A Model of School Psychologist Turnover

Nicholas W. Affrunti
National Association of School Psychologists

Eric Rossen
National Association of School Psychologists

Shereen Naser, PhD, Editor
Cleveland State University

Nicholas W. Affrunti, PhD, Coeditor
National Association of School Psychologists

ABSTRACT

This data brief presents a model of school psychologist turnover based on publicly available datasets. The model calculates the difference between the expected number of school psychologists for a current year by adding the number of school psychologists from the previous year with estimates of incoming graduates who work in schools. The number of school psychologists for that current year are then subtracted from the estimated total. This provides the estimated raw number of school psychologists who left the field in any given year. To obtain a percentage change that can be compared with other professions, the raw number of school psychologists who left in that year was divided by the current year’s total number of school psychologists. Based on this model, the rate of turnover for the 2020–2021 school year was 6.7%. The model is presented in more detail, and the implications of the model are discussed in this paper.

Keywords: School psychology, professional issues

Workforce shortages in school psychology threaten the ability of schools to meet the needs of their students now and in the future. As a result, the National Association of School Psychologists (NASP) has identified workforce shortage solutions as a strategic goal. However, school psychology shortages are a complex issue affected by several variables, and effectively monitoring appropriate data to track progress and help direct resources remains equally complex. One piece of data that may help track a critical component of the shortages issue, yet that has often been elusive to gather, is that of turnover.

Turnover, or churn, is defined as the number of school psychologists who leave the profession in any given year that are not replaced by incoming members of the profession. School psychologist turnover is a particularly important data point, as it can be used to summate possible reasons for changes in school psychologist numbers amid a consistently increasing influx of new graduates entering the field (see Rossen et al., 2022). The ability to estimate and track turnover can be used to help predict, respond to, and plan responses to future school psychologist demand and shortages.

Yet, the school psychologist turnover rate is a particularly difficult number to obtain for a few reasons. Chief among them is that individuals leaving the field are not systematically tracked. Indeed, many individuals may leave a job but not leave the profession. They may relocate or take time away for personal or medical reasons. While one can track data related to state certification or licensure, those data often...
include individuals who have left the field yet maintain a credential, or hold credentials in multiple states, resulting in a tenuous monitoring tool at best. An additional challenge is that individuals may also leave the profession without a viable way for anyone to follow up with them (e.g., they retired or quit and never updated their email address, or they passed away), or they may not respond to surveys or requests for information after departing the field. Often, these individuals will not proactively indicate or report their departure from the field, nor is there a viable mechanism for them to do so. Because of these challenges, to our knowledge, there have been no attempts to systematically quantify the number or rate of school psychologist turnover at a national level.

Importantly, the data below represents an estimation model and therefore may not reflect exact counts of school psychologists and graduates entering the field. However, with recent advances in national data collection efforts noted below, we propose a model of school psychologist turnover, the Affrunti-Rossen Churn Scale (ARCS), that attempts to quantify the rate of turnover among practicing school psychologists, using publicly available data that can also be tracked over time. This proposed model is similar to existing models of teacher turnover rate (Reichardt et al., 2020).

DATA

The ARCS makes use of two separate data collection procedures. First, counts of school psychologists come from the Common Core of Data conducted by the National Center for Education Statistics (NCES) of the U.S. Department of Education. Through this data collection effort, an estimate of school psychologists working in K–12 public schools in the United States and its territories is gathered annually. These data were first collected in 2020.

Additionally, NASP publishes an annual report on graduate education in school psychology (e.g., Gadke et al., 2022) that includes an estimate of the number of graduates who go on to work in schools. Through this data collection effort, an estimate of the number of new graduates who enter the field and work in schools each year is provided. Using these two data sources, an estimate of the turnover rate for any given year can be provided.

THE ARCS MODEL

The model is straightforward, though it utilizes some underlying assumptions. Raw turnover ($t$) represents the number of school psychologists estimated to have left the field in any given year. This data point is determined by first using the previous year’s NCES data count ($a$) plus estimated new graduates working in schools ($c$) to generate an expected number of school psychologists for the current year. The number of actual school psychologists counted by NCES for the current year is then subtracted ($b$). In other words, $t$ represents the difference between the expected number of school psychologists if nobody were to have left the field and actual school psychologists, providing an estimated number of school psychologists who left the field. Importantly, overestimates or underestimates of new graduates into the field may skew the estimated turnover rate. The turnover rate ($d$) represents the percent of the current school-based workforce lost to turnover or churn. (See Table 1 for formulas.)

In the ARCS model, the higher the rate, the more school psychologists have left the field as a percentage of the total number of practicing school psychologists. A lower figure for both $t$ and $d$ suggests less churn and a lower number of school psychologists leaving the field, such that turnover would be 0 if no one left the profession for any single year.
Table 1. Relevant Variables and Formulas

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>a</td>
<td>Number of school psychologists working in schools for the previous year (NCES, 2020)</td>
</tr>
<tr>
<td>b</td>
<td>Number of school psychologists working in schools for the current year (NCES, 2021)</td>
</tr>
<tr>
<td>c</td>
<td>Number of school psychology graduates working in schools (Gadke et al., 2022)</td>
</tr>
<tr>
<td>t</td>
<td>Raw turnover</td>
</tr>
<tr>
<td>d</td>
<td>Turnover rate</td>
</tr>
</tbody>
</table>

\[
t = (a + c) - b
\]

\[
d = \frac{t}{b}
\]

THE ARCS MODEL FOR THE 2020–2021 SCHOOL YEAR

Using the ARCS model, we can calculate the raw turnover number and turnover rate for the 2020–2021 school year. As noted above, this turnover rate can be skewed by errors in estimates of the number of new graduates entering the field or estimates of school psychologists. In the school year ending 2020, there were an estimated 43,601.39 full-time equivalent (FTE) school psychologists according to the NCES (a). In the school year ending 2021, there were an estimated 43,405.21 FTE school psychologists according to the NCES (b). In 2020, there were an estimated 2,718 graduates of school psychology programs entering the field to work in schools (c).

Using the ARCS, we obtained a raw turnover number (t) of 2,914. In this particular year, we see that a exceeds b, suggesting that new graduates entering the field were insufficient to replace those who left the field. These data also yield a turnover or churn rate (d) of 6.7% for the 2020–2021 school year. This is comparable to teacher turnover rates for the 2020–2021 school year at 6% and principals for the same year at 6% (Diliberti & Schwartz, 2023), though lower than the turnover rate for occupational therapists in the United Kingdom (14.4%; Skills for Care, 2021). However, other education professions have demonstrated increased turnover rates following the COVID-19 pandemic (NCES, 2022). Additionally, school psychologists may not be employed by school districts directly and therefore may not show the same pattern of increased turnover that other educational professions have. It will be important to replicate these results for years to determine whether patterns displayed in these groups are seen among school psychologists.

HIGHLIGHTS

- The ARCS represents the first approximation of a school psychologist turnover or churn rate for the United States. The ARCS uses publicly available data such that others will be able to calculate and corroborate our estimates.
- For the school year 2020–2021, the school psychologist turnover rate was 6.7%. This represents approximately 2,914 school psychologists leaving the field—more than could be replaced by incoming graduates entering the school workforce.
- The school psychologist turnover rate is comparable to other rates of turnover in other education professions (e.g., teacher, principal) for the same years (Diliberti & Schwartz, 2023). However, those professions saw increased turnover following the COVID-19 pandemic, and it will be important to see if such trends hold for school psychologists as well.
As an important component of addressing shortages in school psychology, the turnover rate needs to decrease—necessitating strategies that effectively increase the number of incoming graduates while decreasing the number of practicing school psychologists who leave the field every year.

TECHNICAL INFORMATION AND LIMITATIONS

As noted above, all the data used to calculate the ARCS is available publicly either through the U.S. Department of Education’s NCES or through NASP. As such, the ARCS can be calculated independently. There may also be other data sources (e.g., state administrative data or local data) that could be used with the ARCS formula instead of national data that may help administrators or policy makers plan and adjust to school psychology shortages in specific areas.

There are several limitations to our model of school psychology turnover. First, our data from the NCES is self-reported. Though it represents the most detailed count of school psychologists in the United States, there may be errors. Additionally, this dataset provides counts of school psychologists who work in K–12 public schools, not those who work in private schools, for contract or telehealth companies, and private practice. According to the 2020 NASP Membership Survey (Goforth et al., 2021) this accounts for approximately 10% of school psychologists. However, individuals contracted by K–12 public school districts may be accounted for in the data.

Some states did not report counts of school psychologists for certain years and thus were imputed from an adjacent year. Specifically, data from California and Iowa were missing for the school year ending in 2020 and were imputed from 2021 data. Data from Illinois and Utah were missing for the school year ending in 2021 and were imputed from 2020 data. The number of newly graduated school psychologists entering work in schools is also an aggregated estimate generated from graduate program reports and prone to some error.

Furthermore, the data used do not distinguish between reasons any individual left the field (e.g., retirement or returning to school) and do not preclude that individual from rejoining the field in the future. However, the NCES data should capture those individuals both when they leave and when they rejoin, assuming they work in a K–12 public school. Additionally, these data do not account for those who left a position as a practitioner in schools yet remain active in the field (e.g., becoming faculty at a graduate program or an administrator) and only represent estimated turnover among school psychologists practicing in schools.

Despite limitations, the ARCS represents an important measure of school psychologist turnover that uses publicly available data, is easily replicated, and allows tracking over time of an important metric within school psychologist shortages.

REFERENCES


A Model of School Psychologist Turnover


Please cite this document as: