What We Know About SLOs

An Annotated Bibliography of Research on and Evaluations of Student Learning Objectives

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What We Know About SLOs:

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Contents

Introduction

Since becoming one of the most widely used measures of student growth across the United States, student learning objectives (SLOs) have been examined in nine contexts and in more than a dozen studies. As a companion piece to *The Art and Science of Student Learning Objectives: A Research Synthesis.* This paper provides brief summaries of individual studies conducted in nine states and districts, highlighting general research context and questions, study methodology, and key findings. Each research summary is organized alphabetically by location and within location chronologically.

As noted in *The Art and Science of Student Learning Objectives: A Research Synthesis* the following studies (1) examined districts and states that differed in size, demographics, and implementation, (2) largely focus on early implementation efforts, and (3) often were conducted by internal evaluators for the purposes of improving implementation. Caution is warranted when using the findings of these studies because internal evaluations and reports can vary in the level of detail in the reports and in the sophistication of the analysis; in some reports, information on sample sizes, significance levels, clear descriptions of methodology, or some combination of those elements is not available. Despite these important limitations, the following research summaries provide a comprehensive synopsis of SLO research to date.

Austin Independent School District

Austin Independent School District (AISD) began implementing SLOs in 2007–08 as part of its REACH initiative, a performance-pay program that aims to reward success in the classroom. Since its inception, the AISD research team has consistently examined the system and produced a variety of important reports. The following research summary includes 10 studies that examined the implementation of REACH and the pilot appraisal systems from 2007 to 2013.

AISD has begun the process of redesigning its teacher evaluation system with the goal of building a more effective process for assessing high-quality instruction and providing useful feedback for teachers to ensure continuous growth in teaching, learning, and leadership. Through REACH, educators receive novice teacher mentoring, professional development opportunities, and additional rewards for providing instruction in the district's high-need schools. The REACH program provided an opportunity to learn from several elements that were incorporated into a pilot teacher appraisal system that continues to evolve. The pilot appraisal system in 2013–14 included several strands through which teachers were evaluated: professionalism, instructional observation, and student achievement growth. The student achievement growth strand accounts for 40 percent of the total appraisal score. Within this strand, individual SLOs count for 20 percent, and team SLOs count for 10 percent. The remaining 10 percent is allocated to schoolwide value-added data. Through REACH, educators who achieve student growth targets on their SLOs also may earn additional compensation.

Strategic Compensation Interim Report 2: Teacher Focus Group Summary, Spring 2008

Schmitt, L. N. T., Malerba, C., Cornetto, K., & Bush-Richards, A. (2008). *Strategic Compensation Interim Report 2: Teacher focus group summary, spring 2008*. Austin, TX: Austin Independent School District (DPE Publication No. 07.32). Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/07.32_Strategic_Compensation_Interim_Report_2_Teacher_Focus_Group_Summary_Spring_2008.pdf

The strategic compensation pilot for Austin's teachers and principals began in the 2007–08 school year. Nine school campuses that reflected a cross section of schools in AISD were selected. Campuses were chosen on the basis of their level of student needs. Five schools were considered highest-need schools and four were not. 'Highest-need' schools are identified from the top 30 percent of schools in AISD, on the basis of their populations of disadvantaged and special-need students. Each school had the leadership of an experienced principal who was willing to facilitate the pilot program implementation during the 2007–08 school year.

The student growth element of the Strategic Compensation Initiative compensates individual teachers for meeting their teacher-developed SLOs. Teachers in the pilot identified two SLOs to be accomplished during the year, as determined by their assessments of student needs. Teachers also were asked to consider and document the material and professional development opportunities that could help them to accomplish their SLOs. Teachers utilized preassessments to establish baseline data for student growth on their selected measure. Although many teachers

utilized existing assessments for this purpose, others created assessments to measure their SLOs. Upon principal approval of SLOs, teachers entered their SLO information into an online data collection system.

In this study, district researchers conducted a series of 13 focus groups with randomly selected pilot teachers to obtain their opinions on implementation of the strategic compensation program and to create examples of the successes and challenges experienced during the first semester of the pilot. Focus groups ranged in size from three to 12 and represented a wide range of teaching assignments. Participating teachers considered their experiences, reported some positive outcomes of the initiative, and provided a variety of suggestions for improvement to the pilot.

Key findings from the study related to SLOs:

> **The SLO process was time-consuming and arduous.** Teachers reported that the documentation (e.g., creating the preassessment) took significant time away from teaching. Some teachers described the process as "jumping through hoops" for doing their jobs, although other teachers found that the SLO process was more involved than they anticipated. Several teachers even questioned whether it was worth their time and extra work required to earn the $1,000 offered.

> **Strategic compensation program specifics were unclear.** Teachers expressed being uninformed about program specifics like when postassessments should be conducted, when payouts would be made, how student mobility should be addressed in performance targets, and the ramifications for teachers who did not meet their SLOs.

> **Teachers desired additional SLO support.** Teachers expressed appreciation for the initial support and training from the Strategic Compensation staff, particularly during the SLO identification and writing process. Many teachers, however, described feeling frustrated that they did not receive additional support related to the materials, resources, and professional development opportunities identified in their SLO documentation. Some teachers expressed the sentiment that they only voted to participate in the pilot partially because of the extra support they felt they were promised.

Key recommendations from the study:

> **Provide detailed, consistent, and timely program information.** Authors suggested that in order to maximize the efficiency of information flow and the accessibility of information, it might prove useful to supply teachers with regular communications such as e-mail newsletters so that they have access to pertinent program updates, reminders, program rules, and deadlines. The authors also recommended that program-related documents be readily available and accessible to teachers on the AISD intranet. Because teachers reported finding value in updates from Strategic Compensation staff, it was recommended that they continue to facilitate regular meetings at each school to answer questions and provide updates. To ensure that pilot participants understand all components of the initiative, it was recommended that information about the program be presented in multiple short sessions to avoid overwhelming participants with too much information. Finally, authors of the study recommended that the collaborative nature of the program be emphasized, including the potential for teachers to conduct common grade-level and subject-area need assessments, create common assessments, and receive

schoolwide awards for accomplishing campuswide growth on the Texas Assessment of Knowledge and Skills.

Offer consistent, timely support to teachers. To ensure that pilot participants receive adequate support for meeting learning objectives, authors recommended that the process for addressing teacher-reported needs be clearly defined, including a description of actions to be taken and responsible parties. Recommendations also included the suggestion that Strategic Compensation staff summarize teacher requests and provide formal recommendations for changes to existing professional development opportunities when widespread teacher needs exist. It was further recommended for the Strategic Compensation pilot to expand to include additional professional growth opportunities for all pilot teachers, including the incorporation of SLO training prior to the start of the school year, as well as provide learning experiences for teachers that integrate SLOs into the larger context of teaching and learning.

Consider alternate compensation strategies. Teachers reported a desire for nonmonetary compensation opportunities or stipends for supporting the school community. To that end, the authors recommended the use of retention stipends so that limitations can be placed on teachers who are eligible to receive bonuses for returning. Other suggestions were for award strategies to include further opportunities for professional growth and instructional support and to extend eligibility for additional compensation to librarians and instructional coaches or specialists so that campus collegiality is supported and instructional collaboration is encouraged.

AISD REACH Year 2 Evaluation Report I, 2008–2009

Schmitt, L. N. T., Cornetto, K. M., Lamb, L. M., & Imes, A. (2009). *AISD REACH Year 2 evaluation report I, 2008–2009* (Publication No. 08.53). Austin, TX: Austin Independent School District. Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/08.53_AISD_REACH_Year_2_Evaluation_Report_I_2008-2009.pdf

This is the first of four reports on the second year of AISD's implementation of the REACH program, primarily drawing data from surveys and focus groups conducted during the 2008–09 school year. The report outlines three major changes in implementation from year one: the addition of two schools in the program, the allowance of tiered SLO targets when students are high-performing on preassessments, and the inclusion of librarians, assistant principals, and instructional specialists and coaches in writing their own SLOs.

Key findings from the study related to SLOs:

SLOs contributed to a sense of positive school climate. An annual districtwide survey measured school climate at both REACH schools and non-REACH schools (intended to act as comparison or "control" schools). Two dimensions measured in the survey were "the extent to which staff believe the school community pushes for academic improvement" and "the extent to which staff believe teachers are committed to students, are competent, and support each other" (p. 12). Principals involved in the REACH program in high-need schools reported that their teachers' high ratings of these dimensions were a result of conversations about SLOs. High-need REACH schools

ratings of these dimensions also were significantly higher than their non-REACH comparison schools.

Nontraditional educators needed more support in implementing SLOs. Librarians, assistant principals, and instructional specialists and coaches in focus groups discussed challenges in establishing SLOs. Their time working directly with students was not as consistent as traditional classroom teachers' time. Their recommendations for the following year were to have more support from REACH staff and to meet with their students more regularly.

Although SLOs were perceived as useful, concerns about the process remain. Focus group participants spoke of SLOs positively, reporting that they created a useful framework for understanding student growth. Still, some teachers felt they did not set attainable goals, partially as a result of pressure from REACH staff and administrators to set ambitious targets. Participants reported feeling "like a failure" if they did not meet their targets and were fearful of scores becoming public. Others were concerned about the alignment between SLOs and assessment scores. This was further complicated by the introduction of a new assessment during the school year, which in itself had technical and content issues.

Recommendations outlined by the study:

REACH staff and administrators must engage in explicit conversation about the value, purpose, and goals of SLOs. Without clear discussion from leadership figures, the efficacy of SLOs and other program components can falter. These conversations also can include stronger links to greater schoolwide student achievement on assessments and other measures.

Greater collaboration on SLOs can contribute to greater student achievement. In particular, the researchers recommend that principals encourage the use of gradewide or subjectwide SLOs as a vehicle for this collaboration.

REACH staff should provide more support for nontraditional educators and more clarity on the SLO approval process. To address the concerns voiced by librarians and other nontraditional educators, the researchers recommend that these educators receive additional support that is unique to their roles. In addition, more transparency in the SLO approval process can help minimize confusion and frustration with setting appropriate targets.

AISD REACH Program Update: 2009−2010 Texas Assessment of Knowledge and Skills (TAKS) Results and Student Learning Objectives (SLOs)

Schmitt, L. N. T., & Ibañez, N. (2010). *AISD REACH program update: 2009−2010 Texas Assessment of Knowledge and Skills (TAKS) results and student learning objectives (SLOs)* (DPE Publication No. 09.83 RB). Austin, TX: Austin Independent School District. Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/rb/09.83_RB_AISD_REACH_Program_Update_2009-2010_Texas_Assessment_of_Knowledge_and_Skills_TAKS_Results_and_Student_Learning_Objectives_SLOs.pdf

District researchers drew upon teacher SLO and state assessment data from 2009–10 to examine the following questions:

- Was REACH teachers' net growth score better than that of comparison teachers?

- Did setting or meeting SLOs correspond to better net growth?

- Did teachers' participation in SLO training relate to their students' student achievement scores?

For the first analysis, researchers compared the net growth of REACH teachers and the net growth of those in comparison groups. Researchers defined net growth as the percentage of students in a classroom who performed as predicted on the state assessment minus the percentage of students who performed below levels predicted. In the second analysis, researchers compared the net growth on the state assessment for teachers who met one SLO's targets with those for teachers who did not meet any SLO targets and then compared the net growth for REACH teachers who met one SLO's targets with the net growth for comparison group teachers. Researchers computed the effect size and statistical significance of these comparisons. In the final analysis, researchers studied the correlation between teacher attendance at SLO trainings and students' net growth on the state assessment. Although overall sample sizes are not included in this study, researchers provided the number of respondents in Appendix 1 of the document.

Key findings from the study related to SLOs:

There was no observable relationship between participation in REACH and state assessment performance, as measured against the comparison group. Net growth data were compiled for REACH teachers and comparison teachers and sorted by school type (elementary, middle, or high school) and subject (reading, mathematics, and science). REACH teachers demonstrated greater net growth that was statistically significant, had a meaningful magnitude of difference (effect size), or both in comparison with non-REACH teachers in two instances: middle school reading and elementary science. But non-REACH teachers demonstrated greater net growth in five instances: elementary and high school reading, elementary and high school mathematics, and high school science. The same analysis was repeated using only data from novice teachers in both REACH and non-REACH schools. Novice REACH teachers demonstrated greater net growth that was statistically significant, had a meaningful magnitude of difference, or both in four instances: middle and high school reading, middle school mathematics, and middle school science. Novice non-REACH teachers demonstrated greater net growth in four instances: elementary reading, high school mathematics, and elementary and high school science.

Novice teachers showed growth in comparison with REACH teachers to non-REACH comparison teachers. Overall, students of REACH teachers at various levels of experience who met at least one SLO's targets demonstrated growth on state assessments that was similar to growth of students of comparison teachers. Students of REACH novice teachers who met at least one SLO's targets, however, outperformed students at comparison schools in half of the instances in the sample.

Within REACH, teachers who met their SLO targets had more favorable results than did teachers who did not meet their SLO targets. Teachers who met their SLO targets were

more likely to demonstrate greater student growth on the state assessment than those who did not. In a comparison between teachers who had met at least one SLO targets and their peers who did not meet their SLO targets, SLO target attainment varied positively with student performance on the state assessment, particularly in mathematics.

Recommendations outlined by the study:

Educators need more training on the process of constructing SLOs. Although there is no relationship between student achievement and the amount of SLO training received, more professional development, including team training on SLOs, and expanded professional development units may provide key support for teachers**.**

Future SLO trainings need to focus on content-specific areas in addition to mechanics. At the time of the study, the focus of SLO training had been on the mechanics of the process. Researchers recommend that future trainings include more support related to content areas. Without content specific training, educators may not fully understand how to relate their SLOs to their instructional strategies.

AISD REACH Program Update: Results of Fall 2010 Program Impact Survey

Cornetto, K. M., & Schmitt, L. N. T. (2010). *AISD REACH program update: Results of Fall 2010 Program Impact Survey* (DPE Publication No. 10.25 RB). Austin, TX: Austin Independent School District. Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/rb/10.25RB_AISD_REACH_Program_Update_Results_of_Fall_2010_Program_Impact_Survey.pdf

This document summarized an analysis of a program impact survey conducted during fall 2009 and 2010 to examine participant experience in REACH. Survey items used a four-level scale from "strongly disagree" to "strongly agree." Mean responses were reported for each survey item, with a 3 signifying an average of "agree." No sample size numbers were provided, but statistically significant differences in responses between years were reported. The survey included 10 items related to SLOs. Participant attitudes between years remained relatively stable and none of the differences in mean attitudes between years was statistically meaningful.

Key findings from the study related to SLOs:

Across 2009 and 2010, REACH participants, on average, reported agreement with the following statements:

- "It is easy to integrate SLOs into my current work." (3.06 in 2009, 3.03 in 2010)

- "I understand the purpose of SLOs well enough to explain them to a friend." (3.21 in 2009, 3.18 in 2010)

- "When setting my SLO, it was easy to determine the area in which my students needed extra help." (3.16 in 2009, 3.17 in 2010)

- "My principal expects me to incorporate my SLOs into my daily work." (3.18 in 2009, 3.11 in 2010)

The mean response to the following statements approached agreement across the two years:

- "I feel well supported by the REACH SLO team." (3.04 in 2009, 2.95 in 2010)
- "My students have benefitted from SLOs." (2.98 in 2009, 3.04 in 2010)

In both years, the mean response was lowest for this statement: "The SLO stipends are large enough for the amount of work involved." (2.60 in 2009, 2.58 in 2010)

This report did not contain recommendations for the future.

AISD REACH Program Update, 2010–2011: Texas Assessment of Knowledge and Skills Growth and Student Learning Objectives

Schmitt, L. N. T. (2011). *AISD REACH program update, 2010–2011: Texas assessment of knowledge and skills growth and student learning objectives.* Austin, TX: Austin Independent School District (DPE Publication No. 10.84). Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/rb/10.84_AISD_Reach_TAKS_and_SLOs_2010-2011.pdf

In this study, district researchers examined the relationships among SLOs related to student growth. The first analysis examined attitudes toward REACH in two groups: SLO participants who met and those who did not meet their SLO targets. The district used results of a teacher survey ($N = 490$) to conduct the analysis. The second analysis compared the correlation between a teacher's net growth (the difference between the percentage of students who exceeded predicted scores on the state assessment and the percentage who scored below prediction) and SLO status (met one or more SLOs' targets, did not meet any SLO targets, or did not write any SLOs as part of a comparison group). District researchers analyzed data from 2009, 2010, and 2011. Some limitations of the study are that state assessment scores could only be analyzed for Grades 4 through 11 in mathematics and English, and so other subjects and grades may have performed differently; that the sample sizes were relatively small throughout data collection; and that different schools started implementing the REACH program at different times (i.e., not all schools had participated in REACH for all four years, but all schools are reflected in the data).

Key findings from the study related to SLOs:

The majority of teachers met SLO targets. Across all four years of the programs, the average annual school-level percentage of teachers who met both of their SLO targets ranged from 59 to 64 percent, and the percentage who met at least one ranged from 19 to 26 percent. These data include schools participating in the pilot since Year 1 and schools added in subsequent years. It is important to note that there was substantial variation across schools. Researchers noted that "in 2010–11, the percentage of participants meeting at least one SLO ranged from 53 percent to 100 percent [across all schools], and the percentage meeting both SLOs ranged from 29 percent to 94 percent" (p. 2). High schools in particular struggled more than middle or elementary schools to meet their SLO targets.

There was no clear relationship between teacher performance on SLOs and teacher perceptions of REACH. In elementary and middle schools, teachers who met their SLO targets did not perceive the program's effectiveness any differently from teachers who did not meet their targets; high school teachers who met their SLO targets, however, perceived the program significantly more favorably than their counterparts who did not meet their targets.

Some relationships were found between state assessment performance and SLO performance. Researchers collected net state assessment growth data from the last three years of the pilot program. These data were further sorted by type of school (elementary, middle, or secondary) and averages of performance toward meeting SLO targets. English language arts educators who met one or more SLO targets had a meaningful magnitude of difference from another group (effect size of $\geq .20$), a statistically significant difference ($p < .05$), or both in comparison with other groups of teachers (i.e., those who did not met SLO targets and educators not involved in the pilot) in five instances: elementary teachers in 2010 and 2011, middle school teachers in 2009 and 2010, and high school teachers in 2011. The same relationships were analyzed for results in mathematics. Educators who met one or more SLO targets had a meaningful magnitude of difference, a statistically significant difference, or both in comparison with another group in six instances: elementary teachers in 2010 and 2011, middle school teachers in 2010 and 2011, and high school teachers in 2010 and 2011.

Some relationships were found between state assessment performance and team SLO performance. Using the same analysis as English language arts and mathematics just described, researchers compared assessment outcomes with team SLO status. For team SLOs in English language arts during academic year 2010–11, educator teams who met their SLO target had a meaningful magnitude of difference, a statistically significant difference, or both in comparison with another group in two instances: For team SLOs in mathematics during academic year 2010–11, educator teams who met their SLO target had a meaningful effect size, a statistically significant difference, or both in comparison with another group in one instance: middle school teachers.

This report did not contain recommendations for the future.

AISD REACH Program Update, 2010–2011: Participant Feedback

Lamb, L. M., & Schmitt, L. N. T. (2012). *AISD REACH program update, 2010–2011: Participant feedback* (DRE Report No. 10.86 RB). Austin, TX: Austin Independent School District. Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/rb/10.86RB_AISD_Reach_Participant_Feedback_2010-2011_0.pdf

In spring 2011, researchers asked teachers, administrators, counselors, librarians, and instructional specialists who participated in REACH to attend a focus group and to complete a survey to assess REACH's impact on their experiences with SLOs and other features of the program. Findings and recommendations from these data were included in the report, but details about sample size or significance levels or results were not included.

Key findings from the study related to SLOs:

Experienced and new REACH teachers agreed that more support was needed. Although survey results indicated that most educators were satisfied with the support they received from the REACH SLO staff, focus group participants both new to REACH and experienced in REACH shared that there were areas of support they were dissatisfied with. Those who were experienced in SLOs had fewer opportunities for support offered by REACH SLO staff and felt they were "left out in the cold." Those who were new reported needing more support to prepare. The comments highlighted in the report illustrate that teachers were frustrated with the "inconsistent" and "unclear" information they received about SLOs and the REACH program as a whole. In addition, special-area teachers in particular voiced a strong need for more support. Comments in the focus group reflected their difficulties with identifying which team SLO they should be included in, accurately assessing students in a timely manner (especially if attendance was inconsistent), and accessing assessment requirements for special-need students.

Educators struggled to understand the SLO assessment process. Across schools and experience levels, participants voiced needing more help and resources with the assessment process required by SLOs. Although some educators were unaware that there were online supports provided by REACH, those who used such resources thought the supports needed updating. Participants requested more direct guidance by the REACH SLO staff in the future.

Attitudes about the SLO process varied, with high school educators slightly more positive. On a scale from 1 to 4 (1 meaning *strongly disagree*), educators ranked how much they agreed with five statements about the SLO process. The lowest mean score was 2.5 from elementary school educators who responded to the statements "Using SLOs has improved my teaching" and "The individual SLO stipends are large enough for the work involved." The highest mean score was 3.2 from high school educators who responded to the statements "I often consider my SLOs when planning and conducting my daily work" and "Using SLOs should improve student TAKS performance" (p. 4).

Focus groups revealed mixed opinions on the use of team SLOs. On one hand, many focus group participants spoke about how team SLOs may have "caused some feelings of anxiety and/or blame about having their own and/or colleagues' compensation tied to someone else's performance." Related comments focused on the even distribution of team SLO stipends despite a perceived uneven distribution of work and dedication across teachers. Other comments reflected positive perceptions of team SLOs, particularly perceptions of the value and outcomes of increased collaboration with educators they otherwise would not work with.

Recommendations outlined by the study:

Continue to improve and implement SLOs. The report supported this recommendation by noting that "several participants described how they were beginning to see the program change their campus for the better—particularly as a result of SLOs" (p. 11).

Improve communication, training, and support in order for the REACH program to be successful. The authors concluded with a call for clarity of information, especially as

regards the strategic compensation component of the REACH program. Without this, the authors maintained, the effectiveness of all components of the program is compromised.

AISD REACH Program Summary: 2007–08 Through 2010–2011

Schmitt, L. N. T. (2012). *AISD REACH program summary: 2007–2008 through 2010–2011* (DRE Publication No. 10.97 RB). Austin, TX: Austin Independent School District. Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/rb/10.97RB_AISD_REACH_Program_Summary_2007-2008_through_2010-2011.pdf

The purpose of this report was to highlight REACH program successes since its inception during the 2007–08 school year through the 2010–11 school year.

Key findings from the study related to SLOs:

> **Team SLOs showed some relationships to assessment scores for secondary teachers.** Students of high school teachers who met their team SLO targets performed better on state assessments than both students of high school teachers who did not meet their team SLO targets and their peers at non-REACH schools (i.e., schools that did not use SLOs). Other results on team SLOs were mixed.

> **Data showed increases in positive responses to SLO use over time.** The percentage of educators meeting their SLO targets remained steady across all four academic years examined in the report even as new schools were added to the REACH program yearly. Although only 48 percent of teachers agreed that SLOs improved their teaching during the 2008–09 academic year, 68 percent and 67 percent agreed to the statement during the 2009–10 and 2010–11 academic years, respectively.

This report did not contain recommendations for the future.

AISD Pilot Teacher Appraisal System, 2011–2012: Multiple Measures of Teacher Evaluation

Lamb, L. M. & Schmitt, L. N. T. (2013). *AISD pilot teacher appraisal system, 2011–2012: Multiple measures of teacher evaluation* (DRE Publication No. 11.80). Austin, TX: Austin Independent School District. Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/11.80_AISD_Pilot_Teacher_Appraisal_System_2011_2012.pdf

This report compares data from the teacher appraisal system pilot year (2011–12) with data from the previous evaluation system the year prior (2010–11). Educators under the new appraisal system were evaluated under four domains: student growth (which included value-added measures and/or SLOs), instructional practice, classroom climate, and professional expectations. In addition to data on teachers' summative scores under the new system, the report also draws information from 11 focus groups with 50 teachers participating in the pilot. It is important to note that when SLO results are reported, they reflect the percentage of students who met their SLO targets, not whether teachers met their SLO targets.

Key findings from the study related to SLOs:

High school teachers who used individual SLOs received more points on the student growth component of the appraisal system than high school teachers who used value-added measures. In addition, high school teachers who used SLOs scored higher across all components of the appraisal system than their counterparts who used value-added measures. Elementary and middle teachers scored about the same in the student growth component, regardless of which growth measurement they used.

Results with teachers in core and noncore subject areas were similar in some ways and differed in others. Core subject areas were defined to be language arts, mathematics, science, and social studies. Noncore subject teachers expressed that both their individual and team SLOs "did not provide them enough opportunities to show or contribute to student growth" (p. 5). Despite this concern, data on final appraisal scores showed no significant differences between core and noncore teachers' reaching their SLO target scores. Core teachers with value-added data scored lower than the other two groups of teachers both in the student growth component and in overall appraisal scores.

Teachers had higher scores when they shifted from value-added measure to SLOs. To compare the new appraisal system with the one used the previous year, the report analysis included only teachers who had data for both years, meaning that it excluded those in their first year of teaching. As a group, teachers made a 6 percent increase on total possible points in the new system over what they earned on system the year prior. In addition, teachers with SLO data made an 8 percent increase on their total evaluation scores using the new system.

Other appraisal components showed a relationship with SLO performance. The comparison of teacher outcomes on SLOs with teacher outcomes on the other appraisal components showed that teachers who met both their individual SLO targets and their team SLO targets scored higher on both their administrator walk-through scores and the overall appraisal than did teachers who did not meet either of their SLOs' targets. Similarly, teachers who met both SLOs' targets scored higher on their administrator formal observation than teacher who only met one SLO's targets.

This report did not contain recommendations for the future.

Austin Independent School District (AISD) Pilot Teacher Appraisal System Update: 2012−2013 Focus Group and Survey Summary

Lamb, L. M., Schmitt, L. N. T., Gross, R., & Cornetto, K. M. (2013). *Austin Independent School District (AISD) pilot teacher appraisal system update: 2012−2013 focus group and survey summary* (DRE Publication No. 12.70). Austin, TX: Austin Independent School District. Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/12.70_Austin_Independent_School_District_AISD_Pilot_Teacher_Appraisal_System_Update.pdf

This report summarizes results from focus groups and survey findings on teachers' experiences with the pilot teacher appraisal system. Focus groups were conducted in spring 2013, and participating teachers were ending either their first or second year in the pilot program. Teachers

($N = 385$) and administrators ($N = 11$) in the pilot also answered survey questions about the implementation and their perceptions of the system. An additional 318 teachers responded to items about other program elements.

Key findings from the study related to SLOs:

Most teachers valued the inclusion of SLOs in the pilot teacher appraisal system. At least 75 percent of teachers agreed or strongly agreed with three statements about the positive value of SLOs. Teachers in the focus groups described how SLOs have helped teachers, particularly new teachers, analyze student data. Teachers in the focus group reported that SLOs provide a beneficial framework for addressing student needs, promoted goal setting, and promoted teamwork with team SLOs.

Concern with evaluating teachers on the basis of their SLOs generally pertained to a perceived lack of control teachers have over the SLO process (e.g., students' potentially poor performance on SLO assessments that is due to burnout from overtesting, unequal SLO standards across campuses, inequity of standards for different student groups and teacher types, and a difficult testing window). A specific issue shared repeatedly was the perceived inequity between campuses where administrators mandated rigorous SLO targets, uniform SLO targets, or both regardless of specific student needs and campuses where less rigorous practices were mandated. Teachers from each school represented expressed apprehension about including SLO results in their summative evaluation scores.

Survey results suggested some differences in perception between teachers in different SLO projects. In general, survey responses indicate teachers had more favorable than unfavorable opinions about SLOs, but responses differed by pilot appraisal status, meaning that teachers from REACH nonappraisal schools were significantly more favorable about the impact of SLOs on their work than were those from the appraisal schools. Teachers from REACH schools where SLOs were used for compensation but not evaluation decisions were significantly more favorable about the impact of SLOs on their work than were those from schools whose SLOs were incorporated into their evaluation decisions. Teachers perceived that including evaluation in SLO implementation could be punitive. As a result, some teachers reported rethinking their rigorous targets and expressed concern about the contributions of other teachers to their team SLOs. It should be noted that despite these concerns, most teachers concluded that SLOs were the most appropriate method of measuring student growth.

Teachers had suggestions for improving the weighting of SLOs in the pilot appraisal system. Overall, teachers were concerned about the weighting of SLOs in the evaluation system. Teachers were concerned about the point allocations for team and individual SLOs; some recommended reducing or eliminating the weighting of SLOs.

Recommendations outlined by the study:

Consistent principal involvement across the district is important as the pilot continues. When educators were interviewed for this study, some were knowledgeable of program requirements, although others were more unfamiliar with them. Respondents also described various levels of principal involvement in the program, suggesting that implementation was not uniform across all schools. Researchers recommend that the

district improve principal accountability measures so as to reduce variability in teachers' knowledge about program requirements.

Provide more online supports for educators. A common concern raised in the focus groups was that teachers did not know where to find answers to common questions about the pilot teacher appraisal system. The report suggests the development of training videos and an FAQ section on the program website. Participants also suggested occasional e-mail reminders with links to these resources or other tools for accessible information about the program.

AISD REACH Program Update 2012–2013: Student Learning Objectives

Schmitt, L. N. T., Lamb, L. M., Cornetto, K. M., & Courtemanche, M. (2013). *AISD REACH program update, 2012–2013: Student learning objectives* (Publication No. 12.83). Austin, TX: Austin Independent School District. Retrieved from https://www.austinisd.org/sites/default/files/dre-reports/DRE_12.83_AISD_REACH_Program_Update_2012_2013_Student_Learning_Objectives.pdf

This paper summarizes existing reports on AISD SLO results from the 2012–13 school year. It includes information on teachers' perceptions of SLOs, the percentage of teachers who met SLO targets, and relationships between SLOs and various aspects of teacher practice, as well as information pertaining to student growth as measured by state tests. Data on SLO target achievement came from the district's internal SLO database, and data on educators' perceptions came from survey data collected annually by the researchers from 2009 to 2013. During the 2012–13 school year, 2,064 educators at 38 AISD REACH schools wrote a total of 4,128 SLOs to address the needs of the students they served. The percentage of teachers who met SLO targets ranged from 53 percent to 100 percent across participating schools.

Key findings from the study related to SLOs:

Teachers' agreement with the idea that the use of SLOs has improved their teaching has increased over time. There was a 20 percentage-point increase between the 2008–09 school year and the 2009–10 school year in teachers who agreed with the statement "Using SLOs has improved my teaching." During each of those years, about two thirds of teachers agreed or strongly agreed that using SLOs had improved their teaching.

Teachers with more SLO experience tended to express more favorable attitudes toward the program. A further investigation into teachers' attitudes from different cohorts showed that teachers in more recent cohorts tend to express more favorable opinions in their initial year than those who started participating at the beginning of the program. Holding years of experience in the program equal, there was a small, though statistically significant, correlation of .24 between the number of years a school had participated in the program and the likelihood that teachers reported it influenced their teaching. This suggests that teachers at schools that have participated longer in the program are slightly more likely to report a favorable view of SLOs' influence on their teaching than teachers whose schools have participated for a shorter period of time.

Team SLO results were found to be related to state assessment performance. Researchers found a positive correlation between meeting targets on team SLOs and student performance on the state assessment. Although the ability to examine student performance in relation to the specific areas their teachers targeted for SLOs was limited, results suggested that fourth-grade students improved significantly on STAAR from spring 2012 to spring 2013 in the area of numbers, operations, and quantitative reasoning when their teachers had targeted that area.

Recommendations outlined by the study:

Special education and core subject teachers at the secondary level were less likely to meet SLO targets than noncore subject teachers. The paper recommended more inquiry into the differential outcomes for these teachers and greater support for noncore and non–special education teachers.

School librarians need additional support to meet their SLO targets. The study found that librarians were facing particular challenges in executing SLOs, which led to the suggestion that additional inquiry and support into these challenges would be beneficial.

Austin Independent School District REACH Program Update: Longitudinal Student Growth

Schmitt, L. N. T. (2014). *Austin Independent School District REACH program update: Longitudinal student growth*. Austin, TX: Austin Independent School District (DRE Publication No. 12.95 RB). Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/DRE_12.95RB_AISD_REACH_Program_Update_Longitudinal_Student_Growth.pdf

This report describes the overall performance over time for schools, classrooms, and students at REACH schools in comparison with the performance of students at similar non-REACH comparison schools. The sample included 13 schools that entered REACH in the primary implementation cohorts (2007–08, 2008–09, and 2009–10). In addition to examining the differences between gains of REACH and comparison classrooms, data were examined to determine whether SLOs were related to REACH teachers' classroom gains on state assessments. Analyses described the relationship between REACH teachers' classroom gains on state assessments (i.e., Educational Value Added Assessment System [EVAAS] scores) and the percentage of their students who made significant gains on SLO assessments. To remove any relationship between years of teaching experience and students' gains, partial correlations were computed to control for teaching experience while examining the relationship between teachers' EVAAS scores and the percentage of students who met their individual SLOs in the same subject. Data also were examined to determine the relationship between teachers' EVAAS scores and years of experience with SLOs.

This report included findings of schools' passing rates over time, schools' performance gains, classrooms' performance gains, and students' performance gains over time. Sample sizes were insufficient for tests of statistical significance at the school level. They were, however, sufficient for significance tests at the classroom and student levels.

Key findings from the study:

Enhanced school performance was found in participating schools. The passing rates for six of the eight REACH schools in the first two program cohorts improved more than did those of their comparison schools on the TAKS between the year prior to program implementation and the final year of the TAKS. The passing rates for the first three cohorts on the 2013 STAAR were higher for REACH schools than for their comparison schools in 59 percent of comparisons; comparison schools had higher passing rates than did REACH schools in 39 percent of comparisons. REACH schools in the first three cohorts earned greater gains from 2008 to 2013 than did their comparison schools in the areas of reading and English language arts, mathematics, and science in 46 percent of comparisons; comparison schools achieved greater gains than did REACH schools in 26 percent of comparisons.

Improvement in classroom performance was found in some subjects and classrooms. REACH high school classrooms had significantly greater performance gains in reading and English language arts and mathematics than did comparison classrooms. No significant differences were found for elementary or middle school classrooms. Classroom gains at REACH middle and high schools were related to teachers' years of SLO experience and classroom SLO performance for some subjects, even after controlling for teachers' years of teaching experience.

Student performance improved for REACH students. REACH elementary and middle school students improved significantly in reading over time. REACH middle school students, in particular, improved significantly more in reading from 2009 to 2013 than did their comparison school peers.

Key findings from the study related to SLOs:

Teachers' classroom EVAAS performance was not consistently related to SLO performance. Middle school science teachers with more students who met their individual SLOs demonstrated significantly greater classroom gains than did middle school science teachers with fewer students who met their SLOs. Years of SLO experience also were related to EVAAS scores at the middle and high school levels in some instances. Middle and high school reading and English language arts teachers and middle school science teachers with more years of experience with SLOs had significantly greater classroom gains than did those with less SLO experience, even after controlling for years of teaching experience. At no school level were mathematics or social studies EVAAS scores significantly related to the percentage of teachers' students who met SLOs or to teachers' years of experience with SLOs.

This study did not include key recommendations.

AISD REACH Program Update: Longitudinal Student Growth

Schmitt, L. N. T. (2014). *Austin Independent School District REACH program update: Longitudinal student growth*. Austin, TX: Austin Independent School District (DRE Publication No. 12.95 RB). Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/DRE_12.95RB_AISD_REACH_Program_Update_Longitudinal_Student_Growth.pdf

Austin Independent Schools have been implementing SLOs as part of the REACH program since the 2007–08 school year. This study compared the outcomes of schools that have been in the program for four or more years to schools that were not in the program. Each of the thirteen schools in the program had a comparison school with similar demographics and student achievement levels. They were compared on test scores from TAKS and STAAR assessments at the school, grade, and student levels.

Key findings from the study related to SLOs:

At the school level, students in REACH schools outperformed their non-REACH counterparts on the spring 2013 state assessment more often than not. Out of 56 different comparisons made between individual REACH schools and their comparison schools on state assessment outcomes in reading, mathematics, science, and social studies, REACH schools made greater achievement gains in 33 comparisons and the comparison schools made greater achievement gains in 22 comparisons. (There was one school at which results were comparable.)

Classroom-level outcomes varied by school type. REACH high schools made significantly greater achievements in mathematics and English language arts than the comparison high schools. Middle schools also had greater achievements than their comparison schools, but the differences in that case were not significant.

Meeting SLOs was found to be related to certain classroom gains in performance. Middle school science teachers with a higher percentage of students who met their individual SLO's targets showed significantly greater classroom gains than did middle school science teachers with a smaller percentage of students who met their SLO's targets. No significant differences were found for other grades and subjects in this analysis. When controlling for years of teaching experience, three groups of teachers with more experience with SLOs showed significantly greater classroom gains than teachers with less SLO experience: middle school English language arts teachers, high school English language arts teachers, and middle school science teachers.

At the student level, differences were found between REACH students and non-REACH students. Three years of testing data showed REACH students performing significantly better over time than non-REACH students in reading in both elementary and middle schools. Middle school mathematics students in non-REACH schools scored higher over time than REACH students, but this difference was not significant.

This report did not contain recommendations for the future.

AISD REACH Program: Summary of Findings From 2007–2008 Through 2012–2013

Schmitt, L. N. T. (2014). *AISD REACH program: Summary of findings from 2007–2008 through 2012–2013* (DRE Publication No. 12.96). Austin, TX: Austin Independent School District. Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/DRE_12.96_AISD_REACH_Program_Summary_of_Findings_2007_2008_Through_2012_2013_0.pdf

This report provides a summary of research from AISD schools that have participated in the REACH program for six academic years. The program introduced more changes, however, than just SLOs as a new measure of student growth, which makes findings specific to SLOs difficult to disaggregate from other program components. Though findings are mixed and depended on implementation year and available data, the use of SLOs was, more often than not, associated with positive experiences and outcomes.

Key findings from the study related to SLOs:

Teachers reported collaboration and use of data through their experience with SLOs. During the four years of data collection, teachers using SLOs consistently reported opportunities for collaboration with other educators than did teachers who did not use SLOs. A large majority of teachers reported that SLOs improved their instruction, and teachers using SLOs also reported engaging with student data more often than did teachers at comparison schools not using SLOs.

The relationship between SLOs and student achievement was mixed. Findings on the relationship between SLOs and scores on state tests varied across years, subjects, grade levels, and schools. Though no conclusive information can be drawn from such a result, researchers noted that data from 2012–13 showed a relationship between the number of teachers at a school who met team SLO targets and the school's passing rates on the state examinations, a relationship between the number of teachers who met both team and individual SLOs' targets and their school's state assessment passing rates at the high school level, and a relationship between the average percentage of high school students who met their science SLO targets and their school's science value-added measure.

SLOs can be effective when connected to assessment objectives. In 28 of 123 comparisons, students whose teachers' SLOs focused on a particular assessment objective outperformed those whose teachers did not focus their SLO on that objective. In only one instance did students whose teachers did not establish an SLO focused on an assessment objective outperform those whose teachers did.

Other REACH program components supported SLO work. One component of REACH was the introduction of professional development units, or small groups of teachers who work together as teams on professional development–related activities and issues. Some data suggest that teachers who participated in this optional component met more SLO targets than those who did not participate in a professional development unit. Furthermore, novice teachers who participated in a mentorship program tended to have a higher likelihood of reaching SLO targets and having higher overall evaluation scores

than novice teachers who did not participate in the program. Findings in this section also varied and reveal potential inquiries for future investigation.

This report did not contain recommendations for the future.

Austin Independent School District REACH Program Update: Student Learning Objective Assessments

Schmitt, L. N. T. (2014). *Austin Independent School District REACH program update: Student learning objective assessments*. Austin, TX: Austin Independent School District (DRE Report No. 13.89 RB). Retrieved from http://www.austinisd.org/sites/default/files/dre-reports/rb/DRE_13.89RB_AISD_Reach_Program_Update_Student_Learning_Objective_Assessments_0.pdf

AISD implemented SLOs in 2007–08 as part of the AISD REACH strategic compensation initiative. Each participating teacher wrote two SLOs and determined the appropriate assessment that would be used to measure whether students attained growth targets. Most teachers wrote one SLO for their own class (i.e., an individual SLO) and one SLO with a team of colleagues (i.e., a team SLO). Teachers for whom a team SLO was not practical (e.g., foreign language, art) wrote two individual SLOs. REACH required students to achieve minimum growth of half the distance between the pretest score and a perfect score. Some principals, however, extended the growth expectation (e.g., all students must score ≥70 percent, regardless of pretest score). Teachers could select from a list of preapproved assessments or could create an assessment to be approved by their principal and central office program staff.

Teachers were invited to attend assessment writing workshops in an effort to learn assessment development techniques and created standards-based assessments for topic areas identified as the most common areas of need. Assessments that met the program standard for rigor were approved for use and were made available to teachers. In 2013–14, 596 REACH teachers (34.1%) used a preapproved assessment and 1,154 REACH teachers (65.9%) created their own assessments to measure student growth on their primary individual SLO.

Teachers' success with SLOs was defined by (a) whether the teacher met the targets for a specified percentage of students, thus accomplishing a specified amount of growth and (b) the percentage of the teacher's students who accomplished the specified amount of growth, regardless of whether the target was met. Differences in teacher characteristics (i.e., school level and teacher type or content area) and assessment characteristic (i.e., assessment source and assessment format) were examined using analysis of variance (ANOVA) or *t*-tests when sample sizes provided sufficient power and balance to appropriately and adequately detect statistical significance.

Key findings related to SLOs:

> **More elementary school teachers reached their SLO targets than did secondary school teachers.** In 2013–14, 82.5 percent of REACH teachers met their targets for student growth on their primary individual SLO. These percentages did not vary by teacher type. The teacher types categorized for elementary school teachers were specialist or coach, core area, fine arts, special education, and physical education. The teacher types

for middle and high school were fine arts, physical education, foreign language or elective, special education, and core area. Consistent with earlier REACH findings, elementary teachers were significantly more likely to meet their individual SLO targets than were middle or high school teachers. Similarly, a greater percentage of elementary students than of middle or high school students met their teachers' individual and team SLO growth targets. Middle and high school fine arts and physical education teachers were particularly more likely to meet their SLO growth targets than were other teacher types at the secondary level.

There was no difference in growth target attainment between students using preapproved assessments and those using teacher-made assessments. Although middle and high school teachers were more likely to develop their own assessment than were elementary school teachers, no significant differences were found between the percentages of students who met SLO targets using preapproved assessments and percentages of students who met SLO targets using teacher-made assessments.

Students were more likely to meet reading and English language arts and mathematics SLOs when their teachers used rubric or performance-based assessments. In spring 2014, a sample of teachers who used multiple-choice SLO assessments indicated they did so to prepare students for the format of the state assessments, to reduce the amount of work involved, and to avoid the potential subjectivity of rubric or performance assessments (Courtemanche, Orr, & Schmitt, 2014). Teachers who selected performance-based assessments indicated they were more authentic for some noncore areas. These considerations reflect valid concerns of teachers in different subject areas. The author of the report posited that if core area teachers at the middle and high school levels elect to use multiple-choice assessments more frequently than rubric or performance assessments, they are likely to meet SLO targets less frequently than their peers in other teaching roles unless minimum growth targets are adjusted to reflect differences associated with assessment format.

This study did not include key recommendations.

Denver Public Schools

Between 1999 and 2003, Denver Public Schools and Denver Classroom Teachers Association jointly sponsored a pay-for-performance pilot, which included implementation of two student growth objectives (SGOs) per teacher. An ambitious venture, teachers under the pay-for-performance contract were charged with reviewing baseline achievement data in their classes, writing two growth objectives, defining how they would measure growth for each objective, establishing the growth that they expected to see, and seeking approval for their SGO. Because Denver teachers already had experience with SGOs, they agreed with the plan for the program. Some teachers suggested that it was an opportunity to receive additional compensation for a teaching practice they were already using. Teachers received bonuses for meeting one or both of their SGOs, which were not attached to educator evaluations. The pilot involved 13 percent of Denver's schools, which may have represented a microcosm of the challenges faced by larger, urban districts.

The following is a summative report from the Community Training and Assistance Center, which conducted a study on the impact of the pilot and provided technical assistance on SGO implementation. The study examined student achievement during the program's beginnings, the quality of teachers' learning objectives, the effect of the program on a range of school-level outcomes, and broader institutional factors that may have affected implementation.

Catalyst for Change: Pay for Performance in Denver Final Report

Slotnik, W. J., & Smith, M. D., with Glass, R. J., & Helms, B. J. (2004). *Catalyst for change: Pay for performance in Denver; Final report.* Boston, MA: Community Training and Assistance Center. Retrieved from http://www.ctacusa.com/wp-content/uploads/2013/11/CatalystForChange.pdf

In this study, CTAC conducted a longitudinal, mixed-methods study including 615 interviews and responses from 2,870 teachers, parents, administrators collected via surveys. The analysis also included observations, student achievement and demographic data, and a comprehensive review of teachers' SGOs. The goal of the study was to examine SGO substance, quality, and relation to student achievement through four components: (1) an examination of the impact of the pilot on student achievement (measured by two separate assessments), (2) a study of the growth objectives' substance, quality, and relationship to student achievement, (3) an evaluation of the effect of various student, teacher, and school factors on pilot results, and (4) an identification of broader institutional factors that may have affected implementation.

Key findings from the study related to SGOs:

> **The quality of SGOs improved over time.** Using a four-level rubric (with 4 being excellent) to assess the quality of SGOs, researchers found that in the first year of implementation, 25 percent of objectives achieved rubric level 3 or 4 on the rubric. This percentage increased each year, and, in Year 4 of implementation, 72 percent of objectives achieved rubric level 3 or 4. Researchers noted that technical assistance and training provided to teachers and principals improved and increased over time as well.

The relationship between achievement and an SGO's score on the rubric was mixed when achievement was measured by student mean normal curve equivalent (NCE), but researchers found some increase in mean student achievement NCE scores as rubric level increased. At the elementary level, students of teachers with SGOs at rubric levels of 2, 3, and 4 had mean NCE scores on the Iowa Test of Basic Skills (ITBS) reading test that were significantly higher than students of teachers with SGOs at level 1. Students of teachers with SGOs at rubric level 4 had significantly higher NCE scores on the ITBS language and Colorado Student Assessment Program (CSAP) mathematics tests than students of teachers with SGOs at lower rubric scores.

At the middle school level, students of teachers with SGOs at rubric level 4 had significantly higher NCE scores on the ITBS mathematics test than students of teachers with SGOs at rubric level 3. (No SGOs received a rubric score of 1 at the middle school level.) Students of teachers with SGOs at rubric level 4 had significantly higher NCE scores on the CSAP mathematics test than students of teachers with SGOs at rubric levels 2 or 3. (No SGOs received a rubric score of 1 at the middle school level.)

At the high school level, students of teachers with SGOs at rubric level 4 had significantly higher NCE scores on the ITBS reading and the CSAP writing tests than students of teachers with SGOs at rubric level 2. Students of teachers with SGOs at rubric level 4 had significantly higher NCE scores on the CSAP writing and CSAP mathematics tests than students of teachers with SGOs at rubric Level 3.

Findings varied on the relation between mean NCE score and whether a teacher met one or more objectives. Researchers noted limited statistically significant evidence for a positive relation between meeting objectives and mean NCE score.

At the elementary level, the difference in mean NCE scores of students of teachers who met both objectives and students of teachers who met only one objective was statistically significant for all six examined tests, except CSAP writing. On three tests (ITBS language, CSAP writing, and CSAP mathematics), the mean NCE score of students whose teachers met two objectives was also statistically higher than the score of students whose teachers did not meet their objectives.

At the middle school level, the difference in mean NCE scores of students of teachers who met both objectives and students of teachers who met only one objective was statistically significant only for the ITBS reading and language tests.

At the high school level, the NCE mean score on the ITBS reading test for students of teachers meeting both objectives was significantly higher than the score for students of teachers meeting only one objective, and, at one high school, significantly higher than students of teachers not meeting any objective. (All teachers met their objectives at the other high school.)

Recommendations outlined by the study:

There is a need for more training on strategic goal alignment. Researchers recommended that educators receive instructional support on how to align the goals of teacher-developed objectives with district-level expectations of student achievement.

The assessment process, including SLOs, generally needs more clarification.
Researchers recommended that the district implement a more uniform, fair, and valid
system of assessment that allows for diagnosing learning progress at the classroom level
and allows for comparing student growth across grades and schools. In addition, the
district would do well to further clarify which means of assessment can be used for
objective setting and which can be used for determining compensation.

Connecticut Department of Education

Starting in 2012, the Connecticut State Department of Education created the System for Educator Evaluation and Development (SEED) which was implemented in 10 pilot school districts or consortia within 14 districts. The evaluation system includes four measures of teacher performance: observations (40 percent), parent feedback (10 percent), student growth and development (45 percent), and whole-school learning and student feedback (5 percent). The student growth and development category includes SLOs. Teachers were responsible for setting SLOs that were both "rigorous" and "attainable," according to SEED standards.

In 2014, the UConn Center for Education Policy Analysis at the Neag School of Education studied the state's pilot implementation efforts to determine short-term outcomes and provide feedback for continuous improvement of the SEED model. Evaluators examined the degree of fidelity to which the pilot was implemented throughout the districts. The paper's key findings included the instructors use of their evaluation time and the needs they identified for further professional growth and instruction using SLOs.

An Evaluation of the Pilot Implementation of Connecticut's System for Educator Evaluation and Development

Donaldson, M. L., Cobb, C. D., LeChasseur, K., Gabriel, R., Gonzales, R., Woulfin, S., & Makuch, A. (2014). *An evaluation of the pilot implementation of Connecticut's system for educator evaluation and development.* Retrieved from http://aftct.org/sites/aftct.org/files/neag_seed_report_1_1_14.pdf.

This study examined all components of SEED using a two-stage stratified sampling technique, the researchers selected a minimum of 20 percent of schools at each level (high school, middle school, and elementary school) in each of the 14 pilot districts. Thirty-seven schools also were purposely sampled to widen the range of school settings and grade levels. Educators within the sample were randomly selected for three rounds of interviews and surveys.

Key findings from the study related to SLOs:

Teachers spent more time on goal setting under SEED than under previous evaluation systems. Seventy-four percent of teachers reported that they spent more time on goal setting than they had under previous evaluation systems, 53 percent of teachers reported that goal setting was valuable, and 68 percent reported that they found analyzing student data to be a valuable process.

Administrators observed that SLOs led teachers to make instructional changes. Fifty-five percent of the administrators surveyed indicated that setting SLOs led teachers to make changes to their teaching practice.

Teachers expressed mixed views on whether SLOs changed their practices. Forty-four percent of teachers agreed with the statement that they spent "a lot more time" on goal setting than they had under previous evaluation systems. Thirty-six percent of teachers reported that SLOs led them to make changes in their instructional practice, and 39 percent reported that SLOs did not make a change in their practice. Twenty-eight

percent reported that they spent less time providing instruction on other content in an effort to focus on the content directly related to their SLOs, although 38 percent did not report a change in their content coverage.

Implementing SLOs required significant time and training. Educators reported that SLOs consumed a substantial portion of time and caused considerable stress for them in the fall. In addition, many teachers reported receiving insufficient guidance on how to write appropriate SLOs and growth goals. Some teachers confused by the SLO process reported a sentiment of minimal compliance, some copying state model SLOs or asking other teachers to write their SLO for them.

Recommendations outlined by the study:

Increase the training for administrators *and* teachers. Teachers perceived a lack of training and information on how to develop SLOs as well as mixed messages from school leaders on SLO policy. Specifically, the report recommended that both administrators *and* teachers receive the training, rather than relying on a train-the-trainer model that was used in the pilot year. Teachers also had concerns about evaluator skill and the guidance for setting growth targets in the SLO.

Provide additional guidance on "indicators of academic growth and development." The SEED model built SLOs on the SMART goal format, which authors concluded is a useful heuristic that is nevertheless limited in helping teachers determine growth targets that are attainable and sufficiently challenging. Indicators of academic growth and development (also known as growth targets) were "in most cases inherently arbitrary" (p. 7), leading the authors to recommend the state department of education continue to provide clear guidance on the identification of valid indicators of academic growth and development targets. Whether the guidance offered is valuable but not being conveyed to teachers is not clear in the report. There was further concern that growth targets in tested and nontested grades did not have the same rigor—with many teachers in tested grades failing to meet targets because all students were required to achieve a particular benchmark.

Support assessment literacy. Teachers struggled to find good assessments to use for their SLOs. The report recognized that SEED requires "relatively sophisticated" assessment literacy of teachers but fell short of making a recommendation to provide training. Instead, the report acknowledged that it is unclear whether educators have strong assessment literacy or whether the district had plans to address teacher assessment literacy.

Monitor for continuous improvement. The authors concluded that the challenging aspects of SLO implementation were in part a result of rushed implementation. Despite the limitations, SEED may be spurring teachers to spend more time gathering and examining data. SEED has increased teachers' consideration of and use of student data, a practice recognized as having potential to improve instruction and student achievement. To continue these benefits, the authors recommended ongoing monitoring and refinement of the system.

Delaware Department of Education

In 2012–13, Delaware implemented a revised teacher evaluation system, the Delaware Performance Appraisal System II (DPAS-II), statewide. In addition to the four observable components, the evaluation system included a student improvement component (Component V). Component V includes three types of student growth measures—Measure A (a state-determined measure of student growth based on Delaware Comprehensive Assessment System instructional scale scores for reading and mathematics in Grades 3–10, referred to here as "state test scores"); Measure B (external and internal assessments that are reviewed by an outside vendor for validity and chosen by an educator with administrator approval, referred to here as "vendor assessments"); and Measure C, which most closely mirrors SLOs (an educator-developed growth goal developed by educators, reviewed by an outside vendor, and approved by the state, referred to here as "growth goals"). The specific measures included in an educator's evaluation depend on the availability of measure types. The student improvement component varies between 50 and 100 percent of an educator's total evaluation; the percentage depends on type of student growth measure used.

In November 2013, the Delaware Department of Education released a report of the first year's implementation of the revised evaluation system.

Delaware Performance Appraisal System-II "Year One" Report

Teacher and Leader Effectiveness Unit, Delaware Department of Education. (2013). *Continuous improvement: A report on "year one" of the revised DPAS-II educator evaluation system*. Retrieved from http://www.doe.k12.de.us/cms/lib09/DE01922744/Centricity/domain/271/present%20and%20reports/DPAS_II_Year_One_Report_2013.pdf

The teacher and leader effectiveness unit of the Delaware Department of Education prepared a report analyzing the first year of statewide implementation of the revised DPAS-II system. The report also examined rating distributions for educators statewide. Data sources for the report included 2012–13 student growth data from the Delaware Comprehensive Assessment System (DCAS) examination, DPAS-II evaluation ratings collected through the state reporting system, and information from the most recent annual DPAS-II process evaluation study gathered educator feedback and information on educator perceptions. The process evaluation study has been conducted for the past six years by an external vendor. In 2012–13, 36 percent of teachers, 47 percent of specialists, and 44 percent of administrators responded to a perception survey. In addition, 45 educators participated in focus groups held in various parts of the state.

Key findings from the analysis of rating data:

> **The relationship between the teacher practice and student growth components was weak.** For example, 73 percent of the teachers rated unsatisfactory within Component V, student growth, received four satisfactory or higher ratings on the observation components (p. 25).

> **The percentage of teachers receiving a "satisfactory" or "exceeds" rating varied by measure type.** Eighty-three percent of teachers using the state test scores received a

"satisfactory" or "exceeds" rating, in contrast with 94 percent of educators using vendor assessments and 99 percent of educators using growth goals (p. 5).

Ratings widely varied across school districts. The percentage of educators who received a rating of "exceeds" on state test scores ranged from 22 percent to 96 percent across districts (p. 20). The percentage of educators who received a rating of "exceeds" on vendor assessments varied from 51 percent to 94 percent across districts (p. 22–23).

Administrators frequently used their discretion to upgrade ratings. In Delaware, principals were able to change a teacher's "unsatisfactory" rating to "satisfactory." Overall, principals changed 56 percent of "unsatisfactory" state test score ratings, although the percentage of upgraded ratings by district varied from 32 percent to 90 percent.

The majority of survey respondents agreed that the growth measures in Component V has some impact or a major impact on improving their teaching (p. 6).

Key findings from the external vendor report:

Teachers viewed the DPAS-II process as useful. Eighty five percent of teacher respondents agreed that the oral feedback they received through the evaluation process was useful and 80 percent agreed that the written feedback they received was useful. Sixty four percent of respondents believed that the student improvement component has "some" or "a major" impact on improving their teaching.

DPAS-II helps improve student achievement. Nearly half of teacher and specialist respondents (47 and 45 percent, respectively) perceived DPASII to be "one of the top three efforts to improve student achievement" or "the most significant driver of student achievement gains" (p. 30).

The evaluation system is perceived as average. The majority of survey participants (teachers, specialists, and administrators) rated the evaluation system a C on an A–F scale. In interviews and focus groups, participants spoke about problems related to the rollout and implementation of Component V. Problems were related to the consistency and timeliness of communication, use of technology used in the evaluation system, and the need for more training and support.

This report did not contain recommendations for the future.

Indiana Department of Education

At the end of the 2010–11 academic year, the Indiana legislature passed a law that required annual teacher evaluations to ensure that teachers received high-quality feedback. The requirements for this new system were that every teacher must receive an annual evaluation, that every evaluation system must include four performance categories, and that every evaluation system must incorporate measures of student growth and achievement as a significant portion of a teacher's evaluation.

In partnership with TNTP, Indiana piloted this new program in six corporations (school districts). The evaluation system included two major components: student growth measures (e.g., use of SLOs) and teacher professional practice (e.g. classroom observations). Professional practice accounted for 50–75 percent of the summative rating and student learning measures account for the remaining 25–50 percent. (The distribution of the percentages is determined by the teacher's caseload.) TNTP released a report on pilot implementation in July 2012. TNTP's report was not intended to give details on implementation or design, but rather to focus on the successes and challenges faced during the 2011–12 school year.

Summer Report: Creating a Culture of Excellence in Indiana Schools

TNTP. (2012). *Summer report: Creating a culture of excellence in Indiana schools*. Indianapolis, IN: Indiana Department of Education. Retrieved from http://www.riseindiana.org/sites/default/files/files/Summer%20Report.pdf

Data from the study originated from three sources. First, TNTP conducted a survey of teachers and evaluators three times during the year to examine program experience. Sample size varied by survey administration more than 1,500 teachers and 100 evaluators responded to the May 2012 survey. Second, focus groups and individual interviews were conducted with central office staff, evaluators, and teachers. Sample size for focus groups and interview interviews was reported. Third, summative teacher effectiveness data was analyzed in the form of teachers' evaluations, including SLO results.

Key findings from the study related to SLOs:

> **Ratings from observations and from SLOs were discrepant.** In addition to using SLOs, a large part of the new evaluation system required that teachers be rated on highly structured observation protocols and rubrics. More than 90 percent of teachers received an observation rating of "effective" or "highly effective" on their end-of-year rubric. No relationship was found, however, between a teacher's SLO results and that teacher's rubric ratings. Looking at data from midfall, researchers saw that teachers had reported 37 percent of their students were unprepared to meet their year-end SLO targets, which the researchers considered as further evidence that the observation ratings were inflated.

> **SLO collaboration was related to teacher satisfaction.** Analysis of survey responses showed that teachers who had time to collaborate with others during the SLO process were significantly more likely to agree "that the evaluation system encouraged data-driven instruction in their school" (p. 12) and report higher levels of teacher satisfaction.

SLO collaboration also increased the likelihood that teachers agreed the new evaluation system was beneficial for student learning and was an effective use of their time.

SLOs were challenging but rewarding. Teachers reported that the most time-consuming component of the new evaluation system was writing SLOs. Because teachers were not allowed to use standardized test results in their SLOs, assessment selection and creation also took a substantial amount of time from teachers. On a rating between 1 and 7 (7 being "very challenging"), teachers' average rating for obtaining data of students' previous academic achievement was 7. The majority of teachers reporting emphasized that SLOs should be used in conjunction with other measures of student learning in order to adequately determine the progress a teacher has made with students.

Recommendations outlined by the study:

Teacher evaluation efforts should be aligned with the desired metrics of the district. Educators should understand how the evaluation system works to support the work they are already doing to improve student learning. Schools are encouraged to link educator evaluation with the district's mission, goals, and other measures of success (i.e., feedback, SLO attainment, rating distributions) in an effort to reach the common goal of student growth.

Promote collaboration among teachers, administrators, and instructional coaches. Teachers were more likely to think that SLOs were useful if they were able to collaborate with other teachers when creating them. Collaboration among administrators may address evaluation consistency across schools and within schools and improve the timeliness and quality of feedback.

Maximize efficiency during the SLO process. Because the process took so much time and effort from teachers, researchers highly recommended creating administrative processes and structures that would streamline the process and facilitate collaboration.

Maryland Department of Education

Under Maryland's Teacher and Principal Evaluation (TPE) system, teachers and principals are evaluated using measures of professional practice and of student growth. Maryland's participation in the U.S. Department of Education Race to the Top initiative requires that meaningful connections be made between student growth and a teacher's instructional effectiveness. During the 2012–13 school year, school systems field-tested evaluation models. As part of TPE, SLOs serve as a measure of student growth for the state model and may represent 20 percent to 35 percent of the evaluation. The remaining portion (80 percent to 65 percent) consists of the professional practice component of an educator's evaluation rating.

Evaluators carefully examined implementation of the TPE system, exploring how educators perceived the support and instruction they received in implementing SLOs. Evaluators were particularly interested in using this information to strengthen the SLO component of the TPE system.

Spotlight on Maryland: Student Learning Objectives and Teacher and Principal Evaluation

Slotnik, W. J., Bugler, D., & Liang, G. (2013). *Spotlight on Maryland: Student learning objectives and teacher and principal evaluation*. Washington, DC: Mid-Atlantic Comprehensive Center. Retrieved from http://www.ctacusa.com/wp-content/uploads/2013/11/SpotlightOnMaryland.pdf

In 2013, the Mid-Atlantic Comprehensive Center conducted a study of the new TPE system in Maryland with a particular focus on SLO implementation. The purpose of the study was to gather data on educator perceptions of the new TPE system. The study drew on data from 13 interviews of local teacher union or association leaders, district executive leaders, and a statewide association leader, as well as 1,905 educator surveys from nine of 24 districts.

Key findings from the study related to SLOs:

> **Perceptions of the supports teachers received to help with the SLO process varied, but most agreed that more support is needed.** Teacher and principal responses related to whether teachers receive various supports were mixed, although a larger percentage of principals than teachers agreed that teachers received supports. Two thirds of teachers and principals agreed, however, that teachers needed support in receiving SLO feedback from school or district administration.

> Involvement in field tests, access to information, and union–management collaboration may affect confidence in the new TPE system. Slightly more than a third (37 percent) of respondents without previous experience with TPE or SLOs agreed with the statement "TPE is based on principles of continuous improvement," but agreement percentages were much higher among those who had previous experience: 66 percent of respondents with TPE experience only, 65 percent of respondents with SLO experience only, and 72 percent of respondents with both TPE and SLO experience agreed that "TPE is based on principles of continuous improvement." In addition, interview data suggested that union–district relationships affected the credibility of the system; districts with strong union

relationships generally reported having more trust and credibility in the new evaluation system; but where collaboration was lacking, implementation became challenging. Survey and interview results also suggest perceived gaps in communication, as well as variations in the quality of information received.

Recommendations outlined by the study:

Broaden capacity-building efforts to implement SLOs. Take steps to create more training resources for SLOs, how they connect to instruction, and how to best implement SLOs.

Make support and training for principals a district priority. This includes supporting principals to lead and implement the SLO process in conjunction with their curriculum and instructional oversight duties.

Help districts make sense of evaluation ratings. Districts need to use their ratings to inform future instructional practice, professional development, and leadership development. Districts need the support to understand how and when to take action in their schools on the basis of evaluation results.

Develop a rapid-response capability. Districts will sometimes need immediate support to implement the system, and deploying the state's 14 years of experience with SLOs to provide quick answers to district questions will be useful.

Garner more support for the new system from stakeholders. Attempt to get buy-in from all participating teachers through more training, two-way communication, and regular information that reinforces a core message.

Real Progress in Maryland: Student Learning Objectives and Teacher and Principal Evaluation

Slotnik, W. J., Bugler, D., & Liang, G. (2014). *Real progress in Maryland: Student learning objectives and teacher and principal evaluation*. Washington, DC: Mid-Atlantic Comprehensive Center. Retrieved from
http://www.marylandpublicschools.org/tpe/TPEReport2014.pdf

This study was intended as a follow-up to Slotnick et al. (2013) on SLOs in Maryland, focusing on implementation of the new TPE system during the 2013–14 academic year. Data was collected from interviews and focus groups with teachers and key school leaders, as well as educator responses to a statewide survey.

Key findings from the study related to SLOs:

Training made a difference. Teachers and principals who received training from the state on SLOs reported more positive outcomes and attitudes in using SLOs than teachers and principals who did not. To highlight the differences, those who received training reported getting more support throughout the SLO development process, having a better sense of the ways in which the SLO process connected SLOs to Maryland's Common Core implementation, and feeling supported in using student data and changing instructional practices to inform SLOs.

Teachers spent less time spent writing SLOs after the first year of implementation. Educators who were in the pilot program for the evaluation system reported feeling more comfortable with the system and SLOs, and that they took less time writing SLOs than in the year prior. Still, the process was considered time-consuming for many educators, regardless of how experienced they were with the system.

Principals were unclear about their role. Respondents reported that principals were unclear about their role in the SLO process, saw each component of the evaluation system as unrelated to the others, or seemed overwhelmed with the added responsibility. With this came the perception that they were not ready to conduct fair evaluations. About half of principals reported that they needed more support in using preassessments and postassessments, receiving feedback on SLOs from school or district administration, and using SLOs to strengthen school improvement planning and instructional supervision.

Teachers desired more support. About half of teachers reported that they felt they did not need additional support in using preassessments and postassessments. The areas that most teachers identified as needing of support were receiving feedback on SLOs from administrators and using data from SLOs to strengthen school improvement planning and instructional practices.

Discrepancy existed in perceived support for teachers. Although more than half of principals believed that teachers were getting support in effectively aligning classroom instructional practices with SLO goals, only 43 percent of teachers believed the same. In fact, principals perceived that teachers were getting more support in the SLO process than teachers themselves perceived, across several measures: selecting instructional strategies for SLOs, using student data, and getting information about how to write high-quality SLOs. Interview data further supported these findings.

Recommendations outlined by the study:

Provide guidance from state for consistency with SLOs. School and district variation in SLO requirements and development led to tensions in SLO comparability as well as communications on how SLO and evaluation scores would be used. State leaders must have strategic, thoughtful, and explicit intentions in setting an appropriate balance between standardization and flexibility in SLO development to ensure success with evaluation systems.

Make a connection between SLOs and instruction. SLOs are more effective when they are interrelated to other instructional priorities, such as Common Core implementation or the creation of instructional materials.

Provide accessible SLO resources. Part of the issue with variation in SLO quality and the weak connection between SLOs and classroom instruction was the lack of rubrics and other resources to assist educators in their SLO processes. Researchers recommended developing a database of tools to address these issues and support successful implementation.

Charlotte-Mecklenburg Schools

Responding to a community culture that valued monetary incentives for high-performing school employees, between 2008 and 2012, Charlotte-Mecklenburg schools (CMS) implemented its Teacher Incentive Fund–Leadership for Educators' Advanced Performance (TIF-LEAP) initiative. Through this initiative, teachers could earn bonuses for demonstrating student growth through the attainment of SLOs or value-added scores (as determined by the availability of measures), and administrators could earn bonuses for facilitating the SLO process and for schoolwide value-added results.

CTAC conducted a longitudinal evaluation of SLO implementation in the district based on five years of observations. The report addressed a number of successes and challenges, both in program implementation and exogenous factors that made execution of the program more challenging. CTAC also worked with the district to develop, implement, and evaluate the TIF-LEAP initiative, of which SLOs were a part. It should be noted that CMS no longer uses SLOs.

It's More Than Money: Teacher Incentive Fund–Leadership for Educators' Advanced Performance; Charlotte-Mecklenburg Schools

Slotnik, W. J., & Smith, M. D., with Helms, B. J., & Qiao, Z. (2013). *It's more than money: Teacher Incentive Fund—Leadership for Educators' Advanced Performance; Charlotte–Mecklenburg schools*. Boston, MA: Community Training and Assistance Center. Retrieved from http://ctacusa.com/wp-content/uploads/2013/11/MoreThanMoney.pdf

This longitudinal evaluation conducted by CTAC examined the impact of the TIF-LEAP initiative in Charlotte-Mecklenburg Schools. CTAC's study looked at the implementation and results of the initiative using a longitudinal quasi-experimental design. Data examined included student achievement data, other student achievement measures (i.e., adequate yearly progress reports, percentage of students proficient on North Carolina end-of-grade and end-of-course assessments, the state value-added measure, and the district value-added measure), district and TIF-LEAP documents and artifacts, district and TIF-LEAP interviews, and surveys of district leaders, TIF-LEAP educators, parents, and community members. The data span the five years of grant implementation, from 2007 to 2012.

Key findings from the study related to SLOs:

> **The results on factors related to achievement were mixed.** Researchers featured the following results in their study:
>
> There was a statistically significant relationship between the quality of SLOs and their attainment from 2008 through 2011, but the relationship varied from year to year.
>
> Teachers who received a value-added measure bonus (when their value-added measure score was above the 70th percentile) were more likely to have high-quality SLOs (based on a rubric) than teachers who did not receive a value-added measure bonus in 2009–10 and 2010–11, but the result was statistically significant only in 2009–10.

The TIF-LEAP treatment had significant effects on student achievement in reading and mathematics for students in Grades 3–8.

The annual increase in mathematics test scores for the average TIF-LEAP student was 0.34 points higher than the student's counterpart in non-TIF-LEAP schools.

The annual increase in reading test scores for the average TIF-LEAP student was 0.44 points higher than his or her counterpart in non-TIF-LEAP schools.

Findings were mixed on the association between SLO quality and student achievement. Positive, significant overall relationships between the quality of SLOs and student achievement were found in 2009–10 in elementary school mathematics, elementary school reading, and middle school mathematics, but no positive, significant relationships were found in 2008–09. In 2010–11, a statistically significant relationship was found between the quality of SLOs and student achievement in mathematics in Grade 5.

There were positive aspects of the SLO process. Survey and interview data suggested that teachers and principals valued the following aspects of the SLO process: analyzing student baseline data, setting individual growth targets, and collaborating with colleagues during SLO development.

There were challenging aspects of the SLO process. Survey and interview data suggest that the following made SLO implementation challenging: inadequate communication and a lack of opportunities to provide input on program changes; misunderstandings about, disagreement with, and distrust of value-added measures; and issues with the software used to support SLO implementation.

Recommendations outlined by the study:

Examine the process and implementation of SLOs very carefully. Teachers and administrators need training in both learning content and instructional strategies.

Consider the communication strategy and overall teacher perception when implementing any value-added measure. Teachers must understand all three standards of validity to fully support the whole process of implementing SLOs. Thinking about role, understanding, fairness, and application are important, as are three standards of validity for school-level changes—statistical, educational, and political.

Rhode Island Department of Education

In 2009, the Rhode Island Board of Regents adopted the new Educator Evaluation System Standards. In response to these new standards, six Innovation Consortium districts and the Coventry school district implemented locally developed evaluation models that met state standards, and the remaining districts adopted the Rhode Island Department of Education (RIDE) model. Each evaluation model used SLOs as a measure of student growth. After a period of piloting in some districts, the 2012–13 school year was the first year of full implementation statewide.

In September 2013, RIDE released a report on implementation during 2012–13. CTAC also released an independent study of SLO implementation in 10 districts in September 2013. CTAC and RIDE made suggestions for improvements in implementation of the RIDE evaluation system, particularly in expanding the scope of training and starting a discussion about implementation challenges. The summaries of findings for each report follow.

Rhode Island Educator Evaluations: Improving Teaching and Learning

Rhode Island Department of Education. (2013). *Rhode Island educator evaluations: Improving teaching and learning*. Providence, RI: Author. Retrieved from http://www.ride.ri.gov/Portals/0/Uploads/Documents/Teachers-and-Administrators-Excellent-Educators/Educator-Evaluation/Education-Eval-Main-Page/2013_Evaluation_Data_External_Report.pdf

This report includes statewide results of 2012–13 teacher evaluations, feedback from the field, and lessons learned. Findings are based on surveys and focus groups of teachers, building administrators, and central office administrators. The report does not include a detailed description of the survey sample or a detailed breakdown of findings.

Key findings from the study related to SLOs:

> **Teachers reported feeling more comfortable with the SLO process over time.** When asked about the evaluation system, 45 percent of teachers reported being more comfortable with creating SLOs in 2012–13 than in prior years and 41 percent believed the process would be implemented more efficiently in 2013–14.

> **Administrator perceptions were generally positive.** Seventy percent of building administrators reported agreeing that the SLO process is "useful for setting academic goals that will lead to increased student achievement." In addition, 68 percent of administrators thought SLO-related trainings were helpful.

Recommendations outlined by the study:

> **Invest in district-level training and support.** Districts need to ensure that evaluators are well trained to approve and score SLOs and that teachers understand how their roles will shift in the context of the new evaluation system.

Continue to support teachers in becoming comfortable with the SLO process. As teachers become more familiar with SLOs, the district can introduce more supports to ensure that scoring and approval is consistent and of high quality.

Focus on Rhode Island: Student Learning Objectives and Evaluation

Slotnik, W. J., Smith, M. D., & Liang, G. (2013). *Focus on Rhode Island: Student learning objectives and evaluation*. Boston, MA: Community Training and Assistance Center. Retrieved from http://www.ctacusa.com/wp-content/uploads/2013/11/FocusOnRhodeIsland.pdf

The Rhode Island Innovation Consortium, which consists of six school districts and their union partners, and the Rhode Island Federation of Teachers and Health Professionals contracted with CTAC to assess and report on SLO implementation. Between June and August 2013, CTAC conducted a study of SLO implementation in 10 districts (the six Innovation Consortium districts and four additional districts); together, these districts represent almost half of the students served and nearly half of the teachers in Rhode Island. Data collection activities included administering surveys to school-based educators in the 10 districts; conducting 43 interviews with leaders from districts, unions, and RIDE; and collecting documents and artifacts provided by RIDE staff. The purposes of the study were to document experiences and concerns of educators related to SLO implementation, review feedback and relevant documents, and provide recommendations that can be used to improve the "implementation, depth of understanding, and research-based uses of student learning objectives" (p. 2).

Key findings from the study related to SLOs:

RIDE has gradually introduced and refined the SLO process over time. The process included (1) A dialogue among members of the Student Learning Working Group and the Advisory Committee for Educator Evaluation about multiple types of student growth measures leading to agreement to implement student learning measures as the initial measure of student learning; (2) a field test and formal study of the new evaluation system (including SLOs) in two districts in winter 2011, followed by a gradual implementation year for districts throughout the state; and (3) use of feedback loops (including surveys, focus groups, and committees) in 2011–12 to gather data on implementation and inform ongoing development and revision of materials and training to support SLO implementation.

Most teachers surveyed did not perceive SLOs as supporting improvement of teaching and learning or as providing quality evidence of teacher effectiveness. More than half of teachers surveyed indicated that they disagreed with the statement "continuous performance improvement is the core intent of SLOs in educator evaluation." In addition, more than half of educators surveyed stated they disagreed that SLOs had any of the following attributes:

- "Respect educators' professional knowledge and skills."
- "Provide a credible link between a teacher's craft and student learning outcomes."
- "Connect to course curricular goals and content."

- "Provide data-based evidence for ongoing improvement of teaching strategy."
- "Improve student achievement outcomes."
- "Provide sound evidence for measuring teacher performance."
- "Provide comparability of rigor in measuring teacher impact on student outcomes."
- "Contribute valuable evidence to teachers' overall effectiveness ratings" (pp. 9–10).

Knowledge of SLOs varied. More than 40 percent of teachers surveyed reported not having the necessary knowledge to develop and implement SLOs. In addition, the amount of time and resources that districts and school had to devote to SLOs varied across the 10 districts in the study.

The limited capacity of districts has hampered SLO implementation. Interviews and surveys identified various capacity issues, including lack of time needed to fully learn the new evaluation system (including the SLO process), a lack of high-quality assessments to be used in SLOs, limited resources for professional development, and gaps in knowledge and skill sets needed to implement SLOs well.

Although not highlighted as a major finding in the study, study authors frequently acknowledged that principals' perceptions of SLOs and the new evaluation system differed from those of teachers. On all survey items, a greater percentage of principals reported that they agreed with the statement than did teachers (pp. A1–A2).

Recommendations outlined by the study:

Broaden the scope of capacity building for SLOs. In addition to training evaluators on the requirements of SLOs, teachers and administrators need SLO training that is targeted to their roles. Districts also should be informed of the ways that they will be expected to support schools in implementing SLOs. There should further be a broader understanding of the research on SLOs and why they are being implemented in Rhode Island schools.

Reinforce how SLOs link to instruction. Instructional strategy should be a central part of the district's framework for SLO planning. An explicit tie to instruction will support the idea that SLOs are meant to be a means of instructional improvement and not an "add-on" for teachers.

Engage in a new dialogue across a broad number of constituents about the challenges of implementation. Competing ideas of the new evaluation system may undermine the credibility of the evaluation system and the fidelity of its implementation. A dialogue among stakeholders at the state, district, and union levels will encourage staff members to address their concerns with the implementation system and work to develop solutions collaboratively.

Key Findings From the External Vendor Report

In addition to location-specific studies, the current research base includes an anonymized case study of educator evaluation implementation. The following study examined teachers' perspectives on evaluation reform and included data specific to teacher perceptions of SLO use and impact on practice.

Teachers' Perspectives on Evaluation Reform

Donaldson, M. L. (2012). *Teachers' perspectives on evaluation reform*. Washington, DC: Center for American Progress. Retrieved from http://www.americanprogress.org/wp-content/uploads/2012/12/TeacherPerspectives.pdf

In response to the unprecedented amount of national attention that teacher quality and evaluation have received in recent years, Donaldson, a researcher affiliated with the Center for American Progress, asked teachers questions aimed at learning how they perceived the reforms and what they sought in a comprehensive evaluation system. This study followed the educator evaluation efforts of a northeastern urban school district during the 2011–12 school year, the district's second year of implementation. Educators' perspectives on the program were collected via interviews with a purposive sample of teachers and school leaders. As part of the new evaluation system, teachers were required to set two student-performance goals (i.e., SLOs) for the year. The teachers' annual performance ratings were informed by standards-based observations, student-performance goal results, and an assessment of the teacher's professional conduct. The evaluation program required leaders to provide more frequent and informal coaching than had been offered in prior years.

Key findings from the study related to SLOs:

> **Teachers perceived SLOs as a meaningful tool to improve professional development.** Teachers identified components of the evaluation program that they found particularly valuable. Donaldson wrote that SLOs were the component most frequently identified during these conversations. Teachers noted that the process validated their professional knowledge and gave them a sense of autonomy. Teachers also expressed that they view the SLO process as a framework not just for student growth, but also for their own professional growth.

> **Creating SLOs helped teachers focus on long-term student achievement and improved their data analysis skills.** Most teachers did not perceive a change in their pedagogical techniques as a result of implementing SLOs, but they did notice that creating SLOs helped them focus on long-term student achievement and hone their data analysis skills. Although teachers spoke of their district's attempt to emphasize data use prior to the implementation of SLOs, they expressed the perception that the information became more relevant when they began creating SLOs. SLOs were appreciated as a framework for viewing their day-to-day and year-long work simultaneously.

Recommendations relevant to SLOs from the study:

> **Recognize the importance of teachers in setting learning goals.** Setting learning goals was often recognized as the most important process for validating their professional judgment and practice and perceiving the new system positively. Teachers also emphasized that student achievement accountability measures in the evaluation process were important for highlighting the necessity of student gains, thus shifting their approach to the role.

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