

**A Process and Outcome Evaluation of the  
4-H Mentoring/ Youth and Families with Promise (YFP) Program**

**March 2012**

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## ACKNOWLEDGEMENTS

There were many people who participated in all aspects of the study including the design, data collection, and data analysis. Craig Dart, site coordinators across Utah, and others at Utah State University helped collect data and provided us access to other resources so that we were able to get other information we needed. JRSA contractors and staff both in Washington, DC and Utah worked tirelessly to ensure data were collected on time, entered, and ready for analysis. Janice Iwama and Ashley Nellis collected, organized and tracked process and outcome data for the study. Lisa Wagner organized, cleaned and analyzed school data and merged data files. Korinna George helped with the writing of the literature review and interviewing youths at follow-up. Rachel Cupelo, Zach Rowen, and Olivia Yoch also helped with the follow-up interviews. Nancy Michel reviewed and edited the final report. Staff from the Utah Administrative Office of the Courts and the Statistical Analysis Center at the Utah Commission and Criminal and Juvenile Justice readily supplied us with court data. Schools and school districts across Utah provided us with school record data. Staff at the National Institute of Justice including Cornelia Sorensen-Sigworth and Patrick Clark helped us with addressing evaluation design issues and other concerns

This project was supported by Award No. 2005-IJ-CX-0046 awarded by the National Institute of Justice, Office of Justice Programs, U.S. Department of Justice. The opinions, findings and conclusions or recommendations expressed in this publication/program/exhibition are those of the author(s) and do not necessarily reflect the views of the U.S. Department of Justice.

## INTRODUCTION

In December of 2004, the National Institute of Justice (NIJ) issued a solicitation for evaluations of four youth programs funded by the Office of Juvenile Justice and Delinquency Prevention's (OJJDP) FY2003 discretionary funds. One of those programs was Utah's 4-H Mentoring/Youth and Families with Promise (YFP) program. YFP is a statewide 4-H mentoring program designed for at-risk youths who are approximately 10-14 years old. Youths are paired with mentors, participate in 4-H activities, and also attend Family Night Out (FNO) activities to strengthen family bonds. As part of the process for developing the solicitation, NIJ had developed an evaluability assessment that suggested that the program would be appropriate for evaluation at that time. JRSA received the award from NIJ to conduct a process and outcome evaluation of the YFP program.

The purpose of the *process evaluation* was to assess the degree to which the program was implemented and operated as planned. The process evaluation begins with an overview and history of the program followed by a summary of the design and methodology of the process evaluation. The evaluation begins with an examination of the program design, as indicated in program documentation. We then turn to program implementation, examining program activities, program participants, mentor characteristics, the mentor-mentee matching process, and mentee time in program. The section ends with a summary of our findings and a listing of conclusions and recommendations regarding program implementation and operation.

The *outcome evaluation* is a nonequivalent groups design (pre- and post-testing for an experimental group as well as a comparison group) that includes up to a three-year follow-up for youths attending the program. Pre- and post-test data were collected for youths and the parents of youths entering YFP from 2005 to 2008 (YFP group) and two cohorts of students from

various schools in grades 4-8 (comparison group).<sup>1</sup> Major components of pre- and post-tests included the Behavioral and Emotional Rating Scale Version 2 (BERS-2), as well as questions measuring self-reported delinquent behaviors and what youths would like to work on (or did work on) with their mentors during the program. For youths in the YFP group, the post-test also included questions on mentor relationship quality and perceptions of the YFP program. To assess the long-term outcomes of program participation and sustainability of program effects, follow up telephone interviews with YFP and comparison group youths were scheduled to occur annually up to three years after program discharge/date of the last post-test. Given the program objective associated with improving school performance, we decided to obtain official school records of attendance and grades prior to, during, and up to three years following involvement in the program (or last post-test for the comparison group). Since the program targets at-risk youths, we collected data on YFP and comparison youths' involvement with the juvenile court system prior to, during, and up to a maximum of three years following their involvement in the program/study.

This reported is divided into five sections. Following this introduction, the first section presents a review of the literature on youth mentoring. The next section presents the methodology and findings of the process evaluation, along with a discussion of the findings and conclusions. The next section presents the methods and findings of the outcome evaluation. The section on program costs presents our findings with regard to the overall costs associated with the YFP program. Finally, the Discussion and Conclusion section summarizes our findings and

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<sup>1</sup> The 2005 cohort includes data that were collected for an internal evaluation conducted by Utah State University (USU) that occurred prior to the start of the JRSA study. The data from the 2005 cohort were included in the JRSA study to increase the sample size of the experimental group. Youths in this cohort were chosen if they were in one of the following categories: 1) the youth was still in the program as of March 2007 and had been pre-tested for the USU evaluation; or 2) the youth was no longer in the program and had been pre- and post-tested for the USU evaluation.

presents our interpretation of their meaning, and includes a discussion of methodological limitations of the study design and data.

## REVIEW OF THE LITERATURE ON YOUTH MENTORING

There is a large literature on effective strategies to prevent at-risk youths from involvement in the juvenile justice system that focuses on the various developmental pathways that lead to delinquency (see, for example, Tolan, 2002). Broadly speaking, empirical research on these pathways addresses individual, family, and community-level factors that are highly correlated with delinquency. Several scholars have noted the potential of providing social support to youths in the absence of informal social controls to positively influence youths' lives, especially in high-crime communities (Jones-Brown & Henriques, 1997). An estimated 8.5 million youth do not have caring adults in their lives, and those from disadvantaged homes and communities are over-represented in this number (Cavell, DuBois, Karcher, Keller, & Rhodes, 2009). Numerous factors have contributed to the declining adult presence in youths' lives in recent decades, including: both parents working, the prevalence of one-parent families, the growth of a distinct youth culture, the reduction of local funding for recreational programs, and the discouraging, for legal and practical reasons, of employees in public systems (e.g., teachers) befriending youth. As research has shown, youth who lack a strong relationship with a caring adult while growing up are much more vulnerable to a host of difficulties, ranging from academic failure to involvement in serious risk behaviors. Resilient youth—those who successfully transition from risk-filled backgrounds to the adult world of work and good citizenship—are consistently distinguished by the presence of a caring adult in their lives (Cavell et al., 2009).

Youth mentoring substitutes nonfamily adults in children's lives as an attempt to fill the gaps left by the absence of parents and other close relatives, under the assumption that youth will benefit from this support and guidance in their lives in much the same way they would from the

“natural mentoring” that would be provided by these missing family members (Herrera, Grossman, Kauh, Feldman, & McMaken, 2007; Rhodes, Bogat, Roffman, Edelman, & Galasso, 2002; Walker, 2007).

While there are a number of different approaches youth mentoring, formal mentoring programs tend to have common characteristics. In particular, these programs usually involve the interaction of a child with an unrelated (usually volunteer) individual (usually an adult) over an extended period of time. The mentee is presumed to benefit from the knowledge, skills, abilities or experiences of the mentor in a relationship that does not have the “role inequality” associated with other relationships in the child’s life, such as with parents and teachers (Keller & Price, 2010; Tolan, Henry, Schoeny & Bass, 2008). Mentors may be adults, young adults (e.g., college students), or even peers, but are not acting in a professional capacity; that is, they are not providing professional treatment for youth with mental health issues (Rhodes & Spencer, 2010).

Mentoring programs are believed to have the potential to affect a number of domains of youth development and functioning. Rhodes and her colleagues identify three processes that may be positively influenced by a mentoring relationship: (1) enhancement of social and emotional development; (2) improvements in cognitive functioning through conversation, joint activity, and guided instruction; and (3) promotion of positive identity development (Rhodes, Spencer, Keller, Liang & Noam, 2006). In an early evaluation of the largest mentoring program in the United States, Big Brothers Big Sisters of America (BBBSA), Tierney and Grossman (1995) included the following as potential impacts: reduced antisocial activities; improved academic outcomes; better relationships with family and friends; improved self-concept; and social and cultural enrichment. Mentoring has also been widely used as an approach to dealing with a variety of special needs youth, including youth in foster care, academically at-risk students, youth who

have a parent who is incarcerated, youth involved in the juvenile justice system, youth who have disabilities, and pregnant and parenting adolescents (DuBois & Rhodes, 2006).

According to a survey of 722 mentoring programs conducted in 1997, programs have a variety of goals and expect youth and mentors to engage in a variety of activities (Sipe & Roder, 1999). Most (74%) aimed to have a positive impact on youth's personal development and nearly two-thirds expected to influence youth's academic behavior or performance. About 70% of programs expected youth and mentors to spend some time in social and recreational activities, and nearly 80% expected that academic activities would be included in how youth and mentors spend their time together.

### Types of Mentoring

Mentoring programs vary in the different forms that they take. Programs take place in a variety of locations, including classrooms, youth development organizations, work and service-learning, and faith-based organizations (Bauldry, 2004; Hamilton et al., 2006).<sup>2</sup> BBBSA is an example of a community-based mentoring program. In programs such as BBBSA, community members serve as volunteer mentors, and mentees are also drawn from the community.

School-based mentoring (SBM), which brings mentors into schools to meet with students, is the most common form of formal mentoring in the U.S.; as many as 30% of mentoring programs are run out of schools (Karcher & Herrera, 2007; Rhodes, 2002a). School-based mentoring programs may attract volunteers who, by virtue of their jobs, families, age or other circumstances, are less likely to volunteer in community-based programs. This includes a greater proportion of volunteers who are older, lower income, female, and African American (Herrera, Vang & Gale, 2002; Rhodes, 2002b). Because school settings are more tolerant of

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<sup>2</sup> Online mentoring programs, in which mentors and mentees interact via electronic communications, have also been attempted in some areas (see, for example, Rhodes, 2004b).

cross-gender matches, there are also more available mentors to the disproportionate number of male youth on waiting lists (Rhodes, 2004a). School-based mentoring programs tend to attract more volunteers from colleges and universities than community-based mentoring programs; however, school-based programs that suspend or even terminate service during summer months may be problematic, due to the loss of continuity in the mentor-mentee relationship (Herrera et al., 2002). Relationships are also often terminated when students make transitions from one school to another.

Peer mentoring programs, which use fellow students to serve as mentors, are one variation of school-based mentoring programs. In these cross-age mentoring programs (CAMPs) the mentor is an older youth, typically high school-aged, who is paired or matched with an elementary or middle school-aged child (Karcher, 2007). In cross-age peer mentoring, high school-aged mentors work with children at school, either in the classroom, after school, or during lunch. Meetings typically last one hour, take place weekly, and operate for the duration of the school year. The meetings often occur within a larger group, such as one in which 10-20 pairs may meet in one location at a school, sometimes engaging in group-based activities for all or part of the meeting (Karcher, 2007).

The growth and popularity of the CAMP approach is best exemplified by its place within (BBBSA). The High School Bigs program, which is BBBSA's cross-age model, comprises nearly a fourth of all matches made through BBBSA organizations each year. The program is friendship promoting, as opposed to goal-oriented, and allows the mentors the greatest latitude in terms of selecting with the mentee what they will do together.

“Lunch buddy” mentoring is another version of school-based mentoring program in which college student mentors meet twice weekly during school lunch with mentees (Cavell &



Henrie, 2010). A new mentor is provided each semester. The program is designed to benefit elementary school children who are highly aggressive or chronically bullied. Lunch buddy mentoring de-emphasizes the strength and length of the relationship as mechanisms of change, instead emphasizing improvements in a child's social reputation among lunchtime peers and enhancing positive interactions with those peers (Cavell & Henrie, 2010).

### Effectiveness of Mentoring

There is no shortage of research and evaluation studies of mentoring initiatives. The consensus of these studies seems to be that the overall record of success for youth mentoring programs is encouraging but uneven (Cavell et al., 2009). Specifically, the research suggests that mentoring can have a positive effect on at-risk youths when the program is well-organized, applied systematically, and delivered by knowledgeable and competent staff (Tierney & Grossman, 1995). In some successful programs, mentoring is only one component of a more comprehensive intervention that includes life skills training and academic tutoring (Jekielek, Moore, & Hair, 2002).

The earliest large-scale evaluation conducted on mentoring effectiveness was the evaluation of BBBSA (Grossman & Tierney, 1998; Tierney & Grossman, 1995). The study, conducted by Public/Private Ventures, included 959 youths who were randomly assigned to treatment and control groups and received programming for 18 months. The results showed that, compared to the control group, program youths were less likely to use drugs, drink alcohol, get into physical altercations, and skip school during the study period. Program youths also reported better relationships with their parents during the study period. Interpersonal competence was improved, and youths reported feeling greater emotional support as a result of the program.

More recently, Bernstein and his colleagues at Abt Associates conducted an assessment of the Department of Education's student mentoring program (Bernstein, Dun Rappaport, Olsho, Hunt & Levin, 2009). The program, which targets students in grades 4-8, focuses on the academic and social needs of at-risk students. The study included 2,573 students who were eligible to participate in one of 32 programs during the 2005 and 2006 school years. The students were randomly assigned to the mentoring program or to a control group. The study measured 17 outcomes in three domains: interpersonal relationships and personal responsibility, academic achievement and engagement, and high-risk or delinquent behavior. No significant impacts were found in any of the outcomes measured, although some positive outcomes were observed for girls, and younger students showed a decrease in truancy.

In their meta-analysis of 55 mentoring programs, Dubois, Holloway, Valentine, and Cooper (2002) found modest improvements in academic performance, emotional functioning, and prosocial behavior among program participants. They observed larger effect sizes for programs that instituted a careful selection process for prospective mentors, maintained supervision of mentors during program operations, tracked program activities, and informed participants that the mentor-mentee relationship could be expected to continue for a long time.

More recently, Patrick Tolan and his colleagues completed a Campbell systematic review of 39 mentoring programs (Tolan et al., 2008). The review was restricted to studies that examined delinquency, aggression, substance use or academic achievement in mentored youth and a comparison group. The results of the review showed positive and statistically significant main effects for all four types of outcomes, with larger effects observed for delinquency and aggression than for drug use and achievement (Tolan et al., 2008).

David DuBois and his colleagues recently published an update to his 2002 meta-analysis of youth mentoring programs (DuBois, Portillo, Rhodes, Silverthorn & Valentine, 2011). The analysis examined 73 evaluations of youth mentoring program published between 1999 and 2010. The results showed support for the effectiveness of mentoring programs as indicated by a number of different outcomes, including behavioral, social, emotional, and academic. Findings showed that the benefits of mentoring programs can be seen in all ages groups from early childhood to adolescence. The authors also concluded that the benefits of mentoring programs for the typical youth are modest and that programs exhibit considerable variability in their effectiveness.

### Specific Factors Related to Effectiveness

#### *Mentor-Mentee Relationship*

A number of studies have attempted to examine specific components of mentoring programs. One obvious component that has received considerable attention is the mentor-mentee relationship. Mentor-mentee relationships are complex, and thus are not easily measured. A mentee's assessment of the quality of his/her mentoring relationship depends not only on individual qualities of the mentee but also on qualities of the mentor and the mentee's reaction to the mentor, which in turn is affected by the interaction of the two (Deutsch & Spencer, 2009). Ideally, measures of both mentor and mentee on variables of interest will be obtained when assessing the relationship.

Mentoring relationships are most likely to promote positive outcomes when they are close, consistent, and enduring (Rhodes, 2007; Rhodes & DuBois, 2006). Mentoring seems to be most effective when mentors: are a steady and involved presence in the lives of the youth with whom they work; seek out and respect the youth's views and desires regarding the relationship;

take non-punitive approaches when dealing with their mentees (Grossman & Johnson, 1999; Sipe, 1999). To maximize the benefits of the relationship, both the mentor and the youth should have a role in the matching process, and youth should be actively involved in determining goals and activities (Allen, Eby & Lentz, 2006; Karcher, Herrera & Hansen, 2010; Pedersen, Woolum, Gagne, & Coleman, 2009; Rhodes & Spencer, 2010). Researchers have found that it is easier to establish successful relationships with at-risk youth at a young age, which suggests that one strategy for successfully delivering mentoring to adolescents is establishing the relationship early and maintaining it through the transition to middle school (Zimmerman, Bingenheimer & Behrendt, 2005). Research also suggests that the most successful relationships are developmental in nature; that is, they begin with mentor-mentee activities, interactions, and discussions that are initially focused on relationship building and therefore tend to be more present oriented, fun, and playful. In addition, authenticity and empathy on the part of the mentor are particularly important in the early stages of the mentoring relationship (Spencer, 2006). Several studies have suggested that having fun, or simply “hanging out” together, is an important initial element in establishing effective mentoring relationships (Nakkula & Harris, 2010; Pryce, Silverthorn, Sanchez, & DuBois, 2010). Over time, however, an effective mentoring relationship must allow and support the incorporation of more goal-directed, future-oriented, achievement-focused, and serious activities or conversation topics (Hamilton & Hamilton, 2010; Karcher & Nakkula, 2010; Larose, Ceyrenne, Garceau, Brodeur, & Tarabulsy, 2010).

Duration of the relationship has been found to be a critical determinant in program effectiveness (Herrera et al., 2007; Rhodes & Lowe, 2008). Only about half of mentor-mentee relationships last more than a few months – scholars attribute much of this to mentor exhaustion, burnout, and an insufficient sense of appreciation for their work (Freedman, 1993; Grossman &

Rhodes, 2002). Grossman and Rhodes (2002) studied 1,138 youths in BBBSA to attempt to determine the importance of length of relationship on program effectiveness. Their results indicated that youths in relationships that were terminated within the first six months reported statistically significant drops in global self-worth and perceived academic abilities, and significant increases in alcohol use. When relationships lasted more than twelve months, youths scored significantly higher on perceived social acceptance, perceived academic performance, and school attendance, and were significantly less likely to use drugs or alcohol than the control group.

Spencer (2007a) interviewed BBBSA mentors who had participated in unsuccessful matches not lasting through the initial one-year time commitment required by the program. The study suggested a number of factors that contributed to the demise of mentoring relationships, including: perceived lack of mentee motivation; unfulfilled expectations; deficiencies in mentor relational skills; family interference; and inadequate agency support. The absence of specific sets of relational skills on the part of mentors, including a lack of youth focus, unrealistic or developmentally inappropriate expectations of the youth, and low awareness of personal biases and how cultural differences shape relationships, also played a role in the premature ending of some of these mentoring relationships.

### *Race/Ethnicity*

A number of studies have examined the effects of race and gender of youths and mentors on mentoring outcomes. Unlike naturally occurring relationships, formal mentoring programs tend to match youth and adults from strikingly different backgrounds (Spencer, 2007b). Most adults who volunteer to serve as mentors in formal mentoring programs are white and reside in middle- to upper-income households (MENTOR, 2006), whereas many of the youth targeted by

these programs tend to be of color and to reside in low-income households (Freedman, 1993). Thus, mentoring programs are often grappling with the problem of how to facilitate the development of meaningful relationships between two strangers whose life experiences may be very different (Spencer, 2007b). Individual differences in gender, ethnicity, and age can shape the needs and characteristics of mentees and the processes through which mentoring may influence them (Darling, Bogat, Cavell, Murphy, & Sanchez, 2006).

With the exception of youth for whom racial issues are an overriding concern, the mentor's race or ethnicity may not be the critical factor in predicting the likelihood of a successful relationship (Liang & West, 2007; Rhodes, 2002b). Trusting and supportive relationships appear to be possible for minority youth in both same-race and cross-race relationships. Whether or not adult mentors should be the same race as the youth they mentor depends on the program's mission, goals, and priorities; the preferences of the child's parent or guardian; and the personal qualities of the mentor (Jucovy, 2002). Parent and program preferences for same-race/ethnic group matches, coupled with the relatively low proportion of minority volunteers and the relatively high proportion of minority youth participants has resulted in many minority youth being retained on waiting lists until adult volunteers of the same race become available (Bauldry, 2004; Rhodes, 2002b; Spencer, 2007a).

The influx of immigrants from Latin America in recent years has been a challenge for mentoring programs, particularly those that are school-based, since many of these youth may often struggle in American schools (Diversi & Mecham, 2005). Diversi and Mecham (2005) studied Latino youth in a rural after-school program and found that the mentoring relationship was successful in fostering academic engagement and cross-cultural relations. Youth improved their grades and reported being more connected to school, and mentors and youth also reported

trust in their relationship and satisfaction in learning about each other's culture (Diversi & Mecham, 2005).

Karcher (2008) examined the effects of providing youth school-based mentoring to a sample of 516 predominately Latino students who were already receiving other supportive services. Results revealed small, positive main effects of mentoring on self-reported connectedness to peers, self-esteem, and social support from friends, but not on several other measures, including grades and social skills (Karcher, 2008).

While race or ethnic origin per se may not be critical in the success of mentoring relationships, race and cultural values can influence mentor-mentee interactions in a number of ways, resulting in the miscommunication or misinterpretation of social cues by culturally unaware mentors. Liang & West (2007) thus suggest the need for mentors and mentoring programs to work toward developing culturally sensitive youth mentoring programs.

### *Gender*

Relatively few studies have been conducted to directly assess the effects of gender on mentoring outcomes, and the few that have been done have shown mixed results (Darling et al., 2006; Rhodes, Lowe, Litchfield & Walsh-Samp, 2008). In one of the more recent studies, Jean Rhodes and her colleagues, drawing on data from BBSA programs, found that girls' relationships lasted significantly longer than those of boys. Girls reported being less satisfied than boys in short- and medium-term relationships, but were more satisfied than boys in long term relationships (Rhodes et al, 2008). In a study of 376 youth involved in mentoring in seven community sites, Bellamy, Sale, Wang, Springer, and Rath (2006) found that girls were more positive than boys about the quality of their mentoring relationships with respect to the degree to which they were youth-centered, their degree of emotional engagement, and their degree of

satisfaction. In their meta-analysis of mentoring studies, DuBois et al. (2002) found that demographic characteristics of youth or mentors, including gender, were unrelated to the strength of program effect.

### Specific Outcomes of Mentoring

As noted above, mentoring programs claim to have a variety of positive effects, and therefore researchers have assessed a number of different outcomes when attempting to determine whether programs are effective. Some of the more common outcomes that have been examined are discussed below.

#### *School Performance*

Since so many mentoring initiatives are school-based, it is not surprising that research on mentoring has included a number of school-related outcomes, such as grades, attendance, and school-related (mis)behavior. One of the largest studies of school-related outcomes was conducted by Public/Private Ventures (P/PV), which has done a great deal of work in mentoring program development and assessment. Carla Herrera and her P/PV colleagues evaluated the BBBSA school-based mentoring program, which at the time served over 100,000 students nationwide (Herrera et al., 2007). The study included 1,139 youths in 71 schools across the country, half of whom were randomly assigned to a mentor, while the other half was placed on a waiting list. According to teacher reports, students improved in overall academic performance, as well as in the specific subjects of science and written and oral language. Quality of class work, number of assignments completed (both in class and homework), and serious school infractions all showed positive changes. The students themselves reported feeling more competent academically and skipping school less often, the latter outcome being confirmed by teacher records (Herrera et al., 2007). A subsequent analysis of these data, focused on the one-half of



mentees whose mentors were high school students, found that mentees improved on only one outcome measure, teacher-reported social acceptance. Youth matched with adults, by contrast, improved in a number of areas, including academic performance, school behavior, and attendance (Herrera, Kauh, Cooney, Grossman & McMaken, 2008).

Wheeler, Keller and DuBois (2010) conducted a meta-analysis of the results of the BBBSA school-based study and two other assessments of school-based mentoring (Communities in Schools of San Antonio and the Department of Education's Student Mentoring Program) that did not find the same positive effects as those seen in the P/PV evaluation. The authors found significant mean effect sizes for six of the 19 outcomes examined: truancy; presence of a supportive adult relationship; perceptions of academic abilities; school-related misconduct; peer support, and absenteeism. Other assessments have shown that mentoring programs in schools have positive impacts on grades (Johnson, 2006); disciplinary referrals (Converse & Lignugaris/Kraft, 2009; Johnson, 2006); school attendance (Johnson, 2006; LoSciuto, Rajala, Townsend, & Taylor, 1996); and attitudes toward school (Converse & Lignugaris/Kraft, 2009; LoSciuto et al., 1996).

### *Substance Abuse and Mental Health*

There is some evidence to suggest that mentoring can have a positive effect on substance abuse and mental health. In their meta-analysis of 39 mentoring studies, Tolan et al. (2008) found a modest positive effect for mentoring on drug use. The P/PV evaluation of BBBSA found that mentees were significantly less likely to self-report that they started using drugs and alcohol during the study period than youth in the control group (Grossman & Tierney, 1998; Tierney & Grossman, 1995). The impact was larger for drugs than alcohol, and affected minority youth more than white youth. Rosenblum and his colleagues evaluated the effectiveness of a mentoring

program for urban youth with an HIV-positive parent (Rosenblum et al., 2005). The study found that participating in peer mentoring activities may reduce the size of peer substance-user networks and substance use risk among vulnerable youth. LoSciuto et al., (1996) examined an intergenerational mentoring approach to drug prevention for high-risk middle school students and found that this multifaceted intervention approach resulted in more positive changes in student knowledge, attitudes, and behavior concerning substance abuse and related life skills, and that those whose mentors were most involved with them would fare even better. Other research, however, has found no reduction in drug or alcohol use as a result of mentoring (see Bauldry, 2006; DuBois & Silverthorn, 2005; Eby, Allen, Evans, Ng, & DuBois, 2008; Herrera et al., 2007).

Ahrens, DuBois, Richardson, Fan and Lozano (2008) examined whether adolescents in foster care with natural mentors have improved young adult outcomes. They concluded that mentored youth had, on average, a significantly greater number of positive outcomes than non-mentored youth, including better overall health and fewer thoughts of suicide. Evaluating the effectiveness of a group mentoring program at a community mental health center, Jent and Niec (2009) found that group mentoring significantly increased children's reported social problem-solving skills and decreased parent-reported child aggressive behavior and depression-related symptoms. In his evaluation of the National Faith-Based Initiative for High-Risk Youth, Bauldry found that mentoring may provide some protection against depression among high-risk youth, but that it is less likely to serve as a remedy when youth are already depressed (Bauldry, 2006).

#### *Social Competence/Self-Esteem*

One of the common criteria for youth being enrolled in mentoring programs is a perceived lack of social competence and/or self-esteem (Rhodes et al., 2006). However, the research on the

effects of mentoring on these factors is mixed. Jekielek et al. (2002), in their review of mentoring research, concluded that mentoring relationships do not consistently improve children's self-perception, including self-esteem. This conclusion is confirmed by the P/PV study of BBBSA (Tierney & Grossman, 1995), which found no significant improvements in self-concept, and by Herrera et al.'s (2007) study of BBBSA's school-based mentoring initiative, which found no improvements in self-esteem. Other studies, however, have found more positive results in this area. Karcher (2008), for example, found small, positive improvements in self-esteem among Latino youth in a school-based mentoring program, particularly among high school girls. DuBois and Silverthorn (2005) reported increased psychological well-being among mentored youth, including heightened self-esteem and life satisfaction. Glomb, Buckley, Minskoff and Rogers (2006) found that school-based mentoring is associated with improvements in self-image in youth with learning disabilities and attention problems. Jent and Niec (2009) found that group mentoring significantly increased children's reported social problem-solving skills.

Two additional studies suggest that affect of mentoring on social competence and self-esteem may be mediated by the quality and length of the mentoring relationship. Karcher (2005) found that changes in self-esteem and social skills were highly related to the frequency of mentor-mentee meetings. Rhodes (2002c), in her ongoing examination of data from the original BBBSA evaluation, found that youth who were in matches that terminated within the first six months suffered larger drops in feelings of self-worth and perceived scholastic competence than youth who had never been matched with a mentor. Youth who were in matches that lasted more than twelve months, however, reported significantly higher levels of self-worth, social acceptance, and scholastic competence (Rhodes, 2002c).

*Delinquency-Related Outcomes*

A number of mentoring initiatives are designed for youth who have been in contact with the juvenile justice system or are at risk of delinquent behavior. Tolan et al.'s (2008) meta-analysis showed that mentoring has a positive effect for delinquency and aggressive behavior. Jekielek et al. (2002), in their review of mentoring studies, concluded that youth who participate in programs that include stand-alone mentoring or mentoring as one component of a comprehensive intervention are less likely to commit misdemeanors or felonies. DuBois and Silverthorn (2005) found that youth who participated in natural mentoring relationships were less likely to be involved in fights and to join a gang. Bauldry (2006) found that mentored youth were less likely to resort to violence in resolving social conflicts. Finally, the Washington State Institute for Public Policy assessed the state Juvenile Rehabilitation Administration's mentoring program for youth returning to the community from a JRA facility (Drake & Barnoski, 2006). Their findings showed that recidivism (based on reconvictions) was lower for the mentored youth one year after release, but there were no differences at two or three years post-release.

Program Infrastructure

Researchers on mentoring programs are in agreement that programs need to provide an infrastructure that supports the development and maintenance of mentoring relationships (Sipe, 1999). Ongoing training and support/supervision are key components of successful mentoring programs (Jucovy, 2001; Sipe, 1999). Research has shown that mentors who report receiving more pre-match and ongoing training report higher levels of closeness with their mentees, and are more likely to maintain their mentoring relationships than those who do not (Herrara et al., 2007; Karcher, Nakkula & Harris, 2005). Findings also point to the importance of mentoring

programs providing ongoing and sensitive support to their mentors via proactive monitoring and supervision of relationships (Jucovy, 2001; Spencer, 2007a).

Rhodes and DuBois (2006) distinguish between theory-based and empirically-based mentoring program practices. Theory-based practices are those that have been identified in mentoring program literature, such as ongoing training and supervision (see Jucovy, 2001), while empirically-based program practices are those identified as being significantly related to program outcomes in the meta-analysis conducted by DuBois and his colleagues (DuBois et al., 2002). Of the 13 practices identified, five are both theory-based and empirically-based: monitoring of program implementation; clear expectations regarding frequency of contact between mentor and mentee; ongoing training; having structured activities for mentors and youth; and having active parent support and involvement. Similarly, MENTOR/The National Mentoring Partnership (MENTOR) has identified six evidence-based operational standards for mentoring programs: recruitment; screening; training; matching; monitoring and support; and closure (MENTOR, 2009).

### Cost of Mentoring Programs

Mentoring programs are usually thought of as being low-cost, and cost effective, because they rely heavily on volunteers for service provision. However, there are relatively few studies examining the cost of mentoring programs, and little is known about how cost relates to program features such as overall size or whether the program offers group or one-on-one mentoring (Grossman, 1999). Generally speaking, mentoring costs seem to fall into the range of after-school and summer programs, and cost much less than intensive remedial programming or more comprehensive service programs (Walker, 2007).

Fountain and Arbreton (1999) have identified several unique elements that make conducting cost studies of mentoring programs a challenge. First, many mentoring programs are part of other, more comprehensive youth development efforts, and thus may not have their own specific budgets. As noted previously, mentoring programs rely heavily on volunteers who donate their time. They may also obtain other resources from larger organizations of which they are a part or from other community organizations. These in-kind goods and services must be considered as “off budget” expenses or costs to the program, as contrasted with budgeted items like paid staff and equipment costs. Like many similar programs, mentoring programs have both direct service costs and administrative costs, and these can be difficult to separate out in some programs. Finally, calculating mentors’ time in terms of “full time equivalents” (FTEs) can be challenging when mentors are working only a few hours a week, and programs may not be keeping accurate and comprehensive records of the number of hours volunteers spend working.

The P/PV study of the BBBSA school-based mentoring program included an analysis of program costs (Herrera et al, 2007). The cost per youth, including donated and out-of-pocket expenses, was \$987 per youth (median = \$1,067), as compared with a per-youth cost of \$1,088 for community-based mentoring. The researchers found no association between and the per-youth cost and either the number of either youth an agency serves or the average number of matches per school.

Fountain and Arbreton (1999) studied 52 mentoring programs to determine program costs. The researchers collected basic descriptive information (such as number of youth served); budget information (total budget and sources of revenue); staffing (number of paid and volunteer staff and how many hours they work per week); other expenses by category (such as office expenses, transportation, and youth activities); and allocation of staff time across a series of

activities (such as mentor recruitment, mentor training and fundraising). Their results showed that the median budget for the mentoring programs studied was \$70,000. Mentoring programs leveraged about \$1 for every \$1 in their budget; that is, the value of donated time and services was roughly equal to the budget of the program. The majority of expenditures (77%) from off-budget sources were the estimated value of the mentors' time; that is, the amount it would cost the program if mentors were paid rather than volunteers. The researchers calculated the average cost per youth mentored to be \$1,114 per year, with a median cost of \$685 per youth per year. Per youth costs were found to be fairly constant across program sizes.

Anton and Temple (2007) conducted a social return on investment (SROI) analysis of school-based mentoring programs for the Mentoring Partnership of Minnesota. They estimated a total per youth cost of \$3,562 per youth, compared with a benefit of \$9,688 (which included benefits associated with reduced crime and truancy, enhanced school achievement, and mentor satisfaction). This resulted in a cost-benefit of \$6,126, or a benefit-cost ratio of \$2.72.

In 2004, Steve Aos and his colleagues at the Washington State Institute for Public Policy conducted a cost-benefit analysis of a number of nationally-known prevention and early intervention programs for youth (Aos, Lieb, Mayfield, Miller & Pennucci, 2004). Using data from the P/PV 1995 evaluation of BBBSA, Aos et al. (2004) calculated the benefits per child to be \$4,058 per year, compared with an annual cost of \$4,010, for a net cost benefit of \$48 per year, or a cost-benefit ratio of \$1.01. When only the cost to taxpayers is considered, the program cost drops to \$1,236 per youth, for a net cost benefit of \$2,822 per year. Three mentoring programs for juvenile offenders in Washington juvenile justice system were shown to have a net cost benefit of \$5,073. The authors also examined data from the Quantum Opportunity Program (QOP), a Department of Labor-funded pilot program designed to serve disadvantaged high

school students by providing education, service, and development activities, one component of which was mentoring (Maxfield, Schirm & Rodriguez-Planas, 2003). The results for this program were not so positive, with costs outweighing benefits by more than \$15,000.

### Summary

Although the findings of large-scale experimental evaluations of the effectiveness of youth mentoring programs have been mixed, meta-analyses and systematic reviews generally show modest but statistically significant improvements resulting from well-run programs. Youth at all ages seem to benefit socially, emotionally, behaviorally, and academically from mentoring programs. Programs exhibit considerable variability in their effectiveness, however, and the literature suggests that programs that implement a careful selection and matching process for mentors and closely supervise and support mentors during their mentoring relationships are most likely to show positive effects.

Since mentoring programs rely heavily on volunteers who donate their time, and may also obtain other resources from larger organizations of which they are a part, such programs tend to cost relatively little compared with other youth programs. The cost-benefit of mentoring, however, remains difficult to determine, given the variability in effectiveness of mentoring programs.

### Previous Evaluations of 4-H/YFP Mentoring

The YFP program has been subject to previous evaluation efforts. The program was collecting its own data during the 2003 and 2004 school years. Higginbotham et al. (2007) examined data on about 500 youth and parents who participated in the program during those two school years. The data came from questionnaires completed at the end of the school year that included youth and parent ratings of their own levels of academic achievement, social



competency, and family bonds before and after participation in the program (i.e., a retrospective pretest , where participants were asked to rate themselves as they would have prior to becoming involved in the program). The results showed higher ratings in academic achievement, social competency, and family bonds at the end of the school year than those the youths and parents thought the participants would have received at the start of the school year.

In 2005 Bach Harrison, LLC completed a process and outcome evaluation of the YFP program using a pre-post design with a control group (Bach Harrison, 2005). Youths were identified for the control group via a waiting list for the YFP program. Multiple measures of youths' problems and competencies, including the Prevention Needs Assessment Survey and the Achenbach's Child Behavior Checklist, collected for both youth and parents in the treatment and control groups. Pre-tests were completed at intake and post-tests were completed six to nine months later. Altogether there were 20 youths in the treatment group and 18 youths in the control group for whom complete data were available.

The study authors note that there was modest evidence of program effectiveness. There were no significant differences between treatment and comparison youths on any of the youth measures, but youths in the treatment group had significant higher social competency than the comparison group according to parent measures.

The process evaluation showed problems with youth recruitment for the program and attrition from the program. In addition, low dosage was a concern, with youths receiving less than the desired amount of mentoring, FNO and 4-H activities. The authors recommended that the program develop standards for intervention dosage.

## PROCESS EVALUATION

As part of the evaluation of YFP, project staff conducted a process evaluation. The purpose of the process evaluation was to assess the degree to which the program was implemented and operated as planned. This section of the report begins with an overview and history of the program, followed by a summary of the design and methodology of the process evaluation. The evaluation begins with an examination of the program design, as indicated in program documentation. We then turn to program implementation, examining program activities, program participants, mentor characteristics, the mentor-mentee matching process, and mentee time in program. The section ends with a summary of our findings and a listing of conclusions and recommendations regarding program implementation and operation. Data collection forms used in the process evaluation may be found in Appendix A.

### Overview and History of 4-H Mentoring/YFP

The 4-H Mentoring/ Youth and Families with Promise (YFP) is a statewide 4-H mentoring program in Utah designed for at-risk youths who are approximately 10-14 years old. Youths are paired with mentors, participate in 4-H activities, and also attend Family Night Out (FNO) activities with their families to strengthen family bonds. According to the program guide:

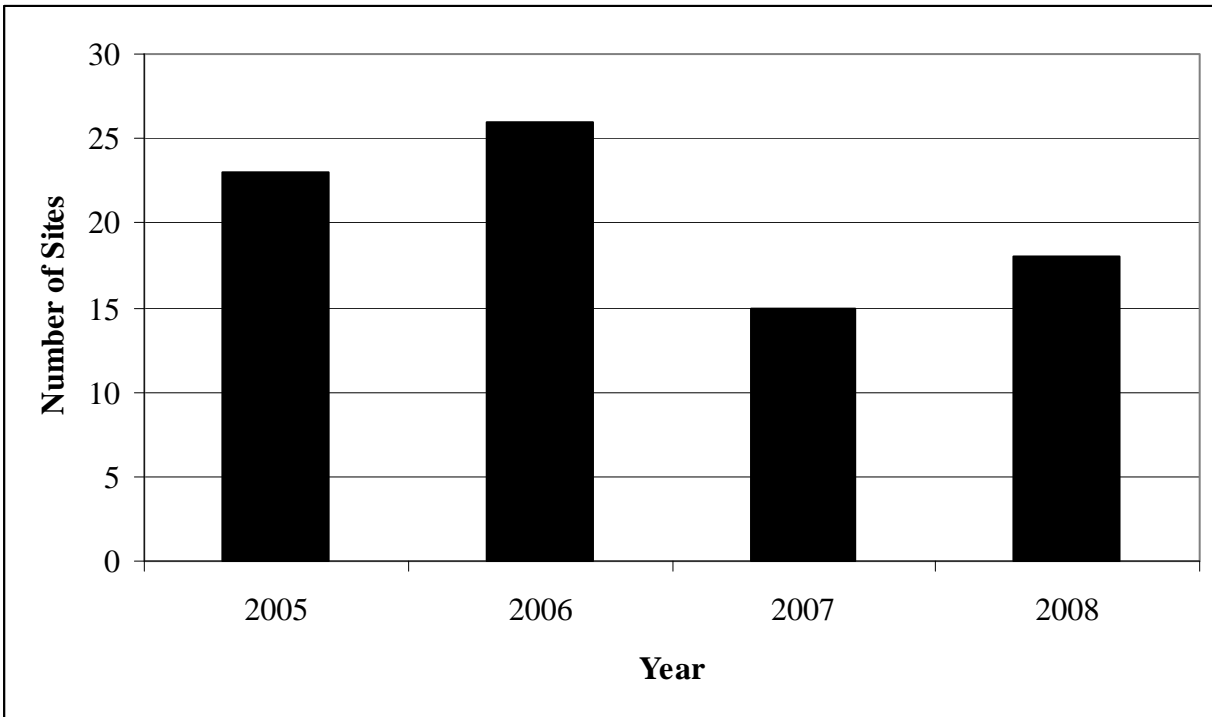
The mission of the 4-H Mentoring: Youth and Families with Promise program is to increase the developmental assets of youth, ages 10-14, and their families. This mission is accomplished by utilizing culturally appropriate, early-intervention strategies such as one-to-one mentoring, involvement in 4-H clubs, and family activities. 4-H Mentoring: Youth and Families with Promise is designed to increase youth's interpersonal competence, improve youth's academic performance, and strengthen family relationships (Dart, 2006: i-1).

The program began operation in 1994 in one county and has been modified and expanded over time. In 2004 YFP formally became a 4-H program. Though the program has been implemented at one time or another in most of Utah's 29 counties, 18 sites were in operation as

of the beginning of September 2008. Table 1 indicates the operating status of the sites in the study in operation at some point from September 2005 to May 2009 and Figure 1 shows the number of sites in operation each year.

*Table 1. Status of YFP Sites (September 2005 - May 2009)*

<b>Site Name</b>	<b>Status</b>
Cache – Community	Open
Cache – Latino	Closed June 2007
Carbon	Open
Davis	Closed July 2007 Reopened March 2008 Closed October 2008
Iron – Community	Open
Iron – CYFAR	Open
Iron – After School	Open
Juab	Closed September 2008
Millard	Closed June 2008
Rich	Closed July 2007 Reopened September 2008
Salt Lake	Closed September 2007
Sevier	Closed July 2007
Tooele	Open
Utah – Nebo	Open
Utah – Park	Open
Utah – Larsen	Merged with Park September 2006
Utah – Timpanogos	Open
Utah – Sharon	Merged with Utah- Aspen June 2007
Utah – Farrer	Merged with Utah- Spring Creek July 2007
Utah – Spring Creek	Open
Utah – Westmore	Open
Utah – Aspen	Open
Utah – Franklin	Open
Utah – Oak Canyon	Opened October 2007 Closed September 2008
Utah – Orem Jr. High	Opened October 2007 Closed September 2008
Utah – Centennial	Opened October 2007 Closed September 2008
Washington	Closed July 2007



*Figure 1. Number of Sites in Operation on September 1 of Each Year*

Day-to-day operations are managed on the site level or county level. However, all sites are required to submit data on program participation to the Utah State University (USU) Extension Office in Logan, Utah. The Extension Office in Logan serves as the program headquarters. It performs a variety of tasks including providing support to sites across the state (e.g., helping with new site implementation, training, and problem solving), developing and maintaining a database tracking youth involvement and program activities, serving as an advocate for the program, analyzing and producing reports on YFP, overseeing county and state YFP spending, and applying for some of the funding received by sites. The program maintains a web site at <http://extension.usu.edu/yfp/>.

Sources of funding for YFP have varied over time. For several years up to 2006, sites received the bulk of their funding through federal government earmarks from various agencies including the Department of Justice. During 2007-2008, sites were responsible for obtaining

their own funding. In 2008-2009, sites had funding from federal, state, and local government, as well as a foundation. Though there are some variations in how sites are organized, each site generally has a part-time site coordinator who is responsible for scheduling and carrying out group activities (4-H and Family Night Out), recruiting youths and mentors, training mentors, and matching youths to mentors. The site coordinator reports to the county Extension 4-H agent.

According to the Program Guide, the YFP program consists of three components: one-to-one mentoring, 4-H activities, and Family Night Out (Dart, 2006). The mentoring component consists of weekly meetings for at least one hour between mentors and youth, at a location of their choice. Mentors are supposed to receive an orientation prior to meeting with the youth, along with a copy of the 4-H YFP Mentor Manual (see Platt, Riggs & Woodbury, 2002). Monthly training sessions are required for all mentors.

Mentors are expected to provide “asset-specific” activities for each visit. The assets being referred to are based on a set of “developmental assets for adolescents” identified by the Search Institute in Minneapolis (see Scales & Leffert, 2004). These assets fall into two broad groups: external and internal. External assets include: support, empowerment, boundaries and expectations, and constructive use of time. Internal assets include: commitment to learning, positive values, social competencies, and positive identity. YFP staff developed a curriculum for mentors called *CONNECT! Learning Activities to Strengthen Assets*, based on the Search Institute’s developmental assets (see Platt, Pappas, Serfustini & Riggs, 1999). The curriculum provides specific instructions for learning activities that mentors can do with youth, along with follow-up discussion questions to help the youth achieve higher level thinking and processing skills (Platt et al., 1999). The curriculum covers eight of the 20 internal assets identified by Search Institute (achievement motivation, school engagement, homework, reading for pleasure,

planning and decision-making, interpersonal competence, resistance skills, and peaceful conflict resolution).

In addition to one-on-one mentoring, mentors are also expected to attend Family Night Out and 4-H activities. Family Night Out (FNO) is designed to provide structured, experiential learning opportunities to help families strengthen family life skills (Dart, 2006). FNO topics include: building trust, family support, kindness, positive family communication, working together/problem solving, and family traditions. These appear to be structured but informal activities; often a meal is served. For example, in one FNO observed by the evaluation team around Halloween, roughly 30 youth, parents and mentors gathered at a local pumpkin patch. After an outdoor dinner of fried chicken (during which the program staff visited with all of the families and youth), the youth walked through a pumpkin patch/maze. After this, each youth received a Halloween “goodie bag.” The FNO lasted for roughly two hours.

The YFP program is part of the state’s 4-H program, and is promoted as the “4-H Mentoring Youth and Families with Promise program” (Dart, 2006). The program considers 4-H club involvement to be an important component of the YFP program, and all mentees are considered to be 4-H members (Dart, 2006). The program might be better thought of as a multi-component program, of which mentoring is one of the components (Higginbotham, Harris, Lee, & Marshall, 2006). YFP youth and mentors are expected to participate in monthly 4-H activities. The activities take place within 4-H “clubs,” which are organized groups of youth with planned programs, often organized around specific projects, conducted throughout the year. Clubs are often community-based, which means that YFP youth may participate in activities with youth who are not in the program, but are part of 4-H. For example, in one of the 4-H clubs observed by the evaluation team, YFP and 4-H youth participated in one of several possible weekly

activities, including karate, dance and Spanish culture. Youth could also get assistance with math, reading, or homework assignments.

### Process Evaluation Methodology

The purpose of the process evaluation is to assess the degree to which the program is implemented and operated as planned. This assessment addresses the following issues: (1) characteristics of the population served (risk factors, protective factors, socio-demographic characteristics); (2) type and dosage of program activities; (3) mentor-mentee relationships; (4) satisfaction with the program; (5) involvement of youths' family members in the program; (6) characteristics of mentors (e.g., type of mentor, sex, race); and (7) issues related to the length of youths' length of stay. This assessment addresses these issues and questions for the program as a whole and considers variation across sites. In addition to allowing us to assess the fidelity of program implementation, these data will be used to determine the ability of the program to be exported to other locations.

### *Data Sources*

Program implementation data are available from six sources: site coordinators' descriptions based on interviews and surveys about how YFP is implemented at their site; mentor surveys; actual reports on implementation submitted by site coordinators that track youth involvement and program implementation; observations of program activities; interviews with youths; and socio-demographic information on program participants from pre-tests. The Program Guide (Dart, 2006) and the Mentor Manual (Platt and Woodbury, 2006) served as the program documentation and were used to develop an understanding of the program design. The analyses address similarities and differences between the program design and program

implementation across all sites using each of the six sources. The program implementation data from each of these six sources are described below.

#### Site Coordinators' Site Descriptions

Since individual site coordinators are given leeway regarding how YFP is implemented at their site, we gathered information from site coordinators via in-person or telephone interviews and/or surveys to obtain their perspective of how YFP operates at their site. Interviews were conducted in February and March 2006, while surveys were collected in the summers of 2007 and 2008. If we conducted an interview and had reason to believe that the site implementation had changed by the time surveys were collected, we asked the site coordinator to complete a survey. We followed up with each site after the initial survey submission to address problems with missing data and other issues that arose (e.g., responses to open-ended questions by some sites prompted us to follow up on responses given by other sites). Data from the site coordinators are available on all of the sites included in the study except Salt Lake City.<sup>3</sup> A copy of the site coordinator survey, entitled "Description of YFP/4-H Mentoring Site" is provided in Appendix A.

#### Mentors' Perspective

To learn about the mentors' experiences with and perceptions of the program, we conducted a web survey of current and recent YFP mentors in 2007 and 2008. Originally we had planned to randomly sample and conduct telephone interviews with a few mentors. However, we decided that a web survey of all mentors would accomplish the original purpose of learning about mentors' experiences and perceptions while allowing us to collect data from a larger

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<sup>3</sup> For the two Cache County sites and Millard, some but not all data are available. Only one youth attended the Salt Lake City site.



number of mentors. Two web surveys were conducted to reflect the data collection time frame used for other parts of the study.

To conduct the web surveys, we requested the email addresses of all YFP mentors from the site coordinators. In 2007 we emailed 148 mentors from 13 of the 23 sites in operation at the time.<sup>4</sup> We sent three email messages in June and July 2007 requesting that mentors click on an attached link to complete an anonymous online survey about their work with YFP. We received a total of 38 mentor surveys from 12 different sites.<sup>5</sup> In 2008 we emailed 181 mentors from all of the sites.<sup>6</sup> Similar to the process used for the 2007 survey, we sent a request to the mentors in March and two follow-up email reminders. For the 2008 survey, we received 47 completed surveys from mentors at 18 sites. Altogether, we received 85 completed mentor surveys. Based on email addresses and other descriptive information from the 2007 and 2008 surveys, it is possible that up to seven people who completed the 2007 survey also completed the 2008 survey. Therefore, we decided to remove these likely seven duplicates from the 2008 survey respondents. A copy of the mentor questionnaire is provided in Appendix A. Seventy-one of the mentors who completed the survey were “young adult” (high school and college age) mentors and 14 were “grand mentors” (older adults).

#### Dosage Data from Sites

Site coordinators are responsible for collecting information on participants’ involvement in the program as well as other information pertaining to the implementation of the program.

Until September 2007, dosage data were reported in a standard format in Microsoft Excel by

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<sup>4</sup> Based on the number of mentors identified in the quarterly reports, we estimate that we received email addresses for 46% of mentors.

<sup>5</sup> We sent 132 emails, had 16 email messages returned to us with a message indicating the recipient did not accept emails from unknown persons, and received 38 responses, resulting in an overall response rate of 28.8%. We do not know how many additional email messages wound up in mentors’ “spam” filters and were thus unread.

<sup>6</sup> Of the 181 emails sent, 23 were returned due to invalid email addresses. We also received one response stating that the individual is no longer a mentor. Overall, we had a 26% response rate.

program staff and mentors and emailed on a quarterly basis to the Utah State University Extension Office in Logan, Utah. In July 2007, the quarterly reports were replaced with a password-protected online log; as of September 2007, all sites began using the online log. Quarterly reports included individual-level information on participation in program activities, mentor matches (names, date of match, and type of mentor) and trainings, reasons for referral to YFP, and dates to track the signing or receipt of various forms for participants and mentors. In addition, quarterly reports included site-level information on the themes of program activities, youth demographics, donations received by the program, and narratives describing the impact of YFP. Notably absent from the quarterly reports was information pertaining to when youths leave the program or when a match with a mentor ends. JRSA contacted program staff to obtain discharge and “unmatch” information.<sup>7</sup> With the exception of reasons for referral to YFP, all the data collected via the quarterly reports are now submitted via the online log. In addition, the online log contains fields for discharge dates, reasons for discharge, unmatch dates, and reasons for unmatch.

Though 450 youths were in the study, program dosage data (on participation in program activities) were available for 401 youths. That is, at least some dosage data are available on 89% of youths admitted<sup>8</sup> to YFP from September 1, 2005 to September 30, 2008. Of the remaining 11% without dosage data, at least some information is available on their program involvement (e.g., admit date, date of home visit by staff). Youths included in this analysis attended one or

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<sup>7</sup> The term “unmatch” is used by YFP to indicate that the relationship between the youth and the mentor has ended. The best way to determine that youths were no longer involved in the program when using the quarterly reports was their “disappearance” from those reports. When a mentor’s name was no longer listed in the table noting the youth’s mentor, this served as an indication that a match had ended. JRSA followed up with program staff, as needed, to obtain actual discharge dates, reasons for discharge, unmatch dates, and reasons for unmatch.

<sup>8</sup> Missing quarterly report data is particularly problematic for three sites: Cache-Community, Cache-Latino, and Iron-CYFAR.

more of 26 YFP sites<sup>9</sup>. A breakdown of the number of youths per site included in the study is provided in Appendix B.

#### Observations of Program Activities

In order to get a sense of how the YFP program works in practice, JRSA staff and contractors visited a number of sites while they were holding Family Night Out (FNO) and 4-H activities. We documented what we observed at these program activities using the Activity Observation Form (see Appendix A for a copy of the form). Overall, we observed 12 program activities, nine FNOs and three 4-H activities, across seven sites from the fall of 2006 to the spring of 2008. Activities observed were selected to correspond with other site visit tasks. Observations were not random, but we did attempt to ensure variation in activity type, location across the state, and time over the course of the study. We did not observe any one-on-one meetings between the youth and mentor as we thought that doing so would be disruptive to the meeting. In lieu of mentor meeting observations, we interviewed youths and surveyed mentors.

#### Youth Interviews

In the fall of 2007, JRSA contractors conducted in-person, semi-structured interviews<sup>10</sup> with youths at 10 YFP sites. Youths from sites in the study residing in close proximity (i.e., within the same county) to where JRSA data collection contractors resided were randomly selected for participation in the interviews. The JRSA contractors were hired by JRSA and were not affiliated with YFP. Of the 24 youths randomly selected, 15 youths agreed to and completed interviews. Though we noted which site youths attended and how long they had been involved

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<sup>9</sup> This count includes the total number of sites attended by youths in the analysis prior to mergers and closures.

<sup>10</sup> All but one were in-person interviews. The remaining interview was conducted over the phone due to scheduling difficulties.

in YFP on the interview forms, we did not use identifying data to link youths to their responses. A copy of the “Program Implementation Assessment for Youth” is available in Appendix A.

#### *Data Limitations*

The data used for the analyses here contain some notable limitations that should be kept in mind when reviewing the results. These limitations, some of which are discussed in other parts of this report, include:

- It was not uncommon for information to be missing from quarterly reports or the online log. Some fields were more likely to be completed than others, and entire reports were missing for some sites. Though we can only base our assessment of “compliance” with program guidelines on the information available, it is possible that discrepancies observed may be the result not of non-compliance, but imprecise recordkeeping and reporting.
- The site coordinators’ descriptions of site operations collected via interviews and questionnaires included those elements perceived by JRSA to be the most critical to understanding variation across sites. It is possible that other cross-site variations in design and implementation exist.
- The distribution of participation in data collection by site coordinators, mentors and youths was likely non-random. For example, it is possible that sites with better reporting were also those sites that implemented the program with greater fidelity. Consequently, the reader should keep in mind that the findings presented here may be affected by non-random variation in participation in data collection.
- The number of interviews conducted and surveys completed for youth and mentors was small. In designing the evaluation, information from mentors and mentees was not

considered a key component of data collection; instead, it was anticipated that this information would contribute to our ability to get a sense of the program and its implementation. In the case of the mentor information, we considerably expanded the scope of the data collection from what was originally proposed when we realized that we might be able to get information from more mentors relatively easily through an online survey. Nevertheless, the information obtained from mentors and youth should be considered with caution, as it did not come from representative samples of either group.

### Program Design

This section describes the design of the YFP program as indicated in the published Program Guide and interviews with program staff.

According to the program documentation, the primary activities of the program for the youths are face-to-face meetings between the youth and mentor, Family Night Out (FNO), and 4-H activities (4-H membership accompanies enrollment in YFP).<sup>11</sup> Program documentation, the Program Guide, describes the purpose and content of each of these primary activities:

- “[M]entoring – Volunteer mentors work directly with youth to build academic and social skills,
- 4-H Activities – Club involvement serves to enhance social competencies through leadership opportunities, community service, and group projects,
- Family Night Out – Group activities [for the youth and their family members] are designed to foster family bonds through experiential learning activities” (Dart, 2006: i-1).

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<sup>11</sup> One site, Iron County-After School, does not do FNO.

Besides in-person meetings with their mentors, youths may maintain other contact with their mentors via telephone, email, or text messaging. Information on these collateral contacts is maintained by YFP, but the focus of the analyses here is on the primary activities of the program for the youths.

The Program Guide (Dart, 2006) provides information regarding the development and implementation of the program, including the program history and research base as well as essential requirements and optional program components/guidelines. Program Standards/Requirements are those elements from which program sites are not supposed to deviate or modify – these are considered to be “the essential elements of a successful 4-H YFP program” (Dart, 2006, p. i-4). Program Guidelines are elements that sites may choose not to implement, although they are recommended. Table 2 details the components of the program from the Program Guide. In general, the guidelines encourage programs to go beyond the Program Standards by having more frequent mentor-youth contacts and offering more program activities. The Manual does not explain how the standards or guidelines were established, nor does it detail the implications of meeting or not meeting the higher level of programming suggested by the guidelines (e.g., mentors meeting with mentees three times a month versus four). When applicable, we indicate where program components meet, or fail to meet, both the standards and the guidelines, but we cannot draw meaningful conclusions about the implications of these data.

Table 2. Program Guide: Program Standards and Guidelines

Type	Program Guidelines	Program Standards (Requirements)
<b>Mentor-Related</b>		
Age Eligibility		<ul style="list-style-type: none"> <li>• High school senior or older for traditional sites (mentoring occurs in the community)</li> <li>• Under age 18 may be mentors at school-based (i.e., site-based) sites (where supervised)</li> </ul>
Screening		<ul style="list-style-type: none"> <li>• Application</li> <li>• Interview</li> <li>• Reference checks (2)</li> <li>• Background check</li> </ul>
Orientation		<ul style="list-style-type: none"> <li>• Orientation prior to matching</li> </ul>
Ongoing Training	<ul style="list-style-type: none"> <li>• Mentor attends monthly training</li> </ul>	<ul style="list-style-type: none"> <li>• Mentor attends minimum 6 topics annually</li> <li>• Site provides 12 trainings annually</li> </ul>
Mentor Support		<ul style="list-style-type: none"> <li>• Site coordinator contact with mentor twice a month; weekly for first 2-3 months</li> <li>• Twice monthly grand mentor meetings</li> </ul>
Young Adult Mentor Matching		<ul style="list-style-type: none"> <li>• Youth matched one-to-one with volunteer mentor</li> <li>• Match made by YFP staff after evaluation of mentor application and youth referral forms <ul style="list-style-type: none"> <li>• As homogenous as possible (race, ethnicity, religion, hobbies, interest, age, availability, language, geographic location)</li> <li>• Youth and mentor receptive to match (interact before and agree to match)</li> <li>• 4-H YFP staff facilitate first mentor-mentee meeting</li> </ul> </li> <li>• Official match facilitated in person by 4-H YFP staff</li> </ul>
Grand Mentor	<ul style="list-style-type: none"> <li>• Older adult mentors for some families</li> </ul>	
Mentoring	<ul style="list-style-type: none"> <li>• Weekly contact</li> </ul>	<ul style="list-style-type: none"> <li>• 3 contacts per month, 4 contact hours per month</li> </ul>

Type	Program Guidelines	Program Standards (Requirements)
<b>Youth Recruitment and Screening</b>		
Eligibility		<ul style="list-style-type: none"> <li>• Youth ages 10-14 (or as requested by funding source)</li> <li>• Referral form</li> <li>• Consent form</li> </ul>
Youth Screening		<ul style="list-style-type: none"> <li>• Determined by review of referral form               <ul style="list-style-type: none"> <li>• Has 1 or more of following issues: below average school performance, poor social skills, weak family bonds</li> </ul> </li> <li>• Home visit               <ul style="list-style-type: none"> <li>• Discuss program components, parents' role</li> <li>• Identify if safe home environment</li> </ul> </li> <li>• Parent and youth agreement for full participation</li> </ul>
Youth Orientation		<ul style="list-style-type: none"> <li>• Youth manual received at home visit</li> </ul>
Parent Orientation		<ul style="list-style-type: none"> <li>• Parent guide at home visit</li> </ul>
<b>Other Activities</b>		
4-H Club Involvement	<ul style="list-style-type: none"> <li>• Program provides monthly 4-H meetings</li> <li>• Youth attends monthly 4-H meetings</li> </ul>	<ul style="list-style-type: none"> <li>• Six hours per year at a 4-H meeting               <ul style="list-style-type: none"> <li>• Recite 4-H Pledges and Pledge of Allegiance</li> <li>• Educational and experiential learning component</li> </ul> </li> <li>• Participate in one community service project per year</li> </ul>
Family Night Out (FNO)	<ul style="list-style-type: none"> <li>• Include light meal</li> <li>• Site holds monthly FNO</li> <li>• Families attend monthly FNO</li> </ul>	<ul style="list-style-type: none"> <li>• Hold 6 FNO activities annually covering the themes (or others):               <ul style="list-style-type: none"> <li>• Building Trust</li> <li>• Family Support</li> <li>• Kindness</li> <li>• Positive Family Communication</li> <li>• Working Together/Problem Solving</li> <li>• Family Traditions/Rituals</li> </ul> </li> <li>• FNOs are structured for experiential learning</li> </ul>



<b>Program Termination</b>		
Termination Reasons	<ul style="list-style-type: none"><li>• Youth ready to graduate from program</li><li>• Mentor unable to meet mentoring demands</li><li>• Youth and family are not engaged and participating in the program</li><li>• Mentor-youth relationship is not healthy</li></ul>	

## Program Implementation

This section describes the findings of the process evaluation of the YFP program. We first describe program activities, comparing descriptions in the Program Guide with descriptions provided by site directors and activities as documented in the quarterly reports and online logs maintained by the program. We then examine mentor training and support, operation of program activities, and perceptions of youth participants regarding program activities. We then look at characteristics of YFP youth, mentors, the mentor-mentee matches, and length of time spent in the program by the YFP youth.

### *Program Activities*

#### Interventions Received by Program Participants

To assess whether program participants received the interventions as designed, we consulted multiple data sources: the Program Guide, Site Descriptions, Quarterly Reports and the Online Log, and the Mentor Survey. The *Program Guide*, produced by the program, provides information on the formal program design. *Site Descriptions* include information on program implementation submitted by program site coordinators to JRSA. The *Mentor Survey* reflects what mentors stated they were supposed to be doing with the program (see Table 3). JRSA collected information from site coordinators and mentors because we learned that sites modified the program, as set out in the Program Guide, to fit their needs. In this report we compare actual program implementation, according to the *Quarterly Reports* and *Online Log* and Mentor Surveys, to what was expected to occur according to the Program Guide and Site Descriptions. Comparisons are also made between the Program Guide and the Site Descriptions to permit understanding of how site coordinators modified the program.

Table 3. Data Sources for Intervention Analyses

Source	Information Provided	Perspective
Program Guide	Formal program design	State YFP Office
Site descriptions	Site-specific variations in program design	Site Coordinators
Mentor survey	Planned mentor activities	Mentors
Quarterly reports and online log	Actual services received by youths	Interventions documented by sites

It is difficult to assess whether youths are participating in program activities as expected because of cross-site variation in activity schedules and because *requirements* for some program activities differ substantially from *guidelines* for program activities (see Table 2) and what the sites themselves claim to provide when asked. The requirements for mentoring require three meetings per month, while the guidelines suggest four. For 4-H, youths are required to attend six hours per year and do one community service project annually, while the guideline is monthly participation in 4-H. Finally, sites are required to hold six FNOs annually, but there are no requirements for attendance; the guidelines request that sites hold FNOs monthly and that families attend monthly. All sites offering FNOs indicated in site descriptions that they offer them monthly during the school year and most indicated that they offer them monthly in the summer. So, the desired number of in-person intervention contacts per youth per month is six (four mentor meetings, one FNO, and one 4-H activity), but the monthly requirement can be estimated to be about four (three mentor meetings, one-half FNO, and one-half 4-H activity).<sup>12</sup>

#### Program Guide v. Site Coordinators' Descriptions

This section compares the formal program design, as specified in the Program Guide, with the site-specific variations in the program design, as reported by the site coordinators. As indicated in Table 4, site coordinators generally reported in site descriptions that they provide the

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<sup>12</sup> This assumes that by participating in six 4-H activities youths will reach the minimum of six hours annually. Data on the amount of time youths spent in 4-H activities were not available for this analysis. However, we had access to data on the dates that youths attended 4-H activities.

primary activities of the program (mentoring, FNO, and 4-H) described in the Program Guide. In addition, most site coordinators reported that non-face-to-face contact and other activities occurred between the mentor and mentee. However, site descriptions indicate that there is a clear distinction in terms of the provision of these primary activities depending on the time of the year. During the school year, Site Descriptions generally concur with the Program Guide: weekly face-to-face mentoring and monthly FNO and 4-H meetings. During the summer months (June through August), only about half the sites reported in site descriptions that weekly mentor meetings continued. In addition, according to site descriptions, the number of sites providing 4-H activities weekly decreased by about 50%, and only about one-third of the sites offered FNOs monthly. Appendix B includes tables detailing, by site, activities occurring during the summer and school year as well as other details about site variations.

Quarterly reports and online log data indicate that many sites provided FNO and 4-H activities during the summers (June through August) of 2006 through 2008 but meetings with mentors essentially stopped during the summer. In the summers of 2006 and 2007, about two-thirds of the active sites provided at least one FNO. In the summer of 2008, fewer active sites provided FNO; in 2008, 50% of active sites provided at least one FNO. Provision of 4-H activities during the summers of 2006 to 2008 followed a similar trend. In the summer of 2006, about two-thirds of the sites active provided at least one 4-H activity. In the summers of 2007 and 2008, fewer active sites provided 4-H. In 2007, 55% of sites provided at least one 4-H activity and in 2008, 44% of active sites provided at least one 4-H activity. We do not know why summer FNO and 4-H activities decreased from 2006 to 2008.

Table 4. Activities Provided by Site to Program Participants

Site	Mentor contact (face-to-face)	Mentor contact (other)	4-H	FNO	Mentor-mentee activity
Cache – Community*	✓		✓	✓	✓
Cache – Latino*	✓		✓	✓	
Carbon	✓	✓	✓	✓	✓
Davis	✓	✓	✓	✓	✓
Iron – Community	✓		✓	✓	✓
Iron – CYFAR	✓		✓	✓	
Iron – After School	✓		✓		✓
Juab	✓	✓	✓	✓	✓
Millard*	✓	✓	✓	✓	
Rich	✓	✓	✓	✓	✓
Sevier	✓	✓	✓	✓	✓
Tooele	✓	✓	✓	✓	✓
Utah – Nebo	✓	✓	✓	✓	
Utah – Park	✓	✓	✓	✓	
Utah – Larsen	✓	✓	✓	✓	
Utah – Timpanogos	✓	✓	✓	✓	✓
Utah – Sharon	✓	✓	✓	✓	✓
Utah – Farrer	✓	✓	✓	✓	✓
Utah – Spring Creek	✓	✓	✓	✓	✓
Utah – Westmore	✓	✓	✓	✓	✓
Utah – Aspen	✓	✓	✓	✓	✓
Utah – Franklin	✓	✓	✓	✓	✓
Utah – Oak Canyon	✓	✓	✓	✓	✓
Utah – Orem	✓	✓	✓	✓	✓
Utah – Centennial	✓	✓	✓	✓	✓
Washington	✓	✓	✓	✓	✓
*Poor or missing data from this site.					

Before youths received any interventions, they and their parents were supposed to meet with the site coordinator at the youths' home to review expectations and receive program paperwork. Quarterly report and online log data indicate that of the 450 youths in the study, 428 (95%) received the initial home visit, 286 (64%) youths received the Youth Manual, and 278 (62%) parents received the Parent Guide.

Program Guide and Site Descriptions vs. Quarterly Reports and Online Log

This section compares the program design, as reported in the Program Guide and site coordinators' descriptions, to the actual services received by youth, as reported in the quarterly reports and online logs. As a first step, the quarterly report and online log data were analyzed to identify intervention dosage received per youth. Unless otherwise specified, the YFP admit date (i.e., home visit) was used as the program start date.<sup>13</sup> Youths received an average of 2.35 in-person intervention contacts (meeting with mentor, participating in 4-H, and attending FNO) per month, or just over half the monthly requirement. Overall, based on admit date, mentors met in person with their mentees an average of 1.3 times per month. When the lag from the YFP admit date to the actual first match date is accounted for, youths met in person with their mentor(s) an average of 1.43 times per month. As expected from interviews and surveys with site coordinators, youths met with their mentors more frequently during the school year than the summer; on average, youths met with mentors .18 times per month during the summer and 1.3 times per month during the school year.

The average number of mentor meetings decreased substantially from the 2006-2007 school year to the 2007-2008 school year. The average number of mentor meetings per month from September 2006 to May 2007 was 1.89, while from September 2007 to May 2008 it was .56. This decrease in the average number of mentor meetings over time corresponds with an increase in the number of youths who had no meetings with a mentor during the school year. In the 2006-2007 school year, 11% (or 29 youths) did not meet with a mentor, but in the 2007-2008 school year, 48% (or 96 youths) did not meet with a mentor during the school year. When the youths who did not meet with a mentor are removed from analysis, the average number of

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<sup>13</sup> This includes all youths in the study and is based on the time that youths were admitted to YFP until they were discharged or until September 2008, the latest date for which data were available for this analysis.

monthly mentor meetings during the school year increases substantially; in the 2006-2007 school year, the average number of monthly mentor meetings was 2.27, and in the 2007-2008 school year, the average number of monthly mentor meetings was 1.11.

Considering the actual first match date, there was variation in the overall average number of monthly meetings between mentors and mentees by site, from a low of less than one to a high of 4.5. During the school year, some sites averaged well above the expected number of meetings, while others fell well below expectations (see Table 5). Table B4 in Appendix B breaks out the average number of monthly in-person meetings with the mentor by site.

*Table 5. Average Number of In-Person Meetings with Mentor per Month*

<b>Average Number of Mentor Meetings per Month</b>	<b>Number of Sites (School Year)</b>	<b>Number of Sites (Summer)</b>
Less than 1	14	22
1.1 to 2	4	0
2.1 to 4	3	0
4.1 to 5	1	0

About one-third (n=8) of the sites are site-based or school-based, meaning that mentoring activities are provided at the school and organized by site coordinators; just under half are community-based (n=12), meaning the mentors meet with mentees in any location; and the remaining are a combination of school- and community-based (n=6).<sup>14</sup> Since site coordinators are responsible for organizing mentor meetings when activities are school-based and because these meetings take place at generally the same time each week, we expected that youths attending these sites would have a higher average number of meetings with their mentor.<sup>15</sup> This did not turn out to be the case (see Table 6). However, youths attending sites that were a

<sup>14</sup> We do not have information about the mentoring type for the Salt Lake City site.

<sup>15</sup> Not all school-based sites discontinued mentor meetings in the summer. See Tables A3 and A6 in Appendix A.

combination of both school- and community-based had a higher number of average monthly mentor meetings during the summer than sites that were exclusively school- or community-based. There was no significant variation in the average number of monthly mentor meetings during the school year for any particular type of site, although combination sites also had a higher average number of monthly meetings than other kinds of sites.

*Table 6. Average Number of Monthly Mentor Meetings in Summer and School Year*

<b>Location of mentoring</b>		<b>Average number of monthly mentor meetings in summer*</b>	<b>Average number of monthly mentor meetings during school year</b>
Community-based	Mean	.14	1.12
	N	111	107
	Std. Dev.	.21	.97
	Median	.00	.98
School-based	Mean	.163	1.31
	N	137	135
	Std. Dev.	.26	3.57
	Median	.00	.59
Combination of school- and community-based	Mean	.24	1.42
	N	124	123
	Std. Dev.	.36	1.79
	Median	.00	.95
Total	Mean	.18	1.29
	N	372	365
	Std. Dev.	.29	2.46
	Median	.00	.79
* <i>p</i> < .05			

The number of FNOs and 4-H activities youths attend is dependent on how frequently the site actually offers these activities as well as how often the youths attend the activities offered. So, prior to examining individual-level attendance at these two activities, it was important to consider to what extent participants’ ability to attend was affected by how frequently the sites offered these activities. Using the quarterly report and online log data supplied by sites, we



found that over the course of 37 months (September 2005 to September 2008), 92% of sites offered the *required* number of FNOs, six per year, while only 12% (3 of the 26<sup>16</sup> sites) provided FNOs at least once a month, the *desired* frequency of FNOs.<sup>17</sup> There were only 2 of 26 sites offering FNOs that did not meet this requirement. On average, sites offered about nine FNOs a year. With regard to 4-H activities, 16 of 27 sites, 59%, provided at least twice the number of required 4-H activities during this time and 20 of 27 sites, 74%, provided at least the required number of 4-H activities. Further, sites offered more 4-H than FNO activities per month; on average, sites offered 47.5 4-H activities and 21.8 FNOs over the course of 37 months. This indicates that, on average, sites provided more 4-H activities than FNOs, and, on average, sites met or exceeded the requirements, but not the guidelines, for 4-H and FNO activities.<sup>18</sup>

The number of interventions received by youths was further examined by identifying what proportion of youths actually received the expected number of FNOs (six per year) and 4-H meetings (approximately six per year) based on their time in the program (e.g., a youth enrolled in YFP for six months should have attended three FNOs and three 4-H activities). It appears that not only are youths attending 4-H activities with greater frequency than FNO activities (see Tables 7 and 8), but about 43% of youth are attending one half or fewer of the FNOs than they are expected to attend and almost half (47%) are attending more 4-H activities than expected.

The final data source used to assess whether the program activities were provided as planned was the mentor survey. We asked mentors an open-ended question about their

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<sup>16</sup> Again, there is one site that does not offer FNOs.

<sup>17</sup> If sites were not active for the duration of this time, the desired and expected frequency of activities was adjusted to account for the time they were active.

<sup>18</sup> These calculations are based on an assumption of what sites are required to provide according to program documentation. As discussed previously, some site coordinators indicated that FNO and 4-H occur with less frequency or not at all during the summer.

*Table 7. Actual Vs. Expected FNO Attendance Based on Months in Program*

<b>Percent of FNOs Actually Attended Compared to Expected Attendance</b>	<b>Frequency</b>	<b>Percent of Cases</b>
None	50	14%
1-20%	21	6%
21-50%	79	24%
51-74%	55	16%
75-100%	58	17%
101-150% %	54	15%
Over 150%	29	8%
Total	350	

*Table 8. Actual Vs. Expected 4-H Activity Attendance Based on Months in Program*

<b>Percent of 4-H Activities Actually Attended Compared to Expected Attendance</b>	<b>Frequency</b>	<b>Percent of Cases</b>
None	31	9%
1-20%	8	2%
21-50%	48	14%
51-74%	27	8%
75-100%	52	15%
101-150%	43	12%
151-200%	29	8%
Over 200%	109	32%
Total	350	

responsibilities as a mentor. Helping with school/homework was the most frequently cited responsibility (41%, 28 of 69 respondents to this question). Other responsibilities frequently mentioned were spending a set period of time per week or month with their mentee (29%), being someone to talk to/ listen/ help (30%), being a role model/ example (25%), arranging activities for the youth and mentor to do (23%), being a friend (16%), participating in FNO and/or 4-H (11%), and encouraging/setting goals (11%). The only stated responsibilities for mentors listed in the Program Guide include meeting with mentees three times per month and attending trainings. The Mentor Manual and informal conversations with program staff indicate other responsibilities for mentors, including monthly attendance at FNO and 4-H as well as completing monthly reports of their involvement in the program. A number of the stated responsibilities fit

with the Mentor Manual explanation of what the relationship between the mentor and youth is supposed to be; this includes, for example, friend, listener, tutor, and role model.

When asked about how often they meet face-to-face with their mentee(s), most mentors reported meeting with their mentees weekly (65%; see Table 9). We did not observe any significant variation in meeting frequency between young adult mentors (high school and college age) and grand mentors (older adults). Again, mentors are required to meet with mentees three times per month, but guidelines suggest that they meet weekly. Though the quarterly report and online log data indicate that on average mentors met with mentees less frequently than required, it appears from the mentor survey that the majority of respondents met with mentees as required.

*Table 9. Mentor-Reported Frequency of Meetings Between Mentor and Mentee*

<b>Frequency</b>	<b>Number</b>	<b>Percent</b>
Weekly	51	65%
No set schedule	10	13%
Monthly	9	12%
Other (please specify)	4	5%
Twice a month	2	3%
Quarterly	1	1%
Daily	1	1%
Number of respondents	78	

The only source of data available on what mentors and mentees actually do together is the mentor survey. Responses suggest that activities frequently center on those that are scheduled by YFP as well as on the interests and hobbies of the mentee (see Table 10). Further, most (61% of 78 respondents) mentors reported that activities are a mutual decision of the mentor and mentee. Mentors responding to the survey appear to be engaging in activities with their mentees as suggested in the Mentor Manual.

*Table 10. Mentor Reported Activities with Mentees*

<b>Activity Type</b>	<b>Number</b>	<b>Percent</b>
Activities scheduled by YFP	54	69%
Hobbies/recreational interests of the mentee	52	66%
Talk about issues mentee would like to discuss	40	51%
Homework/schoolwork	40	51%
Talk about issues I (mentor) would like to discuss	27	35%
Other (please specify)	3	4%
Total number of responses	213	
Number of respondents	78	

In summary, site coordinators and mentors generally agreed with the Program Guide regarding the types of interventions they were supposed to provide to program participants and the frequency with which these interventions were supposed to be provided. However, the Program Guide does not reference variation in the provision of program activities during the summer that appeared to occur at many sites. Further, there were discrepancies between the site coordinators' descriptions of the frequencies of interventions provided by their sites and the number of interventions actually received by youths as indicated in the quarterly reports. Generally, sites offered many more FNOs and 4-H activities than required.

Youths appear to have received fewer interventions than expected according to the Program Guide, particularly when it comes to mentor meetings. On average, youths met with their mentors 43% of the time they were supposed to meet (about 1.3 times per month), and 69% of the time they were supposed to attend FNO (about 4 within a year). Some of this was due to the decrease in the provision of mentoring during the summer months and some sites did not offer 4-H and FNO during the summer. Notably, the average number of monthly mentor meetings decreased from almost two per month in the 2006-2007 school year to just over one-half per month for the 2007-2008 school year. Though the Program Guide does not indicate a reduction in activities during the summer, only 12 sites indicated that they offered weekly

mentor meetings during the summer. Even the sites indicating on site description forms that they offered summer mentor meetings did not have substantially more mentor meetings during the summer. Based on the average number of monthly meetings between mentors and mentees, it appeared that provision of 4-H is the activity that conformed most closely to program design (on average, youths attended 89% of the time that they were supposed to, or just over five activities a year). One reason that this might have occurred is that, on average, sites offered far more 4-H activities than is required. Likely reasons for receipt of fewer FNO and mentor meetings than expected are: 1) youths and/or parents were skipping scheduled activities and meetings with mentors; and 2) mentors were not meeting obligations to schedule meetings with mentees as expected.

#### Mentor Training and Support

This section compares information on mentor training and support as provided in the Program Guide, the site coordinators' descriptions, and the mentors' survey responses. As required in the Program Guide, site coordinators (96%) generally reported providing mentor training. As with the primary program activities, the site descriptions also show a seasonal shift in the provision of mentor training, with a number of sites providing training less frequently or not at all during the summer (see Figure 2).

Before mentors are matched with youth they are supposed to receive an in-person training by the site coordinator that focuses on how to be a mentor and responsibilities specific to being a mentor for YFP. Training for mentors is supposed to continue regularly after the orientation training. The Program Guide indicates that mentors are supposed to attend at least six of 12 site-sponsored ongoing trainings annually. We found variation in receipt of training depending on the data source, particularly when it came to the orientation training.

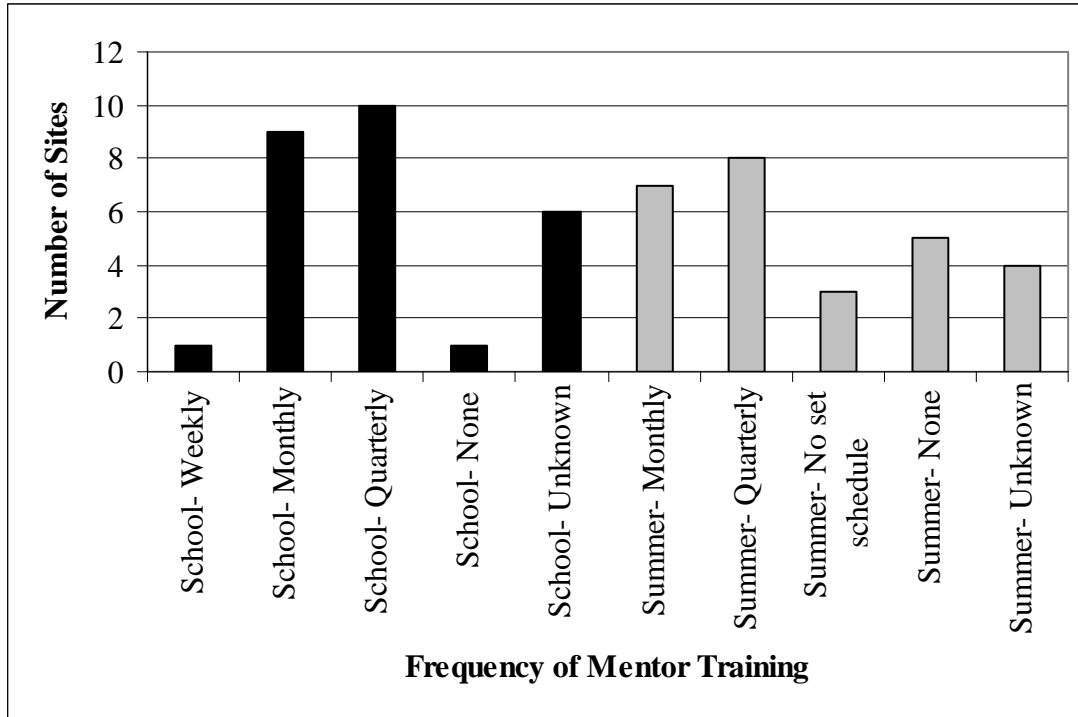


Figure 2. Number of Sites Providing Mentoring Training in the School Year and Summer

Mentors were asked about the receipt of an orientation as a part of the mentor survey. Of only 19 mentors who responded to the question, all but two received orientation training. The low response rate to this question is a concern, but we do not know why this occurred. When asked about receiving ongoing training for being a mentor, 84% (of 69 respondents to this question) of mentors reported receiving such training. In a separate question related to training, 37% (of 70 respondents to this question) of mentors reported receiving ongoing training on no set schedule, 23% reported ongoing training monthly, 14% reported ongoing training quarterly, and 4% said they received ongoing training more than once a month. Further, 13% reported that they never receive training. Some mentors offered additional comments about their training experience: one mentor reported that she received a book as the sum total of her training, another claimed that she never received any training, and a third said that she was trained annually.

According to quarterly reports and the online log, of the 470 mentors in the analysis, 83% received orientation training and 63% received the orientation manual. Only 60% of mentors received both the orientation and the manual. With regard to training in general (both orientation and ongoing training), 37% received about what they should have received given that mentors are supposed to receive six trainings annually. There is variation by site when it comes to training received by mentors (see Table 11). Over 50% of mentors at four sites (Carbon, Rich, Utah County- Park, and Utah County-Timpanogos) received the expected number of ongoing mentor trainings. At four sites no mentors received ongoing training.

*Table 11. Percent of Mentors Receiving Expected Number of Ongoing Trainings*

Percent of Mentors	Number of Sites
0%	4
1-25%	4
26-50%	6
51-75%	3
76-100%	1

The Program Guide states that site coordinators are supposed to contact mentors to provide support. For the first two to three months of a mentor’s involvement, mentor support is a weekly requirement. On average, mentors received 1.96 contacts per month (or .45 per week) from the site coordinator within their first three months of involvement—less than one-half of what they should have received.<sup>19</sup> Again, there is variation by site in terms of the amount of early contact received (see Table 12). Further, for 41% of mentors there are no reported early contacts from the site coordinator. After two to three months, the site coordinators are supposed to contact mentors twice a month to provide support. After the first three months as a mentor,

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<sup>19</sup> This calculation was adjusted to account for mentors involved for less than three months.

though there is site by site variation, mentors received an average of two contacts per month, slightly more than the average number of early contacts received by mentors (see Table 13).

*Table 12. Average Number of Monthly Site Coordinator Early Contacts*

<b>Average Number of Monthly Early Contacts</b>	<b>Number of Sites</b>
Fewer than .5	4
.51 to 1	1
1.1 to 1.5	5
1.6 to 2	4
2.1 to 3	2
3.1 to 6	5

*Table 13. Average Number of Monthly Site Coordinator Contacts After First Three Months*

<b>Average Number of Monthly Contacts</b>	<b>Number of Sites</b>
Fewer than .5	2
.51 to 1	7
1.1 to 1.5	2
1.6 to 2	6
2.1 to 3	2
3.1 to 6	4

### *Delivery of Program Activities*

This section compares how program activities were actually carried out, comparing descriptions found in the Program Guide and from site coordinators with actual observations made by the evaluation team. Observation of program activities provided an opportunity to see how 4-H and FNO actually operated in practice. For each activity we were interested in learning what occurred, who attended, the timing, location, and purpose. We observed nine FNOs and three 4-H activities. Activities were held in a recreational location such as a pool (n=5), a school (n=4), or some other location (n=3). At least some mentors were typically present at activities. Though attendance of enrolled youths varied from 5% to 100% across the activities we attended, typically 50% of enrolled youths attended the activities.



Three of the FNOs we observed used one of the “themes” developed by YFP as the focus for program activities. When observation data were cross-checked with online log data, we noted that six of the nine FNOs had one of the stated themes. Many FNO activities were, on the face of it, recreational activities such as ice skating, swimming, and a visit to a Halloween display, but fit with descriptions of FNO themes including Family Support and Family Traditions/Rituals. For these FNOs, the activities were loosely structured, permitting families, mentors, and YFP staff to interact as desired and themes were not explicitly discussed. Some FNOs were more structured and explicitly focused on issues such as learning how to work together as a family. Site coordinators were responsible for planning and running FNO activities. Two or more YFP staff were typically present at FNOs. Siblings and parents usually attended FNOs along with the enrolled youths. A meal was served at every FNO. Two of the FNOs we observed were held in conjunction with other YFP sites. FNOs were generally held in the early evening and lasted an average of 1.75 hours. FNOs that we observed appeared to operate as expected.

At two of the three 4-H activities, all the youths worked together under the guidance of program staff on one project or activity. At the remaining 4-H activity, which included many youths not involved in YFP, youths were able to choose from a wide variety of activities (e.g., karate, dance, Spanish culture, math/reading) run by volunteers from the community. A snack was served at every 4-H activity. 4-H activities were typically held after school and lasted 1.5 to 2 hours. 4-H activities that we observed appeared to operate as expected.

#### *Youth Perceptions of Program Activities*

This section provides another perspective on YFP program activities – that of the youths involved in the program. We did not intend to conduct a comprehensive assessment of youths

involved in YFP, but rather wanted to get an overview from a few youth of their perceptions of the program. The information in this section should therefore be interpreted with caution, since it is based on a small, non-representative sample of YFP program youth.

In the fall of 2007, we conducted 15 interviews<sup>20</sup> with youths at 10 different YFP sites. Two of the 15 youths were no longer involved in the program. Youths had been involved with the program from three weeks to three years; 10 had been involved for over one year. Most, even those involved in the program for at least a year, expected to be involved in the program either “as long as [I] can” or at least another year. About 75% of youths still enrolled in the program currently had mentors. Most of those with mentors had been matched with their mentor for about a month. All of the youths have or had young adult mentors. Youths found out about YFP through school (n=9), their mother (n=5), or a sibling or friend already enrolled (n=3).

Sport activities, Family Night Out, going to movies, and games were the most commonly reported program activities (see Table 14). All youths reported multiple activities. None of the youths reported 4-H as a program activity.

*Table 14. YFP Activities Reported by Youths*

<b>Activity</b>	<b>Number of times reported</b>
Sports	10
Family Night Out	7
Movies	5
Games/playing	4
Homework/ reading and math	2
Arts and crafts	2
Dancing	2
Cooking and baking	2
Going to an amusement park	2
Other	9

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<sup>20</sup> All but one were in-person interviews. The remaining interview was conducted over the phone.

Sport activities were also the most common activity that youths indicated they engaged in with their mentor. Participation in program activities ranged from three times a week to once a month. When asked specifically about how often they met with their mentor, the most common response was once a week.

Most youths reported that family members, particularly siblings, were involved in the program. In fact, about 40% had siblings enrolled in the program.

About half (n=4) of the youths responding to the question “what do you think YFP is supposed to help you with?” indicated that YFP is supposed to help them with schoolwork. When asked how their mentor helps them, schoolwork (n=6) followed by being a positive influence (n=2) were the most common responses provided by youths. Only one youth reported that his/her mentor did not help him/her. Though a number of youths did not respond, the responses provided generally fit with the discussion in the Program Guide regarding how YFP is supposed help youths.

*Table 15. Youth Perceptions of Types of Help Provided by YFP*

<b>Type of Help</b>	<b>Number of times reported</b>
School/homework	4
Other	4
Have fun/entertainment	2
Don't know	2
No response	6

Most youths reported that they liked YFP or that it was “good” (93%) and that they liked their mentor (80%). A few youths also indicated that they felt the program helped them, was fun, and gave them things to do. Youths reported that they liked their mentor because he/she was fun, nice, helped them or was similar to them. When asked to describe their relationship

with their mentor, most reported that they felt comfortable with their mentor and just over one-third indicated that they felt safe with their mentor.

Youths did not have much to say about why or how they were matched to their mentor. Though a couple of youths said that they picked their mentor, most said that the site coordinator picked their mentor. A couple of youths indicated that they filled out a form which was used to match them with their mentor.

When asked what they would do if the youths did not get along with their mentor, several said they would speak to the site coordinator. One youth said that he/she would stop attending the program and another said he/she would talk to the mentor if they did not get along.

Two-thirds of the youths said that they had seen changes in themselves since being in the program. Changes included better grades, better behavior, having more friends or being able to make friends more easily, and having more confidence. Though none of these reported changes related to the objective regarding family bonds, they do fit with other program objectives.

### Program Participants

This section describes the YFP program participants in terms of their socio-demographic characteristics and sources of, and reasons for, referral to the program.

#### *Socio-demographic Description<sup>21</sup>*

A variety of socio-demographic information is available on youths. Some socio-demographic elements are used to target youths for the program as a whole or for particular sites.

The most common living arrangement for youths was with both parents (56%); 22% lived with

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<sup>21</sup> Since the quarterly reports do not provide individual-level socio-demographic information on participants, we decided to collect socio-demographic information on the pre-test, and for some elements, the post-test. With the implementation of the online log, socio-demographic information was available from the sites. So, beginning in the fall of 2007, multiple sources of socio-demographic information were available. These online log data were compared to the pre-test data to determine whether responses differed by source or to fill in data when they were missing from the pre-test. When data conflicted across sources, we tried to identify the correct response.

one parent. However, this varied by site, with some sites having few, if any, youths living with both parents and other sites having almost all youths living with both parents. At the Davis and Carbon sites, a majority of youths lived with one parent, while the Utah-Timpanogos, Iron County, Rich County, Millard, and Utah-Aspen, and Utah-Spring Creek sites were dominated by youths coming from households with both parents. Living arrangement information was missing for 31% of cases—primarily for cases from the 2005 cohort.

Program documentation indicates that the age range for program youths is 10-14 years. Youths are supposed to be discharged from the program once they reach their 15th birthday. The average age of youths at the time they entered the program was a bit over 10 years (10.4) according to pre-test data. Approximately 31% of youths were less than age 10 at admittance. In three sites (Cache -Latino and the Iron -CYFAR site) the average age at admittance was 12 years or older. At two sites (Rich and Iron -After School) youths had an average age of about nine years at admittance. A few youths were 14 years old at the time of admittance to the program, but none had reached their 15<sup>th</sup> birthday.

YFP youths were typically non-Hispanic whites (64%). As expected, the Cache-Latino site had 100% Hispanic youths. Also, the community-based site in Iron County had 55% of youths who reported being Hispanic and the Utah County-Timpanogos site had 100% of youths who reported being Hispanic.

So, in terms of youth-reported socio-demographics, there was some expected variation by site. Some sites reported targeting youths living with single/divorced parents and/or Hispanic youths. This variation was borne out when pre-test data were examined. Most sites seemed to serve youths who are a little older than the minimum targeted age when they begin the program, but some sites serve youths younger than the minimum targeted age.

*Referrals to YFP*

Schools and parents were by far the most frequent sources of referrals according to both the site descriptions and quarterly reports (see Tables 16 and 17 below). Sources of referral are available in 74% of cases contained in the quarterly reports and online log. Program documentation does not provide guidance or recommendations regarding sources of recruitment.

*Table 16. Sources for Recruiting Youths by Site*

<b>Site</b>	<b>School</b>	<b>Parents</b>	<b>Other</b>
Cache – Community*	✓		✓
Cache – Latino*	✓		
Carbon	✓	✓	
Davis	✓	✓	✓
Iron – Community	✓		
Iron – CYFAR	✓	✓	✓
Iron – After School	✓	✓	
Juab	✓	✓	
Millard*			
Rich	✓	✓	
Sevier	✓		✓
Tooele	✓	✓	
Utah – Nebo	✓	✓	
Utah –Park	✓	✓	
Utah – Larsen	✓	✓	
Utah – Timpanogos	✓	✓	✓
Utah – Sharon	✓	✓	✓
Utah – Farrer	✓		
Utah – Spring Creek	✓		
Utah – Westmore	✓	✓	
Utah – Aspen	✓	✓	✓
Utah – Franklin	✓	✓	
Utah – Centennial	✓		
Utah – Orem Jr. High	✓	✓	
Utah – Oak Canyon	✓	✓	
Washington	✓	✓	
*Poor or missing data from this site.			

*Table 17. Sources of Referral*

<b>Referral Source</b>	<b>Frequency</b>	<b>Percent</b>
School	162	49%
Family - parent	124	37%
Community center	17	5%
Family - non-parent	7	2%
Self	7	2%
Family - YFP	4	1%
Friend	4	1%
Department of Children and Family Services (DCFS)	3	1%
Social service agency	2	0.6%
Youth services	2	0.6%
Total	332	
Missing	118	

Site coordinators offered a wide variety of characteristics/issues of the youths they target (see Figure 3). Among the most common of these characteristics are: youths ages 10-14, those who struggle with academics, and those who struggle with social issues (e.g., making friends). These characteristics were among the youth screening issues provided in the Program Guide.<sup>22</sup> Beyond these characteristics, there is variation across sites regarding the youth characteristics targeted, as reported by site coordinators. A table with characteristics specific to each site is in Appendix B.

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<sup>22</sup> While we would have liked to have verified that targeted characteristics of youth, as well as the reported criteria used to screen out youth, were in fact reflected in the makeup of YFP youth, comparing reported to actual characteristics of youth would have required detailed data from each YFP site that were not feasible to collect.

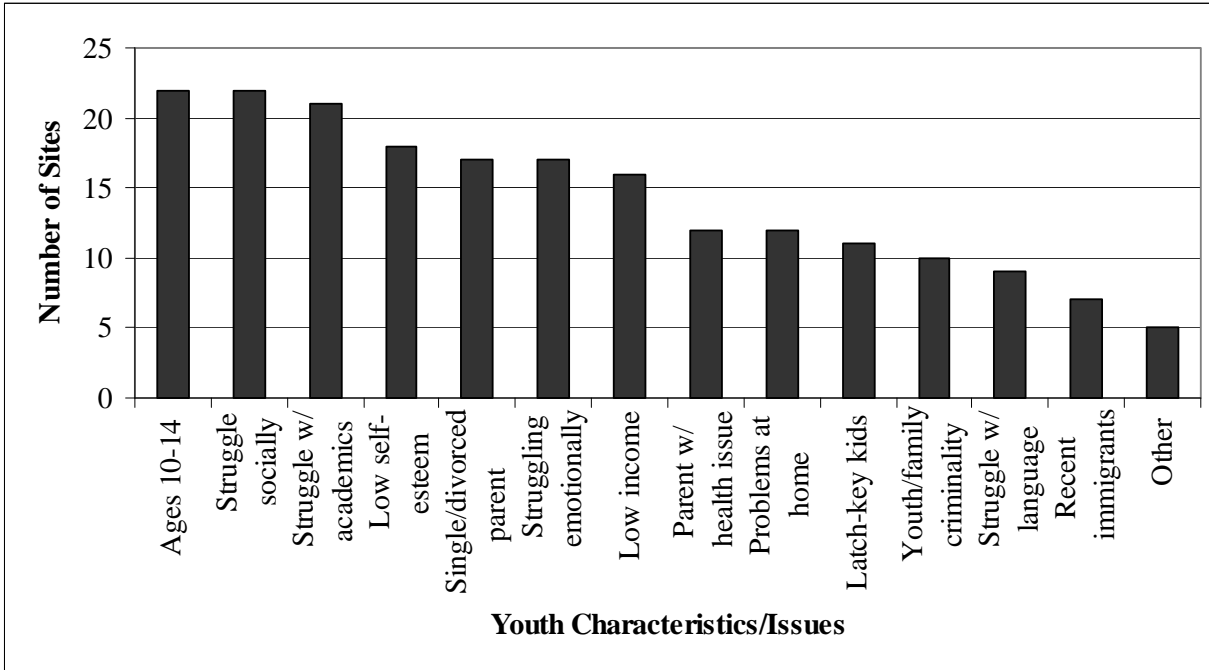


Figure 3. Youth Characteristics/Issues Targeted by Sites

Beyond screening out youths and parents who do not agree to participate fully in the program, the Program Guide does not list any other criteria that would make a youth inappropriate for the program. However, when site coordinators were asked this question, they identified several criteria (see Figure 4). About three-fourths of the site coordinators indicated that if youths puts other youths at risk, they will be screened out of the program. Being adjudicated delinquent, having serious behavior problems, or having drug problems are the next most common reasons why a youth would be screened out of YFP, according to the site coordinators. Approximately 45% of site coordinators indicated that youths and parents who do not agree to participate fully in the program will be screened out. A table with characteristics specific to each site can be found in Appendix B.



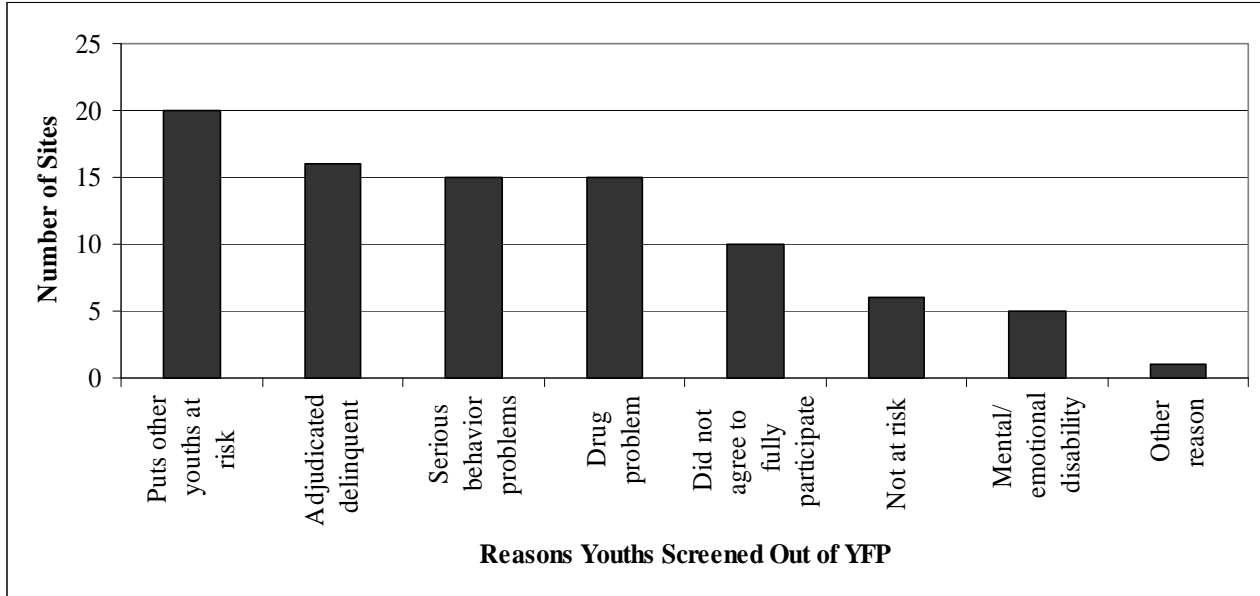


Figure 4. Reasons for Screening Youths Out of YFP

Reasons for referral are available for 69% of cases. Program staff indicated to JRSA that they typically do not record reasons for referral when a youth is referred by the parent. Unless the cases missing source of referral are dominated by parent referrals, the data do not indicate that this has occurred. In almost all cases when a youth was referred by a parent, reasons for referral were available (97%) (see Table 18). However, a problem with missing reasons does appear to exist when referrals are made by community centers. In 16 of 17 cases, no reasons for referral are available from community center referrals.

Reasons for referral to the program may be reported by the agency/person making the referral or the site coordinator. The most common reasons for referral to YFP as reported in quarterly reports or by direct request from JRSA to site coordinators<sup>23</sup> are: a need to feel more socially accepted (69%), inadequate academic or academic-related skills (64%), and absent or

<sup>23</sup> When YFP switched from quarterly reporting to the online log, it stopped collecting this information.

*Table 18. Source of Referral by Availability of Reason for Referral*

Referral Source	Reason for Referral Available		Total
	Number of Cases	Percent of Cases	
Family - parent	121	97%	124
School	155	91%	162
Community center	1	6%	17
Self	7	100%	7
Family - YFP	4	100%	4
Friend	4	100%	4
Department of Children and Family Services	3	100%	3
Family - non-parent	6	86%	7
Social service agency	2	100%	2
Youth services	2	100%	2
Total	305	88%	332

poor social skills (58%)<sup>24</sup> (see Figure 5, below). However, there is variation across sites in terms of the reasons for referral (See Table B8 in Appendix B). In Juab County, youths were more likely to be referred for being a first-time offender (30%). At the Utah County-Nebo site, youths were less likely to be referred for needing peer social acceptance (46%). At the Utah County-Aspen site, youths were less likely to be referred for inadequate academic skills (29%). Finally, in Davis County, all youths were referred for needing more support at home, school, church etc.; having suffered an emotional or physical loss; and for other community-specific reasons.

Generally speaking, reasons for referral correspond to the youth characteristics that site coordinators reported they targeted, including youth struggling with social or academic issues.

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<sup>24</sup> Caution is urged in reviewing this variable due to the proportion of cases (33%) for which these data are missing.

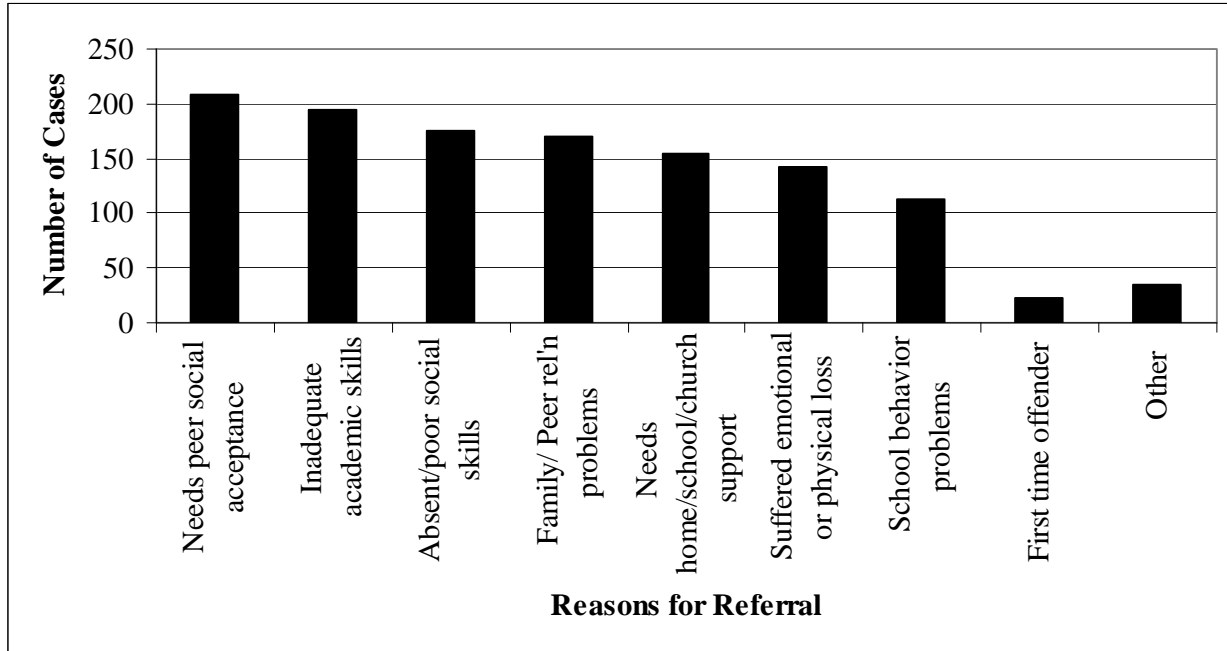
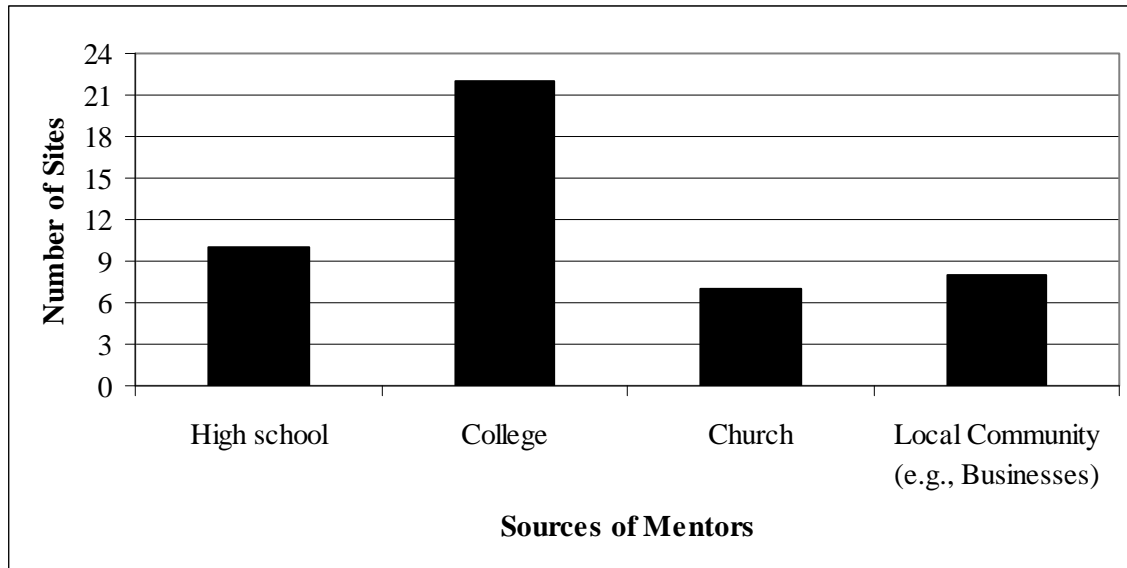


Figure 5. Reasons for Youth Referrals to YFP

Mentor Characteristics

In terms of the types of mentors, all site coordinators reported using Young Adult (high school and college) mentors. Almost all mentors included in the quarterly reports and online log were young adults (450, or 97%). Unlike what would be expected from the Program Guide, not all of the high school-age mentors provide mentoring at site- or school-based programs (see Table B6 in Appendix B). The use of colleges for recruiting mentors coincides with the location of the site near a college. Twenty-two sites reported using colleges as a source of mentors (see Figure 6, below). Six sites reported using grand mentors; however, grand mentors were not available for all youths at those sites. In fact, of all the mentors, only eight were grand mentors. (Grand Mentors are older adult mentors that are typically used in addition to Young Adult mentors.) It is our understanding that grand mentors work with the parents as well as the youths.

It is notable that at one site, Juab, youths are reportedly matched with multiple mentors at the same time.



*Figure 6. Mentor Recruiting Locations*

There was variation in how mentors learned about YFP. The most common way mentors learned about YFP was at school through mechanisms such as a school-sponsored activity fair, an announcement, or the school placement office (38%); another 27% learned about the YFP program through friends. Mentors also learned about the YFP program through church announcements, community notices, the Internet, or some other fashion.

#### Mentor-Mentee Matches

Ideally, youths agree to participate in YFP, begin participating in program activities (FNO and 4-H), and are matched with a mentor after they have had an opportunity to interact with possible mentors at program activities. There is no set time specified or recommended by the Program Guide for matching youths to a mentor after they agree to participate. However, discussions with program staff provide some indication of how this process works. Staff told us that the factor that most strongly influences the amount of time it takes to make a match is the

availability of a mentor for the youth and that ideally a match would take place within a month or so of when the youth starts YFP. When quarterly report and online log data were analyzed, the average length of time from the home visit to being matched with a mentor was about 36 days, but there was wide variation in this time (see Table 19). For 30 youths the initial match occurred more than six months after the initial home visit, and for 89 youths the match occurred prior to the home visit.

*Table 19. Time From Home Visit to Initial Mentor Match*

<b>Length of Time</b>	<b>Frequency</b>	<b>Percent</b>
Prior to home visit	89	26%
Same day as home visit	46	13%
Within 2 weeks of home visit	35	10%
Between 2 weeks and 1 month of home visit	50	14%
Between 1 to 2 months of home visit	58	17%
Between 2 to 3 months of home visit	16	5%
Between 3 to 6 months of home visit	22	6%
Greater than 6 months after home visit	30	9%
Total	346	

According to the Mentor Manual, mentors are asked to meet with mentees for approximately one year. Data from the quarterly reports and online log showed that there were 470 mentors for the 401 youths included in the analyses.<sup>25</sup> For the 401 youths, there were 479 matches between mentors and youths.<sup>26</sup> There were 52 youths (13%) who were in the YFP program (as evidenced by their ongoing participation in other program activities) who appear to have never been matched with a mentor. There were 101 youths (25%) who were matched with multiple mentors (this includes youths matched with multiple mentors concurrently or in

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<sup>25</sup> This was calculated using the mentor name. In some cases the same name was associated with multiple youths at one site; when this occurred the name was counted once. In other cases, only a first name was available; each first name was counted once per site.

<sup>26</sup> Matches were defined using the match date.

succession) and 18 mentors (4%) who were matched with multiple youths. The average length of the first match (n=215) was about 9.5 months, a bit less than the desired time period of one year.<sup>27</sup> The length of matches for these 215 youths ranged from about 1 week to 35 months, with 68% of matches lasting from about 2.7 to 16.3 months. Of the 177 youths attending the program as of September 30, 2008, 71% (126 youths) were matched with a mentor on that date. Though there was substantial variation, on average individuals served as mentors for an average of 12.6 months; the median time as a mentor was 9.7 months.

According to the mentor survey, the majority of mentors were matched with one mentee. Eighty-four percent of the respondents said that they mentor only one youth; 7% of mentors reported mentoring more than three youths; mentors with more than three mentees come from the Iron-After School, Cache-Latino, Davis, and Utah County-Franklin sites. Most of these mentors with multiple mentees had been paired with their mentees for at least six months.

The mentor survey, quarterly reports, and the online log provided some information regarding the matching process. From the mentor survey, all mentors with one exception reported receiving some information about their mentee before meeting him/her. Usually they were told the youth's name (89%) and contact information (65%), challenges he/she faced (55%), the reasons why their mentee was enrolled in YFP (51%), and the youth's hobbies or interests (45%). A smaller percentage (33%) of mentors reported learning the strengths their mentee possessed. According to the quarterly reports and online log, site coordinators gave mentors the "Youth Asset Priority List," a list of the reasons for referral, in 59% of matches.

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<sup>27</sup> This was calculated based on youths who were either unmatched and continued with YFP or unmatched because they were discharged from YFP. This number only includes youths unmatched, not youths whose matches are in progress.

The Program Guide requires that mentors and mentees have an opportunity to interact prior to the match. About 40% of the mentors responding to the survey indicated that they met their mentee in person before they were matched.

*Perceptions of the Match*

Site coordinators provided a wide variety of criteria that they use to match youths to mentors (see Figure 7). The most common criteria were similar interests, personality, and gender. There is an overlap in several of the matching criteria stated by the mentors and listed in the Program Guide (similar interests, foreign language, geographic location of youth, and religion). The most frequently used criterion cited by site coordinators (24 of 26 sites) was similar interests. Interestingly, one of the other most frequently cited criteria by the site coordinators, gender, was not a criterion listed in the Program Guide but is a factor that senior program staff say is recommended in most situations. In addition, race and ethnicity were factors also referenced by the Program Guide as matching criteria, but only one of the site

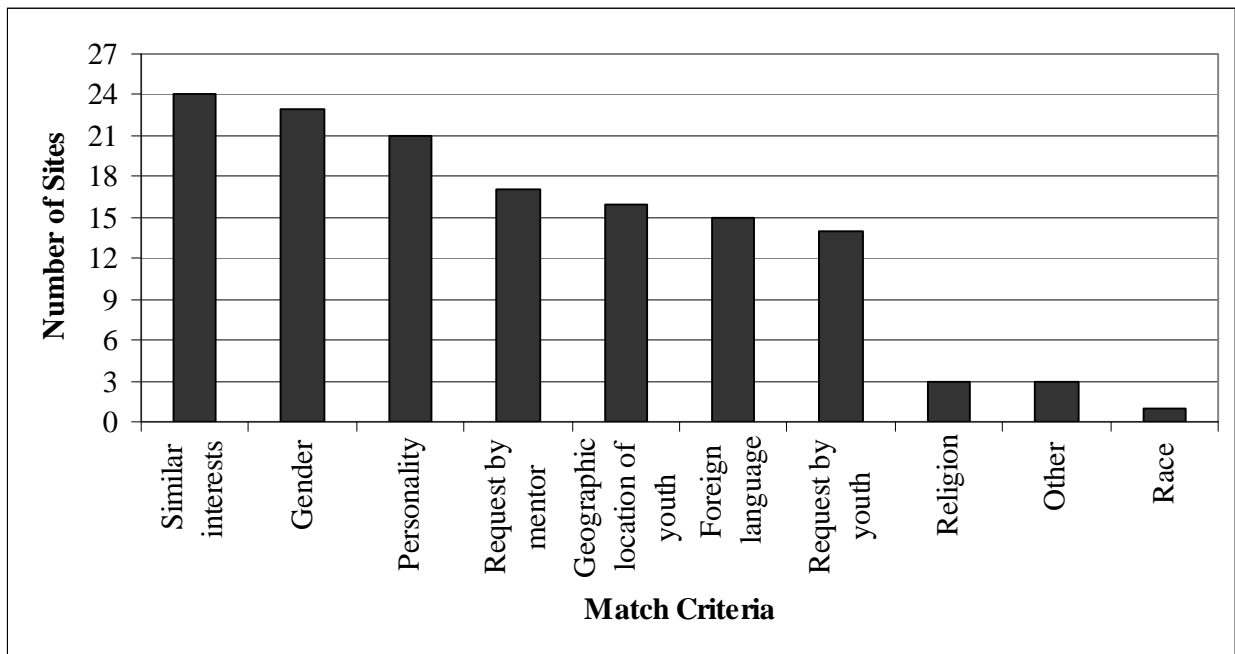


Figure 7. Match Criteria Used by Sites

coordinators selected these characteristics as criteria on which they match. Some sites indicated that requests by the youth or mentor were used as matching criteria; this fits with the program documentation requirement that youths and mentors be receptive to the match.

When surveyed, mentors were asked to select those characteristics used in determining the mentee(s) with whom they were paired (see Table 20). Similar to reasons for matches as reported by site coordinators, gender was the most common characteristic reported by mentors when asked why they were matched with a particular mentee: 61% (63 of 103) of matches were reported to be based on gender. Other than gender, there is an overlap for several of the other matching criteria reported by the mentors and listed in the Program Guide (race, ethnicity, similar interests, foreign language, and religion). Personality (40%) and race/ethnicity (37%) were also frequently mentioned reasons for a match. Interestingly, though many mentors selected race/ethnicity as a reason for a match, no site coordinators selected this. This raises the issue of whether mentors are unaware of why they were matched, but suspect race/ethnicity is the reason, or whether site coordinators are actually matching based on race/ethnicity. Other characteristics mentioned as “other” responses were: availability, a “good fit,” close

*Table 20. Mentors’ Perceptions of Reasons for Matches*

<b>Factor</b>	<b>Number</b>	<b>Percent of Matches</b>
Same sex	63	61%
Personality	41	40%
Same race/ethnicity	38	37%
Similar interests	35	34%
Don’t know*	29	28%
Same religion	26	25%
Request by mentor that you be matched	10	10%
Other	10	10%
Request by youth that you be matched	9	9%
Foreign language spoken by youth	8	8%
Total number of responses	272	
Total number of respondents	78	
Total number of matches	103	
*All respondents who selected “don’t know” also selected at least one other response.		



proximity to the youth, and special skills or experiences of the mentor. Mentors were not asked about the geographic location of the youth or availability as match reasons.

Most matches were reported by mentors to be good matches (83%, 74 of 89 matches), though in a few situations (9%) mentors reported that they did not know if it was a good match.

We asked mentors, in an open-ended question, what they hoped to accomplish with their mentees and received a wide range of answers, all within the program’s stated goals. Of the responses reported in Table 21, among the most frequently stated desired accomplishments were: to help with school performance/interest in school, give the youth confidence/improve self-worth, and be a good example or role model. In addition, many comments related to relationship development (being a friend to the mentee, being a good listener, teaching the youth how to have good relationship/develop friends, and building/maintaining a relationship with the youth) and helping the mentee have a future orientation (helping the youth reach goals, show the mentee his/her potential, and help the youth become successful). Relationship development responses (58%), developing a future orientation (34%), and helping the youth with school performance/interest in school (28%) were the most common responses.

*Table 21. Mentors’ Goals for Relationship*

<b>Goal</b>	<b>Frequency</b>	<b>Percent (of respondents)</b>
Relationship development	41	58%
Future orientation	24	34%
Helping with school performance/ interest in school	20	28%
Give confidence/improve self-worth	17	24%
Be a good example or role model	17	24%
Develop talent skills interests	7	10%
Other	25	36%
Total number of responses	151	
Total number of respondents	70	

Note: Any response given four or fewer times was included in the “other” category.

When asked what changes they had observed in their mentees over time, mentors most commonly reported increased academic performance (56, or 54% of matches) (see Table 22). Mentors reported positive changes in the areas of interpersonal skills (31, or 30%) and better relations with family (24, or 23%). In 25 matches (24%), mentors said that they had not yet observed changes in their mentees. Data from the mentor survey show there is no discernible relationship between the length of the match and whether or not positive changes were reported.

*Table 22. Positive Mentee Changes Reported by Mentors*

<b>Change</b>	<b>Frequency</b>	<b>Percent of matches</b>
Improvement in academic performance	56	54%
Increased interpersonal skills	31	30%
Better relations with family	24	23%
More outgoing/confident	16	16%
Other	55	53%
No changes yet	25	24%
Number of responses	377	
Number of matches	103	

Time in Program

The majority of youths included in the analysis, according to quarterly report and online log data, have been discharged (61%). The average length of stay in the program for these youths was about 13 months, with 43% having been in YFP for more than 12 months (see Table 23).<sup>28</sup> Of those youths still in the program, the average amount of time spent in the program was 16 months, with 59% in the program for more than 12 months (see Table 24). Very few youths (8%) left YFP within 3 months of starting. The Program Guide does not specify a presumptive

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<sup>28</sup> Note that length of stay in the program is different than length of match with a mentor. Length of stay is calculated as the time from the initial home visit to the time of program discharge.

*Table 23. Length of Stay for Youth Discharged as of September 2008*

<b>Length of Stay</b>	<b>Frequency</b>	<b>Percent</b>
Up to 3 months	18	8%
Between 3 and 6 months	35	15%
Between 6 and 9 months	60	25%
Between 9 and 12 months	24	10%
More than 12 months	104	42%
Total	241	

*Table 24. Length of Stay for Youth in Program as of September 2008*

	<b>Frequency</b>	<b>Percent</b>
Up to 3 months	16	9%
Between 3 and 6 months	8	5%
Between 6 and 9 months	25	14%
Between 9 and 12 months	23	13%
More than 12 months	104	59%
Total	176	

length of stay, but informal discussions and interviews with program staff suggest a range of expectations from one school year to when a youth ages out of the program (i.e., turns age 15).

#### Reasons for Unmatch and Program Discharge

The term “unmatch” is used by YFP program staff any time a match between youth and mentor is terminated, regardless of the reason the relationship ends. A review of quarterly reports and online logs by the evaluation staff revealed considerable variation in how well programs kept track of when unmatches occurred and the reasons for the unmatches. Similarly, program discharges, which involved youth leaving the program, were recorded inconsistently, and the reason for the discharge was often missing. Thus the data reported in this section should be interpreted with caution.

Another factor affecting the information reported here is that a number of YFP sites ceased operations during the time of the evaluation. In all, 13 programs lost funding or merged

with other sites during the time period from 2006 through 2008 (one site that lost funding, Rich, was able to reopen just over a year later). The footnotes in Tables 25 and 27 below show how these youths were handled in the data.

Valid reasons for unmatched were available for 120 youth (see Table 25). The most common reasons for unmatchedes were the youth being discharged from the program and mentors quitting or being unable to continue the program.

*Table 25. Reasons for Unmatches<sup>a</sup>*

<b>Reason</b>	<b>Frequency</b>	<b>Percent</b>
Youth discharged from program	56	46%
Mentor decided to quit program/ unable to continue program	36	30%
Mentor moved	14	12%
Youth transferred to another YFP site	5	4%
Youth or parent requested new mentor	2	2%
Other	7	6%
Total number of responses	120	

<sup>a</sup>Table excludes 62 youth for which no reason for unmatched was reported, and an additional 61 youth who were “unmatched” when the programs they were attending closed.

Most mentors who responded to the survey had no experience with a mentor-mentee relationship ending, but 27% did report experience with this. The most frequent reasons for ending the relationship was that the mentor or mentee moved (36%) or the mentee aged out of the program (21%) (see Table 26). The process for ending the relationship varied among our respondents. Of the 13 respondents who reported ending a relationship under positive circumstances (e.g., graduation from the program, mentor moved), seven mentors reported advance discussion and activities to prepare the mentee for the end of the relationship, five reported that they planned to, or currently do, remain in touch with their mentee following the formal end of the relationship, three reported little to no apparent planning regarding the end of the relationship, and one reported the site coordinator being engaged in planning the end of the

relationship. Of the six respondents in which the relationship ended in non-positive circumstances (e.g., the youth was not attending the program), four mentors reported the mentor and site coordinator trying to resolve the problems so that the mentor relationship would continue.

*Table 26. Mentors' Reasons for Ending Relationship*

<b>Reason</b>	<b>Number</b>	<b>Percent</b>
Mentor or mentee moved	12	37%
Mentee grew up/aged out of program	7	21%
Mentee skipped meetings with me or skipped program activities	3	9%
Other	4	12%
Relationship not going well	2	6%
Mentee told me he/she wanted to end the relationship	3	9%
Site coordinator told me it was time to end the relationship	1	3%
Mentee reached all goals of YFP	1	3%
N of respondents	19	
N of responses	33	

Site coordinators provided the evaluators with a reason for discharge after the youth left the program. Excluding youth who “left” because the programs they were attended closed, reasons for discharge were available for 181 youth (see Table 27). The most common reasons for discharge were the youth stopped attending or moved away from the area. The relatively large proportion of youth for which the discharge reason was unknown (26%) reflected, in most situations, youths discharged from the 2005 cohort, since the reason for discharge was not tracked by YFP during that time.

*Table 27. Reasons for Youth Discharges from YFP<sup>a</sup>*

<b>Reason</b>	<b>Frequency</b>	<b>Percent</b>
Youth stopped attending	62	34%
Unknown	47	26%
Moved	42	23%
Aged out	18	10%
Graduated	5	3%
Inappropriate for program	5	3%
Mentor moved, youth did not want another mentor	2	1%
<b>Total</b>	<b>181</b>	

<sup>a</sup>Table excludes 87 youth who were “discharged” because the programs they were attending closed.

### Conclusions and Recommendations

The process evaluation covered approximately three years of program operation, from September 2005 through September 2008. During that time, the number and location of program sites, sources of funding, and how program implementation data were collected changed, but the program design remained consistent. Multiple data sources, including official program records and documentation describing the program, reports from program participants and mentors, and observations of program activities, were used to conduct the process evaluation.

There were a number of discrepancies between the Program Guide and what is actually taking place in programs. Some interventions and requirements were being implemented as designed, and others were not. For a program with many sites, these discrepancies are not unusual and are sometimes necessary in order to meet the needs of a community. It is beyond the scope of this evaluation to judge the degree to which the Program Guide represents empirically-based best practices in mentoring. But, the program staff should make this assessment and adjust the guide to better reflect what is actually happening in programs and, where specific guidelines are considered critical, to “enforce” these more aggressively. Home visits were provided as planned, the types of interventions provided fit with program

documentation, on average sites offered FNO and 4-H activities as required, and site coordinators reported targeting youths with characteristics that match program guidance and matching youths with criteria as specified in the program guide. Interventions and requirements that did not appear to be implemented as planned include the change in schedule of program activities during the summer by some sites; some youths admitted were younger than the targeted age range; many youths attended FNO less often than required, but many attended 4-H more often than required; though there was substantial variation by site, on average youths meet with their mentors less frequently per month than expected; according to site coordinators' records (quarterly reports and online log), some mentors did not receive an orientation training or the mentor manual; and early contacts between mentors and site coordinators were less frequent than required for many sites. Finally, though not a requirement or a guideline, few youths were matched with a grand mentor; most youths were matched with a young adult mentor.

There are concerns regarding the availability of program implementation data. Though many sites did a good job at reporting program implementation data, others reported little, if any, data. With the exception of the high proportion of missing referral information, when quarterly reports and online log data were submitted, for the most part they appeared to be complete. Also, there were a couple of other important variables that the program only began to collect in earnest once the evaluation study began: unmatched date and discharge date. Consequently, we tried to calculate these dates based on other information available in the quarterly reports for youths in the 2005 cohort, and for the 2006 cohort, we contacted site coordinators directly to get this information. Finally, there were some important elements that were not being tracked to assess program implementation. These included reasons for, and sources of, referral to the program and information regarding why a youth was matched with a mentor. In efforts such as

the process evaluation undertaken here, it is never clear whether the activities reported reflect reality or record-keeping limitations. For example, it is possible that mentor meetings occurred but were not recorded in the online log. It is crucial that the program accurately capture all program activities so that it can better determine where minimal levels of service are not being met.

Youths received an average of 2.35 in-person intervention contacts (meeting with mentor, participating in 4-H, and attending FNO) per month, or just over half the monthly requirement. There was no significant variation in the average number of monthly mentor meetings during the school year for any particular type of site, although combination sites also had a higher average number of monthly meetings than other kinds of sites. Though participation in 4-H activities was generally consistent with or exceeded requirements, attendance at FNO activities and meetings between youths and mentors did not. One likely factor contributing to why youths attended more 4-H than FNO activities is that many sites offered a far greater number of 4-H activities than are recommended by the Program Guide, but on average, sites did not offer many more than the required number of FNO activities per year. So, youths were given a greater number of opportunities to participate in 4-H than in FNO. Another likely reason for receipt of fewer FNOs is youths and/or parents were skipping scheduled FNO activities. Receipt of fewer mentor meetings may have been due to mentors not meeting obligations to schedule meetings with mentees as expected or youths skipping mentor meetings; the program did not collect data tracking scheduled versus completed meetings. Though most respondents to the mentor survey appeared to know their responsibilities regarding meeting with mentees, 20% of mentors did not receive an orientation training and even fewer received the mentor manual. Further, for many sites YFP operated primarily as a school-year program; there was a decrease in the provision of



mentoring during the summer months and some sites did not offer 4-H and FNO during the summer. Operation of some of the sites as a school-year program likely accounted for why the average length of the first match between a mentor and mentee was about 9.5 months, a bit less than the desired amount of one year according to the literature. Continuity in mentoring relationships is identified in the literature as an important factor. Most mentoring relationships seemed to be tied to the school year, since most mentors were students. Given that YFP is part of 4-H, there is an opportunity to continue program activities thru FNOs and 4-H activities thru the summer even when the mentoring relationship might be suspended. The program should consider taking advantage of this by boosting non-mentoring activities over the summer.

The content and focus of program intervention activities appeared to be consistent with program documentation. Observations of the 4-H and FNO program activities provided evidence, for example, that they covered topics specified in the program guide and included the desired participants. Interviews with youths and surveys of mentors indicated that the meetings between mentors and mentees included desired activities and the relationship between the mentors and mentees appeared to be appropriate.

Though the Program Guide specifies situations in which the mentoring relationship should end (e.g., youth is ready to graduate, mentor-youth relationship is unhealthy, and youth and families are not participating in the program) as well as the target ages for the program, it does not specify a presumptive length of stay. Few youths graduated from the program, and this may be a factor contributing to why, outside of program closure, it appeared that youths typically stayed in the program as long as they liked. Altogether, in 46% of the cases in which a youth was discharged, it appeared that the youth or family was responsible for the decision (i.e., youth stopped attending; youth moved; and mentor moved, youth did not want other mentor). This is a

concern if the program is not able to provide services to youths who would benefit because it is serving longtime attendees who no longer require program interventions.

Finally, in areas in which guidelines or requirements from 4-H Mentoring/YFP have not been provided, some sites appeared to have developed their own policies and practices. This resulted in some variation in the implementation of the program by site. Some sites identified criteria used to screen out youths from the program, based the presumptive length of stay on a youth's age in the program (i.e., youths were discharged when they aged out), aimed to match a youth with a mentor within one month of the home visit, and/or decided what information about the youth to share with the mentor at the time of the match.

To identify and quickly resolve concerns regarding youth participation in the program and that mentors are meeting their obligations, and to help sites with implementation, the following are recommendations regarding data collection: 1) site coordinators should monitor mentor contact data submitted in the online log on a monthly basis to ensure data are entered; 2) the state 4-H office should monitor all data submitted by sites monthly to ensure data are entered and accurate; 3) reasons for referral and source of referral should be added to the online log; and 4) fields in the online log to track scheduled versus completed mentor meetings should be added.

## **OUTCOME EVALUATION**

### Overview

This section of the report provides the results from the outcome evaluation portion of the study. The outcome evaluation is a nonequivalent groups design (pre- and post-testing for an experimental group as well as a comparison group) that includes up to a three-year follow-up for youths attending the program. Pre- and post-test data were collected for youths and the parents of youths entering YFP from 2005 to 2008 (YFP group) and two cohorts of school students from various schools in grades 4-8 (comparison group).<sup>29</sup> The discussion here addresses recruiting of program participants, the design and administration of data collection from pre-tests to follow-up, and results comparing the YFP and comparison groups as well as for subgroups with the YFP group.

### Recruitment of Study Participants

Typically, YFP youths were recruited for the study at the same time they were being recruited for the program. Information about the study, along with a parental consent form to participate in the study, was distributed by program staff when the staff person made a visit to the home to invite the youth and parent to participate in the program. Program staff were trained by JRSA to describe the study to the parents and youths and explain the content of the consent form. The consent form included a toll-free phone number for JRSA that parents could call if they had questions about the study. A number of youths admitted to the program in 2005 or early 2006 (hereafter, 2005 cohort), prior to the start of JRSA's evaluation, were recruited for the

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<sup>29</sup> The 2005 cohort includes data that were collected for an evaluation that occurred prior to the start of the JRSA study. The data from the 2005 cohort were included in the JRSA study to increase the sample size of the experimental group. Youths in this cohort were chosen if they were in one of the following categories: 1) youth is still in the program as of March 2007 and has been pre-tested for the USU evaluation, or 2) youth is no longer in the program and has been pre- and post-tested for the USU evaluation.

study (n=178) after they became involved with the program. These youths were recruited because they completed a pre-test form administered by the program that included many of the same questions on the JRSA pre-test form, and they continued to be involved in the program after the JRSA study began or they were discharged by the time the study began and a program post-test was available for the youth.

We elected to recruit youths for the comparison group from schools attended by YFP youths. This was done to try to ensure similarity between youths in the treatment (i.e., YFP) and comparison groups. The first step in recruiting comparison group youths for the study was to obtain a letter from the Utah State Office of Education that indicated that school districts were permitted to cooperate with us and that we had satisfied their concerns about the collection of identifiable data. With this letter in hand, we then identified school districts attended by YFP youths that we thought would be willing to allow JRSA to recruit comparison youths. We contacted school district superintendents and then, after permission was received by the superintendent, elementary and junior high school principals to invite them to participate in the study. Each school was offered a small monetary incentive to benefit all students in the school for agreeing to permit JRSA to recruit comparison youths. Altogether, 14 schools gave permission to recruit comparison youths. Though there was some variation from school to school, the basic process for recruiting comparison youths involved sending a parental consent form, information about the study, and a cover letter from the school principal home with the youth. The consent form included a toll-free phone number for JRSA that parents could call if they had questions about the study. Youths returned completed forms to school, and these were collected by a JRSA contractor who was responsible for recruiting comparison youths and administering forms to these youths.

Youths whose parents signed consent forms were eligible for participation in all aspects of data collection but could withdraw participation at any time or refuse to participate in any portion of data collection. For the comparison group, 142 youths who were invited to participate in the study declined. These included both explicit refusals and failures to return a signed parental consent form. For the YFP group, 54 youths in the 2005 cohort did not respond to requests to join the JRSA study<sup>30</sup>, four youths explicitly refused to participate in the JRSA study, and for an additional three youths we were unable to obtain a consent form indicating either refusal or consent. Therefore, a total of 61 YFP youths invited to participate in the study were not eligible for any data collection by JRSA.

### Data Collection

#### *Pre and Post-Tests*

##### Content

The YFP youth version of the pre- and post-tests included the Behavioral and Emotional Rating Scale Version 2 (BERS-2), as well as questions measuring self-reported delinquent behaviors, what youths would like to work on (or worked on) with their mentor during the program, and socio-demographic and background information. The post-test also included questions on mentor relationship quality and perceptions of the YFP program. There was some variation in data collected on the pre- and post-tests for the 2005 cohort; the cohort for whom the program collect data prior to the start of the JRSA study. The pre- and post-tests for the 2005 cohort included the most of the BERS-2 scale, except the BERS-2 Career Strength subscale. The 2005 cohort post-test included similar questions about self-reported delinquency, but the timeframe was somewhat different than that used by the JRSA tests. In addition, there were

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<sup>30</sup> De-identified pre- and post-test data collected by YFP prior to the start of the JRSA study were included for these youths.

different responses to socio-demographic questions and different questions pertaining to why the youth chose to participate in the program. Finally, the 2005 cohort post-test did not include a measure of mentor relationship quality and included different questions about perceptions of the program.

The comparison youth version of the pre- and post-tests were similar to the YFP group versions except they did not contain questions about mentor relationship quality or perceptions of the YFP program on the post-test. Also, the forms asked whether the youth had ever participated in the YFP program so that we could ensure that a youth who attended YFP in the past would not be placed in the comparison group.

The parent version of the pre-and post-tests contained the BERS-2 scale as well as questions about what they would like their child to work on with their mentor, parenting style, and socio-demographic and background information. Forms were available in English and Spanish. Post-test forms requested updated contact information to facilitate locating youths for follow-up interviews. A set of the data collection forms used in the outcome evaluation may be found in Appendix A.

The BERS-2 (Epstein, 2004) is a 52-item scale designed to assess the behavioral and emotional strengths of children. The BERS-2 is comprised of five subscales:

- Interpersonal Strength (ability to control emotions or behaviors in social situations; 15 items);
- Intrapersonal Strength (outlook on competence and accomplishments; 11 items);
- Affective Strength (ability to accept affection from and express feelings toward others; 7 items);
- Family Involvement (participation in and the relationship with family; 10 items);

- School Functioning (competence in school and classroom tasks; 9 items).

The instrument also contains a supplemental Career Strength scale consisting of five items measuring interest and aptitude for career and vocational development<sup>31</sup>.

The BERS-2 can be used to assess a child's strengths in each of these areas from the perspective of the youth, parent, and teacher. It has been demonstrated to have good psychometric properties (Epstein, 2004; Buckley et al., 2006). When completing the scale, the respondent is asked to read each item and rate the degree to which it describes him or her "now or in the past three months." Item responses are given on a 4-point Likert scale ranging from 0 ("not at all like you") to 3 ("very much like you"). Raw scores are converted to standardized scores for each subscale that range from "very poor" to "very superior;" and placement into one of these categories is intended to provide guidance regarding the strength of the child in that area. Scores are not combined into an overall scale score. Cutoffs for normed subscale scores vary by gender. We used the normed scale scores developed by the author (Epstein, 2004) for the male and female subgroups in our analyses of the data.

We chose to use the BERS-2 scale for several reasons: 1) in 2005 the YFP program incorporated the BERS-2 as part of their pre-post assessment, 2) the BERS-2 is a validated scale that measures the primary objectives of YFP, and 3) using the scale would minimize the data collection burden on the program for the YFP group youth. We used the youth and parent version of the scale for the evaluation.

In order to measure the quality of the relationship (successful versus unsuccessful) from the perspective of the youth we used a modified version of a validated scale called the *Youth–Mentor Relationship Questionnaire* developed by Jean Rhodes and her colleagues (Rhodes,

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<sup>31</sup> Though we used this subscale, there are many youths whose scores, because of their young age, should be discounted. As a result, we do not place much weight in outcomes on the Career Strength subscale.

Reddy, Roffman & Grossman, 2005). The modifications to the scale included the addition of positively worded “filler items” recommended by Rhodes that are not used in scoring the scale (personal communication, April 23, 2006). It is a 20-item scale that includes five filler items. There are four subscales: “not dissatisfied,” which reflects the youth’s dissatisfaction with their mentor, “helped to cope,” which measures how well the mentor helped the youth address problems, “not unhappy,” which relates to the absence of negative emotions such as feeling mad or ignored, and “trust not broken,” which reflects relationship patterns and the mentor’s reliability and trustworthiness. Items are scored on a Likert scale ranging from one to four, with higher scores corresponding to more successful relationships.

#### Administration

The pre- and post-tests were paper forms sent by JRSA to form administrators and mailed back to JRSA upon completion. To ensure privacy and confidentiality, respondents did not put their names on the forms. Instead, respondents were issued an identification number that was written on the form in advance of completion. To ensure that respondents received the correct form, either a sticky note with the name was placed on the first page of the form and removed before completion or the form administrator used a name-identification number list to distribute the forms individually.

JRSA hired and trained people living nearby or affiliated with program sites to administer the pre- and post-test forms for YFP youths and parents. For the YFP youths and their parents, forms were typically administered by program staff at a program event. Form administrators were trained to have respondents complete the forms on their own, intervening only to answer a question from the respondent. They were also trained on how to answer various types of questions including the interpretation of terms and timeframes for responding to items on the



form. When forms were to be completed at a program activity, form administrators were asked to administer the forms at a Family Night Out, if possible, because both youths and their parents would be present. The youths were separated from the parents so that parents and youths would complete the forms at the same time, but on their own. If respondents were absent on the day of form administration or for some other reason did not complete the form when planned, respondents may have completed the form at a subsequent program activity, been mailed the form to complete and return to JRSA with a postage paid envelope, or received a home visit from a person contracted by JRSA to go to the home to administer the form. Individuals conducting home visits were typically not current program staff, but often had some sort of relationship with the program such as a family member of a staff member.

For comparison youths, JRSA also hired and trained people living nearby or affiliated with the program to administer the forms to youths at school. Comparison youths completed forms during the school day at a date and time convenient for the school and youths. Youths completed forms in a quiet setting away from students not participating in data collection.

Resource restrictions prevented us from collecting data from the parents of comparison youths.

In the first and second year of data collection JRSA staff traveled to Utah to observe form administration in a few program sites and schools to identify and correct any problems with the process.

As described previously, pre-testing typically occurred around the start of the school year to coincide with when youths entered the program in the fall, and post-testing took place toward the end of the school year in the spring. We did this because it was our understanding that youths were typically involved in the program for one school year. When we found out that youths often stayed longer than that, we began to collect additional data each year to capture

information on changes occurring while in the program. This also had the benefit of making it easier to conduct data collection at program activities. As a result, youths and parents may have two or three “post-tests.” Only the last post-test actually reflects the end of program involvement. Therefore, post-tests were scheduled to occur at approximately 8 (post-test 1), 20 (post-test 2), and 32 (post-test 3) months following the pre-test. Since program discharges often occurred around the end of the school year, this was an efficient way to collect data. For discharges occurring more than three months following the spring post-test data collection, respondents completed another post-test to ensure the final post-test represented the status of the youth as close as possible to the time of discharge. Timing for comparison youths was similar to that of pre-test youths. Data collection occurred at or about the beginning of the school year for pre-tests and at or about the end of the school year for post-tests. Once we learned about the increased length of stay for YFP youths, we added a second post-test for as many comparison youths as possible. Table 28 reflects the number of youth pre and post test forms received for members of the YFP and comparison groups<sup>32</sup>. This table shows the number of forms actually received without accounting for whether we should have received a particular form. Altogether, pre- and/or post-test forms were received for 401 YFP youths and 327 comparison youths.

There are some youths for whom a post-test should have been completed but was not. Ideally, we would have received an eight-month post-test (post-test one) for each YFP youth for whom we received a pre-test, and then subsequent post-tests depending on how long they remained in the program. For comparison youths we should have received a post-test one

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<sup>32</sup> Note, it is possible that a form was received yet not all items on the form were answered. Therefore, counts of forms completed may be higher than actual numbers reported for specific items on the forms (such as the BERS-2 subscales).

*Table 28. Youth Pre- and Post-Test Form Completion by Group*

<b>Number of Forms Received</b>	<b>YFP Group (included in outcome analyses, if different<sup>a</sup>)</b>	<b>Comparison Group</b>
Pre-test	392 (385)	327
Post-Test 1 Only (no Pre-Test)	9	Not applicable
Pre-Test and Post-Test 1	270 (257)	280
Pre-Test and Post-Test 2	98 (96)	144
Pre-Test, Post-Test 1 and Post-Test 2	93	131
Post-Test 3	28	Not applicable

<sup>a</sup>The difference between these two numbers for the YFP group reflects that a form was received but was not used in the outcome analyses. This may have occurred, for example, because of when the form was completed.

for each comparison youth for whom we received a pre-test, and then one additional post-test depending on whether the youth attended one of the schools that agreed to participate in a second year of post-test data collection. There are several reasons why this might not have been the case, however: a youth may have been absent on the day of test administration<sup>33</sup>, dropped out of the study, or chosen not to complete the form. There are also situations in which a YFP youth would not be eligible for the post-test even when they were discharged from the program. This occurred for the YFP group when they were discharged too soon after completion of the pre-test.

The most common reasons why post-tests were missing for the YFP group was that the youth had been discharged from the program before the next post-test was due to occur, or was absent on the day of test administration and subsequent attempts to get the form completed were unsuccessful. When a YFP youth (or parent) was not present on the day of post-test data collection and they were still attending the program or had recently been discharged, we hired contractors to do the following: administer the form at the next program activity, schedule a time to go to the youth’s home to complete the form, and, as a last resort, mail the form to the youth

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<sup>33</sup> When this occurred for YFP youths, contractors attempted to contact youths and parents to obtain a completed form.

(or parent). For YFP youths, at post-test time two and three, ineligibility for data collection due to discharge shortly after the first post-test was completed was the reason why approximately two-thirds of cases did not have these post-tests. Put another way, we collected youth post-tests two and three for the majority of YFP cases for whom they were expected. The most common reasons why comparison youths did not complete the expected post-tests was either absence from school on the day of data collection or a decision not to complete the form (we are unable to distinguish between these two reasons). Only 15 youths dropped out of the study prematurely, with 10 of these being in the YFP group.

Ideally, pre-tests would have been completed within a few weeks of when a YFP youth began to receive services. Since youths typically entered shortly after the school year began we asked that pre-tests be completed at already scheduled program group activities in October or November. Youths who did not enter the program on this schedule were asked to complete the form within a few weeks of their official admit date. In a few cases (n=9), YFP youths completed pre-tests too long (more than a few months) after they began to receive program services.<sup>34</sup> We did not include these late pre-test completers in analyses examining the change on the BERS-2 scale. For the comparison youths the pre-test form completion date was treated like the admit date for YFP youths, so there were no issues with the timing of pre-test form completion for comparison youths.

Similar to the form completion timing for the pre-test, there were a few post-tests (n=6) that were excluded from analyses because of when they were completed (within 3 months of the pre-test). These early post-test completers were not included in analyses examining the change on the BERS-2 scale. Further, if the first (or second) post-test was completed closer to the time

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<sup>34</sup> This was sometimes, but not necessarily, based on the admit date since some youths did not actually receive any services for a month or more after they were admitted.

that the subsequent post-test should have been completed, it was entered as the second (or third) post-test. Therefore, a few YFP youths have a post-test two, but no post-test one. For the comparison youths, there were no issues regarding the timing of form completion. Youths who did not complete the post-test on the day it was administered in school were not included in analyses requiring that post-test.

Almost two-thirds (64%, n=245) of YFP youth pre-test forms were completed within a month of when youths were admitted to the program. The average number of days from admit to pre-test completion was 54 and the median number of days was 35. Over one-half (56%) of the first youth post-test forms were completed within seven to nine months after the pre-test form. The average time from pre-test to post-test one completion for YFP youths was 7.5 months with a median of 6.9 months. Time from pre- to post-test one completion for comparison youths was a bit shorter (mean of 5.7 months and median of 5.3 months).

Though the process evaluation examined issues related to length of stay and dosage of program services, we provide some updated numbers here these variables, since the process evaluation only included data through September 2008. The average length of stay for youths discharged from the program was 17.5 months; the average length of stay for youths still attending the program by the time data collection ended in June 2010 was 35.1 months<sup>35</sup>. Few youths left the program shortly after it began; only seven youths were discharged within three months of starting the program. For youths for whom dosage data are available, the average number of activities youths received per month while in the program was 2.46. This shows longer lengths of stay for youths than seen in the process evaluation (likely due to the fact that

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<sup>35</sup> There were 61 youths still attending the program at the time data collection ended, including two who were discharged and readmitted to the program.

some youths still in the program during the process evaluation had been discharged), but little difference in the dosage.

### *Follow-Up Interviews*

To assess the long-term outcomes of program participation and sustainability of program effects, follow-up telephone interviews with YFP and comparison group youths were scheduled to occur annually up to three years after program discharge/date of the last post-test<sup>36</sup>. Phone interviews were conducted with youths at these follow-up points to assess current academic performance, interpersonal competence, family relationships, and delinquency/risky behavior as well as perceptions of YFP program involvement (YFP youths only).

We created a process for conducting the interview that we expected, based on approaches used by longitudinal studies, would maximize the likelihood that we would reach the youth. Prior to calling the youth's home we sent a letter to his or her parent/guardian. This letter served as a general reminder that the call was coming to help increase the likelihood that the call would be answered. We were concerned that when an unknown phone number showed up on a phone's caller id, it would reduce the likelihood that the call would be answered. The letter also served to help let us know if the youth no longer resided at that address. If we received a letter returned from the post office with no forwarding address then we knew that we would have to explore other means of finding the youth if the only phone number available was a landline phone. We made up to 13 attempts to conduct the follow-up interviews and varied the time of day and day of the week that calls were made. We always left messages and a toll-free number for respondents to use. In the evenings and on weekends, staff could make and receive calls on a cell phone with a Utah area code.

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<sup>36</sup> The last attempt for follow-up interviews occurred in mid-December 2010.

Initially, we used phone numbers for home, work, friends, and relatives requested at the time of consent, pre-test and post-test to try to locate youths. If these were unsuccessful, we searched for new phone numbers by asking YFP staff or the last known school attended by the youth for a new phone number, using the online white pages, and searching *Intelius* (an online public records service). Table 29 below details the number of completed phone interviews conducted with youths. “Percent eligible completed” reflects the percentage of cases eligible for an interview that were actually completed. It should be noted that a call was not necessarily attempted for all eligible cases. In some cases, such as when we did not have sufficient contact information, we were not able to attempt a phone call. Of the 401 youths for whom we had pre- and/or post-test data, there were 76 youths in the YFP group for whom no follow-up interview was attempted either because they were still in the program at the time data collection ended or they had not been out of the program long enough for us to do the interview. These 76 youths were also ineligible for most analyses involving official court or school records during the follow-up time periods.

*Table 29. Number of Annual Follow-up Interviews Completed by Group*

	<b>YFP Group (% Eligible Completed)</b>	<b>Comparison Group (% Eligible Completed)</b>
Year one	132 (40%)	103 (37%)
Year two	107 (31%)	147 (49%)
Year three	38 (30%)	51 (36%)

*Official School Data*

Given the program objective associated with improving school performance, we decided to obtain official school records of attendance and grades prior to, during, and up to three years following involvement in the program (or last post-test for the comparison group). This data collection time was intended to mirror pre- and post-testing as well as follow-up data collection

and help determine long-term outcomes and sustainability of effects. Depending on the date a youth entered or was discharged from the program (or last post-test for the comparison group), we designated either the reporting period preceding the program admit date or the reporting period during which a youth was admitted as the pre-program period, and the reporting period following program discharge or the reporting period during which the youth was discharged as the post-program reporting period. School records for up to three years following the post-program reporting period were collected to serve as one, two, and three year follow-ups.

At least some official school data were available for 39% of the YFP group and 73% of the comparison group. There are many reasons that account for why data are missing in such a large proportion of cases. After discussion with the Utah State Office of Education, we learned that in Utah individual-level data are only available from school districts and, in some instances, only from the school that the youth attends. We contacted school principals or their designees several times to request data. The process was time-consuming and not always fruitful. Reasons for delays or refusals included: resource problems, a requirement to obtain additional consent to receive data, and the need to go through a process similar to a university's institutional review board in order to obtain permission for data. We worked with each school district and/or school to try to meet their needs in order to obtain the data. We received data from eleven school districts and two private/charter schools. Sometimes individual schools, rather than the school districts themselves, provided us with data. Two school districts refused to give us data and one other district and two private/charter schools were not responsive to data requests (i.e., did not provide us with data). In some cases, even when school districts agreed to give us data, we only received data from some of the schools in the district. Though lack of cooperation was the primary reason why data were missing, there was another significant reason. We were unable to



collect school district data from 54 cases in the 2005 cohort because we lacked the youth's name and therefore we could not secure parental consent to do so<sup>37</sup>.

Data from schools and school districts came in multiple forms including data files with well-defined spreadsheets and faxed copies of paper records. Once we received the data we tried to organize it in such a way as to permit comparison over time and across youths. This proved difficult for several reasons. School reporting periods (e.g., semester, trimester, quarter), methods for calculating daily absences (e.g., unexcused absence for all classes on one day versus missed seven classes in a week is equivalent to a missed day), and approaches for calculating grade point averages (GPA) varied by schools and, sometimes, the grade in school. This made comparison across youths difficult, and we were therefore not able to make very precise assessments of differences. School data collection was further complicated in instances when youths switched school districts. In a few instances we were unable to calculate changes in absences from one time period to another due to variations in reporting periods and the various schools attended by youths.

#### *Official Court Data*

Since the program targets at-risk youths, we collected data on YFP and comparison youths' involvement with the juvenile court system prior to, during, and up to a maximum of three years following their involvement in the program/study. The Utah Administrative Office of the Courts (UAOC) provided information to JRSA on each incident which came to the attention of the court including the incident date, charges, intake decision, and conviction. In order to get these data, JRSA completed a formal request and provided UAOC with information on the parental consent received. Once permission was received we sent a list with identifying

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<sup>37</sup> For youths in this group, we were also missing official court and other data.

information to the court for all the youths for whom we sought data. UAOC used the information provided to try to match identifying information (e.g., name, date of birth, county of residence) to youths with court records. UAOC then sent a data file to JRSA with the court history of youths for whom they found a match. These data, along with data on self-reported delinquency collected at the pre-test, post-test, and follow-up interviews, provided information on youths' involvement in delinquent activities. Data on court involvement (either the presence or absence of data) are available for 89% of youths in the study: 98% of the comparison group and 82% of the YFP group. When we either did not have permission or were unable to do a search due to insufficient identifying information, we classified these data as missing.

## Results

### *Preliminary Analyses*

#### Sample Description

Prior to examining change on the youth version of the BERS-2 subscales from pre-test to post-tests at approximately 8 and 20 months following the pre-test, the YFP and comparison groups were examined for comparability. There were significant differences on a number of socio-demographic and risk factors at the pre-test, with YFP youth more likely to be non-white, younger, living with only one parent, and having one or more self-reported school suspensions in the six months prior to the pre-test (see Tables 30 and 31). Table 32 shows the means and standard deviations of the two groups on pre-test scores on the BERS-2 subscales. For each subscale, YFP youths had lower average scores and showed greater variability in their scores than youth in the comparison group. Given that the program targets youths who are at-risk and we were not able to randomly assign youths to the YFP and comparison groups, these differences

are not unexpected.<sup>38</sup> It is important to note that scores were so high on the Career Strength subscale that a substantial proportion of cases in the YFP (34%) and comparison (44%) groups received the highest score possible. Given this, there is no room for improvement for many youths on this subscale.

*Table 30. Socio-Demographic Characteristics by Group*

		<b>Male</b>	<b>White**</b>	<b>Average age (years)**</b>	<b>Modal grade in school</b>
Comparison	N	152	253	320	320
	Percent	46.8%	79.1%	10.8	5 <sup>th</sup>
YFP	N	212	237	405	346
	Percent	50.6%	64.4%	10.5	5 <sup>th</sup>
**p<.01					

*Table 31. Risk Factors by Group*

		<b>Has history of court involvement (official record)</b>	<b>Lives with both parents**</b>	<b>Have self-reported school suspensions* (prior 6 months)</b>	<b>Have self-reported skipped school (prior 6 months)</b>
Comparison	N	9	226	14	17
	Percent	2.8%	70.4%	4%	5%
YFP	N	11	193	22	20
	Percent	3.1%	54.4%	9%	8%
**p<.01, *p<.05					

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<sup>38</sup> We considered doing random assignment, but it was rejected for two reasons: 1) the number of youth entering the program was too small given the amount of time we could allot for recruitment and 2) we were told that no changes should be made to the process whereby youths are placed in the program.

Table 32. Mean Youth Pretest BERS-2 Subscale Scores by Group

Group		Interpersonal Strength**	Family Involvement**	Intrapersonal Strength**	School Functioning**	Affective Strength*	Career Strength**
Comparison	Mean	34.33	23.11	28.02	21.73	14.05	13.12
	SD	7.38	4.94	4.81	4.41	4.06	2.46
	N	321	321	320	321	321	318
YFP	Mean	29.94	20.27	23.47	17.82	13.36	12.40
	SD	8.77	5.86	6.88	5.59	4.42	2.85
	N	345	346	345	345	348	238
Maximum Possible Score		45	30	33	27	21	15
**p<.01, *p<.05							

Matching

In order to address lack of comparability between the groups and to meet the original intent of matching YFP and comparison group members when examining outcomes, we attempted three types of propensity score matching (PSM): 1) using one-to-one matching, 2) using one-to-multiple matching, and 3) with stratification (Dehejia and Wahba, 2002; Luellen et al., 2005; Love, 2004). PSM is a useful tool to address sample selection bias because it easily allows for the use of multiple measures on which to match. Based on these multiple measures one propensity score, the predicted probability that an individual received the treatment, is developed for each member in the study and used to create the matches.

We tested a number of one-to-one and one-to-multiple matching models using pre-test scores on the BERS-2 subscales and socio-demographic factors. Given the differences in propensity scores between the groups as well as the size of the comparison group in relation to the YFP group, we were unable to create a sufficient number of one-to-one or one-to-multiple

matches to permit analyses using this approach. We then attempted one other PSM approach: PSM with stratification. In this approach, cases are grouped into distinct strata (five is the recommended number) according to their propensity scores and outcomes are examined across the groups (Love, 2004). When we attempted PSM with stratification into five strata, the groups were not similar enough following stratification to account for differences between the YFP and comparison groups. As a result, we decided not to proceed with matching YFP to comparison group youths and decided to account for differences between the YFP and comparison groups using analysis of covariance (ANCOVA). ANCOVA is a generally accepted technique to use to assess between-group differences while accounting for pre-test scores (Wright, 2006).

*BERS-2*

We conducted ANCOVA analyses using scores at post-test times one and two as the dependent variables, group (YFP or comparison) as the independent variable, and pre-test scores as the covariate<sup>39</sup>.

Post-Test Time 1

There was a significant, positive change on the post-test time one *affective strength* measure for the YFP group. That is, there is evidence that, regardless of their level of affective strength when they started the program, YFP youths have a greater ability to accept affection and express feelings after being in the program for approximately eight months when compared to comparison youths (see Table 33).

*Table 33. Youth Post-test Time 1 Affective Strength*

<b>Group</b>	<b>Mean</b>	<b>N</b>
Comparison	14.33	288
YFP	14.63	230
p<.05		

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<sup>39</sup> The comparison group only completed post-tests at post-test times one and two.

There was also a significant change on the post-test time one *career strength* score, but in the opposite direction from what might be expected. Overall, comparison group youths experienced increased career strength demonstrating an improved interest in and aptitude for career and vocational development, while YFP youths had lower career strength at post-test time one (see Table 34). As noted previously, we do not put much stock in scores on this subscale, given the ages of the youths in the study.

*Table 34. Youth Post-test Time 1 Career Strength*

<b>Group</b>	<b>Mean</b>	<b>N</b>
Comparison	13.15	284
YFP	12.24	160
p<.05		

There were no other significant between-group differences at post-test time one when examining the YFP and comparison groups as a whole.

Post-Test Time One: Received at Least Two-Thirds of Program

The analyses conducted above were replicated for only those YFP youths who received at least two-thirds of the services (mentoring, FNO, and 4-H) they should have received according to program requirements given the amount of time they were involved in the program (n= 76). When YFP youths receiving at least two-thirds of expected services were examined, the previously-observed significant difference on affective strength was larger, but failed to achieve statistical significance due to the smaller sample size (mean difference = .705, p= .14).

Post-Test Time 2

At post-test time two, the only significant difference between the two groups was on *family involvement*. Youths in the comparison group had significantly higher family involvement than the youths in the YFP group (see Table 35).

*Table 35. Youth Post-test Time 2 Family Involvement*

<b>Group</b>	<b>Mean</b>	<b>N</b>
Comparison	23.94	131
YFP	21.73	107
p<.05		

Finally, we used t-tests on gain scores to examine group differences on outcomes. Use of gain scores (t-tests) has been criticized on the grounds of reliability when they are used in situations to measure change because the procedure does not account for pretest scores. Nevertheless, gain scores are helpful for answering the question of whether changes that occur are greater on average for the program group or comparison group (Wright, 2006).

Post-Test Times One and Two: YFP vs. Comparison Group

Table 36 shows that, as would be expected, comparison youths' scores remained relatively stable from pre-test to Time 1 post-test. Comparison group change scores were somewhat larger when measured from pre-test to Time 2 post-test, but were still relatively modest, with the exception of school functioning.

Review of the gain scores showed that mean scores improved significantly for YFP youths for all BERS-2 scales, except Career Strength, at approximately 8 and 20 months (post-test time one and time two, respectively) of participation (see Tables 36 and 37). The largest gains were on interpersonal strength and intrapersonal strength. Changes from pre-test to post-test time one were smaller when youths who were only in the program long enough to have taken the first (time one) post-test are examined (see Table 38).

Table 36. BERS-2 Pre-Test to Post-Test 1 Change

BERS-2 Scale	YFP Group				Comparison Group			
	Mean	Std. Dev.	DF	Sig.	Mean	Std. Dev.	DF	Sig.
Interpersonal strength	3.03	10.04	231	.000	-.014	6.89	287	.973
Family Involvement	1.84	6.71	232	.000	.14	4.97	287	.627
Intrapersonal Strength	3.94	7.68	231	.000	-.21	4.76	286	.458
School Functioning	1.23	6.17	231	.003	.37	4.19	287	.137
Affective Strength	1.26	5.03	234	.000	.10	3.79	287	.664
Career Strength	-.30	3.7	161	.310	-.04	2.50	283	.776

Table 37. BERS-2 Pre-Test to Post-Test 2 Change

BERS-2 Scale	YFP Group				Comparison Group			
	Mean	Std. Dev.	DF	Sig.	Mean	Std. Dev.	DF	Sig.
Interpersonal strength	4.05	10.31	106	.000	-.90	7.21	130	.155
Family Involvement	1.94	7.55	106	.009	.53	4.69	130	.195
Intrapersonal Strength	4.95	8.13	106	.000	.01	4.68	130	.985
School Functioning	2.62	6.44	106	.000	-1.24	4.59	130	.003
Affective Strength	1.51	5.57	107	.006	.30	3.91	130	.386
Career Strength	.61	3.75	65	.193	-.27	2.83	128	.279

Table 38. BERS-2 Pre-Test to Post-Test 1 Change,  
Only Post-Test 1 Available

BERS-2 Scale	Mean	Std. Dev.	DF	Sig.
Interpersonal strength	1.89	10.18	127	.038
Family Involvement	1.05	6.52	128	.068
Intrapersonal Strength	2.52	7.53	127	.000
School Functioning	.55	5.94	127	.293
Affective Strength	.74	4.77	129	.080
Career Strength	-1.06	3.80	99	.006



If only those YFP youths with both a post-test one and post-test two (average length of stay in program was 29.7 months) are compared to the YFP youths with only a post-test one<sup>40</sup> (average length of stay in program was 14.2 months), it is clear that youths with post-tests one and two have greater average change on the BERS-2 scales at post-test time one than those that only have post-test time one. That is, youths with longer average length of stay had greater improvements on all the BERS-2 scales within approximately eight months of program involvement than youths with a shorter average length of stay (see Figure 8). On one subscale, Career Strength, short attenders had decreased average scores from pre- to post-test one. However, those longer attenders only had additional significant improvement at post-test time two on one BERS-2 subscale – School Functioning. This raises questions about whether it is desirable to keep youths in the program as long as possible.

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<sup>40</sup> The numbers for post-test time one to post-test time two change because, even if a form is submitted, a youth may have skipped questions resulting in an inability to calculate a score on a subscale.

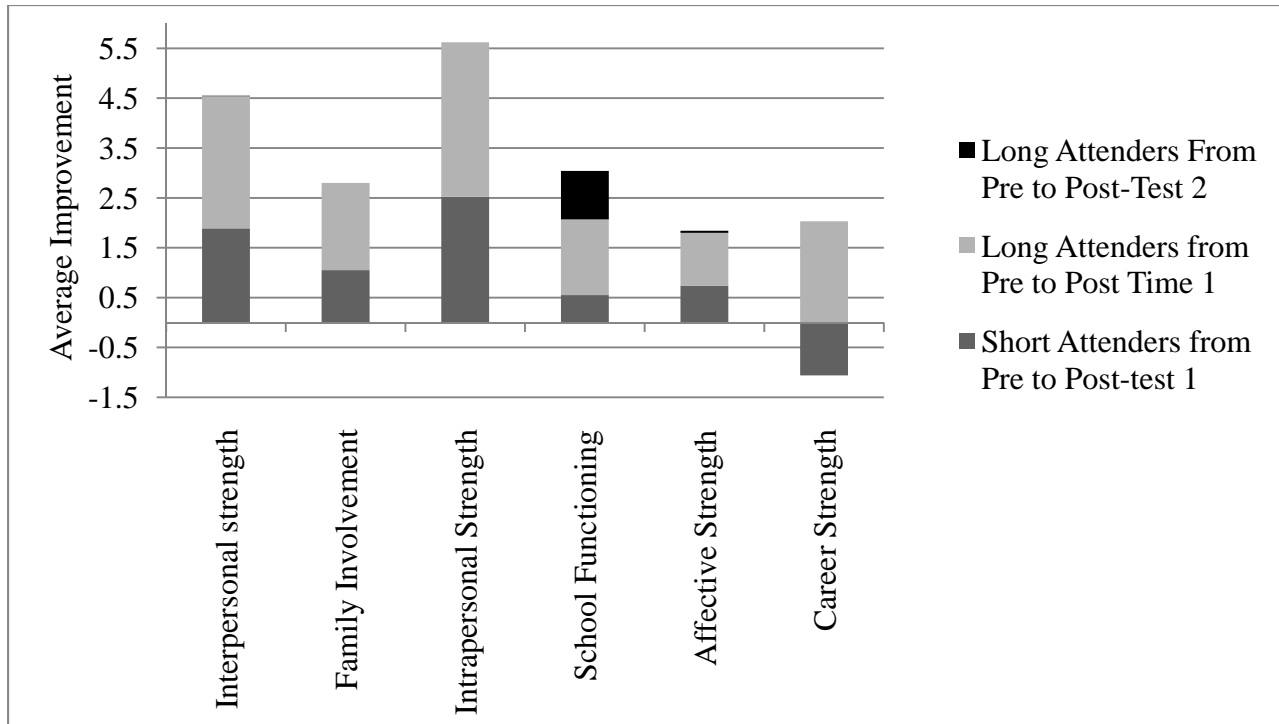


Figure 8. YFP Youth BERS-2 Improvement at Post-Test Time One and Two

Last Post-Test for YFP Youths

When the last post-test prior to discharge (this could have occurred at post-test time one, two, or three) is examined for YFP youths, changes are similar to those seen from pre-test to year one. There are some differences in the average improvement from the pre-test to the last post-test, but in no instance is the average difference greater than the change seen from the pre-test to the year one post-test (see Table 39). This again raises the issue of the optimum length of stay in the program. Given the substantial number of YFP youths with high scores on Career Strength at the pre-test, little weight should be given to the gain scores indicating negative change on the pre-test.

*Table 39. YFP Youth Change From Pre-Test to Last Post-Test*

<b>BERS-2 Scale</b>	<b>Mean</b>	<b>Std. Dev.</b>	<b>DF</b>	<b>Sig.</b>
Interpersonal strength	2.40	10.35	229	.001
Family Involvement	1.16	6.82	230	.011
Intrapersonal Strength	3.37	8.01	229	.000
School Functioning	1.33	6.19	229	.001
Affective Strength	.88	5.34	232	.013
Career Strength	-.52	3.89	162	.093

#### Sub-group Differences for the YFP Group

We examined the relationship between youths' BERS-2 pre-test scores and various background characteristics as well as factors related to program involvement and found many significant correlations (see Table 40 below). With the exception of Career Strength, youths with higher pre-test scores on the BERS-2 scales were less involved in the program, both in terms of overall time in the program and program dosage, and were more likely to be discharged from the program because they stopped attending. Non-whites had lower scores on Family Involvement. Girls had higher Interpersonal Strength, School Functioning and Affective Strength.

Table 40. Relationship between YFP Youths' Pre-Test BERS-2 Scores and Background and Program Involvement Characteristics

BERS-2 Scale		Discharged b/c stopped attending?	Received at least 2/3 of program	Living Arrangements	Race/Ethnicity (white v. non-white)	Youth's age at admit	Gender	Time in Program (Months)
Youth pretest Interpersonal strength	Pearson Correlation	.180**	-.124*	-.012	-.001	-.037	.118*	-.247**
	Sig. (2-tailed)	.002	.032	.829	.991	.497	.028	.000
	N	298	301	340	262	338	344	271
Youth pretest family involvement	Pearson Correlation	.186**	-.195**	-.014	.129*	-.072	.083	-.234**
	Sig. (2-tailed)	.001	.001	.793	.037	.185	.126	.000
	N	299	302	341	263	339	345	272
Youth pretest Intrapersonal Strength	Pearson Correlation	.206**	-.143*	.040	.066	-.045	.089	-.356**
	Sig. (2-tailed)	.000	.013	.461	.289	.404	.099	.000
	N	298	301	340	262	338	344	271
Youth pretest school functioning	Pearson Correlation	.140*	-.160**	.000	.038	-.206**	.134*	-.143*
	Sig. (2-tailed)	.015	.006	.998	.542	.000	.013	.018
	N	298	301	340	262	338	344	271
Youth pretest affective strength	Pearson Correlation	.173**	-.118*	-.008	-.003	-.104	.137*	-.166**
	Sig. (2-tailed)	.003	.040	.877	.965	.054	.011	.006
	N	301	303	342	263	341	347	274
Youth pretest career strength	Pearson Correlation	.103	-.035	-.099	.010	-.012	.054	-.039
	Sig. (2-tailed)	.148	.593	.129	.882	.861	.409	.590
	N	198	233	235	231	234	238	198
**p < .01. *p < .05.								

ANCOVAs showed significant changes ( $p < .05$ ) from pre-test to post-test time one for several youth background and program involvement characteristics (see Tables 41 through 44).

By post-test time one:

- females in the YFP group had significantly higher affective strength and intrapersonal strength;
- whites had higher interpersonal strength and school functioning;

- youths ages 12 to 17 at admit, the oldest youths, had lower school functioning; and
- youths who would ultimately be discharged from the program within a year had the lowest scores on interpersonal strength, family involvement, intrapersonal strength, school functioning, and career strength.

*Table 41. YFP Youth Significant BERS-2 Changes by Gender (Posttest 1 Means)*

Gender	Affective Strength			Intrapersonal Strength		
	Mean	Std. Deviation	N	Mean	Std. Deviation	N
Male	13.94	4.62	119	26.43	5.03	118
Female	15.36	4.06	111	27.98	4.40	110
Total	14.63	4.41	230	27.17	4.79	228

*Table 42. YFP Youth Significant BERS-2 Changes by Race/Ethnicity (Posttest 1 Means)*

Race	Interpersonal Strength			School Functioning		
	Mean	Std. Deviation	N	Mean	Std. Deviation	N
White	33.63	7.77	123	19.92	5.42	123
Non-white	31.35	8.97	59	18.56	6.17	59
Total	32.90	8.22	182	19.48	5.69	182

*Table 43. YFP Youth School Functioning Changes by Age at Admission (Posttest 1 Means)*

Age	Mean	Std. Deviation	N
5 through 11	19.92	5.22	176
12 through 17	17.00	6.02	52
Total	19.26	5.54	228

Table 44. YFP Youth Significant BERS-2 Changes by Time in Program (Posttest 1 Means)

Time in Program	Interpersonal Strength			Family Involvement			Intrapersonal Strength			School Functioning			Career Strength		
	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N	Mean	Std. Dev.	N
up to 1 year	30.50	9.15	56	20.80	5.90	56	25.80	5.06	56	17.68	6.25	56	10.94	3.98	51
greater than 1 year to 2 years	34.29	7.39	87	22.70	4.95	88	27.41	4.96	87	19.80	5.01	87	12.50	3.24	59
greater than 2 years	32.50	7.03	40	22.45	4.41	40	27.32	4.03	40	19.10	5.50	40	13.42	2.46	19
Total	32.74	8.02	183	22.07	5.19	184	26.90	4.84	183	19.00	5.57	183	12.02	3.56	129

In terms of average changes (i.e. gain scores, where the pre-test score is subtracted from the post-test score) from pre-test to post-test one and post-test one to post-test two, there were a number of differences in gender, race/ethnicity, age, and living arrangements changes for the YFP group when compared to overall average changes for the YFP group (See Table 45). At post-test one, girls had larger positive changes on intrapersonal strength and affective strength than boys; there were no significant changes on any BERS-2 subscales for non-whites; youths living with both parents had larger improvements on family involvement and intrapersonal strength than youths not living with both parents; and the only significant improvements for youths ages 12 or older was a increase in intrapersonal strength which was less of an improvement for the YFP group as a whole.

In order to assess whether the YFP program may have had differential impacts on subgroups of youth as indicated by the variables discussed above (e.g., boys vs. girls), we re-ran the ANCOVAs for the BERS-2 subscales from pre-test to first post-test looking for significant interactions between the variable(s) of interest (e.g., gender) and whether the youth was in YFP or the comparison group. The group-gender interaction approached statistical significance for the intrapersonal strength scale ( $F = 5.07, p = .06$ ). When controlling for pretest differences, YFP girls scored higher on intrapersonal strength than comparison girls, while there was no difference

between boys in the two groups. When differences by race (white vs. non-white) were examined, there was a statistically significant difference on the Family Involvement subscale ( $F = 5.29, p < .05$ ). Non-white YFP participants scored significantly higher on the post-test than comparison group youth, while for whites there was no difference in scores on Family Involvement. With regard to whether the youth lived with both parents, the group interaction for Affective Strength barely failed to reach statistical significance ( $F = 3.83, p = .051$ ). YFP youth who lived with both parents had significantly higher post-test scores than comparison youth, while for youth who did not live with both parents there was no difference in subscale scores. Finally, the differential effect of age (at time of admission or pretest) on group differences was examined for the BERS-2 subscales. Differences on three of the subscales – School Functioning, Affective Strength, and Career Strength – were statistically significant ( $F = 6.56, F = 5.32, \text{ and } F = 5.95$ , respectively, all  $p < .05$ ). In all cases, when controlling for pretest scores, younger YFP participants scoring higher on the posttest than older ones, a difference not observed in the comparison group. In addition, differences on the Family Involvement scale approached statistical significance ( $F = 3.39, p = .07$ ), with younger YFP participants again scoring higher on the subscale than older ones, a difference not observed in the comparison group.

Between year one and year two, there were few significant changes in the average scores on the BERS-2 scales by various background and program involvement characteristics. Older youths (ages 12-17) had increased School Functioning ( $m = 4.24, n = 17$ ) and youths who were discharged because they stopped attending the program had decreased Affective Strength ( $m = 1.92, n = 13$ ).

Table 45. Change on BERS-2 for YFP Group by Selected Variables

		Interpersonal Strength	Family Involvement	Intrapersonal Strength	School Functioning	Affective Strength	Career Strength
Male	Mean	2.91**	1.96**	3.45**	1.41**	.81	.51
	SD	9.10	6.58	7.04	5.92	4.83	3.63
	N	119	120	119	119	120	79
Female	Mean	3.16**	1.72**	4.46**	1.05	1.74**	.1
	SD	11.01	6.86	8.29	6.44	5.21	3.78
	N	113	113	113	113	115	83
Lives with both parents	Mean	3.68**	2.52**	4.79**	1.54**	1.71**	.57
	SD	9.70	6.57	7.30	6.31	5.11	3.64
	N	130	130	130	130	130	84
Does not live with both parents	Mean	1.99	.85	2.75**	.74	.59	.08
	SD	10.25	6.71	8.0	5.91	4.83	3.73
	N	101	102	101	101	103	77
White	Mean	2.57**	1.31*	2.57**	1.42**	.70*	.05
	SD	9.55	5.99	7.16	5.97	4.51	3.62
	N	123	124	123	123	124	103
Non-white	Mean	-.64	-1.26	1.07	-.67	.02	.96
	SD	9.05	5.54	5.58	5.41	4.87	3.81
	N	61	61	61	61	61	55
Ages 5 up to 12	Mean	3.27**	2.13**	4.13**	1.68**	1.33**	.02
	SD	10.08	6.99	7.92	6.28	5.17	3.67
	N	180	181	180	180	183	125
Ages 12 through 17	Mean	2.21	.83	3.29**	-.29	1.04	-1.35*
	SD	9.95	5.55	6.79	5.56	4.53	3.65
	N	52	52	52	52	52	36
Not discharged b/c stopped attending	Mean	3.43**	2.33**	4.32**	1.22*	1.44**	-.41
	SD	9.83	6.84	8.12	6.61	5.19	3.82
	N	148	148	148	148	149	93
Discharged b/c stopped attending	Mean	1.55	.56	3.09**	1.23	.94	-.95
	SD	11.53	6.94	7.33	6.04	4.98	3.58
	N	47	48	47	47	49	38
Did not receive at least 2/3 of program	Mean	1.65*	.45	2.52**	.21	.64	.093
	SD	8.9	5.47	6.34	5.21	4.53	3.60
	N	141	142	141	141	144	118
Received at least 2/3 of program	Mean	4.05**	2.92**	4.92**	2.73**	1.61*	-.84
	SD	11.45	7.80	8.77	7.18	5.66	3.95
	N	77	77	77	77	77	44

\*\*p<.01, \*p<.05



Predicting Change on the BERS-2 Subscales for the YFP Group

We developed a series of linear regression models to identify predictors of change for each of the BERS-2 youth subscale scores (raw scores) from pre-test to post-test time one (see Tables 46-51). We used a variety of youth background and program involvement variables as predictors. All of the predictor variables were entered into the models at the same time. These variables do not do a very good job of explaining the variation in change in scores on any of the BERS-2 subscales – that is, the  $R^2$  values are quite low for each of the models. Nevertheless, race/ethnicity is a significant predictor of change for several of the subscales. Being non-white was associated with decreased scores for interpersonal strength, family involvement, school functioning, and career strength. In fact, the only significant predictor of change for interpersonal strength was race. For family involvement, race and age were significant predictors. Being non-white and older (ages 12-17) was associated with decreased scores on family involvement. For school functioning, being female and non-white was associated with decreased scores. None of the variables entered in the model were significant predictors of change for affective strength or intrapersonal strength.

*Table 46. Predictors of Change on Interpersonal Strength For YFP Group*

<b>Model</b>	<b>Unstandardized Coefficients</b>		<b>Standardized Coefficients</b>	<b>t</b>	<b>Sig.</b>
	<b>B</b>	<b>Std. Error</b>	<b>Beta</b>		
(Constant)	19.286	6.036		3.195	.002
Gender	-1.617	1.505	-.088	-1.074	.285
Living arrangements	-1.483	1.515	-.080	-.979	.329
Race/ethnicity	-3.556	1.659	-.177	-2.143	.034
Was 2/3 of program received?	-.562	1.622	-.029	-.346	.730
Age at admit	-.825	.453	-.149	-1.823	.070
Was youth discharged b/c stopped attending?	-2.160	1.729	-.104	-1.249	.214
$R^2 = .085$					

Table 47. Predictors of Change on Family Involvement For YFP Group

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	11.809	3.717		3.177	.002
Gender	-.402	.927	-.035	-.434	.665
Living arrangements	-.978	.934	-.085	-1.047	.297
Race/ethnicity	-2.587	1.023	-.206	-2.528	.013
Was 2/3 of program received?	.366	.999	.030	.366	.715
Age at admit	-.603	.279	-.175	-2.157	.033
Was youth discharged b/c stopped attending?	-1.335	1.060	-.103	-1.259	.210
R <sup>2</sup> = .098					

Table 48. Predictors of Change on Intrapersonal Strength For YFP Group

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	12.384	4.287		2.889	.004
Gender	-.314	1.069	-.024	-.293	.770
Living arrangements	-1.846	1.076	-.143	-1.716	.088
Race/ethnicity	-1.916	1.178	-.136	-1.626	.106
Was 2/3 of program received?	.737	1.152	.054	.639	.524
Age at admit	-.526	.322	-.135	-1.636	.104
Was youth discharged b/c stopped attending?	-.211	1.228	-.014	-.171	.864
R <sup>2</sup> = .064					

Table 49. Predictors of Change on School Functioning For YFP Group

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	12.877	3.895		3.306	.001
Gender	-2.763	.971	-.227	-2.844	.005
Living Arrangements	-.385	.977	-.032	-.394	.694
Race/Ethnicity	-2.618	1.070	-.197	-2.446	.016
Was 2/3 of program received	.971	1.047	.075	.927	.355
Age at admit	-.444	.292	-.121	-1.520	.131
Was youth discharged b/c stopped attending	.326	1.116	.024	.292	.771
R <sup>2</sup> = .128					

*Table 50. Predictors of Change on Affective Strength For YFP Group*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	5.833	3.075		1.897	.060
Gender	-.467	.766	-.051	-.609	.543
Living Arrangements	-.710	.772	-.077	-.919	.360
Race/Ethnicity	-1.130	.846	-.113	-1.335	.184
Was 2/3 of program received	.206	.827	.021	.249	.804
Age at admit	-.230	.231	-.084	-.997	.321
Was youth discharged b/c stopped attending	-.141	.877	-.014	-.160	.873
R <sup>2</sup> = .032					

*Table 51. Predictors of Change on Career Strength For YFP Group*

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
(Constant)	3.256	2.713		1.200	.232
Gender	.722	.666	.095	1.085	.280
Living Arrangements	.535	.663	.071	.807	.421
Race/Ethnicity	-1.550	.725	-.191	-2.137	.035
Was 2/3 of program received	-.337	.734	-.041	-.460	.647
Age at admit	-.329	.201	-.144	-1.640	.104
Was youth discharged b/c stopped attending	-.816	.740	-.098	-1.102	.273
R <sup>2</sup> = .069					

### *Parent Scores for YFP Group*

#### Comparison Between Youth and Parent Scores for YFP Group

Though significant for each subscale, correlations between comparable youth and parent subscale scores at the pretest for the YFP group are weak to moderate (.253 to .363; see Table 52). These are lower than the youth-parent correlations identified for the normative sample used to develop the scale (.5 to .63) (Synhorst, Buckley, Reid, Epstein, & Ryser, 2005).

Table 52. Correlations for BERS-2 Subscale Scores for YFP Youths and Parents

Subscale		Parent Pretest Interpersonal Strength	Parent Pretest Family Involvement	Parent Pretest Intrapersonal Strength	Parent Pretest School Functioning	Parent Pretest Affective Strength	Parent Pretest Career Strength
Youth Pretest Interpersonal Strength	Pearson Correlation	<b>.329**</b>	.334**	.336**	.225**	.338**	.260**
	Sig. (2-tailed)	<b>.000</b>	.000	.000	.000	.000	.000
	N	<b>258</b>	259	258	258	259	180
Youth Pretest Family Involvement	Pearson Correlation	.272**	<b>.329**</b>	.290**	.239**	.320**	.264**
	Sig. (2-tailed)	.000	<b>.000</b>	.000	.000	.000	.000
	N	258	<b>259</b>	258	258	259	180
Youth Pretest Intrapersonal Strength	Pearson Correlation	.249**	.287**	<b>.294**</b>	.197**	.320**	.229**
	Sig. (2-tailed)	.000	.000	<b>.000</b>	.001	.000	.002
	N	258	259	<b>258</b>	258	259	180
Youth Pretest School Functioning	Pearson Correlation	.271**	.255**	.277**	<b>.316**</b>	.323**	.191*
	Sig. (2-tailed)	.000	.000	.000	<b>.000</b>	.000	.010
	N	258	259	258	<b>258</b>	259	180
Youth Pretest Affective Strength	Pearson Correlation	.287**	.278**	.285**	.225**	<b>.363**</b>	.189*
	Sig. (2-tailed)	.000	.000	.000	.000	<b>.000</b>	.011
	N	259	260	259	259	<b>260</b>	181
Youth Pretest Career Strength	Pearson Correlation	.261**	.225**	.264**	.161*	.218**	<b>.253**</b>
	Sig. (2-tailed)	.000	.002	.000	.030	.003	<b>.001</b>
	N	182	181	182	182	181	<b>178</b>
**p< .001							
*p< .05							

When mean pre-test scores for youths and parents are compared for cases in which youths and parents submitted pretests, some mean scores are higher and others lower, with the greatest differences occurring for interpersonal strength and career strength (See Table 53).

Given the analyses conducted on other populations, it is not surprising to find that, though they are significantly correlated, youth pre-test scores on the BERS-2 differ from parent pre-test scores on the BERS-2 (Epstein, 2004; Synhorst et al., 2005).

Table 53. BERS-2 Pretest Subscale Scores for YFP Youths and Parents

Subscale		Interpersonal Strength	Family Involvement	Intrapersonal Strength	School Functioning	Affective Strength	Career Strength
Youth	Mean	29.901	20.23	23.23	17.72	13.46	12.37
	N	272	272	272	272	273	186
	Std. Dev.	8.61	5.96	7.00	5.57	4.29	2.81
Parent	Mean	27.45	21.64	22.78	16.29	14.71	9.80
	N	269	270	269	269	270	184
	Std. Dev.	8.97	5.37	6.32	6.29	4.02	3.79

### Gain Scores

Review of gain scores on the parent version of the BERS-2 scales from pre-test to post-test time one and pre-test to post-test time two did not reveal any significant changes. That is, there is no evidence of youth improvement on the BERS-2 scales from the parent perspective.

### *Mentor Relationship Quality*

The Youth-Mentor Relationship Questionnaire (YMR) was administered at each post-test for youths in the YFP group only. Looking at the YMR scores preceding discharge, on average youths scored highest on the Not Unhappy subscale and lowest on the Helped to Cope subscale (see Table 54 below). Using information provided by the scale’s authors, a score of ‘1’ would be considered an unsuccessful relationship and a score of ‘4’ would be considered a successful relationship. This suggests that, on average, youths rated their relationships as more rather than less successful, but the greatest success was achieved in the absences of negative emotions about the relationship (Not Unhappy), while the least success was achieved with how the mentors helped youth cope with problems (Helped to Cope).

*Table 54. Youth-Mentor Relationship Scale Scores on Last Youth Post-Test*

	<b>Not dissatisfied</b>	<b>Helped to cope</b>	<b>Not unhappy</b>	<b>Trust not broken</b>
Number of cases	202	201	204	184
Mean	3.57	2.95	3.61	3.22
Std. Deviation	.62	1.07	.62	.55

We examined a variety of factors which we thought, based on previous research, might be related to youths' scores on the YRM: being discharged from the program because the youth stopped attending the program, whether the youth received at least two-thirds of expected program activities (including mentoring), living arrangements at the start of the program (whether they were living with both parents or not), race/ethnicity (white v. non-white), the length of time they were involved in the program if discharged by the end of data collection, gender, and their age at admittance to the program. We also looked at the relationship between changes on the youths' BERS-2 category scores from pre-test to the last post-test with the YRM score at the last post-test.

There was a positive relationship between gender and the Helped to Cope scale indicating that females were more likely to report that mentors helped them with their problems (see Table 55). There was a negative relationship between race/ethnicity and the Not Unhappy scale indicating that non-whites were more likely to report negative feelings about their mentors. Based on the findings of previous research it is surprising that neither of the measures of program involvement, length of time or dosage, were correlated with scores on the YRM subscales. However it is possible that a more thorough examination (e.g., the number of the mentors the youth had during the program, the length of time the youth was involved in the program during which he/she was not matched with a mentor) of the mentor relationship would have yielded a significant relationship.

Table 55. Correlation Between YRM Subscales and Youth Characteristics

		<b>Not dissatisfied</b>	<b>Helped to cope</b>	<b>Not unhappy</b>	<b>Trust not broken</b>
Discharged b/c stopped attending?	Pearson Correlation	-.054	.043	-.089	-.116
	Sig. (2- tailed)	.502	.588	.261	.169
	N	159	158	162	143
Received 2/3 or more of program	Pearson Correlation	.047	.051	.071	.046
	Sig. (2- tailed)	.512	.475	.314	.534
	N	200	199	202	182
Living arrangements	Pearson Correlation	-.038	.004	-.094	.090
	Sig. (2- tailed)	.608	.954	.202	.251
	N	184	183	186	166
Race/ ethnicity	Pearson Correlation	-.098	.084	-.149*	-.067
	Sig. (2- tailed)	.189	.263	.045	.395
	N	181	180	182	163
Time in program	Pearson Correlation	-.026	.105	.125	.007
	Sig. (2- tailed)	.742	.188	.111	.933
	N	160	159	163	144
Gender	Pearson Correlation	-.065	.205**	.024	-.037
	Sig. (2- tailed)	.358	.003	.730	.619
	N	202	201	204	184
Youth's age at admission	Pearson Correlation	-.084	-.011	-.110	.053
	Sig. (2- tailed)	.237	.876	.117	.476
	N	202	201	204	184
**p< .001					
*p< .05					

Positive changes (from pre-test to last post-test) on some of the BERS-2 scales were correlated with YRM scale scores (see Table 56). Increases on School Functioning were related to satisfaction with the mentor relationship and perceptions of the mentor as reliable and

trustworthy. Increases in the youth’s ability to accept affection from and express feelings toward others (Affective Strength) were related to satisfaction with the mentoring relationship.

*Table 56. Correlation Between YRM Subscales and BERS-2 Subscale Change Scores*

		<b>Not dissatisfied</b>	<b>Helped to cope</b>	<b>Not unhappy</b>	<b>Trust not broken</b>
Change in interpersonal strength	Pearson Correlation	.110	-.093	.010	.078
	Sig. (2-tailed)	.142	.213	.893	.325
	N	181	180	183	163
Change in family involvement	Pearson Correlation	.139	-.057	.037	.121
	Sig. (2-tailed)	.062	.444	.616	.121
	N	182	181	184	164
Change in intrapersonal strength	Pearson Correlation	.060	-.049	.034	.035
	Sig. (2-tailed)	.424	.512	.649	.660
	N	181	180	183	163
Change in school functioning	Pearson Correlation	.174*	-.060	.112	.162*
	Sig. (2-tailed)	.019	.425	.133	.039
	N	181	180	183	163
Change in affective strength	Pearson Correlation	.173*	-.031	.124	.086
	Sig. (2-tailed)	.019	.681	.094	.271
	N	183	182	185	165
Change in career strength	Pearson Correlation	-.003	-.079	.091	-.005
	Sig. (2-tailed)	.969	.333	.264	.952
	N	152	152	154	138
*p = .05 (2-tailed).					
** p=.01 (2-tailed).					

*Perceptions of Program*

When youths were asked at post-tests one and two about how much they thought the program helped them, an overwhelming majority (90% and 94%, respectively) indicated that the program helped them “somewhat” or “very much” (see Table 57). At both post-tests one and



two, youths reported that mentor activities were the part of the program that helped them the most (47% and 53% respectively) (see Table 58).

*Table 57. Youth Perceptions of How Much Program has Helped Them*

	<b>Posttest 1</b>	<b>Posttest 2</b>
Very much	58.6	63.3
Somewhat	31.3	30.3
Not very much	5.6	5.5
Not at all	4.5	.9
Total	198	109

*Table 58. Youth Perceptions of Which Part of Program Helped Most*

	<b>Posttest 1</b>	<b>Posttest 2</b>
Activities with my mentor	47.0	52.8
4-H activities	23.2	23.1
Family Night Out activities	12.6	12.0
Grandmentor activities	2.0	.9
Something else	15.2	11.1
Total	198	108

### *School Performance*

#### Official Absences

As noted previously, issues with the quality of the data obtained from schools made precise assessments of differences between YFP and comparison youth difficult. Given the limitations of the data, the approach we felt most comfortable with was to assess whether the number of days absent increased, decreased, or remained the same for youths with multiple absences in the time period preceding program/study involvement.

In the reporting period prior to program involvement (or study involvement for comparison youths), 22% of YFP youths and 36% of comparison youths had no school absences. Table 59 shows the change in the number of official school days absent for youths with two or more school absences from the reporting period prior to program involvement to the reporting period at discharge or at the last post-test date for both the YFP and comparison groups. Comparable proportions of youths in the YFP and comparison groups had decreased absences during this time, though YFP youths were more likely to have an increase in absences. We are unable to explain why the latter occurred.

*Table 59. Change in Official School Days Absent*

	<b>Comparison</b>	<b>YFP</b>	<b>Total</b>
Decrease	21	19	40
	44.7%	45.2%	44.9%
No change	20	8	28
	42.6%	19.0%	31.5%
Increase	6	15	21
	12.8%	35.7%	23.6%
Total	47	42	89
	100.0%	100.0%	100.0%
p<.05			

### Self-Reported Unexcused Absences

To address concerns regarding the small available sample size and definitional issues regarding absences that exist when using the official school records of absences, we examined youth self-report data on school absences using similar timeframes. On the pre-tests, post-tests, and follow-up interviews youths were asked to report the number of days within the last six months they had skipped school. At pre-test, approximately 8% of the YFP (n=15) and comparison group (n=23) reported having skipped school in the 6 months prior to the pre-test.

Given these very low numbers, we did not examine changes in school skipping patterns using self-report data.

Grade Point Average

There was greater volatility over time in the GPAs of youths in the YFP group than for those in the comparison group. More youths in the YFP group had significantly greater differences in their GPA during the reporting period before program involvement (or at the start of program involvement) when compared to the reporting period at discharge (or last post-test for comparison group) than youths in the comparison group. Similarly, a greater percentage of youths in the YFP group had significantly greater differences in their GPA during the first reporting period after program discharge and the second reporting period after discharge than youths in the comparison group (See Tables 60 through 62).

*Table 60. Change in GPA From Pre-Program to Discharge/Last Post-Test Period*

		<b>Comparison</b>	<b>YFP</b>	<b>Total</b>
Decrease	Count	17	13	30
	Percent	14.9%	35.1%	19.9%
No change	Count	40	1	41
	Percent	35.1%	2.7%	27.2%
Increase	Count	57	23	80
	Percent	50.0%	62.2%	53.0%
p< .01				

*Table 61. Change in GPA from First In-Program to Discharge/Post-Test Reporting Period*

		<b>Comparison</b>	<b>YFP</b>	<b>Total</b>
Decrease	Count	14	18	32
	Percent	12.2%	42.9%	20.4%
No change	Count	44	3	47
	Percent	38.3%	7.1%	29.9%
Increase	Count	57	21	78
	Percent	49.6%	50.0%	49.7%
p< .01				

*Table 62. Change in GPA from First to Second Post-Discharge Reporting Period*

		<b>Comparison</b>	<b>YFP</b>	<b>Total</b>
Decrease	Count	54	22	76
	Percent	39.4%	50.0%	42.0%
No change	Count	39	4	43
	Percent	28.5%	9.1%	23.8%
Increase	Count	44	18	62
	Percent	32.1%	40.9%	34.3%
p<.05				

Though there are few youths with available data, most YFP group youths whose GPA was higher in the reporting period at discharge than the reporting period at program start had a lower GPA in the first reporting period after their discharge (72%) (see Table 63).

*Table 63. Post-Discharge Change in GPA Compared to In-Program Change in GPA*

		<b>Decrease start to discharge</b>	<b>No change start to discharge</b>	<b>Increase start to discharge</b>	<b>Total</b>
Decrease after discharge	Count	2	0	13	15
	Percent	18.2%	.0%	72.2%	48.4%
No change after discharge	Count	2	0	1	3
	Percent	18.2%	.0%	5.6%	9.7%
Increase after discharge	Count	7	2	4	13
	Percent	63.6%	100.0%	22.2%	41.9%
p< .05					

### *Delinquency*

As stated earlier, few youths began participation in the study with a history of court involvement. Court involvement was defined as having charge(s) referred to court for a new delinquent or status offense. Both charges that did and did not proceed to the next stage in court processing are considered court involvement.

Only 3% of youths had a history of court involvement at any time before the study began (2.8% for the comparison group and 3.1% for the YFP group). There were no racial/ethnic

differences in the proportion of youths with a history of court involvement pre-study, but males were more likely than females to have a pre-study history of court involvement (4.6% and 1.8%, respectively). These gender variations did not continue in the follow-up time periods.

During the time YFP youths were in the program, a significantly greater proportion (6.2%) had charges brought to court than comparison group youth (2.2%;  $\chi^2 = 6.66, p=.01$ ). For these YFP youths, the average time to the first new offense while in the program was 13.4 months (median was 9.2 months)<sup>41</sup>. For comparison youths, the average time to a new “in-program<sup>42</sup>” offense was slightly longer at 13.7 months (n=7) with a median time of 11.9 months. YFP youths were more likely than comparison youths to have court involvement for a new offense in both the first and second year following discharge (last post-test for comparison group; see Tables 64 and 65). There were no significant differences in court involvement by the third year following discharge, but year three data are not available for a large proportion of cases in both groups (see Table 66).

*Table 64. Court Involvement in First Year After Discharge/Last Post-Test*

<b>Court Involvement</b>		<b>Comparison</b>	<b>YFP</b>	<b>Total</b>
No	Count	309	248	557
	Percent	96.9%	92.2%	94.7%
Yes	Count	10	21	31
	Percent	3.1%	7.8%	5.3%
Total	Count	319	269	588
	Percent	100.0%	100.0%	100.0%
p< .05				

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<sup>41</sup> Youths who were discharged are included in this analysis for the time they were involved in the program. Since there is variation in the amount of time youths attended the program, there is variation in the amount of time “at risk” for within program delinquency.

<sup>42</sup> For comparison youths in-program time is defined as the time from the completion of the pre-test to the last post-test.

*Table 65. Court Involvement in Second Year  
After Discharge/Last Post-Test*

<b>Court Involvement</b>		<b>Comparison</b>	<b>YFP</b>	<b>Total</b>
No	Count	302	189	491
	Percent	95.0%	90.4%	93.2%
Yes	Count	16	20	36
	Percent	5.0%	9.6%	6.8%
Total	Count	318	209	527
	Percent	100.0%	100.0%	100.0%
p< .05				

*Table 66. Court Involvement in Third Year  
After Discharge/Last Post-Test*

<b>Court Involvement</b>		<b>Comparison</b>	<b>YFP</b>	<b>Total</b>
No	Count	131	99	230
	Percent	91.0%	86.8%	89.1%
Yes	Count	13	15	28
	Percent	9.0%	13.2%	10.9%
Total	Count	144	114	258
	Percent	100.0%	100.0%	100.0%
p= .290				

In the first year following discharge non-white YFP youths were more likely to have court involvement than white YFP youths (see Table 67).

*Table 67. Court Involvement in First Year After Discharge/Last Post-Test by Race*

Court Involvement			White	Non-white	Total
Comparison	No	Count	244	64	308
		Percent	97.2%	95.5%	96.9%
	Yes	Count	7	3	10
		Percent	2.8%	4.5%	3.1%
	Total	Count	251	67	318
		Percent	100.0%	100.0%	100.0%
YFP*	No	Count	135	59	194
		Percent	94.4%	85.5%	91.5%
	Yes	Count	8	10	18
		Percent	5.6%	14.5%	8.5%
	Total	Count	143	69	212
		Percent	100.0%	100.0%	100.0%
Total	No	Count	379	123	502
		Percent	96.2%	90.4%	94.7%
	Yes	Count	15	13	28
		Percent	3.8%	9.6%	5.3%
	Total	Count	394	136	530
		Percent	100.0%	100.0%	100.0%
*p< .05					

YFP youths who did not receive at least two-thirds of expected services were significantly more likely to have court involvement in the third year following discharge (see Table 68). Given the small number of cases here and the findings in follow up years one and two, however, this finding should be interpreted with caution.

*Table 68. Court Involvement in Third Year After Discharge by Services Received*

Court Involvement		Less than 2/3 services	2/3 or more services	Total
No	Count	37	59	96
	Percent	75.5%	95.2%	86.5%
Yes	Count	12	3	15
	Percent	24.5%	4.8%	13.5%
Total	Count	49	62	111
	Percent	100.0%	100.0%	100.0%
p< .01				

Though at years one and two following discharge youths not living with both parents were more likely to have court involvement, there were no significant differences in this outcome when variation by membership in the YFP or comparison group was examined. However, by the third year of follow-up YFP youths not living with both parents were more likely that comparison group youths not living with both parents to have court involvement during that year (see Table 69).

*Table 69. Court Involvement in Third Year After Discharge by Living Arrangements*

Court Involvement			Lives with both parents	Other living arrangement	Total
Comparison	No	Count	90	41	131
		Percent	92.8%	87.2%	91.0%
	Yes	Count	7	6	13
		Percent	7.2%	12.8%	9.0%
	Total	Count	97	47	144
		Percent	100.0%	100.0%	100.0%
YFP*	No	Count	50	42	92
		Percent	94.3%	77.8%	86.0%
	Yes	Count	3	12	15
		Percent	5.7%	22.2%	14.0%
	Total	Count	53	54	107
		Percent	100.0%	100.0%	100.0%
Total*	No	Count	140	83	223
		Percent	93.3%	82.2%	88.8%
	Yes	Count	10	18	28
		Percent	6.7%	17.8%	11.2%
	Total	Count	150	101	251
		Percent	100.0%	100.0%	100.0%
*p< .05					

#### *Follow Up Phone Interviews*

As described earlier, we conducted follow-up telephone interviews annually for YFP and comparison group youths up to three years following either their discharge from the program (YFP youths) or the completion of their final post-test (comparison youths). Here we examine



youths' perspectives regarding the impact of the program; current status with family relationships, school, delinquency/risky behavior, and mentoring; and the duration of program effects. Due to the small number of year three follow-up interviews, we focus on year one and year two follow up interviews.

It should be noted that there was a significant amount of attrition from the initial sample when data were collected for the follow-up telephone interviews. When collecting follow-up data, it is often the case that the youth who are more likely to be found and participate are those who are less risky, higher functioning, or did better in the program than those for whom data could not be collected. To determine the representativeness of the subsample of YFP and comparison youth for whom follow-up interviews were available, we compared the youths who had a follow-up interview at year one with the entire sample of youths who were pre-tested. On most of the BERS-2 subscales, both the YFP and comparison group follow-up youths had higher (i.e., better) average pre-test scores when compared to the entire sample. There were two exceptions for the YFP group: on the School Functioning and Career Strength scales, the YFP follow-up youths' pre-test scores were similar to those of the entire sample. For the comparison group, follow-up youths had slightly lower career strength pretest scores than the entire sample.

There were a few differences between the entire sample and the follow-up samples in terms of background characteristics. A somewhat greater proportion of the follow-up YFP group was male (50%) than the entire YFP sample, and a substantially greater proportion was white (79% versus 64%). Both the YFP and comparison group follow-up youths were more likely to live with both parents (68% and 76%, respectively). There were no notable differences in age at follow-up for either the YFP or comparison groups.

In terms of indicators of delinquency or negative behavior, both the YFP and comparison group youths interviewed at follow-up were less likely than the entire sample to have begun the study with a court record (2.4% and 1.9% respectively). Finally, the follow-up YFP group was less likely than the entire YFP group to have started the study with self-reported school suspensions (6%) or having skipped school (3.6%) in the last six months. The follow-up comparison group was just as likely to have skipped school, but less likely to have been suspended in the six months preceding their involvement in the study than the entire comparison group sample.

In summary, the follow-up samples of YFP and comparison group youths were different from the overall sample in several ways. In general, as expected, the subsamples that comprised the follow-up groups showed fewer “risk factors” than the overall study samples. Therefore, the results presented should be interpreted with caution, since they may reflect a positive sample selection bias.

### Year One

Interviews began with a series of questions regarding mentoring relationships. When asked if youths had stayed in contact with their mentor since they left the program, a small proportion of youths reported that they never had a mentor from the 4-H Mentoring YFP program (6 youths or 5%), although records indicate that four of these youths were matched with at least one mentor. Almost three-fourths (73%) of youths reported that they had not kept in contact with their mentor since they left the program. Most youths were “okay” with their contact (or lack thereof) with their mentor (88%), though 64% missed having a mentor.

The vast majority of YFP youths, 92%, had not gotten involved with another mentor in the year since they left the 4-H Mentoring YFP program. A similar, though slightly smaller,

percentage (83%) of comparison youths had not been involved in a mentoring program in the year preceding the interview. Of the comparison group youths who became involved in mentoring programs, none became involved in 4-H Mentoring/YFP. So, though some youths became involved with mentors since discharge (or the year since the last post-test), the potential role that another mentoring program may have had on one year post-program effects appears limited.

When asked how much the 4-H Mentoring/YFP program helped them, 91% of YFP youths indicated that it helped them somewhat or very much (See Table 70). Activities with the mentor (60%) and FNOs (21%) were activities that YFP youths reported helped them the most (See Table 71).

*Table 70. How Much the Program Helped (Year 1 Follow-up)*

	<b>Count</b>	<b>Percent</b>
Very much	61	46.6%
Somewhat	58	44.3%
Not very much	8	6.1%
Not at all	4	3.0%
Total	131	100.0%

*Table 71. Part of the Program that Helped the Most (Year 1 Follow-up)*

	<b>Count</b>	<b>Percent</b>
Activities with my mentor	79	60.3%
FNO	28	21.7%
4H activities	15	11.5%
Something else	3	2.3%
Nothing	6	4.6%
Total	131	100.0%

When specifically asked about any changes the youths noticed in their family relationships in the year following involvement in YFP, 74% reported some sort of improvement

with their family. The most common improvement noted was “get along better [with family]” (21%). Though most responses reflected positive improvements in family relationships, 5% of youths indicated that family relationships had gotten worse in the year since they left the program (see Table 72).

*Table 72. Changes in Family Relationship (Year 1 Follow-up)*

	<b>Count</b>	<b>Percent</b>
No changes	28	21.5%
Get along better	27	20.8%
More family time/activities together	16	12.3%
Helped- nothing specific mentioned	13	10%
Don't know	12	9.2%
Talk more	12	9.2%
Closer	11	8.4%
Gotten worse	6	4.6%
Other improvement	11	8.4%
Mix of better and worse	1	.7%
Total number of responses	138	100.0%
Total number of respondents	130	

### Year Two

Responses to interview questions regarding whether and how the program helped youths at the year two follow-up were similar to those at year one (see Tables 73 through 75). Though a little less frequently than at the year one follow-up, most youths reported that the program helped them “somewhat” or “very much” (84%). Activities with the mentor (55%) remained the most commonly selected response when youths were asked what program activity helped them the most. Though a bit more than at the year one follow-up interview, “no change” (28%) was the most frequently selected response when youths were asked about changes the program had on family relationships.

*Table 73. How Much the Program Helped (Year 2 Follow-up)*

	<b>Count</b>	<b>Percent</b>
Very much	40	39.2
Somewhat	46	45.1
Not very much	11	10.8
Not at all	5	4.9
Total	100	100

*Table 74. Part of the Program that Helped the Most (Year 2 Follow-up)*

	<b>Count</b>	<b>Percent</b>
Activities with my mentor	56	56
FNO	14	14
4-H activities	21	21
Something else	4	4
Nothing	6	6
Total	101	100

*Table 75. Changes in Family Relationship (Year 2 Follow-up)*

	<b>Frequency</b>	<b>Percent</b>
No changes	28	28.5
Get along better	20	20.4
Helped- nothing specific mentioned	13	12.2
Talk more	7	7.1
Closer	7	7.1
Other improvement	7	7.1
More family time/activities together	6	6.1
Gotten worse	6	6.1
Mix of better and worse	3	3.0
Don't know	2	2.0
Total number of responses	99	100.0
Total number of respondents	96	

Perhaps reflecting the increased time from discharge, of those YFP youths reporting they had a mentor (99 or 93%), fewer youths reported staying in touch with their mentor (23%) or missing their mentor (52%) at the year two follow-up. Most youths were okay (81%) with whether they had stayed in touch with their mentor, a somewhat smaller percentage than at the

year one follow-up. Just like at the year one follow-up, the vast majority of YFP youths (92%) had not gotten involved with another mentor, but approximately 13% of youths in the comparison group had gotten involved with a mentor between the year one and two follow-up interviews. Of those in the comparison group, it is possible that one youth became involved in the 4-H/YFP mentoring program, but the youth could not remember actually meeting with a mentor.

### YFP and Comparison Group Differences

In order to obtain greater detail regarding the impact of the program on school performance, delinquent/risky behaviors, and family relationships, we asked some additional questions and compared the responses of YFP and comparison group youths. Several of the questions were drawn from the BERS-2 scale; higher scores reflect greater strengths. Similar to the analyses we conducted looking at average differences on these questions for the BERS-2 scale, we examined average differences at the first follow-up interview for a number of items (See Table 76). For a number of the self-reported delinquency behaviors<sup>43</sup>, the number of youth reporting that they engaged in such behaviors was too small (less than 2%) for these variables to be included in the analysis.

There was significant variation on multiple school measures. At follow-up interview one, YFP youths were more likely to have reported having lower grades and less likely to have reported completing schoolwork on time than comparison group youths. On a scale of one to five, where one is equivalent to “mostly As” and five is equivalent to “mostly Fs,” the average grades for comparison youths were closest to “mostly As” and the average grades for YFP

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<sup>43</sup> These uncommon behaviors included: was drunk or high at school (past 6 months and past year), was arrested (past 6 months and past year), sold illegal drugs (past 6 months and past year), took a weapon to school (past 6 months and past year), smoked a cigarette (past 6 months and past year), and drew graffiti (past 6 months and past year).

youths were closest to “mostly Bs.” In addition, YFP youths were less likely to report respecting the rights of others, getting along well with parents and knowing what they do well. Finally, YFP youths were more likely to report getting into physical fight(s). Together, YFP youths appeared to have more school, family, and social issues in the first year after they left the program than comparison group youths.

Table 76. Self-Reported Outcomes at Year 1 Follow-Up

Group		What kinds of grades did you get last semester *	How many times did you skip school in last semester, if at all	Number of times suspended from school at all last semester	I respect the rights of others (BERS-2) *	I get along well with my parents (BERS-2) *	I know what I do well (BERS-2)*	I do my schoolwork on time (BERS-2) *	I let people know when I like them (BERS-2)	My future looks good (BERS-2)	Number of times took something that did not belong to you	Number of times damaged or ruined something that did not belong to you on purpose (past)	Number of times was drunk or high at school (past year)	Number of times got into a physical fight (past year)
Comparison	Mean	1.46	.13	.03	3.58	3.60	3.48	3.42	3.19	3.44	.16	.05	.029	.07
	N	103	103	103	103	103	103	103	103	103	102	102	102	102
	Std. Dev.	.64	.79	.16	.49	.51	.54	.59	.74	.61	.94	.33	.29	.29
YFP	Mean	1.79	.35	.08	3.44	3.36	3.31	2.98	3.21	3.41	1.18	.12	.00	1.43
	N	130	123	132	130	132	132	132	131	131	131	131	131	131
	Std. Dev.	.89	1.37	.27	.56	.52	.64	.73	.75	.58	7.81	.78	.00	7.17
Total	Mean	1.64	.25	.06	3.50	3.46	3.38	3.17	3.21	3.42	.73	.09	.01	.83
	N	233	226	235	233	235	235	235	234	234	233	233	233	233
	Std. Dev.	.81	1.14	.23	.53	.53	.60	.70	.74	.59	5.90	.62	.196	5.41
*p<.05														

When follow-up interview year one scores were accounted for, YFP youths had significantly lower grades, skipped school more often, were less likely to do schoolwork on time, got along worse with parents, and damaged or ruined something belonging to others on purpose more often at follow-up year two than comparison youths (see Table 77).

Table 77. Self-Reported Outcomes at Year 2 Follow-up

Outcome	YFP Group			Comparison Group			Sig.
	Mean	N	Std. Dev.	Mean	N	Std. Dev.	
What kinds of grades did you get last semester <sup>44</sup>	2	74	.87	1.3	71	.58	.00
How many times did you skip school in last semester, if at all	.62	70	2.09	.09	73	.60	.037
Were you suspended from school at all last semester	.05	74	.23	.041	73	.19	.78
I respect the rights of others(BERS-2)	3.6	73	.62	3.73	73	.44	.23
I get along well with my parents (BERS-2)	3.38	75	.67	3.78	73	.42	.001
I know what I do well (BERS-2)	3.61	75	.59	3.68	73	.49	.659
I do my schoolwork on time (BERS-2)	3.13	75	.77	3.56	73	.53	.042
I let people know when I like them (BERS-2)	3.21	75	.91	3.38	73	.65	.179
My future looks good (BERS-2)	3.48	74	.74	3.69	73	.46	.056
Number of times took something that did not belong to you	1.0	73	5.9	.054	73	.283	.464
Number of times damaged or ruined something that did not belong to you on purpose (past year)	.16	73	.50	.055	73	.283	.145
Number of times was drunk or high at school (past year)	.01	73	.12	.00	.73	.00	.322
Number of times got into a physical fight (past year)	.328	73	1.14	.068	73	.304	.167

When average changes (t-tests) from follow-up year one to follow-up year two were examined a slightly different picture emerged (see Table 78). Comparison youths showed significant improvements in average scores on almost all of the BERS-2 questions. For YFP youths, there were significant changes on a few variables, including one area where the average score worsened. YFP youths had significant average increases in the number of times they

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<sup>44</sup> Again, lower scores correspond to higher grades here.



skipped school, but improvement on “I know what I do well” and a decrease in the number of physical fights.

*Table 78. Changes in Self-Reported Outcomes from Year 1 to Year 2 Follow-up*

Outcome	YFP Group				Comparison Group			
	Mean	Std. Dev.	N	Sig. (2-tailed)	Mean	Std. Dev.	N	Sig. (2-tailed)
What kinds of grades did you get last semester <sup>45</sup>	.23	1.00	74	.055	-.84	.69	71	.31
How many times did you skip school in last semester, if at all	.48	2.04	70	.54	-.089	1.07	73	.48
Were you suspended from school at all last semester	-.07	.38	74	.133	.00	.28	73	1.000
I respect the rights of others (BERS-2)	.15	.74	73	.086	.179	.51	73	.004
I get along well with my parents (BERS-2)	.04	.76	75	.650	.191	.49	73	.001
I know what I do well (BERS-2)	.36	.88	75	.001	.21	.63	73	.004
I do my schoolwork on time (BERS-2)	.14	.83	75	.132	.095	.53	73	.127
I let people know when I like them (BERS-2)	.013	1.01	75	.820	.16	.66	73	.039
My future looks good (BERS-2)	.09	.85	74	.279	.23	.58	73	.001
Number of times took something that did not belong to you	.43	5.57	73	.51	-.03	.45	73	.343
Number of times damaged or ruined something that did not belong to you on purpose (past year)	-.01	1.07	73	.91	-.013	.35	73	.494
Number of times was drunk or high at school (past year)	.01	.17	73	.32	-.04	.35	73	.320
Number of times got into a physical fight (past year)	-2.05	9.28	73	.06	-.01	.20	73	.741

<sup>45</sup> Again, lower scores correspond to higher grades here.

Together, YFP youths have more school, family, and social issues at in the first year after they left the program than comparison group youths. Though there were a couple of improvements in average scores between year one and two follow-up for YFP youths, by the year two interview, YFP youths were worse off on several measures than the comparison youths.

## PROGRAM COSTS

### Overview

In order to assess how much it costs to serve a typical YFP youth, we collected program expenditure data for the program fiscal year covering July 1, 2008 to June 30, 2009 (FY 2009) from the state program office and conducted interviews with site staff. There is no presumptive length of stay for youths at the program, but staff expectations for length of stay range from one school year to when youths age out of the program at age 15. In outcome analyses tracking youths served from 2005 to 2010, we identified that the average length of stay in the program was about 17.5 months.

Program cost data included: program staff salaries and benefits, office rental space, transportation to program activities, program activities, training, insurance, supplies and equipment, background checks, and phones. Sites also received cash and in-kind donations. In-kind donations varied from space for program activities (e.g., school cafeteria or community pool), food, and event tickets. In-kind donations also included the costs of the state office to support local program sites. Costs for some of these items were readily available from data maintained regarding program expenditures, but other data, such as the value of in-kind donations were obtained in discussions with program staff. The cost of volunteer time, such as that provided by the mentors, was *not* included in program costs. The sources of funding varied by site and included personal donations, federal funding, state funding, local funding, and foundation awards.

We worked with the Utah Board of Juvenile Justice to identify similar programs to 4-H/YFP and obtain expenditure data, but were unable to obtain sufficient information to conduct a cross-program cost analysis.

Actual Site Costs

Sixteen sites served 342 youths from July 1, 2008 to June 30, 2009. Three of the 16 sites were in operation for only part of the fiscal year. One of the three sites in operation for less than one year did not serve any youths – this site stopped serving youths on the last day of the previous fiscal year. Based on data received from the program sites, the 342 youths received 93,146 days of service during FY 2009.

Total expenditures for all sites during FY 2009 amounted to \$624,215. The largest source of program funding was the federal government (approximately half of the funding), followed by the state, various counties, various cities, and other, non-specified sources. There was substantial variation by site in terms of the expenditures as well as the number of youths served and service provision days. We were able to break expenditure data down to the county level. For counties with multiple sites, we simply divided the total expenditures for the county by the number of sites in the county. The table below provides information regarding expenditures by site.

*Table 79. Program Costs from July 2008 to June 2009*

<b>County</b>	<b>Non-Donation Funds Expended</b>	<b>Value of In-Kind and Cash Donations Expended</b>	<b>Total Expenditures</b>	<b>Number of youths served</b>	<b>Number of service provision days</b>	<b>Cost for day of service per youth</b>
Cache	\$7,526	\$22,650	\$30,176	10	3376	\$8.94
Carbon	\$36,105	\$37,562	\$73,667	21	7147	\$10.31
Davis	\$4,214	\$6,800	\$11,014	3	138	\$79.81
Iron (3 sites)	\$87,835	\$70,150	\$157,985	89	24098	\$6.55
Juab	\$1,500	\$5,100	\$6,600	0	0	N/A
Rich	\$13,346	\$15,372	\$28,718	12	2968	\$9.67
Tooele	\$3,851	\$20,400	\$24,251	9	2591	\$9.36
Utah (7 sites)	\$277,610	\$14,200	\$291,810	198	52828	\$5.52
<b>Total</b>	<b>\$431,987</b>	<b>\$192,234</b>	<b>\$624,215</b>	<b>342</b>	<b>93146</b>	<b>\$6.70</b>

There was substantial variation by site in terms of the cost per day to serve a youth. Some of these costs are fixed (e.g., office space), regardless of the number of youths served. The fixed costs account, to a certain extent, for why the costs per day were so high in Davis County and why funds were expended in Juab County even though no youths were served. We also suspect that this contributed to why counties with multiple sites, Utah and Iron, had lower per day costs when compared to other sites.

We calculated a cost per day of \$6.70 based on the total expenditures and total number of youths served by all the sites. Given this cost per day in FY 2009, if a youth stayed for 12 months, it cost \$1,825 to serve the youth.

Though we were not able to do the desired cost comparisons to other similar programs in Utah, we can look at recent cost analyses of other mentoring programs to provide some context for the YFP costs. In a cost analysis of Big Brothers Big Sisters mentoring programs conducted in 2004-2005 (Herrera et al., 2007), costs were around \$1,000 for a year of services. To put this cost in context, a 1999 study by Fountain and Arbreton (1999) found that an average mentoring program spent \$1,114 per youth per year, but the range was wide, from \$12 to \$1,900 per youth with a median of \$685 annually per youth. These data were derived from a variety of mentoring programs for school-age children included in a mentoring study by Public/Private Ventures. Together, this indicates that the 4-H/YFP mentoring program costs are in range with what similar programs cost.

## DISCUSSION AND CONCLUSIONS

### Findings

Using a quasi-experimental design, this study addressed whether the 4-H Mentoring/YFP program increased youths' interpersonal competence, improved youths' academic performance, strengthened family relationships, and prevented delinquency. Further, we consider whether the program was implemented with a reasonable degree of fidelity, assess the degree to which the program can be used by other states and localities; identify the individual and programmatic factors, if any, associated with success in the YFP program; and determine the costs of the YFP program.

Indicators of interpersonal competence, academic performance, family relationships, and delinquency were measured at the start of, during, and after program involvement using validated scales from the perspective of the youth and parents, official school and court records, and youth self-reports of behavior and perceptions of the program. There is evidence that after eight months, youths who attended the program had higher Affective Strength than comparison youths. Though there were improvements in average scores on many measures of behavioral and emotional strength for the YFP group from the pre-test to the first post-test, there was no notable difference between the YFP and comparison groups on any other measures of behavioral and emotional strengths from the BERS-2 scale (Family Involvement, Interpersonal Strength, Intrapersonal Strength, School Functioning, or Career Strength) within approximately 8 (first post-test) or 20 months (second post-test) of program involvement.

Our findings did not provide any evidence that youths in the YFP group had substantially higher school grades or fewer school absences during the program or after two years of having left the program when compared to the comparison group. Since neither official records of

school performance nor scores on the School Functioning scale showed significant differences between the treatment and comparison group, we conclude that there is no evidence to suggest that the program improved academic performance.

With regard to strengthening family relationships, there is no evidence that this occurred. There was no significant difference in Family Involvement scores between the treatment and comparison groups. Finally, the lack of change seen for the YFP youths' BERS-2 subscale scores was confirmed by parents' ratings of their youth on the parents' version of the instrument.

When we examined individual and program level factors associated with change on the BERS-2 scales we found that some individual-level factors were associated with change from pre-test to post-test time one for the YFP youths. Non-whites were likely to have lower scores on many of the BERS-2 scales at post-test one, older youths had lower Family Involvement scores at post-test one, and females had lower School Functioning scores at post-test time one. Program dosage and program discharge because the youth stopped attending were not associated with decreased scores on the BERS-2 scales.

There is no evidence that the 4-H Mentoring/YFP program had an effect on delinquency. Though the proportion of youths who offended was small, YFP youths were more likely to offend while in the program, and one and two years following the program, than comparison youths.

With regard to long-term effects, we found that YFP youth continued to view the program in positive terms after leaving the program. These youth reported that they had benefitted from the program and their relationships with their mentors. However, YFP youth were more likely to have legal charges brought against them up to two years after program involvement, and self-reported more negative school, family and social issues than comparison

youth after program completion (although the latter are due more to increased scores for the comparison group youth that were not observed for the YFP group youth).

While the summary of findings presented above is certainly not positive, the picture may not be as bleak as indicated. Our study showed many positive findings regarding the program. The program appears to have successfully targeted higher risk and/or need youth, as indicated by their lower initial scores, when compared with those of the comparison group youth, on all components of the BERS-2. Mentor and mentee meetings appeared to take place on a regular basis, and many 4-H activities were offered in most sites. Over half of YFP youth felt that the program had helped them “very much” and the vast majority felt the program had helped them at least somewhat. Almost half of YFP youth named “activities with my mentor” as being the part of the program that helped them the most. Moreover, these positive feelings were reported several years after youth were no longer involved in the program.

There is also some evidence that the program may have been more effective for some youths than others. Age was the single variable most closely associated with this effect, with younger YFP youth reporting greater change on four of six BERS-2 subscales than younger youth, a finding that was not apparent for the comparison group youth. Race, gender, and whether the youth lived with both parents each affected posttest scores on one of the BERS-2 subscales, although not all of these differences reached statistical significance.

As in any evaluation, there is always the possibility that the study design and the measures used were simply not adequate for detecting statistically significant differences between the YFP and comparison groups (a detailed discussion of caveats related to these issues is provided following this section). In fact, examining change scores for the YFP youth from pretest to the first posttest shows that, on average, scores improved on all BERS-2 subscales, and



for several subscales they continued to improve from the first to the second posttest. This is a positive finding that suggests that the YFP program may in fact have had an overall positive impact the youth it served. Moreover, as would be expected, comparable scores for the comparison group did not change appreciably, lending credibility to the reliability of the measures used. It may be that with a larger sample size or a more comparable comparison group, the study would have found more evidence for the efficacy of the YFP program.

Despite some positive findings, as noted above, we are forced to conclude that the YFP program in general did not produce the desired outcomes. There are several possible explanations (other than methodological ones) for why we failed to observe more positive outcomes. One of the most likely explanations is suggested by the findings of the process evaluation: that not enough youth received enough program services.

There are a number of discrepancies between the Program Guide and what actually occurred at program sites, and this may have had an effect on the ability of the program to accomplish its stated objectives. Youths in the program received, on average, just over half of the required interventions, and less than 20% of the YFP group received at least two-thirds of the required program services. Further, there were concerns about a number of program management issues, such as the consistency of mentor training and the availability of data to document the dosage of program activities. For a program with many sites, these discrepancies are not unusual, and some variations in program implementation are often necessary to accommodate the different needs of local communities. Moreover, it is difficult to say whether the Program Guide should be considered a summary of best practices, and therefore that strict adherence to programmatic guidelines is necessary for desired outcomes to be achieved. It is beyond the scope of this evaluation to judge the degree to which the Program Guide represents

empirically-based best practices in mentoring. But, the program staff should make this assessment and adjust the guide to better reflect what is actually happening in programs and, where specific guidelines are considered critical, to “enforce” these more aggressively.

If in fact a lack of sufficient program “dosage” is a valid explanation for the lack of positive outcomes for the YFP program, then we might expect to find more positive outcomes in youth who received more “dosage” than those who did not. This was not in fact the case here: youth who received at least two-thirds of the required program were no more likely to have had significantly positive outcomes than those who did not. It may be, however, that our measure of dosage was too crude to detect the necessary differences between these groups. In addition, the proportion of youth who received sufficient dosage, as we conceptualized it, may have been too small for significant differences to be seen.

There does seem to be a subset of youth for whom the program had very little positive effect. Those youth who tended to be higher functioning prior to their participation in YFP, as measured by their pre-test scores on the BERS-2 subscales, seemed to participate less in program activities and were more likely to be discharged early from the program. Those youth who were discharged early were less likely to have shown positive changes on the BERS-2 subscales over the course of the first eight months of the program. This suggests that lower risk/needs youth who enter the program are less likely to attend and therefore to benefit from program activities. This being the case, the program might want to bolster its screening process to screen out these relatively high functioning youth.

To the extent to which program interventions caused changes, these were likely due to participation in 4-H activities and mentor meetings, since these were the interventions youths were most likely to receive. Though there was wide variation by site and youths, on average a

youth met with their mentor once every few weeks, attended a 4-H activity every few weeks, and went to a Family Night Out every few months. Many sites offered a greater number of 4-H activities than youths were required to attend, and this was reflected in the finding that youths participated in so many 4-H activities.

The YFP program seemed to have no specified length of time. Although we were initially led to believe that the presumptive length of the program was around eight or nine months (i.e., one school year), it was common for youths to be in the program for longer than a year. In fact, the program staff and administrators we spoke with indicated that they would like to keep the youths involved until they age out of the program (at age 15). This appeared in fact to be happening: few youths appeared to have ever graduated from the program.

While there may be nothing inherently wrong with keeping youth involved in the program for long periods of time, our assessment suggests that most of the change that YFP youths experienced occurred during the first year or so of the program. While some improvement was noted on some of the BERS-2 scales from the pre-test to the second post-test, around 20 months later, this improvement was slight when compared with the initial gains. It may be possible, therefore, to develop a supplemental, less resource-intensive program to which youth can transition after their first year in the program. This might consist, for example, of fewer mentoring sessions and more 4-H activities, which might allow the YFP program to serve a greater number of youth while still keeping youth involved with the program for long periods of time. Further research could explore what the optimal time period is for obtaining desired outcomes, and what combination of services is most likely to produce those outcomes.

Matches between youths and mentors lasted, on average, just under 10 months; little mentoring occurred over the summer months. Some previous research suggests that positive

benefits accrue to youth only when relationships last for 12 months or longer (Grossman and Rhodes, 2002). Clearly, factors other than the length of the relationship (for example, the quality of the relationship) may be just as, if not more, important predictors of outcomes. Nevertheless, the YFP program may want to consider ways to increase the length of the youth-mentor relationship, or at least to ensure that youth have activities to attend over the summer that keep them engaged in the program.

We did not find a relationship between youths' perceptions of their mentoring relationship and the dosage of program activities, but their perceptions of mentors both during and after the program suggested that relationships were rather successful and the part of the program that helped youths the most. There was, however, a relationship between race and gender and perceptions of mentor relationship quality. Non-white youths were more likely to report negative feelings about their mentors and girls were more likely to say that mentors helped them cope with their problems.

While the literature generally does not find that race is an important factor affecting outcomes in mentoring programs, this does not mean that race and ethnicity do not influence mentor-mentee relationships (Liang & West, 2007). It appears that in this study non-white youth did not see their mentors as positively as white youth. Our results also showed that non-white youth scored lower than white youth on two BERS-2 subscales (Interpersonal Strength and School Functioning) at the time of the first post-test, even after taking pre-test differences into account. On the other hand, the program seems to have been successful in increasing family involvement for non-white, but not white, youth. These findings suggest that the program should look more carefully at its minority youth. Another possible explanation for these observed

differences is the concentration of minority (Hispanic) youth in one or two sites, which might suggest that the observed differences are a function of the site rather than race per se.

The finding that girls were more likely to say that mentors helped them cope with their problems is consistent with literature that shows that in general girls report more positive feelings about their mentoring relationships than boys (see, for example, Bellamy, Sale, Wang, Springer, & Rath, 2006). Our findings also suggest that girls were more responsive to the YFP program than boys, at least on the domains of Affective Strength and Intrapersonal Strength. Although there are few studies that directly examine gender differences, the recent meta-analysis by Dubois et al. (2011) suggests that programs that serve greater proportions of females demonstrate weaker outcome effects. As the authors note, however, their analysis does not involve a direct comparison of outcomes between boys and girls. It may be that our analysis failed to control adequately for gender differences on the pretest, at least for Affective Strength, since girls started out the program with higher scores on this dimension than boys.

At post-tests one and two, when the youths were still involved in or just leaving the program, the overwhelming majority of YFP youths reported that the program was helpful to them, and saw the relationships with their mentors as the most helpful part of the program. Youths' satisfaction with the program and their relationships with their mentors is certainly a positive indicator for the program, but it seems clear that these positive assessments did not translate into improvements on the majority of the outcomes measured. We did find that satisfaction with the mentoring relationship was related to several outcomes, including increases in School Functioning and Affective Strength. The literature suggests that satisfaction with the mentoring relationship depends on a number of factors related to the mentor, the mentee, and the nature of the relationship (Deutsch & Spencer, 2009). While we did not collect the data to

examine in detail the nature of the mentor-mentee relationship, it may be that closer monitoring of the relationship on the part of program staff, along with intervention in cases where the relationship may be floundering, might produce more positive youth outcomes.

Our findings with regard to delinquency do not paint a positive picture for the YFP program. While a slightly larger proportion of YFP youth were involved in the court system prior to entering the program, a significantly greater proportion of YFP youth became involved with the court during their time in the program than did comparison youth over the comparable time period. This discrepancy grew even larger at the one-year follow-up period, and maintained this higher level so that by the time of the two year follow-up period, almost one in every 10 YFP youth had court involvement, compared with 1 in every 20 comparison group members.

The literature on delinquency outcomes for mentored youth is mixed. In their large scale study of the Department of Education's mentoring initiative, Bernstein and his colleagues found no significant impacts on delinquent behaviors (Bernstein et al., 2009). However, a 2008 systematic review of studies of 39 mentoring programs did find positive and relatively large effects on delinquency (Tolan et al., 2008). These discrepancies are likely due to differences in the initial riskiness of the youth studied and to varying definitions of delinquency, as well as programmatic effects. While the YFP youth in our study were roughly as likely as the comparison youth to be involved with the court prior to beginning mentoring, they clearly were higher risk and greater need, as indicated by a number of factors, including lower initial scores on all of the BERS-2 subscales. This may account for the observed differences over time between the two groups. Nevertheless, it is clear that YFP program participation did nothing to lower the likelihood of some of the mentees becoming involved with the juvenile justice system. Again, our data did not allow us to examine in detail which youth were more likely to become

court-involved. It may be that those who participated least in the program were those who were more likely to become involved with the juvenile justice system.

One of the goals of the current study was to attempt to track YFP participants after they left the program, specifically, for up to three years after being discharged. Although a great deal of effort was expended in the process, we were only able to track about two-fifths of YFP participants for one year following program participation and about one-third for two years following participation (with too few tracked for three years to be able to include in most of the analyses). Nevertheless, our follow-up analyses, like the court involvement analyses discussed above, are not positive. At follow-up interview one, YFP youths were more likely to have lower grades and less likely to do schoolwork on time than comparison group youths. In addition, YFP youths were less likely to report respecting the rights of others, getting along well with parents and knowing what they do well. Finally, YFP youths were more likely to report getting into physical fight(s). Together, YFP youths appear to have more school, family, and social issues in the first year after they left the program than comparison group youths. When follow-up interview year one scores were accounted for, YFP youths had significantly lower grades, skipped school more often, were less likely to do schoolwork on time, got along worse with parents, and damaged or ruined something belonging to others on purpose more often at follow-up year two than comparison youths.

It is perhaps not surprising that we found no positive longer-term effects of the program, since positive short-term effects were generally not seen either. Again, it is possible that the seemingly low “dosage level” of program services received was too small to have a positive effect in either the short or long term.

As noted previously, however, the youth contacted for follow-up reported positive feelings about the program and their mentoring relationships. Further, when youths were directly asked whether they noticed any changes in their family relationship in the year following program involvement (and subsequent year for follow-up year two), most noted some sort of improvement. While we obviously cannot attribute this latter finding to program participation, it offers the possibility that at least some youth who participated in the YFP program perceived positive long-lasting effects.

With regard to costs we found that on average, if a youth stayed in the program for 12 months, it cost \$1,825 to serve the youth. Though we were not able to do all the desired cost comparisons to other similar programs in Utah, we can look at recent cost analyses of other mentoring programs to provide some context. In a cost analysis of Big Brothers Big Sisters mentoring programs conducted in 2004-2005 (Herrera et al., 2007), costs were around \$1,000 for a year of services. An older, but broader study by Fountain and Arbreton (1999) found that an average mentoring program spent \$1,114 per youth per year, but the range was wide, from \$12 to \$1,900 per youth with a median of \$685 annually per youth. These data were derived from a variety of mentoring programs for school-age children included in a mentoring study by Public/Private Ventures. Together, this indicates that the 4-H/YFP mentoring program costs are in range with what similar programs cost.

Finally, we should note that our findings are in general agreement with the previous study of YFP conducted by Bach Harrison, but differ from the analysis conducted by Higginbotham and his colleagues. We would argue that both of these efforts were necessarily limited in scope and methods by the lack of available resources. The analysis of data collected by YFP prior to the implementation of the present evaluation (Higginbotham et al., 2007) suffered from the use



of a weak method, the “retrospective pretest.” This approach, which asks youth to rate themselves as they were at some point in the past, and then rate themselves as they are now, suffers from a number of limitations, including imperfect recall and bias to make themselves (and perhaps the program) look better. In addition, the data analyzed were not collected for all YFP sites in the state, and this also may have introduced a positive bias into the results.

The obvious limitation of the Bach Harrison effort was the small sample size. Nevertheless, many of their findings are similar to our own, particularly with regard to the process component of our study (Bach Harrison, 2005). Many of the issues identified by Bach Harrison in the years prior to our study were still in effect when we began data collection in 2006.

### Limitations

As with any evaluation, the current effort is subject to a number of limitations that suggest caution in interpreting the findings. These limitations relate to three main areas: research design, sample size and attrition, and data quality.

### *Research Design*

The evaluation employed a quasi-experimental design with a comparison group. The nature of the design itself permits only tentative statements about whether the program caused changes, since youths were not randomly assigned to the program and comparison groups. Although we had initially proposed a randomized controlled trial to NIJ, this would have involved changing the YFP admissions process, and the proposal reviewers did not like this idea.

The use of a comparison group that is not randomly assigned always raises issues about the comparability of the two groups. Having non-comparable groups introduces the potential for biased results, since the YFP youth might be more or less “risky” or “needy” than the

comparison youth. In our proposal to NIJ, we had planned to select comparison group youth who were matched to the YFP youth on a number of characteristics. However, we underestimated the difficulty of obtaining permission from schools to allow us access to students, which we thought would be the best source of obtaining comparison group youth who were the same age as the youth that the YFP program targeted. In the end, we were forced to include comparison youth wherever we could find them, and were unable to match on variables other than age and grade level. As noted in the methodology section, we attempted to retrospectively apply propensity score matching, a method that could have been used to develop a comparable comparison group. Unfortunately, we were not able to use this method to help identify a subset of comparison youth who were a better match for the YFP group.

When we examined characteristics of the two groups and pretest scores on the BERS-2 subscales, we found that in fact the two were not comparable on a number of measures. Generally speaking, the YFP group was in fact riskier and needier than the comparison group youth. This issue is particularly important when one considers that the YFP group's subscale scores did indeed improve from pretest to the first posttest. However, it is precisely because of the threats to internal validity inherent in the pre-post design that the addition of the comparison group becomes important. While the non-comparability of the two groups is a problem for the current evaluation, the result of this issue is usually the opposite of the one we found. That is, beginning with a group that scores lower on the BERS-2 subscales, for example, suggests that they will have more room to improve than the comparison group that starts out scoring higher. This, of course, was not found to be the case in the present evaluation. One could argue the opposite as well, that the higher risk and need youth recruited by the program made it more difficult for the program to demonstrate positive effects. It is possible that if the two groups had

started out equivalent, we would have found that the YFP group would have looked better than the comparison group on the outcomes measured.

### *Sample Size and Attrition*

In its evaluability assessment of YFP, NIJ noted that the program served 600-800 youth per year. During the 2003-2004 and 2004-2005 academic years, 686 and 672 youth, respectively, participated in the program (Higginbotham et al., 2007). In our original proposal to NIJ, we determined that we would need 382 youth for both the YFP and comparison groups by the end of the follow-up period, and estimated that this would require initial sample sizes of 550 in each of the two groups. Given the number of youths served in the previous two years, we did not see a problem in obtaining this number.

For a variety of reasons, we were not able to include as many youth as we would have liked in the study. This was largely due to the reduced number of youth served by the YFP program during the time we conducted our data collection. The program experienced some cuts in funding, some sites closed down, and as a result, fewer youths were served by the program during our data collection period than the 600-800 youths that had been served in previous years. As it became obvious to us that the sample size was not going to be as large as we had hoped, we implemented a variety of approaches to increase the numbers, including lengthening the planned data collection period and adding the prior year's (2005) YFP cohort to our own data collection (which we had not planned to do). Nevertheless, it is possible that our sample sizes may simply have been too small for us to detect significant differences between the YFP and comparison groups.

Our findings argue against sample size being a key factor in failing to find significant differences. For example, at the time of the first posttest, YFP youth scored lower on every

BERS-2 subscale than comparison youth with the exception of Affective Strength, on which scores were about the same. If effect sizes had been small but in the correct direction (i.e., YFP youth scoring higher than comparison youth), then small sample size may have been issue. Of course, this does not address the fact that the YFP group started out with much lower scores on these scales than comparison youth which, as discussed earlier, suggests that group comparability was a more important factor in assessing the results than sample size per se.

The attrition rates for the follow-up interviews were higher than we had anticipated. As discussed earlier, we did all that we could to locate these youth for follow-up interviews. In the end, however, we lost about 60% of the YFP youth at the first follow-up interview, and 75% at the second follow-up interview. It is usually the youth who did better in the program, or who were at a higher level of functioning to begin with, who are easier to locate at follow-up. The attrition thus results in a biased sample, and that was in fact shown to be the case here (although the comparison group youths' attrition also resulted in positive bias). Again, however, the bias resulting from selective attrition should have resulted in overestimating the positive effects of the program, and this was clearly not the case in our analyses.

The small sample size issue has implications for our evaluation other than those discussed above. For example, there were a large number of YFP sites included in the study, but each site served a relatively small number of youths over the course of the study (the average number served per site was 15). As a result, we were only able to conduct a limited number of analyses looking at site-specific variations. Therefore, we cannot say much regarding the effects of factors that were site-specific, such as the use of grand mentors, on outcomes. When possible, we used results from the process evaluation to help explain both how well the program

implementation matched the program plan and offered insight into why objectives were or were not met.

### *Data Quality*

Part of the reason that NIJ selected the YFP program for evaluation was the availability of data, particularly for the process evaluation component of the assessment. As we noted in the process evaluation section of the report, we encountered a number of issues with the “dosage” data being maintained by the program. The quality of these data may have directly impacted our conclusions from this part of the study, since we based our assessment of service delivery on these records. As noted previously, it is possible that more YFP youth attended more mentor meetings, 4-H activities, and FNOs than were recorded in the log data we received from the site coordinators. If this was the case, our hypothesis that the lack of positive outcomes may have been due to the low program dosage received by YFP youth would be contradicted.

As noted previously, the school data that we collected were difficult to work with and extremely problematic. Despite our best efforts to obtain and clean the data, we had so little confidence in them that we forced to conduct only very limited analyses using unexcused absences and grade point average. It may have been that with better school data we would have seen more positive outcomes for YFP youth.

Finally, we would note that we collected limited information from mentors and detailed interview data from only a small group of YFP youth. Regarding the latter, it was our intent to interview youth only to obtain general impressions and serve as a general check on information we were obtaining from site coordinators. As part of the pre-post testing process, we collected a great deal of information from YFP youth, particularly as it relates to the quality of their relationships with their mentors.

With regard to mentor data, we initially had only planned to interview a few mentors over the phone, for the same reasons noted above for the youth interviews. As we proceeded along with the study, however, we realized that since we had email addresses for mentors, we could create and implement two online surveys and collect information on a larger sample for relatively little cost. In the end, we were able to obtain data from 85 mentors, which were substantially more than we initially had planned, but only a small percentage of the total number of mentors involved in the program.

The youth interview data and the mentor data were used primarily in the process evaluation. However, we would emphasize again that these results should be interpreted with caution, since they come from small, non-representative samples of youth and mentors.

#### Implications and Recommendations

The 4-H Mentoring/YFP program design is similar to school- and community-based mentoring programs that offer traditional one-on-one mentoring, but it adds the additional interventions of 4-H activities and Family Nights Out. Given the design, results were expected to be as good as, if not better than, those for traditional one-on-one mentoring programs like Big Brothers/Big Sisters. The most recent meta-analysis of youth mentoring programs by Dubois and colleagues (2011) concludes that, overall, mentoring programs have modest effects across behavioral, social, emotional, and academic domains. Dubois et al. (2011) found that mentoring programs were more effective when targeted youths had pre-existing difficulties or significant environmental risk factors, there were greater proportions of male youths, there was a good fit between the education or occupation backgrounds of the mentors and the program goals, mentors were paired with youths with similar interests, and programs supported mentors serving in teaching or advocacy roles with youths.

The results from our study of 4-H Mentoring/YFP are in keeping with Dubois et al.'s findings in that overall we found modest (if any) benefits from the program. The interpretation of our findings rests in part on the relative strengths and weaknesses of our evaluation design. YFP youth did improve on a number of outcomes from the time they began the program to eight months into the program. By themselves these results are suggestive but not compelling, since comparing pre-test and post-test scores alone can be misleading. When YFP youth posttest scores were compared with those of the comparison group, few significant differences were noted. However, the comparison group was not the result of random assignment, and was demonstrably higher functioning than the YFP youth on a number of pre-program measures.

Given the methodological issues discussed above and the concerns associated with program implementation that we identified in the process evaluation, it would be unwise for us to make definitive statements about the program's success or failure. At most, we can say there is limited evidence of program success, but the program should consider further evaluation once issues with program implementation have been addressed.

When looking just at the YFP youths, we saw that improvements in average group scores on many of the measures of behavioral and emotional strengths typically occurred within the first eight months or so of program participation. There was evidence of improvement in school functioning in the second year of participation as well, particularly for older youths, but little change on any of the other measures in the second year. Youths with lower scores on measures of behavioral and emotional strengths when they started the program stayed in the program longer than other youths. This suggests that the program should consider: a policy regarding presumptive length of stay of one year, use of the BERS-2 scale or another tool to identify youths at program start who could benefit the most from the program given their scores on the

tool, and periodic (at least annual) assessment of youths to determine which youths are eligible for graduation from the program. In addition, it might be worthwhile to consider transitioning youths away from mentoring relationships and into 4-H activities after one year, freeing up precious mentoring resources for new youth.

### Generalizability of Findings

Others implementing or evaluating this program or other mentoring programs with additional program elements may look to this study to see what the value-added benefits are of providing services in addition to one-on-one mentoring. Participation in 4-H programs in general has been shown to produce positive outcomes (see, for example, Lerner & Lerner, 2011). Given this, we might expect that participation in 4-H as well as mentoring would enhance outcomes. The current study provided no evidence of more robust positive outcomes by providing services in addition to mentoring, and it is unclear how much program design and/or implementation issues likely contributed to these outcomes. Given the apparent challenges with implementation, further evaluation is needed to see what outcomes can be achieved with full implementation of the program.



## REFERENCES

- Ahrens, K., DuBois, D., Richardson, L., Fan, M., & Lozano, P. (2008). Youth in foster care with adult mentors during adolescence have improved adult outcomes. *Pediatrics, 121*(2), 246-252.
- Allen, T., Eby, L., & Lentz, E. (2006). The relationship between formal mentoring program characteristics and perceived program effectiveness. *Personnel Psychology, 59*(1), 125-153.
- Anton, P. & Temple, J. (2007). *Analyzing the social return on investment in youth mentoring programs: A framework for Minnesota*. Saint Paul, Minnesota: Wilder Research.
- Aos, S., Lieb, R., Mayfield, J., Miller, M., & Pennucci, A. (2004). *Benefits and costs of prevention and early intervention programs for youth*. Olympia, WA: Washington State Institute for Public Policy.
- Bach Harrison, L.L.C. (2005). *Youth and Families with Promise pilot evaluation study results*. Salt Lake City, Utah.
- Bauldry, S. (2004). *The promise and challenge of mentoring high-risk youth: Findings from the National Faith-based Initiative*. Philadelphia, PA: Public/Private Ventures.
- Bauldry, S. (2006). *Positive support: Mentoring and depression among high-risk youth*. Philadelphia, PA: Public/Private Ventures.
- Bellamy, N., Sale, E., Wang, M., Springer, J., & Rath, S. (2006). Spoken, but perhaps not heard: Youth perceptions on the relationship with their adult mentors. *The Journal of Youth Ministry, 5*(1), 57-75.
- Bernstein, L., Dun Rappaport, C., Olsho, L., Hunt, D., & Levin, M. (2009). *Impact evaluation of the U.S. Department of Education's student mentoring program*. Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education.
- Cavell, T., DuBois, D., Karcher, M., Keller, T., & Rhodes, J. (2009). *Strengthening mentoring opportunities for at-risk youth*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Cavell, T., & Henrie, J. (2010). Deconstructing serendipity: Focus, purpose, and authorship in lunch buddy mentoring. *New Directions for Youth Development, 126*, 107-121.
- Converse, N., & Lignugaris/Kraft, B. (2009). Evaluation of a school-based mentoring program for at-risk middle school youth. *Remedial and Special Education, 30*(1), 33-46.

- Darling, N., Bogat, G., Cavell, T., Murphy, S., & Sanchez, B. (2006). Gender, ethnicity, development, and risk: Mentoring and the consideration of individual differences. *Journal of Community Psychology, 34*(6), 765-779.
- Dart, C. (2006). *4-H Mentoring Youth and Families with Promise: Program Guide (2nd ed.)*. Logan, UT: Utah State University Extension.
- Dehejia, R.H. & Wahba, S. (2002). Propensity score-matching methods for non-experimental causal studies. *The Review of Economics and Statistics, 84*(1): 151–161.
- Deutsch, N., & Spencer, R. (2009). Capturing the magic: Assessing the quality of youth mentoring relationships. *New Directions for Youth Development, 121*, 47-70.
- Diversi, M., & Mecham, C. (2005). Latino(a) students and Caucasian mentors in a rural after-school program: Towards empowering adult-youth relationships. *Journal of Community Psychology, 33*(1), 31-40.
- Drake, E., & Barnoski, R. (2006). *Recidivism findings for the juvenile rehabilitation administration's mentoring program: Final report*. Olympia, WA: Washington State Institute for Public Policy.
- DuBois, D., Holloway, B., Valentine, J., & Cooper, H. (2002). Effectiveness of mentoring programs for youth: A meta-analytic review. *American Journal of Community Psychology, 30*(2), 157-195.
- DuBois, D., Portillo, N., Rhodes, J.E., Silverthorn, N., & Valentine, J.C. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. *Psychological Science in the Public Interest, 12*(2), 57-91.
- DuBois, D., & Rhodes, J. (2006). Introduction to the special issue on youth mentoring: Bridging science with practice. *Journal of Community Psychology, 34*(6), 647-655.
- DuBois, D., & Silverthorn, N. (2005). Natural mentoring relationships and adolescent health: evidence from a national study. *American Journal of Public Health, 95*(3), 518-524.
- Eby, L., Allen, T., Evans, S., Ng, T., & DuBois, D. (2008). Does mentoring matter? A multidisciplinary meta-analysis comparing mentored and non-mentored individuals. *Journal of Vocational Behavior, 72*, 254-267.
- Epstein, M.H. (2004). *Behavioral and emotional rating scale: A strength-based approach to assessment*. Austin, TX: Pro-Ed.
- Fountain, D. L., & Arbreton, A. (1999). The cost of mentoring. In J. Grossman (Ed.), *Contemporary Issues in Mentoring*, 48–65. Philadelphia, PA: Public/ Private Ventures.

- Freedman, M. (1993). *The Kindness of Strangers: Adult Mentors, Urban Youth, and the New Voluntarism*. San Francisco: Jossey-Bass.
- Glomb, N., Buckley, L., Minskoff, E., & Rogers, S. (2006). The Learning Leaders mentoring program for children with ADHD and learning disabilities. *Preventing School Failure, 50*(4), 31-35.
- Grossman, J. (1999). *Contemporary issues in mentoring*. Philadelphia, PA: Public/Private Ventures.
- Grossman, J. & Johnson, A. (1999). Assessing the effectiveness of mentoring programs. In J. Grossman (Ed.), *Contemporary Issues in Mentoring*. Philadelphia, PA: Public/Private Ventures.
- Grossman, J. & Rhodes, J. (2002). The test of time: Predictors and effects of duration in youth mentoring programs. *American Journal of Community Psychology (30)*, 199-219.
- Grossman, J., & Tierney, J. (1998). Does mentoring work? An impact study of the Big Brothers Big Sisters program. *Evaluation Review, 22*(3), 403-426.
- Hamilton, S., & Hamilton, M. (2010). Building mentoring relationships. *New Directions for Youth Development, 126*, 141-144.
- Hamilton, S., Hamilton, M., Hirsch, B., Hughes, J., King, J., & Maton, K. (2006). Community contexts for mentoring. *Journal of Community Psychology, 34*(6), 727-746.
- Herrera, C., Grossman, J., Kauh, T., Feldman, A., & McMaken, J. (2007). *Making a difference in schools: The Big Brothers Big Sisters school-based mentoring impact study*. Philadelphia, PA: Public/Private Ventures.
- Herrera, C., Kauh, T., Cooney, S., Grossman, J., & McMaken, J. (2008). *High school students as mentors: Findings from the Big Brothers Big Sisters school-based mentoring impact study*. Philadelphia, PA: Public/Private Ventures.
- Herrera, C., Vang, Z., & Gale, L. (2002). *Group mentoring: A study of mentoring groups in three programs*. Philadelphia, PA: Public/Private Ventures and National Mentoring Partnership.
- Higginbotham, B., Harris, V., Lee, T., & Marshall, J. (2007). Youth and Families with Promise: A multi-component youth development program. *Journal of Youth Development, 1*(3), 1-9.
- Jekielek, S., Moore, K., & Hair, E. (2002). *Mentoring programs and youth development: A synthesis*. Washington, D.C.: Child Trends.

- Jent, J., & Niec, L. (2009). Cognitive behavioral principles within group mentoring: A randomized pilot study. *Child & Family Behavior Therapy, 31*, 203-219.
- Johnson, K. (2006). *Mentoring at-risk youth: A case study of an intervention for academic achievement with middle school aged students*. (Unpublished doctoral dissertation). East Tennessee State University, Tennessee.
- Jones-Brown, D. D., & Henriques, Z. W. (1997). Promises and pitfalls of mentoring as a juvenile justice strategy. *Social Justice, 24* (4), 212-233.
- Jucovy, L. (2001). *Supporting mentors*. Portland, OR: Northwest Regional Educational Laboratory.
- Jucovy, L. (2002). *Same-race and cross-race mentoring*. Philadelphia, PA: Public/Private Ventures.
- Karcher, M. (2005). The effects of developmental mentoring and high school mentors' attendance on their younger mentees' self-esteem, social skills, and connectedness. *Psychology in the Schools, 42*(1), 65-77.
- Karcher, M. (2007). *Cross-age peer mentoring*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Karcher, M. (2008). The study of mentoring in the learning environment (SMILE): A randomized evaluation of the effectiveness of school-based mentoring. *Society for Prevention Research, 9*(1), 99-113.
- Karcher, M. & Herrera, C. (2007). *School-based mentoring*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Karcher, M., Herrera, C., & Hansen, K. (2010). "I dunno, what do you wanna do?" Testing a framework to guide mentor training and activity selection. *New Directions for Youth Development, 126*, 51-69.
- Karcher, M., & Nakkula, M. (2010). Youth mentoring with a balanced focus, shared purpose, and collaborative interactions. *New Directions for Youth Development, 126*(1), 13-32.
- Karcher, M., Nakkula, M., & Harris, J. (2005). Developmental mentoring match characteristics: correspondence between mentors' and mentees' assessments of relationship quality. *The Journal of Primary Prevention, 26*(2), 93-110.
- Keller, T., & Pryce, J. (2010). Mutual but unequal: Mentoring as a hybrid of familiar relationship roles. *New Directions for Youth Development, 126*, 33-50.

- Larose, S., Ceyrenne, D., Garceau, O., Brodeur, P., & Tarabulsy, G. (2010). The structure of effective academic mentoring in late adolescence. *New Directions for Youth Development, 126*, 123-140.
- Lerner, R.M., & Lerner, J.V. (2011). *The positive development of youth: Report on the findings from the first seven years of the 4-H study of positive youth development*. Medford, MA: Institute for Applied Research in Youth Development, Tufts University.
- Liang, B. & West, J. (2007). *Youth mentoring: Do race and ethnicity really matter?* Alexandria, VA: MENTOR/National Mentoring Partnership.
- LoSciuto, L., Rajala, A., Townsend, T., & Taylor, A. (1996). An outcome evaluation of across ages: An intergenerational mentoring approach to drug prevention. *Journal of Adolescent Research, 11*(1), 116-129.
- Love, T.E. (2004). *Using propensity score methods effectively*. Fall Workshop: Cleveland Chapter of the American Statistical Association.
- Luellen, J.K., Shadish, W., & Clark, M.H. (2005). Propensity scores: An introduction and experimental test. *Evaluation Review, 29*, 530-558.
- Maxfield, M., Schirm, A., & Rodriguez-Planas, N. (2003). *The Quantum Opportunity Program demonstration: implementation and short-term impacts*. Washington, DC: Mathematica Policy Research.
- MENTOR. (2006). *Mentoring in America 2005: A snapshot of the current state of mentoring*. Alexandria, VA: Author.
- MENTOR. (2009). *Elements of effective practice for mentoring* (3<sup>rd</sup> ed.). Alexandria, VA: Author.
- Nakkula, M., & Harris, J. (2010). Beyond the dichotomy of work and fun: Measuring the thorough interrelatedness of structure and quality in youth mentoring relationships. *New Directions for Youth Development, 126*, 71-87.
- Pedersen, P., Woolum, S., Gagne, B., & Coleman, M. (2009). Beyond the norm: Extraordinary relationships in youth mentoring. *Children and Youth Services Review, 31*, 1307-1313.
- Platt, S., Pappas, J., Serfustini, E., & Riggs, K. (1999). *CONNECT! Learning activities to strengthen assets*. Cedar City, UT: Authors.
- Pryce, J., Silverthorn, N., Sanchez, B., & DuBois, D. (2010). GirlPOWER! Strengthening mentoring relationships through a structured, gender-specific program. *New Directions for Youth Development, 126*, 89-105.

- Rhodes, J. (2002a). *Research corner: School based mentoring*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Rhodes, J. (2002b). *Research corner: Mentoring and race*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Rhodes, J. (2002c). *Research corner: Keeping matches together*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Rhodes, J. (2004a). The critical ingredient: Caring youth-staff relationships in after-school settings. *New Directions for Youth Development*, 101, 145-161.
- Rhodes, J. (2004b). Research corner: *Online mentoring*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Rhodes, J. (2007). *Fostering close and effective relationships in youth mentoring programs*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Rhodes, J. E., Bogat, G. A., Roffman, J., Edelman, P., & Galasso, L. (2002). Youth mentorship in perspective: Introduction to the special issue. *American Journal of Community Psychology*, 30 (2), 149-155.
- Rhodes, J., & DuBois, D. (2006). Understanding and facilitating the youth mentoring movement. *Social Policy Report*, 20(3), 3-19.
- Rhodes, J., & Lowe, S. (2008). Youth mentoring and resilience: Implications for practice. *Child Care in Practice*, 14(1), 9-17.
- Rhodes, J., Lowe, S., Litchfield, L., & Walsh-Samp, K. (2008). The role of gender in youth mentoring relationship formation and duration. *Journal of Vocational Behavior*, 72, 183-192.
- Rhodes, J., Reddy, R., Roffman, J., & Grossman, J.B. (2005). Promoting successful youth mentoring relationships: A preliminary screening questionnaire. *The Journal of Primary Prevention*, 26, 147-167.
- Rhodes, J., & Spencer, R. (2010). Structuring mentoring relationships for competence, character, and purpose. *New Directions for Youth Development*, 126, 149-152.
- Rhodes, J., Spencer, R., Keller, T., Liang, B., & Noam, G. (2006). A model for the influence of mentoring relationships on youth development. *Journal of Community Psychology*, 34(6), 691-707.
- Rosenblum, A., Magura, S., Fong, C., Curry, P., Norwood, C., & Casella, D. (2005). Effects of peer mentoring on HIV-affected youths' substance use risk and association with substance using friends. *Journal of Social Service Research*, 32(2), 45-60.

- Scales, P.C., & Leffert, N. (2004). *Developmental assets: A synthesis of the scientific research on adolescent development* (2<sup>nd</sup> Ed.). Minneapolis, MN: Search Institute.
- Sipe, C. (1999). Mentoring adolescents: What have we learned? In J. Grossman (Ed.), *Contemporary Issues in Mentoring*. Philadelphia, PA: Public/Private Ventures.
- Sipe, C., & Roder, A. (1999). *Mentoring school-age children: A classification of programs*. Philadelphia, PA: Public/Private Ventures.
- Spencer, R. (2006). Understanding the mentoring process between adolescents and adults. *Youth Society*, 37(3), 287-315.
- Spencer, R. (2007a). "It's not what I expected": A qualitative study of youth mentoring relationship failures. *Journal of Adolescent Research*, 22(4), 331-354.
- Spencer, R. (2007b). *Why youth mentoring relationships end*. Alexandria, VA: MENTOR/National Mentoring Partnership.
- Synhorst, L.L., Buckley, J.A., Reid, R., Epstein, M.H., & Ryser, G. (2005). Cross informant agreement of the Behavioral and Emotional Rating Scale-2<sup>nd</sup> Edition (BERS-2) parent and youth rating scales. *Child & Family Behavior Therapy*, 27, 1-11.
- Tierney, J. & Grossman, J. (1999). *Making a difference: An impact study of Big Brothers Big Sisters*. Philadelphia, PA: Public/Private Ventures.
- Tolan, P. (2002). Crime prevention: focus on youth. In J.Q. Wilson & J. Petersilia (Eds.), *Crime: public policies for crime control* (pp. 109-128). Oakland, CA: Institute for Contemporary Studies.
- Tolan, P., Henry, D., Schoeny, M., & Bass, A. (2008). *Mentoring interventions to affect juvenile delinquency and associated problems*. Chicago, Illinois: The University of Illinois Institute for Juvenile Research.
- Walker, G. (2007). *Mentoring, policy and politics*. Philadelphia, PA: Public/Private Ventures.
- Wheeler, M., Keller, T., & DuBois, D. (2010). Review of three recent randomized trials of school-based mentoring: Making sense of mixed findings. *Social Policy Report*, 24(3), 1-27.
- Wright, D.B. (2006). Comparing groups in a before-after design: When t-test and ANCOVA produce different results. *British Journal of Educational Psychology*, 76, 663-675.
- Zimmerman, M., Bingenheimer, J., & Behrendt, D. E. (2005). Natural mentoring relationships. In D.L. DuBois & M.J. Karcher (Eds.), *Handbook of youth mentoring* (pp. 143-157). Thousand Oaks, CA: Sage.

## **APPENDIX A: DATA COLLECTION FORMS**

Description of YFP/ 4-H Mentoring Site

Program Implementation Assessment for Site Coordinators

YFP Group Program Implementation Assessment for Youth

YFP Activity Observation Form

YFP Mentor Survey

YFP Youth Form 01 (YFP Group Youth Pre-Test)

YFP Youth Form 02 (YFP Group Youth Post-Test)

YFP Parent Form 01 (YFP Group Parent Pre-Test)

YFP Parent Form 02 (YFP Group Parent Post-Test)

Student Form (Comparison Group Pre- and Post-Test)

YFP Group Follow-Up Telephone Interview Form

Comparison Group Follow-Up Telephone Interview Form



## **APPENDIX B: SITE-SPECIFIC INFORMATION**

Table B1. Counts of YPF Youths

Table B2. YFP Activities During the School Year by Site

Table B3. YFP Activities During the Summer

Table B4. Average Number of In-Person Meetings with Mentor Per Month

Table B5. Mentor Training

Table B6. Site Type and Use of High School Mentors

Table B7. Youth Characteristics/Issues

Table B8. Reasons for Referral

Table B9. Screen-Out Factors

Table B10. Mentor Characteristics

Table B11. Match Criteria by Site

Table B1. Counts of YPF Youths

	Frequency	Percent+
Cache – Community	24	5%
Cache – Latino	18	4%
Carbon	15	3%
Davis	12	3%
Iron – Community	27	6%
Iron – CYFAR	47	10%
Iron – After School	25	6%
Juab	27	6%
Millard	24	5%
Rich	27	6%
Salt Lake	1	.2%
Sevier	10	2%
Tooele	21	5%
Utah – Nebo	13	3%
Utah – Park	16	4%
Utah – Larsen*	0	0%
Utah – Timpanogos	13	3%
Utah – Sharon	2	.4%
Utah – Farrer	3	1%
Utah – Spring Creek	28	6%
Utah – Westmore	37	8%
Utah – Aspen	39	9%
Utah – Franklin	11	2%
Utah – Oak Canyon±	0	0%
Utah – Orem Jr. High	2	.04%
Utah – Centennial±	0	0%
Washington	8	1%
Total	450	100%
<p>*The Utah-Park and Utah-Larsen sites combined early in the 2006 school year. So, though it technically existed, no youths were actually served at the Utah- Larsen site.</p> <p>± All the youths served at this site were transferred to other sites when the site closed.</p> <p>+May not add to 100% due to rounding.</p>		

Table B2. YFP Activities During the School Year

	Mentor Face-to-Face Contact		4-H activities				FNO
	Weekly	Twice a Week	Weekly	2X Month	Monthly	Quarterly	Monthly
Cache – Community*	✓			✓			✓
Cache – Latino*		✓		✓			✓
Carbon	✓				✓		✓
Davis	✓				✓		✓
Iron – Community	✓		✓				✓
Iron – CYFAR	✓		✓				✓
Iron – After School	✓						
Juab	✓				✓		✓
Millard*	✓		✓				✓
Rich	✓				✓		✓
Sevier		✓				✓	✓
Tooele	✓				✓		✓
Utah – Nebo	✓		✓				✓
Utah – Park	✓		✓				✓
Utah – Larsen	✓		✓				✓
Utah – Timpanogos	✓		✓				✓
Utah – Sharon	✓				✓		✓
Utah – Farrer	✓		✓				✓
Utah – Spring Creek	✓		✓				✓
Utah – Westmore	✓				✓		✓
Utah – Aspen	✓		✓				✓
Utah – Franklin	✓		✓				✓
Utah – Oak Canyon	✓		✓				✓
Utah – Orem Jr. High	✓		✓				✓
Utah – Centennial	✓		✓				✓
Washington	✓				✓		✓

\*Poor or missing data from this site.

Table B3. YFP Activities During the Summer

	In-Person Mentor			4-H Activities				FNO	
	Weekly	1X Month	No set schedule	Weekly	1X Month	1X Quarter	No set schedule	1X Month	1X Quarter
Cache – Community*				✓					
Cache – Latino*				✓					
Carbon			✓			✓			✓
Davis	✓				✓			✓	
Iron – Community									
Iron –CYFAR									
Iron –After School					✓				
Juab	✓				✓			✓	
Millard*					✓			✓	
Rich					✓				
Sevier		✓				✓		✓	
Tooele			✓		✓			✓	
Utah – Nebo	✓				✓			✓	
Utah –Park	✓				✓			✓	
Utah –Larsen	✓				✓			✓	
Utah – Timpanogos	✓			✓				✓	
Utah – Sharon	✓			✓				✓	
Utah –Farrer									
Utah –Spr. Creek									
Utah – Westmore	✓				✓			✓	
Utah – Aspen	✓			✓				✓	
Utah – Franklin	✓			✓				✓	
Utah – Oak Canyon	✓			✓				✓	
Utah – Orem Jr. High	✓			✓				✓	
Utah – Centennial	✓			✓				✓	
Washington		✓			✓			✓	

\*Poor or missing data from this site.

*Table B4. Average Number of In-Person Meetings with Mentor Per Month*

Site	Average Number of In-person Meetings with Mentor per Month- <b>School Year</b>	Average Number of In-person Meetings with Mentor per Month - <b>Summer</b>
Cache –Community*	.63	missing
Cache –Latino*	.89	missing
Carbon	.85	.21
Davis	2.0	.28
Iron –Community	2.1	.14
Iron –CYFAR	3.2	.01
Iron –After School*	.16	.5
Juab	.76	.06
Millard	.50	.01
Rich	5.3	.47
Sevier	1.1	.15
Tooele	.49	.16
Utah – Nebo	1.3	.27
Utah – Timpanogos	.49	.11
Utah – Park	.75	.10
Utah –Sharon	2.2	.68
Utah – Farrer	.88	.15
Utah – Westmore*	.81	.26
Utah – Aspen	.55	.20
Utah – Franklin	.92	.28
Utah – Orem Jr. High	No data	No data
Utah –Spring Creek*	.39	.1
Washington	1.1	.05
*Poor or missing data from this site.		

Table B5. Mentor Training

Site	Mentor Training
Cache – Community*	
Cache – Latino*	
Carbon	✓
Davis	✓
Iron – Community	✓
Iron – CYFAR	
Iron – After School	✓
Juab	✓
Millard*	✓
Rich	✓
Sevier	✓
Tooele	✓
Utah – Nebo	
Utah – Park	
Utah – Larsen	
Utah – Timpanogos	✓
Utah – Sharon	✓
Utah – Farrer	✓
Utah – Spring Creek	✓
Utah – Westmore	✓
Utah – Aspen	✓
Utah – Franklin	✓
Utah – Oak Canyon	✓
Utah – Orem Jr. High	✓
Utah – Centennial	✓
Washington	✓

Table B6. Site Type and Use of High School Mentors

Site	High school mentors	School-Based Site	Community-Based Site	Combination of School and Community
Cache – Community			✓	
Cache – Latino		✓		
Carbon	✓		✓	
Davis	✓			✓
Iron – Community			✓	
Iron – CYFAR		✓		
Iron – After School	✓	✓		
Juab	✓	✓		
Millard	✓			✓
Rich	✓			✓
Sevier	✓		✓	
Tooele	✓		✓	
Utah – Nebo			✓	
Utah – Park			✓	
Utah – Larsen			✓	
Utah – Timpanogos		✓		
Utah – Sharon				✓
Utah – Farrer	✓	✓		
Utah – Spring Creek	✓	✓		
Utah – Westmore		✓		
Utah – Aspen				✓
Utah – Franklin				✓
Utah – Oak Canyon			✓	
Utah – Orem Jr. High			✓	
Utah – Centennial			✓	
Washington			✓	

Table B7. Youth Characteristics/Issues

	Single/Divorced Parent	Parent with Health Issue	Latch-Key kids	Problems at Home	Low Income Households	Ages 10-14	Struggle with Academics	Struggle Socially	Struggling with Language	Struggling Emotionally	Low Self-esteem	Youth/Family Involved/History of criminality	Recent Immigrants	Other
Cache – Community*	✓	✓	✓		✓	✓	✓	✓				✓		
Cache – Latino*	✓	✓	✓		✓	✓	✓	✓	✓			✓		
Carbon	✓			✓	✓	✓	✓	✓		✓	✓			
Davis	✓	✓		✓	✓	✓	✓	✓		✓	✓	✓		✓
Iron – Community	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓		✓	
Iron – CYFAR							✓	✓						
Iron – After School*	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Juab	✓			✓	✓	✓	✓	✓		✓	✓	✓		
Millard*														✓
Rich	✓	✓	✓		✓	✓	✓	✓			✓	✓		
Sevier	✓			✓	✓	✓	✓	✓		✓	✓			
Tooele						✓		✓		✓	✓			✓
Utah – Nebo						✓	✓	✓		✓	✓			
Utah – Park						✓	✓	✓		✓	✓			
Utah – Larsen						✓	✓	✓		✓	✓			
Utah – Timpanogos	✓				✓		✓	✓						
Utah – Sharon	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Utah – Farrer						✓		✓	✓			✓	✓	✓
Utah – Spring Creek						✓		✓	✓			✓	✓	✓
Utah – Westmore	✓	✓	✓	✓	✓	✓	✓	✓		✓	✓			
Utah – Aspen	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	
Utah – Franklin	✓					✓	✓	✓		✓	✓			
Utah – Oak Canyon	✓			✓	✓	✓	✓	✓	✓	✓	✓			
Utah – Orem Jr. High	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓			
Utah – Centennial	✓	✓		✓	✓	✓	✓	✓	✓	✓	✓		✓	
Washington	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	✓	

\*Poor or missing data from this site.



Table B8. Reasons for Referral

	Behavioral Problems in School or Other Locations	Problem in Family/Peer Interactions and Relationships	Needs to Feel More Socially Accepted by Peers and Others	Absent or Poorly Developed Social Skills	Inadequate Academic or Academic -Related Skills	First time Offender Involved with the Juvenile Court System	Needs More Support Network in Home, School, Church etc.	Has Suffered an Emotional or Physical Loss	Other Community-Specific targets	Total
Cache – Community*										
Cache –Latino*										
Carbon	4	11	12	11	11	2	13	9	0	13
Davis	8	11	8	8	8	0	12	12	12	12
Iron – Community	4	9	22	24	19	0	8	11	0	27
Iron –CYFAR	7	14	20	13	31	0	4	8	1	37
Iron –After School*	6	8	14	6	16	0	11	10	0	17
Juab	15	22	25	18	22	8	19	11	1	27
Millard	16	13	14	15	12	0	14	12	0	18
Rich	1	2	3	2	3	0	3	1	0	3
Sevier	4	9	11	11	10	1	11	12	5	17
Tooele	6	7	9	8	7	0	5	5	0	11
Utah – Nebo	5	6	6	6	6	1	5	2	5	13
Utah – Timpanogos	4	7	7	8	7	1	5	4	1	11
Utah – Park	2	2	2	2	2	0	1	2	0	2
Utah –Sharon	4	11	12	11	11	2	13	9	0	13
Utah –Farrer										
Utah – Westmore*	5	3	11	7	13	0	2	4	3	22
Utah –Aspen	6	17	14	8	8	2	9	9	5	28
Utah –Franklin	13	22	22	20	12	7	27	23	1	36
Utah – Orem Jr. High*										
Washington	7	7	8	8	7	1	6	8	0	8
Total number of cases	113	170	208	175	194	23	155	143	34	302
Percent of Cases	37.4%	56.3%	68.9%	57.9%	64.2%	7.6%	51.3%	47.4%	11.3%	

\*Poor or missing data from this site.

Table B9. Screen-Out Factors

Site	Serious Behavior Problems	Not at Risk	Adjudicated Delinquent	Drug Problem	Puts Other Youths at Risk	Mental/Emotional Disability	Don't Agree to Participate Fully	Other Reason
Cache – Community*	✓	✓	✓		✓			
Cache – Latino*	✓	✓	✓		✓			
Carbon						✓	✓	
Davis	✓	✓		✓	✓	✓	✓	
Iron – Community			✓				✓	
Iron – CYFAR	✓							
Iron – After School*								
Juab	✓	✓	✓	✓	✓		✓	
Millard*	✓			✓				
Rich					✓		✓	✓
Sevier	✓	✓	✓	✓	✓		✓	
Tooele			✓	✓	✓			
Utah – Nebo	✓		✓	✓	✓	✓	✓	
Utah – Park	✓		✓	✓	✓	✓	✓	
Utah – Larsen	✓		✓	✓	✓	✓	✓	
Utah – Timpanogos							✓	
Utah – Sharon	✓		✓	✓	✓			
Utah – Farrer					✓			
Utah – Spring Creek					✓			
Utah – Westmore	✓		✓	✓	✓			
Utah – Aspen	✓		✓	✓	✓			
Utah – Franklin					✓			
Utah – Oak Canyon	✓	✓	✓	✓	✓			
Utah – Orem Jr. High			✓	✓	✓			
Utah – Centennial			✓	✓	✓			
Washington	✓		✓	✓	✓			
*Poor or missing data from this site.								

Table B10. Mentor Characteristics

Site	Sources of Mentors				Mentor Types	
	High school	College	Church	Local Community (e.g., Businesses)	Grand Mentors	Multiple Mentors
Cache – Community*					✓	
Cache – Latino		✓				
Carbon	✓	✓				
Davis	✓	✓	✓	✓	✓	
Iron – Community		✓				
Iron – CYFAR		✓				
Iron – After School			✓	✓		
Juab	✓			✓	✓	✓
Millard*	✓					
Rich	✓				✓	
Sevier	✓	✓		✓	✓	
Tooele	✓	✓	✓	✓		
Utah – Nebo		✓	✓			
Utah – Park		✓	✓			
Utah – Larsen		✓	✓			
Utah – Timpanogos		✓				
Utah – Sharon		✓		✓		
Utah – Farrer	✓	✓				
Utah – Spring Creek	✓	✓				
Utah – Westmore		✓				
Utah – Aspen		✓		✓		
Utah – Franklin		✓				
Utah – Oak Canyon		✓				
Utah – Orem Jr. High		✓	✓			
Utah – Centennial		✓	✓	✓		
Washington		✓			✓	

Table B11. Match Criteria

Site	Gender	Race	Foreign Language	Religion	Similar Interests	Personality	Request by Youth	Request by Mentor	Geographic Location of Youth	Other
Cache – Community*	✓			✓	✓				✓	
Cache – Latino*	✓		✓	✓	✓				✓	
Carbon	✓		✓		✓	✓				
Davis	✓				✓	✓	✓	✓	✓	
Iron – Community	✓				✓					✓
Iron – CYFAR	✓				✓	✓	✓	✓		
Iron – After School	✓	✓	✓		✓	✓	✓	✓	✓	
Juab	✓				✓			✓	✓	
Millard*	✓				✓	✓	✓	✓		
Rich	✓				✓		✓	✓	✓	✓
Sevier	✓				✓	✓		✓	✓	
Tooele					✓	✓	✓	✓	✓	
Utah – Nebo	✓		✓		✓	✓	✓	✓	✓	
Utah – Park	✓		✓		✓	✓	✓	✓	✓	
Utah – Larsen	✓		✓		✓	✓	✓	✓	✓	
Utah – Timpanogos	✓		✓		✓	✓				
Utah – Sharon	✓		✓		✓	✓	✓	✓	✓	
Utah – Farrer						✓				
Utah – Spring Creek						✓				
Utah – Westmore	✓		✓		✓	✓	✓			✓
Utah – Aspen	✓		✓		✓	✓	✓	✓	✓	
Utah – Franklin	✓		✓	✓	✓	✓	✓	✓	✓	
Utah – Oak Canyon	✓		✓		✓	✓			✓	
Utah – Orem Jr. High	✓		✓		✓	✓		✓		
Utah – Centennial	✓		✓		✓	✓		✓	✓	
Washington	✓		✓		✓	✓	✓	✓	✓	

\*Poor or missing data from this site.