THE MULTISITE STUDY OF THE IMPLEMENTATION AND IMPACT OF SUPPLEMENTAL EDUCATIONAL SERVICES

REVIEW OF CURRENT FINDINGS

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- **SESIQ² research team**: Carolyn Heinrich, Patricia Burch and Robert Meyer (co-PIs), Annalee Good, Mary Stewart, Esmeralda Garcia-Galvan, Huiping Cheng, Marcus Dillender, Hiren Nisar, Rudy Acosta, Emily Kao Kopfensteiner, Christi Kirshbaum, Brie Chapa
- **Study web page**: www.sesiq2.wceruw.org
- **Toll-free number**: 1-855-471-1700

Research partners

This research would not be possible without cooperation from the following school districts and SES providers:

- Austin Independent School District, Chicago Public Schools, Dallas Independent School District, Milwaukee Public Schools and Minneapolis Public Schools
- All 180+ providers in our quantitative sample serving eligible students in the five school districts
- The 20+ providers in our qualitative sample helping us to gain a more in-depth perspective on the SES program

Overview of Supplemental Educational Services (SES)

- No Child Left Behind (NCLB) enacted in 2002 to close the achievement gap
- Supplemental Educational Services (SES) provision requires public schools identified as in need of improvement (for at least two consecutive years) to offer parents of eligible students a choice of free tutoring outside of the school day
- Tutoring providers can be national or local, for-profit or nonprofit, digital, online or offline. Tutoring can take place in schools, homes or community locations.
- Cost-reimbursement: providers invoice districts for hours of SES students attend, up to a maximum per-student dollar allocation

SESIQ²: Research objectives

- Improve student learning and achievement by identifying successful approaches (and variables that will increase success) in the organization and management of SES within school districts and delivery of SES by providers
  - What constitutes a high-quality SES program?
  - How effective is SES in narrowing the achievement gap and improving educational outcomes for low-income and disadvantaged students?
  - What policy tools are available to state and local educational agencies to ensure that SES services are available and effective?

Current research questions

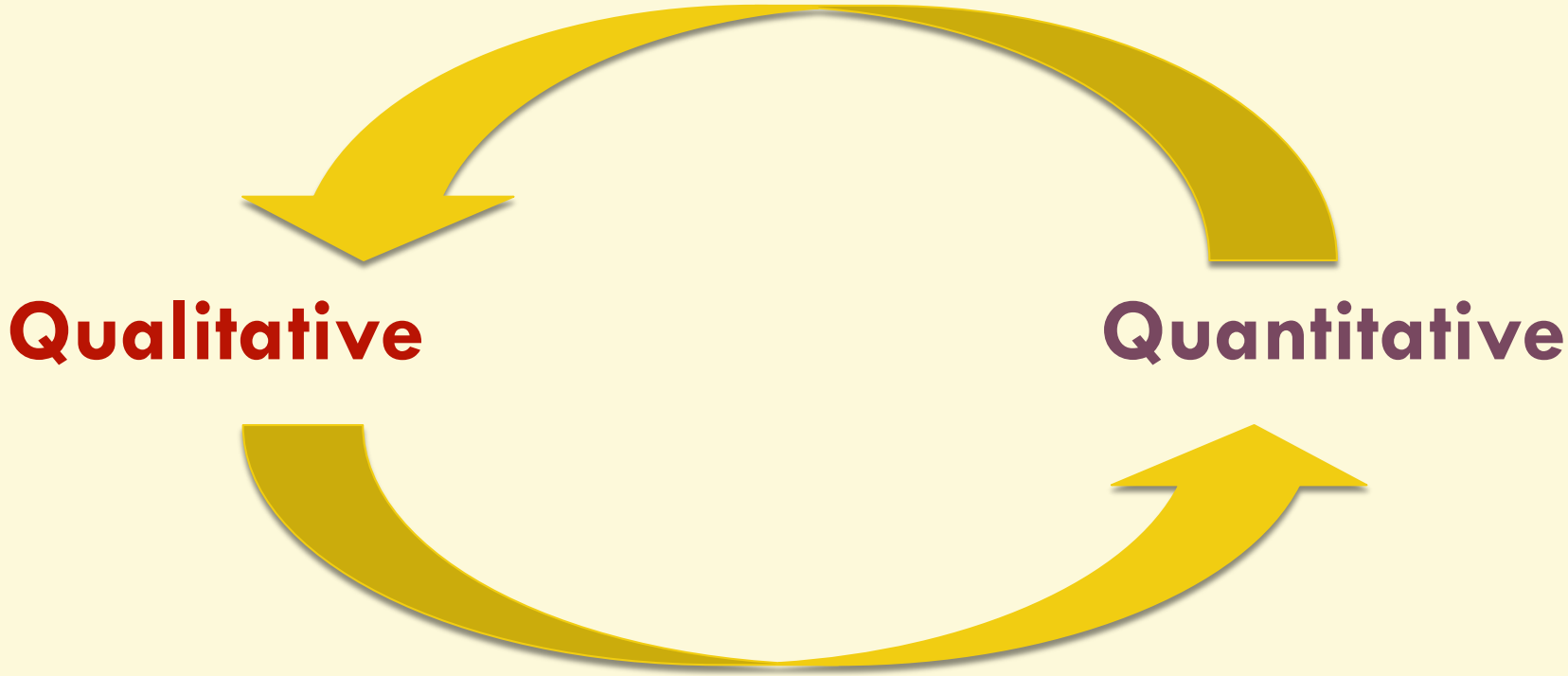
- Who among eligible students and those with special needs are participating in SES and receiving adequate levels of tutoring?
- What factors influence parent and student choices in selecting (and staying with) SES providers?
- What are key characteristics of different SES programs, and how are they related to SES program impacts?
- What is the impact of SES (and specific SES providers) on student achievement in reading and mathematics?

Current research questions (cont.)

- Are there differential effects of SES for subgroups of students with special needs?
- Are there cumulative effects of SES for students participating for multiple school years?
- Are measures of provider effectiveness positively correlated with their student market shares?
- What policy levers do state and local educational agencies have to increase SES program effectiveness?

SESIQ² Research Design

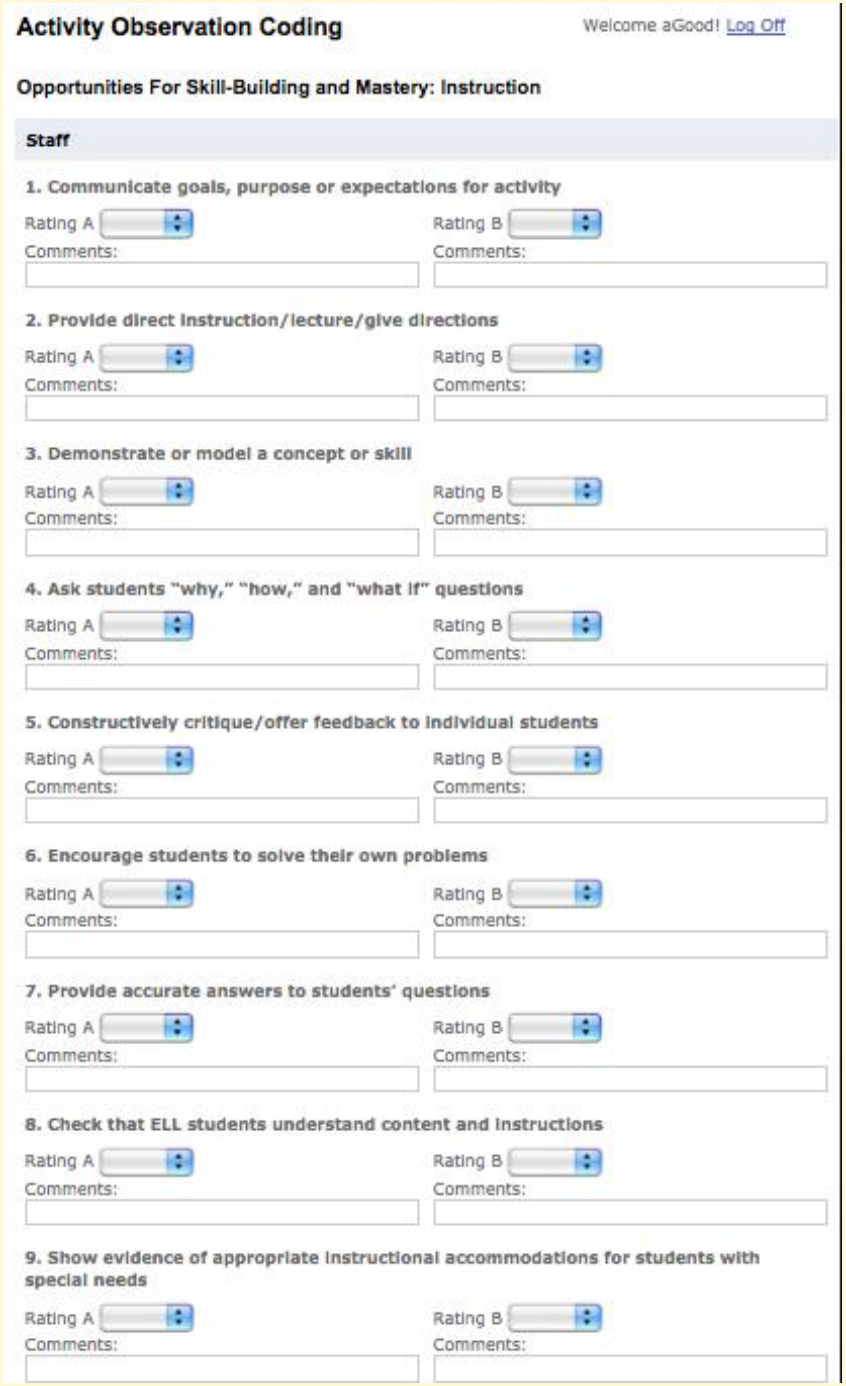
Continuous feedback and integration



Qualitative Research Design

- *Observations of tutoring sessions* using classroom observation instrument specific to SES tutoring (n=136)
- *Interviews with program directors* of SES providers and *tutoring staff* about instructional formats, curriculum, adaptations for special student needs, staff background and training, and interactions with schools, teachers, students, and families (n=142)
- *Interviews with district officials and state-level personnel* (n=30)
- *Focus groups* with parents of SES-eligible students (n=168)
- *Document analysis:* provider curriculum materials; diagnostic, formative, or final assessments used; policy documents

Observation Instrument



Activity Observation Coding

Welcome aGood! Log Off

Opportunities For Skill-Building and Mastery: Instruction

Staff

1. Communicate goals, purpose or expectations for activity

Rating A | Rating B

Comments: | Comments:

2. Provide direct instruction/lecture/give directions

Rating A | Rating B

Comments: | Comments:

3. Demonstrate or model a concept or skill

Rating A | Rating B

Comments: | Comments:

4. Ask students "why," "how," and "what if" questions

Rating A | Rating B

Comments: | Comments:

5. Constructively critique/offer feedback to individual students

Rating A | Rating B

Comments: | Comments:

6. Encourage students to solve their own problems

Rating A | Rating B

Comments: | Comments:

7. Provide accurate answers to students' questions

Rating A | Rating B

Comments: | Comments:

8. Check that ELL students understand content and instructions

Rating A | Rating B

Comments: | Comments:

9. Show evidence of appropriate instructional accommodations for students with special needs

Rating A | Rating B

Comments: | Comments:

Full observation instrument available at www.sesiq2.wceruw.org

Quantitative Research Design

- Sample frame: students eligible for SES, registered for SES and attending SES in five study districts
- Elementary, middle and high school data from administration of standardized tests, administrative data bases for managing SES provision, and district student transcript and demographic data
  - Used in constructing measures of receipt of SES, student-level controls to account for selection into SES and outcome measures (changes in tests scores)
- 2007-08, 2008-09 and 2009-10 data currently available; 2010-11 in progress, 2011-12 to follow

Empirical approaches to estimating SES effects

- Value Added Model

$$A_{jst} - A_{jst-1} = \alpha SES_{jt} + \beta X_{jt-1} + \pi_s + \mu_{gt} + \epsilon_{jst}$$

- Student Fixed Effects Model

$$A_{jst} - A_{jst-1} = \alpha SES_{jt} + \beta X_{jt-1} + \delta_j + \mu_{gt} + \epsilon_{jst}$$

- Student and School Fixed Effects Model

$$A_{jst} - A_{jst-1} = \alpha SES_{jt} + \beta X_{jt-1} + \pi_s + \delta_j + \mu_{gt} + \epsilon_{jst}$$

- Propensity Score Matching

$$Y_0 \perp D|X \implies Y_0 \perp D|P(X),$$

$$E(Y_{0t_1} - Y_{0t}|D_1 = 1, X) = E(Y_{0t_1} - Y_{0t}|D_1 = 0, X)$$

Findings: Selection into SES

- Not all SES-eligible students follow through in registering for services and/or attending SES sessions with a provider
- Key findings on student characteristics that influence registration for and attendance of SES:
  - Students more frequently absent from regular school less likely to register/attend SES (72-99% and 7-12% lower odds, respectively)
  - Unless prioritized, students w/disabilities are significantly less likely to register/attend SES (15-21% lower odds)
  - SES registration and attendance in prior school year (47-146% greater odds) and elementary grade (25-70% higher odds) and free-lunch eligible students (prioritized) are more likely to attend

Findings: Overall effects of SES

- Few statistically significant effects of SES on elementary and middle school student reading and math gains
  - Statistically significant positive SES effects primarily in Chicago Public Schools (measured by changes in standardized test scores, effect sizes of 0.05 to 0.12 s.d.), for students attending at least 40 hours
    - Few students reach 40-hour threshold in other study districts (none in Dallas in the 2010-11 school year)
  - Findings are consistent w/other studies' estimated SES effect sizes (0.07-0.09 s.d.), even with different samples, treatment measures, and methodological approaches

Findings: Provider effectiveness

- In Austin ISD, Dallas ISD, Minneapolis and Milwaukee Public Schools, few SES providers generate measurable effects on student achievement
- In Chicago Public Schools, the district provider charges a very low hourly rate for tutoring compared to other SES providers, and SES providers charge lower rates in Chicago than they do in other districts
  - Students consequently get more hours of tutoring
  - Many more providers in CPS are effective in producing math and readings gains for students
  - CPS district provider more effective on average in math (0.06 s.d.) and reading (0.03 s.d.) than other providers

Findings: Provider-specific effects for *all* and *special needs* students

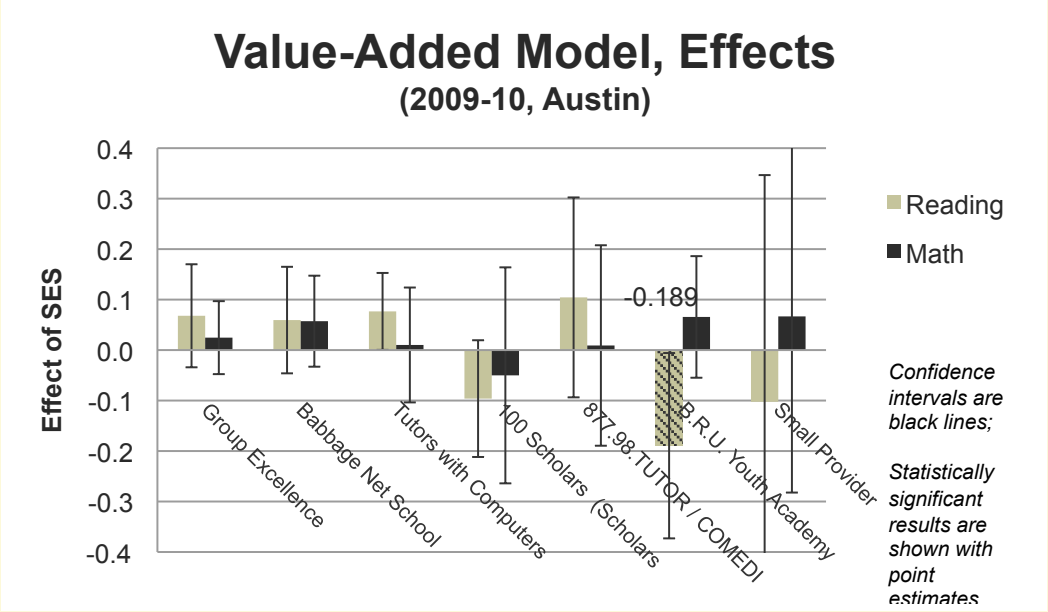
- 44 SES providers effective in either math and/or reading in 2008-09 and/or 2009-10 for *all* students
- Only 8 providers effective for ELLs in math and/or reading in either or both school years
- Only 4 providers effective for students with disabilities in either subject and/or school year
- Providers with largest effects for ELLs and/or students with disabilities all operated in Chicago Public Schools

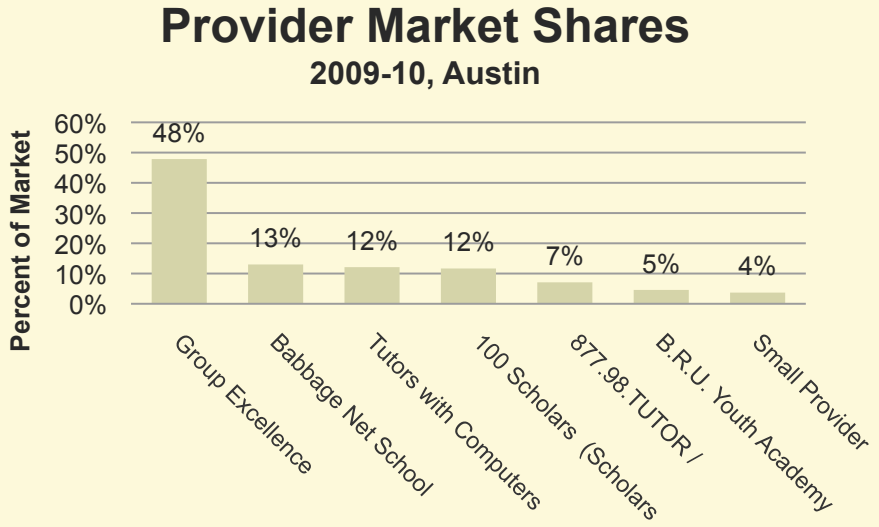
Effective SES providers for all students, students with disabilities and English language learners

Value-added model results by SES provider and subject	All students				ELL		SWD		ELL		SWD	
	2008-09		2009-10		2008-09		2008-09		2009-10		2009-10	
	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math
Small Providers	-----	0.070	-----	-----	-----	-----	-----	-----	-----	-----	0.183	-----
A Better Grade	0.322	-----	-----	-----							-----	-----
A+ Learning Acad.			-----	0.196					-----	-----		
ABC Educate Me	-----	-----	-----	0.176	-----	-----						
ATS Project Success	-----	-----	-----	-----					-----		-----	-----
Academic Solutions of Milwaukee	0.457	-----	0.126	-----								
Aim High	0.042	0.068	0.114	0.070	-----		-----	0.055	0.104	-----	-----	-----
B.R.U. Youth Academy	-----	0.113	-----	0.279	-----							
Babbage Net School	0.096	0.072	0.287	0.192	-----	0.202	-----		0.712	0.350		
Balser Enterprises	-----	0.339										
Brain Hurricane	0.076	0.073	0.056	-----	-----	0.106		-----	-----	-----	-----	-----
Brainfuse	-----	-----	-----	-----		-----	-----	-----				
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	-----	-----	-----	-----	-----	-----	-----	-----

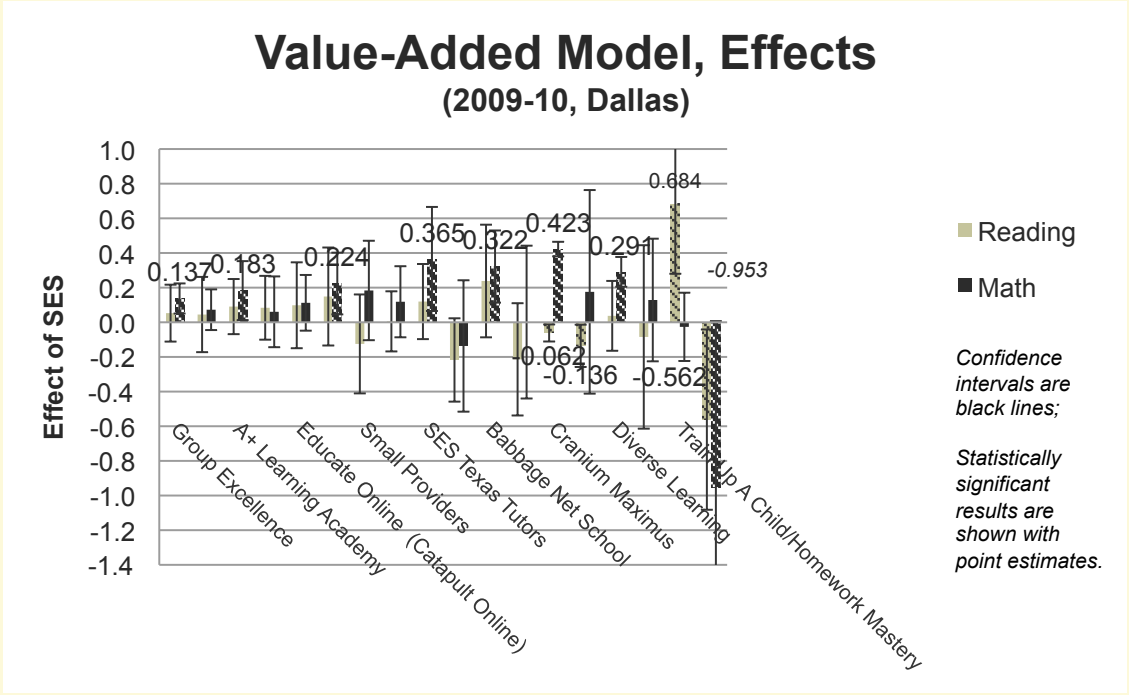
Value-added model results by SES provider and subject	All students				ELL		SWD		ELL		SWD	
	2008-09		2009-10		2008-09		2008-09		2009-10		2009-10	
	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math
Group Excellence	-----	-----	-----	0.151	-----	-----	-----	-----	-----	0.219	-----	-----
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 Learning Center			-----	0.398								
Mindful Learning			-----	0.179								
Newton Learning	0.049	0.063	0.101		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			-----	-----	-----					
Progressive Learning		-----	0.067	-----	-----	-----	-----	-----	0.170		-----	-----
Rocket Learning Partners, LLC	-----	-----	0.061	-----			-----	-----	-----		-----	-----

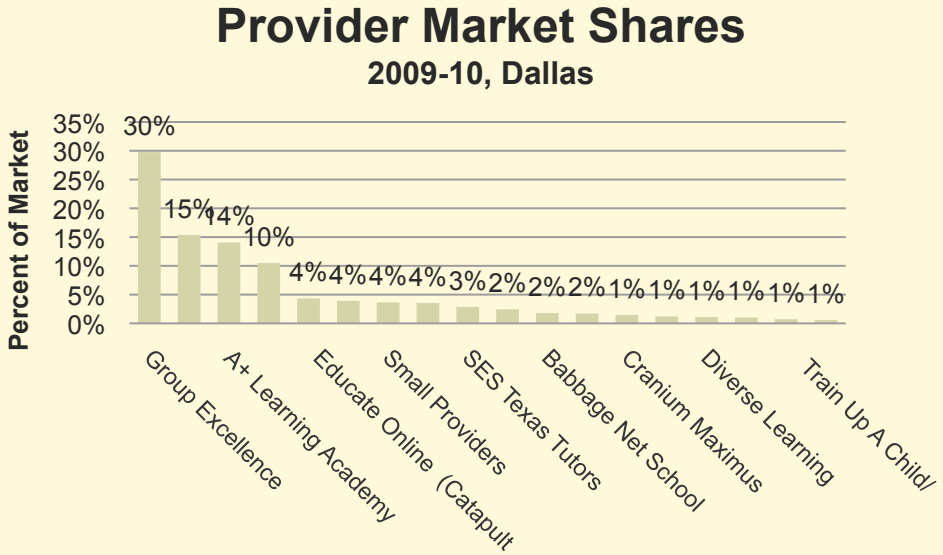
Value-added model results by SES provider and subject	All students				ELL		SWD		ELL		SWD	
	2008-09		2009-10		2008-09		2008-09		2009-10		2009-10	
	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math	Reading	Math
SES Texas Tutors	-----	-----	-----	-----		-----						
SES of Illinois	-----	-----	-----	0.088	-----	0.128	-----	-----	0.176	0.161	-----	-----
Salem, Inc.	-----	0.251	-----	0.527								
School Service Systems	0.053	-----	-----	0.107			-----	-----				0.140
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	-----				-----			-----	-----

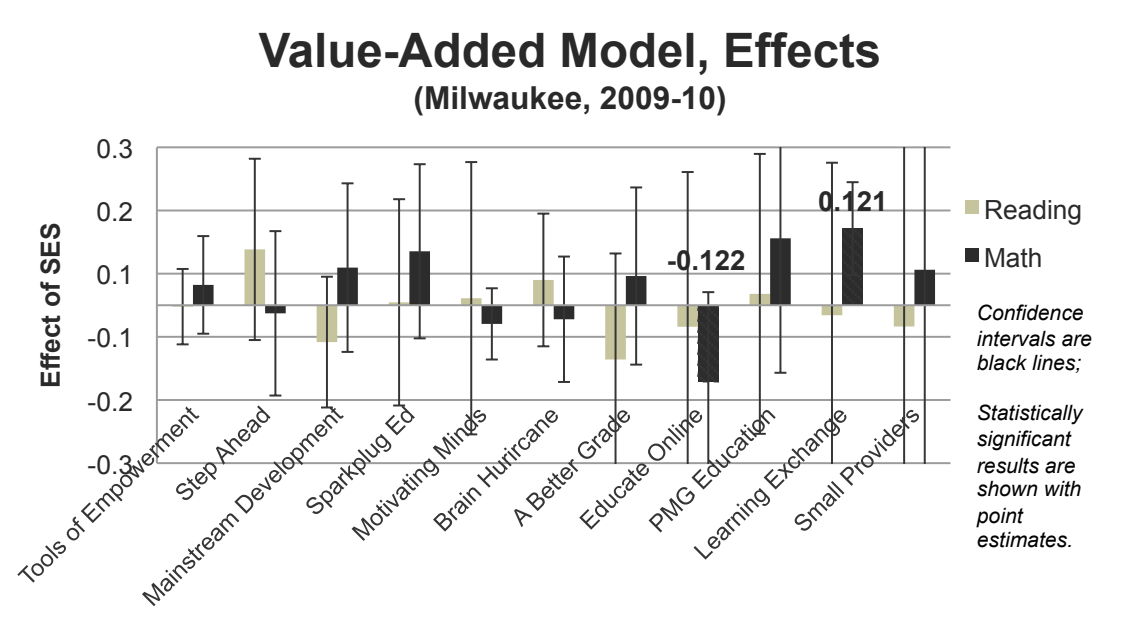

Value-Added Model, Effects
(2009-10, Austin)
Effect of SES
0.4
0.3
0.2
0.1
0.0
-0.1
-0.2
-0.3
-0.4
-0.189
Reading
Math
Group Excellence
Babbage Net School
Tutors with Computers
100 Scholars (Scholars
877.98.TUTOR / COMEDI
B.R.U. Youth Academy
Small Provider
Confidence intervals are black lines;
Statistically significant results are shown with point estimates

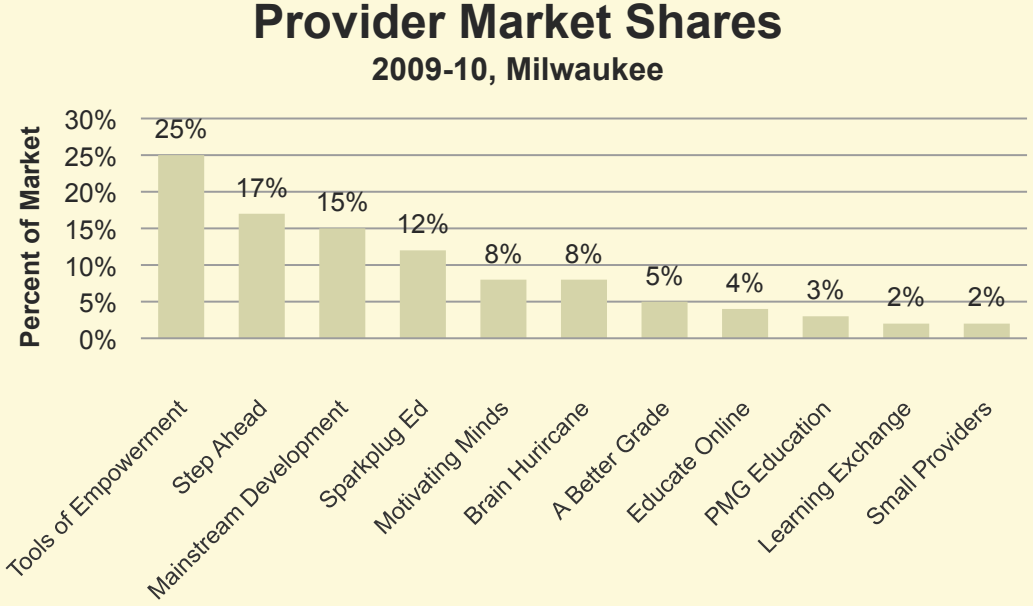

Provider Market Shares
2009-10, Austin
Percent of Market
60%
50%
40%
30%
20%
10%
0%
48%
13%
12%
12%
7%
5%
4%
Group Excellence
Babbage Net School
Tutors with Computers
100 Scholars (Scholars
877.98.TUTOR /
B.R.U. Youth Academy
Small Provider

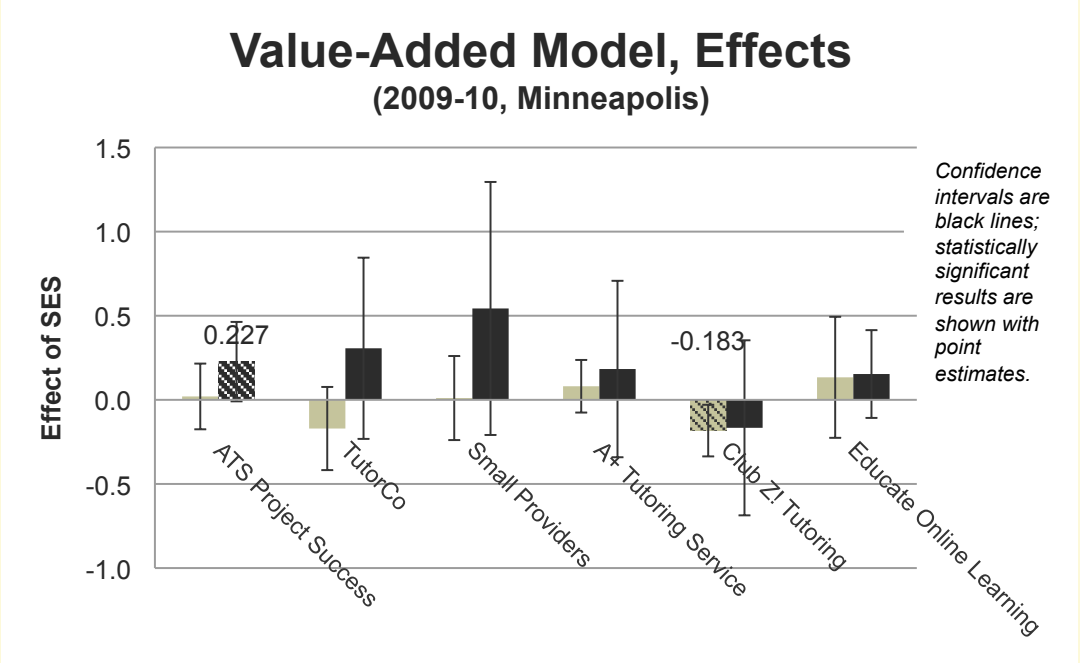
Due to ARRA (stimulus) funds, spending on SES in DISD jumped from to over $18 million in 2009-10; funds directed at getting students more hours of SES

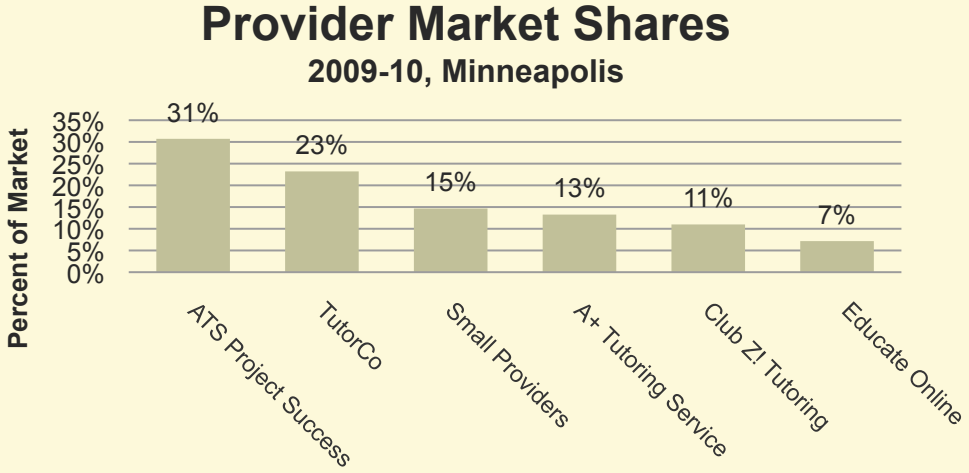


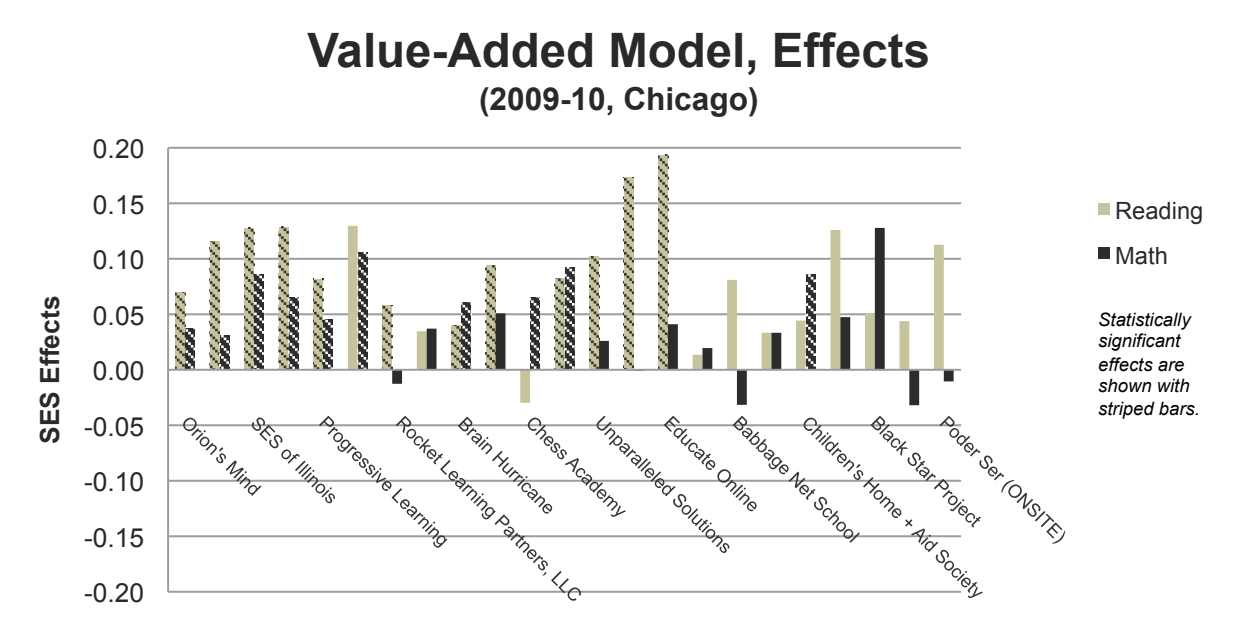


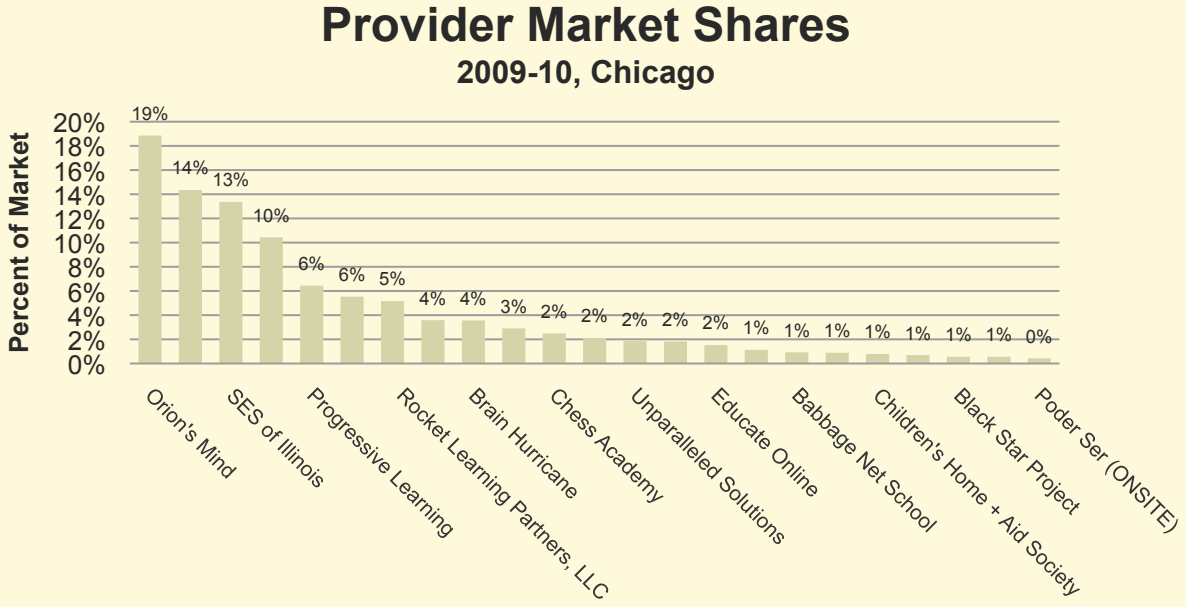

Value-Added Model, Effects
(Milwaukee, 2009-10)
Effect of SES
0.3
0.2
0.1
-0.1
-0.2
-0.3
-0.122
0.121
Reading
Math
Confidence intervals are black lines;
Statistically significant results are shown with point estimates.
Tools of Empowerment
Step Ahead
Mainstream Development
Sparkplug Ed
Motivating Minds
Brain Hurricane
A Better Grade
Educate Online
PMG Education
Learning Exchange
Small Providers


Provider Market Shares
2009-10, Milwaukee
Percent of Market
30%
25%
20%
15%
10%
5%
0%
25%
17%
15%
12%
8%
8%
5%
4%
3%
2%
2%
Tools of Empowerment
Step Ahead
Mainstream Development
Sparkplug Ed
Motivating Minds
Brain Hurricane
A Better Grade
Educate Online
PMG Education
Learning Exchange
Small Providers


Value-Added Model, Effects
(2009-10, Minneapolis)
Effect of SES
1.5
1.0
0.5
0.0
-0.5
-1.0
0.227
-0.183
ATS Project Success
TutorCo
Small Providers
A+ Tutoring Service
Club Z! Tutoring
Educate Online Learning
Confidence intervals are black lines; statistically significant results are shown with point estimates.


Provider Market Shares
2009-10, Minneapolis
Percent of Market
35%
30%
25%
20%
15%
10%
5%
0%
31%
23%
15%
13%
11%
7%
ATS Project Success
TutorCo
Small Providers
A+ Tutoring Service
Club Z! Tutoring
Educate Online


Value-Added Model, Effects
(2009-10, Chicago)
SES Effects
0.20
0.15
0.10
0.05
0.00
-0.05
-0.10
-0.15
-0.20
Orion's Mind
SES of Illinois
Progressive Learning
Rocket Learning Partners, LLC
Brain Hurricane
Chess Academy
Unparalleled Solutions
Educate Online
Babbage Net School
Children's Home + Aid Society
Black Star Project
Poder Ser (ONSITE)
Reading
Math
Statistically significant effects are shown with striped bars.


Provider Market Shares
2009-10, Chicago
Percent of Market
20%
18%
16%
14%
12%
10%
8%
6%
4%
2%
0%
19%
14%
13%
10%
6%
6%
5%
4%
4%
3%
2%
2%
2%
2%
2%
1%
1%
1%
1%
1%
1%
1%
0%
Orion's Mind
SES of Illinois
Progressive Learning
Rocket Learning Partners, LLC
Brain Hurricane
Chess Academy
Unparalleled Solutions
Educate Online
Babbage Net School
Children's Home + Aid Society
Black Star Project
Poder Ser (ONSITE)

Findings: Insight into Limits to SES Effectiveness

- Advertised/invoiced time often does not equate to actual instructional time
- Attendance flux limits intensity of instruction
  - Students start a session and miss part of it, come in late or leave the session altogether
- Instruction resembled that of traditional whole group model; limited use of other activities identified as key to quality instruction
- **Bottom line: students do not get enough hours of innovative, high-quality tutoring**

Findings: Nature of Services for Students with Special Needs

- Instruction rarely individualized or differentiated
- Few highly qualified tutors
  - Inadequate professional development
  - Lack of materials and/or training for tutors on differentiation for students with special needs
  - Lack of administrative or instructional staff fluent in families' native languages
- Inappropriate accommodations due to lack of student assessment/IEP information
  - Lowering curriculum level, slowing curriculum down
- Confusion over legal responsibilities of services and data-sharing

SES Policy Context for Students with Special Needs

- Students with special needs historically underserved
  - Educational agencies must count English Language learners (ELLs) and students with disabilities for accountability requirements, but Title I does not require SES providers to serve students with special needs
- Widely varying capacity of public and private organizations to provide services for students with special needs
  - Involves interaction of several federal laws, including IDEA, FERPA, and Title III of NCLB
- 7 of 11 states to receive NCLB waivers proposing major changes to evaluation of school success based on student subgroup performance

Findings: Emerging Focus on Digital Instruction

- Digital providers gaining market share, charging higher hourly rates ($20/hour more on average)
- Varied program formats
  - E.g., synchronous/asynchronous, tutor driven vs. technology driven, static platform vs. mobile platform, exclusive vs. occasional use, degree of structuring vs. differentiation, etc.
- Goal of analyses: link digital program characteristics to range of outcomes, incl. test score gains, student engagement, content coverage and mastery, and student retention in programs

Recommendations: Improving SES effectiveness

- Redirect SES resources from high school level to lower grades and toward better programming for ELL and SWD enrollees
  - No studies show effects of SES for H.S. students; attendance flux a major problem at this level
  - ELL students more likely to register for and attend SES; students with disabilities less likely to participate unless prioritized
    - Minimal knowledge of or accommodation in curriculum for ELL and SWD student instructional needs

Recommendations: Improving SES for ELL and Students with Disabilities

- Hire tutors with demonstrated knowledge about diagnosing and addressing the educational needs of ELL and SWD students
- Increase level/frequency of communication with parents and school-day teachers regarding students' needs, IEP access, and consistency between individual learning plans and IEPs
  - Encourage/require providers to offer professional development opportunities for tutors on needs-assessment

Recommendations: General

- Reconsider policy that allows providers to fully determine hourly rates, instructional strategies
  - Undertake thorough assessment of what criteria/elements should bear on SES provider rate-setting
  - Allow some Title I resources to be used in managing performance-based contracts
    - Facilitate more transparency and/or control over hourly rate-setting, minimum hours tutored, tutor qualifications, curriculum, financial management

Recommendations: Use of study findings by stakeholders

- Ineffective division of responsibilities between states, districts for SES monitoring/accountability and asymmetric information among stakeholders
- State and local educational agency staff using study findings to address challenges/constraints:
  - Improve provider monitoring (including use of observation instrument) and detect problems
  - Establishing performance-based contracts, new management practices and/or models of tutoring programs w/greater control over hours, curriculum
  - Disseminating findings/briefs on SES provider effectiveness to parents and other stakeholders

Next Steps

- *Quantitative research*: final school year of data collection will be 2011-12; New analyses will include cumulative effects of SES, more detailed examination of digital provider effects, in addition to SES average & provider effects

- *Qualitative research*: final year (2012-13) of data collection and analysis will include observations and interviews focused on providers showing positive impacts, as well as focus groups with parents in each district site

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