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Lessons from United States school district policies and approaches to special education during the COVID-19 pandemic

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ABSTRACT

The COVID-19 pandemic resulted in many school districts in countries around the world transitioning rapidly to partial or complete remote learning. These disruptions affected all children's education, but students with disabilities (SWDs) were particularly at-risk because of the challenges of providing accessible support and services through remote teaching programmes. We examine the experience of SWDs in 24 United States school districts of instructional and adaptation models between August 2020 and February 2021. Districts varied in their approaches to remote instruction, compensatory services and prioritising SWDs for returning to the classroom before other students. Districts also varied substantially in the information provided regarding Distance Learning Plans, changes to Individualised Education Programmes and related service delivery. This analysis underscores the need for minimal standards for meeting the educational needs of SWDs during school closures as well as for disseminating good practices on minimising the effects of disruptions in future public health crises. These results have implications for existing practices and future research in the U.S. and other countries with widely disseminated decision making surrounding educational delivery during crises.

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Introduction

The global pandemic caused by Severe Acute Respiratory Coronavirus 2 (SARS-CoV-2) or the 'COVID-19 pandemic', triggered arguably the 'largest education disruption in history' (Srivastava et al. 2020, 1). In the spring of 2020, schools the world over were closed and ill-prepared administrators, teachers, students and families rapidly transitioned to remote learning (Knopik et al. 2021; Di Pietro et al. 2020). These abrupt changes disproportionately affected at-risk learners, among them, students with disabilities (SWDs) (UNESCO 2020; UNICEF 2020). The United States was no exception (Bakken et al. 2020; Esquivel 2021; Leonhardt 2020; Leone 2020; Mandavilli 2020).

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School closures created significant practical challenges for serving the U.S.' 7.1 million SWDs (CDC 2020; Natanson et al. 2021; U.S. Government Accountability Office [GAO] 2021; Jackson and Bowdon 2020; Stein and Strauss 2020). Many SWDs lost access to educational or healthcare services (Jeste et al. 2020; Murphy et al. 2021; Neece, McIntyre, and Fenning 2020; Kamenetz 2020). Some school districts asked parents to waive their children's educational rights under U.S. federal law (Diament 2021a; Cohen and Richards 2020), paused evaluations for special education services (Bamberger et al. 2020) or prevented teachers from delivering individualised instruction (Diament 2021b).

Notwithstanding the practical challenges posed by the pandemic, school districts were obligated under U.S. federal law to provide special education and related services to eligible SWDs (DOE 2020; Jameson et al. 2020) – obligations that most state education agencies' guidance reinforced (Reich et al. 2020). With the start of the 2020–2021 school year, many states allowed school districts to completely or partially reopen despite ongoing COVID-19 transmission. In order to grapple with the novel challenge of balancing the educational and developmental consequences of restricting in-person services with the real and perceived health risks to resuming in-person services for teachers, staff, students and their families, school districts devised and published plans for adapting special education and related services, many of which varied widely (Taylor 2021; Calfas 2021; Issa 2021; King 2021; Platoff 2020).

The implications of U.S. school districts' diverse adaptation plans during the COVID-19 pandemic have been underexplored, despite the outsized risk to SWDs of restricted in-person services. Indeed, research on SWDs both in and outside the United States has generally focused on individual stakeholders' experiences of in-person service disruptions, including SWDs (see, for example, Asbury et al. 2021; Steed et al. 2021; Wendel et al., 2020), parents (see, for example, Embregts et al. 2021; Gabdrakhmanova, Turetayeva, and Doszhanova 2020; Rogers et al. 2021) and special educators (see, for example. Frederick et al. 2020; Parmigiani et al. 2021; Yakut 2021). Although the U.S. General Accountability Office (2021)) examined a sample of 15 school districts, they only examined modifying SWDs' individualised education programmes (IEPs) and conducting required annual IEP meetings virtually, but did not review the full range of adaptations. Consequently, the literature offers limited insights into which pandemic strategies for educating SWDs school districts commonly used and whether similarly situated districts responded similarly.

As a first step towards understanding the full scope of school districts' response to the COVID-19 crisis, this study examines the full range of approaches employed by a demographically, socioeconomically and geographically diverse sample of U.S. school districts during 2020–2021. We then go on to discuss the implications of the findings for the U.S. and other countries with widely disseminated decision making in their educational systems.

Methods

Sample districts

U.S. Census Bureau data were used to identify school districts that varied by size and per pupil spending (U.S. Census Bureau 2020; 2019). From these lists, we selected the five

districts with the highest enrolment, five districts with just over one hundred 5-to-17-year-old children (low enrolment), five districts with the highest per pupil spending and five districts with the lowest per pupil spending. One school district was both one of the five districts with the highest enrolment and the five districts with the highest per pupil spending; it was included in both groups but only counted once in subsequent analysis. To examine the influence of SARS-CoV-2 spread, two school districts were chosen from the two states with the highest and the two states with the lowest COVID-19 case rates per 100,000 persons based on Centres for Disease Control and Prevention (CDC 2021) data. Last, the local district of this project's funder was included.[1] Overall, 24 districts from 18 states are included: four from the United States' Northeast region, four from the Midwest, six from the South and ten from the West (U.S. Census Bureau 2010).

Data collection

Publicly available district websites were reviewed for information on adaptations to special education and related services in place between the start of the 2020–2021 school year and the end of February 2021. To provide context and to guide the review of districts' plans, a group of advisors representing key stakeholders within special education – including occupational and physical therapists, speech-language pathologists, special educators, psychologists, parents, advocates and attorneys – were consulted in designing the research questions (Advisory Committee 2021). English-language information was extracted from publicly available school district adaptation plans for the 2020–2021 school year between 4 February and 3 March 2021, and a coding framework was developed to categorise these plans. Webpages that provided district news were also reviewed to ensure that any changes related to districts' adaptation plans were included in our review. The study was deemed exempt by the University of California, Los Angeles (UCLA) Institutional Review Board at the UCLA Office of the Human Research Protection Programme on 30 November 2020.

Coding and analysis

Information about school districts' adaptations for SWDs were systematically reviewed for the approaches taken to service delivery including instruction, related services, changes to IEPs,[2] distance learning plans (DLPs),[3] special education eligibility evaluations, efforts to find eligible children with disabilities[4] and compensatory services schemes.[5]

All district adaptation plans employed between August/September 2020 and February 2021 were coded. School-specific plans were not coded. Where districts did not expressly specify a plan's end date, evidence of a new plan was considered the previous plan's end date. However, transitional periods that lasted less than three weeks, such as gradual reintroduction of certain students to in-person learning, were generally not coded as discrete plans.[6]

To determine whether school districts prioritised SWDs for in-person services (if these were not available to all students), we considered whether in-person services for

SWDs resumed while remaining remote-only for other groups or whether districts offered more days of in-person services to SWDs than other groups.

To assess districts' efforts to support SWDs during remote instruction, an adaptation scale was created to answer the following questions:

1. For districts that resumed some in-person instruction, were SWDs prioritised?
2. Did districts provide information on compensatory services?
3. Did districts modify IEPs for remote learning or institute individualised DLPs?

For this project, we pulled school districts based on demographic characteristics that may have affected their adaptation plans, such as size, resources and COVID spread. In an effort to address another factor that may have contributed to instructional model changes and adaptations, we also pulled the political affiliation of the state governor for each school district. This additional data point allowed us to compare the adaptations of districts with different state governor political affiliations.

Results

After an initial review of the data collected, we categorised districts' diverse approaches into seven types of plans. We organised these approaches by whether and how students were offered in-person instruction, starting with no students offered in-person instruction (Plan 1) and ending with all students learning in-person five days each week (Plan 7). We defined hybrid programmes as those where at least some students chose to spend at least one day of the week learning in-person (Plans 2 through 6).

We discerned five types of hybrid programmes that were distinguishable based on whether students could choose to learn in person either some or all days of the week and whether this choice was available to some or all students. We describe hybrid programmes that only allowed students to choose some days of in-person learning as 'partial hybrid' programmes (Plans 2 and 4) and programmes that allowed students to choose between full-time in-person and remote learning as 'binary hybrid' programmes (Plans 5 and 6). Plan 3 offered both a 'partial hybrid' option to some students and a 'binary hybrid' option to others, but neither option to all students. We describe programmes as giving only some or all students these choices as either 'for some' or 'for all' programmes. The 'for some' hybrid programmes varied in which groups of students they allowed to choose in-person learning. All five hybrid programmes allowed all students to choose full-time remote instruction.

A summary of the full spectrum of approaches follows:

1. *Remote-only*: All students learn remotely five days per week.
2. *Partial hybrid for some*: Some students have the option to learn in-person for less than five days per week, while all other students learn remotely for five days per week.
3. *Partial hybrid for some, binary hybrid for others*: Some students have the option to learn in person for less than five days per week, other students may choose to learn in person for up to five days in-person, while all other students learn remotely for five days each week.

4. *Partial hybrid for all*: All students have the option to learn in person for less than five days per week.
5. *Binary hybrid for some*: Some students have the option to learn in-person five days per week, while all other students learn remotely for five days per week.
6. *Binary hybrid for all*: All students have the option to learn in-person five days per week.
7. *In-person only*: All students learn in-person five days per week.

Extent of remote services

Special education and related services delivery adaptation plans were not constant throughout the study period; rather, they varied over time. Twenty-four school districts used 44 plans between August 2020 and the end of February 2021. Eleven districts used the same plan throughout this period, while 13 districts changed plans from one to three times during the same period. Among the latter 13 districts, most of the changes trended from initially more remote approaches towards greater in-person offerings (Table 1). Three districts provided only remote instruction for the entire study period (Plan 1), while two districts provided only in-person instruction throughout (Plan 7).

Instruction

The two most frequently used plans were Plan 1 (remote-only), which was used by 11 districts, and Plan 4 (partial hybrid for all), used by eight districts. Twelve school districts provided partial hybrid instruction for some or all students at some point during the study period (Plans 2, 3 and 4).

The number of time districts offered exclusively remote services (Plan 1) ranged from 0 to 6 or more months. In all, six districts served SWDs exclusively remotely for five months or more, while two did so for between two and five months, and three for under two months. Thirteen districts (54%) never offered remote services exclusively. On average, high enrolment districts and districts with high spending per pupil relied on remote services for longer than low enrolment and low per pupil spending districts (Table 1). Indeed, enrolment and per pupil spending more correlated with the number of time districts used Plan 1 than community COVID-19 case rates. For example, COVID high 1 and 2 districts gave all students the option to be in-person five days each week while experiencing high COVID case rates. In contrast, the COVID low 1 district started by offering remote learning only, despite having low COVID case rates.

Related services

Eight of the 11 districts (73%) that used remote-only instruction at some point during the study period exclusively offered physical, occupational and speech therapy services remotely during those times. Two districts provided both in-person and remote related services during remote instruction periods (Table 2). One of them specifically offered physical therapy in-person; the other offered in-person services to students unable to particiapte in their services remotely. In partial hybrid instructional models, five of 12 districts (42%) offered related services both in-person and remotely (Table 3). In one district, parents decided between in-person or remote services, while the whole IEP

Table 1. Evolution of districts' adaptation plans.[a]

	Iteration 1	Iteration 2	Iteration 3	Iteration 4
Enrolment High 1/per Pupil Spending High 1*	Plan 4 (9/16/2020)	Plan 1 (11/19/2020)	Plan 5 (12/7/2020)	
Enrolment High 2	Plan 1 (8/18/2020)			
Enrolment High 3	Plan 1 (8/31/2020)	Plan 6 (10/5/2020)		
Enrolment High 4	Plan 1 (9/8/2020)	Plan 5 (1/11/2021)	Plan 1 (1/27/2021)	Plan 5 (2/11/2021)
Enrolment High 5	Plan 1 (8/24/2020)			
Enrolment Low 1	Plan 7 (8/19/2020)			
Enrolment Low 2	Plan 7 (8/12/2020)			
Enrolment Low 3	Plan 2 (8/12/2020)	Plan 4 (2/8/2021)		
Enrolment Low 4	Plan 6 (8/17/2020)			
Enrolment Low 5	Plan 6 (8/10/2020)	Plan 7 (10/12/2020)		
Per Pupil Spending High 2	Plan 2a[b] (9/21/2020)	Plan 1 (10/22/2020)	Plan 2b (12/4/2020)	Plan 2c (2/1/2021)
Per Pupil Spending High 3	Plan 1 (8/24/2020)	Plan 4 (1/25/2021)		
Per Pupil Spending High 4	Plan 1 (8/31/2020)			
Per Pupil Spending High 5	Plan 1 (9/8/2020)	Plan 2 (11/9/2020)		
Per Pupil Spending Low 1	Plan 6 (8/18/2020)	Plan 3 (10/20/2020)		
Per Pupil Spending Low 2	Plan 4 (8/25/2020)			
Per Pupil Spending Low 3	Plan 4a (8/25/2020)	Plan 4b (9/28/2020)	Plan 4c (11/2/2020)	
Per Pupil Spending Low 4	Plan 1 (8/4/2020)	Plan 4 (9/14/2020)	Plan 6 (10/12/2020)	
Per Pupil Spending Low 5	Plan 4 (8/24/2020)			
COVID High 1	Plan 6 (8/20/2020)			
COVID High 2	Plan 6 (8/27/2020)			
COVID Low 1	Plan 1 (8/17/2020)	Plan 3 (10/12/2020)		
COVID Low 2	Plan 4a (9/10/2020)	Plan 4b (10/13/2020)		
Local District 1	Plan 6 (9/10/2020)			

[a]Dates included in this table are the indicated start date for each plan.
[b]The letters 'a', 'b' and 'c' refer to the first, second and third use of the same type of plan when these plans take different forms in subsequent iterations. The details for each plan were coded.
*One district was both in the top five school districts in the country for enrolment and in the top five school districts in the country for per pupil spending. Its results are reported in a single line.

team decided in two districts. In the remaining two districts it was unclear how these decisions were made.

Out of the 12 districts that offered optional or mandatory 5-day in-person instruction for some or all students (Plans 3, 5, 6 and 7), three districts offered both in-person and remote services, despite the opportunity to learn in-person five days a week. In one

Table 2. Service delivery for districts that offered remote-only instruction (Plan 1).

District	Insufficient information	In-person	Remote	Both	Decision-making (when 'both' service models are offered)
Enrolment High 1/Per Pupil Spending High 1*			✓		
Enrolment High 2				✓	They may offer in-person services when it is decided that the student will be unable to participate in the service remotely.
Enrolment High 3			✓		
Enrolment High 4			✓		
Enrolment High 5			✓		
Per Pupil Spending High 2	✓				
Per Pupil Spending High 3			✓		
Per Pupil Spending High 4			✓		
Per Pupil Spending High 5			✓		
Per Pupil Spending Low 4				✓	Remote for Speech and OT. PT is in-person.
COVID Low 1			✓		

*One district was both in the top five school districts in the country for enrolment and in the top five school districts in the country for per pupil spending. Its results are reported in a single line.

Table 3. Service delivery for districts with partial hybrid programmes (Plans 2, 3 and 4).

District	Insufficient information	In-person	Remote	Both	Decision-making (when 'both' service models are offered)
Enrolment High 1/Per Pupil Spending High 1*				✓	Parents will have the opportunity to share their preference for in-person or remote services.
Enrolment Low 3	✓				
Per Pupil Spending High 2	✓				
Per Pupil Spending High 3		✓			
Per Pupil Spending High 5				✓	When district switches to partial hybrid (some students in-person some days), remote and in-person will be used. No information provided on how the selection between remote and in-person will be decided.
Per Pupil Spending Low 1				✓	Multiple options will be given to IEP teams. This may include both remote and in-person services.
Per Pupil Spending Low 2				✓	In-person services four days per week and services could be remote or in-person on Fridays. No information provided on how the selection between remote and in-person will be decided.
Per Pupil Spending Low 3	✓				
Per Pupil Spending Low 4		✓			The in-person service provision is specifically listed for Speech and OT.
Per Pupil Spending Low 5	✓				
COVID Low 1	✓				
COVID Low 2				✓	Student teams and families should collaborate to determine the mode of service delivery for SWDs.

*One district was both in the top five school districts in the country for enrolment and in the top five school districts in the country for per pupil spending. Its results are reported in a single line.

district, IEP teams decided between remote or in-person services. Another district made the determination based on a COVID-19 mitigation strategy of grouping students with a service provider. Students who were not part of this group of students were provided remote services to prevent exposure.

Nineteen districts gave students the option to be fully remote. Within this group, seven districts (39%) provided related services remotely. Two districts offered both in-person and remote services, while one allowed IEP teams to choose between methods of service provision.

Evaluations

Nine of 17 districts provided information for conducting evaluations during remote or partial hybrid instructional models. One low per pupil spending district exclusively conducted in-person evaluations while providing remote instruction. Six other districts (67%) planned to conduct both in-person and remote evaluations, while the remaining two districts utilised remote assessments. These six districts specified which kinds of evaluations would be in-person, including initial assessments, psychologist determinations and tests requiring in-person validation. Four out of the five districts providing hybrid instruction committed to both in-person and remote evaluations. Four districts' plans described their 'child find' obligations within remote and partially hybrid instructional models, with three of them providing information on making evaluation referrals.

Adaptations

Every district offering remote-only instruction for some portion of the study period (n = 11) described at least one kind of adaptation to support remote instruction or services for SWDs. Districts' plans indicate three broad kinds of adaptations: providing compensatory services; either modifying goals and accommodations in IEP documents or adopting individualised DLPs; and prioritising SWDs for in-person education within hybrid instructional models (Table 4). Although districts varied substantially in which adaptations they provided, districts with $\geq$ 3 months of remote educational instruction were more likely (50% with two or more adaptations) to describe their adaptations than those districts with $\leq$ 2 months of only remote educational instruction (25% with two or more adaptations). Among the six districts with $\geq$ 5 months of exclusively remote services (Plan 1), all but the per pupil spending high 2 districts either created DLPs, modified IEPs, or both to account for remote learning.

Compensatory services

Only two of the six districts (33%) that were exclusively remote for at least five months included compensatory services in their published plans (Table 5). Among the five districts that offered 1–4 months of exclusively remote services, four (80%) implemented either or both IEP modifications and/or DLPs and four (80%) offered compensatory services. All four districts that provided only remote education for between one and three months offered compensatory services. One district with zero months of remote-only instruction also included information about compensatory services.

The provision of compensatory services and the failure to provide compensatory services occurred in both Democrat-led and Republican-led states. Of those six districts that were exclusively remote for at least five months, three are located in Republican-

Table 4. Adaptations to compensate for changes in learning environment.

	Prioritisation of SWDs within hybrid models	Compensatory services	IEP changes or DLPs	Adaptations (criteria satisfied/total possible)
Enrolment High 1/Per Pupil Spending High 1*	Always	—	Yes	2/3
Enrolment High 2	N/A	—	Yes	1/2
Enrolment High 3	N/A	Yes	Yes	2/2
Enrolment High 4	Always	Yes	Yes	3/3
Enrolment High 5	N/A	—	Yes	1/2
Enrolment Low 1	N/A	—	—	0/2
Enrolment Low 2	N/A	—	—	0/2
Enrolment Low 3	Some	—	—	1/3
Enrolment Low 4	N/A	—	—	0/2
Enrolment Low 5	N/A	—	—	0/2
Per Pupil Spending High 2	Always	—	—	1/3
Per Pupil Spending High 3	Always	Yes	Yes	3/3
Per Pupil Spending High 4	N/A	—	Yes	1/2
Per Pupil Spending High 5	Always	Yes	Yes	3/3
Per Pupil Spending Low 1	Never	—	Yes	1/3
Per Pupil Spending Low 2	Never	—	Yes	1/3
Per Pupil Spending Low 3	Never	—	Yes	1/3
Per Pupil Spending Low 4	Never	Yes	—	1/3
Per Pupil Spending Low 5	Never	—	—	0/3
COVID High 1	N/A	—	—	0/2
COVID High 2	N/A	Yes	Yes	2/2
COVID Low 1	Always	Yes	Yes	3/3
COVID Low 2	Always	—	Yes	2/3
Local District 1	N/A	—	—	0/2

*One district was both in the top five school districts in the country for enrolment and in the top five school districts in the country for per pupil spending. Its results are reported in a single line.

governed states and three are located in Democrat-governed states. The two districts that were remote for >5 months and offering compensatory services are each from states with governors with different political affiliations. Furthermore, of the four districts that provided remote-only education for 1–3 months and offered compensatory services, three had Republican governors and one had a Democrat governor.

IEP changes and distance learning plans

Nine of the 11 districts that at some point offered remote-only services implemented IEP changes or a DLP. Six of the seven districts (86%) that were remote for ≥3 months implemented a DLP or changes to the IEP, while only eight of the 17 districts (47%) that were remote for <3 months did so. One low per pupil spending district that allowed in-person learning for all students throughout the study period also instituted a DLP (Table 5). Five of the eight districts described parent collaboration and input in developing DLPs. Two of the remaining three described parental reviews of DLPs.

There were Republican-led and Democrat-led states both among the school systems that adapted SWDs education plans and among the school systems that failed to do so. A total of 14 districts modified IEPs or wrote DLPs, nine of which had Republican governors and five of which had Democrat governors. Of the 10 school districts who did not modifyIEPs or adopt DLPs, seven school districts were under Republican governors as of Fall 2020 and three districts were under Democrat governors.[7]

Table 5. Extent of remote education and adaptation by political party.

District	Political affiliation of state's governor	Months of remote-only instruction for all SWDs	Compensatory services	IEP modifications	DLPs
Enrolment High 1/Per Pupil Spending High 1*	Democrat	3+ months	No	No	Yes
Enrolment High 2	Democrat	6+ months	No	Add a Distance Learning Plan.	Yes
Enrolment High 3	Republican	1 month	Yes	Add a Distance Learning Plan.	Yes
Enrolment High 4	Democrat	6+ months	Yes	Add a Distance Learning Plan.	Yes
Enrolment High 5	Democrat	6+ months	No	Change accommodations and IEP goals. If the IEP cannot be provided as written, the team may propose a change.	No
Enrolment Low 1	Democrat – Republican starting January 2021	0 months	No	No	No
Enrolment Low 2	Republican	0 months	No	No	No
Enrolment Low 3	Democrat	0 months	No	No	No
Enrolment Low 4	Republican	0 months	No	No	No
Enrolment Low 5	Republican	0 months	No	No	No
Per Pupil Spending High 2	Republican	5 months	No	No	No
Per Pupil Spending High 3	Republican	5 months	Yes	No	Yes
Per Pupil Spending High 4	Republican	6 months	No	Add a Distance Learning Plan for goals, aids, services, accommodations, service delivery and time and frequency of services.	Yes
Per Pupil Spending High 5	Republican	2+ months	Yes	If the IEP cannot be provided as written, the team may propose a change.	No
Per Pupil Spending Low 1	Republican	0 months	No	IEP teams will meet to decide when and where instruction will be provided, the behavioural and academic support provided and the accommodations and modifications.	No
Per Pupil Spending Low 2	Republican	0 months	No	Add a Distance Learning Plan.	Yes
Per Pupil Spending Low 3	Republican	0 months	No	IEP teams will meet to decide how to provide services.	No
Per Pupil Spending Low 4	Republican	1 month	Yes	No	No
Per Pupil Spending Low 5	Republican	0 months	No	No	No

(*Continued*)

Table 5. Continued.

District	Political affiliation of state's governor	Months of remote-only instruction for all SWDs	Compensatory services	IEP modifications	DLPs
COVID High 1	Republican	0 months	No	No	No
COVID High 2	Republican	0 months	Yes	Add an amendment to describe any necessary new accommodations.	No
COVID Low 1	Democrat	1.5 months	Yes	Change accommodations or modifications. Changes should be made according to student needs and not the instructional models.	Yes
COVID Low 2	Republican	0 months	No	Teams will write IEPs and services according to student needs, schools' schedules and IEP goals. For virtual school, accommodations and specialised instruction will be designed for remote instruction.	No
Local 1	Democrat	0 months	No	No	No

*One district was both in the top five school districts in the country for enrolment and in the top five school districts in the country for per pupil spending. Its results are reported in a single line.

Prioritisation within hybrid programmes

Among the seven districts that provided some students with in-person learning for some or all days each week (Plans 2, 3 and 5), six (85%) prioritised SWDs (Table 6). Prioritisation generally involved allowing SWDs to have more days of in-person learning than their peers. Of the six districts that prioritised SWDs for in-person learning, two allowed SWDs to receive in-person learning alongside some of their peers. Among the eight districts that allowed all students to receive some in-person instruction (Plan 4), three (38%) prioritised SWDs. Two districts prioritised SWDs returning to the classroom 7 or 8 days before other students were allowed to do so.

Discussion

The findings of this analysis of the response to the pandemic of 24 geographically and demographically diverse U.S. school districts are striking. In nearly every district, the ability to provide equal quality and fully inclusive education for SWDs was challenged during the pandemic. Nonetheless, all but one of the districts that provided either remote-only or hybrid services for at least a portion of the study period made adaptations for SWDs. However, the extent of remote teaching and the degree of adaptation for SWDs varied markedly, raising important policy questions for the U.S. and other countries with subnational decision making about education.

In the U.S. districts we studied, we found that adaptations were not necessarily linked to available resources. One low per pupil spending district was remote during the entire study period and provided for compensatory services, while a per pupil spending high district made none despite being remote. Of the four low per pupil spending districts that remained open for at least some days the entire study period, three made changes to the IEPs or wrote DLPs. By contrast, all five high per pupil spending districts were remote for two or more months but not all changed IEPs or wrote DLPs. Furthermore, district adaptations cannot be directly linked to state governor political affiliation.

Table 6. Prioritisation of SWDs in 'For Some' hybrid programmes (Plans 2, 3 and 5).

District	Plan iteration prioritised some students in instructional model choices	Prioritisation of SWDs in hybrid models	Option for # of days in-person	Prioritised how?	Inclusive reopening?
Enrolment High 1/Per Pupil Spending High 1*	Plan 5 (2+ months): Yes	Always	Plan 5: 5 days	Plan 5a: Students in special education programmes and students grades Pre-K-5 are given the option for 5days in-person.	Plan 5: Students in special education programmes return to in-person school with primary grades.
Enrolment High 4	Plan 5 (1+ months): Yes	Always	Plan 5: 5 days	Plan 5: SWDs who are in special day class programmes and pre-K students have option for 5 days in-person.	Plan 5: Students K-12 in special day class programmes can be on campus more days each week with pre-K students.
Enrolment Low 3	Plan 2 (4+ months): Yes	Always	Plan 2: Some days	Plan 2: Students in special education and those in grades K-3 have option for some days in-person with an assured 5:1 student to teacher ratio.	Plan 2: Students in special education programmes return to in-person school some days with primary grades.
Per Pupil Spending High 2	Plan 2a[a] (3 weeks): Yes	Always	Plan 2a: Some days	Plan 2a: Students who are classified as having greater needs which includes those without housing, those who are being cared for by the Dept. of Children and Families, those in special education schools, students in programmes for English language learners and SWDs who have specific needs, among others, have option for some days in-person.	Plan 2a: Multiple student groups are in-person.
	Plan 2b (1.5 months): Yes		Plan 2b: Some days	Plan 2b: Students with specific disabilities, those who require assistance with language and students in special education schools have option for some days in-person.	Plan 2b: Only students with specific disabilities. are in-person some days.
	Plan 2c (3 weeks): Yes		Plan 2c: Some days	Plan 2c: Students who are classified as having greater needs which includes those without housing, those who are being cared for by the Dept. of Children and Families, students in programmes for English language learners, students noted by their Student Support Team for in-person instruction and those whose	Plan 2c: Multiple student groups are in-person.

(*Continued*)

Table 6. Continued.

District	Plan iteration prioritised some students in instructional model choices	Prioritisation of SWDs in hybrid models	Option for # of days in-person	Prioritised how?	Inclusive reopening?
				formal education has been limited have the option for some days in-person. This also includes SWDs in special day class programmes, SWDs who have high needs and are in inclusion classrooms, and those in special education schools. These groups have the option for some days in-person, as well as students with specific disabilities and those who require assistancewith langauge.	
Per Pupil Spending High 5	Plan 2 (2+ months): Yes	Always	Plan 2: Some days	Plan 2: Students in four special education schools, and students who are classified as having greater needs (younger students, SWDs, students without housing, English learners, and students who are unable to participate remotely with consistency) from 27 schools have the option for some days in-person.	Plan 2: Multiple student groups have access to in-person instruction.
Per Pupil Spending Low 1	Plan 3 (4+ months): Yes	Never	Plan 3: Five days for elementary and some days for secondary	Plan 3: Students in primary can attend five days per week.	Plan 3: All primary students are in-person.
COVID Low 1	Plan 3 (4+ months): Yes	Always	Plan 3: Some days and five days – schools and complex areas make choice	Plan 3: Students withoutinternet access, students in special education, students receiving extra instructional support and students in transition grades may have more options for in-person instruction.	Plan 3: Multiple student groups have greater access to in-person instruction.

[a]The letters 'a', 'b' and 'c' refer to the first, second and third use of the same type of plan when these plans take different forms in subsequent iterations. The details for each plan were coded.
*One district was both in the top five school districts in the country for enrolment and in the top five school districts in the country for per pupil spending. Its results are reported in a single line.

These findings reveal ways that all districts could have responded to meet the needs of SWDs by adapting IEPs and providing compensatory services on return.

Moreover, the findings suggest that it is possible for school districts, across size and income, to prioritise SWDs for return to school. Six of the seven districts (86%) that provided some students' in-person instruction prioritised SWDs.

Districts' approaches to providing specialised services also varied. Three districts continued to offer in-person specialised services for SWDs even when education was remote

or partially hybrid. Moreover, detailed evaluation plans were not in place when switching to remote services.

In the highly disseminated U.S. model, in the absence of clear national guidance, each school district largely charted its own course, lending support to the narrative emerging in the literature (see, for example, Taylor 2021). Of the 17 districts that adopted at least one or more of the adaptation strategies we observed, no two districts used the same balance of adaptations. While decentralised educational decision-making might plausibly have empowered districts to account for local variations in COVID-19 transmission over time, different approaches by similarly placed districts may signal a need for greater national guidance on which public health indicators warrant what kinds of educational responses – and importantly how SWDs can receive quality inclusive education in remote and hybrid, as well as in-person educational models. Indeed, as feared by Advisory Committee members at the study's outset (2021), the lack of clear national standards for navigating the emergency contributed to variable educational experiences faced by similarly placed SWDs. The extent to which other countries with widely disseminated educational policymaking were able to ensure all students nationally received quality inclusive education, and how this was achieved, should be studied.

This study had several limitations. School districts' approaches were analysed based on policy documents available online, which districts may have deviated from in practice.[8] Nevertheless, because these documents reflect the information widely available to parents and students in these districts, they are a useful starting point for understanding districts' plans. Moreover, plan details were corroborated with news articles or district social media posts, where available. A second limitation is that in order to look in detail at the wide range of plans adopted over a six-month period, this study focused on 24 school districts. While the number of school districts was limited, the sample was selected to purposefully include a demographically, geographically, economically and politically diverse set of school districts with varying rates of community COVID-19 transmission. Finally, this study's focus on the U.S. means it primarily has implications for countries with widely disseminated educational decision making, not those with highly centralised decision authority over schools.

Further research is needed to examine the impact of the school closures, limitations on services and variability in adaptations on SWDs across disability types, degrees of inclusion, and gender, age, racial and ethnicity groups. Specifically, research that explores disparate impacts among similarly situated districts that adopted diverse approaches could begin to discern the impacts of districts' adaptation plans. For example, comparative research on student impacts among the high per pupil spending districts may illuminate the impacts of the outlier district's lack of compensatory services, IEP modifications and DLPs. Moreover, research that looks at how the policies had disparate impacts on SWDs across race, gender and class is needed given the existing disparities in the experiences of SWDs from different groups.

Conclusion

Our findings underscore the importance of developing minimum standards for serving SWDs during emergencies that disrupt in-person learning. For example, although four of five high per pupil spending districts introduced adaptations for remote learning, one per

pupil spending high district did not. Additionally, although six of seven districts offering hybrid instruction prioritised SWDs in some way, one per pupil spending low district did not. Barring exceptional factors not identified through this study that might justify outlier districts' approaches, our findings suggest that there are broadly feasible approaches that may be adopted as minimum standards.

Our findings also suggest certain districts were 'strong adapters' compared to their similarly situated peers. These 'strong adapter' districts demonstrated the feasibility of prioritising SWDs for in-person services, modifying IEPs and/or adopting DLPs and ensuring compensatory services were available to SWDs when schools reconvened. However, districts that experienced the longest restrictions on in-person services (6+ months), presumably warranting more adaptations, were not uniformly the strongest adapters. Minimum standards, therefore, might also indicate that the breadth of adaptations be correlated to the duration of in-person service disruptions.

'Strong adapter' school districts' strategies may serve as good practice guideposts. The administrative burdens associated with rapid and uncoordinated development of pandemic responses may have prevented many districts from disseminating good practices and others from absorbing and applying lessons in their local contexts. While many observers have focused on disparate learning loss among SWDs, certain districts' robust adaptations may expand school administrators' and education policymakers' understanding of what is feasible in special education settings.

While this study was limited to U.S. districts, the findings of wide variability in how school districts met the educational and service needs of SWDs during the COVID-19 pandemic likely is applicable to other countries with highly decentralised decision-making regarding the education of SWDs. The importance of minimum standards, learning from well-performing school districts and evaluating programmes are germane to many countries' educational systems.

This study highlights three areas of possible consensus for devising minimum national standards on delivering special education and related services amid possible future disruptions, namely, adapting SWDs individual services and educational plans when remote learning is essential, prioritising SWDs for in-person education as soon as possible while meeting health needs and providing compensatory services.

Notes

1. In the analysis and findings, this district will be referred to as the 'local' district.
2. Individualised Education Programmes (IEPs) are written statements detailing customised learning plans for SWDs required by U.S. federal law. 20 U.S.C. § 1414(d)(1)(A).
3. Distance Learning Plans (DLPs) refer to documents written by school district representatives to account for how IEP services will be provided during remote instruction. These plans are individualised for students with an IEP. Some districts added DLPs as amendments or attachments to SWDs' IEPs; others maintained them as stand-alone documents. Although districts' terminology differed (e.g. 'Remote Learning Plans' or 'Distance Learning Implementation Plans'), all were used to account for changes in service delivery during remote instruction.
4. Per U.S. federal law, school districts have an affirmative 'child find' duty to identify, locate and evaluate all children with disabilities in need of special education and related services, including homeless children, wards of the State and private school students. 20 U.S.C. § 1412 (a)(3).

5. Although districts' terminology differed (e.g. 'impact' or 'recovery' services), we categorized these services as 'compensatory services' per U.S. Department of Education (2020) guidance. These services include any services or support to mitigate loss of services or skill regression due to school closures or lack of benefit from remote instruction.
6. That said, some districts' plan changes were abrupt, lasting less than three weeks. For example, one district shifted from Plan 5 to Plan 1. Two weeks later, the district shifted to Plan 4. In this case, all three plans were coded.
7. One school district is part of a state who had a Democrat for a governor in Fall of 2020 and a Republican governor starting January 2021.
8. For example, although six of the seven hybrid districts prioritised SWDs for in-person instruction, U.S. Institute for Education Science (IES) data indicate that nationally SWDs were only slightly more likely to be learning inperson than their peers. In February 2021, among fourth graders, 44% of SWDs vs. 39% of all students learned in person, and among eighth graders 32% of SWDs vs. 29% of all students did so (IES n.d.).

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Data availability statement

The data that support the findings of this study are available through the WORLD Policy Analysis Centre at https://www.worldpolicycenter.org.

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