## COVID-19 Is Creating a School Personnel Crisis

## Key Points

- According to various bodies of medical research, those over age 65 are disproportionately vulnerable to COVID-19. Over half a million public and private school teachers are in the most at-risk age range for COVID-19.
- More than 18 percent of all public and private school teachers and 27 percent of all principals are in this vulnerable age range. Private schools face greater challenges, with 25 percent of teachers and 44 percent of principals in this age range.
- When discussing reopening plans for the 2020-21 academic year, schools should consider measures such as providing early retirement incentives and creating new roles for teachers and principals who are forced to remain at home due to their risk. Additional policies will be needed to give schools access to teachers who can backfill these positions.

As schools plan to reopen in the fall, they are likely to confront another crisis-that many of their teachers will be unable to return to the classroom due to the risk of contracting COVID-19.

The COVID-19 pandemic led governors to take unprecedented social distancing measures to protect the health and well-being of citizens. School closures were among the first state-mandated orders to help slow the spread of COVID-19. On March 12, Ohio Gov. Mike DeWine and Maryland Gov. Hogan were the first to announce statewide school closures. Within eight days, all remaining states followed suit, leaving more than 50 million students learning from home. ${ }^{1}$

Governors are now preparing to gradually relax these measures. Without effective treatments or a vaccine, the coming months will likely not return to "normal" so much as communities will reopen with important health precautions as part of containment strategies until a vaccine can be developed and safely deployed. Public health officials are warning that
reopening will involve certain accommodations to support COVID-19 containment efforts.

Schools in particular may need to take drastic preventative measures to prepare for safely reopening. As recommended by the Centers for Disease Control and Prevention (CDC), schools may need to create more physical distance between students, leading to lower class sizes and perhaps staggered school schedules. Aggressive hygienic measures, such as mandating frequent handwashing and thoroughly cleaning classrooms, will also be needed. Schools may also return to remote learning if another wave of infections triggers a local outbreak. ${ }^{2}$

Most importantly, current guidance suggests that individuals with higher-risk profiles-including those over age 65 -should remain at home. This poses a significant dilemma for education, as early estimates suggest that at least 18 percent of all teachers fall within an age range considered to be vulnerable. In fact, the numbers are likely to be higher given the full range
of school personnel, including paraprofessionals, bus drivers, custodians, administrative staff, cafeteria staff, and counselors. Take for example the grim statistics emerging from New York City Public Schools, which reported COVID-19 fatalities of 26 paraprofessionals, 25 teachers, two administrators, two facilities staffers, two school aides, two food service workers, one parent coordinator, one guidance counselor, and two central office employees. 3

There are wide-ranging implications for our education system, given that it may not be safe for many teachers to return to a classroom until a vaccine is developed. With fewer than five months until the start of the 2020-21 academic year, leaders need to assess these risks now to make necessary preparations. The health and safety of their personnel must take paramount concern, requiring creative solutions that still leverage these teachers' expertise and experience while addressing the pipeline challenges.

## Vulnerable Populations

Viral outbreaks leave some populations more vulnerable to severe symptoms and fatality than others. The medical community designates vulnerable groups of people as those who are disproportionately at risk based on factors such as age, gender, and preexisting health conditions. Defining these vulnerable populations is a dynamic exercise based on available data and deeper understanding of the disease.

Although we are still early in the process of understanding COVID-19, we know it disproportionately affects some groups more than others. A growing body of research suggests that older people are most at risk.

The World Health Organization determined that while COVID-19 can infect people of all ages, the risk of severe disease and complication begins increasing with individuals over age 40, with the highest risk being those over age 60.4

The Lancet Infectious Diseases journal published a study analyzing data from cases in China that found the older the population, the higher the fatality rate. For those under age 60, the rate was 1.4 percent. For those over age 60 , the fatality rate jumped to 4.5 percent. 5

On March 25, the CDC released the first analysis of patients in the United States and came to similar
conclusions. ${ }^{6}$ At least 31 percent of cases, 45 percent of hospitalizations, 53 percent of intensive care unit admissions, and 80 percent of deaths associated with COVID-19 are among adults older than age 65.7

CarePort Health, a subsidiary of the electronic health record company Allscripts, released aggregated data from 6,479 hospitalization patients (four times the number analyzed by the CDC) and found similar risk profiles. ${ }^{8}$ Its data suggest that most hospitalized patients are between the ages of 55 and 65 , and the highest fatality rates were for those age 74 and older.

While it is still unclear why COVID-19 disproportionately affects older populations, the mounting evidence suggests that these adults need to take additional precautions during the reopening of communities, businesses, and schools.

## School Personnel

Using data from the National Center for Education Statistics (NCES) 2017-18 National Teacher and Principal Survey, we can assess the scope of the potential population of teachers and principals who are in the demographic most vulnerable to COVID-19.

One complication of using this dataset is that the oldest age group is over age 55 , while most COVID-19 research uses a range of 65 years and older. With this in mind, there are two points to clarify. First, 65 years is not an absolute cutoff. In Colorado, for example, the age group with the most COVID-19 cases and the second-highest hospitalization rate was those between the ages of 50 and 59.9 Second, teachers near age 65 may still feel vulnerable to the threat of contracting COVID-19. In one sense, the NCES data give a fuller scope of the challenge.

## Teachers

At least 18 percent, or nearly 646,000 , of all public and private school teachers are older than age 55 . The percentage of teachers in this category is relatively consistent across all school levels: 15 percent of primary school teachers, 17 percent of middle school teachers, and 18 percent of high school teachers. There is more variation relative to school enrollment, with smaller schools having a higher percentage of teachers older than age 55 (Figure 1).

Private schools have considerably more teachers in this category, with more than 25 percent above age 55 (Figure 2). ${ }^{10}$ Twenty-seven percent of Catholic school teachers are also in the most vulnerable age range.

There is also wide variation by state (Figures 3 and 4). More than 25 percent of public school teachers in Maine and New Mexico are within the vulnerable age range, compared to only 10 percent of teachers in Colorado and 8 percent of teachers in Kentucky.

## Principals

At least 27 percent, or 24,000 , of school principals are above age 55 and therefore most at risk for contracting COVID-19. Most school levels have 23 percent of their principals in this category, except middle school, which has slightly less at 19 percent.

Similar trends to teachers surface when considering school enrollment (Figure 5). Private schools, however, have a significantly higher percentage of principals potentially at risk. Forty-four percent of all private school principals and 47 percent of all Catholic school principals are above age 55 .

Once again, there is enormous variability by state (Figures 6 and 7). In Hawaii, 45 percent of public school principals are above age 55, compared to only 9 percent in Illinois.

## Discussion

School leaders, union leaders, and policymakers are already well underway in preparing schools to reopen in the 2020-21 academic year. These plans must be grounded in the public health frameworks that guide the relaxation and reactivation of various social distancing measures based on sustained reduction in cases, the capacity of hospitals to safely treat all patients, widespread testing, and active monitoring of confirmed cases and contacts. All these frameworks outline considerations for state leaders, including operational considerations to protect vulnerable populations.

These frameworks suggest that while parts of the economy, including schools, can open under certain conditions, vulnerable populations should still shelter in place. ${ }^{11}$ In the context of education, these guidelines suggest that even when schools reopen, vulnerable
school personnel will likely need to stay home for their protection.

An initial estimate suggests at least 18 percent of teachers may fall within a vulnerable population, but that number is likely higher for two reasons. First, many other school personnel are in this category, including paraprofessionals, school bus drivers, school administrators, and custodians.

Second, age is only one risk factor. The CDC estimates that 45 percent of US adults are at increased risk for complications from COVID-19 because of cardiovascular disease, diabetes, respiratory disease, hypertension, or cancer. ${ }^{12}$ Some unknown number of school personnel will have these underlying health conditions that make them more susceptible.

This presents three personnel challenges.

1. Safety Concerns. Schools will need to protect their staff by taking precautions such as using protective personal protective equipment (PPE), instituting physical distancing measures, and possibly checking temperatures before individuals enter a building.
2. Teachers and Personel Unable to Come to Schools. Schools will face severe staffing challenges resulting from personnel who have to remain home due to public health officials' guidance or because they simply do not feel safe coming to school.
3. Staffing Shortages. Schools will have to backfill the positions of those who cannot come to school, creating new strains on teacher preparation pipelines and pools of substitutes.

Addressing these challenges will require the collaboration of policymakers, superintendents, school leaders, teachers, and union leaders. Possible ideas for consideration include:

- Prioritize Teachers for Testing. State and local leaders should prioritize teachers for COVID-19 testing, including antibody tests after they have become more reliable.

Figure 1. Percentage of Teachers Age 55 Years and OIder by Student Enrollment


Source: National Center for Education Statistics, National Teacher and Principal Survey, 2017-18.

Figure 2. Percentage of Teachers by Age Range in Public and Private Schools


[^0]Figure 3. Percentage of Public School Teachers Age 55 Years and OIder by State


Source: National Center for Education Statistics, National Teacher and Principal Survey, 2017-18.


Source: National Center for Education Statistics, National Teacher and Principal Survey, 2017-18.

Figure 5. Percentage of Principals Age 55 Years and Older by Student Enrollment


[^1]Figure 6. Percentage of Principals Age 55 Years and Older by State


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Source: National Center for Education Statistics, National Teacher and Principal Survey, 2017-18.

- Ensure Teachers' Health and Safety. State and school leaders will need to consult with public health officials to ensure schools have adequate measures in place to protect teachers. Teachers may need PPE, including gloves, face masks, hand soap, hand sanitizer, and disinfectant. Classrooms and hallways will need to undergo regular deep cleanings to minimize the spread of COVID-19. ${ }^{13}$
- Greate a Virtual Teaching Corps. Teachers sheltering in place could provide online instruction, remote tutoring, online mentoring, or televised instruction with the right professional development and support. For example, the British government launched the Oak National Academy using 40 teachers who provide more than 180 hours of lessons each week. ${ }^{14}$ States and districts have launched partnerships with local public media to provide televised instruction with local teachers. ${ }^{15}$ Platforms such as Outschool, Weekdays, BetterLesson, and Tutor.com offer opportunities for teachers to serve students in online classes and tutoring
sessions. ${ }^{16}$ Note that teachers of all ages may be interested in these options.
- Reassign Roles. Teachers could be reassigned to new roles, particularly if there is more widespread availability of COVID-19 testing. Students who test negative for COVID-19 could be assigned to teachers for instruction or small-group activities.
- Provide Early Retirement Incentives. School districts and state policymakers could pass early retirement incentives to align with individuals susceptible to COVID-19 based on age and adjust years-of-service requirements.
- Reduce Out-of-State Licensure Barriers. State policymakers and school districts could revisit teacher certification requirements and reciprocity agreements to make it easier for a teacher certified in one state to teach in another. States are considering similar provisions to help surge health care capacity to overwhelmed hospitals. ${ }^{17}$

This would make it easier for schools to recruit new teachers to backfill those who cannot teach while also creating opportunities for teachers sheltering in place to provide online instruction across state borders.

- Partner with Schools of Education. States, school districts, and universities need to explore opportunities for strengthening and accelerating the teacher pipeline. There could be opportunities to leverage this younger population of students in residency programs, perhaps by pairing them with a vulnerable teacher sheltering in place.
- Enable Teacher Gertification Reciprocity. Teacher license reciprocity allows teachers with a license in one state to earn a license in a receiving
state. States could revise their policies to make it easier for schools to recruit out-of-state teachers. Reciprocity policies could also help enable teachers sheltering in place at home to teach online outside their state boundaries.

The risk profile of vulnerable populations creates an extraordinary staffing challenge for schools. State policymakers and leaders of school systems need to plan now for the challenges they will face when schools reopen in the fall. Important work must be done to not only protect teachers but also prepare for various contingencies and scenarios, including identifying new roles for these teachers and strengthening the pipeline to find additional staff who can backfill for those who have to remain home.

## About the Authors

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## Appendix A

Table A1. Estimated Number of Teachers Age 55 Years and Older by State

| State | Percentage of Teachers Age 55 Years and Older | Number of Teachers Age 55 Years and Older | Percentage of Principals Age 55 Years and Older |
| :---: | :---: | :---: | :---: |
| Alabama | 14\% | 5,852 | 19\% |
| Alaska | 24\% | 1,858 | 33\% |
| Arizona | 20\% | 9,574 | 28\% |
| Arkansas | 18\% | 6,444 | 34\% |
| California | 20\% | 54,305 | 26\% |
| Colorado | 10\% | 5,237 | 22\% |
| Connecticut | 20\% | 9,016 | 28\% |
| Delaware | 12\% | 1,128 | 14\% |
| District of Columbia | N/A | N/A | N/A |
| Florida | 20\% | 37,226 | 24\% |
| Georgia | 15\% | 17,403 | 21\% |
| Hawaii | 18\% | 2,166 | 45\% |
| Idaho | 23\% | 3,816 | 27\% |
| Illinois | 13\% | 16,666 | 9\% |
| Indiana | 18\% | 10,983 | 17\% |
| lowa | 15\% | 5,333 | 28\% |
| Kansas | 19\% | 6,914 | 25\% |
| Kentucky | 8\% | 3,365 | 14\% |
| Louisiana | 18\% | 7,251 | 30\% |
| Maine | 25\% | 3,690 | 24\% |
| Maryland | N/A | N/A | N/A |
| Massachusetts | 19\% | 13,942 | 28\% |
| Michigan | 12\% | 10,137 | 16\% |
| Minnesota | 17\% | 9,734 | 23\% |
| Mississippi | 18\% | 5,692 | 12\% |
| Missouri | 13\% | 8,905 | 13\% |
| Montana | 21\% | 2,208 | 16\% |
| Nebraska | 15\% | 3,566 | 21\% |
| Nevada | 20\% | 4,742 | 24\% |
| New Hampshire | 24\% | 3,501 | 37\% |
| New Jersey | 20\% | 23,099 | 26\% |
| New Mexico | 25\% | 5,273 | 34\% |
| New York | 15\% | 31,974 | 26\% |
| North Carolina | 14\% | 14,056 | 17\% |
| North Dakota | 21\% | 1,950 | 31\% |
| Ohio | 14\% | 13,848 | 21\% |
| Oklahoma | 22\% | 9,151 | 27\% |
| Oregon | 15\% | 4,486 | 25\% |
| Pennsylvania | 13\% | 15,849 | 13\% |
| Rhode Island | 24\% | 2,565 | 34\% |
| South Carolina | 13\% | 6,821 | 28\% |
| South Dakota | 19\% | 1,868 | 30\% |
| Tennessee | 16\% | 10,243 | 22\% |
| Texas | 15\% | 53,532 | 19\% |
| Utah | 20\% | 5,842 | 30\% |
| Vermont | 22\% | 1,829 | 31\% |
| Virginia | 20\% | 17,187 | 25\% |
| Washington | 20\% | 12,037 | 25\% |
| West Virginia | 20\% | 3,848 | 33\% |
| Wisconsin | 14\% | 8,204 | 8\% |
| Wyoming | 15\% | 1,100 | 25\% |

Source: Authors' calculations using National Center for Education Statistics, National Teacher and Principal Survey, 2017-18.

## Notes

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9. Colorado Department of Public Health \& Environment, "Case Data," https://covid19.colorado.gov/data/case-data.
10. On May 11, 2020, the following percentages were changed on Figure 2 due to a rounding error: 30-49 years for public school teachers was 56 percent and changed to 57 percent, and 55 years or more for public school teachers was 18 percent and changed to 17 percent. The authors regret the error.
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[^0]:    Source: National Center for Education Statistics, National Teacher and Principal Survey, 2017-18.

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[^2]:    Source: National Center for Education Statistics, National Teacher and Principal Survey, 2017-18.

