School Reopening Plans and Reported Cases of COVID in Schools

Policy Brief

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Like schools worldwide, schooling in Florida has changed drastically this year because of the global COVID-19 pandemic. Almost all Florida school districts reopened this year with an in-person option guided by local reopening plans that aimed to create safe learning environments. UF's Education Policy Research Center tracked the development of these reopening plans as part of the Florida School Reopening Plans Database. Now that schools have reopened, this policy brief examines how characteristics of reopening plans relate to reported cases of COVID in schools through October 24th. The results in this brief, while correlational, suggest that practices including beginning the year entirely remote and requiring masks are related to lower COVID rates in schools.

Tracking Reopening Plans

From summer to early fall, the UF Education Policy Research Center tracked Florida school districts' reopening plans. After moving to remote instruction in the spring, districts were tasked with creating a safe in-person learning environment for fall reopening in the midst of a global pandemic. The Florida Department of Education required reopening plans to be submitted to the state by July 31st, 2020 and, with some exceptions for districts in communities with significant COVID spread, for districts to offer an in-person option at the start of the 2020-2021 school year.

There was significant variation in reopening plans across districts. Around three quarters of districts delayed their start dates, about one in ten began the year all remote, and almost nine out of ten created a new digital option. There was also variation in safety protocols – with about 25% of districts requiring students to wear masks at all times and around one in three requiring masks situationally. About half of districts described a plan for temperature checks either of students or staff.

With the 2020-21 school year underway, this latest brief merges data collected on reopening plans with COVID infection rates reported by the state to examine relationships between reopening plan characteristics and initial rates of COVID in schools.

COVID in Florida Schools

Without systematic testing and because of asymptomatic carriers, it is difficult to have reliable and accurate data on the extent of COVID cases in Florida schools. As of late October, the state of Florida is one of only about half of the states nationally to publicly publish data on school COVID cases. The data available from the state includes cases from September 6th (several weeks into the school year for many districts) through October 24th and is updated weekly.

As of October 24th, the state reported COVID cases in 2,085 public schools across the state. There were 4,677 student cases and 896 teacher and staff cases in public schools. There were only 52 public schools statewide that had reported more than 10 student cases since September 6th according to state data. While cases of school spread have been identified, including among extracurricular activities like sports, many of the school cases likely reflect infections of students that occurred outside of the school environment.

The prevalence of cases varied widely across districts. As shown in Figure 1, when expressed as cases per

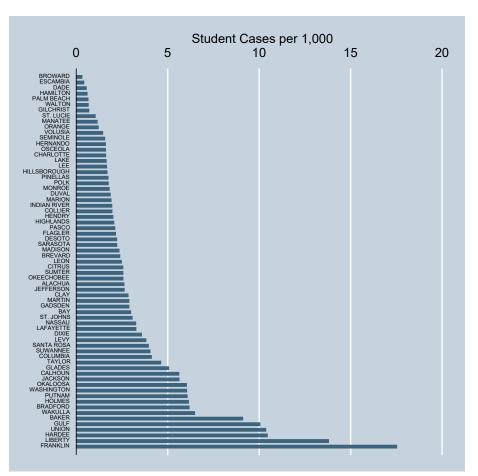


Figure 1. Student COVID cases per 1,000 enrolled during prior year by district as reported by the state from September 6^{th} to October 24^{th}

1,000 students served by the district (based on last year's enrollment), rates varied from less than one student per 1,000 to almost 18 cases per 1,000 students. In addition to reflecting differences in prevalence of COVID, these differences may also reflect differential testing, reporting, and, for small districts, a greater sensitivity in rates to additional cases.

Predicting COVID Rates from Reopening Plans

Certain characteristics of school district reopening plans were consistently related to student COVID rates in school districts. Figure 2 displays the relationship between reopening plan components and student rates through October 24th. The relationship is examined for beginning the year entirely remote, delaying the start of school, having an articulated response plan for future COVID outbreaks in the reopening plan, having a mask requirement (either all the time or situationally), describing the use of temperature checks (for students or staff), and descriptions of distancing desks.

As shown, the single strongest predictor of lower COVID rates among students was beginning the year entirely remotely as a small number of districts did. Beyond this, the presence of a mask requirement (either requiring masks all the time or in certain situations) predicted lower rates of COVID. Specifically, a mask requirement predicted around 2 fewer reported student cases of COVID

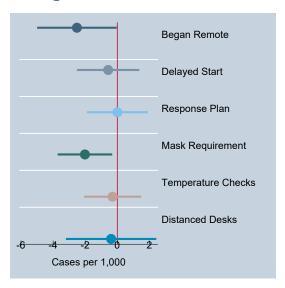


Figure 2. Relationship between reopening plan characteristics and district student COVID rates.

Note. Coefficients and 95% confidence intervals from bivariate regressions. COVID case data reported by the state as of October 24th.

per 1,000 students compared to districts without such a requirement.

It is important to note that these relationships are correlational rather than causal, meaning that these relationships do not indicate that the particular characteristic of the reopening plan caused the differential rates of COVID. Furthermore, some of the characteristics that were not strong predictors of lower COVID rates may have been adopted precisely because a district was experiencing high rates thereby biasing relationships. Certainly, some of the practices, such as distancing, are recommended based on best practices and guidance from health professionals. In other cases, the predictor may not capture all of a district's practices. For example, most all districts likely have a response plan for COVID though not all included it in their public reopening plan.

Implications

While rates of COVID in schools in Florida and nationally have been lower than initially feared, there are nevertheless cases in schools and, in some instances, evidence of spread within schools. District leaders and families face real tradeoffs in choosing a path forward, but the following practices may help maximize student safety while reopening schools:

- Continued provision of in-person and remote options to allow families and students to choose the format that best meets their individual needs
- Policies and practices supporting mask wearing and social distancing
- Continued use of protocols and responses, such as targeted quarantining, to address school cases and prevent school spread

Methodological Note

The data drawn on for this policy brief came from the UF Education Policy Research Center's Florida School Reopening Plans Database. This brief reports on the third round of data collected on district reopening plans. These plans were gathered between August 26th and 28th. Coding of reopening plans was based on publicly available information that could be readily found on school district websites and in plans approved by the Florida Department of Education.

Florida school COVID data were provided by the Florida Department of Health, which provides a weekly breakdown of cases per school in the state of Florida. Supplemental analysis was also conducted using data from COVID Monitor, an independent source tracking school cases across United States school districts. State data reflected cases between September 6th and October 24th while COVID Monitor data reflected cases for some districts through October 28th. Results shown in the brief use state reported data, but analyses run with data from COVID Monitor are similar. District enrollment data from the state Department of Education for the 2019-2020 school year was used as an estimate of the students served given that current year enrollment data are not yet available. The rate of COVID cases was calculated per every 1,000 students enrolled.

As this is a constantly evolving situation, plans continue to change rapidly and school cases develop daily in response to federal, state, and local conditions. In some cases, districts may have plans or additional details that were not available or could not be found on their website. While this brief and the accompanying database provide useful comparisons of reopening plans, we recognize that they may not include all details that districts have communicated, and we encourage individuals to consult their local school district for official and up-to-date details on reopening plans. In many cases, reported cases of COVID in schools likely do not reflect all actual cases due to reporting issues, a lack of systematic testing, and asymptomatic carriers.

Additional Resources

The interactive UF Education Policy Research Center's Florida Schools Reopening Plans Database can be found on the Center's website: www.ufedpolicy.org

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