

**Accountability and Performance Measurement Challenges
in Supplemental Educational Services Provision**

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Introduction

The U.S. No Child Left Behind (NCLB) Act was signed into public law in 2002 “to close the achievement gap [in public education] with accountability, flexibility, and choice” (Public Law 107–110—January 8, 2002). In a Whitehouse report¹, President George W. Bush articulated the priorities of the Act, stating that they “are based on the fundamental notion that an enterprise works best when responsibility is placed closest to the most important activity of the enterprise, when those responsible are given greatest latitude and support, and when those responsible are held accountable for producing results.” The corresponding elements or priorities of the legislation include: holding states, districts and schools accountable for student achievement, i.e., “parents will know how well their child is learning”; reducing bureaucracy and increasing administrative and funding flexibility for states and school districts; “empowering” parents with more information about the quality of their children’s schools and offering school choice to those in persistently low-performing schools, and targeting federal funds on effective (evidence-based) practices for improving teacher and school quality.

Supplemental Educational Services (SES) embodies most of these elements as it aims to use market-like mechanisms and private sector involvement to improve educational opportunities for children in public schools that are performing below minimum standards.² Public schools that have not made adequate yearly progress in increasing student academic achievement for three years are required under NCLB to offer parents of children in low-income families the opportunity to receive extra academic assistance or to transfer to another public school. Consistent with the design and intent of the law, these interventions are implemented at the local level and draw on the private sector to offer eligible students a range of choices for SES, (i.e., free tutoring outside of regular school hours). Although no new federal monies are allocated along with the mandate for these “corrective actions,” the law lays out criteria and guidelines for state and local educational agencies in choosing SES providers and arranging for their services and obligates school districts to set aside 20 percent of their Title I funding allocation for them and to measure their effectiveness in increasing student achievement.³

In this research, we draw on the experience of Milwaukee Public Schools (MPS) to investigate, using qualitative and quantitative methods, how MPS is managing the challenges of implementing SES and the implications of the resulting relationships for service delivery and student educational outcomes. Very rich data were collected in this study through interviews with school district personnel, focus groups with parents and students, surveys of students who were eligible for SES, and administrative data (including student records and test scores) from Milwaukee Public Schools (MPS) and the administration of SES. These data are used to describe the market for SES that has evolved in Milwaukee; the administration of SES by the district, including changes in the general management of the program and MPS relationships

¹ See <http://www.whitehouse.gov/news/reports/no-child-left-behind.html>.

² See Title I, Section 1116(e) of the Elementary and Secondary Education Act (ESEA), reauthorized by the No Child Left Behind Act of 2001.

³ Title I federal funding, which began in the 1965 Elementary and Secondary Act, was created to allow all students an equal opportunity to receive the highest quality education possible. Through Title I, school districts can hire teachers to lower student-teacher ratios, provide tutoring for struggling students, create school computer labs, fund parent involvement activities, purchase instructional and professional development materials for teachers, hire teacher assistants, and more. The 20% Title I set-aside for SES and school transfers cannot be spent on administrative costs for these activities, although the district may reallocate any unused set-aside funds to other Title I activities after all eligible students have had adequate time to opt to transfer to another school or apply for SES.

with SES providers over time, and the performance of SES providers in increasing student achievement.

This report proceeds as follows. We begin with a general discussion of the NCLB legislation and its implications for local implementation of SES. Next the context and data for Milwaukee Public Schools and the qualitative and quantitative methods applied in the analysis are described. We then present the findings of analyses that assess the operations and performance of SES providers, as well as how their performance relates to their market shares (of SES students) and financial accountability. The report concludes with a discussion of the implications of the study findings for ongoing provision of SES in MPS.

The implementation of supplemental educational services

The provision of supplemental educational services under NCLB is almost entirely the responsibility of nonfederal and nongovernmental third parties. As indicated in the NCLB legislation, this delegation and devolution to third parties was intentional, with the goal of giving local entities (public and private) the leeway and flexibility necessary to better meet the educational needs of students in underperforming schools. The law urges states to establish specifications for SES provider registration that allow for as expansive of choice as possible among non-profit, for-profit, faith-based and community organizations and local educational agencies (as long as the latter have not been identified as “needing improvement”). The rationale underlying this shift from the traditional role of government as provider to a new structural arrangement in which the government manages a field of competitive providers has its basis in the classic market paradigm; that is, fostering a competitive market for services is expected to generate a wider range of choices, encourage innovative approaches to service delivery as providers compete for market share, and to squeeze out inefficient and ineffective providers through choice and management tools that hold them accountable for performance. In the words of President George W. Bush, “government must be open to the discipline of competition” (Gansler, 2006: 40).

Scholarly research suggests, however, that there is little empirical evidence to support the claims of sweeping benefits associated with competitive markets for public services (Hefetz and Warner, 2004). Proponents have based their assertions on case studies touting increased efficiency and cost savings, while opponents have looked for evidence of corruption, cost overruns and neglect of citizen interests. In three decades of research on “competitive sourcing,” the majority of case examples proclaiming success—in areas such as refuse collection, toll road management, communications and other public works—have heralded the savings to taxpayers in the shift to third-party responsibility for public services. For example, Savas’ early (1977) research showing that public garbage collection was about 30 percent more expensive than that by private contractors is attributed with advancing outsourcing to the point where today, approximately one-third of the average city’s services are contracted out (Savas, 2006).

In general, this expanding body of research suggests that third-party service provision confronts its most onerous challenges in areas where (i) service technologies are more complex and highly specialized, and thus, measuring and monitoring performance—in terms of both quality and efficiency—is more difficult; (ii) there are too few suppliers (or providers) to assure a competitive market for services; (iii) government capacity for effectively managing relationships that are decentralized and/or devolved is limited and/or implementation is hampered by resource (time and funding) constraints, and (iv) policy goals and directives are

vague or not agreed upon by all parties (Ballard and Warner, 2000; Sclar, 2000; Brown and Potoski, 2003; Hefetz and Warner, 2004; VanSlyke, 2006). In the case of supplemental educational services, each of these factors impinges on the implementation of SES to some extent.

Key features of SES and challenges in its implementation

In setting up or arranging a competitive market for SES, state educational agencies have the advantage of drawing vendors from an established market of other after-school study and tutoring (or “out-of-school-time”) programs that have long been in operation. In addition, a large number of diverse organizations have newly entered the market to compete for available SES funds, with widely varying hourly rates, service costs, tutor qualifications, tutoring session length, instructional strategies and curriculums. NCLB directs state educational agencies to identify organizations that provide services consistent with state and local instructional programs (and applicable federal, state, and local health, safety, and civil rights laws) [Section 1116(e)(12)(B)(i)] and that have an established record of effectiveness in increasing student academic achievement. Furthermore, the law requires states to withdraw approval from providers that fail to increase student academic achievement for two years. Research to date shows, however, that beyond self-reported data and some internal performance evaluations conducted by large national providers, there is very little reliable information on the effectiveness of different organizations that are entering the market to provide SES, or the relationship of service strategies and rates charged by providers to program outcomes (Farkas and Durham, 2006; Burch, Steinberg and Donovan, 2007; Heinrich, Meyer and Whitten, 2008). The Government Accountability Office (GAO, 2006) reported that three-fourths of states are experiencing challenges in developing data systems for tracking and analyzing SES information and assessing students’ academic progress, and as of the time of its survey, no state had produced a conclusive assessment of SES providers’ effects on student academic outcomes, which has important implications for their ability to comply with the accountability requirements of NCLB.

Local educational agencies are required to disseminate information about approved SES providers to students (and their parents) who are eligible for SES, and most SES providers do their own marketing as well, sending out brochures, inviting parents to presentations and sometimes offering incentives to students to register with them. In theory, accountability is supposed to be realized primarily through the exercise of choice by parents and students, who in using this information, are expected to identify the best provider to meet their child’s needs and sign up for services. The SES providers subsequently invoice the district to request payment for the number of hours of SES attended by each student, up to a fixed dollar amount that the district allocates (per SES recipient) from its Title I funds. The service agreement between the district and SES provider, in effect, is a cost-reimbursement contract, with no performance-contingent pay. It is also important to note that only state educational agencies (SEAs) have program design authority (e.g., to establish SES program criteria such as an acceptable student/tutor ratio for providers to meet), and districts are required to include on the list of available providers any that are approved by the SEA. Thus, the flexibility and capability of districts in managing the market for SES is highly constrained by limited authority, no new resources (as the Title I funds may not be used for program administration), and little programmatic guidance or experience. Furthermore, the Title I funds that districts are required to use to pay SES providers are diverted

from their typical educational support uses at the district level (e.g., summer school, teaching assistance, instructional and professional development materials, computer labs, etc.).

Study data, samples and measures

At the request of Milwaukee Public Schools (MPS), this study was initiated in the spring of 2006 with the primary objective of helping the district to evaluate the effects of SES, and in particular, the effectiveness of different SES vendors in accord with the accountability requirements of NCLB. The period of this study covers four school years, 2003-04, 2004-05, 2005-06 and 2006-07. MPS provided access to middle and high school students' school records for these years, including: transcript and demographic data from the MPS Electronic Student Information System database (with information on gender, race/ethnicity, free lunch eligibility, English proficiency, special education status, grade point average, number of absences from the prior school year, a retention indicator and foreign language course indicator) and administrative data used by MPS to monitor and manage the SES program. The SES program administrative database includes student enrollment and attendance information (with particular SES vendors identified) and other rich student-level data, such as Individual Student Achievement Plans that describe academic goals to be met in tutoring, billing information that allows for the calculation of vendor expenditures on individual students, and student participation in other academic support programs. Measures of student achievement, i.e., gains in students' reading and mathematics scores from one year to the next, were constructed using data from standardized tests administered to MPS students. Since two different tests were used during the study period—the Wisconsin Knowledge and Concepts Examination (WKCE) and the TerraNova assessment—the measurement issues were highly complex, and thus, we refer readers to Heinrich, Meyer and Whitten (2008) for details on their units, scaling and variance.

Primary data were also collected in focus groups with parents and students enrolled in or eligible for SES during 2005-2006 and through surveys of students who registered for SES in the 2006-2007 school year. The focus groups were conducted at the beginning of the study to explore basic issues about how parents learned about SES (or *if* they knew of the program), how they chose a provider for their child, their opinion of the effects of tutoring on their child's academic performance, and any difficulties they had in arranging services.⁴ The student surveys, administered in March and April of 2007 to those who had registered for SES in the 2006-2007 school year, were developed to collect additional information from students about how they chose their SES provider, how they were spending time in their tutoring sessions, how these sessions were affecting their performance in school, and what would encourage them to attend more tutoring sessions.⁵

⁴ A random sample of 320 parents/students was first drawn from MPS administrative data. The sample was stratified to ensure that we included both parents whose children had registered for SES in the 2005-06 school year and those who chose not to participate in SES, with approximately 60% of the sample in each geographic area drawn randomly from parents whose children participated in SES. The focus groups took place in August 2006 in public libraries easily accessible by public transportation and in zip codes with high concentrations of SES schools. Although the total number of focus group participants (n=17) was low as a percent of the invited sample (5.3%), the participants in the three groups that met were diverse and the size of the groups was advantageous for meaningful discussion (see Heinrich and Whitten, 2006 for further details).

⁵ In establishing the sample frame for the surveys, we selected eight SIFI schools with the largest SES enrollments. Students in seven of these eight schools completed the survey a second time in late March or early April if they were

Table 1 shows the number of middle and high school students who were eligible for SES, registered for SES, and attended any SES session during the 2003-04, 2004-05, 2005-06 and 2006-07 school years in MPS. Consistent with the findings of other field studies, the fraction of eligible students who register for SES is small, and among those, the number attending any sessions is declining over time (from 90% to only one-third in the 2006-07 academic year). The GAO (2006) reported that low parent and student demand for SES was a challenge in approximately two-thirds of districts of the districts they studied, and school districts suggest that it is difficult for SES to compete with other afterschool programs and extracurricular activities. Clearly, it is important to understand how the competitive market for SES is functioning and why a relatively low number of eligible students are exercising choice and attending SES, given the implications for compliance with NCLB as well as for the analysis of SES effectiveness.

Choice and the competitive market for SES in MPS

Since the initiation of NCLB in 2002, the availability of federal funds for SES and the number of approved SES providers has increased dramatically. Burch, Steinberg and Donovan (2007: 121) described the SES market as “a very new market where hundreds of firms are flocking to take advantage of the promise of sizeable revenues.” This was, of course, the intent of the law, that is, to encourage the entry of many nongovernmental (for-profit and nonprofit) organizations that would stimulate innovation and result in improvements in students’ educational achievement. As Farkas and Durham (2006) point out, though, in order to realize the benefits from a competitive market, parents of eligible students need to have sufficient information to make meaningful choices.

In disseminating information to eligible students and their parents about available services, school districts are required to send a letter explaining SES and the enrollment procedures. MPS also prepares a booklet each year describing the SES providers servicing the district; the state department of public instruction maintains a searchable database of approved providers, and most SES providers actively market their services to parents and students as well. In the focus groups with parents and students, however, some parents indicated that they did not receive or comprehend this information, and others had a hard time distinguishing SES (which is available free-of-cost to their children) from other school-based tutoring or after-school programs that charge for their services. Parents were also skeptical of the advertising, describing it as a lot of “smoke and mirrors” and “a little slick,” particularly in cases where “free stuff” was offered for registration with a provider. Student responses to the spring 2007 surveys confirmed that many were signing up for SES *primarily* to receive these rewards. Nonetheless, most parents also had a clear idea of what they *should* be looking for in choosing a provider, such as how much one-on-one tutoring their child would receive, what the student-teacher ratio would be in group SES sessions, and specific information on the tutor qualifications and academic content of SES sessions. Although some of this information was available in the district SES booklet, missing was more specific guidance for parents, such as what parents should view as an acceptable student-to-teacher ratio. Some parents also reported making SES choices based on convenience and familiarity (e.g., a school-based provider that might involve a student’s regular school day teacher).

still participating in SES. A total of 1441 students responded to the first survey, and 874 students participated in the second survey.

Table 2 describes the market for SES in MPS, presenting information on the “market share” or provider share in terms of MPS students who registered for SES in four academic years, 2003-4 to 2006-07.⁶ Since not all SES providers were approved in every year and not all registered providers attracted students, the first column for each year indicates whether the provider was approved to offer SES, and the second column indicates their market share. Blank cells in an academic year indicate that the vendor was not approved and had no registered students. In 2003-04, there were a total of 40 approved SES providers servicing Milwaukee, but only 18 of these served any students in that year. The vendor with the largest market share (35% of all registered students) was Newton Learning, a private, for-profit national provider operating in 36 U.S. states. Catapult Online, a for-profit, on-line service provider, and Tools of Empowerment Educational Services (which also provides SES in Indiana), each had approximately 10 percent of the market share, and together, the top five (of 40) providers garnered more than 70 percent of the market (registered students). In 2004-05, the number of approved providers expanded to 55, with a relatively large number of faith-based providers entering the market, (e.g., Believers in Christ, Changing Your World Ministries, Christian Family Community Assembly of God, Greater New Birth Church, Holy Redeemer Christian Academy, Jesus is on the Way, St. Paul Family Worship Center, and St. Timothy Community Baptist). Of these, only one registered any students and stayed in the market, and all but one of these others did not re-enter the market during this study period.

With only approximately half of the approved SES providers signing up students in 2003-04 and 2004-05 and with the top five providers taking most of the market share, it is not surprising to see the market begin to narrow in the subsequent two years. The total number of approved providers dropped from 55 to 35 in 2005-06, and approximately three-fourths (26) of them registered students in that year. Even more striking, nearly all 32 approved providers in 2006-07 had students sign up for SES, with the exception of Bethel Community Development and United Migrant Opportunity Services, both nonprofit organizations serving relatively small numbers of students over the course of multiple school years. Just eyeballing Table 2, it is clear that SES providers with no or tiny market shares were the most likely to exit, and this applied to large national private providers (e.g., Brainfuse Online, Failure Free Reading, Kaplan, Plato Learning, Princeton Review, etc.) as well as to the smaller, nonprofit community-based centers (e.g., Adolphus Community Outreach Center, School of P.A.Y., Wisconsin Lutheran Learning Center, etc.). And it is still the case in 2006-07 that the top five providers had close to 70 percent of the total market share, with four of those five consistently at the top over the study period (although some “jockeying” for relative shares appears to occur). If one assumes that parents and students are making well-informed choices, one might see this as evidence that with relatively little governmental guidance or intervention, the market for SES adjusts rapidly, matures and is highly responsive to citizen preferences and needs. This assertion begs an important question, however: are the providers with the greatest market shares also the providers who are most effective in increasing student achievement?

SES provider performance

As discussed above, NCLB specifically requires states to measure the effects of SES on student academic achievement and to withdraw approval from providers that fail to increase

⁶ Complete information was not available for the start-up year for offering SES in MPS, 2002-03, as organization of the program was still a work in progress.

student achievement after two years of service. Research and evaluation efforts to date, however, show that establishing a causal relationship between SES and student achievement is particularly difficult, as is estimating the effectiveness of specific providers. First, a comparison group of students not receiving SES is essential for separating the effects of SES from other classroom and after-school activities and interventions that influence students' learning. Even then, the possibility of unobserved differences between those receiving SES and those not participating poses challenges for LEAs and their evaluators in identifying the effects of SES, particularly since SES registration and attendance rates are very low (i.e., implying that take-up of the services may be highly selective). For example, an early (2003-05) Chicago Public Schools (CPS) study of students participating in SES assessed changes in their Iowa Test of Basic Skills scores from one spring to the next and concluded that students receiving at least 40 hours of tutoring had larger gains in reading and mathematics than students who did not receive SES (Ryan and Fatani, 2005), but the report was criticized for not adequately taking into account differences between those receiving SES and those who did not (Burch, 2007).

Recent studies have attempted more rigorous approaches to estimating SES effects and have reported mixed findings. Researchers based within Los Angeles (L.A.) and Chicago Public Schools (CPS) estimated linear regression models to predict student test scores, controlling for students prior year scores and demographic characteristics. The CPS study looked only at 4th-8th grade students who were not English Language Learners and received at least 30 hours of SES and found increased reading and math achievement among elementary school students and math gains among 6th and 7th graders (Chicago Public Schools, 2007); the L.A. study found that even among students with the highest levels of SES attendance, program effects were "fairly small" and attributed to improved performance by elementary students (Rickles and Barnhart, 2007). A RAND study (Zimmer et al., 2007) that explored SES effects across multiple school districts (Baltimore, Chicago, Long Beach, Los Angeles, Palm Beach, Philadelphia, San Diego and Washington DC) used a fixed-effects specification to compare changes in students' test scores before and after SES participation to the trajectories of nonparticipating students. Although they reported positive, statistically significant effects of SES on students' reading and math test scores in five of seven districts, these results did not distinguish effects by grade level and did not account for intensity of participation. Heinrich, Meyer and Whitten (2008) also estimated fixed effects ("double difference") models and used difference-in-differences propensity score matching methods to assess the effects of different levels of SES participation on MPS middle and high school students' math and reading test score changes over two school years (2004-05 and 2005-06). They did not identify any statistically significant average impacts of SES on student math and reading (test score) gains and found just one substantively small effect of total SES hours attended on high school students' reading gains.

This report extends the analysis of Heinrich, Meyer and Whitten (2008) to examine provider-specific effects in MPS for the 2004-05 and 2005-06 school years. Ordinary least squares (OLS) models are estimated in which the treatment is defined as the total number of SES hours attended with a specific provider; for each student who attended SES, the total number of hours with the provider with which he or she attended SES for the *most* total time is measured with these variables. Any vendor with at least 10 students is included in the model, and one additional "other provider" variable was created to combine the smaller vendors (and students' total time in SES with these providers). In other words, the analysis investigates the effects of students' total number of hours with particular providers to determine if some providers are, on average, more (or less) effective than others in increasing students' reading and math

achievement (compared to the state of no SES participation). The control variables in these models included: gender, race/ethnicity, free lunch eligibility, English proficiency, special education status, GPA and GPA-squared, number of absences in the prior school year, a retention indicator, foreign language course indicator, prior SES attendance, grade year, school attended and the estimated propensity of registering for SES (i.e., the propensity score used in the matching analysis by Heinrich, Meyer and Whitten).

For comparison, lines 1 and 2 of Table 3 show the estimated effects—from a propensity score matching analysis with radius caliper matching (the caliper set at a conservative 0.01 and a common support imposed)—of attending any SES on changes in reading and math test scores in the 2004-05 and 2005-06 school years for MPS middle and high school students.⁷ These results show that after matching participants and nonparticipants on their baseline characteristics, there are no statistically significant differences in the changes in test scores for students who attended SES compared to those who did not attend any SES sessions. This analysis includes any registered student who attended any number of hours, however, and there was a very wide range of total hours of SES attended in these samples (from 1 to 110 hours). Line 3 of Table 3 presents the estimated effects of a continuous measure of total hours of SES attended from an OLS regression model with the control variables described above. These results show only one statistically significant, positive effect of total hours attended on the change in MPS high school student reading scores (in 2005-06); for each additional hour attended, students' reading test scores increase by 0.087 of a test unit. The lack of statistically significant findings in this analysis of SES effectiveness is consistent with MPS students' own reports in the spring 2007 surveys; less than 30 percent indicated that the SES sessions had been helpful to them in improving their academic performance.

The results of greatest interest in this analysis—from the regressions that estimate the effects of the total number of hours attended with specific SES providers—are summarized in line 4 of Table 3 (full model results are available from the author). It is possible that despite the lack of average or marginal (hours attended) SES effects, some SES providers may be more effective than others, and that more hours attended with these providers will produce larger gains in student achievement. The results show that only six (of the approximately 30 providers that registered students in these school years) produced statistically significant gains in students' math and/or reading achievement: Bethel Community Development Center, School of P.A.Y., United Migrant Opportunity Services, NonPublic Educational Services, Inc. (NESI), Learning Exchange and Catapult On-line. Because of differences in the tests used in the two academic years, parameter estimates are larger for 2004-2005 than 2005-2006 by approximately a factor of 10, and parameter estimates for high school students are about double the size for those of middle school students, as expected. Accounting for these differences, the size and substantive significance of the estimated effects are generally comparable; that is, there is no one provider that stands out as being appreciably more effective than the others (among these six) in increasing student achievement. For example, considering the effect of NESI on high school students' reading gains in 2004-05, for each additional hour of SES attended with NESI, student reading scores increased by 3.2 test units, or approximately 4 percent of a standard deviation reading gain for that test. The SES provider effects are, therefore, quite small relative to the variability of gains in student test scores.

⁷ The effects of SES on student achievement are estimated only for 2004-05 and 2005-06 because one year of pre-program data is needed to account for selection into SES (2003-04), and data on outcomes (test scores and grades) for the 2006-07 school year only recently became available for analysis.

As only six SES providers were identified as more effective than others in increasing student test scores, it was also of interest to know if they were distinguished by particular characteristics that would help school districts in guiding the SES choices of students and parents. Table 4 presents summary information about the providers for the 2004-05 school year, the only year in which all of these providers were active in MPS. Three of the SES providers are larger, for-profit national vendors (NESI, Learning Exchange and Catapult On-line), and the others are nonprofit, locally-based providers. The information in this table suggests little in the way of consistent attributes or logical relationships among them, (i.e., hourly rates charged for tutoring, reported student-teacher ratios, number of sessions offered, or student attendance rates). For example, the provider charging the highest rate per hour (Bethel Community Development) has the same student-teacher ratio and offers approximately the same number of sessions as one of the lowest-cost providers (UMOS), and the less costly of these two providers is also more effective at getting registered students to attend SES. In addition, the rankings for the percentage of students attending 20 or more hours of SES shows that only one of these providers (UMOS) is among the top 10 in this category. Also contrary to what one might expect, the second highest-cost provider has the highest reported student-teacher ratio (and the second largest market share in 2004-05). The Chicago Public Schools (2007) study (one of the few to also estimate provider-specific SES effects) likewise reported incongruous findings; among seven providers identified as generating significant achievement gains for participating students, the least expensive provider (with service costs one-third of the average SES costs) produced reading achievement gains comparable to students tutored by other, more expensive providers and significantly greater math achievement gains than students tutored by the other SES vendors (collectively).

Relationship between SES provider performance and market share

The analysis now comes to the key research question concerning the relationship between provider effectiveness and market share; that is, are the market shares (of registered students) of these six more effective MPS providers relatively larger and/or increasing over time? In the last school year shown in Table 2 (2006-07), the two national, for-profit providers, Catapult Online and Learning Exchange, that were identified as relatively more effective in increasing high school students' reading test scores in 2005-06 had the first and third largest market shares; both had also substantially increased market share since the 2003-04 school year. At the same time, the three nonprofit, locally-based providers that were more effective in producing student reading and math gains (Bethel Community Development, School of P.A.Y. and UMOS) had exited the market or had no registered students. And in the most recent school year (2007-08), only two of these six providers (national ones) were still offering SES in Milwaukee.

Thus, the findings from this investigation of the market for SES are mixed. Although data are not yet available for analysis of SES provider market shares in 2007-08, the list of approved providers for MPS decreased from 32 to 23 vendors, primarily reflecting additional losses of small, community-based providers. Undoubtedly, these patterns in changing provider market shares and market exits reflect cost structure and efficiency factors as well. Low, declining and/or fluctuating student registrations and attendance (as seen in Table 1) make it difficult for providers to cover both fixed costs, such as facility rental, insurance, etc., and anticipated marginal costs (e.g., instruction materials). In addition, the state introduced a new policy in the 2006-2007 school year that limits the use of incentives to those deemed educational and prohibits vendors from offering more popular incentives (e.g., iPods, mall gift cards, movie

passes, etc.), effectively diluting SES vendors' most successful tool in recruiting students. This same policy may also give providers such as Catapult Online, which provides a free computer to students to use at home in accessing the tutoring services, an advantage in recruiting; at the end of this study period, Catapult Online was registering one quarter of all students (the largest market share). In general, these findings are consistent with that of other research (Burch, Steinberg and Donovan, 2007) showing the growing market dominance of larger national firms that have more capital to use in increasing or sustaining market share, as well as revenue streams from other markets to help them endure market volatility.

Accountability for SES provider performance

In calling for this study, MPS initially expected to use the information produced to rank the SES providers according to their effectiveness in increasing students' test scores. The idea was not only to comply with the NCLB requirement to withdraw approval from poorly performing providers, but to also distribute this information to parents and students to aid them in choosing SES providers. As indicated in the above analysis, not all providers registered a sufficient number of students to estimate their effectiveness (controlling for the characteristics of the students they served). And as SES providers may impose their own criteria in accepting student registrations, accounting for *who* they serve may be critical. For example, in studying the large national firms providing SES in 2004-05, Burch, Steinberg and Donovan (2007) showed that among the top eight providers, none offered services appropriate to students with special needs, and among the smaller SES providers, only one in ten offered services and products for native Spanish speakers. Thus, for parents of students with special needs or limited English proficiency (who are frequently over-represented in underperforming schools), the information made available to them on SES providers' performance may be of little direct relevance to the choices they are trying to make for their children. Furthermore, with relatively large numbers of market entries and exits by SES providers, school districts inevitably have to rely on self-reports for new providers (as well as for those providers with relatively small market shares). Finally, lags in compiling data for analysis of provider performance also make it difficult for LEAs to produce accurate information on SES provider performance in advance of the next academic year in which SES choices are made. Thus, in general, accountability through market choice appears to operate very imperfectly—with incomplete and uneven information on performance and limited choices for some (i.e., inequities), as well as little or no representation for those who are affected by Title I allocations to SES but are not participating in SES.

At the same time, states and LEA are gradually gaining experience and developing tools for monitoring SES providers and increasing administrative and financial accountability. Although federal officials primarily communicate with state officials (i.e., the Department of Public Instruction or DPI in Wisconsin), MPS staff reported that federal government representatives had visited Milwaukee to inquire about their different Title I programs and to look for evidence that requirements of the law are being followed. The state passes on the federal regulations and packets of information on SES providers to the district, and it also required to “develop, implement, and publicly report on standards and techniques for monitoring the quality and effectiveness of the services offered by the providers” (Wisconsin Department of Public Instruction, 2006). In the spring of 2006, the DPI initiated efforts to review up to four SES providers each year, conducting monitoring visits with DPI and school district representatives to verify compliance with federal and state requirements for SES providers and

district agreements (e.g., ensuring curriculum consistent with school and district curriculum guidelines and state standards and compliance with health, safety, and civil rights laws and regulations). Providers are given at least four weeks advance notification of the monitoring visit, and a summary report of findings from the visit is posted on-line⁸. The report presents “checklists” indicating whether providers have met requirements for reporting student progress to parents and the school district, curriculum alignment, and the basic health, safety, and civil rights laws and regulations. These reports provide no information, however, indicating the quality of SES and the instructional strategies employed (e.g., the amount of one-on-one tutoring offered) or other information that parents indicated they would like to have in choosing a provider, such as specific information on tutor qualifications and the academic content of SES sessions. And although there is a link to an on-line parent satisfaction survey on the DPI’s parent SES web page, no public report of the results of these satisfaction surveys is made available.

School districts, as described earlier, also establish contractual agreements with the SES providers that function like a cost-reimbursement contract and require monitoring for financial accountability. In arranging for services, school districts are required to pay for SES for each participating student up to an amount that is the lesser of: (1) the school district’s Title I, Part A allocation divided by the number of students (ages 5-17) from families below the poverty line (based on Census poverty data); or (2) the actual cost of services received by each child (section 1116(e)(6)). In MPS, the maximum amount that SES providers can invoice for each participating student is approximately \$2,000 (the exact amount changes slightly from year to year), and they are required to track student attendance with signatures and invoice MPS for students’ hours attended. Although MPS staff conveyed in interviews that they had very limited tools for enforcing the SES vendor agreements and holding them accountable for performance, they were beginning to take steps to improve compliance with basic contract requirements and to address financial performance concerns. For example, one of the puzzling findings of the analysis of service provider performance was the lack of relationship between hourly rates charged by SES providers, the number of SES sessions typically offered to students, total SES hours attended by students, and provider performance in increasing student achievement. Recognizing that accountability for service provision and corresponding financial claims was relatively lax at the onset, MPS staff responsible for SES instituted (over time) new procedures for verifying student hours attended at SES sessions, such as spot checking of SES sessions to see if students were present, cross-checking student signatures on SES attendance forms, and withholding approval of payments for services until all paperwork was submitted.

In the analysis of SES provider performance, the relationship between student SES hours and sessions attended and the total payments requested (invoiced) by SES providers over the years 2004-05, 2005-06 and 2006-07 was explored independently of any knowledge of MPS actions in this regard. Figures 1, 2 and 3 show for each of these school years (respectively) the distributions of the amount per student billed to MPS for SES sessions and the number of SES sessions attended per student. Since the total invoiced by providers is a simple linear function of the total number of sessions attended, the two distributions should be very similar in shape.⁹ Looking first at Figure 1 (for the 2004-05 school year), it is apparent that the distributions of invoice totals and total sessions attended are very different; the distribution of invoiced amounts peaks near the maximum invoice amount (i.e., close to \$2,000), while total sessions attended

⁸ See http://dpi.wi.gov/esea/ses_provider_monitoring.html for links to individual SES provider monitoring reports.

⁹ We performed the same analysis using total hours attended per student (rather than total number of sessions attended), and the distributions and their patterns over time were the same (leading to the same conclusion).

peaks close to zero. If the bulk of the students are attending relatively few SES sessions, the majority of the SES providers should not be billing for close to the maximum payment allowed. In Figure 2, showing the same distributions for the 2005-06 school year, the two distributions are still not aligned, although the discrepancies in invoiced amounts and SES sessions attended appear less glaring. Finally, Figure 3 (for the 2006-2007 school year) depicts the expected relationship, with the distributions of invoiced amounts and sessions attended looking almost exactly the same. Although this analysis cannot definitively link the actions progressively taken by MPS to tighten accountability for student attendance and SES invoices to what appears to be more accurate billing, these patterns are strongly suggestive of improved management of the SES service agreements and greater accountability for how taxpayer dollars are being spent on SES.

It is evident in the above discussion, however, that the tools for accountability available to states by program design and developed by districts have focused primarily on process and financial accountability, despite the clear intent of NCLB to generate and demonstrate improvements in students' educational achievement (i.e., reading and math test scores). MPS staff indicated that the absence of explicit measures of service quality and the lack of resources for accurately and timely measuring the outcomes of SES have seriously hampered their efforts to follow through in holding SES providers accountable for their performance in increasing student achievement. For example, in an interview, a SES program coordinator explained that if a SES provider tutors a student sporadically or for only a small number of hours, the student may gain little from the SES sessions, and yet the district is still obligated to pay the vendor for those billable hours. The coordinator suggested that performance-based contracts with both service quality standards (e.g., minimum number of hours of tutoring provided within a specific timeframe, maximum student-to-teacher ratio, etc.) and outcomes-based standards (e.g., improvements in student grades and/or test scores) would give districts and states more leverage for inducing greater effort from providers and managing for results. To date, though, there do not appear to be any school districts or SES programs using performance-based contracts in response to the NCLB accountability demands.

Concluding discussion

This analysis shows that accurately measuring the performance of individual providers in increasing student achievement is very difficult to accomplish in practice (routinely or annually). Since participation in SES is voluntary and highly selective—with some SES providers declining to serve students with special needs and language barriers—it is important to adjust for the characteristics of students served in order to fairly assess the contributions of SES (and different providers) to student achievement. For vendors serving small numbers of students, the sample sizes are frequently insufficient for this type of multivariate estimation, and for others, data may be unavailable (particularly for new providers) or incomplete (for those serving students with special needs who may not participate in statewide test-taking as expected). If estimates of provider effectiveness cannot be produced for all vendors, how can states and districts use this information to decide which providers are allowed to continue to offer services and which should be withdrawn? The federal government did not offer any new resources to states and districts to comply with this mandate for holding SES providers accountable for their performance.

The findings from MPS also suggest that the government should not rely on parents and students to check the market through their choice of providers. In focus groups, parents reported that they had insufficient information for judging the quality of SES vendor services, and some

instead made choices based on convenience (location or the availability of transportation). Students indicated in the 2007 surveys that they chose providers based on the attractiveness of the incentives (i.e., iPods, computers, etc.), and early in the program, MPS became aware that students were switching providers after the start of their tutoring to get additional prizes or rewards. In fact, the SES provider with the largest proportion of students (55%) reporting in the surveys that they had received an incentive or reward, Catapult On-line, was also the vendor with the largest market share in the final two years of this study period. It was this unintended market response that prompted the Wisconsin DPI and MPS to establish the policy restricting SES providers' use of incentives to educational items only. In general, given the limited information available to the consumers for making choices and how rapidly the market was evolving, with significant numbers of entries and exits each school year, it is not surprising that provider market shares were not highly correlated with the estimates of provider performance or other vendor characteristics.

This analysis appears to substantiate that despite ambitious efforts to measure performance outcomes and manage for results under NCLB, in practice, control over the flow of funds endures as the primary tool of accountability in many third-party service provider relationships. Because MPS had authority for arranging and monitoring the SES provider agreements and paying the vendors, it was able to develop procedures for better tracking and verifying service provision, and provider financial accountability (i.e., the accuracy of invoices) improved over time. At the same time, school district staff were not satisfied with their level of control over service quality and educational outcomes, and they identified the cost-reimbursement form of the contracts as a significant barrier to increasing their leverage over provider performance. Indeed, one of Gansler's (2006) key findings based on his case studies of "market-based government" was that performance-based contracts that emphasize outcomes as well as costs, with agreement on the metrics for both among the parties, were critical to the success of third-party provision of public services. Of course, as this study showed, in the case of more complex service technologies such as SES (relative to refuse collection, for example) it is one thing to agree on an outcome measure (e.g., student test scores) and another to be able to attribute a change in outcomes to the work of the third-party provider.

As the market for SES narrows and continues to be dominated by a relatively small set of core providers, MPS may be able to better monitor and work with these providers in developing more effective services. The currently proposed changes to Title I regulations that apply to SES suggest that the federal government is aware of and trying to address the problems with low SES enrollments and limited effectiveness of the services. The proposed regulations require districts to give parents earlier notification of their child's eligibility for SES and to make public reports of eligibility and participation levels, as well as to publicly report results from parent surveys and any other evaluation results "demonstrating that the instructional program has improved student achievement" (see <http://www.ed.gov/policy/elsec/reg/proposal/summary-detail.pdf>, pp. 4-6). Interestingly, the regulations do not specify that states and districts should report results showing that SES or particular providers are *not* effective. In terms of resources for program management or evaluation, there is only a small concession allowing LEAs to count up to 0.2 percent of their required (20%) allocation of Title I funds to SES toward outreach to parents of eligible children. Clearly, the federal government is still expecting the competitive market to "work its magic" in improving the effectiveness of SES.

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Table 1: Student SES eligibility, registration and attendance in Milwaukee Public Schools

Academic Year	Eligible (Middle and High School)	Number Registered (% of eligible)	Number Attended (% of registered)
2003-2004	6508	3707 (57%)	3333 (90%)
2004-2005	9433	3826 (41%)	2610 (68%)
2005-2006	7351	3996 (54%)	2543 (64%)
2006-2007	8119	3897 (48%)	1315 (34%)

Table 2: SES Providers' Market Share, 2003-2007

Provider name, approved provider (X) and provider share (% of enrollees)	2003-2004		2004-2005		2005-2006		2006-2007	
	App.	Share	App.	Share	App.	Share	App.	Share
A Better Grade							X	1.1
Academia.net	X	2.7	X	0.7	X	2	X	3.3
Academic Solutions Center	X							
Adolphus Community Outreach Center			X	0.3				
Agape Love Community Resource Center			X	0.3	X	0.1	X	1.9
Believers in Christ			X					
Bethel Community Development Center			X	1.6	X	0.8	X	
Bowman Performance Consulting	X				X			
Brainfuse On-line	X		X		X			
Bright Futures After School Program of WI			X	0.5	X	0.7	X	0.6
BYU Independent Study			X					
Cambridge Educational Services			X					
Cardinal Stritch University Reading Center	X	2.3	X	0.2	X	0.1	X	0.1
Catapult Online	X	9.6	X	7.5	X	26.4	X	25
CESA #1	X	7.8	X		X			
Changing Your World Ministries			X					
Christ the King Development Corp.	X				X			
Christian Family Comm. Assembly of God			X					
ClubZ In Home Tutoring Services	X	5.7	X	6.1	X	2.4	X	0.3
Compass Learning	X							
Destiny Youth Plaza		5.2	X	1.1	X	0.7	X	0.3
Dr. Howard Fuller L. Education Foundation	X	3.5	X	1	X	0.5		
Early View Academy			X					
Essential Actions for School Improvement							X	0.1
Education 2020			X					
Education Station			X				X	0.2
Enrichment Opportunities Institute			X					
Failure Free Reading			X					
Fox Point J.T.	X				X			
Good Hope Economic Development	X				X			
Grace Christian Academy	X		X		X			
Grammies Babies Child Care Center			X					
Gray & Associates			X					
Greater New Birth Church			X		X	0.1	X	0.2
Greater Rock Foundation Enrichment			X					
Harris & Associates			X					
The Help One Another Organization			X	1				
Hickman Academy Preparatory School			X	0.1				
Higher Level of Understanding Reading Inst.			X					
H.I.M. Resource Center			X					
Hmong Children Initiative			X	0.2				
Holy Redeemer Christian Academy			X	0.7			X	0.6
HOSTS Learning	X				X			
Huntington Learning Centers							X	0.7
I CAN Learn Education Systems					X	1.5		
Inner City Development			X					
Jesus is on the Way			X					
Journey House	X				X			

Provider name, approved provider (X) and provider share (% of enrollees)	2003-2004		2004-2005		2005-2006		2006-2007	
Kaplan K12	X				X			
La Crosse School District	X							
Learning Exchange	X	0.4	X	11.6	X	12.5	X	10
The M.A.K.E.S. Foundation Inc.	X	7.2	X	12.6	X	4.2		
Mainstream Development Educational Group				10.4	X	15.8	X	16.4
Midtown Neighborhood Association			X					
Milwaukee Public Schools	X				X			
Miss Daisy's Community Learning			X					
Motivating Minds LLC							X	5.1
Mr. B's Before and After School Tutoring			X	0.8				
New Concept Self Development Center	X	1.7	X		X			
New Hope Missionary Baptist Church	X	0.4	X	0.3	X	0.2	X	0.4
Newton Learning	X	35.3	X	13.6	X	4.4		
NonPublic Educational Services (NESI)			X	2.2		7.9	X	4.4
OIC-CM	X				X			
Passport Learning			X					
Paulette Y Copeland Crossroads Center							X	0.1
PLATO Learning			X					
PMG Educational Services							X	3.9
Positive Plus Images			X	2.4		0.4		
Princeton Review	X		X					
Private Industry Council of Milwaukee Co							X	1.1
The Reading Corner	X	1.1	X	0.7	X	0.1	X	0.2
Ready Set Read LLC	X		X		X			
School Of P.A.Y.	X	1	X	3.1	X			
School of Universal Learning	X				X			
Silver Spring Neighborhood Center	X				X	0	X	0.4
SixTen Tutoring, Inc.							X	4.1
SMART Thinking	X				X			
Sparkplug Education Program-Tutoring						0.2	X	3.1
Step Ahead Tutors						5.1	X	6.4
Strategic Studies e-Tutor Virtual Learning	X				X			
St. Paul Family Worship Center			X					
St. Timothy Community Baptist			X					
studentnest.com							X	0.1
Sylvan Education Solutions	X				X			
The Learning Together Company	X				X			
Tools of Empowerment Educational Services	X	10.4		17.4	X	7.9	X	9.3
United Migrant Opportunity Services	X	4.7		2.1	X	2.6	X	
V.E. Carter Development Group Inc.			X	0.4		0.7		
Voyager Learning	X							
VTV Inc. Victory After School Program			X	1.1		1	X	0.7
Wheatland School District	X							
WI African American Womens Center			X					
WI Lutheran Learning Center/MUIC	X	0.4			X			
YMCA of Metropolitan Milwaukee	X	0.9			X	1.7	X	0.4

Table 3: Estimated effects of attending SES, 2004-05 and 2005-06 school years

(Standard errors in parentheses; results statistically significant at $\alpha \leq 0.05$ shown in bold)

Treatment measure and method	Middle School		High School	
	Change in math test scores	Change in reading test scores	Change in math test scores	Change in reading test scores
2004-05 school year				
Attended any SES	n=1562	n=1571	n=1224	n=1262
1. Unmatched	-2.486 (4.562)	-3.368 (5.232)	-10.486 (6.243)	-14.420 (7.139)
2. Matched	2.024 (5.557)	3.038 (5.916)	-5.427 (8.107)	-4.565 (8.860)
3. Number of SES hours attended (OLS)	0.046 (0.068)	-0.017 (0.068)	-0.127 (0.158)	-0.148 (0.178)
4. Number of SES hours w/specific vendors (OLS)	Bethel Comm. Devel.: 1.481 (0.623) School of P.A.Y.: 1.128 (0.444) U.M.O.S.: 0.968 (0.362)	Bethel Comm. Devel.: 1.406 (0.621) School of P.A.Y.: 1.082 (0.442)	None	NESEI: 3.180 (1.380) School of P.A.Y.: 3.666 (1.731)
2005-06 school year				
Attended any SES	n=1075	n=1016	n=2215	n=2200
1. Unmatched	-0.529 (0.413)	0.708 (1.202)	0.235 (0.297)	2.846 (1.132)
2. Matched	-0.232 (0.427)	0.323 (1.099)	-0.372 (0.357)	1.397 (1.099)
3. Number of SES hours attended (OLS)	-0.005 (0.013)	-0.010 (0.040)	0.007 (0.011)	0.087 (0.042)
4. Number of SES hours w/specific vendors (OLS)	NESEI: 0.136 (0.064)	none	none	Learning Exchange: 0.245 (0.074) Catapult On-line: 0.193 (0.078)

Table 4: Characteristics of SES Providers Identified as Effective in Increasing Student Test Scores

Provider characteristics 2004-05 school year	Bethel Community Development	School of P.A.Y.	United Migrant Opportunity Services (UMOS)	NonPublic Educational Services, Inc. (NESI)	Learning Exchange	Catapult On-line
	Nonprofit \$80 5:1 19-23 44.6 (20) 33.9 (16) 1.5	Nonprofit \$40 n.a. 64 75.2 (4) 40.3 (12) 3.4	Nonprofit \$40 5:1 21 70.0 (8) 44.4 (9) 2.4	For-profit \$40 7:1 46 43.7 (21) 17.2 (21) 2.3	For-profit \$65 10:1 23 72.6 (7) 30.1 (18) 12.7	For-profit \$63 3:1 n.a. (at home, on-line) 64.8 (11) 29.3 (19) 7.2
Legal status						
Hourly rate charged*						
Reported student-teacher ratio						
# of sessions offered						
% of registered students attending any hours (and rank among providers)						
% of students attending 20 or more hours (and rank among providers)						
Share of registered students						

* Hourly rates charged by approved providers in Milwaukee in 2005 ranged from \$20 per hour to \$100 per hour.

Figure 1: Distributions of SES total amount invoiced per student and SES sessions attended per student in MPS, 2004-05 school year

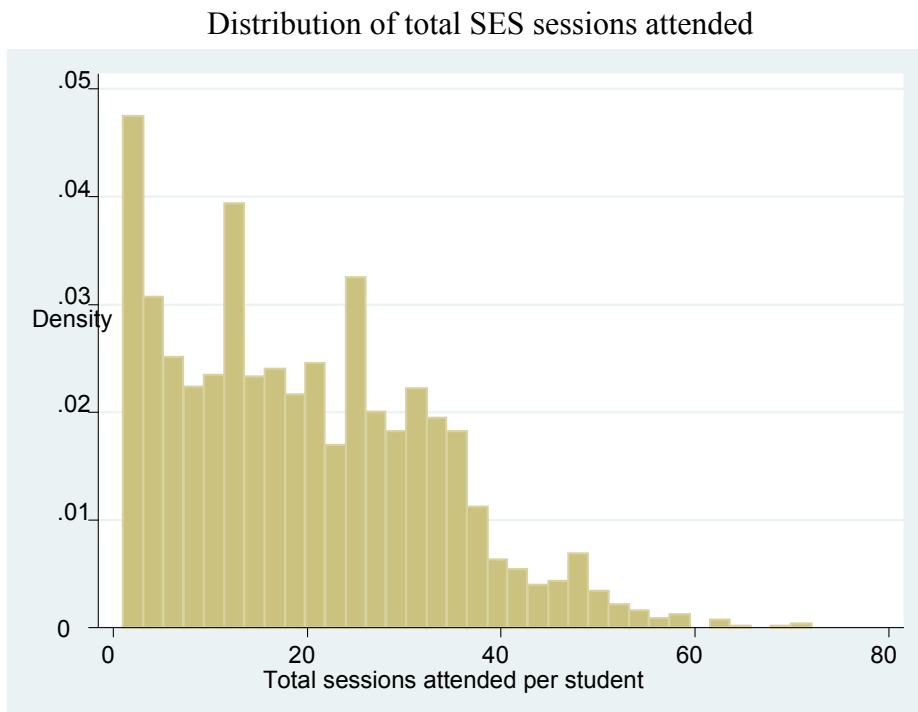
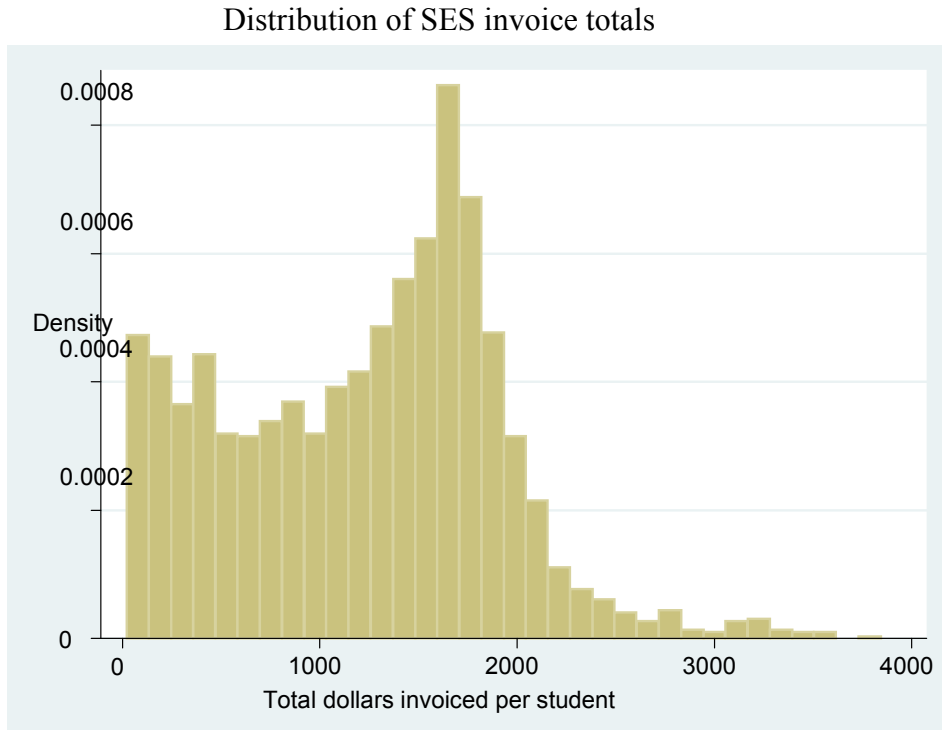


Figure 2: Distributions of SES total amount invoiced per student and SES sessions attended per student in MPS, 2005-06 school year

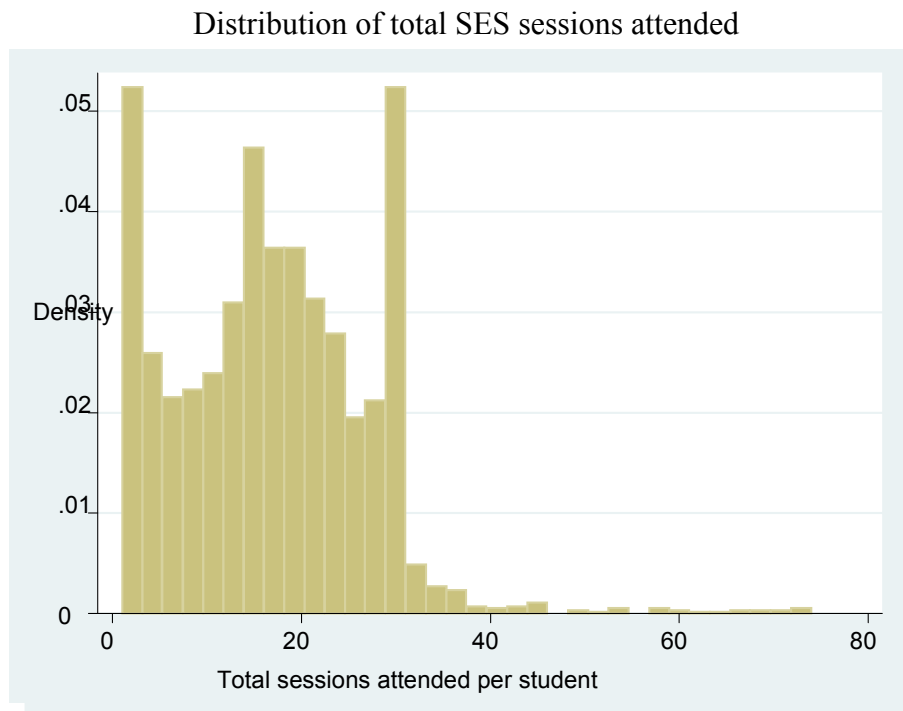
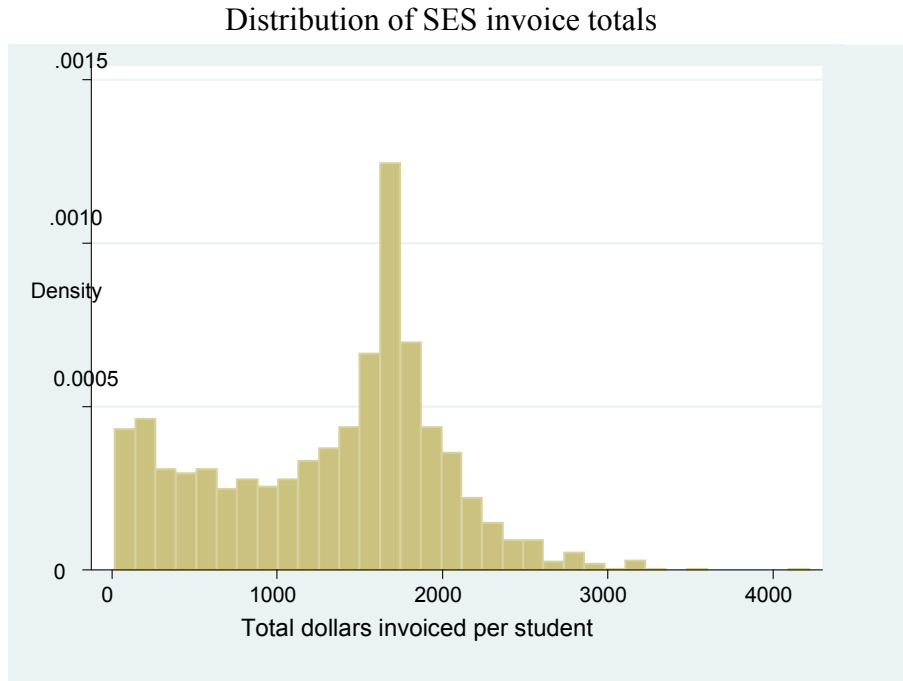


Figure 3: Distributions of SES total amount invoiced per student and SES sessions attended per student in MPS, 2006-07 school year

