APRN ROUNDTABLE
Making an Impact on APRN Regulation: Every Moment Matters

Tuesday, April 9, 2024 | Virtual
A Descriptive Summary of the Advanced Practice Registered Nurse Workforce in the United States: Targeted Findings from the 2022 National Nursing Workforce Survey

Brendan Martin, PhD
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Agenda

1. Background
2. Methodology
3. Results
4. Q&A
National Nursing Workforce Survey

• HRSA’s National Survey Sample of Registered Nurses stopped after 2008
• NCSBN stepped up to fill the void in 2013
• Partnership with the National Forum of State Nursing Workforce Centers
Survey Methods

**Materials**
- Minimum Data Set used for bulk of questions
- Questions added for telehealth, NLC, retirement, travel nursing, direct care
- 2022 Survey added COVID questions

**Mailout Survey Sample (43 Jurisdictions)**
- All active RN & LPN licensees eligible
- Sampling was stratified by state
- **154,757** RNs & **154,490** LPNs selected
Survey Methods (Cont’d)

• **Email Survey Sample** (4 Jurisdictions)
  - All active RN & LPN licensees eligible
  - Sampling was stratified by state
  - **26,697** RNs & **18,710** LPNs selected

• **e-Notify Data** (5 Jurisdictions)
  - A comprehensive review of data collected through the e-Notify system
  - Five jurisdictions had data of sufficient quality to use for survey
Survey Analysis

Weighting
- Nonresponse bias analysis conducted
- Survey responses weighted based on:
  - Age (nonresponse weight)
  - Gender (nonresponse weight)
  - State nursing population size (stratification weight)

Descriptive Analysis
- Counts, and Mean/Median Values
Survey Response Rates

Mailout Survey
• 26,757 RNs responded - 17.8% response rate
• 22,634 LPNs responded - 15.2% response rate

Email Survey
• 2,458 RNs responded - 9.2% response rate
• 2,176 LPNs responded - 11.6% response rate
E-Notify Data

- **249,416** RNs records
- **30,693** LPNs records

Data for RNs (including APRNs) and LPN/LVNs analyzed separately and published in a comprehensive supplement to the Journal of Nursing Regulation.
The 2022 National Nursing Workforce Survey


https://doi.org/10.1016/S2155-8256(23)00041-8
National Nursing Workforce Survey

The 2015 National Nursing Workforce Survey

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The 2017 National Nursing Workforce Survey

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The 2020 National Nursing Workforce Survey

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Workforce Sub-Analyses

1. APRN Workforce
2. Demographic Breakdown of the RN Workforce
3. Demographic Breakdown of the LPN/LVN Workforce
4. Faculty Workforce
5. Telehealth Usage Trends
6. Travel/Agency Workforce
7. Early Career Workforce
8. Urban/Rural
Purpose of Study

To provide a descriptive summary of the APRN workforce, and to identify the personal and professional characteristics of APRNs experiencing heightened workplace burnout and stress.
APRN Sample

- **Represents 500k+ APRNs**

- **50 U.S. states, DC, & the Northern Mariana Islands**
APRN Survey Items

Tell Us About Your License

4. What type of license do you currently hold? (Select all that apply)
- RN
- LPN
- APRN

9. Indicate whether you are credentialed in your state to practice as any of the following: (Select all that apply)
- Certified Nurse Practitioner
- Clinical Nurse Specialist
- Certified Registered Nurse Anesthetist
- Certified Nurse Midwife
- Not credentialed as any of the above
Study Timeline

- **Active Data Collection**: Apr 2022 to Sept 2022
- **Analysis**: Sept 2022 to Nov 2022
- **Reporting**: Nov 2022 to Dec 2022

**Contact List Finalized**: Jan 2022
Mixed Methods Approach

- **Methods:** Survey
- **Data Collection:** Direct Mail, Qualtrics, e-Notify
- **Survey Analysis:** Detailed descriptive; graphical depiction of summary trends; univariable and multivariable binary logistic regression models; natural language processing
Data Coding Notes

- **Dependent Variables:** Maslach Burnout Inventory-Human Services Survey (MBI-HSS)

- **Primary Independent Variable:** Years’ Experience
  - ≤ 12 Years
  - 12 to 21 Years
  - 21 to 36 Years
  - ≥ 36 Years
A Descriptive Summary of the Advanced Practice Registered Nurse Workforce in the United States: Targeted Findings from the 2022 National Nursing Workforce Survey

Demographic Characteristics

APRN Role:
- CNP (71.1%)
- CNS (16.8%)
- CRNA (9.1%)
- CNM (3.0%)

Key demographics:
- 50 years old (SD: 11.9)
- Female (86.7%)
- Non-Hispanic (92.5%)
- White (78.6%)

<table>
<thead>
<tr>
<th>License Type</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Certified Nurse Practitioner</td>
<td>369,972 (71.1%)</td>
</tr>
<tr>
<td>Certified Nurse Specialist</td>
<td>87,212 (16.8%)</td>
</tr>
<tr>
<td>Certified Registered Nurse Anesthetist</td>
<td>47,220 (9.1%)</td>
</tr>
<tr>
<td>Certified Nurse Midwife</td>
<td>15,863 (3.0%)</td>
</tr>
</tbody>
</table>

Age (Mean, SD) 49.8 (11.9)

Sex
- Female 447,741 (86.7%)
- Male 66,589 (12.9%)
- Non-Binary 21,06 (0.4%)

Race
- White/Caucasian 403,953 (78.6%)
- Asian 38,881 (7.6%)
- Black/African American 34,503 (6.7%)
- Other 19,289 (3.8%)
- Mixed Race 12,957 (2.5%)
- Native Hawaiian/Pacific Islander 2,962 (0.6%)
- Native American/Alaska Native 1,503 (0.3%)

Ethnicity
- Not Hispanic or Latino 472,921 (92.5%)
- Hispanic or Latino 38,440 (7.5%)
Professional Characteristics

Most common practice profile:

• Actively Employed in Nursing (90.4%)
• Direct Patient Care (79.1%)
• 24 years experience
• 40 hours a week
• Primary practice setting varied by role
• Median pay highest among CRNAs

<table>
<thead>
<tr>
<th>Professional Characteristics, Primary Position</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Employed in Nursing</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>472,406 (90.4%)</td>
</tr>
<tr>
<td>No</td>
<td>50,009 (9.6%)</td>
</tr>
<tr>
<td>Direct Patient Care</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>345,771 (79.1%)</td>
</tr>
<tr>
<td>No</td>
<td>91,619 (20.9%)</td>
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<tr>
<td>Experience, in Years</td>
<td></td>
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<tr>
<td></td>
<td>23.8 (14.5)</td>
</tr>
<tr>
<td>Work Hours, per Week</td>
<td></td>
</tr>
<tr>
<td></td>
<td>40.0 (11.3)</td>
</tr>
<tr>
<td>Salary, by License Type (Median, IQR)</td>
<td></td>
</tr>
<tr>
<td>Certified Nurse Practitioner</td>
<td>$109,000 ($86,400 – $130,000)</td>
</tr>
<tr>
<td>Certified Nurse Specialist</td>
<td>$90,000 ($70,000 – $120,000)</td>
</tr>
<tr>
<td>Certified Registered Nurse Anesthetist</td>
<td>$193,000 ($155,000 - $225,000)</td>
</tr>
<tr>
<td>Certified Nurse Midwife</td>
<td>$104,000 ($60,000 - $120,000)</td>
</tr>
</tbody>
</table>

Data Notes: Valid N for each item varies based on observed non-response rates; all proportions are reported based on item-level Valid N.

Abbreviations: SD = Standard Deviation, IQR = Interquartile range.
Telehealth Results

- Telehealth usage is common among APRNs (65.2%), and most employ more than one modality (65.6%).
- Video calls account for the bulk of practice (63.1%) and most remote services are delivered within a single jurisdiction.

<table>
<thead>
<tr>
<th>Telehealth/Cross Jurisdiction Practice</th>
<th>Total n (%)</th>
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<tbody>
<tr>
<td>Telehealth Practice</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>267,034 (65.2%)</td>
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<tr>
<td>No</td>
<td>142,314 (34.8%)</td>
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<table>
<thead>
<tr>
<th>Number of Telehealth Modalities Employed</th>
<th></th>
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<tbody>
<tr>
<td>One</td>
<td>91,783 (34.4%)</td>
</tr>
<tr>
<td>Two</td>
<td>78,219 (29.3%)</td>
</tr>
<tr>
<td>Three</td>
<td>64,800 (24.3%)</td>
</tr>
<tr>
<td>Four</td>
<td>28,101 (10.5%)</td>
</tr>
<tr>
<td>Five or more</td>
<td>4,131 (1.5%)</td>
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</tbody>
</table>

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<thead>
<tr>
<th>Modes of Telehealth Communication</th>
<th></th>
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</thead>
<tbody>
<tr>
<td>Electronic Messaging</td>
<td>91,899 (34.4%)</td>
</tr>
<tr>
<td>Virtual ICU</td>
<td>8,773 (3.3%)</td>
</tr>
<tr>
<td>Telephone</td>
<td>56,884 (21.3%)</td>
</tr>
<tr>
<td>Email</td>
<td>79,488 (29.8%)</td>
</tr>
<tr>
<td>Video Call</td>
<td>168,356 (63.1%)</td>
</tr>
<tr>
<td>Other</td>
<td>174,055 (6.4%)</td>
</tr>
</tbody>
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<thead>
<tr>
<th>Proportion of Telehealth Work (Mean, Range)</th>
<th></th>
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<tbody>
<tr>
<td>Different Location</td>
<td>22% (0, 100%)</td>
</tr>
<tr>
<td>Across State Borders</td>
<td>10% (0, 100%)</td>
</tr>
<tr>
<td>Across International Borders</td>
<td>1% (0, 100%)</td>
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<table>
<thead>
<tr>
<th>Multistate License</th>
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<tbody>
<tr>
<td>Yes</td>
<td>116,402 (26.9%)</td>
</tr>
<tr>
<td>No</td>
<td>316,399 (73.1%)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Multistate License Use</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Disaster support</td>
<td>3,204 (2.6%)</td>
</tr>
<tr>
<td>Distance education</td>
<td>7,139 (5.9%)</td>
</tr>
<tr>
<td>Telehealth/Communicating across state borders</td>
<td>17,230 (14.2%)</td>
</tr>
<tr>
<td>Other</td>
<td>17,528 (14.4%)</td>
</tr>
</tbody>
</table>

**Data Notes:** Valid N for each item varies based on observed non-response rates; all proportions are reported based on item-level Valid N.
## Univariable Findings

<table>
<thead>
<tr>
<th>APRN Role</th>
<th>Emotionally Drained, % (n)</th>
<th>Used Up, % (n)</th>
<th>Fatigued, % (n)</th>
<th>Burned Out, % (n)</th>
<th>End of Rope, % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CNP</td>
<td>47.9% (158,598)</td>
<td>53.7% (178,090)</td>
<td>41.7% (138,156)</td>
<td>41.2% (135,597)</td>
<td>21.9% (72,547)</td>
</tr>
<tr>
<td>CNS</td>
<td>49.6% (40,510)</td>
<td>52.7% (42,603)</td>
<td>46.2% (37,856)</td>
<td>40.9% (33,386)</td>
<td>32.1% (25,914)</td>
</tr>
<tr>
<td>CRNA</td>
<td>31.3% (12,221)</td>
<td>36.8% (14,349)</td>
<td>30.1% (11,710)</td>
<td>22.0% (8,504)</td>
<td>15.5% (6,039)</td>
</tr>
<tr>
<td>CNM</td>
<td>47.5% (6,637)</td>
<td>49.7% (6,883)</td>
<td>42.3% (5,870)</td>
<td>32.3% (4,490)</td>
<td>25.3% (3,522)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Years’ Experience</th>
<th>Emotionally Drained, % (n)</th>
<th>Used Up, % (n)</th>
<th>Fatigued, % (n)</th>
<th>Burned Out, % (n)</th>
<th>End of Rope, % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>&lt;= 12 Years</td>
<td>52.0% (61,099)</td>
<td>58.9% (68,926)</td>
<td>45.9% (54,132)</td>
<td>44.9% (52,604)</td>
<td>26.4% (30,890)</td>
</tr>
<tr>
<td>12 to 21 Years</td>
<td>46.5% (51,263)</td>
<td>52.0% (57,406)</td>
<td>44.6% (49,539)</td>
<td>43.8% (48,469)</td>
<td>24.2% (26,699)</td>
</tr>
<tr>
<td>21 to 36 Years</td>
<td>45.2% (48,667)</td>
<td>49.8% (53,611)</td>
<td>39.5% (42,770)</td>
<td>37.2% (39,956)</td>
<td>22.6% (24,423)</td>
</tr>
<tr>
<td>&gt;= 36 Years</td>
<td>33.6% (24,301)</td>
<td>37.7% (27,362)</td>
<td>29.0% (20,864)</td>
<td>23.4% (16,736)</td>
<td>16.5% (11,884)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Increased Workload</th>
<th>Emotionally Drained, % (n)</th>
<th>Used Up, % (n)</th>
<th>Fatigued, % (n)</th>
<th>Burned Out, % (n)</th>
<th>End of Rope, % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>34.1% (68,306)</td>
<td>38.0% (76,039)</td>
<td>28.3% (56,650)</td>
<td>27.9% (55,757)</td>
<td>15.2% (30,404)</td>
</tr>
<tr>
<td>Yes</td>
<td>57.2% (149,677)</td>
<td>63.2% (165,079)</td>
<td>52.2% (137,141)</td>
<td>48.8% (127,150)</td>
<td>30.5% (79,686)</td>
</tr>
</tbody>
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<table>
<thead>
<tr>
<th>Direct Patient Care</th>
<th>Emotionally Drained, % (n)</th>
<th>Used Up, % (n)</th>
<th>Fatigued, % (n)</th>
<th>Burned Out, % (n)</th>
<th>End of Rope, % (n)</th>
</tr>
</thead>
<tbody>
<tr>
<td>No</td>
<td>40.8% (36,864)</td>
<td>43.2% (39,129)</td>
<td>35.3% (31,951)</td>
<td>32.6% (29,243)</td>
<td>19.4% (17,527)</td>
</tr>
<tr>
<td>Yes</td>
<td>48.6% (165,944)</td>
<td>54.7% (186,345)</td>
<td>42.9% (146,997)</td>
<td>40.7% (138,790)</td>
<td>24.3% (82,908)</td>
</tr>
</tbody>
</table>

**Note:** Dependent variables are binned to identify and isolate respondent characteristics that align with a reported frequency of ‘A few times a week’ or ‘Every day’ across each of the five outcomes. Valid N for each item varies based on observed non-response rates; all proportions are reported based on item-level Valid N.

**Abbreviations:** CNP = Certified Nurse Practitioner, CRNA = Certified Registered Nurse Anesthetist, CNM = Certified Nurse Midwife, CNS = Certified Nurse Specialist
Years’ Experience (Deeper Dive)

• **Multivariable Results:**
  - Emotionally Drained (AOR: 1.71, 95 CI: 1.53 – 1.91)
  - Used up (AOR: 1.83, 95 CI: 1.65 – 2.04)
  - Fatigued (AOR: 2.08, 95 CI: 1.87 – 2.32)
  - Burned Out (AOR: 2.17, 95 CI: 1.93 – 2.44)
  - End of Their Rope (AOR: 1.95, 95 CI: 1.70 – 2.24)
Increased Workload (Deeper Dive)

- **Multivariable Results:**
  - Emotionally Drained (AOR: **3.38**, 95 CI: **3.14 – 3.63**)
  - Used up (AOR: **3.31**, 95 CI: **3.08 – 3.55**)
  - Fatigued (AOR: **2.86**, 95 CI: **2.66 – 3.08**)
  - Burned Out (AOR: **2.84**, 95 CI: **2.63 – 3.07**)
  - End of Their Rope (AOR: **2.57**, 95 CI: **2.35 – 2.82**
Increased Workload (Deeper Dive)

1) Effects of the pandemic are widespread, but most acute among younger APRNs

2) Generational shifts

3) Value in and unique contributions from all four APRN roles
Questions/Comments