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Introduction

There are dramatic changes underway regarding the federal role in increasing educational opportunities for economically disadvantaged students. On one hand, the federal government has become increasingly proactive in influencing instruction at the national, state, and local levels. For example, the No Child Left Behind Act (the 2001 reauthorization of the Elementary and Secondary Education Act [ESEA]; hereafter referred to as NCLB) ties federal funding for economically disadvantaged schools to test score performance and employs progressive sanctions for schools that have not made adequately yearly progress (AYP) on state standards. Yet somewhat in tension with this move towards centralized governance is the expansion of private sector involvement in the administration of public education.

Supplemental Educational Services (SES) is one example of a policy that simultaneously expands the federal role while increasing the role of third party or non-governmental providers in designing and delivering social services (Heinrich, 2010). In 2009-10, an estimated \$650 million in federal money was spent on SES tutoring (Williams, 2011), and this amount continues to rise with the increasing number of eligible districts, schools, and students. The limited but growing research base on the effects of SES on student achievement suggests small, mostly positive effect sizes, but only when students receive a sufficient dose (40 or more hours) of tutoring. Research from earlier phases of our own study also demonstrates that the majority of tutoring is taking place in small group settings with engaged tutors and is supported by constructive, encouraging relationships. However, very little research exists on the specific effects and experiences of the

SES program for students with special educational needs.¹ This paper, based on analysis of findings from a mixed-method, multi-year study of SES in five districts, aims to fill this critical gap in the research.

We focus on students with special educational needs for several reasons. First, educational agencies must count both English Language learners (ELLs) and students with disabilities as part of NCLB's accountability requirements. This disaggregation of high-stakes test scores for these groups increases the pressure on districts to improve these students' performance. Second, as third parties become more involved in the work of school improvement, they assume a larger role in the education of ELLs and students with disabilities. This change in educational service provision raises important questions about the relative capacities of private firms and public agencies in meeting the needs of these historically underserved populations.

Third, of the eleven states to apply for NCLB waivers, seven are proposing major changes to one

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¹ Throughout this brief, we define "students with special educational needs" as including students who have Individual Education Programs under the Individuals with Disabilities Education Act and as English Language learners (ELLs) as identified by standardized English-language test scores. References to "students with special needs" are meant to indicate both populations; we make separate references to students with disabilities and ELLs when the educational/social circumstances, research findings, and/or other relevant information applies to only one of these populations.

² NCLB, Sec. 1111(b)(2)(C)(II). "Adequate yearly progress shall be defined by the State in a manner that (i) applies the same high standards of academic achievement to all public elementary school and secondary school students in the State; (ii) is statistically valid and reliable; (iii) results in continuous and substantial academic improvement for all students; (iv) measures the progress of public elementary schools, secondary schools and local educational agencies and the State based primarily on the academic assessments described in paragraph (3); includes separate measurable annual objectives for continuous and substantial improvement for each of the following: (I) The achievement of all public elementary school and secondary school students. (II) The achievement of— (aa) economically disadvantaged students; (bb) students from major racial and ethnic groups; (cc) students with disabilities; and (dd) students with limited English proficiency; except that disaggregation of data under subclause (II) shall not be required in a case in which the number of students in a category is insufficient to yield statistically reliable information or the results would reveal personally identifiable information about an individual student. . . ."

of the policy's hallmark provisions—the evaluation of school success based on the performance of particular subgroups of student populations, including ELLs and students with disabilities (see footnote 2). Specifically, they hope to combine individual subgroups into a "super-subgroup" comprised either of the lowest achieving 25 percent or all previous subgroups lumped into one (McNeil, 2011).³ From states' perspectives, there may be sound reasons in using waiver flexibility in this way. However, these anticipated changes increase the need for research that rigorously assesses the experiences of these groups under the current version of the law so that the reauthorization of the law can be responsive to the needs of these students. One of the purposes of this paper is to examine whether students' special needs are being adequately met under this current version, as well as to make recommendations for areas in which their needs are not being adequately met.

In response to this need for a clearer focus on these populations, we draw on our mixedmethod research in five districts to address the following questions:

- What are the enrollment and participation rates for students with disabilities and English Language learners in SES?
- Given that serving these students is optional for providers, which providers are advertising to serve students with special needs? Where, if at all, do providers who advertise for students with special needs overlap with providers who actually serve these students and/or with providers identified in our analysis as effective? What are the common characteristics, if any, of providers with market share (i.e., serving students) in our study sample?

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³ There are provisions in the waiver structure to account for subgroups, in that "annual measurable objectives" (AMOs) must be set for subgroups. However, states have flexibility with how important a role AMOs play in their accountability systems.

- What are the estimated effects of SES on participating students' performance, and how do effects for students with disabilities and English Language learners compare with one another, as well as with the general population of eligible (participating and non-participating) students?
- What is the nature of the intervention in practice (from identification and registration to assessment and instruction) for participating students in these two subgroups?
- What policy changes or levers at the district, provider, and/or state level might improve the quality and effectiveness of SES for these subgroups?

In the qualitative and quantitative analyses that we present and discuss below, we identify a number of urgent problems that need to be addressed in order to increase access and strengthen the quality of services for students with special needs. In general, neither providers nor districts have been sufficiently proactive in accurate and timely identification of students with special needs in SES, and providers and districts have not collaborated sufficiently to ensure that students with special needs are adequately served. Many tutors delivering instruction to these student populations lack basic knowledge about how to effectively address students' unique needs. We also argue that increasing sustained participation is critical for all students. However, we frequently see low retention rates in SES for students with disabilities. Furthermore, the SES policy language fails to adequately address alignment with other relevant federal policies such as IDEA or FERPA. Confusion around policy details and a lack of coordination with existing

⁵ IDEA is the Individuals with Disabilities Education Act. FERPA is the Family Educational Rights and Privacy Act.

⁴ Under the current regulations, providers are allowed to hire tutors without the basic training and qualifications needed to serve students with special needs (U.S. Department of Education, 2009, p. 19).

federal policy that also targets these subgroups create further challenges for enrollment and retention of students with special needs.

Our analysis leads us to the following recommendations for program and policy changes to make SES more effective for students with special needs, especially in light of the upcoming reauthorization of ESEA. All students participating in SES, including English Language learners and students with disabilities, need to receive more intensive tutoring, defined as more hours of tutoring as well as higher quality, appropriately differentiated instruction. States and school districts need to better monitor and control service quality and delivery and ensure that those providers that advertise as able to serve students have capable, informed staff in all aspects of intervention, including parent outreach, identification and diagnostic metrics, instructional methods, and regular/appropriate assessment and analysis. In oversubscribed districts, SES resources should be targeted primarily to students with special needs who are most severely underperforming in school. School districts, SES providers and tutors, and regular school-day teachers and parents need to better coordinate their efforts concerning these students' school-day educational programs, sharing of Individualized Education Programs (IEPs), and communication regarding ongoing student performance in both school-day classes and tutoring sessions. Finally, federal policymakers need to address inadequate alignment with other federal laws in the language of the reauthorized policy—particularly in the areas of student identification and student information-sharing (such as IEPs). State policymakers may also be able to mitigate some of these issues depending on state-specific statutes and administrative rules.

Supplemental Educational Services: Policy Background

Title I of NCLB aims to close the achievement gap between various populations of students in public schools (e.g., low and middle/high income; racial/ethnic groups; students with disabilities and those without, etc.). Possible uses of Title I funds include, but are not limited to, tutoring (during or outside of school), teacher professional development, computer labs, instructional materials, and teacher assistants (Borman, Stringfield, & Slavin, 2001). The SES provision of NCLB requires public schools that have not made AYP on standardized test scores for at least three consecutive years to offer parents of children in low-income families the opportunity to receive extra academic assistance. The funding for this program consists of up to 20 percent of a school or district's total Title I funding.

The particular design details of the SES program influence how the policy is understood and implemented on the ground. It must be offered outside the regular school-day hours (before or after school, or in the summer). SES providers can be for-profit companies, non-profit groups, local community programs, colleges or universities, other national organizations, faith-based groups, or public schools and districts. Specifics of the tutoring program vary by provider: some providers offer in-person small or large group instruction, whereas others offer online instruction that students access via a computer. Services can take place in a variety of locations, including school classrooms or cafeterias, students' homes, community centers, providers' offices, public libraries, and buildings owned by faith-based organizations. Consistent with the intent of NCLB to promote accountability, flexibility, and choice (U.S. Department of Education, September 2007), SES tutoring is implemented at the local level, via contracts between school districts and individual providers.

⁶ NCLB, Sec. 1116(e).

Participation in SES is voluntary for eligible students. NCLB requires school districts to use data on free and reduced-price school lunch eligibility to determine eligibility for SES. School districts must notify families of their children's eligibility and share information on the availability of approved SES providers serving their district. In the case that more students sign up for SES than there are funds available to serve them, districts must establish additional criteria, in addition to free and reduced-price lunch, to determine which eligible students get access to services. Districts can also create policies to deal with students who do not follow through in attending with a chosen provider or who stop attending before they use their total SES dollar allocation (Authors, March 2011a). While the design of NCLB focuses on students with disabilities and English Language learners through its disaggregation and subgroup AYP requirements (see footnote 2). SES does not require approved providers to serve either of these populations. This paradox in service requirements is consistent, however, with the market-based theory of change embedded in the design of the law. This theory of change holds that, in order to improve schools and districts, schools and districts must be in competition with the private sector, and in order for private sector actors to get involved, incentives (i.e., public funding streams) must be in place. Any effort to constrain this competition (such as requiring that providers serve students with special needs, or establishing regulations around costs), under this theory, places unnecessary constraints on the marketplace and undermines innovation and competition.⁸

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⁷ 34 C.F.R. §200.46(a)(4); 34 C.F.R. §200.46(b)(3).

⁸ In addition, research on education markets has demonstrated that markets best serve (a) consumers with the greatest ability to pay and/or (b) consumers who are easiest to serve (also termed "cream-skimming"; e.g., Welner & Howe, 2005). This stems from the supposition that providers will be more likely to generate profits from consumers who are the least costly to serve or who can pay more for services. For this reason, rights-based legislation such as the Individuals with Disabilities in Education Act (IDEA) has been passed and strengthened in order to help students with special needs receive a free, appropriate public education (FAPE) (Huefner, 2006).

However, the theory of action behind legislation covering students with disabilities has always been a "zero-reject" policy: "the principle that every school aged child, no matter how significant a disability he or she might have, is entitled to attend public school" (West & Whitby, 2008, p. 1) and, after the Supreme Court case *Board of Education of Hendrick Hudson v. Rowley* (458 U.S. 176 [1982]), is entitled to receive some educational benefit from that attendance.⁹

Existing Research on Students with Special Needs

Students with special needs are a critical population in education for two main reasons: first, both students with disabilities and English Language learners have been not only given fewer and lower-quality educational opportunities but also often neglected and abused by educational institutions and staff (e.g., *Lau v. Nichols*, 414 U.S. 563 [1974]; Smith, J. D., 1998; Yell, M. L., 1998; Ysseldyke, Lehr, & Bulygo, 2008). For decades, there was minimal to no effort or funding to educate students with disabilities, but since the middle of the 20th century there have been several major legal cases, such as *Brown vs. Board of Education* (347 U.S. 483 [1954], 349 U.S. 294 [1955]), *Lau v. Nichols*, and *Mills v. Board of Education* (348 F. Supp. 866 [1972]), and the development of numerous advocacy organizations (formed in the 1970s) that have spearheaded more awareness of inequalities. Second, the percentage of students with disabilities in public schools has remained around 12 percent over the years and across types and locations of schools, ¹⁰ and the percentage of ELLs continues to grow, especially in urban areas

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⁹ Finance analysts have long considered these populations to be high-cost in terms of their educational needs (e.g., Berman & Urion, 2003; Gius, 2007; Picus & Miller, 1995). Interestingly, SES providers in our sample that advertise programming for these students do not charge more per hour on average than providers who choose not to serve these students.

¹⁰ The one exception is Bureau of Indian Education schools, where the percentage was much higher at 17.9%, as of 2008.

but also in suburban and rural school districts (National Center for Education Statistics, 2004a, 2004b, 2009). These two groups comprise a significant and rising number of students across the nation.

The right to an education for all students regardless of ability level has been firmly established by these court cases and social movements, but recent graduation statistics reveal the need for continuing improvement and implementation of services. In 2009, the dropout rate for students with disabilities was 22 percent, which, while down from 40 percent in 2000, is almost three times higher than the 8 percent dropout rate of the general population. Recent calculations from IDEAdata.org indicate that the dropout rate for Hispanic and African American students with learning disabilities is almost double that of Asian Americans and whites with disabilities (cited in Cortiella, 2011). In addition to the staggeringly disproportionate representation of minority populations among students with disabilities (Harry & Klingner, 2006) and English Language learners (Sullivan, 2011), families in poverty are almost twice as likely to report a parent or child with a learning disability as families that are not in poverty (Cortiella, 2011). Federal commitment to students with special needs

As a result of these historically unequal educational experiences, the Bush administration made clear its dedication to equal educational opportunities and achievement for students with special needs via the passage of No Child Left Behind (e.g., U.S. Department of Education, 2002), which included student subgroup participation in standardized tests and test score disaggregation by subgroup (West & Whitby, 2008). NCLB provisions also reauthorized Title

11 Standardized test participation rates of students with disabilities have historically been low. Common reasons for low participation over the years includes the lack of existence of

Common reasons for low participation over the years includes the lack of existence of accommodations that maintain test score validity and the desire of school administrators to avoid

III as "Language instruction for limited English proficient and immigrant students" and created additional educational guidelines to the IDEA. Students with special needs that necessitate an IEP (such as specific learning disabilities) have the added protection of the IDEA—that is, parents/guardians of children with IEPs have a private right of legal action to defend their child's access to a free appropriate public education. Neither Title I nor Title III includes this private right. The student learning plan required by SES is not referenced in or governed by the IDEA. although it is possible that the student learning plan could be included in the student's IEP (U.S. Department of Education, 2007). One of the central design flaws in the SES provision is its lack of alignment with IDEA requirements and other federal policies, such as FERPA, which protects student confidentiality.

The research base 12 on the need for and difficulty of providing services for these special populations, as well as the policy obstacles to creating and enforcing equitable and affordable educational services for students with special needs, clearly establishes the importance of closely examining whether students attending SES are able to receive services meeting their needs and with an equal opportunity to those students who do not have special educational needs.

Existing Research on SES

The research base on SES suggests numerous problems with its design and implementation. For example, demand for SES outpaces supply in many urban districts, whereas

including the scores of students with disabilities in the school's publicly available performance results (Nolan, 2004).

¹² For additional research on students with special needs, see: Capps et al., 2005; Clewell, Consentino de Cohen, & Murray, 2007; Consentino de Cohen, Deterding, & Clewell 2005; Data Accountability Center, 2011; Moughamian, Rivera, & Francis, 2009; National Center for Education Statistics, 2009, 2011a, 2011d.

in other districts, demand remains low;¹³ the information made available to parents is limited; and districts and providers often compete for resources instead of collaborating.¹⁴ In the past several years, a growing number of studies have employed more rigorous statistical methods to examine the effects of SES on student achievement. Generally, these studies find few average effects of SES on student achievement (Author, 2009; Barley & Wegner, 2010; Barnhart, 2011; Heinrich, Meyer, and Whitten, 2010; Heistad, 2007; Springer, Pepper, & Ghosh-Dastidar, 2009; Zimmer, Gill, Razquin, Booker, & Lockwood, 2007; and Zimmer, Hamilton, & Christina, 2010). Some small effects are observed when students receive over forty hours of tutoring Authors, 2010; Authors, March 2011a; Lauer et al. [2006] found similar effects for broader out-of-school-time [OST] programming).

Existing research: Participation by students with special needs

There is a dearth of in-depth research specifically focused on the impact and influence of the SES program on students with disabilities and ELLs. The studies that do exist primarily focus on participation statistics (Barnhart, 2011; Chan et al., 2010; Dinger & Richmond, 2010). Providers also report serving these student populations. Surveyed providers from 16 diverse school districts asserted that 89 percent of them had served students with disabilities and 74 percent had served ELLs (Gill et al., 2008). Steinberg's (2011) work on SES participation in

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¹³ On average 12-17 percent of those eligible participate, with even lower rates in rural schools; however, with demand outpacing supply at higher and higher rates with growing numbers of eligible students each year, the possible percentage of participating students decreases each year. Research has yet to be done on the yearly changes in possible percentages of participation compared with actual participation of students.

¹⁴ For example, in some districts, unspent set-aside SES monies return to the general Title I pot of money to be reallocated to other uses. This process creates a disincentive for the district to encourage maximum student participation in SES. On the other hand, not having this reallocation possibility hurts districts where, for example, SES providers are of low quality and demand is truly low—one of many possibilities in the SES market.

Chicago Public Schools showed that longitudinally, over the years 2004-2008, the take-up rate for students with disabilities slightly lessened, from 23.3 percent in 2004-05 to 19.8 percent in 2007-08, but that the overall percentage of special education students in SES slightly fluctuated with no increasing or decreasing pattern (ranging from a low of 12.6 percent of all SES participants in 2004-05 to a high of 16.2 percent of all SES participants in 2005-06). Although there is limited comparability across these studies, we think that we can safely conclude that there is room for increasing SES participation among students with disabilities.

Existing research: Outcomes for students with special needs

Some of the district evaluations have also focused on the performance of students with disabilities and ELLs with respect to standardized test results. Historically, students with disabilities and ELLs are two of the most poorly performing subpopulations of students on standardized tests (Boyle, Taylor, Hurlburt, & Soba, 2010; Crockett & Yell, 2008; National Center for Education Statistics, 2010, 2011b, 2011c; see also Figure 1). ¹⁵ A similar trend in disaggregated test score results has been documented in one district's population of SES attendees (Chan et al., 2010). One study cited students with special needs participation in SES as an area of concern in choice policies, as the estimated effect of SES for these students was negative and statistically significant in math (Zimmer et al., 2007). Dinger and Richmond (2010) found the same lack of effects of SES in general pertaining specifically to ELLs and students with disabilities.

¹⁵ The reasons for this poor performance may, in addition to lower access to high quality instruction, include bias in testing format and language; see, for example, Cho & Kingston (2011); Menken (2010); and Solorzano (2008). For students with disabilities, the use of testing accommodations have allowed some students a more even chance at performing well on standardized tests (e.g., Johnson, 2000); however, for some types of disabilities, testing accommodations that pass econometric validity standards have yet to be established (National Council on Disability, 2008).

[Insert Figure 1]

Existing research: Access and quality for students with special needs

In terms of in-depth studies, there is very little existing research (Ahearn, October, 2007; Barley & Wegner, 2010; and Potter et al., 2007) other than our own multi-site study on the response of SES programs to students with disabilities and ELLs. As part of our on-going study, while observing the practices of eleven providers in one district, we found that none of them had system-wide strategies to meet the instructional needs of ELLs and students with disabilities. Accommodations and differentiation, when they were present, tended to be used during individual sessions by tutors with specific knowledge about the respective populations and/or their individual students (Author, 2009).

Key Findings from Multisite, Mixed-Methods Study of SES

Given evidence that students with special needs are well represented in the participating population for SES, what assessments can be made about the supply and quality of services being offered, based on analysis of administrative information, effects, and qualitative data (observations, interviews, and focus groups; see research methods appendix)?

Students with special needs: Participation in SES

A central question in any intervention concerns who is participating and also what level of services they are receiving. We present a summary of some of the empirical results—for the five study sites combined in 2008-09 and for Chicago Public Schools and the other four districts separately in the 2009-10 school year—that describe (Table 1a) and predict (Table 1b) who registers for SES and who attends. For students with disabilities, we find that they are significantly more likely to register for and attend SES in Chicago Public Schools

(approximately 250 percent greater odds), as this district prioritized students with disabilities in the 2009-10 school year, and they were also more likely to attend SES for at least 40 hours (138 percent greater odds). However, in the other four districts, we see that students with disabilities were significantly *less* likely to register for and attend SES and to reach higher thresholds (40+ hours) of SES attendance (14-21 percent lower odds). Chicago Public Schools also appears to have given higher priority to ELLs, who have approximately 122 percent greater odds of registering for and attending SES, compared to 44 percent greater odds for ELLs in the other districts. And although ELLs had lower odds of attending 40 or more hours of SES in the 2008-09 school year, in 2009-2010 they were significantly more likely to attend SES for 40 or more hours in all districts.

[Table 1a: participation, Table 1b: odds-ratios table]

Who are the service providers?

Nearly all of the providers serving a significant percent of the aggregate market share of ELL and/or students with disabilities (in all five districts combined) advertise to parents as being capable of serving these student populations. The same is true when we look at the characteristics of the top providers for ELLs and/or students with disabilities across districts (that is, top providers with largest market shares in each district). They all advertise as able to serve ELL students and students with disabilities. These providers include Aim High, ATS Project Success, Brain Hurricane, Confidence Music, Group Excellence, Orion's Mind, Progressive Learning, Read and Succeed, SES of Illinois, Step Ahead, Tools of Empowerment, and TutorCo. The only large provider serving these populations who does not advertise as able to is Newton Learning (Chicago).

Our research shows that small providers (those that serve fewer than thirty students in a given school year) play a major role in offering SES to students with special needs, compared to large providers (those that serve more than thirty students in a given year). Small providers are particularly dominant in services for students with disabilities. The percentage of students with disabilities that are served by small providers during the years 2008-2010 ranges from 4 percent in Chicago to 100 percent in Austin. The average percentage of students with disabilities served by small providers in all of the districts in our sample was 36.6 percent (Minneapolis at 23) percent, Milwaukee at 24 percent, and Dallas at 32 percent). ¹⁶ In addition to small providers, there are a few large providers that serve a significant percentage of both ELL students and students with disabilities in one district. In Chicago, Orion's Mind (a school-based provider) served 24 percent of the eligible ELL population and approximately 15 percent of students with disabilities. In Dallas, Group Excellence served 24 percent and 15 percent of the ELL and students with disabilities populations, respectively. In Milwaukee, Step Ahead served 38 percent of the ELL population and 14 percent of the students with disabilities population. In Minneapolis, ATS Project Success served 21 percent of ELLs and 18 percent of students with disabilities.

These providers vary in terms of their characteristics. Table 2 displays the attributes of providers serving ELL students and students with disabilities in each of the districts and in all districts combined. Orion's Mind and Group Excellence are both small-group, school-based, for-profit providers; Step Ahead offers small-group (not larger than 1:3) tutoring in homes, schools, or community centers; and ATS Project Success is a software-based (not live) tutoring program.

¹⁶ A potential drawback to small providers dominating the market for students with disabilities is the documented higher turnover in small providers in the SES market (Burch, Steinberg, & Donovan, 2007). Small providers are more vulnerable to the variable costs of SES provision and have fewer students over which to distribute the fixed costs.

For-profit and online providers generally play a larger role in serving ELL students in Austin and Minneapolis than in the other sites. There are fewer differences across sites in the types of providers serving students with disabilities, with the exception of Chicago Public Schools, which had a comparatively larger proportion of off-site and online providers serving students with disabilities in 2009-10.

[Insert Table 2 here]

Combining qualitative observational data and market share information allows us to examine the delivery of services to these populations, for both providers that have market share and those that advertise special services (whether or not they serve any students). The comparison of these data helps us understand whether those providers that advertise services for these special populations actually have the capacity to serve these students, and, if so, whether they are able to recruit and retain these students in their programs. It is also important to understand whether the providers who are serving the greatest numbers of students with special needs are able to help their students achieve significant gains in academic performance. The following section examines these questions as well as the significant policy issues in measuring effects with these special populations.

Evidence of SES effects for students with disabilities and ELLs

Matthew Springer and co-authors (2009) point out that very few studies rigorously adjust for differences in the characteristics of students who choose to participate in SES in estimating effects of SES. Even fewer studies have attempted to estimate provider-specific effects (see Authors, 2011b, for a review of these studies). We estimate the average effects of SES for ELL and students with disabilities, as well as the effects of specific providers delivering SES to ELL and students with disabilities, using data from the 2008-10 school years and a value-added

modeling approach.¹⁷ We combine data from our five study districts, although we also estimated effects separately for Chicago Public Schools because it was the one site with sufficient sample sizes to estimate subgroup impacts.

Table 3 presents the results of the estimation of the average effects of SES for ELLs and students with disabilities in reading and math in the 2008-09 and 2009-10 school years, respectively. In the 2008-09 school year, we observe positive effects of SES on ELL students' changes in reading scores for Milwaukee and Austin (effect sizes of approximately 0.09 and 0.07, respectively), and we also see positive effects of SES on ELL students' changes in math scores for Chicago and Austin (effect sizes of 0.08 and 0.11, respectively). These effect sizes are

¹⁷ Value-added measures examine changes in student performance from one year to the next and are calculated for each student within a given school, allowing us to control for classroom and school interventions (other than SES) that are fixed over time. For example, if there is an intervention offered during the regular school day to students who also attend SES, failing to control for the intervention (school fixed effect) would bias the results. Because the outcome measure is the achievement gain made by a given student, this model also accounts for the possibility that students with similar characteristics might enter SES with different underlying achievement trajectories (as reflected in their prior test scores). The formal value-added model we employ is specified in the equation below. We estimate:

$$A_{jst} - A_{jst\text{-}l} = \alpha SES_{jt} + \beta X_{jt\text{-}l} + \delta \ S_t + \mu_{gt} + \epsilon_{jst}$$

where,

 $A_{jst} - A_{jst-1}$ = achievement gain of student j attending school s in year t

 $SES_{it} = 1$ if the student attended SES

 X_{jt-1} = student characteristics, including student demographics, percent absent in prior year, retained in prior year, and attended SES in prior year

 S_t = school fixed effects

 μ_{gt} = grade by year fixed effects

 ε_{ist} = random error term

(Depending on the sample used in the estimation, the indicator SES_{jt} measures either the effect of any attendance of SES or of attending SES with a particular type of provider (or specific provider) relative to no SES receipt.) This specification shows the relationship between student achievement and attending SES after controlling for student characteristics and school and grade year effects.

consistent with the findings in the literature and for our multisite study for all students participating in SES; as the authors (March 2011a) report, average effects sizes range from approximately 0.05 to 0.10 and are typically observed for students who reach a minimal threshold of tutoring hours (approximately 40 hours) that appears to be critical to producing measurable effects on students' achievement (as measured by test scores). For students with disabilities, however, we only observe one smaller effect of SES (an effect size of approximately 0.03) on their math scores in Chicago Public Schools in 2008-09.

The second half of table 3 reports the average SES effect sizes for ELLs and students with disabilities in the 2009-10 school year. We again observe statistically significant effects for ELLs and students with disabilities in Chicago Public Schools. The effect size in reading for ELL students in Chicago of 0.103 is very close to the effect size in reading of 0.105 for ELL students in Milwaukee Public Schools (the only other district with a statistically significant effect for ELL students in that year). A statistically significant effect of SES on ELL students' math scores (0.065) is only found in Chicago Public Schools in 2009-10. For students with disabilities, the effect sizes are again generally smaller: 0.036 in reading and 0.032 in math for these students in Chicago Public Schools (about half the effect size observed in the total population). One exception in 2009-10 is the effect size in math for students with disabilities in Minneapolis Public Schools, which is the largest effect size observed for either subgroup of students with special needs (0.144).

[Insert Table 3]

We next estimated the effects of specific SES providers delivering services to ELLs and students with disabilities in the five districts in our study. Table 4 presents the results of this value-added analysis for SES providers in all sites combined and also shows the effective

providers for all students. We find that 19 providers were effective for all students in math in 2008-09 and 19 providers were effective for all students in reading and language arts in 2008-09 (though not all 19 providers were effective in both subjects). In comparison, only 10 providers were effective for ELLs in math in 2008-09 and only 5 providers were effective for ELLs in reading and language arts for 2008-09. An even smaller number of providers were effective for students with disabilities in 2008-09: 5 were effective for students with disabilities in math for this year, and only 2 were effective for students with disabilities in reading and language arts.

[Insert Tables 4]

In 2009-10 we see a few changes in these findings: 23 providers were effective for all students in math (an increase of 4 providers), whereas only 12 providers were effective for all students in reading and language arts (a decrease of 7 providers). Seven providers were effective for ELLs in math in 2009-10 (a decrease of 3), and 6 were effective for ELLs in reading and language arts (an increase of 1). Only 1 provider was effective for students with disabilities in math in the 2009-10 school year, a decrease of 4, and 3 providers were effective for students with disabilities in reading and language—an increase of 1.

We also note that small providers, while serving a significant portion of students with disabilities, were only effective for students with disabilities in reading and language arts in the 2009-10 school year. On the other hand, large providers that had significant market share—AIM High and Orion's Mind—were two of five providers that had significant effects in at least one category for each special population. Overall, the providers with the largest or most consistent effects for ELLs, students with disabilities, and all students include Babbage Net, Newton Learning, Orion's Mind, AIM High, Brain Hurricane, SES of Illinois, and Cambridge Educational Services. All of these providers operate in Chicago, but some of them also operate in

other districts. Of these effective providers, Babbage Net, Orion's Mind, and AIM High are in the qualitative sample of our study; we do not see any commonalities among the basic attributes of these three providers (e.g., AIM High is a non-profit, district provider, and Babbage Net and Orion's Mind are both for-profit; AIM High and Orion's Mind are school-based, medium-group-size programs, whereas Babbage Net is a software-based individualized program). Table 5 shows the SES effect size estimates for providers of different types and confirms that there is little in the way of clear or consistent patterns of effects among them. The only somewhat consistent findings suggest that SES providers delivering services to ELLs and students with disabilities on-site appear to generate effects that are approximately 0.030-0.065 standard deviations larger than off-site or online providers.

[Table 5: Effects by provider type for ELLs and SWD]

As indicated above, a consistent and important finding in our own and others' research is the essential role of the number of tutoring hours received in generating effects on students' math and reading gains for ELLs, students with disabilities, and all students (Authors, March 2011a; Lauer et al., 2006). Only in Chicago, where we saw large numbers of students in these subgroups consistently reaching a threshold of 40 or more hours, did we find consistent evidence of effects for students with disabilities and ELLs.

A central challenge in getting more hours of SES to students, as we have pointed out in other work (Authors, March 2011a), is the hourly rate that SES providers charge. This, in combination with district per-pupil maximum allocations of SES dollars, limits the total number of hours of tutoring students can receive. State and local educational agencies do not have authority to proscribe the hourly rates charged by SES providers (other than district-operated ones), although state agencies may specify a range (U.S. Department of Education, 2009, p. 5).

Across all five sites, providers serving students with disabilities and ELL students charge significantly less per hour than providers who do not serve these students (approximately \$14 per hour less for students with disabilities and \$22 per hour less for ELL students). Analyses by district confirm these patterns with two exceptions: providers in Minneapolis serving students with disabilities charge about \$7 more per hour, and providers in Milwaukee serving ELL students charge about \$5 more per hour.

Inside SES: Issues of Access and Instruction for Students with Special Needs

How do the various processes of SES attend to students' unique needs? Here we look closely at the nature of SES enrollment and instruction for students with special needs in conjunction with the participation and effects data detailed above.

Identification and enrollment of students with special needs

Are families receiving adequate and timely information about available services? Are students with special needs being appropriately identified and served by tutors in SES sessions? How do provider, district, and tutor expectations and understandings of the SES intervention help explain patterns in the enrollment and identification process?

One of the central issues in SES for students with special needs is confusion over who is legally responsible for serving ELLs and students with disabilities. The language of the SES provision states that responsibility falls on the district to ensure that students with special needs receive appropriate services during SES sessions. Providers may, but are not required to, offer services for special populations; for example, one provider administrator stated that these groups were not the target populations of his company. If no providers are willing or able to serve

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¹⁸ Section 1116(e); 34 C.F.R. §200.46(a)(4); 34 C.F.R. §200.46(b)(3)

students' special needs, the district must provide the services itself or contract with another service provider who is able to offer these services consistently with the student's IEP.

A second issue, less clearly stated in any of the relevant policies, is the problem of confidentiality regarding student information as governed by IDEA and FERPA. ¹⁹ Interviews with tutors and provider administrators emphasize the need for access to IEPs in order to offer appropriate instruction. However, due to the policy ambiguity, the processes for sharing this information vary in type and frequency across districts. Some districts give student IEPs to providers if the provider requests additional information regarding a student. Other districts provide student IEPs automatically through the district/provider SES database, which may conflict with student's confidentiality as governed by IDEA and FERPA. On the other hand, considering the fact that parents voluntarily enroll their students in SES, it might be legally acceptable for an LEA to include a parental consent section on the application regarding educational record disclosure to providers, as several districts in our study currently do. However, it is not certain whether this level of parental consent is sufficient to meet FERPA

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¹⁹ IDEA language consistently references "participating agencies" regarding confidentiality issues. A participating agency is defined as any school district, agency, or institution that collects, maintains, or uses personally identifiable information, or from which information is obtained, under Part B of the IDEA (34 CFR § 300.611). It is not clear whether an SES provider could possibly be considered a participating agency because they do not provide services included in the IEP nor are they specifically discussed in IDEA Part B. However, once they receive a student's educational record, such as the IEP, they are governed by FERPA. FERPA provisions prohibit dissemination of student record information to third parties except for "those who are authorized to see the educational records[,] includ[ing] school personnel with a 'legitimate educational interest' in the information, and they must be designated as such by their respective school districts" (Huefner, 2006, pp. 225-226). Written parental consent is required for all other sharing of student information, including IEPs. Consent must be "specific, designating the information to be released and to whom the information is to be given. Furthermore, persons receiving the information may not redisclose it to others without parental consent" (Huefner, 2006, p. 226).

requirements.²⁰ Some district administrators believe that it is always the responsibility of the provider to contact the parent to ask for confidential information.

Providers and their tutors get information about students' special needs directly from parents via phone calls, emails, or in-person meetings.

R: What usually happens is if the district is able to give us a list or provides us with a list, then we can get a list of the students [with special needs]. Um, for example one of our director of sales just down in one of the [other counties we work in], he was working closely with them and knew that they had a huge ELL population so he said to the principal, 'Why don't you give us a list of your students that are ELL, we'll make sure that we make note of that in their binders so that we can try to accommodate them the best we can.' And she did a great job, she supplied him with a spreadsheet, supplied him with, um, you know, which ones were ELL, which ones were bilingual in what—in what languages. And that way we could take it into our system and, you know, and make appropriate notes and things. But if that—if that doesn't occur what usually happens is we have a call center that, part of their first welcome call is asking the parent, you know, does your child speak another language in the household? Does your child speak another language at school? Um, is English their second language or first language? And there's various prompted questions that they can ask. They will ask, you know, 'Is your child involved in a program at the school for English as a second language?' So, through various different questioning they'll determine, you know, whether they need to mark

²⁰ Additional regulations from IDEA regarding confidentiality include: 34 CFR § 300.123; 34 CFR § 300.622; and 34 CFR § 300.623.

them as for example conversational Spanish or mark them as an ELL learner. (Provider administrator)

However, while most parents are supportive and want their student to receive SES services, some providers do not offer such services as in-person home visits or translation for parent phone calls that may be necessary for some families. Additionally, tutors and providers have noted that some parents prefer not to share their students' special education status, especially if they do not agree with the district's identification of their student as having a disability.

In terms of advertising services for students with special needs, some districts offer SES provider fairs to connect parents with provider representatives and tutors; however, again, these representatives may not have the capacity to communicate with parents in their native language. Many districts try to identify the variety of languages spoken in their district and find translators for each one; however, providers in all districts—and particularly multi-district providers—have noted the difficulty of keeping translators on staff, having translators for all applicable languages, and/or finding tutoring staff who are both bilingual and have special education training. Some providers stated that the reason that they do not advertise as serving these populations is because they lack the capacity to do so effectively.

In many cases, data sharing and communication among providers and school/district personnel is dependent on the relationship between the provider and staff at the school level. Some districts have school-level SES coordinators, who can act as a liaison between parents and providers. If school-day teachers are employed by the provider as SES tutors, they can more easily negotiate access to IEPs and personally network tutors and teachers to discuss students' specific needs.

R1: But it is another reason that we, amongst a whole host of reasons, why we prefer certified teachers from school-day classroom[s].

I: Because they can get access to—

R1: They get access to the IEPs themselves and/or direct access to school-day instructors that can be a whole lot more enlightening than even an IEP may be.

R2: Well, and we also do kind of a double approach, so we get our list of who's IEP and ELL, and we share that with the teachers, but a lot of times there's things that aren't on that little spreadsheet, so, you know, we have the teachers come and when we have our little meetings, they'll share kind of what's going on in their classroom, you know, "I'm having this issue with this student," and we can kind of work through it, and we actually learn a lot that way, um, you know, 'cause they'll be like "I talked to the classroom teacher and they said this is this," and we're like "oh, okay," so we take the information we get from the district and we share it to our tutors, but then a lot of times they get information that they then share with us, and we kind of have that communication going both ways. (Provider administrators)

If there is no existing relationship between the school and the provider, communication between school personnel and tutors is more difficult to facilitate. Further, some schools and/or districts have strained relationships with providers, which can prevent providers from receiving up-to-date information on their SES students' educational needs.

Tutors' lack of access to student-level information can cause serious teaching and learning problems Although some SES tutors with special education and/or ESL backgrounds have been trained in appropriate diagnostics to identify students' needs, these teachers do not always get matched with students needing their particular areas of training and experience. A

primary reason for this is that SES providers do not have access to school records or staff with knowledge about students' needs, and therefore cannot match students and tutors accordingly—a consequence of the decentralized, parent-choice design of the SES program. Further complicating the issue of matching tutors and students is the fact that even if qualified tutors are matched with students who have special needs, having two instructors diagnose and address students' needs increases the chance for interference between school-day and after-school instruction. The ideal situation is having a qualified tutor, with access to their students' IEPs, work with students with special needs. Yet, our data reveals that this situation rarely occurs in practice and when it does, it often is the result of providers hiring trained teachers from the school.

R: I mean, I think the ELL population probably in our district has a better shot at receiving services from the tutoring companies because they hire the bilingual teachers within the building who are familiar with the needs of ELL students and so, you know, 'I'm a struggling, you know, reader. I have somebody who is working with me or kids like me all day long'. So I think they'll fare the best because I think it isn't necessarily that the provider knows what they're doing as much as they hire teachers or staff that know what they're doing with those kids. So maybe it's a good business practice that they hire the right people. But it isn't necessarily that what they're doing necessarily addresses their needs. (District staff)

Finally, considering the fact that most providers do not know their students prior to enrollment, ²¹ it is nearly impossible for them to know what types of students are coming their

²¹ An exception would be community-based providers who tend to work with the same students and families year after year, depending on their eligibility.

way and to have staff hired and trained to meet those challenges unless they specialize in services for students with disabilities or ELLs. One provider described the challenges in assembling a staff prepared for the variety of languages spoken by their students.

R: I'm going to use [district name] as an example, last year, last year we learned that there was a population fairly new to [the state] that speaks Karin, and many of them have not been here very long so their language, their English is very limited, and the schools were also struggling [to find] English-speaking people who could also serve as translators and whatever, you know, those kinds of things, so last year, as we started getting students with that, with that language, we really had to work fast to find people who could, who had the special skills, ESL or TEFL, you know, skills to know how to teach to a limited English, or no-English, population. And then, allowing for this year, knowing that we were surely going to get more this year, we prepared ahead, knowing and anticipating that, and really, and advertised for people with those particular backgrounds. For some of the other, for some of the other groups, we, we maybe didn't ask for that necessarily, but we might be asking for Spanish speaking or Hmong speaking or whatever, other language, so again, we're, you know, we're trying to identify and meet needs that are specific, and, and that might be approached in a variety of ways, because there's never one size fits all. (Provider administrator)

The result of all of these challenges is that in most SES tutoring sessions, tutors have little or no knowledge of their students' specific needs and rarely have the training needed to appropriately serve these students' needs.

Time, effort, and public funding are often wasted when students with special needs are not placed with providers or tutors who have the capacity to serve them. The parent-choice

design of the SES policy provides the opportunity for students to transfer to another provider if the first provider cannot meet their needs. However, it is often the case that the parents are not aware of the school-day/after-school mismatches in curriculum and instruction and the consequences of those mismatches for their students' outcomes. In addition, due to the relatively low number of possible tutoring hours for most providers (see discussion of hourly rates above), providers may max out a student's per-pupil allowance (PPA) before they ever really understand the best strategies to help that student. These issues lead us to make the following recommendations, designed to ensure that each student finds the placement that will provide them the most benefit from the outset of tutoring.

What do students with special needs receive in a session of SES?

After students with special needs get placed in SES programs, they often face a number of obstacles to receiving high-quality and appropriate instruction. The following inquiries help us identify and understand these obstacles: What do we see happening in instructional practices in an hour of SES? Do the instructor and the curriculum attend to each student's unique needs? How do students' experiences vary across different SES provider settings, specific educational needs, districts, formats, and approaches to tutoring? How might this variation relate to program effectiveness?

Regardless of whether providers have confidential student information on educational needs, most tutors are providing general, not individualized, instruction and do not differentiate for struggling students. Observation data indicate that for students with disabilities, approximately 15 percent of observations included accommodations, and less than 20 percent of observations contained differentiation practices. For ELL students, less than 25 percent of the observations included differentiation practices.

In many situations, tutors are not prepared for students' academic or behavioral challenges because few providers hire qualified tutors or offer adequate professional development to meet the needs of students in these populations. Based on observation data, only 15 percent of tutors were trained in special education. One district noted that a provider actually asked the district how to instruct students with disabilities even though the provider's application to the state agency asserted that it was capable of serving students in this population. Tutors trained in ELL practices were double that at 30 percent. This difference in percentage may reflect the definition of the indicator, which includes both bilingual tutors as well as tutors trained in ELL instruction. Thus, some tutors who are *not* trained in ELL may be included in this indicator, though being bilingual does not necessarily indicate capacity for ELL instruction.

Some providers compensate for the fact that tutors are underprepared for struggling students by reducing the group size for students with disabilities to one-on-one and/or encouraging tutors to slow the instruction down or modify the curriculum. Without specific knowledge of a student's needs, changing the curriculum level involves tutor guesswork that may contradict research-based instructional practices. However, because of the widespread lack of information on students' individual needs, most tutors we interviewed and observed were forced to rely on their own interpretations of students' presenting ability levels and educational needs. Approximately 60 percent of observations indicated inclusive instructional practices; the predominance of inclusive practices may be evidence of research-based practices, but it may also be the result of tutors' lack of knowledge about students' special needs.

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²² It is important to differentiate here between inclusive student groupings for the purposes of inclusion and inclusive student groupings with no teacher knowledge of individual students' needs within those groups. Inclusion in the general education program is included in student IEPs as part of the least restrictive placement (LRE) requirement; therefore, since tutors usually

Capacity. One provider had a back-up curriculum available for ELL students, and other providers translated their core curriculum to Spanish; however, tutors did not receive the same depth of training on these curriculum alternatives as they received on the main materials. In some cases, providers tried to match students to teachers from their school-day programs because the teachers either already knew student strengths, weaknesses, and learning styles or had access to school-day teachers that could provide suggestions or strategies for these students. One provider hired a special education teacher as a tutor who then provided professional development and strategies to other tutors, while another provider hired a teacher trained in special education to help develop individual learning plans. An online provider described their training process to prepare their tutors to work with ELL students.

R: What that does is, it—it triggers a flag to the monitor and they will make note of it in the binder. We also have the capability to make—give flags to the teachers so the teachers can see that they are an ELL student. If the student is also conversational Spanish, then we do our best to try to pair them up with a Spanish-speaking teacher as well. That way they can get some of the support if there's unfamiliar terminology. Or maybe there's a language barrier while they're working on the work. Um, even though that might occur, all of the—all of the instruction is still done in English, everything still holds the English standard. It's just the approach of the teacher changes a little bit. And part of our teacher professional development is they go through a series of learning management system modules and live training with a lead teacher. And their—part of their training is ESL-certified. So teachers will go through this training and become ESL-

do not have access to the IEP, student groupings or separation from the group may not be aligned with the IEP.

certified through [provider name]. And then in that case they're able to service these students and be paired with those students. So it's what we call an attribute, where we can give that teacher an attribute and pair them with that student. (Provider administrator)

However, as noted above, only 15 percent and 30 percent of special education staff and ELL/bilingual staff, respectively, were present in observed sessions.

<u>Communication.</u> Communication among all SES stakeholders is essential for students to receive appropriate academic and socio-emotional supports. In some sites, non-English-speaking parents received information on tutoring sessions and student progress in their native language, but in others there was disagreement among parents whether this happened.²³ Although some parents shared their child's specific educational needs with providers, other parents chose not to or were not asked by the provider to share this information.

Recommendations for successful student identification

Given the challenges in access, identification, curriculum, and instruction described above, and taking into account both others' studies and our own research, we suggest the following recommendations for SES-implementing agencies.

1. **Keep lines of communication open with parents.** Districts and providers should translate information for parents in whatever language is needed—from Spanish to Somali to Braille, among others. Districts and providers also must be aware of various parents' need for verbal (in-person or by phone), as opposed to written, communication. For example, one district provided a list of ELL students to providers who then called parents and asked specific language and parent preference questions. Providers who

²³ An additional issue was parent literacy; even when written information was provided in the correct language, this effort on the part of the district or provider did not always meet the parent's need for accessible information.

- translated promotional materials tended to enroll a greater number of ELL students, compared to providers who did not translate their materials.
- 2. Implement systematic ways of communicating students' needs. Districts should include a section on SES enrollment forms for parents to indicate whether a student is an ELL or has an IEP, as well as room for explanation of the student's specific needs. Districts can utilize existing databases to cross-reference SES enrollment or placement with special needs status. Cross-referencing SES enrollment with PK-12 databases that house critical student data and response-to-intervention information would help identify the underlying factors involved in the student's academic struggles and contribute to the success of the intervention. Additionally, the state can include questions on provider applications about what specific special education needs providers plan to serve (e.g., what kind of disability and/or what native languages), research-based methods for serving these needs, and the provider's specific capacity for serving these kinds of special needs.
- 3. Providers should communicate with the parent and the district early in the tutoring process, as soon as they suspect that students have special needs. Districts should develop a clear process for quickly re-assigning students, with parent approval, to a more appropriate provider when the parent's initial choice of provider cannot meet the student's needs. In order to do this, districts also need to have a clear understanding of the capacity of providers to serve students with special needs, which may mean increasing their frequency and quality of communication with both providers and parents to be able to advise parents in these situations.
- 4. Encourage providers to offer or require professional development opportunities for tutors regarding needs-assessment. Identifying students' educational needs takes

training and experience. Even if providers not hire certified tutors to work with students with special needs, they can provide training to their tutors on how to identify students with special needs and work with the district to refer them to a qualified provider.

Recommendations: Curriculum and Instruction

- 1. Hire tutors with considerable knowledgeable about addressing the educational needs of ELLs and students with disabilities. Under the law, providers have the option of instituting their own minimum hiring qualifications, including certification in special education, bilingual education, and/or English as a second language. They also have the option to develop instructional leaders in the same way that schools and districts develop leaders, by implementing systematic observations and providing ongoing professional development and professional dialogue with individual tutors on a regular basis.
- 2. Increase the level and frequency of communication with parents and school-day teachers regarding students' needs (including progress monitoring), access to IEPs, and consistency between individual learning plans and IEPs. Tutors need to know exactly what students have been taught and how they have been taught to ensure they are not creating further confusion for students who are already struggling. Inviting tutors to school day discussions such as grade level data meetings would help facilitate reciprocal communication regarding student progress/areas of growth. If students have strategies that are working for them, they should be encouraged to continue to use those strategies instead of replacing them with strategies that are unproven for that student. Tutors should communicate with students, parents, and school-day teachers where students are academically in terms of mastering objectives on their learning plans.

3. Amend the language of the law to include certain baseline requirements for states, districts, and providers. These requirements include a minimum threshold of instructional hours (i.e., more than 40 hours) for each student and greater specificity on the expectations for Individual Learning Plans created by providers for students. States and districts should be allowed to require tutor certification in instructional strategies for ELLs and students with disabilities. In oversubscribed districts, SES resources should be targeted primarily to students with special needs who are most severely underperforming in school. Federal policymakers also need to address federal policy alignment issues in the language of the reauthorized policy and/or guidance for school districts, particularly in the areas of student identification and student information-sharing (such as IEPs).

We recognize that many of these recommendations would place additional administrative and/or regulatory burdens on states and districts; therefore, federal policymakers should allow greater flexibility in how SES funds are spent (with appropriate accompanying accountability structures for districts and states) to account for the considerable costs associated with administering SES.

Conclusion and Emerging Research Issues

Rigorous examination of how well instructional interventions address the specific needs of students with disabilities and English Language learners is centrally important for ensuring quality educational services for these critical populations—students whose particular needs are often either misunderstood or neglected in the tapestry of interventions present in public schools. Such examination shines light on where implementation is successful and where it falls short. In

addition, it is vitally important to maintain transparency in a policy such as SES when third party providers deliver the majority of services to students.

This study, integrating both quantitative and qualitative data, provides an in-depth look at how a market-based reform provides services to students with special needs. Our analysis identifies both successes and failures in the program, as well as possibilities for improving the quality of instruction that students with disabilities and ELLs receive. Ultimately, all students participating in SES should benefit from strategic and differentiated academic supports regardless of whether they have a diagnosed disability or are an English Language learner. However, for ELLs or students with disabilities in these settings, it is essential that instruction is targeted and specific to students' unique needs to improve their outcomes at an accelerated pace. The considerably small number of statistically effective SES providers for students with special needs in the five study districts suggests that there is considerable room for improving the services for these groups.

Although our current work goes a long way in documenting these issues, we also are pursuing a number of areas of emerging research and further questions to explore. Infrequent curriculum and instruction differentiation for students with disabilities compared with the strong pattern of inclusion in observed sessions is an important area for further examination. Qualitative analysis can look more closely at what this differentiation looks like when it happens—does differentiation in observed sessions mean simply changing the level of work, or do tutors exhibit truly appropriate accommodations? Does differentiation entail separating the student from the group or including the student in the general curriculum while making accommodations in the group setting? How does a provider's curriculum impact the tutor's ability to differentiate instruction?

A second issue of central importance is the capacity of tutors to instruct students with special needs and make appropriate accommodations, as well as the capacity of providers to train their tutors in these areas. As part of the qualitative examination of provider capacity, we will be looking more closely at the capacity of those providers who advertise their ability to serve students with special needs, the capacity of providers who have the greatest market shares of these students, and the capacity of providers who achieve significant and positive effects for students with special needs. Although we have completed initial comparisons of these four factors—advertising, market share, effectiveness, and capacity—there is still much to be learned through future data collection and analysis. Part of the capacity equation is the ability of tutors to communicate with school staff and align tutoring with school-day instruction. Further qualitative investigation into provider capacity will also include a deeper analysis of curriculum and instruction used in practice for students with special needs.

Finally, one of the most immediate policy issues that needs to be examined in more depth are the legal parameters of sharing IEP information with providers and tutors. The legal resources examined here do not provide a clear, practicable answer on how districts should address confidentiality issues; further archival/legal research may need to include requests for information or clarification from the federal agencies providing guidance on legislation such as FERPA and IDEA, in addition to NCLB. As one of our recommendations, we also hope that the alignment of these pieces of legislation will be a central focus in the reauthorization process.

Appendix: Research Design

The findings from this research brief draw on data from an ongoing, mixed-method and multi-site study of the implementation and impact of supplemental educational services. The central purpose of this study is to understand whether and how providing students with academically focused out-of-school contributes to improvements in their academic performance, specifically in reading and mathematics. We are conducting both qualitative and quantitative research in five urban school districts located in four states and representing various student demographics: Milwaukee, Wisconsin; Minneapolis, Minnesota; Chicago, Illinois; and Austin and Dallas, Texas.

The analyses presented in our paper are based on the first two phases of our mixed-method study. The first phase that began in 2009 was an in-depth qualitative study designed to define key elements of SES program models and the policy and practice variables that mediate implementation of these models and also to inform the construction of the measures of SES treatment for quantitative analysis. The second, ongoing phase is a quantitative study investigating selection into SES (i.e., who registers and participates) and SES program impacts, using propensity score matching and fixed-effects methods with nonequivalent (internal, notreatment) comparison groups.

The qualitative data analyzed for this brief include:

- Observations of full tutoring sessions (n=94) using a classroom observation instrument designed to capture key features of instructional settings
- Interviews with provider administrators (n=52) about structure of instructional program,
 choice of curricula and assessments, challenges in implementation, and choices in
 staffing

- Interviews with tutoring staff (n=73) about instructional formats, curriculum, adaptations for special student needs, staff professional background and training
- *Interviews with district and state administrators* (n=20) involved in program implementation
- Parent focus groups (n= 168) with parents of students who were eligible to receive SES,
 most with children currently receiving SES; two focus groups of approximately 1.5 hours
 each were conducted in each site and translation was offered in Spanish, Hmong and
 Somali
- Document analysis: formal curriculum materials from providers, diagnostic, formative, or final assessments used, policy documents on federal, state or district policies concerning the implementation of SES

Our analysis of these qualitative data uses a constant comparative method to develop and refine our understanding of patterns and dissimilarities in tutoring practices across providers. Further, the same data are analyzed and discussed simultaneously by different researchers in an effort to consider and develop multiple interpretations of events observed. Throughout the process we examine potential trends in the instructional setting that may help in understanding the shortcomings and challenges faced by the policy "in action". Analytic codes are developed from these patterns and in response to the research questions, and then reapplied to the data in order to establish findings. For this brief, analytic codes specific to services for ELL and students with disabilities were developed and applied to the data. As with any qualitative study, data analysis occurs both concurrent to and after the data collection process.

The quantitative data analyzed for this paper include administrative and school record

data for all students eligible for SES in all five districts for the school years 2007-08, 2008-09 to 2009-10. The longitudinal database includes student test scores, demographics, and information on their registration for and participation in the SES programs. These data allow us to construct measures of students' SES attendance with specific providers, including the number of hours of SES attended and total expenditures from provider invoices. Districts also provided information on the SES providers, including whether they were on-line, off-site or on-site; district or non-district; for-profit or not-for-profit, which allows us to explore the types of organizations and methods of service delivery that may contribute to improving student outcomes. To construct the key outcome measures of student achievement gains (or changes) in student test scores we use data from standardized tests. For each grade and year, we constructed z-scores using the district mean and standard deviation so that the test scores are comparable across grades and years.

	Table 1a. SES Registration and Attendance Rates Across Districts for English Language Learners (ELLs) and Students with Disabilities (SWD)													
Year 0809		Registe	ered for SE	ES		Attended SES								
	Total					Total								
	Students	%ELL	#ELL	%SWD	#SWD	Students	%ELL	#ELL	%SWD	#SWD				
Austin	2842	45.3	1287	14.1	401	2009	46.1	926	13	261				
Chicago	25492	10.9	2779	15.2	3875	22515	11.3	2544	15.1	3400				
Dallas	2809	18.3	514	13.9	390	1755	18.8	330	13.2	232				
Milwaukee	4123	5.1	210	20.7	853	2620	6.2	162	19	498				
Minneapolis	2352	31.5	741	16.7	393	1591	34.9	555	16.4	261				
Total	37618	14.7	5531	15.7	5912	30490	14.8	4517	15.3	4652				
Year 0910		Registe	ered for SE	ES		Attended SES								
	Total					Total								
	Students	%ELL	#ELL	%SWD	#SWD	Students	%ELL	#ELL	%SWD	#SWD				
Austin	1463	34.5	505	11.2	164	1318	35.5	468	10.6	140				
Chicago	11324	17.1	1936	29.4	3329	10357	17.7	1833	29.9	3097				
Dallas	11143	20.5	2284	11.8	1315	10781	20.8	2242	11.7	1261				
Milwaukee	6933	11.8	818	19.8	1373	4998	13.2	660	19	950				
Minneapolis	4698	38.5	1809	19.4	911	3320	42.1	1398	18.6	618				
Total:	35561	20.7	7352	19.9	7092	30774	21.5	6601	19.7	6066				

Table 1b: Student	Reg	istered for	SES	A	ttended SI	ES	Attend	ed 40 or moi	re hours			
Selection into SES		Chicago	4 districts		Chicago	4 districts		Chicago	4 districts			
(odds of registering for	2008-09	2009-10	2009-10	2008-09	2009-10	2009-10	2008-09	2009-10	2009-10			
and attending SES)	N=100,988	N=63,461	N=61,032	N=100,988	N=63,506	N=61,032	N=43,671	N=10,873	N=54,686			
Student characteristic		Coefficients reported as odds ratios										
Female	1.109	0.949	1.103	1.092	0.950	1.109	1.072	0.997	1.044			
Asian	0.315	0.685	0.480	0.335	0.753	0.536	1.071	1.073	0.725			
White	0.455	0.638	0.420	0.520	0.660	0.466	1.164	0.929	0.614			
Black	reference	reference	Reference	reference	reference	reference	reference	reference	reference			
Hispanic	0.607	0.782	0.783	0.689	0.803	0.866	1.921	1.119	1.035			
Other race	0.837	0.659	0.779	0.804	0.574	0.699	0.853	2.766	0.996			
English language learner	1.438	2.219	1.200	1.437	2.220	1.238	0.870	1.579	1.372			
Free lunch	1.247	n.a.	2.727	1.310	n.a.	2.938	2.912	n.a.	3.602			
Students w/disability	1.121	3.459	0.854	1.066	3.501	0.838	0.860	2.385	0.788			
Retained	1.014	1.688	0.645	0.959	1.740	0.604	0.691	1.488	0.539			
Attended SES prior year	2.397	1.696	3.140	2.464	1.742	3.318	1.928	1.223	2.746			
Percent absent prior year	0.928	0.039	2.288	0.909	0.024	3.374	0.881	0.0002	3.118			
Grade K-5	1.284	1.478	1.409	1.378	1.529	1.597	1.694	1.384	1.790			
Grade 6-8	reference	Reference	Reference	reference	Reference	reference	reference	reference	Reference			
High school	0.653	n.a.	0.745	0.478	n.a.	0.746	0.126	n.a.	1.299			

Coefficients (odds ratios) reported in bold are statistically significant predictors of student selection.

Note: the reference category for grade level is middle school students (grades 6-8); odds ratios for K-5 and high school students are interpreted relative to middle school students. Similarly, the odds ratios for the race variables are interpreted relative to black students. Data from five district study sites are combined.

For Chicago Public Schools in 2009-10, free lunch eligibility was a requirement for registration.

Table 2: Eng	_	0 0		`	,	student	s with o	disabilit	ties' pai	rticipati	on by	
•	Aus				Dal	llas	M:1	aukee	Minn	eapolis	Combi	nation
English Language	Aus	SUIII	Chic	cago	Dal	nas	MIIIW	aukee	WHITE	eapons 	Combi	пацоп
Learners	0809	0910	0809	0910	0809	0910	0809	0910	0809	0910	0809	0910
For-Profit		0, 0		0,7 = 0		07 - 0	0007				0002	0,20
Providers	47%	36%	11%	17%	19%	22%	5%	11%	30%	43%	14%	21%
Nonprofit												
Providers	42%	25%	8%	14%	15%	15%	25%	32%	44%	36%	19%	22%
Offsite												
Providers	50%	32%	7%	18%	16%	20%	8%	11%	37%	42%	24%	23%
Onsite	400/	/					40.4					
Providers	48%	35%	11%	17%	18%	21%	4%	14%	34%	42%	14%	21%
Online	4.60/	270/	70/	1.40/	100/	220/	20/	60/	270/	2.60/	170/	250/
Providers	46%	37%	7%	14%	19%	22%	2%	6%	27%	36%	17%	25%
Students	Au	<u>stin</u>	Chi	cago	go Dallas		s Milwaukee		Minneapolis		Combination	
with	0000	0010	0000	0010	0000	0010	0000	0010	0000	0010	0000	0010
Disabilities	0809	0910	0809	0910	0809	0910	0809	0910	0809	0910	0809	0910
For-Profit	120/	100/	1.50/	200/	1.00/	110/	100/	100/	1.60/	100/	1.50/	100/
Providers	13%	10%	15%	29%	10%	11%	19%	19%	16%	19%	15%	19%
Nonprofit Providers	16%	14%	14%	37%	41%	15%	18%	18%	18%	19%	17%	22%
Offsite	10/0	14/0	14/0	3//0	41/0	13/0	10/0	10/0	10/0	19/0	1 / /0	22/0
Providers	14%	11%	26%	47%	18%	12%	19%	19%	18%	19%	18%	15%
Onsite	1170	1170		.,,,	1370	1270	12770	1270	1370	12770	1370	10/0
Providers	13%	35%	15%	29%	12%	12%	18%	18%	16%	19%	15%	20%
Online												
Providers	13%	11%	15%	39%	9%	11%	24%	25%	22%	20%	15%	16%

				me	odels)							
		Rea	ding (2008	-09)			M	ath (2008	-09)			
English Language Learners (ELL)	# of ELL Students with gain scores	% of total students	% of total students with gain scores	Coefficient (effect size)	SE	# of ELL Students with gain scores	% of total students	% of total students with gain scores	Coefficient (effect size)	SE		
Combined	9975	15%	13%	-0.010	(0.022)	9958	15%	13%	0.054***	(0.015)		
Chicago	5840	10%	10%	0.031	(0.019)	5812	10%	10%	0.079***	(0.015)		
Minneapolis	1098	34%	38%	-0.091**	(0.041)	1109	34%	38%	0.013	(0.034)		
Milwaukee	185	6%	9%	0.088***	(0.023)	191	6%	10%	0.141	(0.084)		
Dallas	2045	20%	20%	-0.143	(0.128)	2045	20%	20%	-0.041	(0.071)		
Austin	807	36%	37%	0.074*	(0.036)	801	36%	36%	0.108*	(0.050)		
		Rea	ding (2008	-09)			M	ath (2008	-09)			
Students with Disabilities (SWD)	# of SWD Students with gain scores	% of total students	% of total students with gain scores	Coefficient (effect size)	SE	# of SWD Students with gain scores	% of total students	% of total students with gain scores	Coefficient (effect size)	SE		
Combined	10681	15%	14%	-0.017	(0.020)	10585	15%	14%	0.022	(0.015)		
Chicago	8563	14%	14%	0.011	(0.015)	8463	14%	14%	0.028**	(0.013)		
Minneapolis	474	17%	16%	-0.029	(0.048)	476	17%	16%	-0.004	(0.058)		
Milwaukee	379	21%	20%	0.027	(0.161)	377	21%	20%	0.023	(0.071)		
Dallas	1249	12%	12%	-0.310*	(0.167)	1249	12%	12%	-0.018	(0.136)		
Austin‡	16	13%	1%	=	-	20	13%	1%	-	-		
		Rea	ding (2009	-10)		Math (2009-10)						
English Language Learners (ELL)	# of ELL Students with gain scores	% of total students	% of total students with gain scores	Coefficient (effect size)	SE	# of ELL Students with gain scores	% of total students	% of total students with gain scores	Coefficient (effect size)	SE		
Combined	8676	15%	12%	0.062***	(0.022)	9039	15%	13%	0.043**	(0.017)		
Chicago	5901	9%	9%	0.103***	(0.019)	5874	9%	9%	0.065***	(0.016)		
Minneapolis	734	35%	39%	-0.055	(0.074)	988	36%	39%	0.009	(0.035)		
Milwaukee	857	10%	10%	0.105**	(0.049)	966	10%	11%	-0.031	(0.052)		
Dallas	790	19%	19%	-0.193	(0.114)	790	19%	19%	0.011	(0.121)		
Austin	406	31%	31%	0.082	(0.078)	421	31%	31%	0.013	(0.090)		
		Rea	ding (2009	-10)	•		M	ath (2009	-10)			
Students with Disabilities (SWD)	# of SWD Students with gain scores	% of total students	% of total students with gain scores	Coefficient (effect size)	SE	# of SWD Students with gain scores	% of total students	% of total students with gain scores	Coefficient (effect size)	SE		
Combined	10667	15%	12%	0.052***	(0.017)	10737	15%	13%	0.046***	(0.015)		

Chicago	8634	14%	14%	0.036**	(0.017)	8539	14%	14%	0.032**	(0.013)
Minneapolis	318	19%	17%	0.167	(0.135)	438	19%	17%	0.144**	(0.062)
Milwaukee	1548	22%	19%	0.053	(0.048)	1599	22%	19%	0.033	(0.058)
Dallas‡	160	12%	4%	-	-	152	12%	4%	-	-
Austin‡	-	12%	1%	-	-	-	12%	0%	-	-

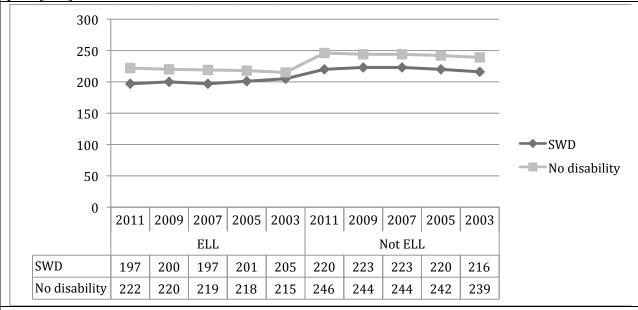
[‡] These subgroups in Austin and Dallas are too small for obtaining credible estimates, thus we include only descriptive statistics for this district.

subject		All stu	ıdents		ELL SWD			ELL		SWD		
	2008-0	09 VA	2009-	-	2008-	09 VA	2008-0	09 VA	2009-	10 VA	2009-1	10 VA
	Mo RLA	del M	RLA	del M	RLA	del M	Mo RLA	del M	RLA	del M	Mo RLA	del M
Small Providers		0.070									0.183	
A Better Grade	0.322											
A+ Learning Acad.	0.022			0.196								
ABC Educate Me				0.176								
										0.242		
ATS Project Success Academic Solutions										0.242		
of Milwaukee	0.457		0.126			0.061		0.055	0.101			
Aim High	0.042	0.068	0.114	0.070		0.061		0.055	0.104			
B.R.U. Youth Academy		0.113		0.279		0.098						
Babbage Net School	0.096	0.113	0.287	0.192		0.098		0.161	0.712	0.350		
Balser Enterprises	0.096	0.072	0.40/	0.172		0.202		0.101	0./12	0.330		
Brain Hurricane	0.076	0.073	0.056			0.106	0.130					
Brainfuse					0.137							
Cambridge												
Educational Services		0.089	0.079			0.135		0.226				
Cardinal Stritch University Reading												
Center				0.190								
Chess Academy				0.061								
Children's Home + Aid Society		0.174		0.088								
Cranium Maximus				0.466								
Diverse Learning				0.275								
Educate Online												
(formerly Catapult)				0.099								
Group Excellence				0.151						0.219		
Huntington	0.044				0.116	0.095						
IEP (Onsite)	0.112											
Knowledge Expert												
La Escuelita	0.130	0.284										
Launch Lives	0.098	0.116										
Literacy for All				0.094						0.141		
Motivating												
Tomorrow's Minds	0.425	0.272										
Mainstream Development											0.223	
Mema, Inc: Sylvan											0.223	
Learning Center				0.398								
Mindful Learning				0.179								
Newton Learning	0.049	0.063	0.101	0.034	0.090	0.138			0.123			
One on One												
Learning	0.210	0.301		0.683								
One-to-One	0.169											
Orion's Mind	0.040	0.052	0.053	0.042		0.082		0.063				
Poder Ser (ONSITE)	0.086											
Princeton Review		0.049						0.057				
Progressive]		<u></u>		
Learning	0.041		0.067						0.170	0.100		
Rocket Learning Partners, LLC			0.061							0.231		
SES Texas Tutors					0.244							
SES of Illinois				0.088		0.128			0.176	0.161		

Salem, Inc.		0.251		0.527								
School Service												
Systems	0.053			0.107							0.194	0.140
Somali Education												
Ctr	0.157	0.156										
Sparkplug												
Education Program-												
Tutoring									0.298			
Step Ahead Tutors					0.224	0.170						
Sylvan Learning -												
Metro Centers			0.984	2.941								
The Association for												
the People and the												
Community (A.P.C.)		0.993										
TutorCo	0.096											
Train Up A Child			0.619	0.145								
Unparalleled Solutions		0.077	0.100				0.107					
Dointions		0.077	0.100				0.107					1
Coefficients at the 95%	Coefficients at the 95% or 99% confidence level											
are denoted in blue bo	Coefficients at the 90% confidence level are denoted in green italics.											
Cells marked "-" did no												
significant positive resu		Sacistican	· J	Information in shaded boxes was not available								

Table 5: Analy and Students		-	pe Effect	s from a	II 5 study	sites co	mbined fe	or ELL		
			amers who	attended S	Students v	vith disabilit	ies who atte	ended SES		
					ding					
SES Provider	School Va	lue Added	School Va	lue Added		lue Added	School Va	lue Added		
Type	Model 2	2008-09	Model 2	2009-10	Model 2	2008-09	Model 2	009-10		
7,1	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE		
Online Provider	-0.117*	(0.062)	0.141**	(0.070)	-0.062	(0.041)	0.061	(0.041)		
Onsite Provider	0.034	(0.023)	0.065***	(0.022)	0.018	(0.017)	0.032*	(0.019)		
Offsite Provider	-0.040	(0.054)	0.054	(0.055)	0.045	(0.067)	0.051	(0.049)		
Number of Obs	99	75	67	6758 10681				10182		
	School Va	lue Added	School Va	lue Added	School Va	lue Added	School Value Added			
	Model 2	2008-09		2009-10	Model 2	2008-09	Model 2	009-10		
	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE		
Online Provider	-0.073*	(0.040)	0.067	(0.071)	-0.079***	(0.026)	0.052	(0.036)		
Onsite Provider	0.058***	(0.021)	0.047***	(0.018)	0.030*	(0.016)	0.035**	(0.014)		
Offsite Provider	0.060	(0.048)	-0.100**	(0.042)	-0.022	(0.072)	-0.021	(0.042)		
Number of Obs	99	58	68	40	108	585	101	138		
				Rea	ding					
	School Va	lue Added	School Va	lue Added	School Va	lue Added	School Va	lue Added		
	Model 2	2008-09	Model 2	2009-10	Model 2	2008-09	Model 2	2009-10		
	Coeff	SE	Coeff	SE	Coeff	SE	Coeff	SE		
For profit										
Provider	-0.023	(0.031)	0.087***	(0.020)	-0.011	(0.023)	0.054***	(0.018)		
Not for profit										
Provider	0.033	(0.043)	0.153***	(0.039)	-0.031	(0.056)	-0.027	(0.038)		
Number of Obs	99	75	67	58	106	681	10182			

Figure 1: Average scale scores for mathematics, 4th grade by status as English Language Learner, two categories [LEP], year, jurisdiction and disability status of student, including those with 504 plan [IEP]: 2011, 2009, 2007, 2005, 2003, and 2000



This report was generated using the NAEP Data Explorer.

http://nces.ed.gov/nationsreportcard/naepdata/

NOTE: The NAEP Mathematics scale ranges from 0 to 500. Some apparent differences between estimates may not be statistically significant.

SOURCE: U.S. Department of Education, Institute of Education Sciences, National Center for Education Statistics, National Assessment of Educational Progress (NAEP), 2000, 2003, 2005, 2007, 2009 and 2011 Mathematics Assessments.

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