

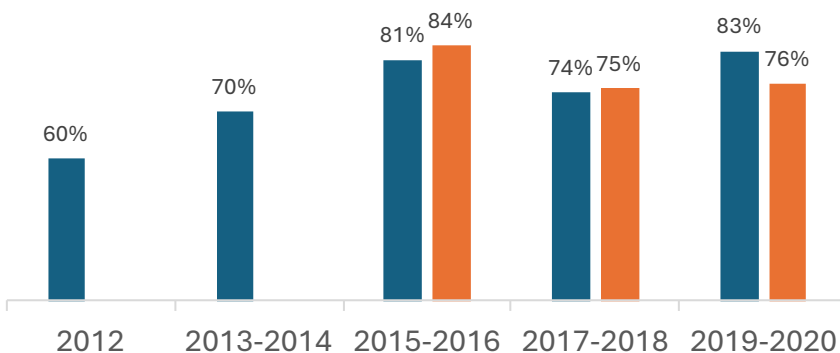
### Overview

Vermont Educational Loan Repayment (ELR) and State Loan Repayment Program (SLRP) are used to recruit and retain health care providers to underserved areas or hard to fill positions.

- Primary care providers (including physicians, nurse practitioners, physician assistants, dentists and registered nurses) are eligible for **ELR**.
- The **SLRP** awards, as a federal program, are limited and only available to dentists and primary care providers (MD/DOs, PA-Cs and APRNs) working in federally-designated health professional shortage areas (HPSAs) or specific facilities.

To determine if award recipients are still actively working in Vermont, ELR and SLRP awards data from 2012 to 2020 were matched with [Health Care Workforce](#) data from 2013 to 2023.

### ELR & SLRP Recipients Still Active in 2022 or 2023 by Year of First Award



### Award recipients by Year of Initial Award

	2012	2013-14	2015-16	2017-18	2019-20	Total
<b>ELR</b>	128	233	100	73	72	<b>605</b>
<b>SLRP</b>			25	16	21	<b>62</b>

Includes 46 professionals who received both awards.

### Award Totals

ELR recipients in analysis: 605  
 SLRP recipients in analysis: 62  
 Both ELR and SLRP: 46  
 Total awards during period:  
 ELR: 634  
 SLRP: 64  
 Both ELR and SLRP: 46

### Awards by Professions:

ELR:  
 MD/DO: 168  
 PA: 40  
 APRN: 117  
 RN: 215  
 DDS/DMD: 65  
 SLRP:  
 MD/DO: 20  
 PA: 7  
 APRN: 21  
 DDS/DMD: 14

## Physicians (MDs/DOs)

- Physicians are eligible for both ELR and SLRP awards.
- The most recent census data available is from November 2022.
- Retention of physician recipients is above 50% for all award years; but overall, their retention seems to be lower than other professions.
- Three-quarters of SLRP recipients also received an ELR award.

### Age at Initial Award

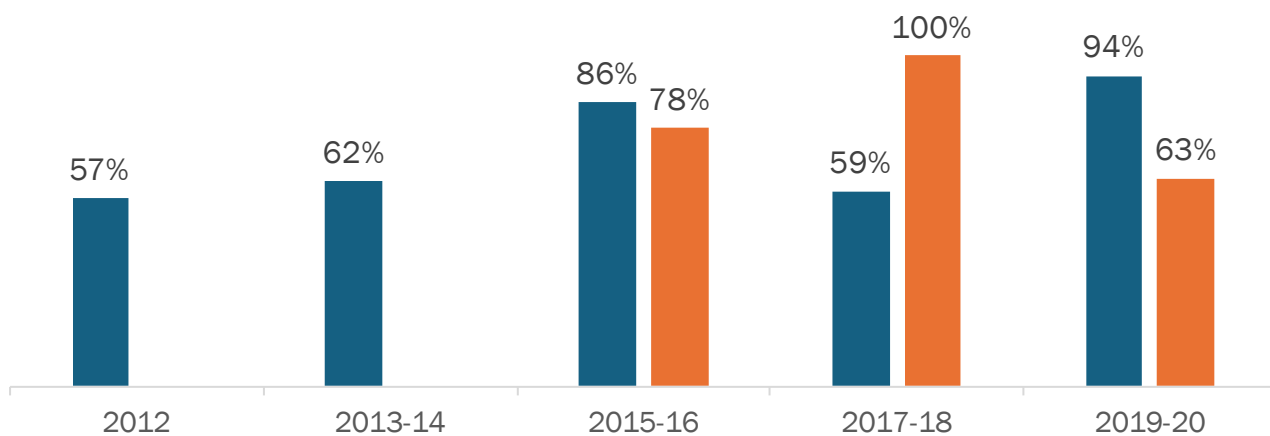
	>30	30-39	40-49	50-59	60+
ELR	1%	65%	24%	9%	1%
SLRP	0%	70%	30%	0%	0%

## Recipients by Year of Award

	ELR	SLRP
2012	35	
2013-14	71	
2015-16	22	9
2017-18	22	3
2019-20	18	8
<b>Total</b>	<b>168</b>	<b>20</b>

## Over half of the physicians who received an ELR award in 2012 are actively practicing in Vermont 10 years later.

Percent of **ELR** & **SLRP** recipients currently practicing by award year.



## Demographics

- 34% of ELR recipients were male, 66% female.
- 30% of SLRP recipients were male, 70% were female.
- 11 ELR recipients reported their race as Asian, one reported Black, one reported Pacific Islander, and 151 reported white.
- 20 SLRP recipients reported their race white. No other races were reported.
- 14 ELR recipients reported a Hispanic, Latino(a) or Spanish origin.
- 1 SLRP recipient reported Hispanic, Latino(a) or Spanish origin.

## Physician Assistants (PAs)

- Physician assistants are eligible for both ELR and SLRP awards.
- The most recent census data available is from January 2022.
- Retention was higher than 60% for all groups except the 2013-2014 ELR cohort.
- More than two-thirds of SLRP recipients also received an ELR award, so only 2 individuals in SLRP are not included in the ELR column as well.

## Recipients by Year of Award

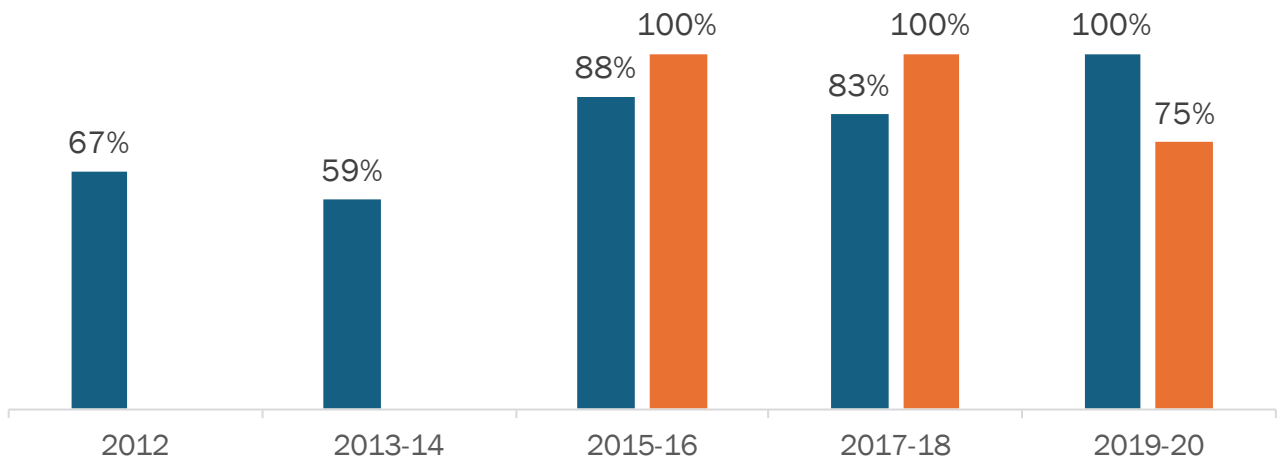
	ELR	SLRP
2012	3	
2013-14	17	
2015-16	8	2
2017-18	6	1
2019-20	6	4
<b>Total</b>	<b>40</b>	<b>7</b>

## Age at Initial Award

	>30	30-39	40-49	50-59	60+
ELR	23%	45%	20%	13%	0%
SLRP	43%	43%	14%	0%	0%

**Two-thirds of the physician assistants who received an ELR award in 2012 are actively practicing in Vermont 10 years later.**

Percent of **ELR** & **SLRP** recipients currently practicing by award year.



## Demographics

- 33% of ELR recipients were male, 68% female.
- 43% of SLRP recipients were male, 57% were female.
- 2 ELR recipients reported their race as Asian and 37 reported white.
- 1 SLRP recipient reported their race as Asian and 6 reported white.
- 2 ELR recipients reported a Hispanic, Latino(a) or Spanish origin.

## Advanced Practice Registered Nurses (APRNs)

- APRNs are eligible for both ELR and SLRP awards.
- The most recent census data available is from March 2023.
- Retention was over 80% for most cohorts of recipients.
- Two-thirds of SLRP recipients received an ELR award, so they are included in both groups.

## Recipients by Year of Award

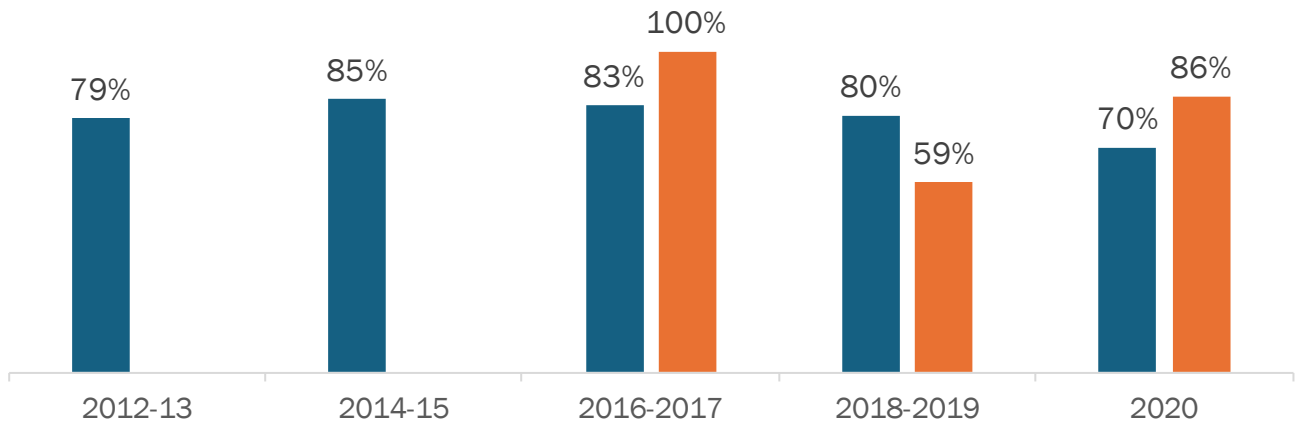
	ELR	SLRP
2012-13	38	
2014-15	20	
2016-17	29	7
2018-19	20	7
2020	10	7
<b>Total</b>	<b>117</b>	<b>21</b>

## Age at Initial Award

	>30	30-39	40-49	50-59	60+
ELR	12%	54%	20%	12%	2%
SLRP	5%	48%	33%	5%	10%

## Almost 80% of APRNs who received an ELR award in 2012 are actively practicing in Vermont 10 years later.

Percent of ELR & SLRP recipients currently practicing by award year.



## Demographics

- 7% of ELR recipients were male, 92% female.
- 24% of SLRP recipients were male, 76% were female.
- 2 ELR recipients reported their race as Asian, two reported Black, four reported Native American, one reported Pacific Islander, and 112 reported white.
- 1 SLRP recipient reported their race as Asian, one reported Black, and 20 reported white.
- 4 ELR recipients reported a Hispanic, Latino(a) or Spanish origin.
- 2 SLRP recipients reported Hispanic, Latino(a) or Spanish origin.

## Registered Nurses (RNs)

- Registered nurses are not eligible for SLRP awards.
- The most recent census data available is from March 2023.
- Their retention is 65% or higher for all times considered.
- With a total of 215 recipients, RNs are the largest professional group in this report, but most of these awards were in 2012-2013.

## Recipients by Year of Award

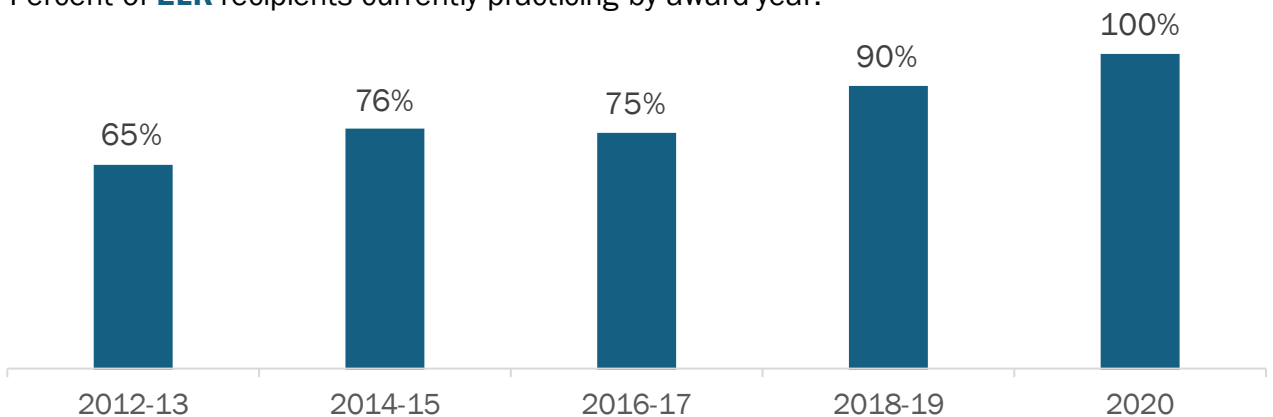
	ELR	SLRP
2012-13	151	
2014-15	21	
2016-17	12	n/a
2018-19	20	n/a
2020	11	n/a
<b>Total</b>	<b>215</b>	

## Age at Initial Award

	>30	30-39	40-49	50-59	60+
ELR	27%	41%	17%	13%	2%
SLRP	n/a	n/a	n/a	n/a	n/a

**Almost two-thirds of RNs who received an ELR award in 2012 are actively practicing in Vermont 10 years later.**

Percent of **ELR** recipients currently practicing by award year.



## Demographics

- 10% of ELR recipients were male, 89% female.
- 3 ELR recipients reported their race as Asian, four reported Black, two reported Native American, and 198 reported white.
- 3 ELR recipients reported a Hispanic, Latino(a) or Spanish origin.

## Dentists (DDS/DMDs)

- Dentists are eligible for both ELR and SLRP awards.
- The most recent census data available is from September 2023.
- Most recipient cohorts had a retention rate over 70% but two groups were under 50%.
- 12 SLRP recipients also received an ELR award, so only 2 individuals in SLRP are not included in the ELR row above.

## Recipients by Year of Award

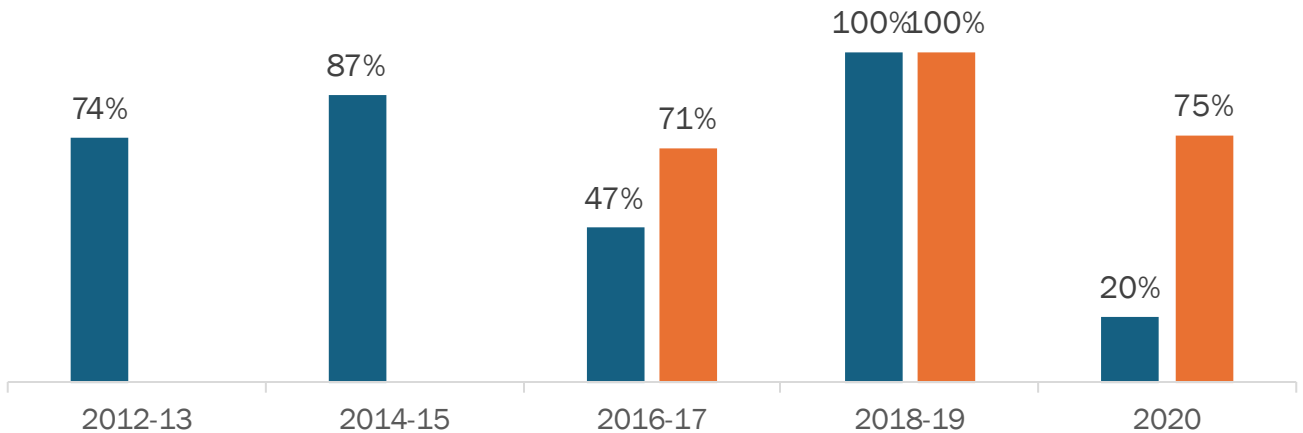
	ELR	SLRP
2012-13	23	
2014-15	15	
2016-17	15	7
2018-19	7	3
2020	5	4
<b>Total</b>	<b>65</b>	<b>14</b>

## Age at Initial Award

	>30	30-39	40-49	50-59	60+
<b>ELR</b>	13%	68%	13%	3%	2%
<b>SLRP</b>	14%	64%	21%	0%	0%

## Almost three-fourths of dentists who received an ELR award in 2012 are actively practicing in Vermont 10 years later.

Percent of **ELR** & **SLRP** recipients currently practicing by award year.



## Demographics

- 58% of ELR recipients were male, 42% female.
- 57% of SLRP recipients were male, 43% were female.
- 7 ELR recipients reported their race as Asian, two reported Black, one reported Pacific Islander, and 49 reported white.
- 2 SLRP recipients reported their race as Asian and 12 reported as white.
- 2 ELR recipients reported a Hispanic, Latino(a) or Spanish origin.
- 1 SLRP recipient reported Hispanic, Latino(a) or Spanish origin.

## Award Recipients by Rational Service Area and County

During the period of this analysis/study, ELR awards were made to health care professionals working in 33 of 38 Rational Service Areas (RSAs) across Vermont and SLRP awards were made in 18 RSAs. ELR awards were given to professionals in all 14 counties, and SLRP awards were given in 11 counties, as shown in the tables below.

- Based on town in initial census, top RSAs for ELR recipients are Burlington, Montpelier and Rutland (21%, 13%, and 9%). The same three RSAs are also the most frequent for SLRP recipients (21%, 11% and 11%).
- There were no award recipients in these rational service areas : Arlington, Londonderry, Waterbury and Wilmington.

Rational Service Area in Initial Census	SLRP recipients				
	APRN	DDS,DMD	MD/DO	PA	Total
Bradford	0	0	1	0	1
Brattleboro	1	0	0	0	1
Bristol	0	0	1	0	1
Burlington	4	0	7	2	13
Castleton	0	0	1	0	1
Enosburg	1	2	0	1	4
Hardwick	0	0	1	0	1
Ludlow	1	0	0	0	1
Milton / South Hero	0	0	0	1	1
Montpelier/Barre/Berlin	1	3	2	1	7
Morristown	1	1	0	0	2
Newport	2	1	2	0	5
Randolph	1	0	4	0	5
Rutland	3	3	1	0	7
Springfield	2	1	0	1	4
St Albans	1	0	0	1	2
St Johnsbury	1	0	0	0	1
Stowe	0	1	0	0	1
Missing	2	2	0	0	4
<b>Total</b>	<b>21</b>	<b>14</b>	<b>20</b>	<b>7</b>	<b>62</b>

	ELR recipients					
Rational Service Area in Initial Census	APRN	DDS,DMD	MD/DO	PA-C	RN	Total
Bennington	7	1	4	0	6	18
Bradford	1	0	2	0	3	6
Brandon	1	0	1	1	0	3
Brattleboro	8	1	9	1	7	26
Brighton	1	0	0	0	1	2
Bristol	1	1	4	1	0	7
Burlington	20	17	36	2	50	125
Cambridge	1	0	0	0	0	1
Castleton	4	0	2	2	1	9
Chelsea / Corinth	2	0	0	0	0	2
Enosburg	1	3	1	2	4	11
Essex/Williston	1	1	6	2	2	12
Hardwick	0	1	1	0	1	3
Hartford	0	0	3	0	4	7
Manchester	0	0	1	0	1	2
Middlebury	2	4	13	1	6	26
Milton / South Hero	3	1	7	1	0	12
Montpelier/Barre/Berlin	11	4	22	7	32	76
Morristown	5	1	3	0	2	11
Newport	5	2	4	3	9	23
Pawlet	1	0	0	0	0	1
Randolph	5	0	5	1	6	17
Rockingham	0	0	0	1	0	1
Rutland	13	6	12	1	24	56
Springfield	2	2	2	2	5	13
St Albans	7	3	4	10	9	33
St Johnsbury	9	7	3	1	16	36
Stowe	0	2	0	0	1	3
Townshend	1	1	3	0	1	6
Vergennes	0	1	3	0	0	4
Waitsfield	0	0	2	0	0	2
Windsor	0	0	2	1	0	3
Woodstock	0	0	3	0	0	3
Missing	5	6	10	0	24	45
<b>Total</b>	<b>117</b>	<b>65</b>	<b>168</b>	<b>40</b>	<b>215</b>	<b>605</b>



## Initial census county location for recipients

- Based on town in initial census, top counties for ELR recipients are Chittenden (24%), Washington (12%) and Rutland (11%), and for SLRP recipients are Chittenden, Rutland, Franklin and Washington (21%, 13%, 11% and 11%).

County in initial census	ELR recipients					Total
	APRN	DDS,DMD	MD/DO	PA-C	RN	
Addison	3	6	20	2	6	37
Bennington	7	1	5	0	7	20
Caledonia	9	8	4	0	17	38
Chittenden	21	19	48	4	52	144
Essex	1	0	0	1	1	3
Franklin	11	6	5	13	13	48
Grand Isle	0	0	1	0	0	1
Lamoille	6	3	3	0	3	15
Orange	9	0	8	2	10	29
Orleans	5	2	4	3	9	23
Rutland	19	6	15	4	25	69
Washington	10	4	24	6	31	75
Windham	9	2	12	2	8	33
Windsor	2	2	9	3	9	25
Missing	5	6	10	0	24	45
<b>Total</b>	<b>117</b>	<b>65</b>	<b>168</b>	<b>40</b>	<b>215</b>	<b>605</b>

County in initial census	SLRP recipients					Total
	APRN	DDS,DMD	MD/DO	PA-C		
Addison	0	0	1	0		1
Caledonia	1	0	1	0		2
Chittenden	4	0	7	2		13
Franklin	2	2	0	3		7
Lamoille	1	2	0	0		3
Orange	1	0	5	0		6
Orleans	2	1	2	0		5
Rutland	3	3	2	0		8
Washington	1	3	2	1		7
Windham	1	0	0	0		1
Windsor	3	1	0	1		5
Missing	2	2	0	0		4
<b>Total</b>	<b>21</b>	<b>14</b>	<b>20</b>	<b>7</b>		<b>62</b>

## Methods

### Years and Professions included

- ELR award data includes years 2012 - 2020.
- SLRP award data includes years 2015 - 2020.
- Professions included are APRNs, DDS/DMDs, MD/DOs, PAs and RNs.
- Census data are from the 2013 - 2023 census years.

Profession	Census Years
APRN	2015 to 2023
DDS/DMD	2013 to 2023
MD/DO	2014 to 2022
PA	2014 to 2022
RN	2015 to 2023

### Process and Limitations

Vermont health care professionals complete a census when they renew their license every two years. Census data provide a snapshot of licensed professionals at a single point in time, including where they work in Vermont and whether they are actively providing patient care at that time. The analysis assumes that the professional is in Vermont during the entirety of each two-year licensed period. Initial licensing does not include a census. This means the professional could work in Vermont for as long as two years before they first appear in Health Care Workforce Census relicensing data.

The report includes 621 individuals, but 667 awards received because 46 individuals received both ELR and SLRP awards. Because of the overlap of these 46 individuals who received both awards, the separate award types in these analyses cannot be added together without double-counting those individuals.

The awards data did not include individuals' Vermont professional license numbers. For this analysis, matching of award recipients to professional relicensing censuses was first done using last and first names. For those who were not initially matched to census data by name, license numbers were obtained from Vermont's Office of Professional Regulation (OPR) or Board of Medical Practice (BMP). All matches by name or license number were checked manually for accuracy.

Individuals were included in this analysis if they could be matched by name or professional license number to relicensing census data for the years under analysis. Sixty-two SLRP award recipients and 586 (of 605) ELR award recipients matched at least one relicensing census. Nineteen individuals in the ELR awards data had a Vermont professional license number but did not match any relicensing census data for the time period under analysis. These 19 individuals are included in the denominators of the tables of recipients by year of initial award and the retention charts of recipients still active by year of first award because they received an award, have a license number indicating they were active in Vermont when they received the award, and could have potentially been included in the numerators.

It is possible that some award recipients who could not be included in the analysis due to difficulty matching to the census data are actively practicing in Vermont.

The processes for matching award recipients to censuses and determining the number of years that a professional practiced patient care in Vermont after receiving an ELR or SLRP award were as follows:

- Award recipients were matched to census data as described above.
- Award and census data for recipients were aggregated by name and license number to one record per recipient per award type.
- Individuals were excluded from the analyses for the following reasons.
  - their license number was for a profession that was not included, such as training or temporary or practical nurses' licenses.
  - awards were to institutions, not associated with a particular individual.
  - recipients did not hold a Vermont professional license and therefore would not be included in a Vermont workforce census.

## Award Recipients Included or Excluded by Award Type

ELR Awards			
	Total ELR award recipients		634
	Included		
	matched by name	540	
	matched by license number	46	
	had license, no census found	19	
	total included		605
	Excluded		
	profession excluded	12	
	institutional award	5	
	no VT license	12	
	total excluded		29
SLRP Awards			
	Total SLRP award recipients		64
	Included		
	matched by name	47	
	matched by license number	15	
	total included		62
	Excluded		
	profession excluded	2	
	total excluded		2
Overlap			
	Included with both types of awards	46	
Total individuals included			
	ELR award only	559	
	SLRP award only	16	
	Both awards	46	
	Total individuals		621