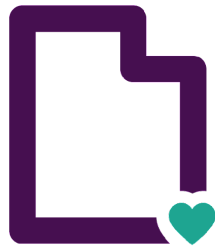


Utah registered nurse apprentices

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Utah Department of
Health & Human Services
Data, Systems & Evaluation

Utah Department of Health and Human Services
Health Workforce Information Center
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Introduction

During the height of the COVID-19 pandemic, the demand for healthcare services overwhelmed healthcare workers. Hospitals, clinics, and other healthcare facilities experienced a challenging shortage of registered nurses (RNs) in particular. Existing nurses dealt with fatigue and burnout from the pandemic response, along with gaps in coverage due to nurses who became ill with COVID-19 (Salt Lake Tribune, 2020; Winslow, 2020). Utah Governor Gary Herbert worked with the Utah Department of Health to address the shortage. He ordered the Utah Department of Commerce, Division of Occupational Licensing (DOPL) to create temporary licenses to allow nursing students who were approaching graduation to work as apprentices. These temporary apprentice licenses were issued to students enrolled in accredited programs who met all the license requirements established in Utah Code Section 58-31b-601 with the exceptions of graduating from an approved nursing education program and passing the National Council Licensure Examination (NCLEX) developed by the National Council of State Boards of Nursing (NCSBN).

Registered nurse apprentices perform many of the same responsibilities as RNs but must be under direct supervision when they perform their duties. Utah Administrative Code R156-1-102a(4)(a) defines direct supervision as situations where the supervising licensee (typically another RN) is present and available for face-to-face communication with the person being supervised when and where occupational or professional services are being provided.

The registered nurse apprenticeships were positively received by clinical and educational partners such as the Utah Organization of Nurse Leaders and Utah Health Care Association (S.B. 101 Nurse Apprentice Act, 2022)] and resulted in state legislation to continue the program. The Utah State Legislature passed S.B. 101 in 2022 to make the registered nurse apprentice license permanent and made minor adjustments to the existing regulation. Applicants for the nurse apprentice license are required to be:

- enrolled in their final semester or culminating experience of an accredited associate or baccalaureate nursing program (as defined in Utah Code Section 58-31b-601);
- in good academic standing; and

- the dean or appointed program representative must complete a Certification of Academic Status of Nurse Education form.

A license is valid for one year (365 days) from the day it is issued unless an apprentice takes and fails the NCLEX exam. In that case, the apprentice's license is immediately revoked. The temporary licenses allowed during the pandemic had the same application requirements but expired either:

- 180 days after the issue date
- 30 days before the end of the emergency¹
- 10 days after a notice from DOPL, which could revoke the temporary licenses at any time

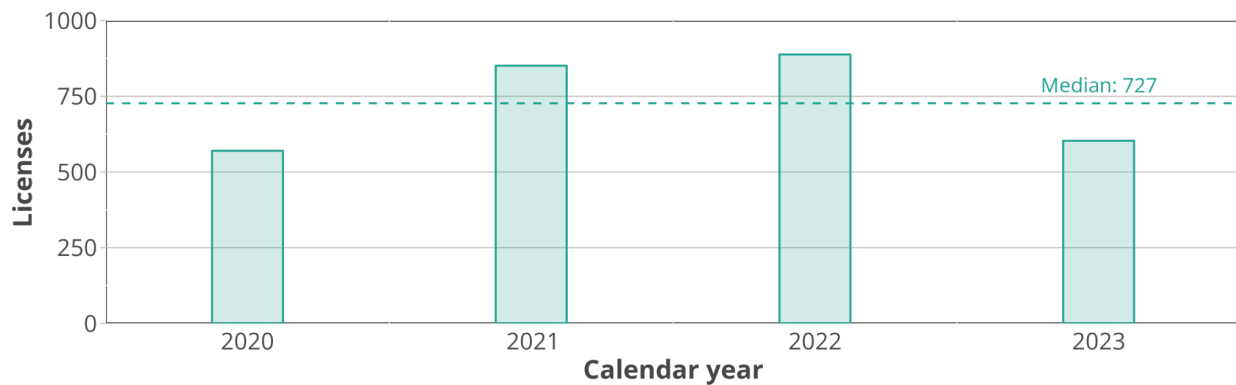
DOPL began issuing apprentice licenses for 365 days on July 1, 2021 to accommodate facilities that used nurse apprentices after the division received direct comment from healthcare facilities about staffing issues that were the result of the short period in which licenses were originally active. The regulations implemented by S.B. 101 codified this extension. The rest of this report addresses key facts about Utah's registered nurse apprentice licensing from its inception to its current use.

¹ Official declarations ending emergency orders related to the pandemic did not occur until the beginning of 2023. None of the licenses from the data for this analysis expired for that reason.

Results

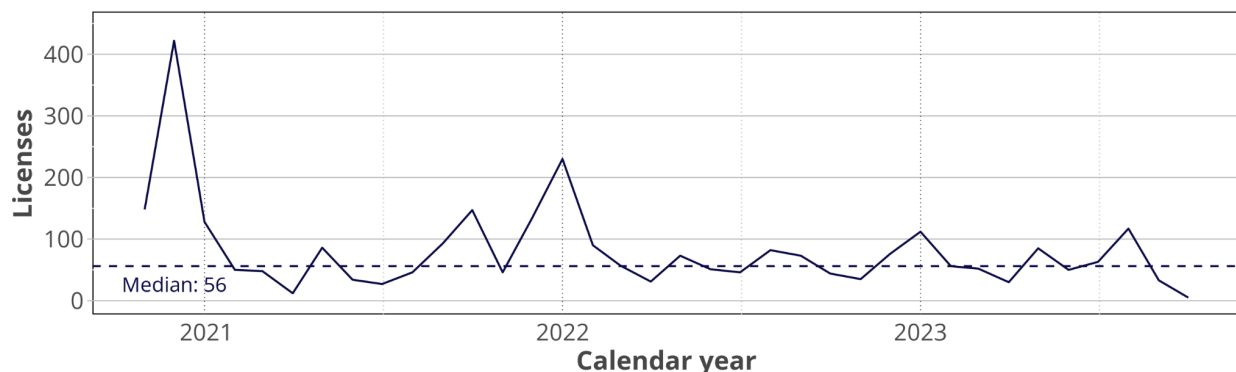
Workforce supply

Figure 1: Registered nurse apprentice licenses issued by year



Source: Utah Department of Commerce, Division of Occupational Licensing. Retrieved on October 3, 2023.

Figure 2: Registered nurse apprentice licenses issued by month



Source: Utah Department of Commerce, Division of Occupational Licensing. Retrieved on October 3, 2023.

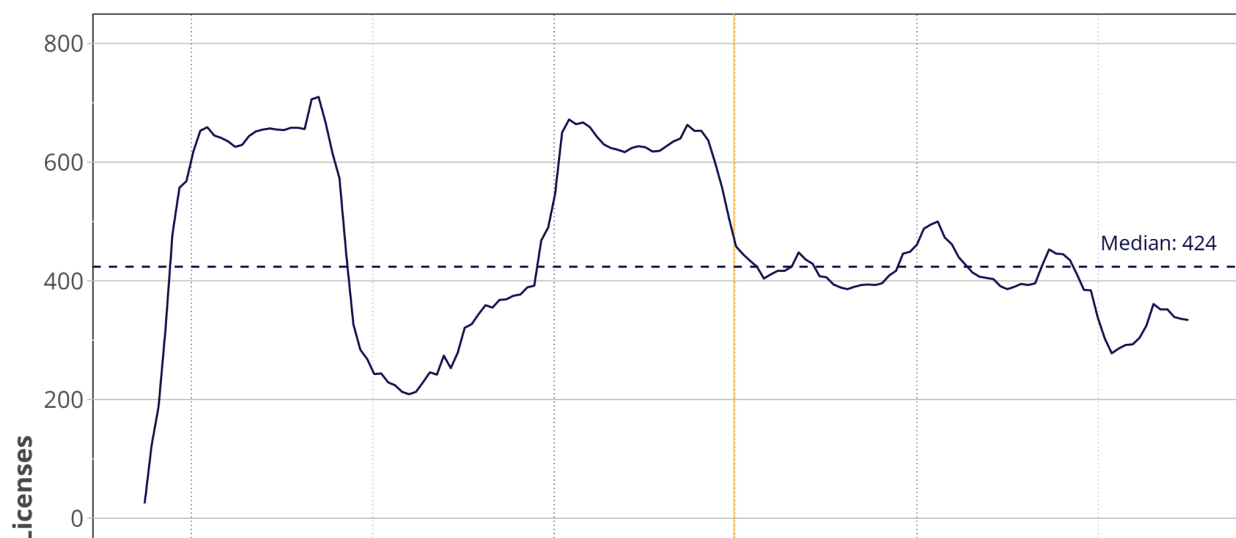
As of October 3, 2023, 2,912 individuals have held registered nurse apprentice licenses (333 currently active). The figures and numbers above represent the total number of licenses issued, so while most of these individuals were only issued a single license, there were some exceptions. In each of these cases, an individual was issued a new apprentice license after their previous one expired. The earliest apprentice license was issued on November 19, 2020. Many of these licenses were issued initially, as seen in Figure 1. After several months, the issuance rate slowed, with a median monthly count of approximately 56

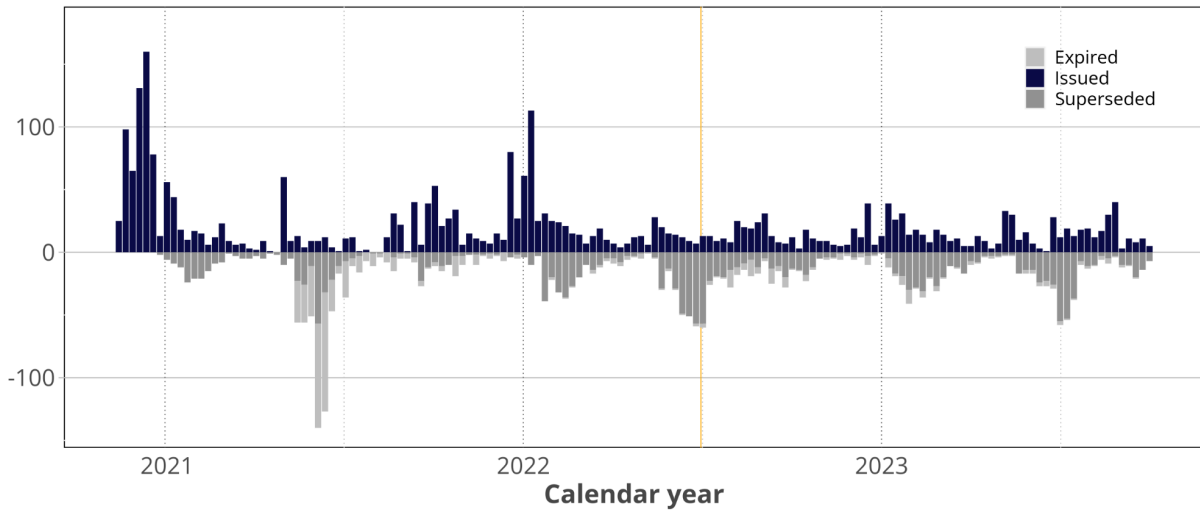
licenses. The Utah Department of Commerce Division of Occupational Licensing issues a median 727 registered nurse apprentice licenses each year, shown in Figure 2.

In addition to the count of apprentice licenses issued, licensing records can be used to derive an estimated monthly supply of nurse apprentices available for employment (see the “Methodology” section for more details). The nurse apprentice supply experienced significant variability for 2 years after the license type was introduced, primarily due to large volumes of licenses issued in specific months. One potential factor that contributed to those large volumes of issuances was the requirements for licensure and how that correlated to the academic year. Nursing students must be in the last semester of their programs, which is likely the spring semester for students who enroll in their programs on standard academic calendars.

The supply of nurse apprentices began stabilizing in July 2022 when the apprentice license type became permanent, as shown in Figure 3, with a median of 424 active apprentice licenses weekly. It’s possible registered nurse apprentices were unable to meet the requirements for licensure as an RN in the shorter period allotted under the temporary licensing guidelines. The administrative decision to issue the licenses for an entire year appears to have resulted in fewer bulk expirations, reducing the variability in supply over time.

Figure 3: Registered nurse apprentice supply by week



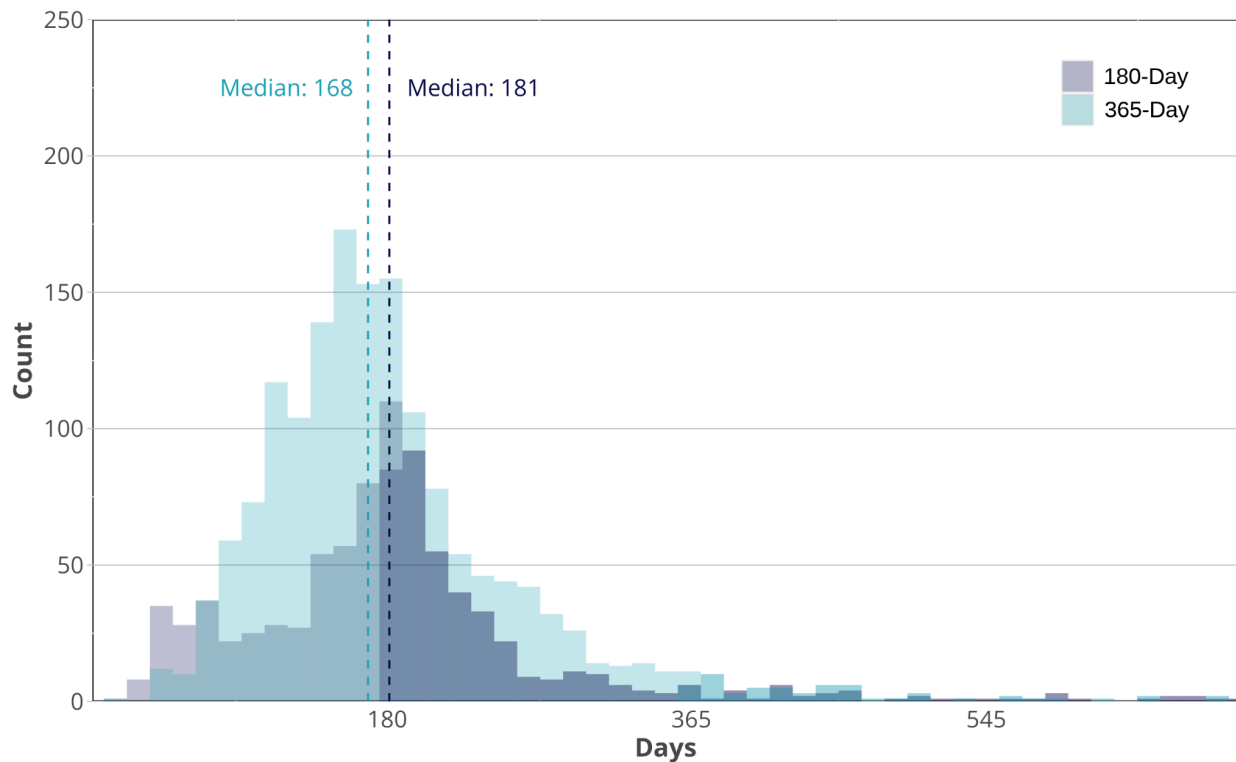


Source: Utah Department of Commerce, Division of Occupational Licensing. Retrieved on October 3, 2023.

Nursing pathway

Given that the registered nurse apprentice license is designed to allow nursing students to gain immediate, hands-on experience before they become fully licensed nurses, there is particular interest among partners to understand how (and if) these people eventually make the transition to full licensure. Out of all the currently active registered nurse licenses, 5.44% previously held registered nurse apprentice licenses. The low participation rate is reasonable given how recently the apprentice licensure was introduced. When you examine registered nurses who were licensed after that introduction, that number increases to 22.26%. Figure 4 shows a histogram of the number of days between apprentices being issued their apprentice and registered nurse licenses, both for the temporary and newly codified versions.

Figure 4: Days between apprentice and registered nurse licensure



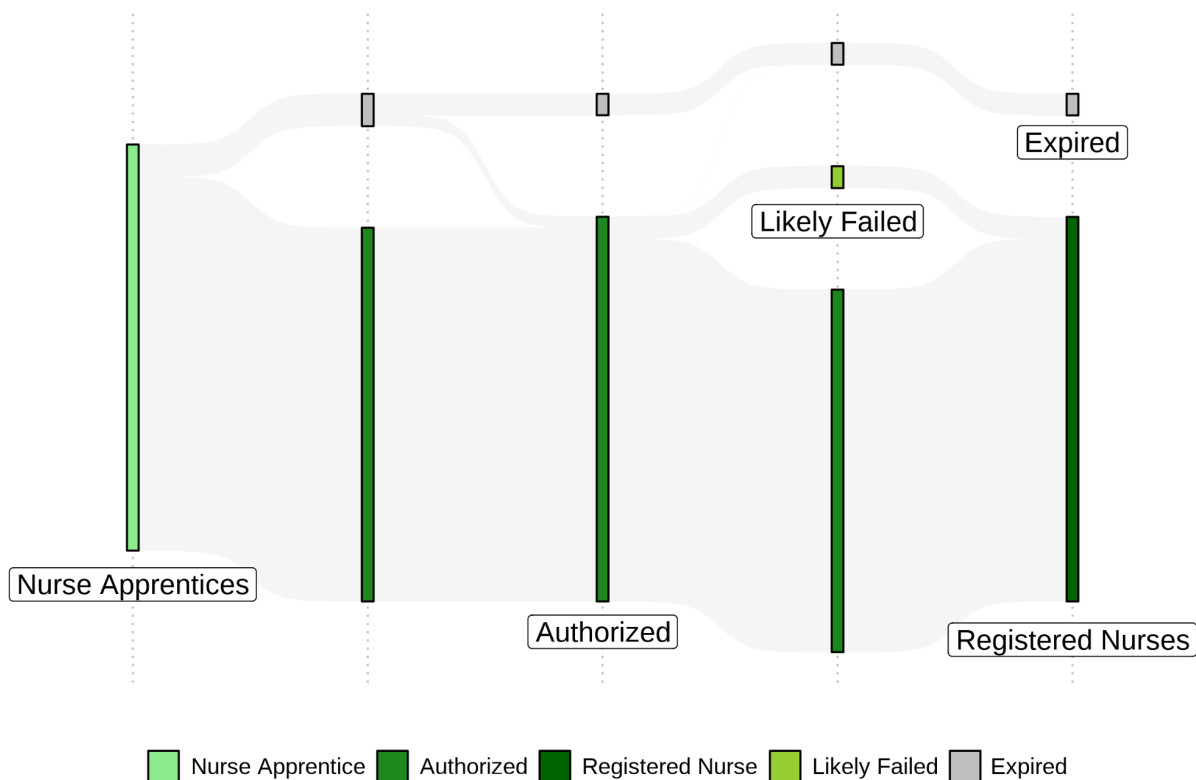
Darker shades represent the apprentices who took longer than their licenses to obtain RN licensure. Each column (referred to as a bin) represents a span of 14 days, or two weeks. Source: Utah Department of Commerce, Division of Occupational Licensing. Retrieved on October 3, 2023.

Most apprentices (95.29%) receive their RN license within a year after their apprentice license is issued. The median time to full licensure for apprentices was 181 days for 180-day issuances and 168 days for annual issuances, which supports the decision to start issuing the licenses for an entire year. Interestingly, apprentices who were issued licenses for 180 days (before July 1, 2021) took longer on the median to become RNs than those who were issued licenses for an entire year, as shown in Figure 4. One potential factor that contributed to this difference is the challenges and burnout associated with the pandemic, which resulted in some apprentices taking longer to become registered nurses. Another notable feature of the histogram that supports this, however, is the fact that (81%) of these apprentices' licenses expired during the wave of expirations between May 2021 and August 2021 as shown in Figure 3. Additional research would be needed to examine other qualitative factors contributing to this difference.

The pathway to full licensure is conceptually straightforward: once apprentices complete their nursing program, they must take and pass the NCLEX. Students must apply for authorization through DOPL before they register to take the exam. If the student passes

the exam, they can apply for full licensure as an RN. If they do not pass the exam, students were initially given a 60-day grace period to maintain their apprentice license while they waited for eligibility to retake the exam. This changed when the license type was codified. Currently, any apprentice who fails their NCLEX exam immediately loses their license, typically within a week after DOPL is notified that an apprentice has failed. While most apprentices pass on their first attempt and follow the typical pathway to full licensure, several people deviate from that typical progression. Figure 5 highlights the licensing pathways seen in the available data.

Figure 5: Nursing apprentice pathways



Source: Utah Department of Commerce, Division of Occupational Licensing. Retrieved on October 3, 2023.

It appears only 139, or about 4.77% of the apprentices, failed the exam. It should be noted that the number of people who fail the NCLEX exam is an estimate. Licensing records do not contain explicit information about when the exam was taken. Administrative procedures typically involve moving the expiration dates for those who fail forward to reflect the immediate expiration of a student’s apprentice license. Some licensed apprentices have later become RNs but lack NCLEX authorization records because students

took the exam in another state. This infrequent occurrence applies to fewer than 10 people in the available records.

Summary

Overall, there are about 200-600 nurse apprentices with active licenses at any given point in time since the license was introduced in 2020, although the supply has stabilized around the median weekly supply of 424 apprentices since July 1, 2022. DOPL indicated that the motivation to increase the amount of time the licenses were issued came from feedback provided by healthcare facilities. Administrators were dealing with workforce planning issues created by the sudden expiration of licenses after a 6 month period and advocated for the licenses to be issued for a longer period of time. The supply has stabilized some over the past 18 months as the licenses have been issued for an entire year. This also benefits students and provides them additional time within their apprenticeships to complete the requirements to obtain full nurse licensure. It appears that most apprentices are able to become RNs within a year of obtaining an apprentice license (95.29%).

This report was produced, in part, to provide insight into how the recently codified policy which mandates the immediate revocation of apprentice licenses after they fail the NCLEX exam might affect nurse apprentices. Licensing records cannot tell us how this policy might affect workforce planning, such as staffing disruptions in facilities and clinical settings that use nurse apprentices. It can be discerned that the proportion of apprentices this regulation may have impacted is low. In most cases, nurse apprentices have a smooth transition from initial licensure to becoming full RNs. Furthermore, the percentage of apprentices who completely drop out of that pipeline is also low, with only 5% of former apprentices lacking an RN license. This is an estimate, considering that some individuals may have left the state before they received an RN license.

Registered nurse apprentices are a comparatively new workforce group in Utah, so additional research into this group over time will provide further insights into the use of this license type and outcomes for students who obtain this license on their way to becoming an RN.

Methodology

Data collection

The data used for this analysis was obtained from the Utah Department of Commerce Division of Occupational Licensing (DOPL) on October 3, 2023. Records show the license type, status, issue date, and expiration date. Information about the individual associated with the license is also included in each record. We filtered these licensing records to only include those associated with individuals who have held a registered nurse apprentice license at some point (whether a temporary or permanent license). Some individuals had duplicate records for the same license type, and in order to avoid miscounting the number of individuals with various licenses we removed any duplicates. The licenses were then aggregated by individual and summarized to identify the issue and expiration dates for each type of nursing license, including authorization to take the NCLEX exam, to create a data set containing information on the 2,950 individuals who have been licensed as registered nurse apprentices. Additionally, we consulted with DOPL to make sure the data set was accurate and valid.

Data transformations and calculations

Workforce supply

The estimated supply of nurse apprentices in any given week or month is calculated by adding together the net change in active licenses and the supply from the previous month. The net change equals the number of nurse apprentice licenses issued and any licenses that expired or were superseded are subtracted. Slight discrepancies exist between active license counts and the estimated supply due to aggregating the data. These differences are primarily due to the expiration dates associated with the nurse apprentice licenses. In the analysis, licenses are considered expired when either (1) the expiration date listed on is reached or (2) a registered nurse license is issued, and the former license is superseded. Depending on how the data are aggregated some records can be excluded or included in the count for a particular period, although these differences will be small. Some differences exist due to the time it takes to update license records when they are superseded and minor clerical errors in which licenses are inaccurately labeled as either active or expired

when other data within the record indicate the license should be labeled as expired or superseded, respectively.

Licensing pathways

Using the available data and regulations that have applied to registered nurse apprentices, we can calculate estimated flows or counts of individuals across the possible licensing pathways. These calculations are based on the issue and expiration dates of the 3 license types: registered nurse apprentice, NCLEX test authorization, and the registered nurse licenses. Our methodology uses logical rules determined by state law and administrative procedures to compare the issue and expiration dates to determine when certain licensing events took place. Under current regulations, any apprentice who fails their NCLEX exam immediately loses their apprentice license, which moves their license expiration date forward and is reflected in the licensing records. We compared the expiration date in the record against what the original expiration would have been given the applicable rules at the time of issuance to determine if a license expired prematurely.

This method produced 139 apprentices who failed the NCLEX exam. We corroborated with DOPL to confirm the calculations. In addition, apprentices were issued registered nurse licenses but did not show an associated NCLEX authorization record in the data set. DOPL verified all the cases we calculated from the data set and confirmed that no additional failures occurred among the apprentices.

Citations

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