
Roderick L. Jones
St. John Fisher College

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Abstract
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Third Supervisor
Dirk Hightower

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A Framework for Understanding Participation Among African American Adolescents in

The Rochester Step-Off Program:

A foundation for evidence-based strategies to improve participation

by

Roderick L. Jones

Submitted in partial fulfillment
of the requirements for the degree
Ed.D in Executive Leadership

Supervised by

Dr. Dianne Cooney-Miner

Committee Members
Dr. Russell Coward and Dr. A. Dirk Hightower

May 2009
We recommend that the dissertation by

Roderick Jones


Be accepted in partial fulfillment of the requirements for the Education Doctorate degree.

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4-27-09

Date
Roderick Jones, a native of Brooklyn, New York, is married to Dr. Karen Jones and is the father of Roderick Jones, Jr. and Payeton Jones. Jones serves as president and chief executive officer of Grace Hill Settlement, Inc. (Grace Hill), one of the premier nonprofit providers of neighborhood-based human services in St Louis, Missouri. Prior to his position as CEO of Grace Hill he was president and chief executive officer, after being executive vice president, at The Community Place of Greater Rochester, Inc. in Rochester, New York. He has served in a wide variety of positions at various health and human services agencies following a short tenure at General Electric in the corporate Computing Division. Jones is an important advocate for including the voice of those that are poor, marginalized, and underrepresented. He contributes to the advancement of the work of the nonprofit sector in Rochester and St Louis.

Jones has a B.S. in Economic Crime Investigations from Syracuse University and holds a M.S. in Public Administration from The State University of New York at Brockport College.
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To the staff and boards of The Community Place of Greater Rochester, and Grace Hill Settlement, and my church family at Full Gospel Tabernacle for the deference given when I found myself having to choose school work over professional and Christian duties. Many thanks to the faculty and staff at St. John Fisher College who helped me manage and navigate (Dr. Walton, Betsy Christiansen, Dr. Cooney-Miner, Dr. Coward).

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Abstract

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Problem Statement

Each year, local, state, and federal governments, along with foundations and other contributors, provide resources to non-profit organizations that work to mitigate challenges for youth and help prepare them to be productive adult citizens. Many of these efforts are in the form of out-of-school time programs (OST programs), which offer activities for youth outside of the traditional school day. Weiss, Little, and Bouffard (2005) define OST programs as a variety of activities and programs for youth ranging from five to eighteen years of age outside of school times. These programs typically focus on improving the socio-emotional well-being and academic abilities of those who participate. OST programs vary widely in design, duration, content, and goals (Miller, 2003).

In spite of the resources provided for OST program service delivery, resources for research, evaluation, and program design have been extremely limited. Moreover, most of the literature on designing programming for challenged or “at-risk” youth was written relatively recently, since the early 1990s. At-risk youth are those who have an increased likelihood of poor outcomes based upon their behavioral history and/or conditions to which they have been subjected. Relatively speaking, this literature is limited, and many strategies and designs for OST programs targeting at-risk youth are predicated on anecdotal information and theories lacking empirical data or a scientific basis. There are limited materials regarding OST program design, and limited resources available to
practitioners in human and social services to guide their work. This paucity of frameworks is not to suggest that OST programs are ineffective. On the contrary, there is evidence that some OST programs' practices effectively improve socio-emotional well-being and academic performance (Durlak & Weissberg, 2007; Lauer, Akiba, Wilerson, Apthorp, Snow, & Martin-Glenn, 2006). In sum, research is needed to develop evidence-based programming for urban, African-American youth that may benefit from that programming.

An important subset of the evidence-based program design must focus on issues on methods for reaching maximum participation. Research found that participation is critical to individual and program level outcomes among at-risk youth. Many of those who most need socio-emotional and academic development often do not participate (Simpkins, 2003; Weiss, Little, & Bouffard, 2005). The literature provides limited understanding of why adolescents participate in OST programs or how leaders offering OST programs might increase participation.

Statement of Purpose

The purpose of this study is to identify both risk factors and protective factors that predict participation in OST programs among urban African-American adolescents. This study focused on developing a framework for practitioners to design strategies to increase participation in OST programs. This work builds on previous research by the Harvard Family Research Project that examined influences on participation in OST programs (Simpkins, 2003; Weiss, Little, & Bouffard, 2005). As noted, these results could provide guidance for OST program design and service delivery systems, while ultimately increasing levels of participation in OST programs like the Rochester Step-Off Program.
Participants for this study were from the RSO, an OST program operating in the city of Rochester, New York. Further risk factors and protective factors were those identified by Glaser, Van Horn, Arthur, Hawkins, and Catalano (2005), as represented by 23 risk and 10 protective scales in the Communities That Care Youth Survey.

A central theory of the proposed study is that there may be a relationship between the ecologies that surround youth and their participation in OST programs.

Bronfenbrenner (2005) argued that human development is influenced by the environment that the child exists. Further, that a child's development over time is a joint function of the person and the environment. The source(s) of influence exist within four systems: (a) microsystems, which include structures and processes in the immediate surroundings (e.g. school or an out-of-school time program); (b) mesosystems, which include the functional operation of any two settings or microsystems (e.g. the interaction between home and neighborhood center); (c) exosystems, which include two or more immediate settings and one not immediate setting that influences multiple immediate settings or microsystems (e.g. a neighborhood and City Hall as enforcers of conduct); and, (d) macrosystems, which are the beliefs, norms, values, and orientations that influence the operation of any of the three systems (e.g. community culture or common mores).

Several frameworks exist that allow practitioners to characterize or profile children's developmental stages, as well as, frameworks for understanding environmental conditions that may influence their development. However, nothing in the literature combines those frameworks to address participation in OST programs. Consistent with Bronfenbrenner's Process-Person Context Model (2005) described in Chapter II, there is a relationship between ecological or environmental factors and children's development.
and choice. Practitioners must understand the ecological factors that exist for children when attempting to affect their development and choices. One such choice is that of participation in OST programs that may be of benefit to their own development.

One promising framework that has influenced efforts to help at-risk youth through OST programs has been Risk Behavior Surveillance, which is taken from the behavioral sciences (Blum, Beuhring, and Rinehart, 2000). This is referred to as “Risk and Protection-Focused Prevention” and its paradigm focuses on eliminating or mitigating risk factors that are closely associated with negative outcomes. Such factors might be related to the child’s present actions or his or her exposure to other people and environments (France & Utting, 2005). The Communities That Cares Youth Survey (CTCYS) is widely used in the United States to establish risk profiles for communities and school districts. In communities that have used the CTCYS, the data informs priority areas for youth programming. This approach is known as science-based community prevention planning (Hawkins, Catalano, & Arthur, 2002). The CTCYS is typically used as a macro-level tool for profile building at a community-wide level. Researchers have established cut-off points for the CTCYS data to distinguish high or low risk of involvement in problem behaviors. The populations of youth experiencing risk and requiring protection can be described by each predictor (Arthur, Briney, Hawkins, Abbott, Brooke-Weiss, & Catalano, 2007).

The CTCYS has been used on a limited basis to examine changes in predictive profiles among OST program level participants. This study extends that work and used the CTCYS at a micro-level and within an established program to build risk profiles for individuals which could then be compared to various levels of participation. To date, no
study reviewed discusses using the CTCYS to provide a framework for informing interventions that would improve participation in OST programs. Such results could provide practitioners a framework to help establish strategies to increase levels of participation. These strategies could provide focus in four domains: (a) individual/peer, (b) family, (c) neighborhood, and (d) school.

Urban, low-income African-American youth are the focus of the study, as this population has been identified as being most at-risk for poor outcomes (Miller, 2003). For this study, “African-American” refers to persons of African descent, regardless of racial mixture with other races, ethnic cultures, or country of origin. African-American children in the United States are primarily located in urban or metropolitan communities and are disproportionately poor (Infoplease, 2009; Wikipedia, 2009).

African-Americans, in comparison to Caucasians, are overly represented in negative outcome categories, including: school dropout, teen pregnancy, suicide, obesity, and juvenile delinquency. Such low-income students often feel alienated from school culture (Miller, 2003). These high rates of negative outcomes suggest that there is a great deal of work to be done with this population. The social and economic conditions for the majority of this population have received interventions and have only improved marginally, if at all, and the greatest predictor of student academic achievement is the socio-economic status (SES) of the family (Brown, Roney, & Anfara, 2003; Gutman, Sameroff, & Eccles, 2002; Mertens & Flower, 2003; Roscigno, 1998).

The four research questions outlined below sought to understand the ecology of the study population and that of a national sample: and determine whether, or not, there
were relationships between the systems or ecological factors (as described by Bronfenbrenner, 2005) and the children's choice to participate in the OST programs.

Research Questions

The study seeks to answer the following questions:

1. How do the risk factor and protective factor (as measured by Glaser et al., 2005) means compare for the sample and the national dataset?

2. What risk factors and protective factors (as measured by Glaser et al., 2005) are associated with youth participating in the Rochester Step-Off program?

3. What are risk factors and protective factors (as measured by Glaser et al., 2005) or profiles of factors for the study sample at high (top third of sample), medium (middle third of sample), and low (bottom third of sample) levels of participation?

4. What are the relationships among risk factors and protective factors (as measured by Glaser et al., 2005) and participation by youth in the Rochester Step-Off program?

Definition of Terms

The following terms are defined operationally for this study:

Risk-focused prevention paradigm- The theory applied to designing prevention programs based on the identified clusters of risk factors associated with the likelihood of a poor risk behavior (e.g., substance abuse). The focus is predominately on risk factors because much less is known about relationships between protective factors and behavioral outcomes (Farrington, 2000; France & Utting, 2005).

Participant- Participant includes any student who participated in the Rochester Step-Off Program at least one day during the 2007-08 academic year.
**Attendance** - The percentage of days attended in the Rochester Step-Off program out of all possible days.

**Levels of Participation** - The participation variable is trichotomized: (a) High (top third of sample), (b) Medium (middle third of sample), and (c) Low (lowest third of sample).

**Risk Factors** - Are attributes or conditions of a person that causes them to be at-risk of a poor future outcome.

**Protective Factors** - Are attributes or conditions of a person that contribute to a positive future outcome.
Chapter II: Review of the Literature

Introduction and Purpose

This section provides a context for examining the relationship between risk factors and protective factors and participation levels, as well as positive performance outcomes for urban African-American adolescents ages 12 to 18 participating in the Rochester Step-Off Program. A review of the literature on the socio-economic status for African-Americans provides a context for the challenges facing this population and the significance of OST programs. A review of Brofenbrenner’s (2005) Process-Person Context Model of human development is used as a basis for the current and potential impact of OST programs on adolescent development. Included is a review of prevention science literature related to risk factors and protective factors. "The Communities That Cares Youth Survey" (Hawkins et al., 2002) is examined as a tool for identifying factors that are predictive of adolescent outcomes. Next, the history, role, and benefits of OST programs are reviewed in order to suggest they are critical resources for human development. A review of issues related to participation in OST programs establishes what is known about potential threats to participation. Finally, a study of RSO provides an understanding of the art form, its history, and role in shaping performance outcomes in OST programs.

Those in the helping professions (nursing, education, human services) tend to be familiar with the literature outlining the socio-economic challenges among urban African-Americans. Causes for limited participation and effective methods of
engagement for this population are less known and much less researched than the identified challenges. The literature presents a variety of reasons for limited participation in OST programs drawn from the perceptions of urban African-Americans in various communities. The literature confirms the positive impact of OST programs on the target population. However, the literature lacks evidence-based methods for increasing participation in OST programs for the target population. The body of literature presented supports the argument that there are commonalities in risk factors and protective factors for urban African-American adolescents who actively participate in OST programs. Additionally, the literature suggests that there are correlations between the risk factors and protective factors and outcomes, such as levels of participation and behavior.

*Bronfenbrenner’s Theory: Ecology of Human Development*

The theory that OST programs influence child development is consistent with Urie Bronfenbrenner’s findings that human development is a function of both the person and the environment. Bronfenbrenner (2005) is most noted for his phenomenological view of human development. He theorized that human development occurs in the context of a greater ecology, referred to as the “Ecology of Human Development.” Humans are at the center of the ecology and their immediate surroundings influence their development.

Bronfenbrenner (2005) noted that most studies of adolescent characteristics consider the child in isolation of the environment in which the child exists. Bronfenbrenner further suggests that to more accurately understand a child’s development requires consideration of the ecological factors that contribute to their development. Among the ecological factors are the child’s characteristics, family units, school, the surrounding neighborhood, and relationships with peers. Moreover, he
concluded that the Process-Person Context Model describes adolescents' development and causal understanding. This is stated as $D = f(PE)$, or Development as a joint function of the Person and the Environment. This construct acknowledges development as a process of time. The examination of such development considers the sum of all experiences and influences up to and through the point in time of the examination of the adolescent's developmental characteristics. This model assesses the developmental outcomes and the processes that lead to those outcomes, and expresses the outcome and processes as a function of the characteristics of the person and the environment, thus allowing for the understanding of synergy. Synergy or synergism is described as the function of multiple forces that produce a greater effect than each force alone.

Risk Factors and Protective Factors

Many of the risk factors and protective factors that lead to negative behaviors also contribute to the achievement gaps. Risk factors and protective factors contribute greatly to the design of prevention and intervention services for urban youth, such as academic and social support systems. Researchers agree that there are many environmental factors that effect student performance that include, but are not limited to, families, communities, academic practices, and school climate (Comer, 1988; Firestone and Rosenblum, 1988; Germain and Gitterman, 1996; Frasier and Fisher, 1982; Quebral, 2005; Saunders, 2002; Zweig, 2003).

Resiliency models of prevention focus on reducing risk factors and increasing protective factors of children, thereby reducing the likelihood of engagement in negative risk behaviors that result in poor outcomes (Bry, 1982; Coie et al., 1993; Greenberg, Kusche. Cook. & Quannama, 1995; Hawkins et al., 1992). Changing risk factors and
protective factors is a prominent theme in the field of prevention science. Prevention science is an outgrowth of three disciplines: (a) life course development research, (b) community epidemiology, and (c) preventive intervention trials. Risk factors are characteristics that are empirically verifiable precursors of behaviors that lead to negative health outcomes. In contrast, protective factors prevent behaviors that lead to negative health outcomes. Research suggests that engagement in risk behaviors can be prevented by reducing risk factors and increasing protective factors. Prevention strategies across communities vary in effectiveness. Risk factors and protective factors are divided into four domains: (a) community, (b) family, (c) school, and (d) individual/peer.

Risk, Protection, and Adolescent Outcomes

While risk and protection has advanced from theory to more of an empirical science, practitioners have not, to a large degree, made application of the knowledge to effect youth outcomes. However, the knowledge of risk and protection has provided a beginning point for practitioners such as teachers and others working with youth to understand elements that effect youth performance and outcomes. Researchers and practitioners have not arrived at being able to demonstrate causality as much as to identify associations between risk, protections and youth outcomes.

For instance, there is an understanding in education of the risk factors and protective factors that are associated with positive or negative student performance and outcomes. However, there is still no commonly accepted cause for disparities in academic performance (Rothert, 2005). There is agreement in the research on the lists of risk factors that contribute to poor academic performance among youth (Haycock, 2001; Johnston and Viadero, 2000; NCREL, 2002). Among the agreed upon list of risk factors
are: (a) ineffective parenting skills, (b) negative peer relationships, (c) negative labeling of students by teachers (Adams et al., 2003; Kinlock, Battjes, and Gordon, 2004; Li, Pentz and Chou, 2002; Ma, Shek, Chueng, and Tam, 2002; Simmons, Chao, Conger and Elder, 2001) Among the agreed upon list of protective factors are: (a) good parent-child relationships, (b) positive peer support, (c) positive teacher-student relationships (Adams Robertson, Gray-Ray, and Ray, 2003; Supplee, Unikel, & Shaw, 2007; Young, Godfrey, Matthews and Adams, 1983).

Norton and Lewis (2000) suggested that adolescents residing in urban neighborhoods are at high risk of negative outcomes as a result of familial and environmental factors. Further, much of the literature agrees with and builds on the work of sociologist William Julius Wilson (1987) that refocused attention on issues of poverty and viewing adolescent development in the context of a potential relationship between neighborhoods and adolescent development (Brooks-Gunn, Duncan and Aber, 1997; Furstenberg, 1999). Scholars in sociology studying subcultures of neighborhoods identified that influence on the development of adolescents (Cloward and Ohlin, 1960; Elliott et al., 1996; Shaw and McKay, 1942). Elliott et al., (1996) argued that specific facets of neighborhoods provide support that promotes life chances and without them the environment has limited or no support for life chances. The supportive facets of neighborhoods suggested in the literature include stable environments that support belief systems, adult role models to enforce social norms, and informal and formal institutions that provide access to adults such as OST programs, religious organizations, and schools (Jencks and Mayers, 1990).
Assessment Tools

Scholars define prevention sciences as the practice of understanding the effects of risk factors and protective factors that influence the development of health and behavior outcomes (Glantz & Pickens, 1992; Glaser et al., 2005; Hawkins et al., 1992). The body of research on risk factors and protective factors consistently supports a strong and predictive relationship between the number of risk factors and protective factors experienced by a child and the likelihood of increased problems (Bry et al., 1982; Furstenberg et al., 1998; Glaser et al., 2005; Pollard et al., 1999; Rutter, 1979).

The two most noted Behavior Monitoring Systems are the Youth Risk Behavioral Surveillance Systems (YRBSS) (Kolbe, Kann, & Collins, 1993) and CTCYS (Hawkins, et al., 2002). Blum et al. (2000) found that risk factors and protective factors lead to a more effective understanding of youth engagement in risk behaviors than do other factors such as ethnicity, family structure, or income. The YRBSS is limited to garnering specific patterns of behaviors among participants such as violence or use of drugs. The CTCYS garnerers specific information about participants that are associated with predefined risk factors and protective factors that allow for predictability of future behavioral outcomes such as substance abuse.

YRBSS data collection systems that monitor risk behaviors of youth are used to develop community-wide interventions and prevention models. The Center for Disease Control (2005) monitors the “Youth Risk Behavior Surveillance System” that comprises data collected from school districts and health agencies on risk behaviors of youth across the United States. The identified risk behaviors are frequently established in adolescence, yet extend into adulthood. The YRBSS does not focuses on identification of trends in
adolescent behaviors and has no psychometric design. Arthur, Hawkins, Pollard, Catalano, and Baglioni (2002) developed CTCYS using various risk factors and protective factors identified in the literature as predictive of adolescent drug use, delinquency, violence, and school dropout. Their goal was to develop a reliable and valid self-reporting tool for adolescents between the ages of eleven and eighteen to measure risk factors and protective factors across ecological domains (e.g. community, school, family, peer, individual), and health or behavior outcomes across the ecological domains. According to Hawkins et al. (2002), each risk factor or protective factor within the CTCYS is predictive of future adolescent drug use or negative behavior. Within the CTCYS, risk factors and protective factors are sorted into four domains: a) community or neighborhoods, b) school, c) family, and d) peer or individual.

The CTCYS started with 350 items selected from existing survey instruments that were identified by researchers of adolescent antisocial behaviors. The 350 items were comprised of twenty-one risk factors and eleven protective factors that measure adolescent substance use, delinquency, and youth violence. The initial demographic variables included grade, age, gender, race, or ethnicity, family composition, and language spoken at home. Analyses were conducted to determine levels of consistency in interpretation of the survey among 25 male or female children from diverse ethnic origins and geography (n = 15 urban and n = 10 suburban). To test the individual item frequency distribution and item intercorrelation, 1,097 students in grades 6 to 12 from Oregon school districts completed a pilot questionnaire. The Chronbach alpha was used to assess internal consistency. Items having > .85 interim correlations or little variance (90% or more providing the same answer) were modified or eliminated, resulting in 251 risk and
protective items and 10 demographic measures. Following the aforementioned analysis, a revised survey instrument was administered to a statewide probability sample of 6th, 8th, and 11th grade students. The instrument was refined to six sections: Demographics, Community, Substance Use and Other Problem Behaviors, Peer-Individual, Family, and School. Further, results of a pilot test of a multistage cluster sample of 11,162 students from 131 Oregon Public Schools (grades 6, 8, and 11) were used to evaluate reliability and to select the items contributing to the variance of each scale. Seventy-nine percent (8,676) of 11,162 student surveys were included.

Arthur et al. (2002) found several items that informed the composition of the CTCYS. The analysis revealed similar results across demographics and characteristics of participating students. Students’ ability to complete the survey within the allotted fifty minutes varied by grade level: 6th (66.3%), 8th (79.8%), and 11th (87.9%). Therefore, items were removed to improve the likelihood of completing the survey. The final analysis was conducted using the strongest 121 items representing 29 risk and protective constructs. Risk factors and protective factors were examined for viability of short scales measuring the specified risk factors and protective factors constructs. For each set of hypothesized measures of risk factor and protective factor constructs, the eigenvalue greater than one was used to determine the number of factors present. The study examined the viability of short scale measurement of risk and protective constructs. Using the Cronbach’s alpha and the eigenvalues for each scale across demographic elements, the following was determined:

- Average reliability was ≥.60 with the exception of a single scale (opportunities for involvement in school).
• The greatest degree of variability existed in internal consistency across gender and grade levels.

• Greater reliability was demonstrated among younger students and males than among older female students; for all other scales reliability values did not vary substantially across grade level or gender.

• The correlation of risk factor and protective factor scales with the demographic variables was generally low.

• Moderate correlations were found between grade level and some scales.

• All correlations for the risk factors showed a positive relationship with problem behavior.

• All correlations for protective factors showed a negative relationship with problem behaviors.

• All scales had internal consistency of $\geq .70$ except Opportunities for School Involvement.

Glaser, Horn, Arthur, Hawkins, and Catalano (2005) built on the work of Arthur et al. (2002). They used confirmatory factor analysis to validate the structural measurement model that underlies the CTCYS, and to determine validity across demographic groups. Identified demographic groupings included race or ethnicity (African-American, Asian or Pacific Islander, Caucasian, Hispanic American, and Native American), gender (male or female), and grade level ($6^{th}$, $8^{th}$, $10^{th}$, and $12^{th}$). The study conducted included a randomly selected population of 176,464 students attending public schools (grades 6, 8, 10, and 12) from across seven states (Colorado, Illinois, Kansas, Maine, Oregon, Utah, and Washington). Survey results for 172,628 of the 176,464
students who participated were included in the analysis. This study used a modified version of the original CTCYS. It included 133 items that measure 23 risk factors and nine protective factors. The aforementioned factors were examined as to how they fit into four domains (community, school, family, peer/individual). Furthermore, the study tested the degree to which each domain was consistent across demographic groups. The Tucker Lewis Index (TLI) and the Root Mean Square Error of Approximation (RMSEA) were used together to identify non-congruent models. The RMSEA was at the ≥.07 level of significance, and the TLI at ≥.95. The combination of the two measures was used to determine model fit. The RMSEA and TLI were used to examine measurement equivalence across groups. A difference between the results of the two tests greater than .01 indicates a meaningful difference in model fit. The study found measurement structures invariant across racial and gender groups. Further, the model testing showed an adequate fit for each domain. The study indicated differences in factor means across grade level, as was expected for adolescent populations.

In summary, the identified risk and protective scales used as measures in the CTCYS are valid and reliable, and the meanings of the factors are interpreted similarly across race and ethnicity, gender, and grade level. The confirmation of reliability of the CTCYS across demographic groups supported the use of this measure in this study. In other words, the CTCYS is valid for use in identifying risk factors and protective factors for the population selected for the proposed study. The selected sample for the proposed study is urban, low-income African-American adolescents who actively participate in OST programs. Moreover, the use of the CTCYS provides information regarding
characteristics within four domains: (a) community, (b) family, (c) schools, and (d) peer and individual.

The CTCYS has been used frequently to construct descriptions of large populations of youth (e.g., entire schools). For instance, between November 1998 and January 1999, the State of Louisiana used the CTCYS to conduct a study of 146,722 students attending public and private schools. The study included students in grades 6, 8, 10, and 12. Of 146,722 students, 141,241 participated in the survey. The average values for Cronbach alpha (0.79) support the reliability of the tool. The State of Louisiana constructed profile sets for students who participated in the study. The study included other sources of comparative data from communities that use the CTCYS. The findings of this administration of the CTCYS were descriptive. For instance, approximately 50% of all participants were drawn from diverse ethnic populations, approximately 50% of the participating students were from urban communities, and approximately 50% used alcohol. Other statistical data included percentages of students associated with risk factors and protective factors.

The studies outlined above buttress the claims that the CTCYS is a valid and reliable measure of negative outcomes. This measure’s established domains and scales can be used to better understand the ecological barriers to participation in OST programs. Understanding characteristics of adolescents in the context of the environment is crucial to the advancement of OST programs that potentially support youth development. This perspective is foundational to understanding how to maximize the benefits and effectiveness of programs intended to further youth’s academic and socio-emotional

Social Conditions of Urban African-American Students

Much of the current literature depicts the lives of urban African-Americans as disproportionately represented among individuals living in poverty and experiencing poor academic outcomes (Barton, 2003; Haycock, 2001; Jerlando, 2003). Not all African-American youth and their families are challenged to the same degree. The literature related to specific social conditions for urban, low-income African-Americans is outlined below.

Much of the literature related to the progress of African-Americans suggests gains specific to education and socio-economic status in the period between the civil rights movement (during the 1960s) and the year 2000. However, the literature invariably couches the gains in the context of the ongoing and pervasive disparities in achievement between low-income African-American youth and their more affluent White counterparts. At various times the disparities lessened, most notably between subpopulations of each race such as gender. Experts across varied disciplines have termed the disparity in attainment and achievement the “achievement gap.” Common methods of measuring achievement gaps include: (a) performance on standardized assessments, (b) levels of educational attainment, (c) levels of employment, and (d) socio-economic status. The label “achievement gap” is most commonly used by educators to represent the disparity in achievement between students of color and their white counterparts (Barton, 2006; Ferguson, 1998; Haycock, 2001; Jerlando, 2003; NGA Clearinghouse, 2007; Orr, 2003). The literature related to the academic achievement gap
uses measures that include: (a) standardized reading and math exams, (b) local and aggregated national graduation rates, (c) enrollment in higher education, and (d) rate of degree completion (Barton, 2006; Education Trust, 2001; Jerlando, 2003). Stevens (1995) identified the National Assessment of Education Progress (NAEP) and the Scholastic Aptitude Test (SAT) as common measures used to compare student performance.

Beyond academic differences, the literature points to a variety of common social challenges experienced by African-American students that are typically not experienced by their white counterparts. African-American students are more likely than their white counterparts to: (a) live in poverty, (b) live in urban communities, (c) be taught by unqualified teachers, (d) experience problems in school, (e) enter the criminal justice system, and (f) perform poorly on most academic indicators. When examining the aforementioned disparities, race appears to be the common factor. However, it has been difficult to separate the element of race from the socio-economic status of the family, as African-American families are more likely than white families to be from a poor background, live in a poor neighborhood, or reside outside of the home of their biological parent(s) (Furstenberg et al., 1999).

There is no generally accepted understanding of the cause of achievement and attainment gaps. Moreover, there is no common agreement relative to achievement and attainment gaps that suggests race has a direct effect on the development or success of youths (Condran & Furstenberg, 1994; Johnston, O’Malley, & Bachman, 1993). Experts suggest that other predictive factors are more reliable and predictive than race as an indicator of future outcomes. They note that reports of the prevalence of risk behaviors are often interpreted as suggesting a direct relationship to race or ethnicity (Blum.
Research in the behavioral studies identifies many risk behaviors that are likely to result in negative outcomes such as substance abuse (Hawkins et al., 2002).

**Out-of-School Time Programs**

Weiss, Little, and Bouffard (2005) define OST programs as a variety of activities and programs for youth ranging from five to 18 years of age during hours outside of school times. OST programs often offer one or more of the following components: (a) academic support (academic enrichment), (b) recreation (extracurricular or non-academic activity), and (c) cultural programs (activities that develop skills not taught in school) (Fashola, 1998). The roles of OST programs vary from one community to the next, and program structures are diverse. There is contention between experts who believe OST programs should have a scholarly focus and those who argue that OST programs must be recreational, social, and non-academic (Eccles & Gootman, 2001; Halpern, 1992).

In general, it is believed that OST programs aid youth in navigating the period between adolescence and adulthood (Miller, 2004). Diversity of OST programs is necessary to meet the range of participants’ needs (Miller, 2003). Further, OST programs must act as vehicles for academic support by providing academic services and serving as a bridge between school and home (Noam, 2003).

A review of the literature on the effectiveness and impact of OST programs suggests mixed results and variations in impact across program evaluations. There is general agreement among experts that some OST programs have positively affected children; however, concerns exist related to limited rigor in program evaluative techniques. Specifically, many researchers evaluating the effectiveness of OST programs
failed to control for selection bias due to a lack of random selection or control groups for comparison. Studies such as Duffett and Johnson (2004), Durlak and Weissberg (2007), and Lauer et al. (2006) have found impacts of OST programs to include socio-emotional development and academic ability. Outlined below are several studies and meta-analyses of studies of OST programs that represent the range of substantial findings in the study of OST programs.

Durlak and Weissberg (2007) conducted a meta analysis of 73 OST programs to determine the ability of the programs to impact the socio-emotional development of the youth who participated and to identify characteristics of the programs that were effective. Of the 73 OST programs considered, 66 programs met the selection criteria. Programs that met the criteria: (a) performed post analysis of results following the conclusion of the program, (b) included program elements and interventions that focused on developing social, emotional, and personal skills development, (c) used a control group, and (d) conducted program evaluations after 2000. Personal and social skills development focused on promoting skills that included problem solving, conflict resolution, self-control, leadership, responsible decision-making, and enhancement of self-efficacy and self-esteem. This study considered an outcome to be reliable if its alpha coefficient was greater than or equal to .70, or if an assessment of inter-judge agreement for coded or rated variables was greater than or equal to .70 (for kappa, greater than or equal to .60). The significant findings concluded that youth who participated in OST programs were reported to have demonstrated improved feelings and attitudes (self-confidence and self-esteem), school bonding (positive feelings and attitude toward school), positive social behaviors, reduced problem behaviors (aggression, noncompliance, and conduct
problems), and improved school grades and achievement test scores. The study also determined that effective programs used evidenced-based skill training approaches.

The research of Lauer et al. (2006), like that of Durlak and Weissberg (2007), suggested positive impacts on the behavior of youth who participate in OST programs. This study focused on the impact of 35 OST programs that provided academic support for students at risk of failing mathematics and reading. Lauer et al. (2006) found some positive effects on academic performance. Students were classified as at-risk if they performed poorly on standardized exams or classroom competencies and fell within the lower social economic status. Criteria for inclusion in the meta-analysis included: (a) use of a control or comparison group, (b) a focus on assisting children with improving math and reading abilities, (c) use of meta-analytic techniques, and (d) operation during or after 1985. The study included separate meta-analyses of reading and math, and the results were compared to research on summer school performance. The study also examined moderating factors that included: (a) timeframe for when the program was offered, (b) student grade level, (c) program focus (academic or extracurricular), (d) program duration or amount of time, and (e) grouping or clustering of students. Direct assessments included the use of standardized reading and math exams, and course grades in specific areas.

The study supported a small and significant effect on math and reading achievement. As a rule, there were larger “academic” effects for programs that offered specific tutoring in the areas of math and reading. Grade level was a statistically significant moderator for both reading and math. Activity focus (academic or extracurricular) was significant relative to results in math, but not reading. Programming
did not need to be completely focused on academics to have an effect on reading and math competence. There was a positive relationship between dosage, or duration, i.e. participation, and results. The study concluded that development of academic performance is one of the positive impacts of OST programs.

Mahoney, Lord, & Carryl (2005) conducted one of the first longitudinal studies that examined participation in OST programs from an ecological systems perspective. The study focused on a racially diverse population of 599 disadvantaged children with an aim of understanding the relationship between participation in OST programs, motivation attributes, and academic performance. In this study, participants experienced one of four types of care during out-of-school time: (a) participation in an OST program, (b) care by parent(s), (c) care by parent and siblings, and (d) care by adults other than parents and siblings. Children participating in OST programs demonstrated significantly higher academic performance and motivation than did those who received other types of care. The study also examined differences in family poverty status, caregiver employment status, race and ethnicity, grade, gender, and school-day classroom attendance. Findings showed that patterns differed based on poverty status, with a statistically significant relationship between poverty status and type of afterschool care with means for those in afterschool programs (2.7), those with parents (2.44), other adults (2.4). Similarly there was variation for academic performance for children with different types of caregiver for reading achievement: afterschool high engagement (28.89), afterschool low engagement (26.18), parent (23.68), and other adult (21.72). Reading achievements and expectations of student success differed when examined by type of care, with those participating in OST programs demonstrating significantly higher reading achievement. The study found
a significant relationship between high participation in OST programs and higher reading achievement. Expectation of success was higher for those who participated in OST programs than those supervised by an adult.

**OST Programs and Issues of Participation**

Several experts suggest that there is a relationship between positive outcomes for youth participating in OST programs and participation levels. When participation is low, the likelihood of a good program outcome is limited (Furstenberg, Cook, Eccles, Elder, & Sameroff, 1999; Granger & Kane, 2004; Miller, 2003). Little and Harris (2003) affirmed that attendance in OST programs is predictive of academic performance, as measured by report card grades and scores on standardized exams. Additionally, research findings support a relationship between participation in OST programs and pro-social development among youth (Eccles & Templeton, 2002).

Participation in many OST programs has been problematic because it is voluntary (HFRP, 2003). It is reported that low-income youth benefit the most from OST programs, yet they are least likely to participate (Simpkins, 2003). The gap in participation between income levels and races remains; however, recent research suggests that the gap is closing (Wimer et al., 2006).

According to Duffett and Johnson (2004), parents of youth residing in families of color and low-income homes desire support services for their children. However, they report several perceived barriers to participation, including lack of access or availability and unaffordability. These researchers conducted a study in 2004 of 609 middle and high school students (grades 6-12) and 1,003 parents to understand the desires of those who use OST programs, and the reliance of parents and students on opportunities to enhance
academic learning. There were two telephone surveys conducted on samples by using random-digit-dialing, thus placing every household across the continental United States with a phone in the selection pool. The error margins for this sample were three and four percent for parents and students respectively, with a higher margin for comparisons across subgroups. Additionally, 10 focus groups were conducted in several states (Connecticut, Texas, Arizona, Oregon, and Colorado) to gather qualitative information regarding the underlying reasons for public attitudes toward complex issues. Findings suggest that low-income (67%) and minority (47%) parents desire programs that focus on academic learning at a higher rate than higher income or White counterparts. Sixty-five percent of low-income and 71% of minority families surveyed reported that their community could do a lot more for kids. Low-income (76%) and minority (62%) families reported they were concerned about not being able to afford opportunities for summer programming. Minority and low-income families reported at a greater frequency than their White and middle-class counterparts that they did not have access to quality, affordable programs.

Much of the literature on OST programs supports the relationship between levels of impact and participation. Further, the literature suggests that African-American youth, Latino youth, and the disadvantaged are the most likely to benefit from OST programs (Simpkins, 2003; Weiss et al., 2005). The present challenge is that those who benefit the most are not participating at the highest levels if at all. Existing research suggests an increase in levels of participation in OST programs among youth residing in low-income households, and for African-American youth in particular, could be potentially beneficial.
Wimer et al. (2006) used data from two national surveys on participation in OST programs to determine demographic differences (race, ethnicity, and income) and to identify changes in those demographics over time for those who participate in OST programs. The two databases used were the Panel Study of Income Dynamics (PSID) and the National Survey of American Families (NSAF). The study found that among younger youth (6-11), only 31% of the lowest income youth participated in OST programs, as compared to 58% of the highest income youth. For older youth, rates of participation in OST programs increased from 43% to 72%. Participation in community programs and summer camps increased among the lowest income youth from 29% to 55%. There was a rise in participation for black youth in several specific activities, such as before and after school programs and summer camps. Whites were more likely than blacks to participate in OST programs such as community groups or programs, organized sports and recreation. Thirty four percent of the White youth in this study participated in community programs at 34% while African-American youth participated at 12%. Similarly, 45% of the White youth in the study participated in organized sports at 45% and only 40% of the African-American youth participated in the same.

Wimer et al. (2006) examined the Panel Study of Income Dynamics and the National Education Longitudinal Study to see if there were differences in the race and socio-economic status of those who participated in OST programs, and if those differences in participation persisted across activities. The study examined the following three factors: (a) participation (three indicators), (b) intensity (time spent on each activity), and (c) breadth (number of activities) of participation. Findings suggest that
disadvantaged youth were less likely to participate in a variety of activities compared
with their counterparts.

Weiss, Little, and Bouffard (2005) report about the Harvard Family Research
Project (HFRP) and proposed a conceptual model that utilizes an ecological perspective.
The HFRP conceptual model examines participation in OST programs (Appendix 1). The
model offers a definition for participation and factors that influence participation as a
means of meaningfully engaging youth in OST programs. This model suggests that three
components of participation (enrollment, attendance, and engagement) are needed. They
argue that no one component is sufficient to maximize participation without the others.

Research related to participation in OST programs suggests that approaches to engaging
youth in OST programs and measuring attendance is important. Attendance must be
captured in a broader measure than simply noting which populations attend. When
possible, data should include the breadth, depth, and intensity of participation in OST
programs. Originally engagement included motivation, active involvement in cognitive
and socio-emotional development, volume of time spent in program activities, and
duration or amount of time enrolled in the program. Enrollment was any child who came
in the door. Attendance is the precise amount of time that youth spend participating in
OST programs (e.g. days, hours, or minutes). The HFRP model considers predictive
factors (e.g. child, family, school, and neighborhood characteristics) that might influence
or impede participation, access to programs, and program quality.

Weiss et al. (2005) offer several recommendations for maximizing youth
participation in OST programs. For example, expectations for participation should vary
by the age of the participant. Also, expectations for participation should be established
according to program goals and services. Whereas, there is no single indicator for assessing participation, there is a need to understand the components of participation which can lead to stronger programs.

For many programs the current indicator of participation in OST programs is limited to attendance measures (e.g. present or absent). Weiss et al. suggest a three-part measure for participation that includes attendance, participation, and engagement. Understanding who participates and why would allow for a better understanding of access issues. Program leaders and researchers therefore need to take a systematic view of participation.

OST programs have shown promise for advancing the development of social and emotional wellness and academic development among minority and low-income youth at a higher rate than their white and more affluent counterparts. It has been suggested many times that additional research is needed to help understand the cause for limited participation among African-American youth, Latino youth, and youth residing in low-income homes (Bouffard et al., 2005; Duffett & Johnson, 2004; Durlak, 2007; Lauer et al., 2005; Wimer et al., 2006).

The body of literature specific to factors that influence participation in OST programs is limited. However, there are some minor agreements in the literature about factors that are correlated with participation: (a) parental involvement, (b) type of activities offered and personal motivations, and (c) environmental factors such as proximity, cost, and safety.

Holland and Andre (1987) conducted an analysis of what is know about participation in OST programs or extracurricular activities among students in secondary
school. The focus synthesized in the literature specifically focuses on aspects of participation: (a) personality/social characteristics, (b) academic achievement, (c) educational aspiration and attainment, (d) degrees of active involvement, and (e) factors that mediate participation effects. One segment of the study focused on environmental social context factors and their relationship to participation in extracurricular activities: those factors included SES, grade point average, school and community values, and school size. They found that research reported that school and community values for OST programs such as sports varied. Sports were more prominent in small schools and communities where there were fewer professionals, and household incomes were lower than larger schools or in communities where there were large numbers of professionals. Further, students were more excited to participate in sports teams when there was a strict authoritative structure rather than a permissive environment.

The literature suggested a strong positive correlation between SES and participation in extracurricular activities. Conversely, some research found SES negatively correlated with engagement of males in sports. Their findings pointed to academic performance as having the greatest correlation to participation regardless of gender. High participating adolescents were characterized as having good grades, being enrolled in academic programming, had college-oriented friends, and had contact with their teachers.

Holland and Andre (1987) found agreement in the literature that school size is correlated to participation and agreed that small schools offered ample opportunities for students to participate in extracurricular activities, whereas larger schools did not.
Later, Bartko and Eccles (2003), added to the body of literature about factors associated with participation. Unlike the research identified by Holland and Andre (1987), this study utilized a person-centered approach that focused on understanding the election choice of the adolescent and the academic, psychological, behavioral functioning, and familial context for each participant. This study examined at a fine level the participation choices in structural, constructive, unstructured, and passive activities of 1,004 urban and suburban students in the Washington, DC area. Further, this study examined participation in 11 activities rather than examining participation in a single activity. Ultimately, the 11 activities were collapsed into 6 clusters and profiles were developed for each that considered: (a) academic performance per report card data, (b) behavior problems, (c) psychological functioning, and (c) demographic elements such as parent's educational attainments and race. The activities considered for this study were: sports, reading for pleasure, homework, chores, time with friends, watching television, school clubs, community clubs, volunteering, religion, and paid work. When collapsed the six cluster profiles were as shown below:

1. Sports Cluster- sport related activities
2. School Cluster- high rate of activity
3. Uninvolved Cluster- involvement at less than the sample mean
4. Volunteer Cluster- high rate of involvement in volunteer activities
5. High Involved Cluster- high involvement in community-based clubs and other activities including religion
6. Working Cluster- high involvement in paid work and limited participation in other activities such as television viewing, volunteering and community clubs
This study reported a link between Parent Educational Attainment and structured and constructive activities. Parent education of adolescents in the High Involved Cluster (16.0) was significantly higher than that of the parents of adolescents in the Sports (14.8), Uninvolved (14.4), Volunteer (14.8), and Working Clusters (13.9), p<.001. Parents of the adolescents in the Uninvolved Cluster reported lower educational attainment than those with adolescents in the School and High Involved Cluster. Further, parents' occupational status is correlated to engagement involvement in the School Cluster; parents of adolescents in the School Cluster reported higher Occupational Status than those with adolescents in the Uninvolved Cluster.

The grade point averages (GPA) were highest for the School and High Involved Clusters, and adolescents in the two clusters had high involvement in homework and school clubs. In contrast, adolescents in the Uninvolved Cluster reported low involvement in homework and school clubs.

The Sports, Uninvolved, and Work Clusters reported the highest levels of problem behaviors; the opposite was true for adolescents in the School and High Involved Clusters.

The study presented the following profiles or characterizations of adolescents and their choices for involvement. Adolescents in the:

- High Involved Cluster reported high GPAs, low depression, and involvement in nearly all of the activity settings;
- School Cluster were highly involved in school-based activities and less in others;
- Uninvolved Cluster reported low academic performance, and high problem behaviors;
• Work Cluster reported high involvement in paid work, moderate academic performance, and high involvement in problem behavior;

• Sports Cluster reported high involvement in sports and time with friends, but average functioning scores;

• Volunteer Cluster was near the sample average for all indicators.

There were no statistically significant differences in activity clusters by race, but there were differences for females and social class background. For female participants the three high categories were School (66.2), Volunteer (62.3), and High Involvement (59.0); the low categories were Sports (26.4, Uninvolved (46.1) and Work (49.2), p<.001. Considering the social class or parents' occupational status all categories ranges from 72.6 to 76.7 except Uninvolved with was significantly lower at 69.7, p≤.05. Bartko and Eccles (2003) acknowledged that their finding of no differences in participation by race is different than some of the prior findings of other researchers. Further, they suggest the differences may be related to considering multiple activities for leisure time use as opposed to one.

Researchers note that parent support for activities as demonstrated through participation, attendance, and verbal affirmation was found to be related to adolescent participation in OST programs. Anderson, Funk, Elliott, and Smith (2003) conducted a study of 238 elementary children to understand several predictors and correlates to involvement in extracurricular activities including parent involvement and SES. They sought to understand if parent involvement positively or negatively impacted the child's enjoyment or was seen as parental pressure. The study used a survey to understand the breath of activities children participated in and a parent involvement scale to understand
the role parents play in a child’s ability to participate. Among the study findings were that parental support positively related to the child’s enjoyments, and children were more involved in different activities when they perceived parent support. SES was found to be related to the amount of extracurricular involvement.

Most OST programs and extracurricular activities are voluntary and participation is an affirmative choice typically made by the participant. Mahoney & Cairnes (1997) found that researchers have not sought to understand why children choose to enroll and participate in extracurricular activities. Fredricks et al. (2009) looked to understand why children chose to and continued to remain in extracurricular activities. The study included interviews of 41 children in grades 9th, 10th, and 11th grades and was a subset of a longitudinal study of 873 adolescents with a similar emphasis. The participants were all white, middle class, and demonstrated stable commitment to OST programs with focuses on sports or arts.

The study employed a survey that allowed participants to articulate the elements they saw as influencing their engagement and ongoing participation in OST programs. The questions were semi-structured and focused in three areas:

1. Psychological factors included sense of self-esteem and peer acceptance.
2. Perceptions of context considered the cultural orientation of the participants and sought to understand if the activities met the need of the community culture.
3. Interpretive framework examined how the participants viewed the activities in relation to future aspirations and in relation to the psychological factors and the activities in contrast of community culture and norms.
This study found the two most reported reasons for participation was the participants' sense that they were good at the activities and their friends were present.

Similarly to Fredricks et al. (2009), Humbert et al. (2006) conducted a qualitative study to understand factors that predicted or impacted participation in physical activities among youth from high and low SES. Using purposive sampling the researchers interviewed 160 students, ranging in age from 13 – 18 years, from four high school and eight elementary schools. The schools were equally distributed half low-SES and the other high-SES. Researchers conducted focus groups providing youth an opportunity to describe the elements of program that would engage them and others in a program that included physical activity. Additionally, the researchers used the Modified Activity Questionnaire which is a tool for self-reporting physical activities. Themes were developed from the information gathered in the focus groups.

The findings were viewed using an ecological framework that considered several factors: (a) interpersonal, (b) social, and (c) environmental. The findings were further separated into either high or low SES. The table below outlines the findings and framework.

<table>
<thead>
<tr>
<th>Framework Level</th>
<th>High SES</th>
<th>Low SES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal</td>
<td>Factor 1</td>
<td>Factor 2</td>
</tr>
<tr>
<td>Social</td>
<td>Factor 3</td>
<td>Factor 4</td>
</tr>
<tr>
<td>Environmental</td>
<td>Factor 5</td>
<td>Factor 6</td>
</tr>
</tbody>
</table>

The findings of that study are summarized below in Table 2.1. This study found that the same factors were applicable to both low and high SES. However, there were differences between the two SES statuses as to how the factors were applied.
Table 2.1

Factors That Impact Participation (Low and High-SES)

<table>
<thead>
<tr>
<th>Factors</th>
<th>High Socioeconomic Status</th>
<th>Low Socioeconomic Status</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interpersonal</td>
<td>Time barriers: work, homework, other scheduled activities (e.g. Piano lessons)</td>
<td>Time barriers: family obligations, homework</td>
</tr>
<tr>
<td></td>
<td>Fun: Perceived competence, perceived skill</td>
<td>Fun: Perceived competence, perceived skill</td>
</tr>
<tr>
<td>Social</td>
<td>Friends and Parental Involvement</td>
<td>Friends and Adult Involvement</td>
</tr>
<tr>
<td>Environmental</td>
<td>Type of Activity: Seasonal Programming, Diverse Choices</td>
<td>Proximity, Cost, Facilities, Safety</td>
</tr>
</tbody>
</table>

"Stepping"—As an Out-of-School Time Program

"Stepping" is a performing art form that employs complex hand slapping, chanting, and percussion, that draws upon African traditions such as folk communication (call and response) and other elements of African-American culture. Most people have never seen a step show, with the exception of those who have seen such movies as Do the Right Thing and Stomp the Yard. Stepping primarily has been relegated to college campuses and African-American fraternities and sororities. Stepping is born of a rich
culture and requires great physical agility, intelligence, and creativity. Fine (1991) notes that there have been limited studies of the art of “stepping”.

Stepping has progressed substantially over the past thirty years with increased complexity in dance steps, chants, and songs. The earlier formation of stepping employed military drills and dancing in a circle formation. Among the eight historically African-American fraternities and sororities, known as the Pan Hellenic Council, stepping is a vehicle for communicating pride in an organization and for delivering messages about the identity and beliefs of the membership. The Pan Hellenic membership is highly sensitive to the use of stepping and views it as a privilege for those who pledge an African-American fraternity or sorority (Fine, 1991). The Rochester Step-Off Program utilizes the culture of stepping as the foundation for an OST program. The program has been operational in Rochester, New York for approximately fifteen years and operates throughout the entire academic school year.

In 1994, several professionals from the fields of secondary education and human services founded The Rochester Step-Off Committee (the Committee) and the RSO. The Community Place of Greater Rochester, Inc. (CPGR) serves as the administrative and managing agent for RSO. The staff and programs were integrated into the youth division of CPGR.

The primary intent of the program was to encourage participating urban youth from RCSD in Rochester, NY to excel in school and pursue college. Further, there was a need to showcase the positive accomplishments of urban youth as a counterbalance to the poor portrayal of them in the media. The model design assumed that participants would develop an expectation of attending college, exhibit scholarship and good conduct, and
form strong bonds with one another and their respective schools as a result of applying old traditions and cultural norms of the historic African-American collegiate fraternities and sororities. The traditions and norms include: (a) excellence in scholarship, (b) high moral character, (c) good citizenship, and (d) love for all mankind.

RSO teams were hosted at seven schools within the RCSD; however, this study focused on participants at the secondary level grades 6 through 12.

Summary and Conclusion

OST programs have existed in the Untied States and positively affected children since before 1940. Researchers agree that OST programs positively affect social emotional development and academic performance among youth. However, the literature identified that those most likely to benefit from OST programs are least likely to participate. The literature supports the findings of this study that showed a greater number of those with poor academic performance attended less than those attending at higher rates.

Researchers found risk factors and protective factors to be effective at understanding profiles of youth that are likely to face poor outcomes such as substance abuse. The predictive use of risk factors and protective factors presents an opportunity to understand risk factors or protective factors associated with participation. Further, risk factors and protective factors used in tools like the CTCYS provides understanding of ecological factors that may contribute to the development and decision-making for youth such as to participate in OST programs or not. This study did not find a predictive relationship among risk factors, protective factors, and attendance.
Given challenges faced by low-income, urban, African American youth and the less than optimal levels of participation in OST programs it is important to understand which ecological factors may be associated with such choices like participation in OST programs.

Participation in OST programs is voluntary and engaging participants may require new approaches to engagement. There is limited literature identifying effective methods of increasing participation in OST programs. Further, there is scant research that describes factors that are associated with participation at varied levels. Bronfenbrenner suggests that human development is affected by ecological factors and systems. Therefore, by understanding and changing those ecological factors or systems youths’ choices are affected. For instance, participation in an OST programs may influence the development of participants, or effecting ecological factors may influence level of participation.

Information gathered from youth using the CTCYS may provide insight into the ecological conditions that may be associated with participation in OST programs. Understanding the risk factors and protective factors for youth provides insight into the participants and a basis for designing the supports necessary to maximize participation.
Chapter III: Research Design Methodology

Introduction

The objective of this study was to examine the use of CTCYS (Arthur, et al., 2002) as a means to further understanding characteristics of urban African-American youth who participate in OST programs. This study is descriptive and employs quantitative methodology to identify characteristics of urban, African-American adolescents (ages 12-18) who participate in the Rochester Step-Off program. This study also attempted to outline and understand possible relationships among levels of participation and risk factors, protective factors, and demographic factors.

Research Questions

For the purpose of this study, risk factors and protective factors were those identified by Glaser et al. (2005). In order to address the aforementioned objective of examining the relationships between the CTCYS scales and youth participating in the Rochester Step-Off program, the following questions are central to this inquiry:

1. How do the risk factor and protective factor (as measured by Glaser et al., 2005) means compare for the sample and the national dataset?

2. What are the risk factors and protective factors (as measured by Glaser et al., 2005) for young people who participate in the Rochester Step-Off Program?

3. What are the profiles of risk factors and protective factors (as measured by Glaser et al., 2005) for the study sample in three groups: high attendance, middle attendance, and low attendance?
4. What are the relationships among risk factors and protective factors (as measured by Glaser et al., 2005) for young people who participate in the Rochester Step-Off Program?

Research Design

This study used a quantitative descriptive design. Participants were surveyed with the CTCYS. Many correlative statistics were used to better understand relationships among variables of interest including risk factors and protective factors that are predictive of outcomes including drug use, delinquency, violence, and school dropout among adolescents (Coie, et al., 1993; Dryfoos, 1990; Hawkins et al., 1998; Lipsey and Derzon, 1998; Leober and Stouthamer-Loeber, 1997; Mrazek and Haggerty, 1994).

Sampling and Setting

All of the student participants in this study were low-income, African-American, urban students who were participants in the OST program- (Rochester Step Off) RSO. All sites were within Rochester City School District (RCSD). The three selection criteria for an RSO team included:

- The program participants in RSO had to be representative of the general population at their grade levels within the RCSD in terms of socioeconomic status, race/ethnicity, and geographic residence.
- The RSO programs chosen had to have a substantial history of engaging low-income, urban, African-American youth in varied degrees of out-of-school time activities with students committed for the whole academic year.
- The RSO had to agree to participate in and support the study.
These criteria were designed to increase the likelihood that any significant study findings would be applicable to other OST programs and useful to practitioners working with urban, low income, African American adolescents.

This study was limited to teams participating at secondary schools in grades 7 through 12 within the RCSD. Most of the RCSD students were from economically challenged households with a high rate of poverty. Approximately 88% receive free or reduced lunches, a proxy indicator for poverty (RCSD, 2007), which is not dissimilar to “Big Five” school districts in New York State (New York City, Buffalo, Rochester, Syracuse, and Yonkers) (NYS-KWIC, 2009).

For the 2007-08 academic year 34,386 students were enrolled in RCSD: pre-k (2,000), elementary level k-6 (16,970), and secondary level 7-12 (15,616). The racial and ethnic composition was: African-American (63.5%), Hispanic (21.7%), white (12.7%), and other (2.1%). The racial and ethnic distribution was similar when isolating the student population at the secondary level (grades 7-12) with African-Americans at 67.5% and other races at 32.5% (Hofer, 2008). Table 3.1 illustrates the racial and ethnic composition and levels of poverty for the population of RCSD students, grades 7-12 from which the participants of RSO were drawn.
### Table 3.1

**RCSD Population and Economic Status for Grades K-12**

<table>
<thead>
<tr>
<th></th>
<th>Population</th>
<th>PS</th>
<th>FRLD</th>
<th>FRLS</th>
</tr>
</thead>
<tbody>
<tr>
<td>African</td>
<td>20,692 (63.5%)</td>
<td>10,546 (67.5%)</td>
<td>16,802 (81.2%)</td>
<td>7,874 (73.3%)</td>
</tr>
<tr>
<td>American</td>
<td>11,894 (36.5%)</td>
<td>5,070 (32.5%)</td>
<td>2,236 (18.8%)</td>
<td>2,868 (26.7%)</td>
</tr>
<tr>
<td>Other</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>32,586 (100%)</td>
<td>15,616 (47.9%)</td>
<td>25,841 (79%)</td>
<td>10,742 (42%)</td>
</tr>
</tbody>
</table>

*Source: Hofer, 2008

*PS = Population at Secondary level 7-12th grades, FRLD = Free and Reduced Lunch District-wide, FRLS = Free and Reduced Lunch Secondary Level*

The School Choice Process allows students to attend schools outside of the neighborhoods where they live, and so a substantial number of students did so at the secondary level. Consequently, students who participated in the RSO program and this study resided in various sections of the city. Examining the data by ZIP code contributes to the researchers' understanding of risk factors and protective factors among the target population in varying sectors of the city.

**The Context of this Sample**

The participants in this study resided within the City of Rochester proper. Like other cities in upstate New York, Rochester residents may be viewed from the metropolitan lens, the city-wide lens, and the quadrant specific lens. The population in the metropolitan Rochester area was 1,008,201; largely White (82.2%) and Blacks (non-Hispanic) are the second largest population at 26.1%. The population for the City of Rochester was 199,697 with a more balanced mix than the metropolitan area being comprised of Black (41%) and White (47.8%) residents.
The social and economic status is substantially different for those living in the City of Rochester as compared to those in metropolitan Rochester and the United States population (US). The same disparities in social and economic status holds true when comparing Whites and Blacks. The median household income for the City of Rochester was $29,329 as compared to the national median of $50,007, and the median for Whites of $46,918 in the metropolitan area. Moreover, within the City of Rochester 25.6% of the families lived below poverty as compared to 13.3% for the US. For the metropolitan area 30.3% of Blacks lived in poverty as compared to 6.6% of Whites (Census, 2009).

The vast majority of households with children under 18 years were headed by a single parent (70%), and of those female parents (58%) and male parent (10%). Thirty-two percent of were headed by married couples. Seventy-three percent of female-headed households resided in rented units and 26.3% owned their homes. The opposite was true for households headed by married couples where 72.4% owned and 27.6% rented (Census, 2009).

An examination of the four quadrants of the City of Rochester revealed that a high level of racial segregation. Of the four quadrants, the three zip codes in northeast had the greatest balance of Blacks (59%, 17%, 27%) to Whites (63%, 43%, 33%) residents. The two zip codes in the southeast quadrant were the least diverse with 53% and 80% White, and 13% and 30% Black. Similarly, the three zip codes in the southwest quadrant were also not diverse with 66%, 69%, and 69% Black, and 22%, 23%, and 26% White. Relative to the other quadrants, the one zip code in the northwest quadrant was mixed with 56% being White and 30% Black residents (Census, 2009). The census information
above reveals patterns of concentration of Blacks and Whites into separate quadrants such as Blacks in the southwest and Whites in the southeast.

The median household incomes were ranged from $9,692 to $39,195 with only 2 of 10 zip code areas exceeding $32,000. The percentage of households living in poverty ranges from 12.1% to 41.7%, and only two zip codes were under 15% of the population. The median home price ranged from $44,500 to $137,500 with 2 of 10 zip code areas being less than $50,000. The percentage of residents that rented in each zip code ranged from 36% to 99% with two zip codes having 50% or less renting. The median monthly rent price ranged from $363 to $663 and only one zip code had a median monthly rent under $500. The unemployment rate ranged from 3.6% to 20.6% and only one did not exceed the nationally excepted unemployment rate of 6.1%.

The confluence of the social and economic conditions described above evidence the challenging financial conditions in the communities where the participants live. To varying degrees, these data are reflective of the study participants homes and familial conditions. For this sample all the participants were eligible to receive free or reduced lunch, which meant that their household income was near or below the national poverty level. By definition and without exception, every participant in this sample was poor. Further, only 16 participants or 15% of the total sample (n=104) lived with both parents: 69 (66%) lived with a single mother, 2 (2%) with a single father, 16 (15%) with a grandparent, and 1 (1%) in a household other than with a parent or grandparent.

The sample included participants from each of the City of Rochester’s four quadrants -- northwest (30%), northeast (25%), southwest (43%), and southeast (2%). Although each quadrant has its differences and each has its own challenges, based on the
household incomes of the adolescents in this study, it is safe to assert that they lived in challenged sections of these quadrants.

Further in 2007, the RCSD had a four-year graduation rate of 39%. In addition, during this study many of the secondary schools faced significant issues with violence and academic failure. However, based on this researcher's observations, those challenges were not necessarily universal and varied by school. Seventy percent (70%) of the sample came from three of the seven secondary schools, having favorable school environments: (a) a performing arts school with an academic environment that was liberal and inclusive, (b) a non-traditional school with an educational environment focused on independent motivation and college preparation that offered an education that was counter to many traditional educational processes, and (c) a school noted nationally for its exceptional International Baccalaureate (IB) program. Based on the above and discussions with the subjects, it is very likely that the sample included more students who desired to attend school and were able to maintain attendance in higher performing school environments than the general RCSD student body. Further, it is likely that their peers from these schools had similar propensity. Regardless, compared to most suburban schools it is likely that only the IB school would be considered above average in regards to overall academic performance of students.

Sampling was conducted randomly, although the possible sample pool was limited to those who agreed to participate in the RSO and this study. An examination of distribution of race and ethnicity for the general student body at the secondary level within the RCSD compared with those who participated in this study showed no appreciable difference.
Inclusion Criteria

The criteria for inclusion in the proposed study included: (a) low-income household, (b) urban residence, (c) African-American race, (d) participation in the RSO program between September 1, 2007 and June 31, 2008, at RSCD secondary level schools, and (e) written informed assent and parental consent.

Selecting a sample for this study that was similar to the general population of the RSCD was important, given that the study employs a non-probability sampling technique that results in difficulty demonstrating that the sample matches the population. The sampling method for the study is consistent with Donald T. Campbell's (1951) approach to generalizing, known as the Proximal Similarity Model - many of the characteristics or variables are similar for the accessible population and the theoretical population, minimizing threats to external validity (Campbell, 1986; Trochim, 2006).

Sample Size

Of the 152 students participating in the RSO who meet the study criteria, "(a)" through "(e)" outlined above and 105 completed the CTCYS.

Analysis

The primary analysis included multiple regression analysis using 21 scales. Five subjects per scale were required for the analysis. Therefore, the 105 participants were the minimum required. A minimum sample size of fifty-eight was required at a statistical power of .95 with a .5 effect size. An effect size of .5 will support claims of medium effect and, by default, those of large effects.
Instruments and Tools

The CTCYS (Arthur et al., 2002) was the survey instrument as described previously and briefly summarized here. Arthur et al. (2002) developed CTCYS to assess various risk factors and protective factors identified in the literature as predictive of adolescent drug use, delinquency, violence, and school dropout. The CTCYS was designed as a self-reporting tool for adolescents from 11-18 years of age to measure risk factors and protective factors across ecological domains (e.g. community, school, family, peer/individual), and health or behavior outcomes.

The CTCYS was tested for validity across various demographic groups that included various grades, ages, genders, races, or ethnicities, family compositions, and languages spoken at home. Cronbach’s alpha was used to assess internal consistency or reliability and the lowest Alpha for any scale was 0.70.

In summary, the reliability and validity of the CTCYS scales across race, ethnicity, gender, and grade groups have been established (Glaser et al., 2005). The CTCYS is divided into four domains: (a) community, (b) family, (c) schools, and (d) peer and individual. The survey instrument was modified to include the nine digit student identification numbers provided by the Rochester City School District. Spaces were added for the participants to provide address of residence, ZIP code, school name, and the approximate number of hours per week of participation in OST programs other than RSO. Adding this information allowed an analysis of trends across domains.

For the purpose of this study, three scales were removed - these scales were determined to not be essential to the study and might have jeopardized the researcher’s ability to assure confidentiality. Several of the scales included questions that required the
participant to attest to having engaged in or witnessed criminal activities. The information contained in this study was subject to subpoena preventing the ability to maintain absolute confidentiality.

**Procedure**

After approval of the St. John Fisher University IRB, access to students was provided by the management of RSO. The RSO management helped facilitate approval of the application for the proposed study by RCSD. The RSO management also scheduled meetings with team advisors and students to facilitate obtaining assent from students and implementing data collection. Parent or guardian consent forms were sent home with students and mailed to their homes (see Appendix E). Each participant and guardian received a written description of the proposed study. The researcher called each parent or parents to answer questions and confirm receipt of the consent forms (see Appendix F).

Thirty percent of the study pool either refused to participate or did not respond to the request to participate. Participation in the proposed study was voluntary and required written assent from each student and consent to participate from a legal guardian.

Ten sessions were required to secure data from 112 completed surveys. Before analyses began, seven subjects were discarded because response patterns were suspect (see below) which resulted in a sample of 105.

There were seven sessions for active students and three sessions hosted at a neighborhood community center for students who had withdrawn from the program, prior to hosting small group sessions at individual schools. Students who withdrew from the program completed the survey with students from several teams.
The CTCYS was administered under controlled standardized conditions to minimize assessment bias: (a) no talking, (b) ample space between students, and (c) monitoring. Surveys were administered in clusters of one team for each 50 minute session. Each question on the survey was read out loud by the researcher to minimize the impact of limited literacy. This approach was consistent with the format used to administer the CTCYS in several communities across the country. Surveys were checked for completeness. As noted above seven surveys were discarded if they were incomplete, completed by students who reported being dishonest, or had patterns of responses that suggest participants entered erroneous information. Each participant received $10 upon completion of the survey. The survey data collection portion of the study occurred between June 7 and July 25, 2008. Data was collected using photocopies of the CTCYS and then transposed onto a survey form that could be scanned by an automated reader. Approximately 30% of the surveys were randomly sampled and verified to ensure accuracy in transposition to the bubble forms; 100% were accurate.

The management of RSO provided the students’ activity records. The records include the total number of possible days a student could have participated at RSO during the 2007-2008 academic year and the number of days they actually did participate.

The CTCYS is normed and prevalence is determined by using established cut-points. Scores greater than the cut-point of the norm were interpreted as having a higher prevalence for a particular behavior. Cut-points were developed for each of the scales as a two-step process. Step one was scoring responses to items within each scale using a proprietary syntax. Step two was to compare the scale scores to the cut-points. In order to answer the research questions it was necessary to calculate cut-points. Risk factors and
protective factors are predictors of problem behaviors or measures of prevalence towards future problem behaviors such as drug use. This study applied a cut-point method to establish prevalence for each subject by using a risk and protective scale. There were several options sited in the literature for establishing cut-off points. According to (Arthur et al., 2007), the most accurate method was *The Refinement of the Median Cut-point approach*, which this study used.

*Protecting Human Subjects*

Information specific to individual participants was not shared with anyone. All completed instruments and participant information were kept in a locked filing unit. Appropriate persons at the RCSD and St. John Fisher College had access to written findings and dataset as needed. However, all datasets were deidentified and never revealed individual identities.

Each survey distributed was numbered, logged, and inventoried to ensure control at all times. Parents and participants were informed that all information was confidential, with the exception of reportable conditions mandated under New York State Law for Mandated Reporters, such as potential harm to self or others. The researcher was a mandated reporter and familiar with the reporting requirements, community resources, and the RCDS’s procedures for addressing crisis situations. One-to-one assistance was available to students by the student support staff of the Community Place of Greater Rochester, Inc. in collaboration with the designated school wellness coordinator. The researcher was equipped to make appropriate referrals for those experiencing or reporting a crisis, but none were necessary.
Data Analysis

The analysis included descriptive statistics and correlation analysis to answer the research questions. Each one of the above procedures was implemented using SPSS software. The three research questions and method for addressing those questions were as follows:

1. How do the risk factor and protective factor (as measured by Glaser et al., 2005) means compare for the sample and the national dataset?

This question was addressed by comparing the mean scores for the sample to that of the national dataset. The significance level was established at ≤.05 and an effect size of ≥3.5 or greater.

2. What risk factors and protective factors (as measured by Glaser et al., 2005) are associated with youth participating in the Rochester Step-Off program?

The question was addressed using descriptive statistics, which included calculating the cut-point that identified presence of a risk factor or protective factor (Arthur et al., 2007) for each subject.

3. What are the risk factors and protective factors (as measured by Glaser et al., 2005) or profiles of factors for the study sample at high (top third of sample), medium (middle third of sample), and low (bottom third of sample) levels of participation?

This question was answered using descriptive statistics such as percentages of subjects presenting risk factors and protective factors for three different subsets in participation (low, medium, and high). A subgroup at the sample was removed as their team dissolved for reasons outside of their control, thereby skewing their attendance variable.
4. What are the relationships between risk factors and protective factors (as measured by Glaser et al., 2005) and participation by youth in the Rochester Step-Off program?

This question was addressed using Pearson's correlation coefficients which allow one to examine the relationship between several pairs of variables. Such analysis indicates the effect one variable has on the other.
Table 3.2 Chart of Variables

<table>
<thead>
<tr>
<th>Questions</th>
<th>Demographic Variables</th>
<th>CTCYS Predictor Factors (Glaser, 2005)</th>
<th>CTCYS Predictor Factors (Glaser, 2005)</th>
<th>Outcome Variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. How do the risk factor and protective factor (as measured by Glaser et al., 2005) means compare for the sample and the national dataset?</td>
<td>- Gender</td>
<td>- Low neighborhood attachment</td>
<td>- Poor academic performance</td>
<td>- Level of participation</td>
</tr>
<tr>
<td>2. What are the risk factors and the protective factors (as measured by Glaser et al., 2005) for young people who participate in the Rochester Step-Off Program?</td>
<td>- Age</td>
<td>- Community disorganization</td>
<td>- Low school commitment</td>
<td></td>
</tr>
<tr>
<td>3. What are the profiles of risk factors and the protective factors (as measured by Glaser et al., 2005) for the study sample in three groups: high attendance, middle attendance, and low attendance?</td>
<td>- Grade</td>
<td>- Laws and norms favorable to drug use and firearms</td>
<td>- School opportunities for prosocial involvement - (P)</td>
<td></td>
</tr>
<tr>
<td>4. What are the relationships among risk factors and protective factors (as measured by Glaser et al., 2005) for young people who participate in the Rochester Step-Off Program?</td>
<td></td>
<td>- Perceived availability of drugs and firearms</td>
<td>- School rewards for prosocial involvement - (P)</td>
<td></td>
</tr>
</tbody>
</table>

Risk Factor Scales:
- Low neighborhood attachment
- Community disorganization
- Laws and norms favorable to drug use and firearms
- Perceived availability of drugs and firearms
- Community rewards for prosocial involvement - (P)
- Community Opportunities for prosocial involvement - (P)

Family Domain Scales:
- Poor family supervision
- Family attachment - (P)
- Family opportunities for prosocial involvement - (P)
- Family rewards for prosocial involvement - (P)

School Domain Scales:
- Early initiation of drug use and antisocial behavior
- Sensation seeking
- Rebelliousness
- Friends' delinquent behavior
- Friends' use of drugs
- Peer rewards for antisocial behavior
- Favorable attitudes toward antisocial behavior
- Favorable attitudes toward ATOD use
- Religiosity - (P)
- Social skills - (P)
- Belief in the Moral order - (P)
Limitations

This study is descriptive in nature and not intended to establish causality. Rather, the projected results provide practitioners a starting point for understanding the participants and developing effective interventions and strategies for engaging low-income, urban African-American adolescents in OST programs. The findings may be generalized to other low-income, urban African-American adolescents attending the RCSD. Generalizations beyond such a population should be made with caution.

The sample size (n=105) is less than the 362 required to report small effect size difference, which means that only medium and large effect sizes were most likely observed. An increased sample size of 300 participants or more would be most desirable for future work.

The data collected for this study include self-reports and none of these reports were verified. However, several procedures were implemented to minimize self-report biases. For example: (a) answer sheets were monitored for patterns, (b) the items were read to the participants to minimize the impact of literacy levels, and (c) participants were asked confirm their honesty on the survey.

Another limitation was that the entire CTCYS was not used for this study. Three scales were removed because of their sensitivity which allowed the researcher to provide participants more anonymity and confidentiality. In future studies, the full tool might be included.

Information from the photocopies of CTCYS forms was transposed to survey forms appropriate for automated readers. Although 30% of the forms were spot-checked for accuracy, and no errors were detected, this procedure created an opportunity for error.
Chapter IV: Findings and Results

Introduction

This study used SPSS software to conduct the analyses. Basic information regarding the risk factors and protective factors associated with levels of participation for the study are provided below. This chapter describes in detail: (a) the sample, and (b) the answers to the study’s three questions.

Description of the Sample

Of the 105 total subjects, one survey was identified as invalid due to incomplete data, which resulted in a working sample for most analyses of n=104. Ninety percent of the participants were age 14 and older, and most were in grades 9 – 12 (80%). The number of female subjects (66%) exceeded the number of male subjects (34%). Most (73%) of the participants reported school grades of mostly A’s and B’s during the previous academic year; the remaining 27% reported C’s and D’s; 82% of the subjects reported skipping not more than one class during the previous academic year.

The key independent variable explored in this study was attendance. Attendance was defined for this study as the percentage of days a participant attended the RSO. Therefore, attendance = number of days attending RSO/ number of all possible days the program operated. The total number of days the program operated varied by team. Figure 4.1 below illustrates the variance in attendance levels for the sample.
Note: att_pct=attendance percentage

Questions and Findings

Sample - Risk Factors, Protective Factors, and Participation

Question 1. How do the risk factor and protective factor (as measured by Glaser et al., 2005) means compare for the sample and the national dataset?

In review, 10 protective factors and 15 risk factors from the CTCYS were selected for this study. The means of the sample for the 10 protective factors and 15 risk factors scores were compared with the national dataset (see Table 5.1). The purpose of this analysis was to determine how similar, or different, the sample was from the national dataset of approximately 240,000 students. The following criteria were used to determine if there were significant differences between the national dataset and the sample and
included: (a) results were statistically significant at $p \leq 0.05$, and (b) the effect size had to be $\leq 0.30$.

As shown on Table 5.1, 2 protective factors and 7 risk factors met the criteria. The protective factors that met the criteria were Religiosity and School Opportunities for Prosocial Involvement. The risk factors that met the criteria were Low Neighborhood Attachment, Community Disorganization, Laws Favorable to Drug Use and Firearms, Favorable Attitudes toward Antisocial Behavior, Favorable Attitudes toward ATOD use, Sensation Seeking, and Low Social Commitment. Seven of 10 protective factors and 10 of 15 risk factors were significantly different suggesting there were significant differences between the two groups in these areas.

**Question 2. What are the risk factors and protective factors (as measured by Glaser et al., 2005) for young people who participate in the RSO?**

A set of analyses with risk factors and protective factors was conducted to understand the sample, identify risk factors or protective factors, and provide a context for the subgroup analysis. The number of subjects included in the analyses varied because participants did not answer every question of the CTCYS. As shown in Table 4.1, the percentage of subjects possessing risk factors ranged from 24% to 52%. Similarly, the percentage of subjects possessing protective factors ranged from 34% to 62%. The overall percentage of the sample possessing risk factors or protective factors was less than 50%.

In addition a principle component analysis, a data consolidation technique which is used to group items or factors that are highly correlated, was conducted. Based on that analysis, the original 25 factors were grouped into six "new" factors and these summary
factors were used (Figure 4.2). As shown in Figure 4.3, four “new” factors or scales evolved that consolidated 23 of the risk and protective factors that were highly correlated. Religiosity, a protective factor, and Poor Academic Performance, a risk factor, of the original CTCYS 25 risk factors and protective factors remained as independent factors as they did not correlate closely with any other principle component factors.

Table 4.1 shows the percentages of the sample that possessed the various risk factors and protective factors. As outlined in Chapter 2, risk factors and protective factors potentially assess four domains: 1) individual and peer, 2) family, 3) school, and 4) community or neighborhoods. The percentages of risk and protection for the overall sample are shown below within that theoretical framework.

RISK FACTORS

- Negative Individual Attitudes (46%) - individual and peer domain
- Poor Academic Performance-school domain (30%) - school domain
- Negative Community Perception (44%) - community domain

PROTECTIVE FACTORS

- Religiosity (40%), a protective factor – individual and peer domain.
- Family and Community Strengths (45%) - family domain
- Positive School Characteristics (46%) - school domain.

A result of the principal component analysis the family and community domains share the protective factor Family and Community Strengths (43%).
Subgroups—Risk Factors, Protective Factors, and Participation

Question 3. What are the profiles of risk factors and protective factors (as measured by Glaser et al., 2005) for the sample in three groups: high attendance, middle attendance, and low attendance?

The analyses for this question included the three primary subgroups. The remaining 90 subjects were divided into thirds based on attendance: "Low Attendance Group", "Middle Attendance Group", and "High Attendance Group". The distribution was as follows: (a) 29 subjects in the lowest third, (b) 29 subjects in the middle third, and (c) 32 subjects in the highest third. Twelve subjects were eliminated from these analyses because their teams disbanded due to administrative issues at two sites (104-12 = 92). Three additional subjects were removed from the analyses (92-3 = 89) because of several missing responses that affected this set of analyses.

Table 4.1 presents the prevalence of the risk and protective factors by group. In general, there were not significant differences among the three groups. The risk factor "Negative Individual Attitudes and Behaviors" (47%, 34%, 52%) and the protective factor "Positive School Characteristic (34%, 34%, 62%)" showed the largest numeric differences among the subgroups Low, Middle, and High Attendance, respectively.
Table 4.1

*Prevalence of Risk and Protective Prevalence*

<table>
<thead>
<tr>
<th>Variable Title</th>
<th>Overall</th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td>Indicated</td>
<td>%</td>
<td>N</td>
<td>Indicated</td>
<td>%</td>
<td>N</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Individual Attitudes and Behaviors</td>
<td>90</td>
<td>40</td>
<td>44</td>
<td>32</td>
<td>15</td>
<td>47</td>
<td>29</td>
</tr>
<tr>
<td>Poor Academic Performance</td>
<td>89</td>
<td>28</td>
<td>31</td>
<td>32</td>
<td>8</td>
<td>25</td>
<td>29</td>
</tr>
<tr>
<td>Negative Community Perception</td>
<td>90</td>
<td>38</td>
<td>42</td>
<td>32</td>
<td>12</td>
<td>38</td>
<td>29</td>
</tr>
<tr>
<td><strong>Protective Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Religiosity</td>
<td>82</td>
<td>33</td>
<td>40</td>
<td>30</td>
<td>13</td>
<td>43</td>
<td>26</td>
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<tr>
<td>Positive School Characteristics</td>
<td>90</td>
<td>39</td>
<td>43</td>
<td>32</td>
<td>11</td>
<td>34</td>
<td>29</td>
</tr>
<tr>
<td>Family and Community Strengths</td>
<td>90</td>
<td>39</td>
<td>43</td>
<td>32</td>
<td>14</td>
<td>44</td>
<td>29</td>
</tr>
</tbody>
</table>
Using the Chi Square test to examine differences among the three subgroups for the risk factors and protective factors, only the protective factor Positive School Characteristics showed a statistically significant difference among the three subgroups (p. \leq 0.05) (see Table 4.2).
### Table 4.2

**Examination of Factor Differences for Three Subgroups**

<table>
<thead>
<tr>
<th></th>
<th>High Attendance</th>
<th>Middle Attendance</th>
<th>Low Attendance</th>
<th>Chi Score</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Risk Factors</strong></td>
<td></td>
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<tr>
<td>Negative Individual Attitudes and Behaviors</td>
<td>15</td>
<td>10</td>
<td>15</td>
<td>1.86</td>
<td>.ns</td>
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<tr>
<td>Negative Community Perception</td>
<td>12</td>
<td>12</td>
<td>14</td>
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<td>.ns</td>
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<tr>
<td>Poor Academic Performance</td>
<td>8</td>
<td>7</td>
<td>13</td>
<td>4.25</td>
<td>.12</td>
</tr>
<tr>
<td><strong>Protective Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family and Community Strengths</td>
<td>14</td>
<td>12</td>
<td>13</td>
<td>0.70</td>
<td>.ns</td>
</tr>
<tr>
<td>Religiosity</td>
<td>13</td>
<td>10</td>
<td>10</td>
<td>0.19</td>
<td>.ns</td>
</tr>
<tr>
<td>Positive School Characteristics</td>
<td>8</td>
<td>7</td>
<td>13</td>
<td>6.12</td>
<td>.05*</td>
</tr>
</tbody>
</table>

*Chi square analysis (df=2), ≤ 0.05
The low attendance group indicated having more positive impressions of their school characteristics than the high or medium attendance groups.

*Question 4. What are the relationships among risk factors and protective factors (as measured by Glaser et al., 2005) for young people who participate in the RSO?*

This set of analyses was used to determine whether or not there were significant relationships (correlations) between risk factors or protective factors with attendance for the entire sample. Similar to the previous set of analyses, the subjects whose groups stopped and those with missing variables pertinent to each analysis were excluded.

As shown in Table 4.3, only the Poor Academic Performance risk factor was significantly related to Attendance; those with the better attendance had better grades. These two variables showed a small negative correlation of -.21 (p ≤ .05).

**Table 4.3**

*Correlation between Risk Factors or Protective Factors and Attendance*

<table>
<thead>
<tr>
<th>Factors</th>
<th>N</th>
<th>Attendance (Pearson’s r)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Risk Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Negative Individual Attitudes and Behaviors</td>
<td>90</td>
<td>-.14</td>
</tr>
<tr>
<td>Poor Academic Performance</td>
<td>89</td>
<td>-.21*</td>
</tr>
<tr>
<td>Negative Community Perceptions</td>
<td>90</td>
<td>-.03</td>
</tr>
<tr>
<td>Protective Factors</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Family and Community Strengths</td>
<td>90</td>
<td>.02</td>
</tr>
<tr>
<td>Positive School Characteristics</td>
<td>90</td>
<td>-.12</td>
</tr>
<tr>
<td>Religiosity</td>
<td>82</td>
<td>-.03</td>
</tr>
</tbody>
</table>

*Correlation is significant at p≤.05 level (2-tailed)*
Chapter V: Discussion

Introduction

From the beginnings of OST programs until now, OST programs such as RSO have become a response to social and economic concerns related to the growth of risk behaviors such as teen pregnancy and growing disparities in income and concentrations of poverty (Halpern, 2002). OST programs have become vehicles for helping youth succeed academically, socially, and emotionally. Educators, policy makers, community leaders, and philanthropic communities have embraced OST programs as significant supports for urban, low-income youth (Hollister, 2003).

Researchers have identified that OST programs are beneficial for adolescents and to a greater degree for low-income African-Americans. However, low-income African-Americans are the least likely to participate (Miller, 2003; Simpkins, Ripke, Huston, and Eccles, 2005). Practitioners, youth workers, and designers of OST programs have long struggled to engage this population in these programs and there is little information in the literature about why such youth join or maintain participation in OST programs (Corinne, 2002; Mahoney and Cairns, 1997). Further, there is a need to understand characteristics of those who participate in OST programs, and barriers to participation.

Bronfenbrenner (2005) found that most studies of adolescent development have ignored ecological factors such as neighborhood settings that influence human development, thereby providing only limited understanding of adolescent development. Consistent with that finding, most studies of adolescents' participation in OST programs
have not considered ecological factors that contributed to adolescents’ development or the choice to participate. This study applied the Process-Person Context Model (Bronfenbrenner 2005) which suggested that adolescents develop as a function of personal identity with the environments in which they exist, such as schools, families, neighborhoods, and adolescent focused programs.

The use of adolescents’ self-reported perceptions of risk factors and protective factors provides insight into the participants’ environments and influences across several critical areas related to Bronfenbrenner’s (2005) theory: self and peers, community setting, school environment, and family conditions. Self reports are also well suited to help identify a potential combination of risk factors and protective factors that might be related to attendance. This is promising when considering the small body of literature related to participation in OST programs.

The findings of this study are limited to the CTCYS’s pre-established measurement of risk and protection and are not exhaustive. The CTCYS was used as a person-centered, self-report survey to gather information about each participant’s behaviors and perceptions of their conditions across four domains: individual and peer, family, school, and community.

It was expected that the results of this study would provide practitioners and related professionals a framework for understanding adolescents and their patterns of participation in OST programs, as well as environmental factors that correlated with various levels of participation. Consistent with the work in resilience model development, these findings might provide a platform for building effective strategies and interventions to increase adolescent engagement in OST programs. Resilience model development
focuses on constructing OST programs that build assets such as self-esteem in youth that increase their resilience against poor life outcomes such as substance abuse.

This section provides: (a) a discussion of the findings for each of the six risk factors and protective factors, (b) an interpretation of the findings and discussion relative to existing literature, (c) implications for practice, funders, executive leaders, and (d) future directions.

Summary of Risk Factors

Three summary risk factors (a) Negative Individual Attitudes and Behaviors, (b) Negative Community Perception, and (c) Poor Academic Performance were used in this study. The Negative Individual Attitudes and Behaviors factor consists of items that identified risk behaviors of participants or their peers such as use of drugs, involvement in violence, and/or engagement in promiscuous sexual activity. The items are in the individual and peer domain.

The risk factor Negative Community Perception is within the community domain. It identifies risk factors resulting from the participants' perception of negative premises, processes, and practices within the communities where they live. For instance, this factor considers participants' views of resident and law enforcement and perceptions of tolerance for illegal substance use. The items contributing to this factor do not include perceptions related to community support systems or structures.

The risk factor Poor Academic Performance is within the individual and peer domain and includes items that related to the participant's self-reported performance over the past academic year such as grades and attendance. It does not include positive items related to perceptions of school climate or condition.
Protective Factors

The three protective factors used in the study were: (a) *Family and Community Strength*, (b) *Positive School Characteristics*, and (c) *Religiosity*. Family and Community Strength combines items from both the Family Domain and the Community Domain. The items contributing to this factor reflect participants' perceptions of the support and opportunities provided by family and the community of residence. This would include valuing, providing opportunity, and rewarding pro-social activities like community service. This factor does not consider participants' perceptions of negative tolerances shown by family or neighbors for illegal activities and alike.

The protective factor Positive School Characteristics is comprised of items that reflect the participants' perceptions of the school's value, provision, and reward of pro-social engagement such as OST programs and other extracurricular activities. Further, this factor assesses how students' perceived connection to the school, its students, or staff. This factor does not include elements of the participants' academic performance.

Religiosity assesses the participants' engagement in religious and faith-based practices, as well as their belief in moral order.

The goal of this study was to understand how 15 risk factors and 10 protective factors taken from the CTCYS might be associated with participation in one particular OST, the RSO. This study examined the prevalence of those risk factors and protective factors and their association with attendance. It is built on previous research that suggested there would be significant relationships among student outcomes such as attendance, and risk and protective factors (Bry, 1982; Coie et al.; Greenberg, Kushe, Cook & Quannama, 1995; Hawkins et al., 1992).
It was anticipated that understanding profiles of risk factors and protective factors at varied levels of attendance in the RSO would potentially inform future strategies that might maximize attendance. The study's four questions were viewed as a four part-process that would help understand relationships among variables. The three parts were: (a) determine if the study population is comparable to the national population, (b) determine the presence of risk factors or protective factors at varied levels of attendance, and (c) determine where significant relationships exist among risk factors, protective factors, and attendance.

This study sought to understand risk factors, protective factors, attendance, and the relationship between these variables in an after-school sample. Similar to existing OST literature (Bartko and Eccles, 2003; Holland and Andre, 1987), this study used a descriptive/correlation approach to understand how risk and protective factors correlated with participation in OST programs. Also, consistent with studies identified by Holland and Andre (1987) in their review of OST programs at secondary schools, this study did not attempt to establish causal relationships.

Comparisons Between the Sample and the National Sample

1. How do the risk factor and protective factor (as measured by Glaser et al., 2005) means compare for the sample and the national dataset?

It was expected that at minimum, there would be significant differences in the means between this sample's homogenous urban, poor African-American adolescents that live in resource limited households and challenged neighborhoods and the national dataset's heterogeneous participants who were from several states (n=20; i.e., 40% of all states were represented) included both urban and suburban areas, and who were primarily
white (60%) and not African-American (13%). Also, it was expected that the mean scores for most risk factors would be higher for the sample than the national dataset, and the majority of mean scores for protective factors would be higher for the national dataset than the sample. Quite clearly, the demographic information available for the national dataset was limited. However, as noted previously, the CTCYS was designed as an epidemiological tool and intentionally limits information that would reveal participants' identities, which also limits more specific analyses and potential insights.

This study compared its sample (n=104) to a national sample (n=240,000) on 25 risk and protective factors. Means were compared using t-tests. This section discusses the study's findings relative to the national sample. Many of the results were not consistent with the predictions this researcher made based on familiarity with similar urban poor samples.

Table 5.1 below compares the sample to the national sample. The results for the 10 protective factors were placed at the top of the table and the results for the 15 risk factors were placed at the bottom of the table for ease of interpretation. Higher means on the Protective Factors indicate more protection and higher means for the Risk Factors indicate more risk.

Overall, this study found urban poor adolescents in the sample differed significantly from the diverse national dataset on many risk and protective factors, but only some of the time in the expected direction. Unexpectedly and opposite to predictions, of 10 protective factors the sample reported significantly more protection on four of six statistically significant (factors 6, 8, 9, and 10). Further, of 15 risk factors the sample reported significantly lower risk on six of nine statistically significant (factors 18,
20, 21, 23, 24, and 25) when compared with the national dataset. Much less often than expected, but consistent with predictions, the national sample reported significantly more protection on only two Protective Factors (factors 1 & 2), and significantly less risk on only three Risk Factors (factors, 11, 12 and 13). There were no significant differences between the groups on three Protective Factors and six Risk Factors.
Table 5.1
Comparison of means on risk and protective factors

<table>
<thead>
<tr>
<th>Protective Factors</th>
<th>Local (n=94-102)</th>
<th>National (n=210204-281418)</th>
<th>Difference</th>
<th>I</th>
<th>p</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>T</td>
</tr>
<tr>
<td>Local National Difference</td>
<td>(n=94-102)</td>
<td>(n=210204-281418)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Protective Factors</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>1 PF: Community Opportunities for Prosocial Involvement</td>
<td>1.53 0.84</td>
<td>1.79 0.91</td>
<td>-0.26 0.91</td>
<td>-2.97</td>
<td>0.004</td>
<td>0.28</td>
</tr>
<tr>
<td>2 PF: Community Rewards for Prosocial Involvement</td>
<td>1.08 0.96</td>
<td>1.30 0.87</td>
<td>-0.22 0.87</td>
<td>-2.29</td>
<td>0.024</td>
<td>0.25</td>
</tr>
<tr>
<td>3 PF: Family Attachment</td>
<td>1.77 0.77</td>
<td>1.88 0.78</td>
<td>-0.11 0.78</td>
<td>-1.44</td>
<td>0.152</td>
<td>0.14</td>
</tr>
<tr>
<td>4 PF: Family Opportunities for Prosocial Involvement</td>
<td>2.10 0.84</td>
<td>1.94 0.81</td>
<td>0.16 0.81</td>
<td>1.89</td>
<td>0.062</td>
<td>0.19</td>
</tr>
<tr>
<td>5 PF: Family Rewards for Prosocial Involvement</td>
<td>2.07 0.72</td>
<td>2.04 0.74</td>
<td>0.03 0.74</td>
<td>0.47</td>
<td>0.642</td>
<td>0.05</td>
</tr>
<tr>
<td>6 PF: Religiosity</td>
<td>2.04 0.97</td>
<td>1.69 1.16</td>
<td>0.35 1.16</td>
<td>-3.51</td>
<td>0.003</td>
<td>0.20</td>
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<tr>
<td>7 PF: Social Skills</td>
<td>2.12 0.54</td>
<td>1.97 0.72</td>
<td>0.15 0.72</td>
<td>2.8</td>
<td>0.006</td>
<td>0.21</td>
</tr>
<tr>
<td>8 PF: Belief in the Moral Order</td>
<td>2.13 0.47</td>
<td>1.98 0.65</td>
<td>0.15 0.65</td>
<td>3.22</td>
<td>0.002</td>
<td>0.23</td>
</tr>
<tr>
<td>9 PF: School Opportunities for Prosocial Involvement</td>
<td>2.06 0.42</td>
<td>1.82 0.51</td>
<td>0.23 0.51</td>
<td>5.59</td>
<td>&lt;0.0001</td>
<td>0.46</td>
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<tr>
<td>10 PF: School Rewards for Prosocial Involvement</td>
<td>1.77 0.60</td>
<td>1.58 0.64</td>
<td>0.19 0.64</td>
<td>3.13</td>
<td>0.002</td>
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</table>

**Risk Factors**

<table>
<thead>
<tr>
<th>Risk Factors</th>
<th>Local (n=94-102)</th>
<th>National (n=210204-281418)</th>
<th>Difference</th>
<th>I</th>
<th>p</th>
<th>Effect size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
<td>SD</td>
<td>T</td>
</tr>
<tr>
<td>Local National Difference</td>
<td>(n=94-102)</td>
<td>(n=210204-281418)</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11 RF: Low Neighborhood Attachment</td>
<td>1.34 0.88</td>
<td>1.03 0.88</td>
<td>0.30 0.88</td>
<td>3.46</td>
<td>0.001</td>
<td>0.34</td>
</tr>
<tr>
<td>12 RF: Community Disorganization</td>
<td>1.09 0.75</td>
<td>0.58 0.62</td>
<td>0.51 0.62</td>
<td>6.78</td>
<td>0.0001</td>
<td>0.82</td>
</tr>
<tr>
<td>13 RF: Laws and Norms Favorable to Drug Use and Firearms</td>
<td>1.47 0.67</td>
<td>1.17 0.64</td>
<td>0.29 0.64</td>
<td>-4.39</td>
<td>&lt;0.0001</td>
<td>0.46</td>
</tr>
<tr>
<td>14 RF: Perceived Availability of Drugs and Firearms</td>
<td>1.15 0.93</td>
<td>1.07 0.91</td>
<td>0.08 0.91</td>
<td>0.83</td>
<td>0.411</td>
<td>0.08</td>
</tr>
<tr>
<td>15 RF: Poor Family Supervision</td>
<td>0.72 0.65</td>
<td>0.75 0.63</td>
<td>-0.03 0.63</td>
<td>-0.48</td>
<td>0.633</td>
<td>0.05</td>
</tr>
<tr>
<td>16 RF: Rebelliousness</td>
<td>0.88 0.69</td>
<td>0.91 0.72</td>
<td>-0.03 0.72</td>
<td>-0.46</td>
<td>0.645</td>
<td>0.04</td>
</tr>
<tr>
<td>17 RF: Friends' Delinquent Behavior</td>
<td>0.35 0.45</td>
<td>0.27 0.53</td>
<td>0.07 0.53</td>
<td>1.66</td>
<td>0.099</td>
<td>0.14</td>
</tr>
<tr>
<td>18 RF: Friends' Use of Drugs</td>
<td>0.72 0.76</td>
<td>0.95 1.12</td>
<td>-0.23 1.12</td>
<td>-3.09</td>
<td>0.003</td>
<td>0.21</td>
</tr>
<tr>
<td>19 RF: Peer Rewards for Antisocial Behavior</td>
<td>0.48 0.65</td>
<td>0.62 0.85</td>
<td>-0.14 0.85</td>
<td>-2.12</td>
<td>0.026</td>
<td>0.16</td>
</tr>
<tr>
<td>20 RF: Favorable Attitudes toward Antisocial Behavior</td>
<td>0.36 0.46</td>
<td>0.63 0.50</td>
<td>-0.26 0.58</td>
<td>-5.77</td>
<td>0.001</td>
<td>0.45</td>
</tr>
<tr>
<td>21 RF: Favorable Attitudes toward ATOD Use</td>
<td>0.35 0.46</td>
<td>0.67 0.78</td>
<td>-0.34 0.78</td>
<td>-7.52</td>
<td>&lt;0.0001</td>
<td>0.43</td>
</tr>
<tr>
<td>22 RF: Early Initiation (of Drug Use and Antisocial Behavior)</td>
<td>1.25 1.46</td>
<td>1.26 1.34</td>
<td>-0.01 1.34</td>
<td>-0.06</td>
<td>0.951</td>
<td>0.01</td>
</tr>
<tr>
<td>23 RF: Sensation Seeking</td>
<td>0.91 1.12</td>
<td>1.54 1.37</td>
<td>-0.64 1.37</td>
<td>-5.73</td>
<td>&lt;0.0001</td>
<td>0.46</td>
</tr>
<tr>
<td>24 RF: Poor Academic Performance</td>
<td>0.85 0.58</td>
<td>1.03 0.67</td>
<td>-0.18 0.66</td>
<td>-3.16</td>
<td>0.002</td>
<td>0.28</td>
</tr>
<tr>
<td>25 RF: Low School Commitment</td>
<td>1.01 0.46</td>
<td>1.45 0.70</td>
<td>-0.44 0.70</td>
<td>-9.43</td>
<td>&lt;0.0001</td>
<td>0.62</td>
</tr>
</tbody>
</table>
In general, this sample reported having substantially more protection and fewer risk than did the national dataset. This finding is counter to what was expected based on demographics alone and there are a number of possible explanations. First, it is possible that those high-risk adolescents involved in the RSO program developed and experienced much more protection and fewer risks than adolescents in the general population due to the RSO program. This suggests the youth participating in the RSO program benefited from the one year of programming prior to the study and the program meet their needs. A second possibility is that the students involved with the RSO started the program with high levels of internal motivation and other inner drives, which were not assessed in this study. Also, it is unclear what combination of experiences or environmental factors might have influenced the RSO participants' perceptions of risk and protection. These possibilities need to be explored further with replications in the same and other settings and with tighter and more robust quasi-experimental and true experimental designs.

The individual risk factors and protective factors are discussed below using the four domains described earlier: (a) individual and peer, (b) family, (c) school, and (d) neighborhood/community. The discussion that follows is limited to risk factors and protective factors where there were significant differences between the study and the national samples and had a moderate to large effect size (i.e., $d \geq 0.30$) (Cohen, 1988).

Only 3 of 15 Risk Factors were significantly higher for the sample than the national dataset and all of these Risk Factors were within the neighborhood/community domain: a) Low Neighborhood Attachment, (b) Community Disorganization, and (c) Laws and Norms favorable to Drug Use and Firearms. This finding supports the observation that the participants in RSO lived in communities that were more challenged
than others. As described earlier, participants in RSO lived in some of the poorest and most difficult sections of Rochester, NY. This also supports the contention that there was little perceived neighborhood support outside of the RSO program. In essence, the students who participated in RSO were away from home, participating in school activities and then in RSO, for up to 12 of their waking hours. They avoided the risks of their neighborhoods, which were potential liabilities to their growth and success. However, an independent assessment regarding RSO participants’ exposure to their community was not assessed and such methodology should be used in future studies. Burton and Jarrett (2000), in their synthesis of the research related to approaches used by researchers to understand neighborhoods, pointed to a critical flaw in defining neighborhood as a single perception. They found that perceptions of neighborhoods varied by gender, race, and across generations (Burton & Jarrett, 2000).

Three factors were included in the individual and peer domain: (a) Favorable Attitude toward Antisocial Behavior, (b) Favorable Attitudes toward ATOD (alcohol tobacco and other drug) use, and (c) Sensation Seeking. For the three risk factors above the national dataset reported more risks than the sample suggesting that students participating in RSO were less accepting of conduct that could have jeopardized their well being or chances of success and they avoided risks associated with their peers’ negative behaviors. This finding is consistent with participation in the RSO program because a primary focus of the program is character development and preparation for college or a vocation. Bartko and Eccles (2003) conducted a study of adolescents to understand factors associated with participation in various extracurricular activities. Consistent with the present study, they found that adolescents with greater participation
in extracurricular activities had fewer behavior issues than did those that had low levels of participation (Bartko & Eccles, 2003).

In fact, much time is spent in the RSO program practicing stepping and nurturing life skills such as knowing when and how to deal with peer pressure especially around anti-social behaviors. It is not clear which program activities might have influenced participants' perceptions of such life options and the value for choice. However, this result is consistent with Botvin’s “Life Skills Training” curriculum, which has consistently shown that adolescents can be taught to handle negative peer pressure and associated negative consequences. Botvin, Schinke, Epstein, and Diaz (1994) in their true experiment involving 639 7th grade minority students demonstrated the effectiveness of culturally focused and generic life-skills training approaches towards preventing negative outcomes, including a reduction of suspensions from school and reductions in the use of gateway substances such as alcohol and marijuana.

Within the family domain there were no statistically significant differences between the groups. This suggests few, if any, differences in perceptions of risk and protection provided by the familial environment. While a substantial number of RSO participants lived with single parents, their perceptions of familial support and strength of parenting were no different than that of a white, more affluent, sample. It should also be noted that RSO was not designed to significantly influence parental or familial support, so no changes due to the program would be expected. However, participation in RSO, which operated for the entire academic year, was likely to have involved high levels of familial engagement and support. The study result of no difference between groups may be related to how the participants interpreted the construct of “family.” Burton and Jarrett
(2000) synthesized research related to the role of family in urban neighborhoods in impacting child outcomes. Their synthesis of the literature in regards to risk and protection identified elements of a family that impact children’s development in urban neighborhoods and they are family composition, management approaches, and family attributes such as SES, were not necessarily related to student perceptions of familial support (Burton & Jarrett 2000), which this study also supports.

Within the school domain, the national dataset reported more risks involving Low School Commitment than the sample. Conversely, but logically following this result and providing construct validity to the finding, the sample endorsed more of the protective factor School Opportunities for Prosocial Involvement than the national sample. This finding suggests that RSO participants saw their schools as providing more opportunities for participation than others from a more nationally representative set of schools. While it is unlikely that many of the RCSD schools actually provided more opportunities, it is plausible that RSO may have contributed to a positive impression of the school environment. Further, RSO offered participants substantial academic guidance and support to meet high standard for academic performance established by RSO. Additionally, RSO provided students a vehicle for belonging in their school environment. Such a finding is well supported from previous school based research where academic performance and academic motivation are positively connected to school (Roeser, Midgley, and Urban, 1996; Goodenow and Grady, 1993). For example and as an illustration, Brown and Evans (2002) in their study of 1,739 diverse students at the secondary level, grades 7-12, found that students participating in extracurricular activities reported higher levels of school connection than those that did not. Further, this
relationship was particularly strong for African-Americans and Hispanics, when compared with white students (Brown & Evans 2002).

As described, this study involved only low income, African-American, adolescents who lived within the city limits, which is not dissimilar to many at-risk high-need adolescents nationally. However, the subjects in this study reported fewer risks and more protection than expected and they perceived their neighborhoods, family situations and school environments differently than how others have profiled this group. For instance, Furstenberg et al. (1999) pointed to differences in academic performance and other challenges faced by African-Americans when compared with their white counterparts. Indeed, the findings of Furstenberg et al. (1999) suggested that the ecological conditions of this sample would be far worse than for any nationally representative dataset. Therefore, using base-rates alone it would be unlikely for a sample population, such as the one in this study, to have perceived their environments so different than was expected based on the literature related to the condition of urban, low income, African-American youth.

One possible contributor to the result was that intervention was an intervening variable that influenced participants' perspective at work such as the RSO and its component activities. This is consistent with resiliency models of prevention that report OST programs such as RSO can reduce risk factors and increase protective factors for participants (Bry, 1982; Coie et al., 1993; Greenberg, Kusche, Cook, & Quannama, 1995; Hawkins et al., 1992). Further, Durlack and Weissberg (2007), in there review and assessment of OST program evaluations that used control groups, found that OST programs were effective and positively impacting social and emotional development and
academic performance. Further, Laura, Akiba, Wilkerson, Athorp, Snow, and Martin-Glenn (2006), in their meta-analysis of program impact on at-risk students, found that low income, African-American youth benefited more from OST programs than their white and more affluent counterparts. Therefore, RSO might have been effective at reducing the number of risk factors and increase protective factors for the participants.

In summary, comparisons between the RSO sample and the national sample provide some support for the RSO program having a positive effect and useful with poor urban African-American adolescents. Although not definitive, the combination of results from this study and previous research support further research involving RSO or similar types of OST programs for poor African-American adolescents.

Profile of Risk and Protective Factors for the Sample

2. What are the risk factors and protective factors (as measured by Glaser et al., 2005) for youth people who participate in the Rochester Step-Off Programs?

This area of the study sought to describe the distribution of those identified as having varied risk factors or protective factors among the sample. Using the cut-point system as described by Arthur et al., 2007 each subject’s CTCYS was scored, and each subject for summary factor was designated as either possessing or not possessing a risk factor or protective factor. The results for the three risk factors were as follows: (a) negative individual attitudes and behaviors (44%), (b) negative community perception (42%), and (c) poor academic performance (31%). The results for the three protective factors were: (a) family and community strengths (43%), (b) positive school characteristics (43%), and (c) religiosity (40%).
Table 4.1 presents the prevalence of risk factor and protective factors for the entire sample. In summary, less than half of the sample possessed any one of three risk factors. This was also true for the three protective factors. The discussion outlined in response to question 1 and question 2 in this chapter aptly offers a context for these findings.

Profiles of Risk Factors and Protective Factors by Attendance Level

3. What are the profiles of risk factors and protective factors for the study sample in three groups: low attendance, middle attendance, and high attendance?

This study focused on identifying different profiles, if any, of risk factors and protective factors associated with various levels of attendance. To accomplish this, the sample was first divided into thirds by attendance: low, middle, and high. Again, using the cut-point system, as described by Arthur et al., 2007, each subject was determined to either possess or not possess a risk factor or protective factor. The three groups were then compared for the frequency of occurrence for each factor.

This section describes how the profile of risk factors and protective factors varied among the three attendance subgroups: low, middle, and high. Chi Square analyses were used to determine if the distribution of subjects with indicated risk or protective factors were the same or different among the groups. None of the risk factors were statistically significant. Of the three summary protective factors, only the protective factor “Positive School Characteristics” was statistically significant (p < 0.05) and showed a difference among the subgroups.

Sixty two percent of participants in the Low Attendance group indicated possessing Positive School Characteristics while only 34% of participants in the Middle
Attendance and High Attendance group reported possessing the same. The school environment was most likely perceived favorably by participants that attended RSO the least. This finding was opposite from what was expected. Participants in RSO were engaged in the program for an entire academic year prior to participating in this study. The experiences of the higher attending students in RSO may have resulted in being more discriminating about what qualifies as a provision of opportunities for, and appropriate rewards of, pro-social engagement than those who attend less. A second possibility is that the result is a statistical artifact of this sample. For example, because six Chi Square tests were computed it could be argued that to maintain the study’s overall probability level of \( p \leq 0.05 \) the needed significance level for each test would be \( 0.05 / 6 = 0.008 \), and by using this significance level no significant results would be reported. Students may have participated in other OST programs at their schools and their attendance at RSO was negatively affected. However, all students that participated were exposed to school personnel and other aspects of the school environment. Such an interpretation is supported by Brown and Evans (2002) who studied 1,755 diverse students that participated in a variety of extracurricular activities in an attempt to understand the relationship between participation in these activities and connectedness to school, and found that regardless of ethnicity the students who had high participation had a greater level of school connection. Other studies that track student attendance in all after-school activities would help better explain the relationship of risk and protective factors to attendance.
Relationships Among Risk Factors and Protective Factors to Attendance

4. What are the relationships between risk factors and protective factors and attendance for young people who participate in the Rochester Step-Off Program?

Correlations between attendance for the entire sample and the three risk factors and three protective factors were used to answer this question. There were no significant correlations between the three protective factors and attendance. There was one significant correlation identified between attendance and the risk factor Poor Academic Performance ($p \leq .05$). However, this correlation ($r = -.21$) could be considered small (Cohen, 1988) as it only accounts for 4.4% (i.e., $-.21^2$) of the possible variance. The finding suggests that as attendance levels decreased poor academic performance increased. However, the strength of the relationship was not strong.

Similar to the arguments provide for Question 3 in the previous section, it is very likely that overall there were no significant relationships between attendance and the risk or protective factors assessed within this study. A restricted range of attendance for the present sample and student participation in other activities, which was not assessed, cloud definitive analyses. Further analysis using a larger sample is necessary to better determine the true value of the relationship between these variables. However, with a few additional analyses some insights are possible and suggested below.

To understand the correlation between attendance and Poor Academic Performance, each of the three subgroups (Low Attendance, Middle Attendance, and High Attendance) were analyzed separately with Poor Academic Performance. The Low Attendance Group had the largest number of participants who endorsed the Poor Academic Performance risk factor. Conversely, the proportion of participants who
endorsed the Poor Academic Performance risk factor was least for the High Attendance group. This finding confirmed that the greater participants’ attendance the lower the number reporting poor academic performance.

The relationship between poor academic performance and low attendance is supported by Bartko and Eccles (2003) as described in Chapter II. They identified poor academic performance as relating to low participation in a variety of extracurricular activities (Bartko & Eccles, 2003). Similarly, their study found that the highest engaged cluster had the best academic performance. Unlike this study, Bartko and Eccles (2003) examined participation across 11 activity types and used GPA taken from report card data (Bartko & Eccles, 2003).

Small correlations, or weak relationships, between risk factors and protective factors and attendance are also similar to previous research. Holland and Andre (1987), in their review of literature related to OST programs, found several studies that identified only small correlations, if any. Further, they suggested for others to add specificity to the definition of participation, examine participation in activities within OST programs, and examine the direction of the influence between the participants and other variables (Holland & Andre, 1987). More recently, Cooper (1999) confirmed that by considering more variables that defined the activity the observable changes increased and they were able to explain twice the amount variance in relationships between factors.

*Implications for Practitioners*

The results of this study implies that practitioners should consider: (a) constructing profiles of risk factors and protective factors to better understand factors associated with levels of adolescent participation in a particular OST program. (b)
identify as early as possible participants who perceive themselves as having poor academic performance, and (c) consider using the Resiliency Model as a framework to better understand adolescents functioning relative to risk factors, protection factors, or a combination of both identified in this study.

Constructing profiles for an OST program will require at least annual collection and analysis of risk and protective data. There is limited research that has explored factors that contribute to OST participation or has clarified the direction of the relationship between participation and other variables (Holland and Andre, 1987). By developing risk factor and protective factor profiles over a period of years it may be possible to better understand the relationship among variables. Such profiles may offer practitioners a source for predicting adolescent attendance associated with particular patterns of risk and protection. Further, if those profiles are found to be predictive it could be used to inform a program format, influence resource allocations, and shape program design.

For instance, this study identified a small correlation between attendance and the Poor Academic Performance risk factor, which is consistent with findings of Bartko and Eccles (2003). One difference between this study and that of Bartko and Eccles was that this study used a self-report of academic performance and not report card data. This suggests that practitioners might consider further use of self-reports, like the CTSYS, as a reliable and valid means to collect important information, which can be further validated with more difficult to get data like achievement test performance or GPA’s.

It is necessary for practitioners to identify appropriate tools, such as the CTCYS or one of the many other tools developed, for understanding risk factors and protective
factors in youth (Arthur, Briney, Hawkins, Brooke-Weiss, & Catalano, 2007) and profiles for OST participants prior to or upon entering their programs to understanding trends, patterns, and predictors. When practitioners are able to identify children demonstrating various risk factors, such as Poor Academic Performance near the point of enrollment, they may be able to target interventions and resources better.

Based on this researcher's two decades of experience, most OST programs lack early screening, which limits understanding of the children served and the practitioners' abilities to design and deliver the support necessary to maintain and improve participation and involvement in OST programs. It is recommended that designers of OST programs think critically about the process of recruitment and enrollment. This process should offer opportunities to collect baseline information about prospective participants' perceptions of risk and protection across at least the four domains described earlier. Collectively, that information could serve as a basis for designing evidenced-based individual and program-wide services and interventions.

It is also clear from this study that practitioners should not make assumptions about their group of students being engaged in an OST program based on their demographics alone. While the experience of seasoned practitioners might allow for making some prejudgments based on varied factors like SES, this study shows that such generalities need to be tested and not assumed. Based on research in education, it is repeatedly suggested that SES alone provides practitioners an ability to predict poor academic performance in school (Brown, Roney, & Anfara, 2003; Gutman, Sameroff, & Eccles, 2002; Mertens & Flower, 2003; Roscigno, 1988). Based on the limited research in OST programs and this study, the traditional factors related to student success such as
SES by itself are not sufficient for understanding the elements that must be addressed if participation will increase. It needs to be well understood that such variables as SES are only a part of the equation for understanding factors that contribute to participation in OST programs (Fredricks et al., 2002; Humber et al., 2006).

Practitioners also need to know more about resiliency. Resiliency research provides a foundation for OST programming which is specifically focused on reducing risk factors and increasing protective factors. OST programs need to strengthen their protective elements to mitigate their students' potential (Comer, 1998; Firestone and Rosenblum, 1988; Frasier and Fisher, 1982; Furstenburg et al., 1999; Sauners, 2002). Practitioners need to understand that risks may not be eliminated, but their negative consequences may be reduced. This means attention should be paid to the ecological factors outside of the OST program, such as the neighborhood, the school, and the family and the peer group so that enrollment and involvement in protective OST programs is possible. Steady participation in OST programs that provide multiple protective factors, like the RSO, may provide real alternatives to academic and social failure for poor urban African-American adolescents.

More specifically, practitioners may wish to employ the “Risk and Protection-Focused Prevention” paradigm, which focuses on reducing the potential for negative outcomes by impacting risk factors through the enhancing of protective factors (France & Utting, 2005). Consistent with this approach, practitioners would implement a program-set that purposefully addresses underlying elements of their participants' risk factors. For instance, if OST participants had poor school performance and no significant adult relationships, the OST program might provide long-term tutors or mentors to address
those risks factors. The role of the tutor-mentor would be to help build participants’ academic abilities and to establish a strong one-to-one relationship with an adult, which are both known to be protective factors which help mitigate risks.

If the findings of this study were applied to RSO program frameworks, the following might be one scenario that would start with recruitment and enrollment. During the program enrollment period the CTCYS would be given to every participant. The data would be used to develop data based trends and patterns for all the participants. An individual profile would be established for each participant with particular attention paid to the relative strengths and weaknesses of all the risk factors and protective factors. Staff would work to understand, for each child possessing these factors, the underlying elements and build an individual support plan for each participant. In addition, staff should spend time with each participant to qualitatively understand their unique needs and abilities not initially assessed. Specific goals, objectives, and measurable outcomes would be established with each participant. Regularly, process and outcome measures would be used to assess progress towards goals and objectives. Changes in the OST program, in consultation with the adolescent, would occur quickly if specific approaches were not being successful. Successes would be publicly recognized and celebrated.

Implications for Education

There are a variety of academic preparation programs offered at the collegiate level for those pursuing careers working with youth, such as Secondary Education, Human Services Management, and Public Health. Based on this researcher’s experience, OST programs are a common training ground for educators, human services staff, and health professionals. This section outlines ways educators who prepare practitioners to
work in OST programs serving low income, urban, African-American adolescents might apply the findings of this study. Such educators may (a) help OST practitioners understand uses of risk factors and protective factors, (b) foster critical skills for translating research findings into practice, and (c) work with OST practitioners to further identify and explore factors that might contribute to participation in OST programs and ultimately improve programmatic impacts.

There is a relatively new and growing body of research that provides practitioners directions for improving attendance and participation in OST programs (Fredrick et al., 2002; Humber et al., 2006). As noted in Chapter II, researchers have identified uses of risk factors and protective factors to predict future outcomes. Understanding existing research provides foundations for innovative program design. In fact, several fields of science (e.g., Behavioral Sciences, Resilience Modeling, and Prevention Sciences) have focused on understanding risk factors and protective factors and how they influence behavioral outcomes (Coie, et al.).

For example, Arthur, Brown, and Biney (2006) identified Family Management problems and extreme economic deprivation risk factors that were associated with academic performance and at-risk or poor health behaviors such as dropping out and substance abuse. However, to make appropriate application of those findings, practitioners will need to be able to translate theory into practice. Practitioners will need to understand how to apply research finding into real world settings if they are going to positively impact youth. Effective application of a specific finding, such as knowing that the self-report risk factor Poor School Performance from the CTCYS may hamper OST participation, requires an understanding of the elements pooled together to comprise the
risk factor and how protective factors might be used to counter such risks. In essence, the practitioner must be able to understand how such risk and protective elements relate to each other within a specific demographic group so as to avoid misapplication or misaligned interventions. For instance, choosing the correct program design for participants that are connected to school but have poor academic performance versus a design based on poor academic performance alone.

In this researcher’s two decades of experience working in the OST field, practitioners in the OST programs are frequently focused on service delivery and almost never engaged in reading or conducting research or using such information to support and improve OST programs. Therefore, to improve OST practitioners’ functioning and OST programs in general, OST staff could be taught to explore theories through structured training or academic programs, read critical research from diverse fields and conduct action research and program evaluations. With such skills, OST practitioners could take research findings and try to replicate them with adolescents in similar or different settings. By training OST professionals in scientific approaches and scientific methods will the OST field move from an experience based art form to an evidence based set of practices. In essence, educators must develop both researchers and practitioners who will together create a critical mass of scientist-practitioners who can identify critical questions and conduct appropriate study of important questions pertinent to OST programs.

Implications for Executive Leaders

In recent years, OST programs have gained financial support in many communities throughout the United States. During the 1980s, increased financial support for OST programs was in direct response to increased risk behaviors, such as sexual
activity, drug and alcohol abuse, drop-out of school, and poor academic performance (Hollister, 2003).

Most recently, the recession of 2008-2009 and declining financial support has reduced the resources available for OST programming. Further, all types of funders are savvier than ever before and are increasingly demanding demonstrated results from OST programs. For example, philanthropic individuals and organizations are increasingly requiring OST professionals to use research-based or proven evidence-based practices to acquire support. This means OST executive leaders need to know the most recent research, such as how OST programs have improved academic performance and social emotional development (Durlock and Weissburg, 2007) or to know how to conduct community based research, as exemplified in this study. For those leaders who do not have such skills, resources for their programs likely will be reduced or even eliminated.

Future Recommendations

This study provides a small contribution towards understanding factors associated with participation in OST programs. However, this study leads to additional questions not yet addressed.

First, this study focused on understanding the relationship between ecological factors using set questions from the CTCYS and actual attendance in OST programs. A potentially interesting extension of this research would be to use a more qualitative approach and interview participants to find out in more depth what motivates them to participate in OST programs like the RSO.

Second, this study used only a sample of students who participated in RSO for the entire school year. It would be important for future research to follow those students who
“dropped out” of OST programs and determine how the OST programs did not meet their needs and what outcomes might be expected. By understanding better which elements contributed to students’ participation, or not, could provide further insights on how to improve OST programs. In fact, future researchers might focus on identified factors that motivated youth to participate in OST programs using an ecological framework of internal and external factors.

Third, in this study youth participation in activities outside of RSO was not recorded. Future research should track the sum total of all OST activities because many youth do not participate in only one OST program; rather, they elect to participate in a variety of school-based and community-based programs. It is important to understand the whole constellation and levels of participation for RSO participants in order to understand the impact of OST programming and program attribution.

Fourth, understanding better participation related to specific activities in conjunction with the risk and protective factors should also be considered. Understanding various factors and attendance for a host of activities such as practice, homework assistance, community services, and college tours might help target certain programs for certain youth. While some such as Bartko & Eccles (2003) have studied involvement in a variety of OST activities, there is no research that used the variables adolescents’ self-report of (a) risk factors, (b) protective factors, and (c) levels of activities to determine factors associated with levels of participation.

Finally, this study suggested that the RSO program provided a number of protective factors and reduced a number of risk factors for poor, urban, African-American
adolescents. Further replication and a controlled study of the RSO approach and its elements are warranted to determine more definitively the impact of the RSO program.

**Summary**

The purpose of this study was to better understand the risk factors and protective factors that correlated to participation in the RSO program. OST programs have existed since the early 1900s, but the research in this area came much later and has been very limited. Several researchers have attempted to understand what factors affect participation in OST programs (Bartko and Eccles, 2003; Holland and Andre, 1987).

This study extends that work.

In conclusion, this study produced three important findings. First, it discovered there were unexpected differences between the degree of perceived risk factors and protective factors for the diverse national sample and the sample population comprised of low income, urban, African-American adolescents. It was expected that the perceived risk factors would be significantly lower for the national sample than for the participants in RSO and the opposite would be true for protective factors. However, the national sample reported a greater number of risk factors and fewer protective factors than RSO participants, which suggests that the RSO program is a candidate for future research.

Consideration should be given to intervening variables that might have been missed.

Second, when comparing the risk factor and protective factors for RSO participants divided into thirds (Low Attendance, Middle Attendance, and High Attendance groups) the study identified no meaningful differences. This study suggests there are no differences in perceived risk or protective factors for various levels of attendance for those adolescents who participate in a full year OST program. However,
students who left the program were not followed, nor was participation in other OST programs recorded. Further research is also need to elucidate these clarify the reasons there were no meaningful difference.

Third, a very minor yet significant relationship was identified between the risk factor Poor Academic Performance and attendance the higher the risk the poorer the attendance. While the correlation was statistically significant, the variance accounted for (4%) was so small that few meaningful conclusions can be made.

Overall, the findings of this study provide modest contributions to the OST, which has limited research available. In addition, this study provides a base for further exploration of the use of self-reported risk factors and protective factors as a framework to understand participation in OST programs. Further, understanding factors that correlate to participation in OST programs should contribute to interventions that lead to increased participation.
References


http://www2.edtrust.org/EdTrust/DataTools+and+Presentations


SAMHSA. *Communities That Care Youth Survey Instrument*.


Appendix A

CTCYS Instrument

Communities That Care - Youth Survey

This survey is voluntary. That means you do not have to take it. If you choose to take it, you may skip any question you don't want to answer.

Thank you for agreeing to participate in this survey. The survey asks your opinion about a number of things in your life, including your friends, your family, your neighborhood and your community. Your answers to these questions will be confidential. That means no one will know your answers. To help us keep your answers secret, please do not write your name on this survey form.

1. This is not a test. There are no right or wrong answers.
2. If you don't find an answer that fits exactly, use one that comes closest. If any question does not apply to you, or you are not sure what it means, just leave it blank.
3. Mark your answers clearly:
   • It is best to use a pencil, but you also may use a blue or black pen.
   • Completely fill in the circles.
   • Completely erase any answers you want to change.
   • Make no other markings or comments on the answer pages.
4. Some of the questions have the following format:
   Please fill in the circle for the word that best describes how you feel.
   EXAMPLE: Pepperoni pizza is one of my favorite foods.

Mark the Big "NO" if you think the statement is definitely not true for you.
Mark the little "no" if you think the statement is mostly not true for you.
Mark the little "yes" if you think the statement is mostly true for you.
Mark the Big "YES!" if you think the statement is definitely true for you.
These questions ask for some general information about you. Please mark the response that best describes you.

How old are you?
- 10
- 11
- 12
- 13
- 14
- 15
- 16
- 17
- 18
- 19 or older

What grade are you in?
- 8th
- 7th
- 6th
- 5th
- 4th
- 3rd
- 2nd
- 1st
- Kindergarten

Are you:
- Female
- Male

What do you consider yourself to be?
(choose all that apply)
- White
- Black or African American
- American Indian/Native American, Eskimo or Aleut
- Spanish/Hispanic/Latino
- Asian or Pacific Islander
- Other (Please specify)

What is the language you use most often at home?
- English
- Spanish
- Another language: __________________________

This section asks about your experiences at school.

Putting them all together, what were your grades like last year?
- Mostly Fs
- Mostly Ds
- Mostly Cs
- Mostly Bs
- Mostly As

During the LAST FOUR WEEKS, how many whole days have you missed because you skipped or "cut"?
- None
- 1
- 2
- 3
- 4-6
- 7-10
- 11 or more

How often do you feel that the schoolwork you are assigned is meaningful and important?
- Almost always
- Often
- Sometimes
- Seldom
- Never

How interesting are most of your courses to you?
- Very interesting and stimulating
- Quite interesting
- Fairly interesting
- Slightly dull
- Very dull

How important do you think the things you are learning in school are going to be for your later life?
- Very important
- Quite important
- Fairly important
- Slightly important
- Not at all important
### Team and Attendance Plot Table

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Variance Results: 8 2 1 1 4 4 4 1 1 4 9 2 5 13 11 22
### Appendix C

Factor Analysis Risk Factors and Protective Factors

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Appendix D

New Factor List

Factor 1: Negative individual attitudes & behaviors

RPF: Early Initiation (of Drug Use and Antisocial Behavior)
RPF: Friends' Use of Drugs
RPF: Favorable Attitudes toward ATOD Use
RPF: Peer Rewards for Antisocial Behavior
RPF: Sensation Seeking
RPF: Favorable Attitudes toward Antisocial Behavior
RPF: Social Skills (Negative load)
RPF: Friends' Delinquent Behavior
RPF: Belief in the Moral Order (Negative load)
RPF: Rebelliousness

Factor 2: Family & Community Strengths

RPF: Family Opportunities for Prosocial Involvement
RPF: Family Rewards for Prosocial Involvement
RPF: Family Attachment
RPF: Poor Family Supervision (Negative load)
RPF: Community Opportunities for Prosocial Involvement
RPF: Community Rewards for Prosocial Involvement
Factor 3: Positive School Characteristics

RPF: School Opportunities for Prosocial Involvement
RPF: School Rewards for Prosocial Involvement
RPF: Low School Commitment (Negative load)

Factor 4: Negative Community Perceptions

RPF: Laws and Norms Favorable to Drug Use and Firearms
RPF: Community Disorganization
RPF: Low Neighborhood Attachment
RPF: Perceived Availability of Drugs and Firearms

Factor 5: RPF: Religiosity

Factor 6: RPF: Poor Academic Performance
Appendix E

Parent Consent form


RESEARCHER: Roderick L. Jones, MPA
(585) 202-3564

INTRODUCTION: Your child is being asked to participate in a study that will examine the characteristics of adolescents that participate in out-of-school time programs (OST programs), because he/she participates in The Rochester Step-Off Program, is between the ages of 12 and 19, is African American, receives free or reduced lunch, and lives in the City of Rochester. Before you agree to your child’s participation in this study, you must understand its purpose, the procedure, your rights to confidentiality, the risks and benefits, and compensation your child will receive for participating.

PURPOSE: The purpose of this study is to: (a) identify risk factors and protective factors that predict participation in OST programs, (b) inform program design and service delivery systems, and (c) increase levels of participation among Rochester Step-Off participants.

STUDY PROCEDURES: This study requires seven steps and they are:

- You received a request to provide permission for your child to participate in the study
- By signing and returning this form you provide consent for your to participate and for us to seek his/ her consent
• Your child will receive a consent to participate form and his/her signature is consent to participate in the study.
• Of the students and parents that consent, only 170 students will be selected to complete the survey.
• A date to complete the survey will be provided to complete the 50 minutes survey. Survey questions will be read to your child and other team members. Support staff are on-hand should concerns arise.
• Each student that completes a survey will receive a $10 gift card.
• Results are reported by group and individual information can not be traced to your child.
• If your child refuses to participate or is not chosen. This will not in any way effect the ongoing ability to participate in the Rochester Step off program.

CONFIDENTIALITY: Confidentiality means that information provided by your child will not be shared with others. However, if a child discloses any information that tells me he/she is thinking of hurting himself/herself or others. I will have to contact the proper authorities to insure safety. Participants responses are not reported individually. They are grouped with the other students who are participating in the study. All findings of this study will be reported in group form and there will be no identifying characteristics associated with any of the findings of this study.

RISKS: It is possible that answering the questions in this survey, a child might discover something about himself or herself or life that causes feelings of sadness or discomfort. If that happens, I will use my own knowledge as a counselor, case manager, and a helping professional to help address the cause. If further support is needed, I have a professional network of counselors, social workers, physicians, and psychologists that I can refer your child to that will help him/her deal with feelings of sadness or discomfort.

BENEFITS: The information that your child and others provide in this study will inform our understanding about where to focus our efforts to increase participation in the
Rochester Step-Off program and other afterschool programs. Increased participation helps ensure that other youth receive the same benefits as your child.

**COMPENSATION:** Everyone who participates in this study will be compensated with a $10 gift card for the Mall.

**VOLUNTARY PARTICIPATION/ WITHDRAWL FROM STUDY:** Your child’s participation in this study is completely voluntary. Refusal to participate or withdraw from the study will have no negative effect on him/her. Further, this study does not effect participation in the Rochester Step-Off program.

**QUESTIONS:** Before you sign this form, please ask any questions about the study you would like to know. If you have any questions during the study, please contact:

Roderick Jones  
57 Central Park  
Rochester NY 14605

If you have any questions about your child’s rights related to this study, please call the chairperson:  
St. John Fisher College Institutional Review Board  
(585) 385-8000

**NOTE:** TO PARTICIPATE IN THIS STUDY YOUR WRITTEN APPROVAL IS REQUIRED. YOU ARE MAKING A DECISION TO ALLOW YOUR CHILD TO PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND ACCEPT THE INFORMATION PROVIDED ABOVE.

Date:______________ Time:___________

Printed Name: ___________________________________________
Signature: ________________________________

Signature of Witness: ________________________________

Signature of Investigator: ________________________________
Appendix F

Assent for Participation


RESEARCHER: Roderick L. Jones, MPA

(585) 202-3564

INTRODUCTION: You are being asked to participate in a study that will examine characteristics of adolescents that participate in out-of-school time programs (OST programs). You have been selected because you participate in The Rochester Step-Off Program, are between the ages of 12 and 19, are African American, receive free or reduced lunch, and live in the City of Rochester. Before you agree to participate in this study, you must understand its purpose, procedure, your right to confidentiality, the risks and benefits of the study, and compensation you will receive for participating.

PURPOSE: The purpose of this study is to: (a) identify risk factors and protective factors that predict participation in OST programs, (b) inform program design and service delivery systems, and (c) increase levels of participation among Rochester Step-Off participants.

STUDY PROCEDURES: This study requires seven steps and they are:

- Your parents received a request to provide permission for you to participate in the study
- Your parent has provided consent for you to participate and for us to seek your consent
• You received this document and your signature is your consent to participate in the study.
• Of the students and parents that consent, only 170 students will be selected to complete the survey.
• A date will be provided to complete the 50 minutes survey. Survey questions will be read to you and other team members and support staff are on-hand should concerns arise.
• Upon completion of the survey each participant will receive a $10 gift card.
• Results are reported by group and individual information can not be traced to you.
• If you refuse to participate or are not chosen. This will not in any way effect your ongoing ability to participate in the Rochester Step off program.

STUDY LOGISTICS: The surveys will be conducted at one of your Step team practices or after school.

CONFIDENTIALITY: Confidentiality means that information you provide will not be shared with others. However, if you disclose any information that tells me that you are thinking of hurting yourself or others, I will have to contact the proper authorities to insure your safety. Your responses are not reported individually. They are grouped with the other students who are participating in the study. All findings of this study will be reported in group form and there will be no identifying characteristics associated with any of the findings of this study.

RISKS: It is possible that answering the questions in this survey, you might discover something about yourself or about your life that causes you to feel sad or uncomfortable. If that happens, I will use my own knowledge as a counselor, case manager, and a helping professional to help you address the cause. If further support is needed, I have a professional network of counselors, social workers, physicians, and psychologists that I can refer you to that will help you deal with your feelings of sadness or discomfort.
BENEFITS: The information that you and others provide in this study will inform our understanding about where to focus our efforts to increase participation in the Rochester Step-Off program and other afterschool programs. Increased participation helps ensure that other youth receive the same benefits as you.

COMPENSATION: Everyone who participates in this study will be compensated with a $10 gift card for the Mall.

VOLUNTARY PARTICIPATION/WITHDRAWAL FROM STUDY: Your participation in this study is completely voluntary. Your refusal to participate or withdraw from the study will have no negative effect on you. Further, this study does not effect your participation in the Rochester Step-Off program.

QUESTIONS: Before you sign this form, please ask any questions about the study you would like answered. If you have any questions during the study, please contact:

Roderick Jones
57 Central Park
Rochester NY 14605

If you have any questions about your rights related to this study, please call the chairperson: St. John Fisher College Institutional Review Board

(585) 385-8000

NOTE: TO PARTICIPATE IN THIS STUDY YOUR APPROVAL AND A PARENT'S WRITTEN APPROVAL IS REQUIRED. YOU ARE MAKING A DECISION TO PARTICIPATE OR NOT PARTICIPATE. YOUR SIGNATURE INDICATES THAT YOU HAVE READ AND ACCEPT THE INFORMATION PROVIDED ABOVE.

Date: _____________________ Time: __________

Printed Name: ___________________________
Signature: ____________________________________________

Signature of Witness: ___________________________________
Signature of Investigator: ________________________________