



THE IMPACT OF THE PANDEMIC:

Comparing the 2020 and 2021 Arizona Teacher Workforce

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JULY 2021

Teacher data from January 2021 was compared to a snapshot of the teacher workforce in January 2020 to determine the impact of the pandemic on the demographics and size of the teacher workforce. Teacher workforce data in 2017, 2018, and 2019 were also examined to ensure 2020 was not an anomaly. The ADE Teacher Information Application (TIA) database, which local education agencies use to report demographic information on their teachers, was used as the source. Although most provide the data (96% in 2020), there is some variation from year to year, with an additional twenty-nine local education agencies representing forty-six schools responding in 2021. Changes plus or minus two percentage points were assumed to be due to variation in yearly samples and not considered significant.

MAJOR FINDINGS

The pandemic had a limited impact on the size of the 2021 teaching workforce overall. There was not a mass exodus due to retirement and resignations as some predicted. The number of teachers did not change significantly – this held in both rural and urban areas and most counties. The average age of classroom teachers and years of experience remained unchanged, indicating there was not a massive outflow of experienced teachers and an influx of young, new teachers.

However, where teachers worked did change with more teachers working in charter schools and online schools. District schools had a slight decline in the number of teachers, but the charter increase was three times the district decline. Federal relief dollars and some level of budget stability provided by the state may have prevented a more dramatic decline in the number of teachers at district schools.



There were around 38,000 fewer students in school in October 2020 compared to October 2019. However, charters had over 18,000 more students in 2020, while districts had around 55,000 fewer students. If this student loss is not temporary, districts may reduce the number of teachers in the future or consider paying them in the short term with non-renewable federal dollars over the next few years.

The number of certain types of teachers did change. The number of reading interventionists, bilingual teachers, and elective teachers all declined. These declines represent a loss of specialized support in high need areas and highlight a pressing need to fill in learning gaps, especially in reading and English language acquisition in school years ahead.

Teacher retirements did not surge. There was not a massive move toward retirement as predicted. Teachers start hitting their maximum retirement multiplier at 30 years, which could be age 52 for teachers that started teaching right out of college. Instead of seeing more teachers in this age bracket retire, the number of teachers aged 50 to 55 increased from 2020 to 2021 by 7.9%. Due to the pandemic, social isolation measures in place, such as limited travel and social events, may have made retirement less attractive to these teachers. If that is true, the state may face higher teacher retirements over the next few years.

The percentage of teachers aged 65+ leaving the classroom increased by 5%. The cause is not known, but it could be due to health concerns or discomfort with technology. Some districts have reported losing more teachers due to technology-related issues than health concerns.

The average age of teachers was virtually unchanged in 2020 vs. 2021 (42.87 to 42.88), as were years of experience (11.05 to 11.06). However, there has been a steady increase in the average age of teachers and years of experience over the past five years. The average age has been slowly increasing year over year (42.5, 42.63, 42.79, 42.87, 42.88), as have years of experience (10.43, 10.50, 10.76, 11.05, 11.06).

Teacher demographics remained mostly the same. The number of classroom teachers did not significantly change. There were no significant differences in urban, suburban, or rural areas and most counties.

The number of classroom teachers in traditional school districts did not change significantly. Federal relief dollars and some level of budget stability from the state relieved some amount of budgetary pressure.

- The percentage of women as classroom teachers remained steady overall at 76%.
- The percentage of White and Hispanic teachers was unchanged. The number of Asian and African American teachers was up 3.1% and 3.8%, respectively. The number of Native teachers declined by 6.1%.
- The number of teachers in non-Title I eligible schools increased by 6.5%. However, looking at long-term trends, it appears this may be due to small numbers in 2020, with 2021's numbers being consistent with 2019 and earlier.

ASIAN TEACHERS

3.1%
increase
OVERALL

AFRICAN AMERICAN TEACHERS

3.8%
increase
OVERALL

NATIVE TEACHERS

6.1%
decline
OVERALL

WHAT ELSE CHANGED

OF TEACHERS
13.9%
increase
CHARTER SCHOOLS

OF TEACHERS
136%
increase
ONLINE SCHOOLS

OF EMERGENCY SUBSTITUTES
25.2%
decrease
OVERALL

While teacher numbers stayed stable overall, non-core teachers that support student learning declined: bilingual teachers declined by 12.2%; the small number of Native American Culture teachers shrank from 74 to 64 or 13.5%; reading interventionists were down 2.8%, and 'other' teachers, who typically provide electives, were down 3%. These declines reflect a loss of support for our most vulnerable students. These trends will impact the achievement of Arizona's students for many years to come unless steps are taken to correct these trends.

The number of reading interventionists declined from 922 to 690 – a loss of talent and expertise from our schools. One hundred fifty-one left teaching altogether, 67 became regular classroom teachers, and 14 added classroom teaching to their intervention duties. When there is a shortage of qualified teachers, the loss of the most expert teachers will make it harder to serve our students well in the future.

The number of teachers working in charter schools increased significantly, up 13.9% (8,645 to 9,843). Some charter schools remained in-person and increased their enrollment as parents left schools that were delivering remote learning. Many of the larger online schools are also charter schools, so their growth also fueled this increase.

Teachers working in online schools also increased significantly, up 136%, from 788 teachers to 1860. This increase in teachers also reflects increased capacity, with more schools (district and charter) and more teachers per school. There was an increase of 13 new online schools, 11 of which were district schools, with 920 teachers. District online schools accounted for 62% of online schools in 2020 and 69% in 2021. The average number of teachers per online school also went up (20 to 36) while traditional schools were relatively unchanged (30 to 31).

Most alternative certified teacher classifications were down. There were fewer Emergency Substitutes (-25.2%), Emergency Teachers (-14.9%), and international teachers (-2.7%). The one category that increased was non-certified teachers (+16.9%), who almost exclusively teach in charter schools.

IMPLICATIONS

Teacher staffing numbers may change next year. Districts did not significantly adjust the teacher workforce despite the loss of student enrollment. However, if enrollment loss continues, public schools could resort to layoffs.

Although there was no spike in retirements this year, public schools may be facing an increase in retirements in the next few years. The increase in teachers aged 50 to 55 may signal a coming wave of retirements. Also, workers – including teachers – tend to stay in jobs when the economy is tight and move when the economy grows.

As the pandemic wanes and the economy picks up, teachers may leave in higher numbers. Both of these scenarios suggest that the teacher shortages we have been experiencing may only get worse. Last year one in every twenty district classrooms had an emergency teacher, emergency substitute, or other less well prepared and inexperienced instructors.

A clear focus on students' academic and social-emotional needs is vital to long-term success.

The loss of specialty teachers such as bilingual teachers and reading interventionists likely means that student needs were not as adequately met as when students were attending in person.

Online instructional schools, particularly those not classified as district part-time credit recovery or acceleration program, have historically had poor academic outcomes such as low test scores, graduation rates, and post-secondary attainment rates. As more students enroll, these online schools may be serving a different type of student than they traditionally have. Closely monitoring student outcomes in this environment will be critical.

As more students return to in-person instruction, they may need extra supports to catch up. The availability of federal dollars provides an opportunity to give that support, but the spending must be targeted and well implemented. Although districts may have lower enrollments, there will be a need for skilled teachers to help students make up for any gaps in learning due to the pandemic.

New delivery models are likely here to stay.

The significant increase in online schools and the almost universal exposure to this type of instruction means it is likely that this will be an instructional delivery option well into the future. In the past, the student outcomes of online programs have been mixed, with some excellent programs and others that have abysmal results. As more families choose an online option for their students, it is increasingly vital that we focus on the effectiveness of the schools and teachers' ability to deliver quality instruction remotely.

DATA SOURCES & METHODOLOGY

The teacher data was queried from the Teacher Input Application (TIA) database in January 2021 so that the timing was comparable to the 2020 data pull. It is a snapshot in time, so it may differ from other sources using a different period. Although 96% of LEAs reported in 2020, a slightly higher number of local education agencies were reported in 2021, increasing due to more small local education agencies reporting.

Due to the pandemic, teacher program graduates could not take their test and thus were emergency teachers and could not get a standard certification. They were given a unique emergency teacher code for tracking purposes. This report did not consider them emergency teachers to compare changes from 2020 to 2021.

Additionally, the Teacher Information Application database was designed for annual reporting – longitudinal data analysis has not been a historical use. Additional data cleaning and collection will be needed to draw definitive conclusions on long-term trends. However, looking at the existing data, it does not appear that there has been a meaningful change from prior years in teacher retirements.

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