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JOHN W. GARDNER CENTER *for Youth and Their Communities*

# Examining Student Outcomes Across Programs in Redwood City Community Schools

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## Introduction

Community schools, which integrate academic, health, and social services for youth and their families, have become a popular school reform strategy. Community schools provide wrap-around supports for students' needs beyond the classroom in the short term so that schools can help students improve academic outcomes in the longer term. Community schools have been implemented on a large scale in several cities including New York and Chicago. In fact, the U.S. Secretary of Education, Arne Duncan, expanded the number of community schools when he was CEO of Chicago Public Schools and has more recently advocated for the expansion of community schools nationwide in his federal role (Shah, Brink, London, Masur, & Quihuis, 2009). Although strong research supports the provision of the individual services that community schools provide, little rigorous research exists to understand how the community school strategy as a whole affects student outcomes.

For the past two years, the Redwood City School District (RCSD), Redwood City 2020,[1] both in Redwood City, CA, and the John W. Gardner Center for Youth and Their Communities (JGC) at Stanford University have partnered to examine program participation and school-related outcomes at RCSD's four community schools. In the 2009-10 school year, these four schools—Fair Oaks (K-5), Hoover (K-8), Kennedy (6-8), and Taft (K-5)—provided a wide array of over 60 different programs and supports designed to help students improve their outcomes, as described in the Community Schools Logic Model developed by RCSD (Exhibit 1). JGC linked program participation records to RCSD data on school outcomes over four years to understand how community schools are moving students toward improved results.

## Data and Methods

This report utilizes the Youth Data Archive (YDA), a JGC initiative that links administrative data on individual youth across settings to collectively examine questions that agencies could not answer alone. Using the YDA, we linked RCSD attendance, discipline, demographic, and achievement data to program participation records from service providers at the community schools and survey data collected by JGC researchers. This detailed data set allowed us to examine the connection between community school strategies and several of the deliverables and short- and long-term

[1] Redwood City 2020 is a multi-agency collaborative consisting of school districts, county agencies, and community based organizations that work to ensure the health and success of youth and families in Redwood City.

outcomes outlined in the logic model below. However, data were not available to directly measure many areas listed in the logic model (those for which data were available are shown in bold in Exhibit 1). For example, measuring high-quality programming and partner integration into the school day would involve collecting qualitative data, which is beyond the scope of the current analysis. Similarly, few data sources existed to inform the parts of the logic model focusing on program settings and families. Beginning with the 2010-11 school year, however, RCSD collected survey data on students' experiences in after school programs to enable a more detailed understanding of the relationship between participation in these programs and student academic outcomes. We will examine these survey data in future reports.

**Exhibit 1: Redwood City Community Schools Logic Model and Data Indicators**

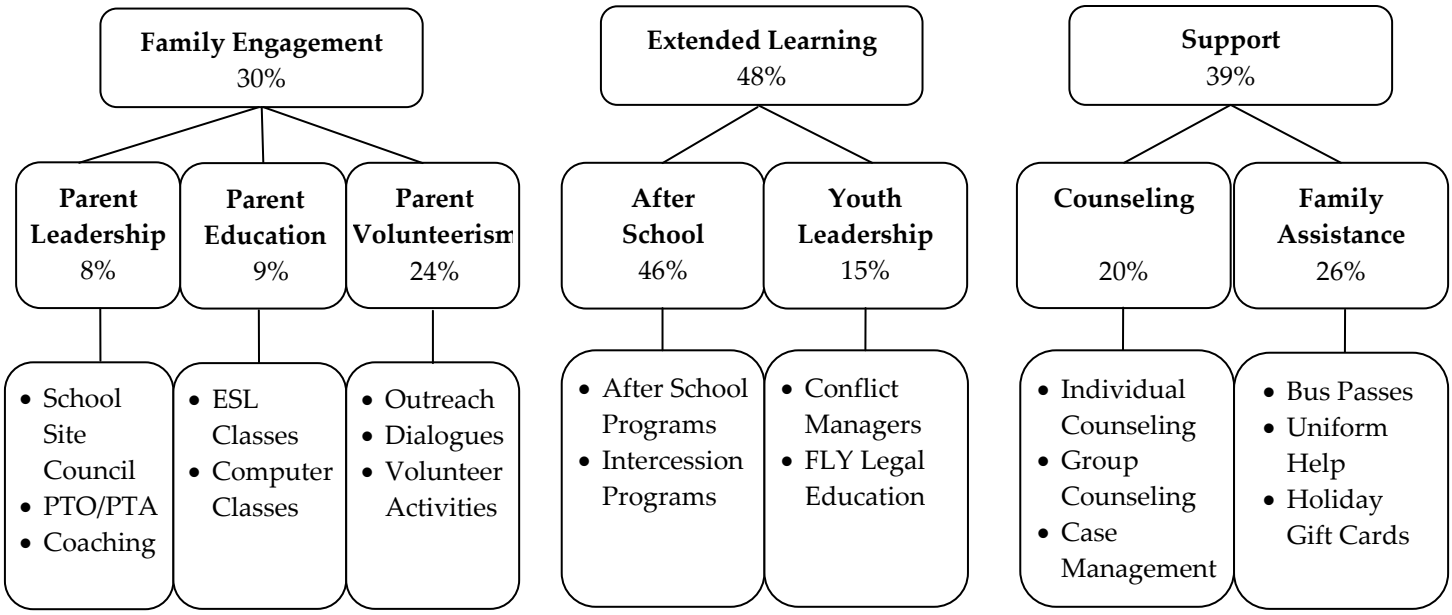
| INPUTS | STRATEGIES | DELIVERABLES | SHORT -TERM OUTCOMES | LONG-TERM OUTCOMES |
|---|---|---|---|---|
| Community School Coordinator<br><br>Family Engagement Specialist<br><br>Funding/Resources<br><br>Relevant Partners<br><br>Leadership<br><br>Collaboration Structure | **Family Engagement**<br>**-Education**<br>**-Leadership**<br>**-Volunteerism**<br><br>Extended Learning Opportunities<br><br>Mental Health/ Social Services Support<br><br>Social/Emotional Learning<br><br>Professional Development<br><br>School /Partners Collaborative | Supported and Connected Families<br><br>Comprehensive Learning Supports<br><br>**Integrated Service Delivery (physical, emotional, social)**<br>*Indicator: participation in multiple services*<br><br>High Quality Programs<br><br>Partner Integration into the School Day | **Students receive supports according to their needs**<br>*Indicator: demographic information linked to participation*<br><br>**Children are ready to learn**<br>*Indicator: school attendance*<br><br>**Students are actively involved in learning and their community**<br>*Indicator: sense of care survey items*<br>Families are connected with the schools | **Students succeed academically**<br>*Indicator: CST and CEDLT scores*<br><br>Students and families are healthier:<br>• Socially<br>• Physically<br>• Emotionally<br><br>Schools are supportive of youth and families<br><br>Communities are desirable places to live |

We categorized the large number of programs offered at each of the four community schools using the first three strategy areas defined in the logic model:

- Family Engagement (including parent education, leadership, and volunteerism programs)
- Extended Learning (including after school and youth leadership programs)
- Support (including counseling and family assistance services)

Exhibit 2 shows these strategy areas along with program subcategories and 2009-10 participation rates. Note that participation rates do not add up to 100% because students participated in multiple categories at the same time. The subsequent sections of this report examine participation data on these strategies as well as the deliverables and outcomes (per the logic model) related to participation for the areas of the logic model for which data were available.

**Exhibit 2: Community School Strategies and Participation by Categories and Subcategories**




## Community School Strategies: Participation in Family Engagement, Extended Learning, and Support

As shown in Exhibit 3, program participation has increased in each of the three strategy areas over the last three years. Of the 2,960 students enrolled at the four community schools in the 2009-10 school year, 72% participated in at least one program in 2009-10, including 58% of students who participated in a program themselves and 43% of students who had a parent or family member participate in a program. The overall participation rate of nearly 72% in 2009-10 is up from 51% in 2007-08.

**Exhibit 3: Participation in Community School Programs by Program Category and Year, 2007-08 to 2009-10**

| | 2007-08 Participants | 2008-09 Participants | 2009-10 Participants |
|---|---|---|---|
| **Family Engagement** | 22.0% | 26.2% | 30.0% |
| **Extended Learning** | 38.2% | 38.9% | 47..5% |
| **Support** | 7.0%* | 25.5% | 38.8% |
| **Any Student Participation** | 41.3% | 58.8% | 58.2% |
| **Any Parent Participation** | 22.0% | 37.2% | 42.7% |
| **Any Program Participation** | 51.3% | 66.4% | 71.9% |
| **No Program Participation** | 48.7% | 33.6% | 28.1% |
| **Number of Students** | 2,982 | 3,068 | 2,960 |

* Family assistance program data was not collected in 2007-08

In 2009-10, extended learning programs had the highest participation rate of any type of service, with approximately half of the students enrolled in the community schools participating. More than half of these participants attended for at least 120 of the 180 days of the academic year, which is important because research on after school programs has shown that consistent attendance is key for programs to have their maximum effect on academic outcomes (Kane, 2004). In addition to after school programs, 15% of students participated in youth leadership programs offered during the school day. The highest participation was in grades 6 to 8, which is the target for most of these types of programs. In the support

strategy area, 20% of students enrolled in community schools received counseling services and 26% received family assistance services. Aside from programs directly serving youth, 30% of students had a parent participate in a family engagement program. There was high variability in family engagement participation patterns, with parents of younger students participating at much higher levels than middle school parents, a pattern typical of family engagement programs (Henderson & Mapp, 2002).

## Community School Deliverables: Integrated Service Delivery

Having established a profile of participation patterns over time, we then examined program deliverables, or the direct outputs that are expected because strategies are in place, identified in the logic model. We specifically examined integrated service delivery and found that most students who accessed services at RCSD community schools in 2009-10 engaged in services from multiple strategy areas. For example, about half of the students (718 out of 1,406) who engaged in extended learning opportunities also accessed support services. Approximately 65% of students whose families engaged in programs also participated in extended learning (278 out of 424) or received support services (253 out of 424). However, small numbers accessed programs from all three categories. One aspect of community schools that sets them apart from other initiatives is that they are centered on the integration of multiple services instead of a single program, so the high degree of participation in multiple strategy areas is an important finding.

## Short-Term Outcomes: Supports According to Needs, Active Involvement in the Learning Community, and Readiness to Learn

We analyze participant characteristics to examine the extent to which students received supports according to their needs. As Exhibit 4 shows, participants in family engagement and support programs included higher percentages of students from under-served populations, including Latinos, English learner students, and students whose parents had not completed a high school diploma, compared to students with no program participation. However, participants in extended learning programs were more representative of the overall population at each school. Participants in all categories had similar proficiency rates on the 2008-09 California Standardized Test (CST) in math and English Language Arts (ELA) compared to students with no program participation.

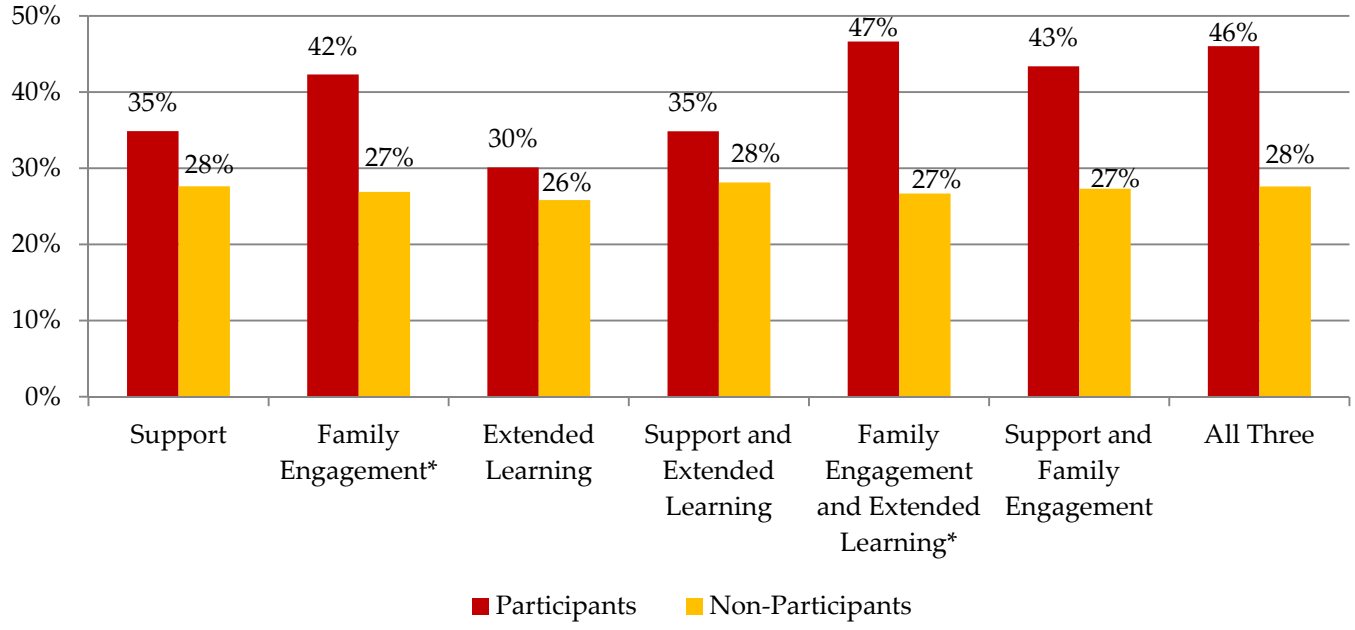
**Exhibit 4: Background Characteristics of Students Participation in Community School Programs Compared to Non-Participants, by Program Category, 2009-10**

| | Family Engagement | Extended Learning | Support | No Program Participation |
|---|---|---|---|---|
| **Female** | 52% | 50% | 48% | 50% |
| **Male** | 48% | 50% | 52% | 50% |
| **Latino** | 97% | 88% | 92% | 84% |
| **White** | 2% | 6% | 3% | 7% |
| **Other Ethnicity** | 1% | 4% | 3% | 6% |
| **Special Education** | 8% | 10% | 11% | 12% |
| **English Learner** | 76% | 63% | 73% | 65% |
| **Free/Reduced Lunch** | 69% | 67% | 77% | 70% |
| **Parents not HS Grad** | 58% | 52% | 60% | 50% |
| **Math Proficient 08-09** | 51% | 48% | 45% | 45% |
| **ELA Proficient 08-09** | 37% | 35% | 32% | 37% |
| **Number of Students** | 424 | 1,406 | 1,151 | 947 |

We use school attendance to measure the second short-term outcome of students being ready to learn. We find no gains in school attendance associated with program participation after one year. However, we do find longer-term gains across four-year attendance trajectories. Specifically, students who accessed the combination of support services and extended learning programs for at least two out of three years gained approximately two days of attendance per year compared to similar students who had never received this combination of services (these findings are statistically significant). This is in line with research that has shown that supports like mental health services provided to students and families can decrease barriers to school attendance (Center for Mental Health in Schools, 2008). Note that students who participated in programs in 2009-10 had higher baseline school attendance, indicating that there may be underlying factors that influence both school and program attendance that are not explained by demographic data.

Examining the third short-term outcome in the logic model—students are actively involved in their learning community—we found that program participants in 2009-10 had a higher likelihood of reporting a high sense of care compared to non-participants. We linked survey data collected by JGC researchers in both 2008-09 and 2009-10 on students' motivation and sense of care at school to examine whether participation in community school programs is associated with a stronger sense of connectedness at school.[2] Even taking into account student background characteristics and the sense of care that students reported in 2008-09, students whose parents participated in family engagement programs and who themselves accessed extended learning services were 20% more likely to report a high sense of being cared for at school compared to similar non-participants (Exhibit 5). This finding is statistically significant. It is important to note that 2009-10 program participants had a higher sense of care, on average, in 2008-09, meaning that they entered the school year already feeling more connected to their school than non-participants. Also, only middle school students were surveyed, so we cannot apply these findings to the elementary grades.

**Exhibit 5: Likelihood of High Sense of Care by Program Participation Category, 2009-10**



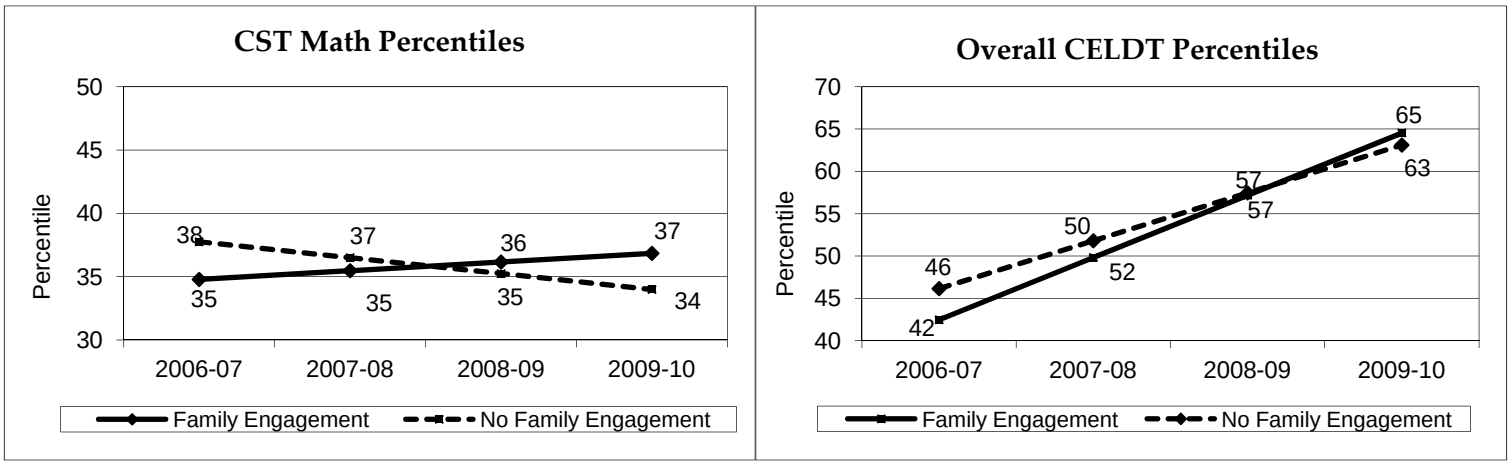

[2] The survey questions that comprise this scale are: 1) People care about each other in this school; 2) My school is like a family; 3) Teachers and students treat each other with respect in this school; and 4) Students in this school help each other, even if they are not friends.

## Long-Term Outcomes: Students Succeed Academically

A key part of the community school approach is that integrated services provide the necessary supports to decrease barriers to learning and, over time, improve achievement (Blank, Melaville, & Shah, 2003). Using CST scores in math and ELA, we examined long-term CST score trajectories in relation to program participation.[3] All analyses examined both the differences in achievement scores in the baseline year 2006-07, the year before we have participation data, as well as annual growth through 2009-10.

Program participation was associated with statistically significant gains in math achievement for students whose parents accessed family engagement programs and those who accessed both support and extended learning programs over two or three years. Students accessing community school programs had lower scores in the baseline year compared to non-participants; the differences in baseline scores were most dramatic for students who accessed support services, which is logical because those programs are targeted toward the highest need students who likely had risk factors that are not captured in YDA data. Still, in a consistent pattern, students who participated in each category for at least two years had positive annual gains in math scores relative to students with no participation, but these gains were statistically significant only for participants in family engagement and the combination of support and extended learning. What this means is that for some students, test scores went from being lower than non-participants in the baseline year to being higher than non-participants by the fourth year of analysis. For example, although students of family engagement participants began, on average, 3 points behind non-participants with similar demographic characteristics in math, they gained 1.9 points per year more than non-participants, so that, by 2009-10, they scored 2.7 points higher than non-participants (Exhibit 6). Not shown in the exhibit, we found no statistically significant differences in ELA test scores based on program participation.

**Exhibit 6: Family Engagement Participants and Non-Participants, 2006-07 to 2009-10**




As with CST scores, family engagement participation was also associated with statistically significant positive growth in English language development scores. Also shown in Exhibit 6, we examined change over time among English learner students' proficiency on the California English Language Development Test (CELDT) and found that students with two or more years of family engagement participation tended

[3] All longitudinal achievement analyses convert scaled scores to percentiles because scaled scores are not comparable across grades and academic years.

to have lower baseline scores than non-participants but higher growth over time compared to students whose parents never participated. Not shown in the exhibit, effects on CELDT scores were even stronger for students who had the combination of family engagement and extended learning programs for at least two years. We also examined scores on the subtests that comprise the CELDT and found statistically significant positive effects on the writing and speaking subtests but no differences on the reading or listening subtests associated with family engagement services.

Examining the connection between short-term feelings of care to long-term differences in academic achievement, we found that students' feelings of being cared for at school were an important mediating factor linking program participation to higher academic achievement. The relationship between program participation and math achievement existed only for students whose sense of being cared for at school increased or stayed the same across years. This finding provides some validation to the link between connectedness to school in the short-term leading to improved academic outcomes in the long-term hypothesized in the community school logic model and is consistent with research showing that feeling connected and cared for at school is an important factor in academic success because they lead to students feeling more motivated to engage in academic work (Patrick, Ryan, & Kaplan, 2007).

## Conclusions and Implications

The analyses in this report show that the services offered at the Redwood City community schools reached the majority of students enrolled at the community schools and provided many with multiple comprehensive supports. In the short-term, program participation, particularly in family engagement and extended learning opportunities, was related to an increase in feelings of being cared for at school for middle school students (for whom sense of care was measured). This sense of care is connected to higher school attendance in the short-term and improved academic achievement for program participants in community schools in the long-term. In addition, we found that students whose families engaged in community school services increased their English language development scores relative to non-participants.

The findings from this report suggest that school administrators and service providers might think about how to integrate practices that increase students' sense of feeling cared for at school. There is much existing research in this area indicating that consistently using norms of mutual respect, building individual relationships with students, and encouraging students to help one another all increase students' feelings of being cared for at school (Noddings, 2005). Additionally, we found that students and families who engaged in community school programming began with a higher sense of connectedness at school compared to non-participants, suggesting the importance of reaching out to the families who are not already connected to their schools. Research has shown that making continual outreach efforts, utilizing peer-to-peer recruiting and mentoring, communicating the importance of attendance, creating safe and supportive environments using the practices described above, and providing opportunities for input in decision-making help in recruitment and retention of students and parents (Lauver & Little, 2005; Mapp & Hong, 2009).

Additionally, it will be important to improve data collection in community schools so as to better understand factors related to participation and to be able to identify the disconnected families to target for outreach. Our analyses suggest that there are underlying factors beyond the traditionally used demographic and socioeconomic characteristics that are related to both outcomes and participation,

possibly including parent attitudes toward school or participation in outside programs or community organizations. We hope to gather qualitative data related to these factors in the future.

The findings in this brief account for students' known background characteristics to isolate as much as possible the effect of program participation on student outcomes. However, the data presented in this analysis cannot be used to say that particular programs *caused* specific outcomes because there are likely to be underlying motivational factors we cannot measure related to both participation and outcomes. Also, due to data limitations, we were not able to assess several areas identified in the community schools logic model, such as "Communities are desirable places to live" and "Partner integration into the school day." In addition, we would not expect to see improvement in long-term health and wellness for youth or school and community climate outcomes after just a few years as the connections between these outcomes and community school programming have been shown to take longer to materialize (Baum, 2003). The complicated relationship between community school strategies, deliverables, short-term outcomes, and long-term outcomes will likely take more detailed data and more years of data to fully understand. Moving forward, we will continue to work to refine the research questions and improve data collection so that we can understand how the programs and services at community schools affect students' outcomes and how practitioners and others can use that valuable knowledge.

## References


Baum, H. S. (2003). *Community action for school reform*. Albany, NY: State University of New York Press.

Blank, M. J., Melaville, A., & Shah, B. P. (2003). Making the difference: Research and practice in community schools. Washington, DC: Coalition for Community Schools.

Center for Mental Health in Schools. (2008). Community schools: Working toward institutional transformation. Los Angeles, CA: Author.

Henderson, A. T., & Mapp, K. L. (2002). *A new wave of evidence: The impact of school, family, and community connections on student achievement*. Austin, TX: National Center for Family and Community Connections with Schools, Southwest Educational Development Laboratory.

Kane, T. (2004). The impact of after-school programs: Interpreting the results of four recent evaluations: W. T. Grant Foundation.

Lauver, S. C., & Little, P. M. D. (2005). Recruitment and retention strategies for out-of-school-time programs. *New Directions for Youth Development, 105*, 71-89.

Mapp, K. L., & Hong, S. (2009). Debunking the myth of the hard-to-reach parent. In S. L. Christenson & A. L. Reschly (Eds.), *Handbook of School-Family Partnerships*. New York: Routledge.

Noddings, N. (2005). *The challenge to care in schools: An alternative approach to education* (2nd ed.). New York: Teachers College Press.

Patrick, H., Ryan, A. M., & Kaplan, A. (2007). Early adolescents' perceptions of the classroom social environment, motivational beliefs, and engagement. *Journal of Educational Psychology, 99*(1), 83-98.

Shah, S. C., Brink, K., London, R., Masur, S., & Quihuis, G. (2009). Community schools evaluation toolkit: A starter guide for community school staff who want to use data to tell their story and improve their community schools. Washington, DC: Institute for Educational Leadership.