Special Education Identification Throughout the COVID-19 Pandemic

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Abstract

We analyze student-level data on elementary special education identification in Washington state to explore how identification rates changed during the COVID-19 pandemic. We find that special education identification rates dropped dramatically in March 2020 through the end of the 2019-20 school year and remained below historical norms throughout the 2020-21 school year. In the 2021-22 and 2022-23 school years, however, identification rates surpassed pre-pandemic levels, suggesting that school districts were catching up with the identification of students who might have been missed during the pandemic.

Special Education Identification Throughout the COVID-19 Pandemic

The onset of the COVID-19 pandemic in March 2020 had a profound impact on nearly every aspect of public schools, including the provision of special education services (e.g., Glessner & Johnson, 2020). Although less obvious than disruptions to instruction and other specialized supports, the challenges posed by the pandemic (e.g., remote learning, student disengagement) also may have impacted the rates at which schools *identify* students for special education services. Given substantial evidence that special education identification improves student outcomes (e.g., Hanushek et al., 2002), understanding how the COVID-19 pandemic affected the identification of students with disabilities is a significant policy question with serious implications for students and schools.

One prior study investigated this issue using annual identification data from Michigan (Hopkins et al., 2023). The results show a sharp drop in special education identification rates at the outset of the pandemic in 2019–20, followed by lower-than-typical rates of identification in the 2020–21 school year and a return to pre-pandemic levels by the 2021–22 school year. We use student-level data from Washington state to extend this prior work in several ways. Most importantly, we provide the first evidence about changes in special education identification from the 2022–23 school year, thus capturing any recovery in identification rates as schools emerged from pandemic restrictions. Moreover, rather than using annual identification data, we use the *date* of students' initial special education identifications to document within-year shifts in special education identification, most notably at the outset of the pandemic in March 2020 during the 2019–20 school year.

Finally, we use data going back to the 2010–11 school year to track 13 cohorts of elementary school students, only some of whom were impacted by the COVID-19 pandemic (we focus exclusively on elementary grades K–5, where more than 90% of K–12 special education

identification occurs in Washington). These data allow us to quantify how special education identification rates have changed *relative to pre-pandemic cohorts* within an event-study framework, adapting methods used to study the impact of the COVID-19 pandemic on school bullying (Bacher-Hicks et al., 2022).

Data and Methods. Student-level data come from the Washington State Office of the Superintendent of Public Instruction's (OSPI) Comprehensive Education Data and Research System (CEDARS). The OSPI CEDARS dataset includes the first date of special education identification for each student in the state since 2010–11 through the end of the 2022–23 school year. We drop students who were already identified for special education services by the end of September of their kindergarten year and then create monthly indicators N_{idsgmy} for whether each student i in district d and school s was first identified for special education services in grade g, month m, and year y for each month from October of their kindergarten year through summer of their 5th-grade year.

Figure 1 plots the monthly proportion of elementary students first identified for special education for multiple time periods (see Appendix Figure A1 for identifications by cohort, grade, and year). The shaded region in the figure shows the range of identification rates prior to the pandemic between 2015–16 and 2018–19. The lines show identification rates for subsequent school years. As the figure shows, placement rates in 2019–20 were slightly above the pre-pandemic range until March 2020, when the governor ordered statewide school closures. After that, the 2020 line shows that rates decreased well below pre-pandemic norms. The 2021 line shows that placement rates for most of 2020–21 remained below historical rates. But by early 2021–22, the 2022 line shows rates returning to and then surpassing pre-pandemic norms, while

identification rates remained well above the pre-pandemic range throughout the 2022–23 school year.

Results. We formalize these results using the event study methods described in Appendix A. **Figure 2** shows the event study plot estimated from Appendix equation A2 across all students. These results can be interpreted as estimates of how identification rates in each month compare to identification rates prior to 2017–18, all relative to the "reference month" of February 2020. As in Figure 1, **Figure 2** shows identification rates throughout 2018–19 and until February 2020 largely followed historical trends. Identification rates in the March 2020–Summer 2020 period fell far below historical norms with roughly 3600 fewer students identified for special education services than would be expected in this six-month period. While identification rates in September 2020 returned to historical levels, rates for most other months in 2020–21 school year continued well below historical levels. This reduction continued through September 2021 before returning to and then surpassing historical identification rates by the middle of the 2021–22 school year and throughout the 2022–23 school year.

We show heterogeneity in these results in Figures B2–B4. Post-pandemic impacts were concentrated in early grades K–2 (Figure B2), as was recovery in identification rates in recent school years. This recovery was most pronounced for identification for speech or language impairments (Figure B3) and were similar across student racial/ethnic categories (Figure B4).

Discussion. Our findings begin to answer two key questions coming out of the COVID-19 pandemic: 1) to what extent did the pandemic influence special education identification rates?; and 2) would special education identification rates merely return to pre-pandemic norms after the initial post-pandemic drop, or would they surpass pre-pandemic rates as schools "caught

up" on missed identifications during the pandemic? In Washington, the answer appears to be the latter, as identification rates in the 2022–23 school year far exceeded pre-pandemic trends.

These trends in special education identification we describe have important implications for post-pandemic efforts to identify and support students with disabilities (e.g., Sims et al., 2024). By the end of the 2020–21 school year, we estimate that about 6,400 fewer students were identified for special education services than would have been expected prior to the pandemic (see Appendix A). But the post-pandemic recovery in identification rates imply that, by the end of the 2022–23 school year, only about 2,000 fewer students were identified for special education services than would have been expected prior to the pandemic. In other words, the state has recovered over two-thirds of the initial identification decline associated with the pandemic. This is welcome news, especially given prior research showing that restrictions to special education access can harm student outcomes (e.g., Ballis & Heath, 2021).

References

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Sims, W. A., Yu, R., & Zahn, D. (2024). Special education evaluation considerations in a post-pandemic era. *Contemporary School Psychology, 28*(1), 68–75.

Figures

Figure 1. Proportion of previously unidentified students identified for special education services by month and year

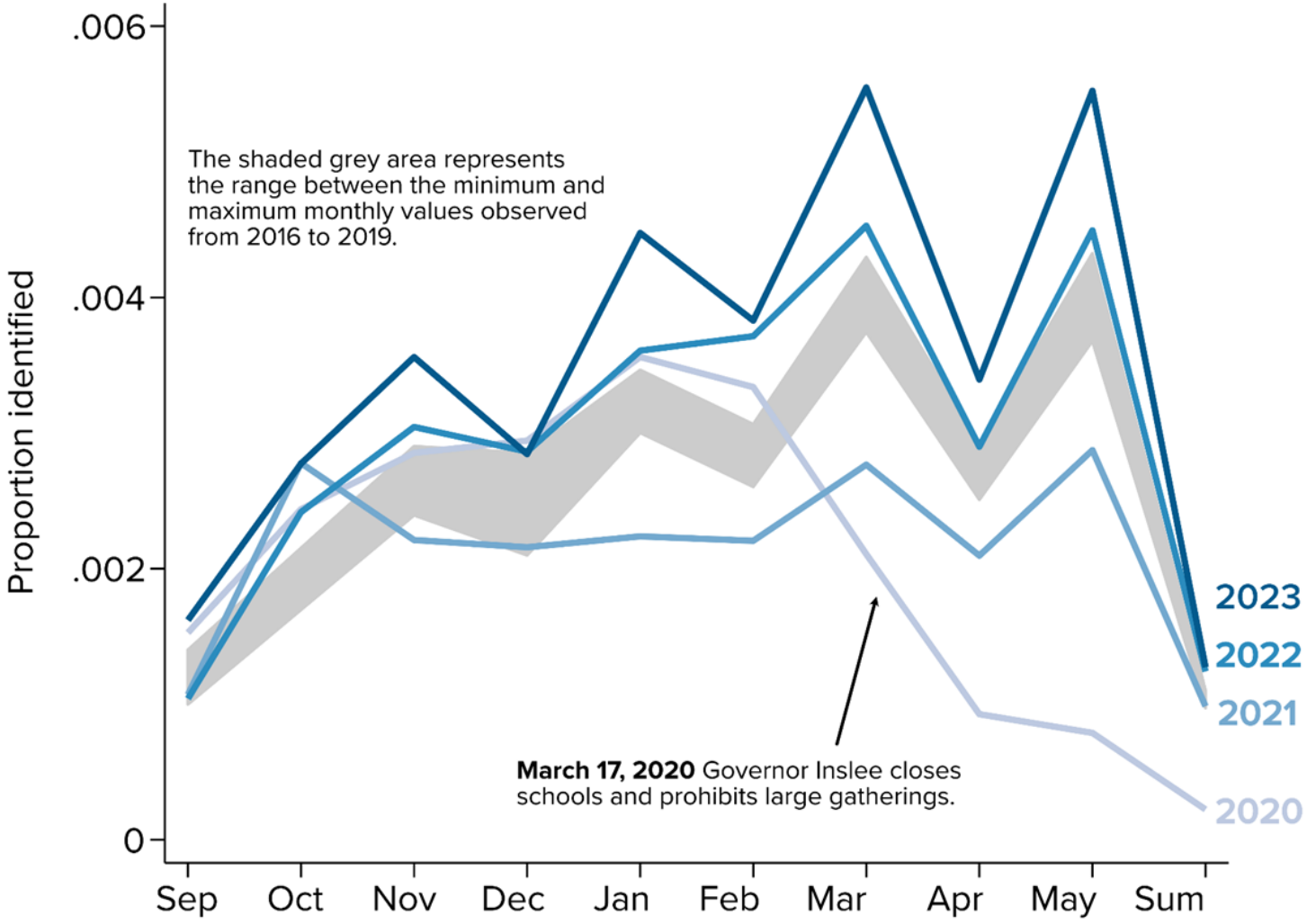
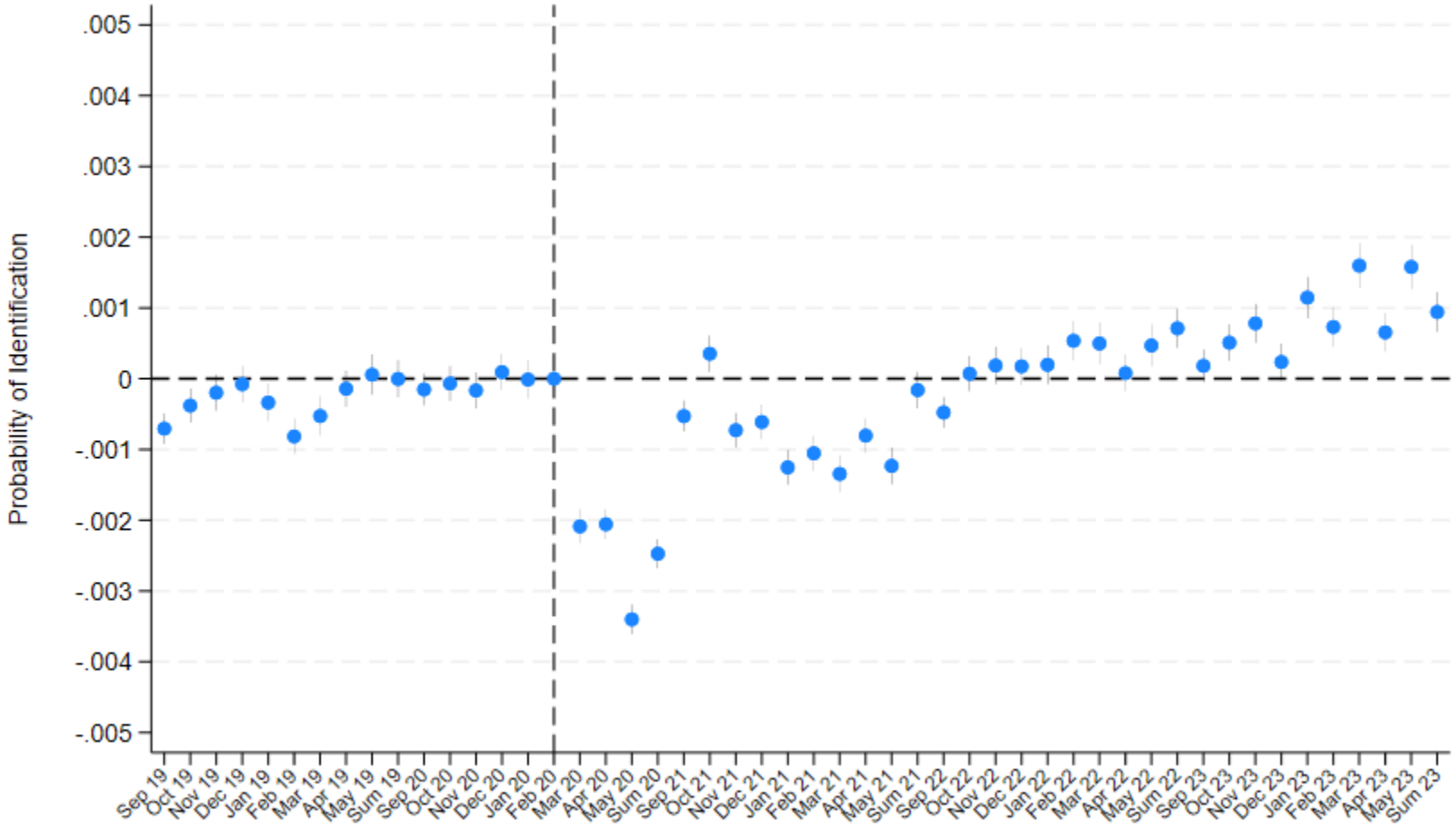


Figure 2. Monthly special education identification rates relative to pre-period (2010–11 through 2017–18) levels



Note. Estimates from event study model in equation 2, where the outcome is residualized special education placements based on month/grade trends from 2010–11 through 2017–18 as calculated from equation 1.

Appendix A. Methodology

We follow Bacher-Hicks et al. (2022), who study the impact of the COVID-19 pandemic on school bullying. To make comparisons to historical rates, we define a "pre-period" as all school years 2010–11 through 2017–18 and estimate linear regression models predicting the proportion of students identified for special education $P_{sdmgy} = \frac{N_{sdmgy}}{S_{sdmgy}}$, where S_{sdmgy} is the number of students not already identified for special education in that school, district, month, grade, and year:

$$P_{sdmgy} = \alpha_0 + \alpha_m + \alpha_g + \alpha_1 y + \varepsilon_{mgy} \qquad (1)$$

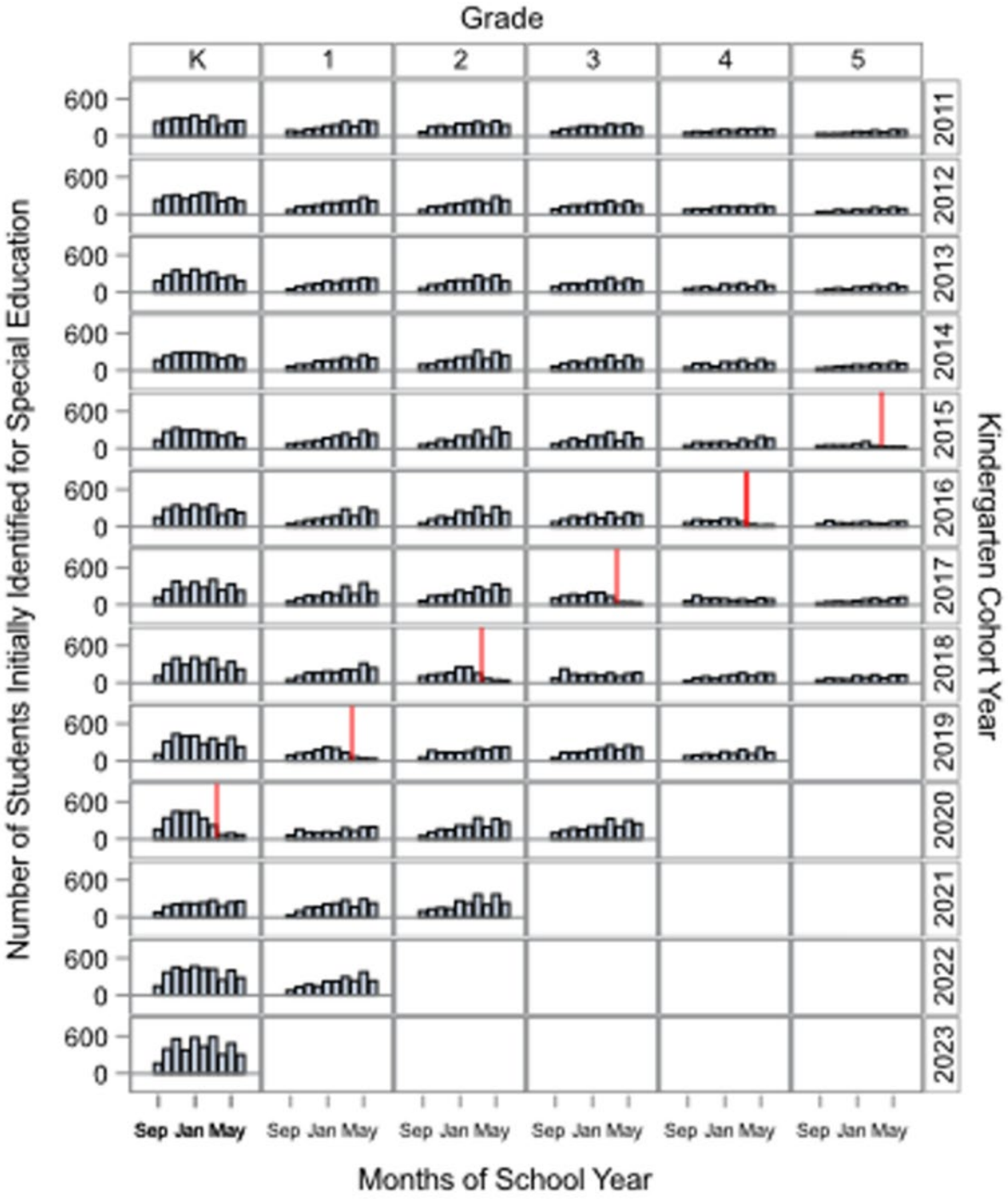
We then create residualized placement rates for each school, district, and month since 2018–19, $R_{sdmgy} = P_{sdmgy} - \hat{P}_{sdmgy}$, where $\hat{P}_{sdmgy}$ is the predicted proportion of identified students from the month effects, grade effects, and year time trends estimated from equation 1. We also experiment with specifications of equation 1 that include aggregated student characteristics, district fixed effects, and school fixed effects. Finally, we use these residualized placement rates to estimate a typical event study regression with reference group February 2020:

$$R_{my} = \beta_{my} + \varepsilon_{mgy} \quad (2)$$

The month/year effects β_{my} can be interpreted as the change in residualized identification rates in each month relative to the change in residualized identification rates in February 2020. To provide a "back-of-the-envelope" estimate of the cumulative impact of the pandemic on special education identification, we simply add the post-pandemic monthly impact coefficients $\hat{\beta}_{my}$ and multiply this by the size of the relevant impacted student cohorts; this provides an estimate of how many fewer students were identified for special education services in post-pandemic months than we would have expected based on pre-pandemic trends.

Appendix B. Additional Figures

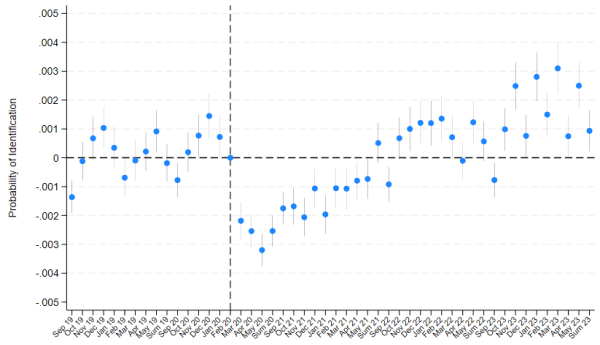
Figure B1. New special education identifications by grade, cohort, and school year



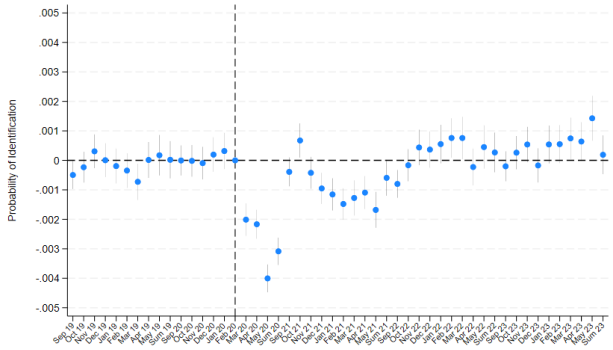
Note. The height of each bar represents the number of students in each cohort (rows) and grade (columns) who initially were identified for special education services in each month. The vertical red line represents the beginning of March 2020 for each cohort.

Figure B2. Heterogeneity by student grade

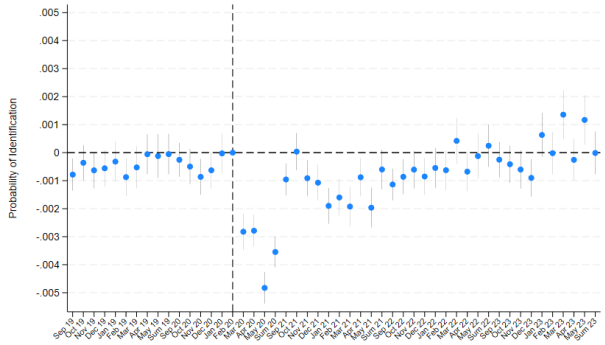
Panel A: Kindergarten



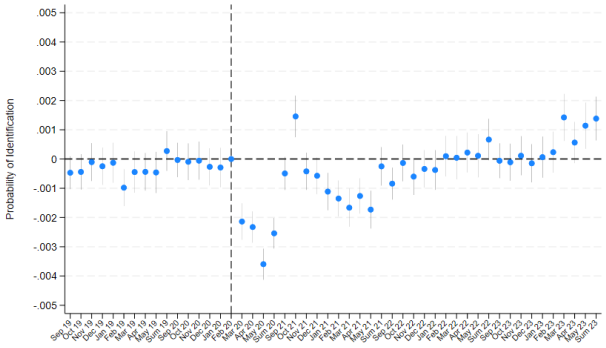
Panel B: 1st grade



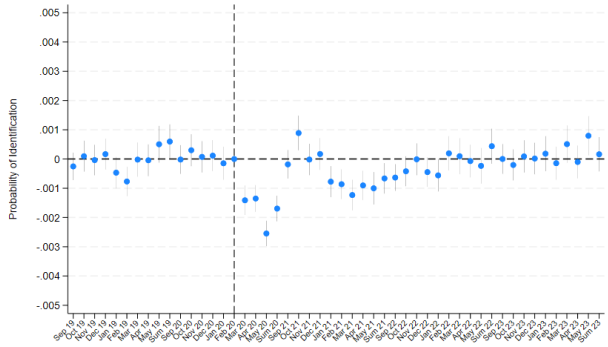
Panel C: 2nd grade



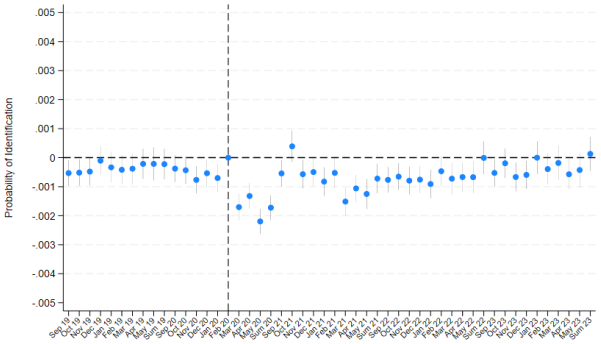
Panel D: 3rd grade



Panel E: 4th grade

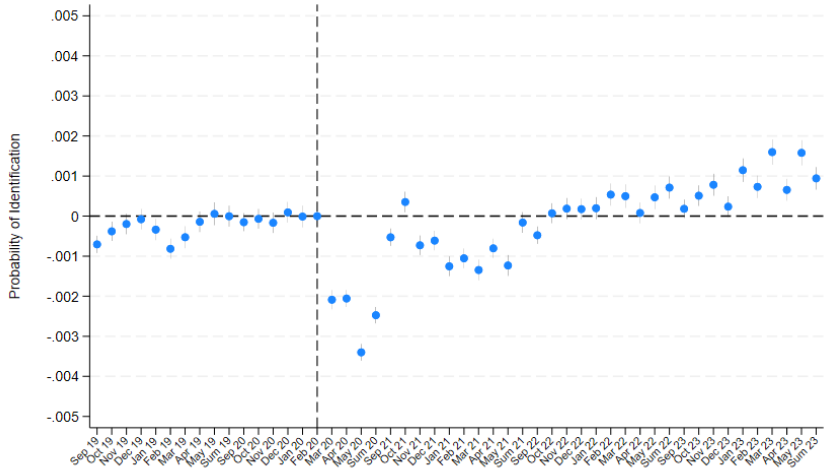


Panel F: 5th grade

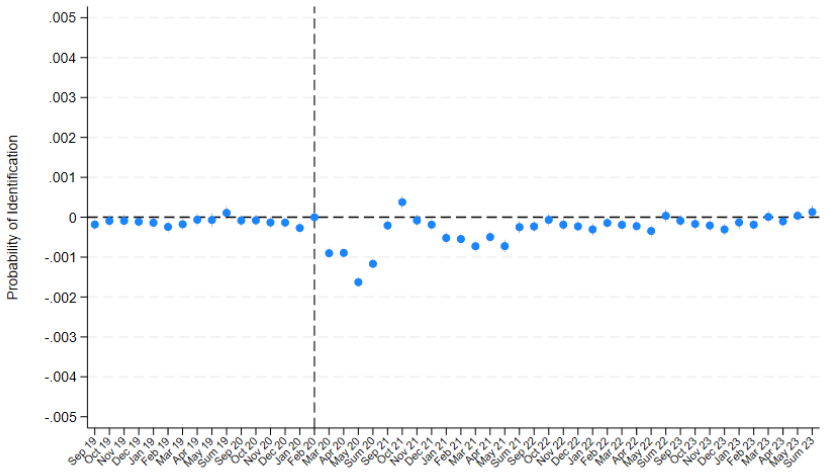


Appendix Figure B3. Heterogeneity by student disability category

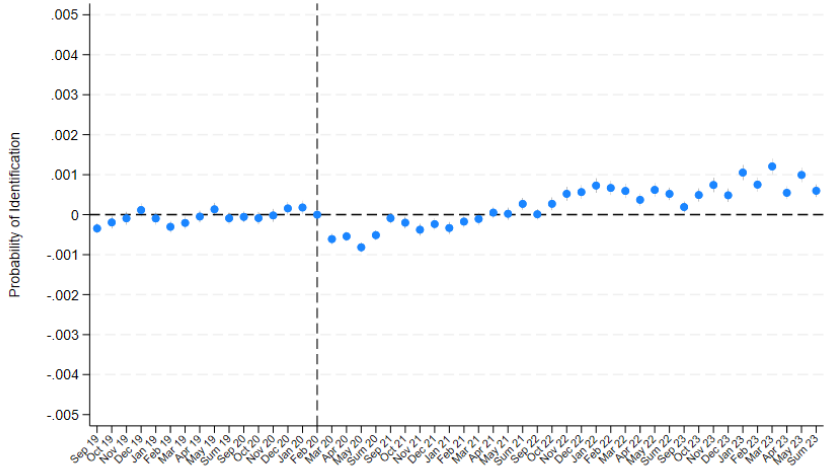
Panel A. All categories



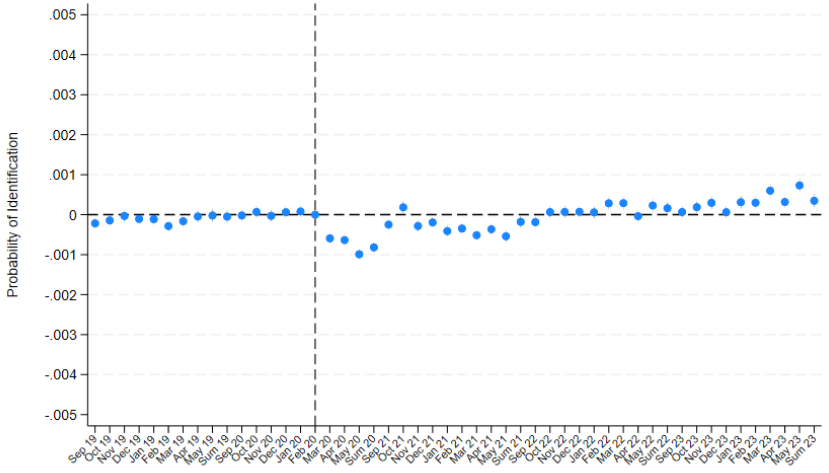
Panel B. Specific learning disability



Panel C. Speech or language impairment

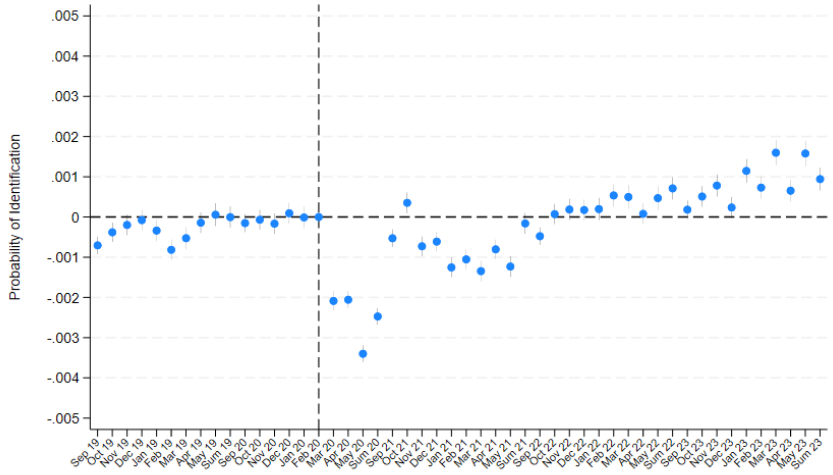


Panel D. All other disability categories

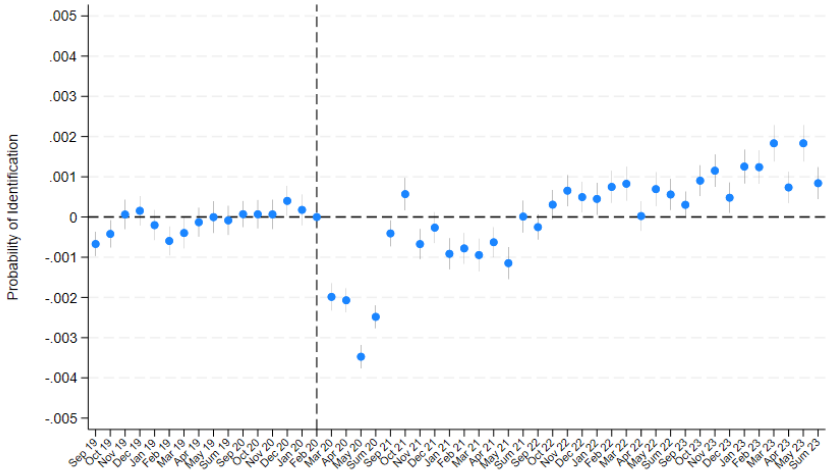


Appendix Figure B4. Heterogeneity by student race and ethnicity

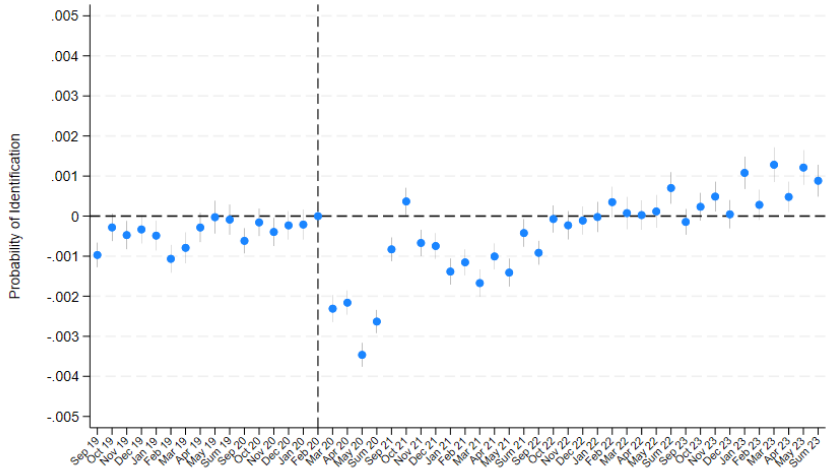
Panel A. All students



Panel B. White students



Panel C. Students of color



Panel D. Black students