

Special Education Identification Throughout the COVID-19 Pandemic

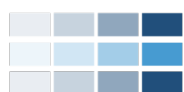
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June 2024

RESEARCH BRIEF No. 37-0624



CALDER

National Center for Analysis of
Longitudinal Data in Education Research



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Abstract

We use student-level data on elementary special education identification from Washington state to explore student identification rates in the months immediately after the onset of the COVID-19 pandemic and over 2 subsequent years. Special education identification rates dropped dramatically in March 2020 through the end of the 2019–20 school year and remained below historical norms through 2020–21 before returning to pre-pandemic levels early in 2021–22. The magnitude of these effects implies that over 8,000 fewer elementary students were identified for special education services during the pandemic in Washington than would have been expected based on prior trends.

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 way 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. 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. We also use data going back to the 2010–11 school year to track 12 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. 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. The identification data end in February 2022, providing us with nearly 2 full years of data after the start of the pandemic in March 2020.

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, ending in February 2022. As the figure shows, placement rates in 2019–20 stayed well within the expected 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 2021–2022, the 2022 line shows rates returning to pre-pandemic norms.

Results. We formalize these results using the event study methods described in Appendix A. **Figure 2** shows the event study plot estimated from equation A2 across all students

(see Appendix A). 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. But identification rates in the March 2020–Summer 2020 period fell far below historical norms. Identification rates in September 2020 returned to historical levels, but rates for most other months in 2020–21 continued well below historical levels. This reduction continued through September 2021 before returning to historical identification rates over the next 5 months of the 2021–22 school year.

While space precludes extended discussion of heterogeneity checks, Appendix Figures B2–B5 show that post-pandemic impacts were concentrated in early grades K–2 (Figure B2) and for the most common disability category, identification for a specific learning disability (Figure B3). We also find that impacts were similar across student racial/ethnic categories (Figure B4). Finally, these results are robust to comparisons between otherwise observably similar students within the same districts and schools (Figure B5).

Discussion. At a high level, our findings mirror those from Michigan (Hopkins et al., 2023): Rates of special education identification in Washington dropped dramatically in March 2020 and through the end of the 2019–20 school year, remained below historical norms through most of the 2020–21 school year, and then returned to pre-pandemic levels in the first several months of the 2021–22 school year. To the extent that students who ordinarily would not have been identified for special education were less likely to attend public schools after the pandemic, these trends may understate the decrease in identification rates during the pandemic (i.e., in the absence of the pandemic, the denominator for the rates might have been larger).

Either way, the pandemic’s impact on special education identification has important implications for post-pandemic efforts to identify and support students with disabilities (e.g., Sims et al., 2024). We estimate that about 8,500 fewer students were identified for special education services over 2 years in Washington than would have been expected prior to the pandemic (see Appendix A). Given prior evidence on the substantial negative impacts of previous restrictions to special education access on student outcomes (e.g., Ballis & Heath, 2021), these students—who otherwise may have been identified for specialized services—may face negative, long-term outcomes or increase the demand on school districts for identification and assessment in the future.

References

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- Ballis, B., & Heath, K. (2021). The long-run impacts of special education. *American Economic Journal: Economic Policy*, 13(4), 72–111.
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Figures

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

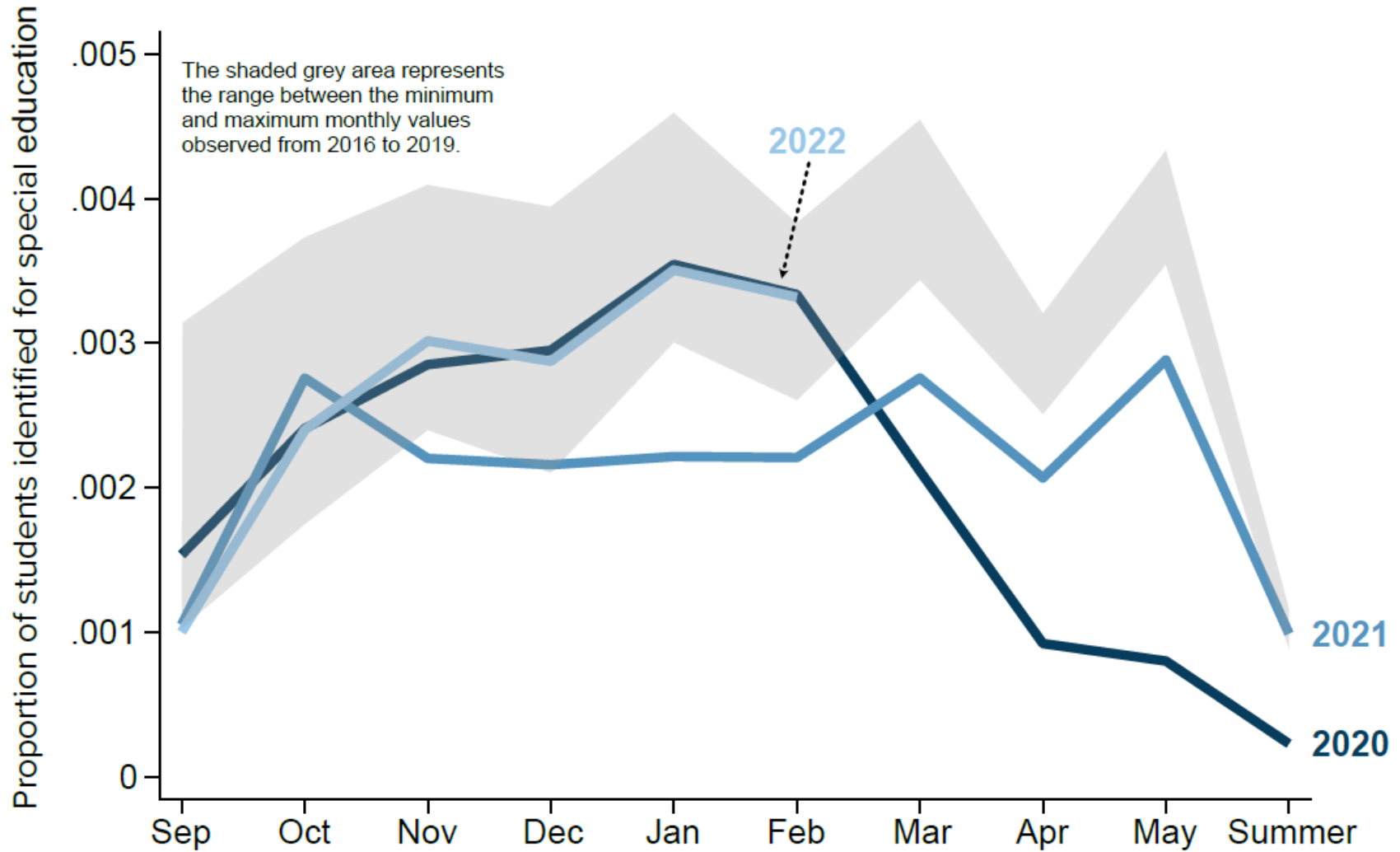
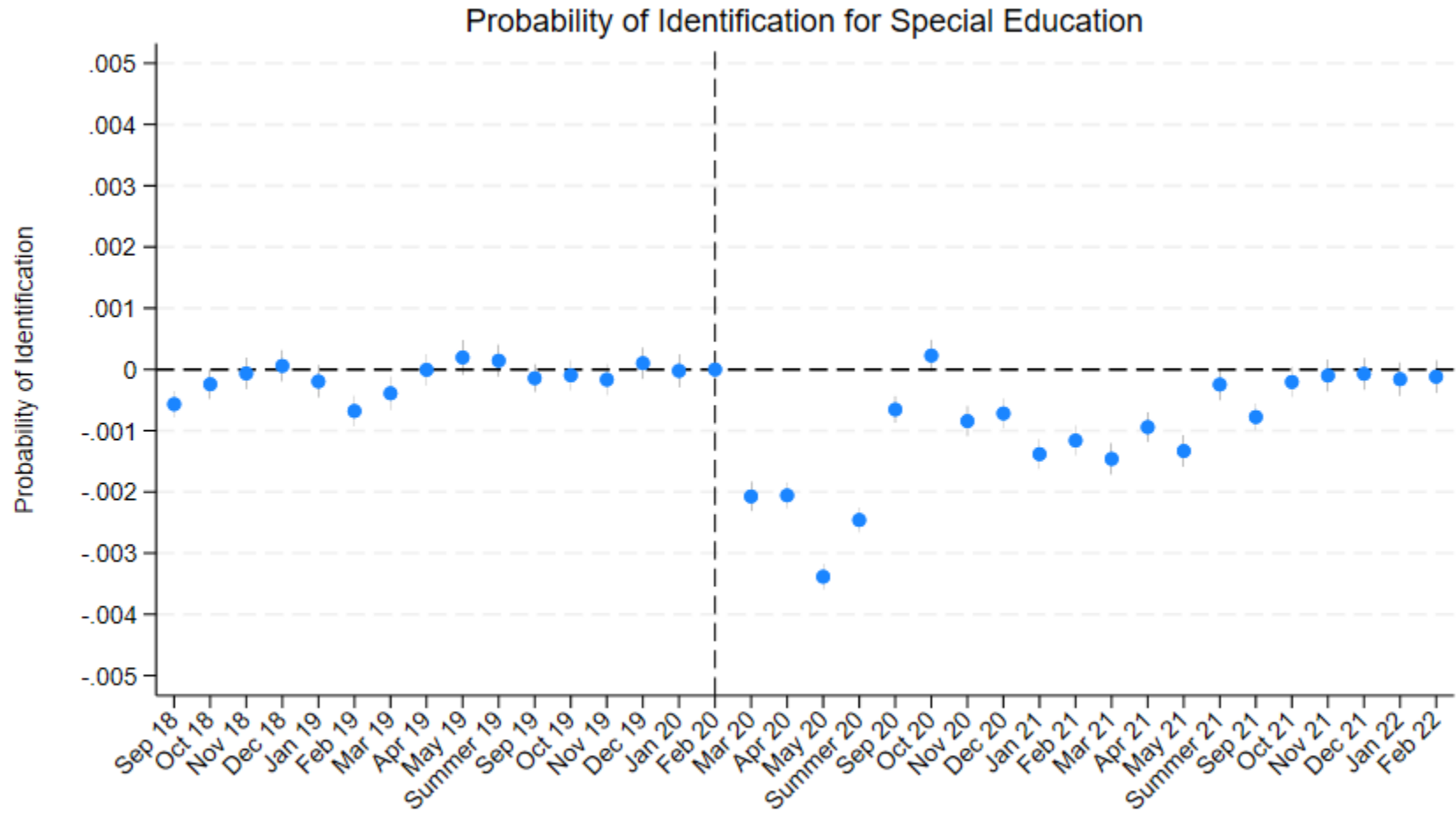


Figure 2. Monthly special education identification rates relative to pre-period (2010–11 through 2017–18) levels



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:

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

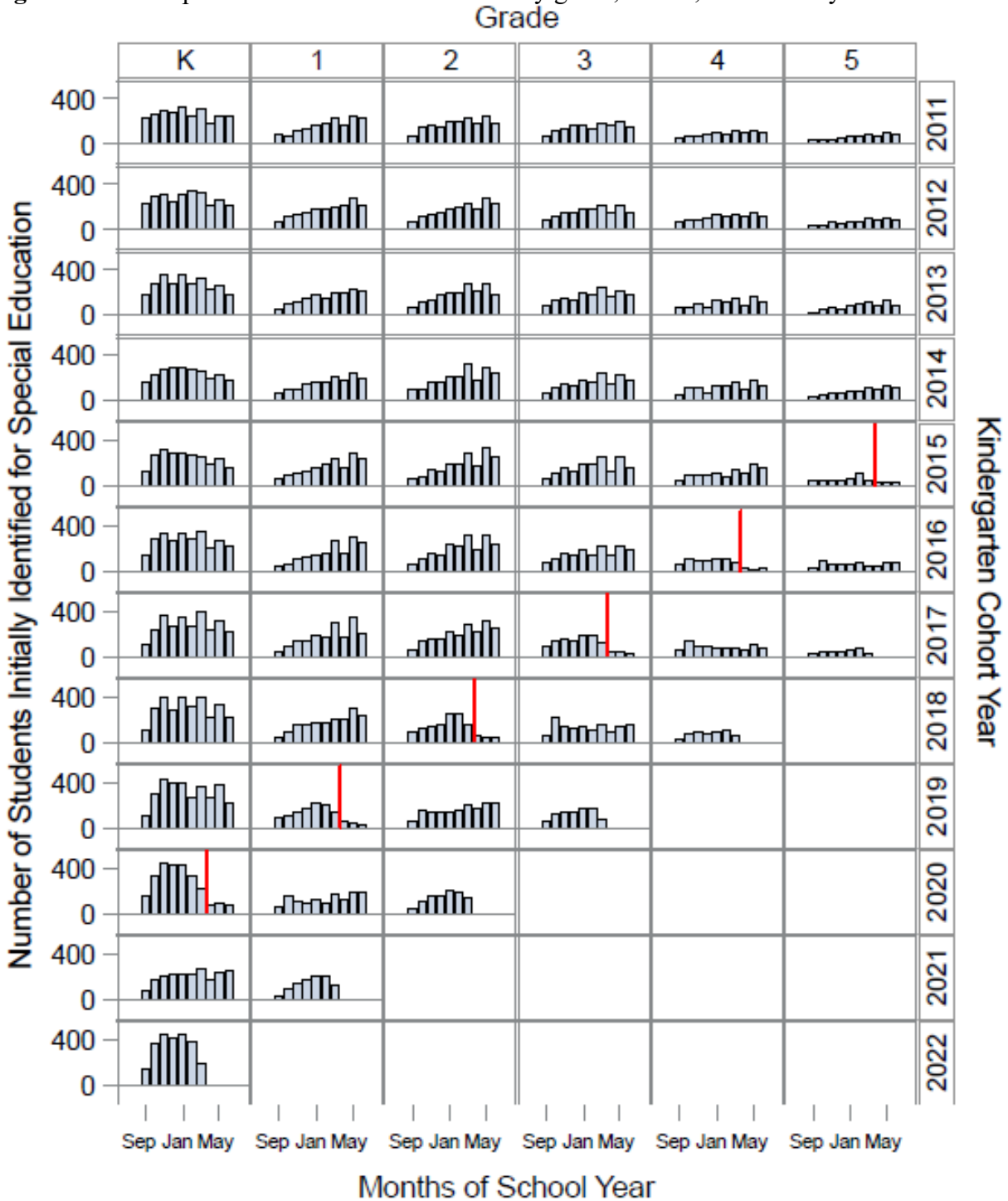
We then create residualized placement rates for each school, district, and month since 2018–19, $R_{sdmgy} = P_{sdmgy} - \hat{P}_{sdmgy}$, where \hat{P}_{sdmgy} is the predicted proportion of identified students from the month effects, grade effects, and year time trends estimated from equation 1. We 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

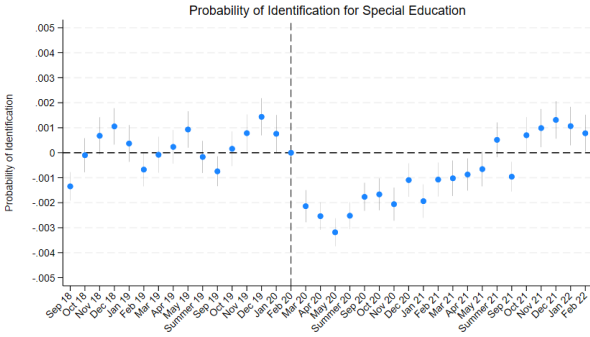
Figure B1. New special education identifications by grade, cohort, and school year



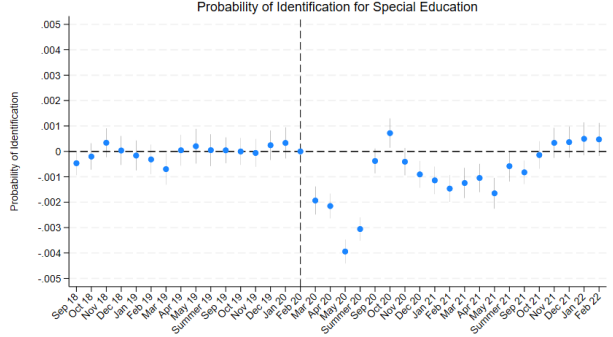
Note. The height of each bar represents the number of students in each cohort (rows) and grade (columns) who initially were identified for special education services in each month. The vertical red line represents the beginning of March 2020 for each cohort.

Figure B2. Heterogeneity by student grade

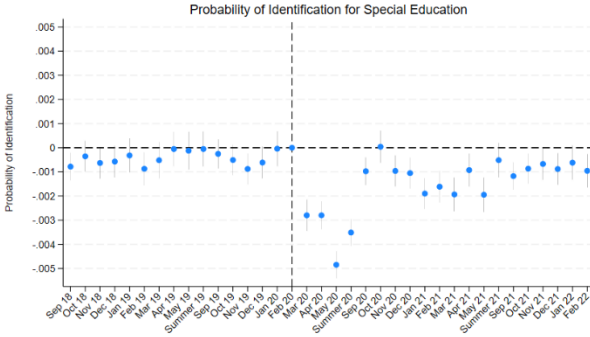
Panel A: Kindergarten



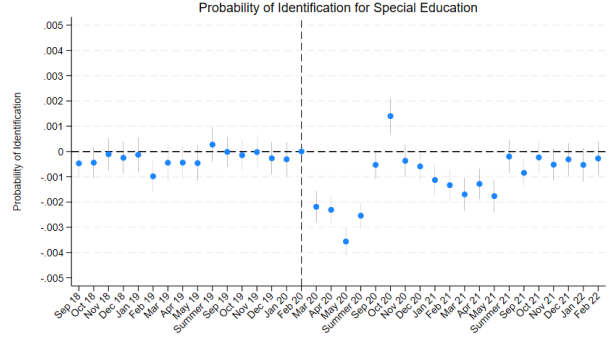
Panel B: 1st grade



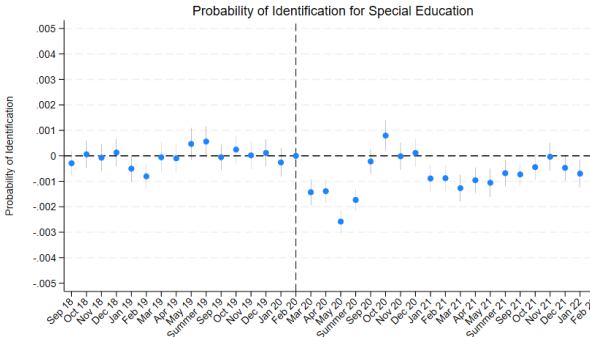
Panel C: 2nd grade



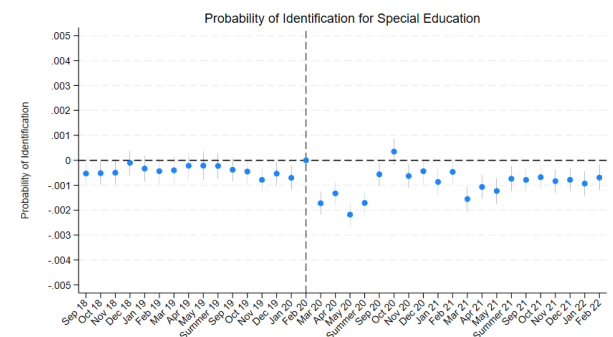
Panel D: 3rd grade



Panel E: 4th grade

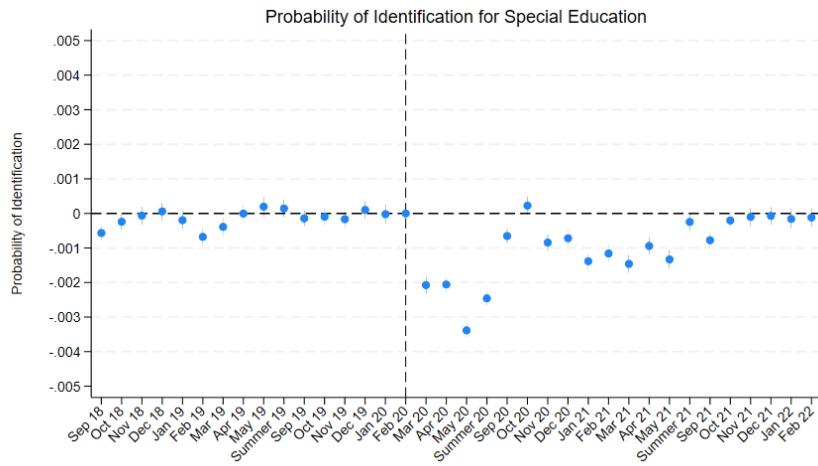


Panel F: 5th grade

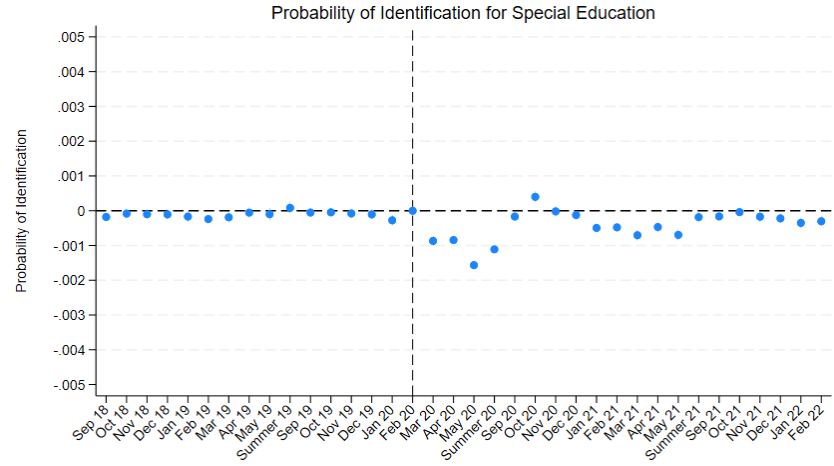


Appendix Figure B3. Heterogeneity by student disability category

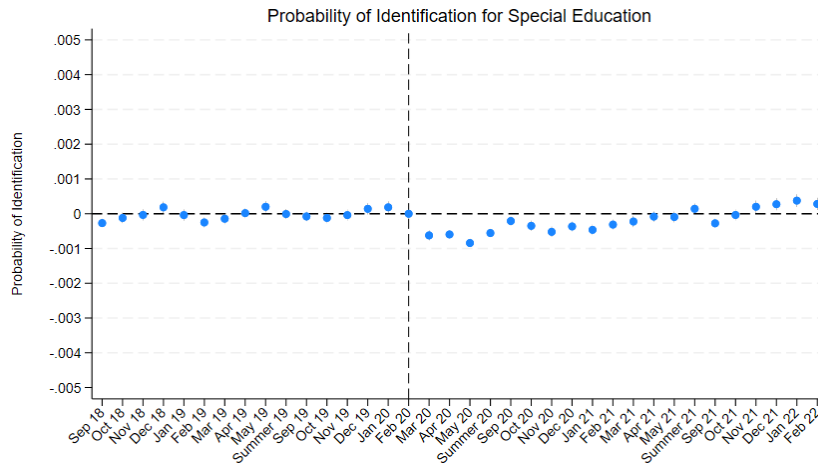
Panel A. All categories



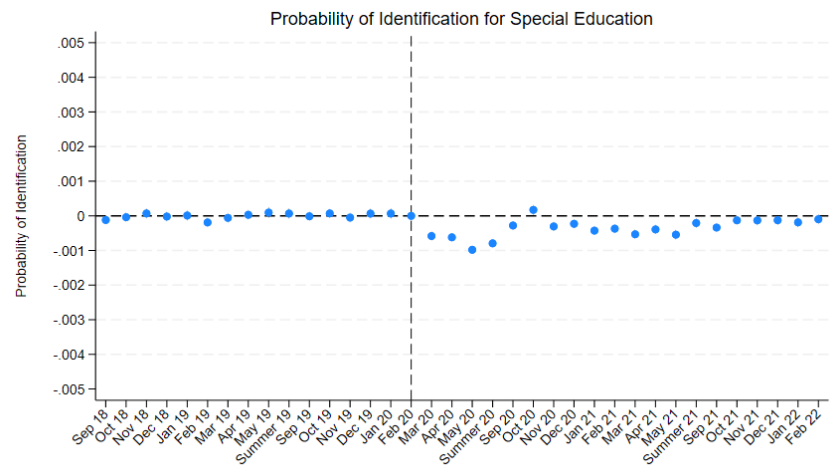
Panel B. Specific learning disability



Panel C. Speech or language impairment

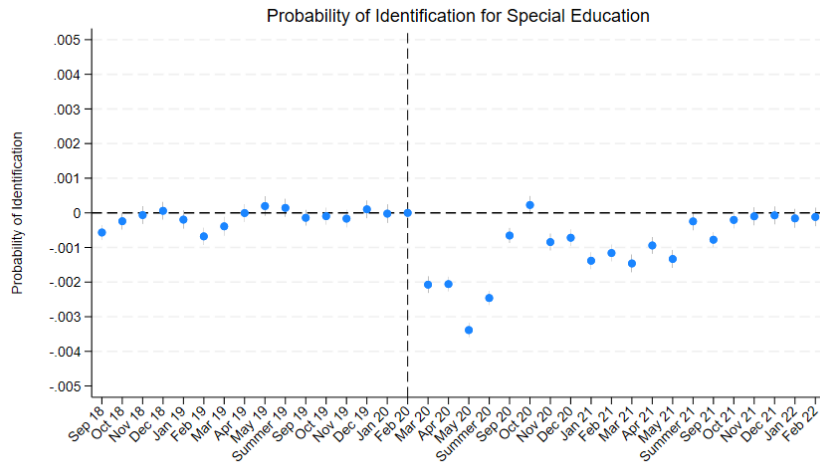


Panel D. All other disability categories

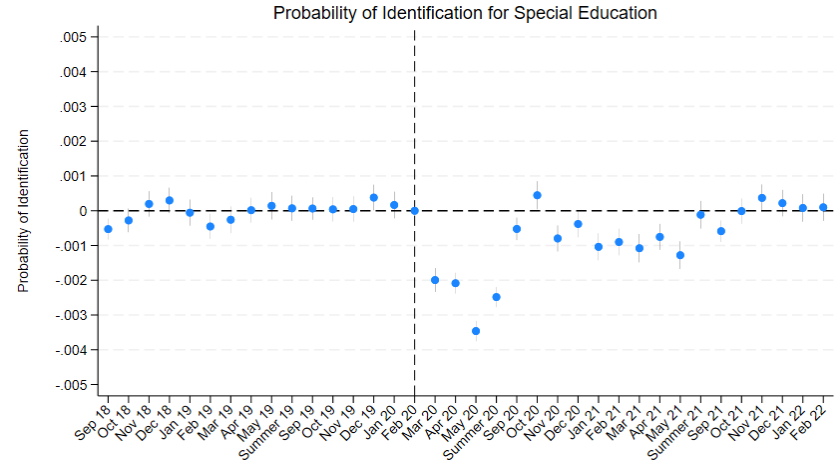


Appendix Figure B4. Heterogeneity by student race and ethnicity

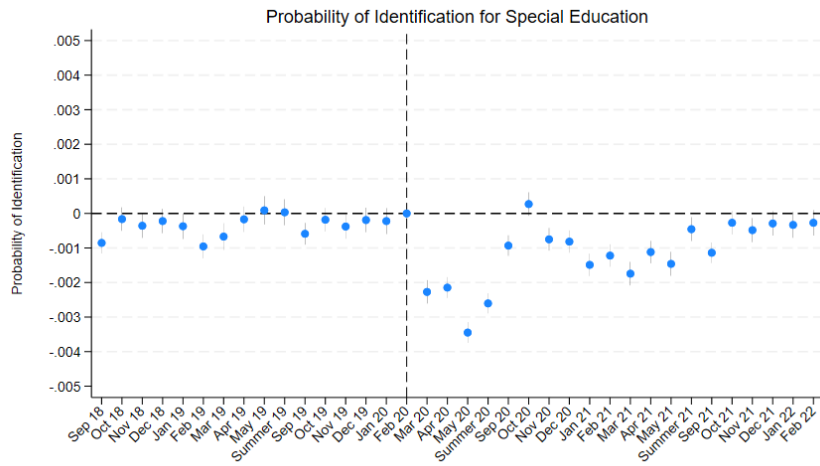
Panel A. All students



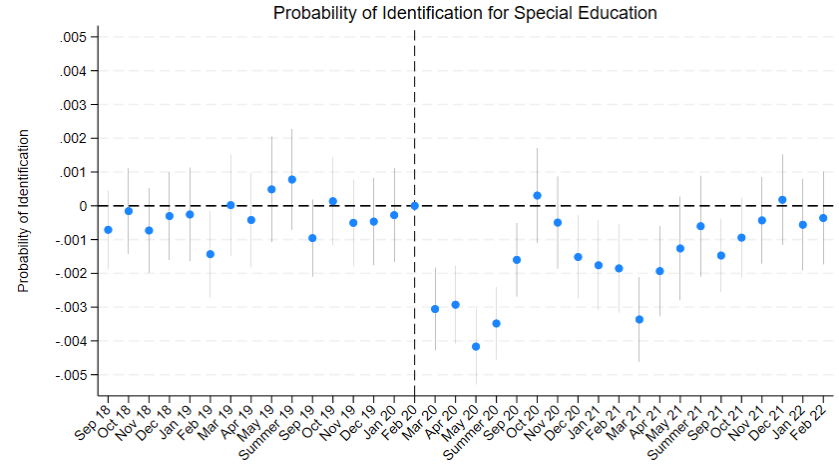
Panel B. White students



Panel C. Students of color

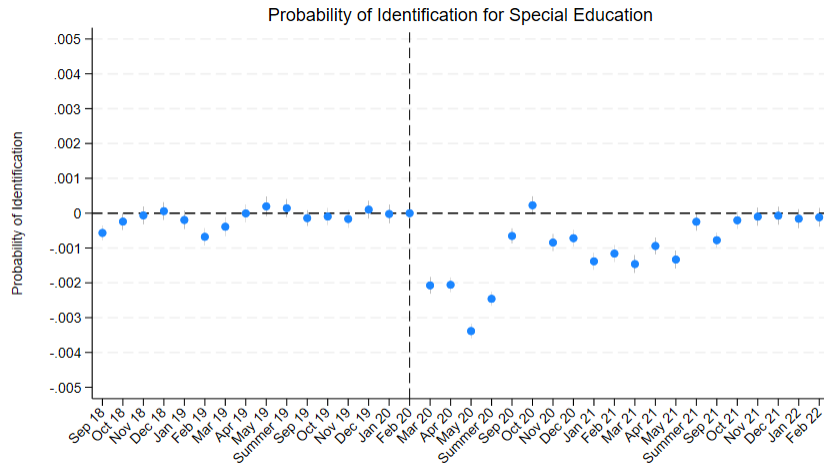


Panel D. Black students

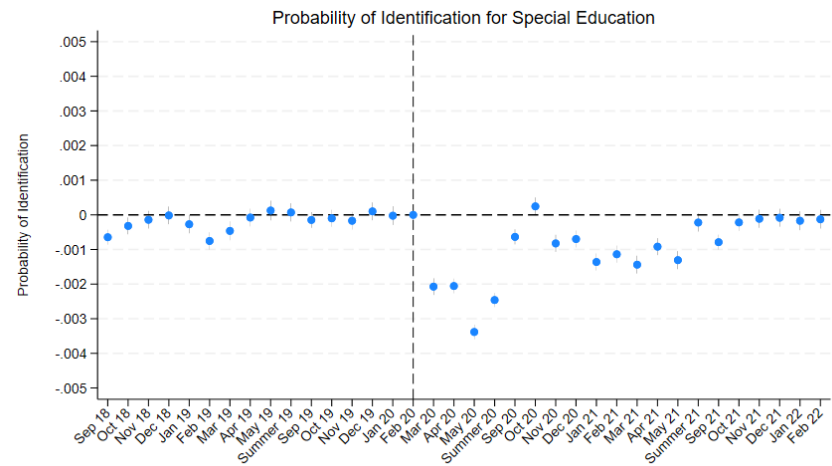


Appendix Figure B5. Model specification check

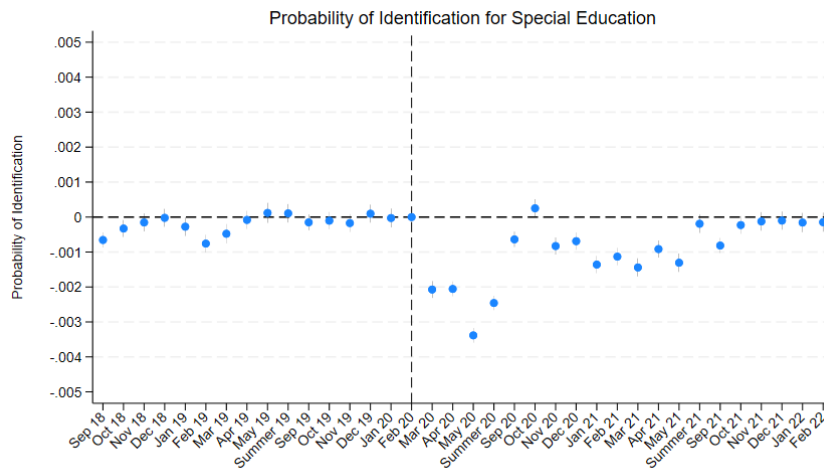
Panel A. No controls



Panel B. Controls for student demographics and other programs



Panel C. Student controls and district fixed effects



Panel D. Student controls and school fixed effects

