent you several requests, on behalf of the U.S. Department of Health and Human Services, to participate in **the 2018 National Sample Survey of Registered Nurses**. We know your time is valuable. We would greatly appreciate your participation in this important survey to ensure that the results are accurate and represent the nursing population.

Results from this survey provide information on the supply and demand of nursing resources in the United States and guide decisions on nurse education and licensing at the state and federal level.

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

The survey will end soon. **This is your last chance** to provide input on topics that have an impact on the daily lives of nurses like you and the patients they care for across the country.

For additional Information:

- Email: nssrn@census.gov
- Call toll-free: 1-888-369-3598
- See the back of this letter for answers to frequently asked questions

Thank you for your contribution to this valuable national survey.



NSSRN Mailing 20

**Sixth Reminder
Your response
matters**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

Understanding the supply and distribution of nurses is key to ensuring access to care for patients across the country. That is why the U.S. Census Bureau and the U.S. Department of Health and Human Services have requested your participation in the **2018 National Sample Survey of Registered Nurses**. If you have already responded, we appreciate your help.

If you have not completed the survey, **we need your help**. Your individual response is vital to the success of this survey, which helps ensure there are enough qualified nurses to meet the Nation's health needs.

You may complete and mail back the enclosed paper questionnaire by returning it in the postage-paid envelope provided. If you prefer to complete the survey online:

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

For help or additional information, see the back of this letter for answers to frequently asked questions, email nssrn@census.gov or call toll-free at 1-888-369-3598.

Thank you in advance for responding to this important national survey.

Enclosure



NSSRN Mailing 21

**Final Reminder
Survey Ends Soon**

A Message from the Director, U.S. Census Bureau:

Dear [FIRST NAME LAST NAME],

The U.S. Census Bureau has sent you several requests, on behalf of the U.S. Department of Health and Human Services, to participate in **the 2018 National Sample Survey of Registered Nurses**. We know your time is valuable. We would greatly appreciate your participation in this important survey to ensure that the results are accurate and represent the nursing population. If you have already responded, we appreciate your help.

Results from this survey provide information on the supply and demand of nursing resources in the United States and guide decisions on nurse education and licensing at the state and federal level.

You may complete and mail back the enclosed paper questionnaire by returning it in the postage-paid envelope provided. If you prefer to complete the survey online:

Please respond at: <https://respond.census.gov/nssrn>

Login ID:

The survey will end soon. **This is your last chance** to provide input on topics that have an impact on the daily lives of nurses like you and the patients they care for across the country.

For additional information:

- Email: nssrn@census.gov
- Call at toll-free: 1-888-369-3598
- See the back of this letter for answers to frequently asked questions

Thank you for your contribution to this valuable national survey.

NATIONAL SAMPLE SURVEY OF REGISTERED NURSES

FREQUENTLY ASKED QUESTIONS

What is the National Sample Survey of Registered Nurses?

Since the 1970s, the National Sample Survey of Registered Nurses (NSSRN) has been considered the cornerstone of nursing workforce data. It is the principal data source used for disseminating information to the federal government, researchers, and the public on the nursing workforce. The U.S. Census Bureau conducts the survey on behalf of the U.S. Department of Health and Human Services' Health Resources and Services Administration.

How is the information used?

The information you provide will be used to...

- Evaluate and project the supply and demand of nursing requirements at the state and national level.
- Assess the impact of current state and federal programs for nursing and the need for future assistance.
- Identify trends in nurse characteristics such as education and training, employment, income, and demographics.

For other uses and more information, visit www.census.gov/nssrn.

Why should I participate?

The success of this survey depends on your response. You were randomly selected to participate and you represent hundreds of other nurses in your state. We cannot replace you with another person because it would harm the quality of the data we collect. Your response is voluntary and there are no penalties for not answering individual questions.

Will my information be kept confidential?

The U.S. Census Bureau is required by law to protect your information and is not permitted to publicly release your responses in a way that could identify you or your household. The U.S. Census Bureau is conducting the National Sample Survey of Registered Nurses on the behalf of the U.S. Department of Health and Human Services (HHS) under Title 13, United States Code, Section 8(b), which allows the Census Bureau to conduct surveys on behalf of other agencies. Public Service Act 42, U.S.C., Section 294n(b)(2)(A) and Title 42, U.S.C., Section 295k(a)-(b), allow HHS to collect information for the purpose of understanding the nursing workforce in the United States. Federal law protects your privacy and keeps your answers confidential under 13 U.S.C., Section 9. Per the Federal Cybersecurity Enhancement Act of 2015, your data are protected from cybersecurity risks through screening of the systems that transmit your data.

How long will this survey take?

We estimate that completing the NSSRN will take 30 minutes on average. Send comments regarding this burden estimate or any other aspects of this collection of information, including suggestions for reducing this burden, to Paperwork Reduction Project 0607-####, U.S. Census Bureau, 4600 Silver Hill Road, Room

8H590, Washington, DC 20233. You may also e-mail comments to DEMO.Paperwork@census.gov, use "Demo Survey Comments 0607-####" as the subject.

Additional information about this survey

This collection has been approved by the Office of Management and Budget (OMB). The eight-digit OMB approval number that appears on the login screen or back cover of the questionnaire confirms this approval. If this number were not displayed, we could not conduct this survey.