Data and Evaluation Strategies to Support Parent Engagement Programs: Learnings from an Evaluation of Parent University

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Charlotte-Mecklenburg Schools' (CMS) Parent University is an innovative, collaborative initiative designed to engage parents in their children's education. Working with community partners, Parent University offers unique courses and workshops such as Parenting Awareness, Helping Your Child Learn in the 21st Century, Health and Wellness, and Personal Growth and Development. In response to calls to demonstrate a direct link to student outcomes, the current project explored ways to leverage existing program data for evaluation. A total of 661 parents attending Parent University were included in this study. Data for the children of these parents who were enrolled in CMS ($n = 862$) and a control group of students ($n = 835$) matched on age, grade, school, gender, and ethnicity were analyzed. Results indicated that Parent University is successful in engaging parents, particularly those who traditionally have been underserved, and highlighted some of the factors contributing to this success. Some positive trends in students' school performance, especially among those whose parents attended a course designed to link directly to academic outcomes, indicated that this may be a promising intervention for improving school performance and illustrate the potential for integrated data approaches to support outcome evaluation and to advance research regarding mechanisms of effective parent engagement.

KEY WORDS: *evaluation; parent engagement; parent involvement*

In fall 2008, Charlotte-Mecklenburg Schools (CMS) launched Parent University, an innovative, collaborative initiative designed to reach out to and engage parents in their children's education, with a special emphasis on the underserved. In conjunction with a wide variety of community partners, Parent University offers unique course offerings, symposia, and workshops aimed at increasing parents' involvement in schools and empowering them to raise children who are successful in school and in life. From its inception, Parent University worked with local university researchers to implement a scientific outcomes evaluation strategy. However, during the program's third year of operation, a major funder specifically requested an evaluation of the impact of parents' participation in Parent University on their children's school performance. Such requests present a special challenge for new and innovative programs given that children's academic performance is a long-term, distal outcome for programs involving parents. Understandably, funders want to see evidence of the impact of their investment, and programs clearly need to be responsive to their funders and other decision makers. However, "young" programs are frequently at a point at which they cannot yet provide information on the ultimate outcome of interest—which, for most parent engagement programs, is student performance. In response to this challenge, the current project was designed to provide a preliminary analysis of trends in student data following their parents' participation in Parent University, as well as a model of how children's school performance might serve as a future marker of program impact, while also demonstrating the value of investing in data collection and management systems to inform not only outcome, but also process evaluation.

The relationship between parents and schools has consistently been shown to be related to the success of both students and schools (Sheldon & Epstein, 2002, 2005), prompting the development of interventions aimed at enhancing what is typically labeled "parent involvement." Parent involvement describes a cluster of activities that are primarily charged to the parent (for example, parenting, volunteering, in-home academic support), and sometimes viewed

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as the shared responsibility of parents and educators (for example, decision making, communication) (Mattingly, Prislin, McKenzie, Rodruguez, & Kayzar, 2002). Both parents and teachers report a desire to be more involved with each other; parents would like more help from schools to enable them to support their child's education, and teachers would like more communication with parents (Eccles & Harold, 1996). Beyond communication, trust between school staff and parents has been identified as an important factor in school performance (Payne & Kaba, 2001). Accordingly, programs that not only bolster parent engagement but also promote positive attitudes and relationships are particularly appealing.

Hoover-Dempsey and Sandler (1995) developed a model for predicting parent involvement in elementary and middle school children's education. The three main constructs of the model are (1) parents' beliefs about involvement, (2) parents' perceptions of invitations to become involved, and (3) parents' life characteristics. More recently, Hoover-Dempsey and colleagues (2005) focused on these three constructs in reviewing the literature on parent involvement and found that the first construct, parental beliefs, can be divided into two components: role construction and self-efficacy. *Role construction* is defined as "parents' beliefs about what they are supposed to do in relation to their children's education and the patterns of parental behavior that follow those beliefs" (p. 107). The second component, parental self-efficacy, is based on Bandura's (1986) self-efficacy theory and suggests that parents base their parental decisions on the predicted outcomes of their actions. Beyond these constructs, the researchers found that invitations from the school, from their child, and from teachers influence parent involvement. The third construct of the model, life characteristics, includes parents' socioeconomic status, parental abilities (that is, knowledge, time, skills), and family culture.

Few studies have measured the relationship between student outcomes and parent involvement (Sheldon & Epstein, 2002, 2005). Moreover, there have been some inconsistencies in findings because of differences in sample size and quality of methodology (Mattingly et al., 2002). Nonetheless, a growing body of evidence showing that well-planned and implemented parent engagement activities produce significant benefits for students (for example, improved academic performance, attendance, and behavior), parents (for example, increased confidence in parenting, stronger commitment to school), educators (for example, increased job satisfaction), and schools (for example, better community support) (Olsen & Fuller, 2007) has led to increased interest in family and community engagement programs as a means of increasing equity, cultural responsiveness, and collaboration in schools (Auerbach, 2009; Noguera, 2001).

CMS Parent University represents one effort by school leadership, in partnership with the community, to incorporate lessons from the existing literature into a new program aimed at enhancing parents' involvement in schools. Parent University was designed to appeal to the parents of CMS students of all ages, with a special emphasis on traditionally underserved groups. The program model is based on the premise that by inviting parents to participate in activities designed to facilitate their ability to participate in their child's education, schools can not only enhance communication with parents, but also begin to build trust, which is an integral part of parent involvement. Consistent with the existing literature, this program model poses that parents with higher levels of involvement in their child's school will be more supportive of their child's education, resulting in higher levels of student attendance and academic performance (see Hoover-Dempsey & Sandler, 1995).

Program activities consist primarily of structured classes and workshops designed both to share information with parents and to build skills to better equip them to participate in their child's education. CMS initially conducted numerous focus groups with parents, school staff, and other community members, including staff from agencies serving children and families, to identify potential course offerings. A Curriculum Review Committee, with representatives from each of these groups, along with higher education institutions and the public library, has developed a set of criteria for courses and how to submit curricula for Parent University.

Individual workshops are offered in four areas or "strands": Strand I: Parenting Awareness, Strand II: Helping Your Child Learn in the 21st Century, Strand III: Health and Wellness, and Strand IV: Personal Growth and Development. Strands I and II are specifically designed to assist parents in obtaining knowledge and building skills in areas that enhance their ability to support their child in school, whereas Strands III and IV are aimed at providing more general benefits to parents, with the goal of effecting

more positive attitudes toward and experiences with schools. Classes and other activities are marketed widely by schools, community partners (for example, churches, nonprofit agencies), and the district Web site. A large number of parents report in registration materials that they have been encouraged to attend Parent University by their child's teacher through face-to-face communication, e-mails, and flyers. Activities are free of charge. To optimize parents' ability to attend, workshops are offered at various community locations. Special outreach efforts target those parents who face other barriers to engagement; for example, many workshops are delivered in Spanish.

Parent University has elicited a tremendous response, with more than 2,700 (CMS and non-CMS) parents, teachers, and administrators attending 56 course offerings (representing 31 different courses) in its first semester. Beginning in the program's second academic year, a standard set of data (that is, registration data and workshop evaluations) were collected from all participants as part of regular program procedures to demonstrate the reach of the program and the initial reactions of participants. As described more fully later, given the limited resources available for evaluation, Parent University worked with local university researchers to enhance data collection processes and to use existing data systems to the full extent possible to demonstrate progress toward its goal of increasing parent involvement in schools. However, as with many projects, Parent University found itself in the position of needing to respond to requests from funders to link its activities directly to student outcomes. Accordingly, the primary charge for the current project was to examine whether parents' participation in Parent University was associated with improvements in their child's school performance. Given the relatively short time between the parent intervention and the measurement of student outcomes, it was not anticipated that an improvement in grades would be detected; however, it was hypothesized that program participation would be associated with improved student attendance, an established precursor to improvements in academic performance. It was further hypothesized that parents' participation in a greater number of courses, as well as their participation in courses that targeted student performance, would be associated with modest improvements in their children's academic performance. Given the limitations associated with examining such a new program, the identification of strategies for establishing a data system that can inform future research and evaluation and serve as a model for programs facing similar challenges is also highlighted here.

METHOD

Research Design

Given limited evaluation resources, this project was designed to leverage existing standard program data collection procedures as fully as possible. Program staff worked with the researchers to identify adults participating in classes offered at the beginning of the third program year and then to track their attendance at subsequent class offerings using the online program registration system. At the end of the academic year, Parent University provided these data to the researchers to be linked to student data for participants' children through the University of North Carolina Institute for Social Capital, Inc. (ISC) Community Database. ISC is an independent 501(c)(3) organization engaged in building and housing a comprehensive database of local human services data, from which qualified researchers can obtain de-identified data for analysis pursuant to a limited data license. In addition, de-identified data for a group of students (a) matched on age, grade, school, gender, and ethnicity and (b) whose parents did not attend Parent University were obtained through ISC.

Data Collection

Program staff collected registration data from all parents enrolling in a workshop from August 26 to October 15, 2010, either through the school district's online registration system or by completing a paper registration form on-site. The registration form contains 10 questions, eight of which are aimed at assessing participants' demographic characteristics, total number of children living in the home, total number of adults living in the home, and income level. The remainder ask why parents took a Parent University course, how they heard about Parent University, and what additional courses they would be interested in attending in the future.

Three separate Excel databases containing registration data (1) for the fall semester ($n = 2,016$ registrations), (2) for the spring semester ($n = 2,078$ registrations), and (3) extracted from the online registration system ($n = 5,368$ registrations) were forwarded to the researchers and merged into a single data set. A total of 1,108 adults were confirmed

as having attended at least one class between August 26 and October 15. Using the three original databases, these individuals' program participation was then tracked over the full academic year.

The researchers obtained a final, de-identified project data set for analysis from the ISC database pursuant to a limited data license. Using ISC standard data-sharing processes, ISC "flagged" all children with parents for whom program data were available and for whom school performance data (in the study years) were available. A study group of 862 students (for whom both parent and child data were available) was identified. ISC then identified a second group of CMS students ($n = 835$) matched to the intervention group on age, grade, school, gender, and ethnicity, whose parents did not attend Parent University during the target year. Chi-square analyses confirmed that student gender, ethnicity, grade level, school membership, and age did not vary significantly between groups. A comparison of mean student age by group also yielded nonsignificant results. Accordingly, the final data set for analysis included school performance data for the intervention and a matched control group. Variables included students' total number of absences, number of unexcused absences, and percentile scores on standardized North Carolina Department of Public Instruction end-of-grade tests for reading/English and math for the year of and the year preceding the intervention.

RESULTS

Sample

Among the 1,108 adults attending a Parent University class at the outset of the academic year, 661 were confirmed as having at least one child who was a CMS student. Along with data for the children of these parents (enrolled in CMS) ($n = 862$), data for a control group of students ($n = 835$) matched on age, grade, school, gender, and ethnicity were analyzed. Students represented a total of 134 CMS schools. A majority (62.6 percent, $n = 540$) of students in the intervention group, and thus, those in the matched control group, attended a Title I school.

Parent Characteristics. Demographic information for the final sample of 661 confirmed CMS parent participants was available from program records; however, no demographic data were available for the parents of children in the control group. The vast majority (80.8 percent, $n = 534$) of program participants who indicated their gender ($n = 630$) were female; 14.5 percent ($n = 96$) were male. Gender was not reported by 31 participants (4.7 percent). The largest percentage of parents (45.5 percent, $n = 301$) reported their race as African American, 34.3 percent ($n = 227$) were Hispanic or Latino, and 14.2 percent ($n = 94$) were white. The remainder self-identified as American Indian/Alaskan Native (1.2 percent, $n = 8$), Asian/Pacific Islander (2.0 percent, $n = 13$), Arab American (0.3 percent, $n = 2$), or "other" (0.8 percent, $n = 5$). Ethnicity was not reported by 11 participants (1.7 percent). Slightly more than half (55.4 percent, $n = 366$) of participants reported being married, with 26.0 percent ($n = 172$) having never been married, 7.6 percent ($n = 50$) being divorced, 5.1 percent ($n = 34$) being separated, and 0.9 percent ($n = 6$) being widowed. The remainder reported their marital status as "other" (1.8 percent, $n = 12$), or they did not complete this item on the registration form (3.2 percent, $n = 21$).

The overall education level of participating parents was moderately high: 19.5 percent ($n = 129$) had completed some college, 17.9 percent ($n = 118$) earned a four-year college degree, 18.0 percent ($n = 119$) graduated from high school or obtained a GED, and 6.5 percent ($n = 43$) held a master's degree. Two parents (0.3 percent) had a doctorate degree, and one (0.2 percent) held a professional degree. Another 7.1 percent of participants ($n = 47$) held a two-year college or associate's degree, and 5.4 percent ($n = 36$) held a technical or vocational certificate. Among those parents with lower education levels, 8.8 percent ($n = 58$) completed some high school, 3.0 percent ($n = 20$) completed eighth grade, and 8.8 percent ($n = 58$) had less than an eighth-grade education. Data were missing for 3.3 percent ($n = 22$) parents, and 1.2 percent ($n = 8$) listed their highest level of education as "other." Most (43.2 percent, $n = 285$) participants reported an annual household income below $25,000; 21.1 percent ($n = 139$) reported income between $25,000 and $49,999; 8.8 percent ($n = 58$) estimated their income at $50,000 to $74,999; 6.2 percent ($n = 41$) reported an income of $75,000 to $99,999; and 8.3 percent ($n = 55$) reported a household income of $100,000 or more per year. Income level was not reported by 12.4 percent ($n = 83$) of parents. Participants reported an average number of adults (18 years and older) per household of 1.76 ($SD = 0.63$), ranging from one to three, and an average number of children per household of 1.91 ($SD = 0.83$), ranging from one to five.

Participation in Parent University. Participating parents attended a total of 892 classes throughout the target year. Most (78.5 percent, $n = 519$) attended only one class; 13.8 percent ($n = 91$) attended two classes, 4.7 percent ($n = 31$) attended three classes, 1.8 percent ($n = 12$) attended four classes, 0.6 percent ($n = 4$) attended five classes, 0.3 percent ($n = 2$) attended six classes, and 0.2 percent ($n = 1$) attended seven classes. One parent attended 11 classes. A majority (87.0 percent, $n = 575$) attended a workshop from either Strand I (Parenting Awareness) or Strand II (Helping Your Child Learn in the 21st Century), which were aimed most directly at enhancing student success. The remaining 13.0 percent of participants ($n = 86$) attended a workshop in either Strand III (Health and Behavior) or IV (Personal Growth and Development).

Relatively few parents ($n = 87$, 13.2 percent) used the Web-based system to register for their initial Parent University class; instead, the majority (86.4 percent, $n = 571$) completed a paper registration form on-site. The percentage of parents using online registration decreased through their second, third, and fourth class (3.6 percent; 2.0 percent, and 0.8 percent, respectively).

Through a multiple response question (that is, "check all that apply"), respondents were asked to share their reasons for attending Parent University. Respondents most frequently cited having an interest in the course topic (34.0 percent, $n = 225$), followed by their interest in participating in Parent University (31.2 percent, $n = 206$). Among the other reasons parents gave for attending Parent University were a recommendation from their child's teacher (21.0 percent, $n = 139$) or from a friend (5.7 percent, $n = 38$). Participants also gave "other" reasons (10.4 percent, $n = 69$), including a desire to learn more and to support their child. Most participants (46.8 percent, $n = 309$) indicated that they heard about Parent University from their child's teacher. The next most commonly cited source was "other" (31.4 percent, $n = 207$), with parents listing a variety of sources, including e-mails, flyers, and phone calls from the school and other programs in which either they or their children were involved. Other sources included the school district's Web site (16.8 percent, $n = 111$) and a friend (6.2 percent, $n = 41$).

Student Characteristics. As designed, students' demographics were equivalent across the intervention ($n = 862$) and control ($n = 835$) groups. A slight majority of children in both the intervention (50.6 percent, $n = 436$) and the control group (50.4 percent, $n = 421$) were male. The average age of participating children was 9.64 years. The largest proportion of students were African American (47.2 percent for the intervention group, 48.5 percent for the control group), followed by Hispanic (33.5 percent and 34.5 percent, respectively), white (14.0 percent and 13.5 percent, respectively), and American Indian/multiracial/Asian (5.2 percent and 3.5 percent, respectively). The most frequent grade level represented for both the intervention (13.5 percent, $n = 116$) and the control group (13.2 percent, $n = 110$) was second grade.

Student Outcomes. At the outset, multilevel analyses were conducted to account for the nesting of students within schools and the potential for intraschool correlation among student outcomes. To explore the degree to which this correlation was present, unconditional multilevel models containing no predictors for each of the dependent variables—achievement level (that is, percentile score) in math and reading/English, number of unexcused absences, and total number of absences—were first examined. The intraclass correlation coefficient values calculated from these unconditional models ranged from .153 (total absences) to .272 (unexcused absences). Model formulation progressed from the unconditional models with random intercepts only by adding fixed effect predictors and subsequently random slopes. For model selection, chi-square difference tests, calculated using the –2 log likelihood values from two nested models, in addition to the comparison of Akaike information and Bayesian information fit criteria, were used. In the final model, for each dependent variable, the preintervention measure of the same variable (taken from the preceding school year) was significant. In fact, preintervention values were added to each of the unconditional models to determine how much of the within- and between-school variance was explained by these predictors. For math achievement, 88.6 percent of the between-school variance and 57.3 percent of the within-school variance was explained by prior math achievement. Similar values were found for reading (95.3 percent and 62.0 percent, respectively), unexcused absences (45.4 percent and 22.1 percent, respectively), and total absences (44.4 percent and 29.3 percent, respectively). In all cases, the addition of these preintervention assessments yielded significant improvement in model fit. When group (that is, students whose parents participated in Parent University

versus controls) was entered into the model, participation in Parent University was significant only when examining unexcused absences; a decrease of half a day in unexcused absences was noted for students of Parent University participants, corresponding to an effect less than .10 of the pooled standard deviation of days in unexcused absences across both experimental groups. The adjusted dependent variable means based on the initial models presented are displayed in Table 1.

Additional variables, including those used for matching, were next included in the multilevel models in an attempt to improve the statistical power to detect a significant effect associated with parents' having participated in Parent University. The variables added as fixed effects were student ethnicity, age, gender, grade, preintervention math and reading achievement, preintervention school-level total absences, and preintervention school-level math and reading achievement. The school-level variables were calculated as the mean value of the same predictors across all students in their respective schools and were included to control for contextual effects that may have existed above and beyond the individual student-level effects. In all models except for unexcused absences, these additional controls failed to increase statistical power in a way that yielded a significant result for program participation. However, following inclusion of these predictors, levels of existing between-school variance did decrease to some extent. For the unexcused absences model, the Parent University participant indicator increased in absolute value to –.680, with an associated p value of .029.

Multilevel models were also used to explore whether students of parents attending more Parent University classes exhibited greater benefit than did students of parents attending fewer courses; however, these analyses were limited by the heavily skewed distribution. (As noted, 78.1 percent of parents attended only a single course, with an additional 13.6 percent attending two courses.) Again, preintervention measures corresponding to the outcome variables of interest were entered into the models to control for any pre-existing differences between groups. Inclusion of the number of courses attended as a continuous predictor revealed no significant effects for parents attending more courses, after controlling for preintervention achievement and attendance levels. However, when the number of courses attended was entered as a dichotomous variable (that is, one or two or more courses attended), there was a significant effect for reading/English performance (–4.53, $p = .02$) and days of unexcused absences (–.78, $p = .04$), suggesting that students of parents attending multiple courses were more likely to have lower reading achievement, after controlling for preintervention levels of reading achievement. Inspection of the pre- and postintervention means for the two groups revealed that students of parents attending multiple courses had

Table 1: Multilevel Modeling Results for Math, Reading, Unexcused Absences, and Total Absences

	Final Fixed and Random Effects Estimates											
	Math			Reading			Unexcused Absences			Total Absences		
Fixed Effects	**Coef.**	***SE***	***p***	**Coef.**	***SE***	***p***	**Coef.**	***SE***	***p***	**Coef.**	***SE***	***p***
Intercept	13.65	1.74	.00	8.71	1.58	.00	2.61	0.31	.00	3.61	0.38	.00
Preintervention score	0.77	0.02	.00	0.83	0.02	.00	0.42	0.02	.00	0.52	0.02	.00
Parent University	0.37	1.22	.76	0.79	1.21	.51	–0.50	0.23	.03	0.43	0.32	.18
Random Effects	**Variance**			**Variance**			**Variance**			**Variance**		
School	22.29			8.97			6.14			6.18		
Level-1 residual	259.45			226.36			23.30			43.32		

	Final Adjusted Mean Outcomes, by Group						
	Parent University			Control			
Outcome	**Estimate**	**Lower CI**	**Upper CI**	**Estimate**	**Lower CI**	**Upper CI**	***p***
Math	57.42	55.37	59.48	57.05	54.86	59.24	.76
Reading	52.04	50.15	53.93	51.25	49.25	53.25	.51
Unexcused absences	3.81	3.22	4.40	4.32	3.72	4.91	.03
Total absences	7.10	6.41	7.79	7.53	6.84	8.23	.18

Notes: Coef. = coefficient; CI = confidence interval.

higher levels of preintervention than postintervention reading achievement, whereas the students of parents attending only one course had lower levels of preintervention achievement than postintervention. When preintervention achievement was entered in the model, the postintervention mean for reading achievement was adjusted downward for those students whose parents attended multiple courses, to control for prior performance. In regard to attendance, the estimate associated with unexcused absences suggested that students of parents attending multiple courses were more likely to have fewer unexcused absences than were students of parents attending only one class.

The final set of analyses compared the scores of those students whose parents had attended a "target" class with those of students in the control group. Target classes were identified by Parent University staff, in consultation with the Research Team, as those course offerings designed to link most directly to academic outcomes (that is, Math Workshop; Ready-Set-Read; Preparing for Parent/Teacher Conferences; Fractions, Multiplication, Division . . . A Guide to Doing Math at Home; Preparing for End-of-Grade and End-of-Course Tests; Meet Me in the Middle: Transitioning from Elementary to Middle School; and Preparing for the High School Years: Transitioning from Middle to High School). Multilevel analyses revealed no statistically significant differences between groups on performance in reading or math, when controlling for preintervention levels of achievement or when the comprehensive vector of covariates was included in an attempt to maximize statistical power. However, students whose parents attended a Parent University target class did have significantly lower numbers of unexcused absences than did students in the control group, when controlling for unexcused absences in the preceding year [–.73; $t(68) = 2.10$, $p < .05$], and when controlling for the comprehensive set of covariates [–1.20; $t(39) = 2.46$, $p < .05$]. Similar results were obtained for total absences, when controlling for preintervention total absences [–.97; $t(68) = 2.11$, $p < .05$], and when controlling for all available covariates [–2.08; $t(39) = 2.83$, $p < .01$].

DISCUSSION

Consistent with the researchers' hypotheses, positive outcomes were observed in regard to attendance among students whose parents participated in Parent University, particularly when parents attended courses expressly directed at assisting them in enhancing their child's school performance. This finding suggests that the program is making progress toward its initial goal of building relationships between parents and schools that prompt parents to support their child's education efforts (which begin with encouraging school attendance). Although it is well established that improvements in attendance can lead to improved academic performance over time, no statistically significant impact on the reading or math performance of children of Parent University participants was detected in these analyses. However, as hypothesized, this finding is perhaps to be expected given the general consensus that improvement in students' academic performance must be viewed as a long- rather than a short-term outcome of parent engagement efforts.

A particularly important question for Parent University and similar programs is the extent to which parents' participation in multiple classes, as well as their sustained participation over time, contributes to student success. At this relatively early point in the program, many parents have attended only a single workshop, from which student impact would seem unlikely. In fact, most experts recognize not only that examining long-term outcomes during a program's initial years of operation cannot provide an accurate assessment of its effectiveness, but also that a causal link cannot be established between a single time or "one-shot" intervention (for example, a parent's attending a single workshop) and distal outcomes (for example, the academic performance of that parent's child) (Harrell et al., 1996). The analyses presented here suggest that there may be a relationship between parents' choosing to attend more classes and their child's school performance. In particular, students of parents with higher levels of participation in Parent University exhibited significantly better attendance patterns, which may be a result of greater encouragement from their parents. However, to assess the extent to which parents are prompted to attend additional classes and the impact of regular and sustained participation on their child's success, it will be necessary to track parents' participation across time through complete and accurate registration data.

There are several additional limitations to these evaluation data. For example, the relatively high number of parent participants with some education beyond high school in this sample (44.4 percent, $n = 293$) may reflect an association between parents' school involvement and their own educational

experiences. It is important that schools continue to explore ways to obtain the most complete and accurate information available on the children and families they serve so these characteristics can be factored into analyses. It is also important that the characteristics of those parents who do not participate in engagement activities can be examined; however, without more extensive data collection, it is not possible for programs such as Parent University to obtain full demographic information on those parents who have not participated. Although the use of the ISC Community Database allowed these researchers to identify a comparison group matched on important factors such as child age, grade, gender, and ethnicity, no demographic data were available for nonparticipating parents. Although matching children on school ensured that there was an equivalent percentage of children from Title I schools in the sample, this alone cannot ensure that the two groups were matched on income level, another factor that could affect both program participation and parent involvement more broadly.

IMPLICATIONS FOR PRACTICE AND RESEARCH

Despite the challenges of implementing a large-scale (that is, community/districtwide) parent engagement program, these data suggest that Parent University has successfully integrated several lessons from the existing literature and thus may serve as a model for others seeking to implement similar strategies. The program clearly has broad appeal across diverse groups of parents. Though the program may be attracting a large number of parents who already have a high level of involvement, these data confirm that Parent University has had success in reaching out to parents who have been traditionally underserved, including single parents, those with less than a high school education, and those with an annual household income below $25,000. Across all parents, interest in the course topic was most commonly cited as the reason for attending, and most parents chose a class with an obvious connection to school performance.

Consistent with Hoover-Dempsey and colleagues' (2005) and Hoover-Dempsey and Sandler's (1995) model for predicting parent involvement, Parent University strives to contribute to parents' belief that they can be involved with their child's school and education in a positive way, to invite their involvement, and to enhance their sense of efficacy by increasing skills and knowledge. The program also seeks to accommodate parents' life characteristics. In addition to hosting workshops in a variety of community venues, holding workshops at various times throughout the day, and offering courses in Spanish, Parent University has sought to increase the accessibility of the program through the use of an online registration option. However, these data showed that only a small number of parents used the system to register for their initial class. The majority simply attended the class as a "walk-in" and completed a paper registration form on-site. Although this process has the benefit of affording parents greater flexibility, and thus may increase participation, it impedes program staff's ability to plan for an accurate number of attendees. Moreover, Parent University must provide staff to enter data from the large number of paper registration forms into the electronic system, which not only strains resources, but also increases the likelihood of data errors. It is also concerning that the percentage of parents registering online decreased through their second, third, and fourth class, suggesting a need to improve the current system. Similar programs should prepare for these challenges; optimizing a program's ability to be user-friendly for parents may deplete available resources.

The current study clearly illustrates the benefits of putting a reliable data collection system in place for purposes of not only monitoring activities and operations, but also evaluating program outcomes. Understandably, many stakeholders, especially funders, are focused on academic outcomes for students. It is difficult for schools to obtain the resources necessary to conduct a long-term examination of program impact on parents' attitudes and behavior, followed by an analysis of how and whether any changes affect their children. Although establishing partnerships with local colleges and universities can provide school districts with valuable resources to support research and evaluation efforts, these institutions have been subject to the same budget cuts in K-12 education over recent years and are thus limited in the services they can provide without payment. Nonetheless, where, as in the present study, a school district is successful in securing an initial investment in its data system, the value is clear. Although limited, the current Parent University data system does provide a means of obtaining demographic data on parents that would not otherwise be available. Expanding this system to collect additional information on the characteristics of participating parents and the avenues through which they access Parent University could be used not only

to inform program evaluation and to enhance operations and effectiveness, but also to identify successful strategies for parent involvement more broadly. As noted, although programs typically do not have the ability to obtain information on those individuals who choose *not* to participate, the development of links between the current program database and other databases maintained by the school district could provide access to at least some additional demographic data on nonparticipants for purposes of research and evaluation. For example, although a comparison of program participants with those who preregistered via the online registration system but did not attend might provide insight into how to motivate participation, to examine motivation to attend fully, data on parents who have not yet expressed interest in the program are needed.

Arguably, the primary barrier to schools conducting the research and evaluation necessary to guide their efforts to identify innovative ways to involve parents and thus to enhance student performance is a lack of sufficient resources. As schools have struggled to manage deep financial cuts in recent years, resources to support research have necessarily received lower priority than direct classroom costs. However, Parent University serves as a good example of how schools and communities can come together, even in a challenging economic environment, to promote positive relationships between parents and schools, with the ultimate goal of improving student outcomes. CS

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