

FINANCIAL INCENTIVES FOR EDUCATIONAL OUTCOMES  
WITH HOMELESS YOUTH

by

Ashley Ann Carroll

---

A Dissertation Submitted to the Faculty of the

DEPARTMENT OF EDUCATIONAL PSYCHOLOGY

In Partial Fulfillment of the Requirements

For the Degree of

DOCTOR OF PHILOSOPHY

In the Graduate College of Education

THE UNIVERSITY OF ARIZONA

2015

THE UNIVERSITY OF ARIZONA  
GRADUATE COLLEGE

As members of the Dissertation Committee, we certify that we have read the dissertation prepared by Ashley Carroll, titled Financial Incentives for Educational Outcomes with Homeless Youth and recommend that it be accepted as fulfilling the dissertation requirement for the Degree of Doctor of Philosophy.

\_\_\_\_\_ Date: August 19<sup>th</sup>, 2015  
Ronald Marx, Ph. D.

\_\_\_\_\_ Date: August 19<sup>th</sup>, 2015  
Francesca Lopez, Ph. D.

\_\_\_\_\_ Date: August 19<sup>th</sup>, 2015  
Michael Sulkowski, Ph. D.

\_\_\_\_\_ Date: August 19<sup>th</sup>, 2015  
Rose Ylimaki, Ph. D.

Final approval and acceptance of this dissertation is contingent upon the candidate's submission of the final copies of the dissertation to the Graduate College.

I hereby certify that I have read this dissertation prepared under my direction and recommend that it be accepted as fulfilling the dissertation requirement.

\_\_\_\_\_ Date: August 19<sup>th</sup>, 2015

Dissertation Director: Ronald Marx, Ph. D.

### STATEMENT BY AUTHOR

This dissertation has been submitted in partial fulfillment of the requirements for an advanced degree at the University of Arizona and is deposited in the University Library to be made available to borrowers under rules of the Library.

Brief quotations from this dissertation are allowable without special permission, provided that an accurate acknowledgement of the source is made. Requests for permission for extended quotation from or reproduction of this manuscript in whole or in part may be granted by the head of the major department or the Dean of the Graduate College when in his or her judgment the proposed use of the material is in the interests of scholarship. In all other instances, however, permission must be obtained from the author.

SIGNED: Ashley Carroll    DATE: August 19<sup>th</sup>, 2015

## ACKNOWLEDGEMENTS

I would like to express my sincere gratitude to the College of Education at the University of Arizona for allowing me to fulfill my dream of obtaining the highest degree within my field. With the knowledge I have gained through all my professors in the program, I am much more confident in my abilities as a professional, leader, and mentor in education.

I am fully indebted to Dean Marx, my dissertation advisor, for his wisdom, patience, knowledge, and encouragement throughout this learning and writing process. Thank you for reeling me in during times I would get carried away in one million directions. Thank you for your honest critiques and feedback. Thank you for the hours upon hours you spent working with me to improve the quality of my thinking and dissertation.

Thank you to each of my committee members. To Dr. Rose Ylimaki, thank you for being my first advisor. You opening the doors of your home to your graduate students truly demonstrated your commitment and passion to help your students. To Dr. Francesca Lopez, thank you for being such a great role model. Your intellect, patience, and kindness are such admirable and desirable traits. To Dr. Michael Sulkowski, thank you for your continued support. Your contributions to my understanding of the field and during the defenses were invaluable.

I am forever grateful to my mom who has spent a tremendous amount of time editing my papers, formatting my tables, and listening to my ideas. Thank you for being there to bounce ideas off of and for being my rock. Thank you to my family who I have frequently neglected to pursue my goals: my step-dad Stuart, my dad Melvin, my two brothers Tyler and Chase, and my whole extended family. Thank you to Jeff for taking care of all the domestic responsibilities so I had the evening after work to focus on my school work and dissertation.

## TABLE OF CONTENTS

LIST OF TABLES .....	pg. 7
LIST OF FIGURES .....	pg. 8
ABSTRACT .....	pg. 9
CHAPTER 1: INTRODUCTION .....	pg. 10
Purpose and Rationale.....	pg. 13
Research Questions.....	pg. 14
CHAPTER 2: LITERATURE REVIEW .....	pg. 16
Conceptual Definition of Homeless Youth.....	pg. 16
Federal Policy .....	pg. 20
Population Estimates.....	pg. 25
Demographics of Homeless Youth .....	pg. 28
Reasons for Youth Homelessness.....	pg. 29
Experiences While Homeless .....	pg. 30
Academic Achievement .....	pg. 31
Interventions for Academic Achievement .....	pg. 34
Services Offered.....	pg. 37
Cost of Homelessness .....	pg. 38
CHAPTER 3: METHODS .....	pg. 43
Context of the Study .....	pg. 43
Participants.....	pg. 44
Data and Procedures .....	pg. 45

TABLE OF CONTENTS- *Continued*

Statistical Analyses .....	pg. 47
CHAPTER 4: RESULTS .....	pg. 49
Descriptive Statistics of Outcome Variables .....	pg. 49
Descriptive and Inferential Statistics: Student Demographics.....	pg. 51
Descriptive and Inferential Statistics: Student Experiences .....	pg. 58
Relationship Statistics: Student Demographics and Experiences as Predictors .....	pg. 63
CHAPTER 5: DISCUSSION.....	pg. 70
Compared to Financial Incentive Research with At-Risk Groups.....	pg. 70
Characteristics of Homeless Youth.....	pg. 72
Implications.....	pg. 77
Limitations .....	pg. 79
Future Research .....	pg. 80
APPENDIX A: DESCRIPTIVE CODEBOOK.....	pg. 82
REFERENCES.....	pg. 85

## LIST OF TABLES

Table 1: Frequency Chart for Percent of Earned Stipends .....	pg. 50
Table 2: Frequencies of Eligible Months.....	pg. 51
Table 3: Percent of Stipends by Eligible Months .....	pg. 51
Table 4: Demographic Descriptive Statistics by Dependent Variable.....	pg. 52
Table 5: Crosstabulation of Grade and Age.....	pg. 56
Table 6: Race and Ethnicity Descriptive Statistics by Dependent Variable.....	pg. 57
Table 7: Experience Descriptive Statistics by Dependent Variable .....	pg. 59
Table 8: Summary of Multiple Regression Analysis for Variables Predicting Percent of Stipends Earned .....	pg. 66
Table 9: Summary of Multiple Regression Analysis for Variables Predicting Number of Months Enrolled.....	pg. 68

**LIST OF FIGURES**

Figure 1: Mean Percentage of Stipends Earned by the Age of the Students ..... pg. 53

Figure 2: Mean Total of Stipends Earned by the Age of the Students ..... pg. 55

## ABSTRACT

**Objective:** For this dissertation, I investigated the characteristics of homeless, unaccompanied youth to determine which subgroups of students pursued and obtained financial stipends as an incentive for satisfactory educational outcomes- grades C and above. **Method:** The study was based on data obtained from a community-based, non-profit, drop-in center that serves homeless, unaccompanied youth enrolled in school. From each participant (n=965), demographic variables (including the student's age, grade, gender, race, and ethnicity) and life experience variables (including the student's reason for homelessness, current living situation, teen parenting status, and program enrollment status- either a new or returning student to the program) were obtained. These variables were used to determine the relationship between the student's characteristics and the outcome measurements: percent of the potential monthly stipends earned and the length of enrollment in the program. **Results:** The results demonstrated significant mean differences within the student's age, grade, and program enrollment status for both the percent of stipends earned and the length of program enrollment. A student's teenage parenting status also indicated a significant difference for the percent of stipend earned. Three student characteristics were significant predictors for the percent of stipends earned, and five characteristics were significant predictors for the length of program enrollment. **Conclusions:** *Specific subgroups within the unaccompanied, homeless population pursue and obtain financial stipend incentives for educational outcomes at different rates. These results add to the literature needed to better align educational services and programs to the various subgroups within the homeless youth population.*

## **CHAPTER 1: INTRODUCTION**

In the last 20 years, there has been a substantial increase in the number of homeless single mothers and children (NCFH, 2009). Women and children are now the nation's fastest growing sector in the homeless population (Attles, 1997). According to the most recent report from The National Center of Family Homelessness, almost 2.5 million children experienced homelessness in 2013, an 8% increase from the previous year (National Center of Family Homelessness, 2014). Although the totals of homeless children and women are among the highest of any country in the industrialized nations, the numbers only represent a portion of homeless youth as many children fly "under the radar" (Soika, 2004) or are unreported (Hoffman, 2009). Moreover, some studies indicate that youth ages 12-17 are more at risk for homelessness than adults (Finzel, 2013).

In the 2012-2013 school years, over 1.2 million homeless youth were enrolled in the nation's school system, a 15% increase from two years prior (National Center for Homeless Education- NCHE, Sept. 2014). Among these students were nearly 76,000 unaccompanied youth, youth not in the care of parents, foster parents, or in an institution (NCHE, Sept. 2014). To address the educational needs of homeless and unaccompanied youth, the McKinney-Vento Homeless Assistance Act (PL100-77) was enacted directing the U.S. Department of Education to reduce educational barriers homeless students face in regards to school enrollment, access, and school-based services. The McKinney-Vento grants allocate over \$60 million each year for the Education for Homeless Children and Youth (EHCY). According to the *Consolidated State Performance Report Data* summary by the National

Center for Homeless Education, the U.S. Department of Education funding serves nearly two-thirds of the school enrolled homeless youth (NCHE, Sept. 2014).

Despite these services funded by support under the McKinney-Vento Act, homeless students continue to be more likely to repeat a grade, have low academic performance, and drop out of school compared to their housed peers (Miller, 2009; Thompson, Bender, Windsor, Cook, & Williams, 2010). Although high school dropout reform has been high on the public education agenda, three quarters of homeless youth have or will drop out of school (Bridgeland, Dilulio & Morison, 2006; Cauce, Paradise, Ginzler, Embry, Morgan, Lohr, et al., 2000; Fernandez, 2007; Finzel, 2013). The National Association for the Education of Homeless Children and Youth reports the most significant barrier to the educational success of homeless youth is the lack of basic necessities (Julianelle, 2008), a service that is not addressed or provided by the McKinney Vento Education for Homeless Children and Youth Program.

Homeless youth not only distance themselves from school but they often become involved with risky activities in order to meet their basic needs. Homeless youth are at a high risk of becoming involved in criminal activities such as selling drugs, stealing, and survival sex- which is the exchange of sex for shelter, food, money, protection, or other resources (Coward-Bucher, 2008; Green, Ennett, & Ringwalt, 1999). These youth are exceptionally vulnerable to exploitation by others, as well as to experience sexually transmitted diseases, pregnancy, substance dependency, suicidal ideation, physical and sexual abuse, and other physical and mental health impediments (Coward- Bucher, 2008; Feldman & Middleman, 2003).

The effects of youth homelessness and dropping out of school can have a lifelong impact. Child homelessness increases the chances of returning to the streets in adulthood (Kelly, 2007) and dropping out of school increases the likelihood the youth will perpetuate the cycle of living in poverty, receiving public assistance, experiencing unemployment, and having children who they themselves drop out of high school (Bridgeland, et al., 2006; Nunez, 1995). A report by the Gates Foundation calls this tragic cycle a national epidemic (Bridgeland, et al. 2006). In addition to the personal costs associated with homelessness and dropping out of school, there is a substantial cost to communities and the nation as a whole from the loss of productive workers and the high costs associated with increased incarceration rates and funding for health, social (Bridgeland, et al., 2006), and shelter services (Culhane, 2008).

The research, agency reports, and media coverage of homeless youth document a consistent call for attention to the magnitude of this matter (America's Youngest Outcasts, 2009; Finzel, 2013). Yet, despite the seriousness and long-standing acknowledgement of the problem, there is little research on effective interventions to increase the educational outcomes of the homeless and unaccompanied youth populations. Further there is little research on cost-effective, policy-relevant initiatives and interventions to address the financial and basic needs of homeless youth, particularly of unaccompanied youth, in order to help them pursue education. De Costa Nunez, President of Homes for the Homeless and a professor at Colombia University, states that "unless education is emphasized, children may age to adulthood without the critical skills, values, and self-esteem typically instilled in a traditional family structure" (Nunez, 1995, pg. 1). Education is the foundation to better

family planning practices, providing a more stable family structure, and escaping the cycle of poverty (Nunez, 1995).

### **Purpose and Rationale**

Although the bleak educational outcomes of homeless youth are well documented throughout research literature, there are no intervention studies to improve these outcomes. Through a thorough search of PsycINFO, ERIC, Dissertations & Theses (ProQuest), and Social Service Abstracts using the keywords *homeless, homeless youth, unaccompanied youth, intervention, incentive, education, and educational outcomes*, I was unable to locate any articles in which K-12 homeless students were the subject of a research study targeting interventions for educational outcomes. Although a few incentive and intervention studies exist for the educational outcomes of at-risk populations such as low-income students and teenage parents, homeless students are completely absent from this area of research. Further, studies exist to identify the use of homeless services and programs by homeless youth (Slavin, 2009), yet research is absent to identify which, if any, educational interventions would be utilized or pursued by homeless youth.

The purpose of this study is to investigate the demographic characteristics and experiences of unaccompanied, homeless youth who pursue one type of educational incentive: a financial stipend paid directly to the student for educational outcomes, as measured by satisfactory grades. By definition unaccompanied youth do not reside with their parents or guardians, so money to have their basic needs met is likely a barrier to educational attainment. As homeless youth are a heterogeneous group, this study aims to understand the demographic and life experience characteristics of these youth who pursue financial stipends that are offered for educational outcomes.

## Research Questions

This study aims to evaluate the relationship between the homeless, unaccompanied students' demographic characteristics and experiences and obtaining a financial incentive for educational outcomes. The following research questions were used to guide the analysis:

1. Is there a significant difference between the unaccompanied youths' demographic variables of (a) gender, (b) age, (c) grade (d) race, (e) ethnicity and the percentage of financial stipends attained?
2. Is there a significant difference between the unaccompanied youths' demographic variables of (a) gender, (b) age, (c) grade (d) race, (e) ethnicity and the length of program enrollment?
3. Is there a significant difference between the unaccompanied youths' demographic variables of (a) gender, (b) age, (c) grade (d) race, (e) ethnicity and the total amount of financial stipends students earn?
4. Is there a significant difference between the unaccompanied youths' experiences of (a) current living environments, (b) teenage parenting, (c) primary reasons for homelessness (d) program status- new or returning student and the percentage of financial stipends attained?
5. Is there a significant difference between the unaccompanied youths' experiences of (a) current living environments, (b) teenage parenting, (c) primary reasons for homelessness (d) program status- new or returning student and the length of program enrollment?
6. Is there a significant difference between the unaccompanied youths' experiences of (a) current living environments, (b) teenage parenting, (c) primary reasons for homelessness (d) program status- new or returning student and the total amount of financial stipends students earn?

7. Is there a relationship between the unaccompanied, homeless youths' demographic and experience variables and the percent of stipends earned? Which of the statistically significant predictors has the largest influence on the percent of stipends earned?

8. Is there a relationship between the unaccompanied, homeless youths' demographic and experience variables and the length of program enrollment? Which of the statistically significant predictors has the largest influence on the length of program enrollment?

The answers to these research questions will provide an overview of the demographics and characteristic variables of the homeless, unaccompanied youth who pursued and obtained a financial incentive for educational outcomes. These findings can provide a basis for conceptualizing future research questions to better align services to increase the educational outcomes for the homeless youth population.

## **CHAPTER 2: LITERATURE REVIEW**

### **Conceptual Definitions of Homeless Youth**

Youth homelessness has a range of definitions which vary, overlap, and sometimes contradict (Moore, 2005). Federal definitions are often provided by the authorizing legislation and associated regulations. The various definitions clarify who qualifies for federal funding (Perl, 2013). Scholarly literature, research, and service programs use various terms to classify, exclude, or include certain populations for services or studies. The conceptual definitions are important to clarify before a literature review in order to better understand variations across study samples and outcomes.

**Department of Education’s Definition of Homelessness.** The U.S. Department of Education and U.S. Department of Health and Human Services use a definition of homelessness similar to the one provided by the McKinney-Vento Act (The National Center on Family Homelessness, 2014). Subtitle B of title VII of the McKinney-Vento Homeless Assistance Act (42 U.S.C. 11431 et seq.) defines homeless children and youth as follows.

The term homeless children and youths —

(A) means individuals who lack a fixed, regular, and adequate nighttime residence

(within the meaning of section 103(a)(1)); and

(B) includes —

(i) children and youths who are sharing the housing of other persons due to loss of

housing, economic hardship, or a similar reason; are living in motels, hotels, trailer parks,

or camping grounds due to the lack of alternative adequate accommodations; are living in

emergency or transitional shelters; are abandoned in hospitals; or are awaiting foster care placement;

(ii) children and youths who have a primary nighttime residence that is a public or private place not designed for or ordinarily used as a regular sleeping accommodation for human beings (within the meaning of section 103(a)(2)(C));

(iii) children and youths who are living in cars, parks, public spaces, abandoned buildings, substandard housing, bus or train stations, or similar settings; and

(iv) migratory children (as such term is defined in section 1309 of the Elementary and Secondary Education Act of 1965) who qualify as homeless for the purposes of this subtitle because the children are living in circumstances described in clauses (i) through (iii).

**Housing and Urban Development's (HUD) Definition of Homelessness.** The HUD definition, which is narrower than the definition above, primarily focuses on homeless people (individuals, families, or unaccompanied youth) who are living in places not meant for human habitation, losing their primary nighttime residence, unstably housed, or fleeing or attempting to flee domestic violence. Although the HUD homeless definition was expanded in 2009 by the Homeless Emergency Assistance and Rapid Transition to Housing (HEARTH) Act (National Alliance to End Homelessness, 2012), the HUD definition of homeless still excludes families and children living in “doubled-up” situations or living in motels or hotels (National Alliance to End Homelessness, 2012).

**Double ups/ Doubled Up.** The National Alliance to End Homelessness defines doubling up as people forced to live with family or friends due to economic need and who earn less than 125% of the federal poverty line (National Alliance to End Homelessness, 2011). There is a

heated debate regarding whether people living in doubled-up environments should be considered homeless. The inclusion of doubled up individuals as homeless is strongly contested due to limited funding- the more people who are included in the definition, the more funds that need to be allocated to the cause (DeTota, 2012). Proponents of including doubled-up living arrangements in the definition of homelessness emphasize how doubled-up living situations are often overcrowded, unstable, and are used as an alternative to staying in shelters (Samuels, Shinn, & Buckner, 2010). People living in these situations are dependent of the individuals or families who provide the housing and can be asked to leave at any time. Therefore they are comparable to shelter residents (National Association for the Education of Homeless Children, 2013). Opponents of inclusion emphasize that allowing people living doubled-up to gain access to funds designated for homelessness divert resources away from those individuals forced to live on the streets or in shelters who have no friends or family members to ask for support (One Family Inc., 2011).

**Unaccompanied Youth.** The U.S. Department of Housing and Urban Development (2014) defines unaccompanied children and unaccompanied youth separately. Unaccompanied children are under the age of 18 and are not part of a family or in a multi-child household during the occurrence of homelessness. Unaccompanied youth are between the ages of 18-24 and are not part of a family during the experience of homelessness (The U.S. Department of Housing and Urban Development, 2014). The McKinney-Vento Act defines unaccompanied youth as youth who are “not in the physical custody of a parent or guardian” [42 U.S.C. § 11434a(6)].

**Runaway Youth.** The U.S. Department of Health and Human Services defines a runaway as a person under the age of 18 who leaves the place of legal residence for at least one night without the consent of the parents, guardians, or custodial authorities (Bass, 1995).

**Throwaway Youth.** A sub-population of runaway and homeless youth is identified as “thrownaway”, “throwaway”, (Fernandes-Alcantara, 2013), “pushouts”, “castaways”, or “forsaken” youth (Ringwald, Greene, & Robertson, 1998). This group is typically defined by their experiences more than as an entirely separate category (Ringwald, et al.,1998). These youth have been abandoned by their parents, forced to leave their homes, or refused permission to return home (Hammer, Finkelhor, & Sedlak, 2002; Ringwald, Green, & Robertson, 1998). In the most recent federal study conducted by the U.S. Department of Justice- the *National Incidence Study of Missing, Abducted, Runaway, and Thrownaway Children-2* (NISMART-2)- included throwaway youth in its estimates (Fernandes-Alcantara, 2013). Ringwald et al. (1998) describe this subgroup as needing special attention because they were told to leave or were left by their caregivers or parents and are at a higher risk of suicide and drug use. The NISMART-2 de-emphasizes distinctions of thrownaway youth within the homeless youth population because their research indicates that youth tend to emphasize the throwaway aspects while their caretakers tend to emphasize the runaway aspects of the youth, therefore the throwaway aspect is more of a perception held by the youth (Fernandes-Alcantara, 2013).

**Street Youth.** Street youth is a term used to refer to youth who reside in high-risk, non-traditional locations, such as under bridges or in abandoned buildings (Moore, 2005). The U.S. Department of Health and Human Services include the term “street youth” because these youth not only lack shelter, but are at an increased risk of sexual abuse, sexual exploitation, prostitution, and drug abuse (Fernandes-Alcantara, 2013; [§42 U.S.C. § 5732a]).

**Shelter Youth.** Shelter youth describe homeless youth who typically seek housing at runaway shelters (Slesnick, Dashora, Letcher, Erdem, & Serovich, 2009). These youth typically

are younger than street living youth and have fewer experiences of homelessness (Robertson & Toro, 1999).

**Systems Youth/ Foster Care.** Systems youth are those who have been involved with government systems such as foster care and juvenile justice, due to abuse, neglect, family homelessness, or incarceration (Moore, 2005). In a literature review by the National Center of Homeless Education, Moore (2005) found that these youth become homeless by running away from an out-of-home placement or from an unsuccessful transition out of placement to stable living situations.

**Emancipated Youth.** Emancipation is the legal binding contract for a minor (under the age of 18) to become an independent adult, no longer under the authorization of the parents. This means the youth has legal rights of an adult, with a few exceptions such as voting and purchasing cigarettes or alcohol. After the youth is emancipated the parent is no longer responsible to provide money, housing, or food. There is no standard decision process to becoming an emancipated youth but this process has to be granted by a judge. The typical reason for emancipation is an unhealthy home environment in which the parent is not able to or chooses not to support the youth. The youth has to be able to support him/herself including being able to pay for housing.

### **Federal Policy**

**Runaway Youth Act of 1974.** In the mid 1970's Congress passed landmark legislation, the Runaway Youth Act (RYA), Title III of the Juvenile Justice and Delinquency Prevention (JJDP) Act of 1974 (Runaway Youth Act of 1974). This act established the Office of Juvenile Justice and Delinquency Prevention to support local and state efforts to prevent delinquency, improve the juvenile justice system, and assist runaways through specifically designed services

(Fernandes-Alcantara, 2013; Runaway Youth Act of 1974). This act decriminalized runaway youth, enacting a core protection that runaways or curfew violators would not be detained in juvenile detention facilities or adult jails, and authorized local funding for programs to provide outreach, shelter, education, and counseling for runaway youth (Fernandes-Alcantara, 2013; The National Network for Youth, 2013).

Following public hearings the Senate Judiciary Committee's Subcommittee to Investigate Juvenile Delinquency, concluded that homeless youth often live in dangerous, overcrowded conditions. The act was then expanded to become the Runaway and Homeless Youth Act (RHYA) in 1977 (National Low Income Housing Coalition, 2014). The RHYA has expanded through reauthorization approximately every five years, most recently by the Reconnecting Homeless Youth Act (P.L. 110-378) in 2008 (Fernandes-Alcantara, 2013). Although the act expired in 2013, Congress has continued to appropriate funding for the act. For the 2015 fiscal year, approximately \$114 million was approved to sponsor the three grant programs that serve runaway and youth populations: The Basic Center Program, Transitional Living Program, and the Street Outreach Program (United States Interagency Council on Homelessness, 2015). These three programs are intended to reach out to runaway, homeless, and human trafficked youth to build relationships and provide services including housing, basic life necessities, family intervention and reunification, job preparation, counseling, education, health care, and longer-term housing options including Maternity Group Homes (The National Network for a Youth, 2015).

**Urgent Relief for the Homeless Act of 1987.** Through the early 1980's programs to tackle problems associated with all homelessness people were designed, funded, and administered at the local level (Nicholas, 2006). During the beginning of the Reagan

Administration, states and local jurisdictions were viewed as the best entities to address these problems, not the federal government (Nicholas, 2006). In 1983, the first federal task force to help homeless individuals, regardless of age, was created to inform local governments on ways to acquire surplus federal property but did not address homelessness through policy action (Nicholas, 2006). The surplus of federal property was available for the local government to use to provide shelter(s) or services to the homeless population.

After receiving pressure from advocates across the country to deal with homelessness as a national matter, Congress passed sections of the Homeless Persons' Survival Act in 1986 (Nicholas, 2006). This act included emergency relief, prevention efforts, and increased low income housing for the homeless (S. 2608 Homeless Persons' Survival Act of 1986). Part of the law passed was the Homeless Eligibility Clarification Act of 1986 which removed permanent address stipulations for many federal programs: Aid to Families with Dependent Children (AFDC), Supplemental Security Income (SSI) Benefits, Medicaid, and Veterans Pension (Nicholas, 2006; PL 99-570).

Later in 1986, the Urgent Relief for the Homeless Act legislation was introduced to Congress. This legislation contained parts of the Homeless Person's Survival Act. This Act introduced the first major piece of federal legislation on homelessness (Ending Community Homelessness Coalition, 2000) and contained emergency relief provisions for transitional housing, shelter, food, and mobile health care (Nicholas, 2006). Following an intensive advocacy campaign, Congress passed the legislation in 1987. The act was renamed after the death of its chief Republican sponsor, Representative Stewart B. McKinney, to the Stewart B. McKinney Homeless Assistance Act (Nicholas, 2006). President Reagan signed this act into law on July 22, 1987 (P.L 100-77). In 2000, President Clinton renamed the legislation after the death of a

leading supporter of the act, Representative Bruce Vento. The legislation is currently titled the McKinney-Vento Homeless Assistance Act (Nicholas, 2006).

**McKinney-Vento Homeless Assistance Act.** The original act consisted of 15 programs providing a range of resources to various federal departments and dispersed money at the state and local levels. The act contains nine titles, with Title VII authorizing programs addressing the education of homeless individuals (Nicholas, 2006). Two of the four programs within Title VII, the Adult Education for the Homeless Program and the Education for Homeless Children and Youth Program, are administered by the Department of Education.

Since 1987, the McKinney-Vento Act has been amended several times. The amendments have expanded and strengthened the provisions of the original legislation. The amendments most significant to the education of homeless youth were made in 1990, 1994, and 2002. The amendments in 1990 further clarified the obligations of states and local agencies to ensure homeless children have access to public education, required the removal of enrollment barriers, and required states to fund grants to ensure local educational agencies (LEAs) are able to implement the law. The Education of Homeless Children and Youth amendments in 1994 authorized LEAs increased flexibility in organizing and utilizing funds, gave parents of homeless children greater input over their child's school placement, clarified the rights of homeless preschoolers to a free and appropriate public education, and required educational authorities to collaborate with housing agencies (Nicholas, 2006).

In 1998, the McKinney- Vento Act faced dramatic restructuring and some of the programs were repealed, including The Adult Education for the Homeless program (Nicholas, 2006; P.L. 105-220, 1998). The act was most recently reauthorized under the No Child Left Behind (NCLB) Act of 2001 (NCLB is a reauthorization of the Elementary and Secondary

Education Act-ESEA) signed by President George W. Bush on January 8, 2002 (U.S. Department of Education, 2004). In 2002, the McKinney-Vento Act ensured further rights to homeless children and youth including a provision that homeless students are able to stay in their school of origin and if students move to a new school, they are granted immediate enrollment (Nicholas, 2006; P.L. 100-628, 115 Stat. 1990). In addition, this amendment required local liaisons for homeless children and youths in all LEAs. These liaisons are designated to help ensure homeless children are identified, enrolled and informed, and are receiving educational services (U.S. Department of Education, 2001). Additionally, the local liaisons are intended to advocate for homeless children and act as facilitators among school personnel, parents and guardians, and unaccompanied youth regarding the rights guaranteed under the Mc-Kinney Vento Act. These rights include transportation to and from school, receipt of eligible educational services (Head Start, tutoring, etc.), assistance with obtaining immunization or medical records, referrals to health, dental, mental health, and other appropriate services, in addition to other stipulations to help this population succeed in school (U. S. Department of Education, 2004).

The amendments to the McKinney Act have strengthened the legislation, reducing barriers to enrollment and reducing barriers to succeeding once enrolled in school (Moore, 2005). The McKinney Vento Act authorizes \$170 million for state and local activities, which is able to serve about 22% of all the Local Educational Agencies (LEAs) able to receive sub grants for services to homeless students. Of this amount, the appropriated total for the Education for Homeless Children and Youth (EHCY) Program in the 2015 fiscal year is \$65 million dollars (United States Interagency Council on Homelessness, 2015).

## **Population Estimates**

**Housing and Urban Development Estimates.** The U.S. Department of Housing and Urban Development (HUD) uses a standard measure to estimate homelessness called Point-In-Time counts. The HUD uses Point-In-Time measurements to calculate the number of individuals who are homeless. Point-in-Time counts are unduplicated one-night estimates of both unsheltered and sheltered (although not living in doubled up quarters) homeless populations. These one-night counts occur annually during the last week in January by Continuums of Care (CoC) workers nationwide. Continuums of Care workers work within some sector of the network for homeless assistance systems, organizations, and resources. The HUD estimates are based upon CoC workers who volunteer to count people residing in unsheltered homeless locations in the CoC's geographical area (by walking around, finding, and surveying these individuals) and count those located in shelters: emergency shelters, safe havens, or transitional housing projects (U.S. Department of Housing and Urban Development, 2014b). The Annual Point in Time Estimates from HUD does not coincide with estimates provided by Department of Education (ED) nor include any information regarding race, ethnicity, or gender for the homeless children and youth (The U.S. Department of Housing and Urban Development, 2014).

According to the 2014 Annual Homeless Assessment Report to Congress (2014), on a single night in January 2014 there were 578,424 homeless people in the United States. Thirty percent of these individuals were living in unsheltered conditions- places not meant for human habitation such as the streets, abandoned buildings, vehicles, or parks (The U.S. Department of Housing and Urban Development, 2014). There were 216,261 people in homeless families, of which 24,358 people in families were living in unsheltered conditions (The U.S. Department of Housing and Urban Development, 2014).

Approximately one of every three (34%) homeless individuals counted was under the age of 24 and 70% of these youth were under the age of 18. Over 45,000 counted individuals were unaccompanied, homeless youth and children. Nearly 60% (3,720) of unaccompanied children (under 18 years old) and just less than 50% (17,750) of unaccompanied youth (between the ages of 18 and 24) were residing in unsheltered locations (The U.S. Department of Housing and Urban Development, 2014).

HUD reports a slight increase (2.5%) in the number of sheltered homeless families since 2007, and they also report a drastic decrease in the number of unsheltered homeless families (31.7%). However, there are several flaws with this measurement and reporting. The first flaw is the several methodological changes of Point in Time (PIT) counts and the changes in PIT category labels since 2007 to 2014. Changing the methodology and categories of counts introduces biases when comparing the number of homeless individuals throughout the years. Another major flaw with these reports is the lack of information regarding how many CoC volunteers are out counting unsheltered individuals and families during each sample year. As a reader it is unclear if there was a change in the number of people collecting the data.

Additionally, the HUD reports do not indicate where the individuals were surveyed. On the coldest month of the year, it is possible more unsheltered individuals are residing in abandoned buildings, areas that would be at higher risk for CoC workers to survey, as compared to a more accessible unsheltered area such as sidewalks. Further, the data collection time on the selected day is between sunset and sunrise and only for a brief selected number of hours during this time (e.g. 4am to 7am) to decrease the risk of double counting. Yet after dark is typically when it is likely unsafe for an outside volunteer to be roaming unknown areas and a time when homeless individuals are likely to be sleeping and unwilling to participate in a survey. These

methodological processes and the non-inclusive snapshot of homeless individuals, due to locations surveyed and survey time and duration, attribute to the HUD estimates being quite lower than the estimates from the Education Department.

**Department of Education Estimates.** The Department of Education (ED) utilizes more than 30 variables from over a dozen established data sets to calculate the number of homeless children in the United States. The Department reports a steady increase of over 100% of homeless student enrolled in school since 2003-2004 (Americas Youngest Outcasts, 2014). The McKinney-Vento School Liaison count found more than 1.2 million homeless children enrolled in the nation's public schools in the 2012-2013 school year, an increase of over 15% from 2010-2011 (National Center for Homeless Education, 2014). Based on the count of homeless children in the U.S. public schools and the younger non-school aged homeless children who are reported on the 2013 U.S. Census data, it is estimated 2,483,539 children experienced homeless in the U.S in 2013 (Americas Youngest Outcasts, 2014). This number represents one in every 30 children, an historic national high.

One reason for the stark differences in homeless children estimates between HUD and ED is due to the ED definition of homelessness which includes individuals in "doubled-up" living situations. Doubled up living conditions account for approximately 75% of homeless children nationwide (United States Interagency Council on Homelessness -USICH, 2015). Additionally, the increase of homeless students that ED reports are enrolled in school may be attributed to the increase in identification and enrollment of homeless students, a goal set forth by the McKinney-Vento Act.

## **Demographics of Homeless Youth**

The precise demographic characteristics of homeless, runaway, and unaccompanied youth is difficult to determine in part due to their residential mobility and locations of inhabitation. Some youth reside in non-traditionally surveyed locations, such as those living in cars, in abandoned buildings (Ringwalt, et al., 1998), or those who are couch surfing (Fernandes-Alcantara, 2013). Many youth avoid shelters, police, and service providers who would be better able to assist in collecting data (Ringwalt, et al., 1998), often due to mistrust in adults (Moore, 2005). Additionally there is a barrier in research ethics for researchers who wish to collect these data because minor youth are required to provide parental or guardian consent to participate in research (Moore, 1995). A critique of research of the homeless youth population is that studies are based predominately on small sample sizes, measured within a single location, and have an overreliance on survey data (Altena, Brilleslijper-Kater, Wolf, 2010; Moore, 2005). As a result, estimates of the demographic characteristics of homeless students fluctuate depending on the location and source of sample as well as the methodology used and construct definition (Moore, 2005).

Research indicates that there are gender, racial, age, and sexual identity differences among youth who utilize services, with the most nationally conclusive report of homeless youth demographics provided by the Congressional Research Services Report for Congress (Fernandes-Alcantara, 2013). According to the FY2012 National Extranet Optimized Runaway and Homeless Youth Management Information System (NEO- RHYMIS) report, 36,861 youth utilized Basic Center Program services (funded by the Reconnecting Homeless Youth Act), 51.9% were female and 47.8% were male. The program serves students 10 through 19 years old with modal age of students served between the ages of 15 and 16 (40.7%), followed by youth 13

to 14 (27.4%), then youth 17 to 18 years old (19.7%). White youth (52.3%) made up the majority of the population served, yet Black (32.2%) and American Indian or Alaska Native youth (2.4%) were overrepresented compared to their proportions in the general population. Approximately 8.4% did not report their race and nearly 8% of youth did not report ethnicity. Almost one-fifth of the population served reported being Hispanic (19.8%), nearly representative to the general population. Additionally, almost one in ten youth (9.8%) identified as lesbian, gay, bisexual, or questioning. However, research by The National Coalition for the Homeless reports much higher rates of homeless students, approximately 20%, identifying as LGBT (NCFH, 2009).

### **Reasons For Youth Homelessness**

According to a study by the National Center for Children in Poverty (2009), the top reasons for children and youth homelessness include lack of affordable housing, economic insecurity, violence at home, behavioral health, lack of positive support, and involvement in the children welfare system (Aratani, 2009). Many homeless youth come from a history of dysfunctional family experiences (Robertson & Toro, 1999; Thompson, et al., 2010) and many homeless youth have suffered through witnessing a parent's alcohol abuse, substance abuse, domestic abuse, and emotional abuse (Mawhinney-Rhoads, 2006). Parental or step-parent drug and alcohol abuse, sexual, physical, or psychological abuse, neglect, and/or family violence are the primary reasons cited for youth runaways (Julianelle, 2008; Ferguson, 2009). One report of 302 homeless youth (12-20 years-old) found family conflict or breakdown evident in the entire sample of homeless youth (Mallett, Rosenthal, & Keys, 2005). Family conflict is often cited as a predominant reason for of homeless among LGBT youth and pregnant teens (Vissing, 2015; Williams Institute, 2012).

Abusive family relationships are harmful to mental health and future behaviors (Haber & Toro, 2004), and increase the risk of further abuse (Slesnick, et al, 2009). Government and private studies indicate that prior to the youth leaving home, 38-68% had experienced verbal or emotional abuse, 46-82% had experienced physical abuse, 17-39% had experienced sexual abuse (or forced into unwanted sexual activities with a family or household member) (Edidin, Ganim, Hunter, & Karnik, 2012; Ferguson, 2009; Wong, Salomon, Elliott, Tallarita, & Reed, 2015). One study indicated that prior to leaving home, over 70% of the youth had experienced at least three different forms of abuse and just fewer than 20% had experienced more than five kinds of abuse (Ferguson, 2009). A survey in California indicated more than half of unaccompanied youth felt being homeless was safer or as safe as living at home (State Interagency Council to End Homeless and Interagency Council on Hunger and Homelessness, 2006). Child homelessness increases the chances of returning to the streets in adulthood (Kelly, 2007) and dropping out of school increases the likelihood the youth will perpetuate the cycle of living in poverty, receiving public assistance, experiencing unemployment, and having children who they themselves drop out of high school (Nunez, 1995). Research in the area of youth homeless is pertinent in order to understand possible intervention strategies to help homeless youth succeed and break the cycle of homelessness.

### **Experiences While Homeless**

When the National Coalition for the Homeless board was asked to rank the most pressing problems for homeless children, the top four significant experiences ranked highest by the board were finding a home (90.9%), social service access (72.7%), being an unaccompanied, independent or emancipated youth (72.7%), and sexual assault (66.7%)

(Wong, et al., 2015). Students who are unable to find housing are often forced into unsafe living situations. Several researchers have indicated homeless youth become involved in prostitution, heterosexual or homosexual survival sex, dealing drugs, or committing crimes in exchange for food or shelter (Coward, 2008; Edidin, et al., 2012; Moore, 2005; Wong, et al, 2015). Homeless youth have also been noted to “make their sexual debut 2-3 years earlier- at 12 to 13 years-old” (Edidin, et al., 2012, p. 360). These youth are also extremely vulnerable to exploitation by others; approximately 30% of shelter youth and 70% of street youth are victims of sexual exploitation (Green, et al., 1999). In addition to sexual abuse and vulnerability of exploitation by others, homeless youth are a much higher risk of teen pregnancy, sexually transmitted diseases, HIV infection, physical abuse, illicit drug use, substance dependence, depression, suicidal ideation/attempt, psychiatric disorders, and physical health problems (Coward, 2007; Edidin, et al., 2012; Slesnick, Kang, Bonomi, 2008; Slesnick & Garre, 2008). Children and teens who do not have their basic needs met and who need to search out funds to survive are the most vulnerable population in the United States. As homeless youth distance themselves from school, they spend more time in vulnerable, at-risk environments.

### **Academic Achievement**

Despite the fact that the Mc-Kinney Vento Act has made great strides to reduce barriers for the enrollment, attendance, and success of homeless students, they continue to fall far behind the general population academically (Vissing, 2000). Research indicates that there is no difference in intelligence between homeless and housed children (Buckner, Bassuk & Weinrub 2001; Rafferty et al., 2004; Rubin, et al., 1996), yet homeless students clearly underperform on educational assessments, on performance indicators (e.g. GPA), and have lower attendance rates

(Miller, 2011). The National Center for Homeless Education (2014) reported for the 2012-2013 school year, of the 317,081 homeless high school aged students enrolled with Local Educational Agencies (LEAs), only 19% of this population took state required mathematics and reading assessments and only 17% took the science assessment. Of the less than one-fifth of homeless students who took the assessment, approximately half did not meet or exceed proficiency rates in each of the three subjects (49% in reading, 53% in math, and 53% in science), (National Center for Homeless Education, Sept., 2014).

A dissertation by Tanner-McBrien (2010) demonstrated that there is a significant difference in the Grade Point Average (GPA) of students who are homeless ( $M=1.94$ ), in foster care ( $M=1.96$ ), and housed ( $2.52$ ). Post hoc tests showed that the GPA of homeless students are significantly lower than housed students but are not significantly different from children in foster care. Research shows that homeless youth and children in foster care often have similar life experiences (poverty and negative family occurrences) and educational outcomes. Children awaiting foster placement are considered homeless under the McKinney- Vento act; however after the student is placed in foster care, the child is no longer eligible for McKinney-Vento support. One study found that almost half of the foster children's birth parents had experienced homelessness (Zlotnick, Kronstadt, & Klee, 1998) and many other foster youth will experience homeless once the student has aged out of the foster care system (Aratani, 2009).

Determining if the educational outcomes of homeless youth are attributed to mobility, poverty, or experiences beyond these two factors is debated. Ziesemer, Marxoux, and Marwell (1994) found that homeless students and the housed/low income/mobile students (grouped together in this research design) achieved at significantly lower levels than did the general population, yet there were little differences between the academic achievement of homeless and

housed/low income/ mobile students. In a longitudinal study across four primary grade cohorts, Obradović et al., (2009) found that housed/low income children (on free and reduced price lunch) had lower academic achievement than advantaged students, while the homeless students and housed/highly mobile students performed significantly behind even the housed/low-income children on the reading and math assessments. Within all four grade cohorts, approximately 40% of the homeless students and highly mobile students achieved reading and math scores greater than one standard deviation below the national mean (Obradović et al., 2009). Additionally, all three disadvantaged groups- homeless, highly mobile, and housed low-income students, showed slower academic growth than the advantaged group (Cutuli, et al., 2013; Obradović et al., 2009).

In a meta-analysis by Mehana and Reynolds (2004) of school mobility and student achievement, the composite effect sizes between mobility and school achievement all were negative, except in the case of military personnel dependents (Mehana & Reynolds, 2004). The more mobile the student, the poorer the student performed in reading ( $ES=-.25$ ) and math ( $ES=-.22$ ) (Mehana & Reynolds, 2004). Mehana and Reynolds (2004) reported that this finding is equivalent to a two to four month performance disadvantage in achievement.

Separating the effects of housing and low-SES for homeless students is unfeasible as the students who are homeless are from low-income families and are on their own with little to no income (Buckner, 2008; 2012). It is challenging to analyze the impact of homelessness over the broader effects of poverty and mobility. Buckner (2012) suggests that if researchers took into account the “conditional variables”, such as the number or frequency of “toxic events”, instead of a ‘yes-no’ on ‘are you homeless’ variable, the research may be better able to lead to targeted, specific interventions.

## **Interventions for Academic Achievement**

Although there are several intervention studies targeting homeless youths' mental and medical health, sexual practices and sexual education, and behavioral practices, research on interventions targeted to improve homeless students' educational outcomes is entirely missing from research studies. The predominant action of improving educational outcomes for homeless youth surrounds school reform and improved legislation, however these efforts are not scientifically supported to improve educational attainment before they are implemented.

Although the McKinney-Vento Act has reduced barriers and improved the attendance of homeless youth, research on interventions to improve the academic achievement of homeless youth, specifically targeting homeless or unaccompanied youth as the focus of the study, is entirely lacking. The outcomes of targeted education interventions studies from other types of at-risk students may lead to insights on possible effective interventions for homeless youth, assuming that homeless children and youth share life-challenges similar to other at-risk children and youth.

Fryer (2011) conducted a review of three school based field experiments (randomized trials) which included 203 urban schools and 27,000 students across three major US cities (Dallas, New York, and Chicago) during the 2007-2008 and 2008-2009 school years in which monetary payments were given to directly to students (through direct deposit or paid by check) for school performance. In each of these studies, the schools served predominately minority students and students on the free and reduced lunch programs. The financial incentives offered to students had statistically insignificant effects on states exam scores across each city and pooled means. State exams, however, are distal to the financial incentive intervention, and a more proximate measure, such as course grades of performance on classroom exams, might have been

more sensitive to the treatment. The financial incentive schemes demonstrated small to modest effect sizes. The author concludes that using a cost benefit framework identical to Krueger (2003), an effect much smaller than the ones found would have a 5% return on investment, therefore, the low costs of incentive interventions could provide a positive return on the investments overall (Fryer, 2011). However, given the large sample size and statistical power of this study, the absence of a statistically significant impact of the financial incentives on outcome render Fryer's economic analysis moot.

A longitudinal study on a financial incentive program for parenting and pregnant teens on welfare included 4,151 teens randomly assigned to a treatment or control group (Slavin, 2009). The students were given \$62 per month for regular school attendance (no more than 2 absences) which was added to their welfare check. If the students did not attend school regularly, or have an acceptable excuse, the welfare check was reduced by \$62. The bonus vs penalty incentives was representative of 45% of the welfare check. The results indicated marginally significant differences for participants through 11<sup>th</sup> grade, but no significant differences in high school completion (Slavin, 2009). However, the incentive was based upon student attendance, not grades so the outcome of high school completion does not directly align with the research design. Further, behavioral research indicates a positive reward structure is a more effective influence than punishment (reduction of pay) system, so it is unclear how and if the punishment system may have impacted the outcome variables (Heffner, 2015).

The services that have the greatest impact on educational outcomes are demonstrated in studies that combined services. One program serving parenting and teen parents carried out a randomized evaluation of teens divided into four groups: financial incentive group, case management, combined group, and a no treatment group (Slavin, 2009). For the financial

incentive group, students were offered incentives of \$100 for satisfactory school progress and \$500 upon graduation (Slavin, 2009). However, if the student was missing a report card or demonstrated unsatisfactory progress, a \$100 sanction could be deducted from the family's welfare payment. The analyses showed that the combination group was always significantly higher than the control groups and the financial incentive alone group were usually significantly higher than the control (Slavin, 2009). Allan and Fryer (2011) recommend incentives as a wise investment in the portfolio of reforms, but not as a singular remedy.

A review of educational incentives in over 250 urban schools (students ranging in grades from 2<sup>nd</sup>-9<sup>th</sup>) in five cities indicated an effect on student input incentives but not on student output incentives (Allan & Fryer, 2011). Student input incentives include reading books, submitting assignments, and school determined inputs. Student output incentives include test results and report card grades. The results indicated incentives may be a cost-effective strategy to raise student achievement in the lowest-performing schools and with the poorest minority students, depending on the research design, implementation, and purpose of the study. In Allan and Fryer's (2011) review, the authors dedicated a chapter solely to the components of interventions that include education incentives; these recommendations are provided to enhance financial incentive research in education.

Rodriguez-Planas (2011) reviewed 20 studies on the effectiveness of mentoring, education services, and financial awards offered to disadvantaged youth. Findings indicated that the heterogeneity of the samples and small sample sizes of the studies presented challenges to identify for whom the program works and for whom it does not. The lack of rigorous research in the area of educational interventions limits the ability to apply effective strategies to students who need it most (Altena, et al., 2010; Rodriguez-Planas, 2011). Further, the lack of research on

educational interventions in the homeless youth sector needs to be addressed in order to better inform policy and service initiatives.

### **Services Offered**

The current services offered to homeless youth include drop-in centers, school liaisons, street-outreach, basic services (e.g. food, clothing, bus passes), emergency shelters, transitional living programs, case management, counseling, medical care (including STI/HIV testing), independent living-skills training, and case management (including assistance with referrals). A commonly utilized service among homeless youth is drop-in centers. Drop-in centers provide a safe place where youth can form relationships with caring adults and offer a variety of basic essentials. The services of each drop-in center vary. Some of the resources include food, personal care items, school supplies, computers, clothing, laundry services, bus passes/tokens, housing referrals, job training, counseling, and independent living workshops. These locations are often seen as a gateway to other services (Rosa et al., 1999). A service utilization study by Rosa, et al (1999) in the Los Angeles area reported that out of the 296 youths in the sample, drop-in centers were the highest utilized service (78%). The second most utilized service in this study was shelters: 45% at youth shelters, 25% at adult shelters, and 7% at other shelters. In a study of three-Midwestern states, out of the 249 homeless youth, 27% of the youth said they were using a shelter daily (Kort-Butler & Tyler, 2012).

Multivariate analysis (Tyler, Akinyemi, Kort-Butler, 2012) has revealed variations among individuals who utilize these services. The analysis by Tyler et al. (2012) found significant differences in service usage by sex, age, sexual orientation, prior abuse experiences, and reason for homelessness. In terms of medical testing, females were almost three times more likely than males to be tested for sexually transmitted diseases than males and sexually abused

youth were over two times more likely to be tested for HIV than youth not sexually abused. Using street out-reach services and food programs increased with each unit increase in age. Youth who became homeless due to physical abuse or who were kicked out and had previously stayed in a group home were over two times more likely to use utilize shelter services as compared to students who had not had these experiences (Tyler, et al., 2012).

In regards to services by sexual orientation, the multivariate analysis study (Tyler, et al., 2012) indicated LGBT youth utilize food programs, counseling, street outreach, and STI/HIV testing services at statistically significant higher rates compared to heterosexual youth. However, when other factors are controlled, usage of food programs was the only variable significant to sexual orientation. Findings from the LGBT Homeless Youth Provider Survey indicate that approximately 40% of the homeless service providers do not have services that address the most commonly reported factor to contributing to their homelessness- family rejection based upon their sexual orientation or gender identity (Durso & Gates, 2006). These findings indicate that intervention strategies for homeless youth will likely vary by subgroups of the heterogeneous population, similar to the way service usages vary. Homeless youth typologies according to service utilization are being developed and researched in order to assist and offer tailored programs to the individuals who need them most. However, this research is underdeveloped in the realm of interventions and incentives for homeless to pursue, at minimum, a high school education.

### **Cost of Homelessness**

**Financial Cost to Individuals.** Because 75% of homeless students drop out of school (Cauce et al., 2000), the earning potential and employment aptitude of these youth are far below their housed peers. Sum, Khatiwada, and McLaughlin (2009) report that for out-of-school youth

between the ages of 16-24, 54% of students who drop out were unemployed, over double the unemployment rate of youth (22%) who obtained a high school diploma. The employment rates varied across gender (differences not reported), race-ethnicity (black dropout students were the least likely to be employed), and household income groups (as the income group increased so did the likelihood of the youth's employment) (Sum et al., 2009).

The average income of a high school dropout is also substantially lower than their graduated peers, even though both groups fare poorly in employment compared to workers who attend and complete post-secondary education. In the Sum et al. (2009) study, youth between the ages of 16-24 earn an average of \$8,358 annually whereas high school graduates, with no post-secondary schooling, earned an average of \$14,601 annually (Sum et al., 2009). Similarly, the Employment Policy Foundation (2002) reports high school dropouts earn, on average, \$9,245 per year. This is an over \$200,000 loss of income in a lifetime (40 years of working) compared to high school graduates.

Often, dropping out of high school and the loss of personal wages will impact the quality of life an individual will attain. Low-earning men and women are less likely to get married and more likely to get divorced compared to high-earning men and women (Coontz & Folbre, 2002). Teenage girls who live in high unemployment areas are five to seven times more likely to be an unwed mother and are more likely to have to cohabitate due to the economic stress of childcare (Coontz & Folbre, 2002). Further, South and colleagues identified a correlation between unemployment rates and the divorce rate; for every 1 percent unemployment rises approximately 10,000 extra divorces occur (South, Trent, & Shen, 2001). Considering the growing numbers of homeless youth and the growing number of Americans living in poverty, the decline of marriages, increase in divorces, and unwed-teenage parents will likely increase. Marital distress,

the stress of being a single parent, and the harshness of poverty can often lead to inconsistent parenting behavior and an overall decline in the quality of life.

Students who do not complete a high school education are far more likely to resort to a life of crime and be incarcerated (Sum et al., 2009). Because homeless youth are more likely than housed peer to drop out of school (Cauce et al., 2000) and spend more time in unstable living environments, homeless youth are rendered more vulnerable to activities and behaviors that lead to crime. A study by Kort-Butler and Tyler (2012) using interview data from 249 homeless youth from three Midwestern cities, reported that nearly 58% of participants had been incarcerated one to four times. Ironically, incarceration for some youth may be a means for shelter, food, and other services.

**Financial Cost to Society.** The cost associated with homeless individuals in the United States is high, creating an expensive burden for taxpayers and municipalities. These quite costly services for homeless individuals include emergency shelter expenses and medical treatment, hospitalization, incarceration, and police intervention (National Alliance to End Homelessness, 2014a). For the 2015 fiscal year, \$2.135 billion was approved for the McKinney-Vento Homeless Assistance Grants program, a \$30 million dollar increase from the previous year, which includes \$65 million for the McKinney-Vento Act's Education for Homeless Children and Youth programs and \$114 million for the Runaway and Homeless Youth Act program (National Alliance to End Homelessness, 2015).

The estimated annual cost of each homeless individual is approximately \$40,000 (Spellman, 2010). HUD estimates the monthly cost associated with homeless families as much higher (ranging between two to ten times more) than the cost associated of homeless individuals (Spellman, 2010). Additionally, women tend to stay in more extensive programs and have longer

program stays (Spellman, 2010). The average cost of service utilization for extended periods of homelessness cost more than temporary periods (Spellman, 2010). Each additional month in a homeless program, an individual accrues 35% more in costs and families accrue 22% more in costs (Spellman, 2010). The estimated average shelter cost per bed is \$13,000 annually, whereas the rental costs of market-rate housing is \$6,000-\$8,000 annually (Wong, et al., 2005). For a family, HUD reports emergency shelters costs are even higher, ranging between \$16,692-\$44,376 annually.

People experiencing homelessness tend to stay for longer per visit in hospitals and treatment facilities (Spellman, 2010). These longer visits are attributed to many factors, including poor general health status, lack of routine care, unintentional injuries, and a high rate of substance abuse and mental illness (Spellman, 2010). One Seattle study reported that the median cost of services for a chronically unhoused individual with severe alcohol problems costs \$4,066 per month per individual (Malone, 2009). Another study in New York reported the cost of homeless people suffering from severe mental illness in a permanent supportive housing environment also far exceeds the cost of the average homeless person, including fees from homeless services, hospitals, Medicaid, and corrections (Culhane, Metaux, & Hadley, 2002).

Often, homeless people spend time in jail due to breaking laws that specifically target the homeless population: loitering, sleeping in cars, and begging (National Alliance to End Homelessness, 2015). Other common reasons include trespassing, possession of a control substance, public intoxication, petty theft, and driving on a suspended license. Homeless individuals with criminal justice encounters accrue costs of approximately \$4,000 more than a homeless individual without these encounters (Spellman, 2010). Women have significantly less criminal justice costs (almost \$1,000 lower) as compared to men (Spellman, 2010). There is a

circular relationship between homelessness and criminal justice encounters; as HUD reports, persons released from jail have an increased risk of homeless and persons with multiple homeless program stays are at increased risk of incarceration (Spellman, 2010). Studies have shown that each youth who turns to a life of crime or drug-use after dropping out will have a lifetime cost of \$1.7 to \$2.3 million to the nation (Bridgeland et al.,2006).

## **CHAPTER 3:**

### **METHODS**

#### **Context of the Study**

This study is based on data from a community-based, non-profit drop-in center that aims to increase graduation rates for homeless students. For the purposes of this study, and to respect the privacy of the drop-in center, the agency will be referred to by a fictitious name called Servicing Youth. The provider is located in a large city in the Southwestern United States that has a population of about one million people, populating 128 middle and high school. Servicing Youth is located centrally in the city with multiple routes of public transportation from the various schools. In addition to services provided directly at Servicing Youth, liaisons from Servicing Youth provide services to each school within the schools districts in the area. The center provides a case manager, food, clothing, hygiene products, bus passes, gift certificates as approved, and occasionally financial assistance with utility bills to students who request these services. The uniqueness of Servicing Youth is that, according to its leadership, it is the only agency in the United States that provides financial incentives directly to the homeless student for educational outcomes. This agency provides a financial stipends to students for grades of C or above in each class and a stipend upon high school graduation. This study does not include the data for the student stipend for high school graduation.

The purpose of this service agency is to encourage positive school grades and help provide financial assistance intended for basic necessities (food, clothes, gas, laundry, school supplies, etc.). Students enrolled in this service are offered up to \$125 monthly for satisfactory school grades (grades “C” or above in their classes). This financial stipend opportunity is offered for the nine month school year. The potential \$125 monthly earning is divided by the

number of courses in which the student is enrolled. For example, if a student has five classes, each class has a potential earning value of \$25. If a student is enrolled in six classes, each class is valued at \$20.83.

### **Participants**

This agency serves only homeless, unaccompanied youth. Servicing Youth's definition of unaccompanied youth differs from that in the McKinney-Vento Act, as the agency includes students in foster care and group home children as unaccompanied youth. In order to qualify for participation in this organization, and stay qualified, the student must not be residing with parents or be legally adopted. This is verified through data provided by the state's child protective services (CPS) agency, McKinney-Vento liaisons, data collected by LEAs, and when possible, conversations with the students' parent(s). During the school years this data were collected, students residing with non-guardian relatives, such as grandparents, sisters, or aunts, may have qualified for services.

Participants for this study were enrolled as clients during the 2012-2013 academic year. As described in the Procedure section below, data were based on information provided by the student at the time of enrollment in the program and throughout the year by monthly reports from the students' classroom teachers. Initially, all of these data were collected by Servicing Youth for their own management and internal evaluation needs. To help the agency address their goal of increasing graduation rates of homeless youth, the center provided me with a de-identified data file for analysis.

There were 965 participants (377 male and 588 female), who were enrolled in grades 6-12 and who ranged in age from 12 to 21 ( $M= 16.71$ ,  $SD=1.63$ ). There were two 6<sup>th</sup> graders, 28 7<sup>th</sup> graders, and 39 8<sup>th</sup> graders who participated in the study. Data for these students were

merged for a variable of 6<sup>th</sup>-8<sup>th</sup> graders. Additionally there were 16 12 year olds, and 35 13 year olds whose data were merged together to represent a category of 13 and younger. The older students included one 21 year old student, 43 20 year old students, and 79 19 year old students that were merged together for a 19 and older category. Two students had missing age variable data- the only missing data in the study.

The data on race originally categorized seven races. Due to the low frequencies in the Asian (n=7), Pacific Islander (n=5), and Other (n=1), these categories were merged into one category of Other. The majority of youth were white (n=713, 73.9%), followed by Multiracial (n=95, 9.8%), African American (n=78, 8.1%) American Indian (n=66, 6.8%), and Other (n=13,1.3%). Over half of the students were Hispanic (n=560, 58%).

The remaining six characteristic variables- student program status (new or returning to the drop-in center), gender, ethnicity, youth's parenting status, reason for homelessness, and current living situation were numerically coded for analysis (Appendix A).

### **Data and Procedure**

The student demographic variables, including sex, age, grade, race and ethnicity and experience variables including reason for homelessness, current living situation, teen parenting status, and enrollment status (new or returning to the program) were compiled from a registration form at student intake (see Appendix A for the code book and data definitions for all variables). The students completed an application and the school liaison, often a school counselor, verified the information and completed additional registration information regarding the reason for the student's homelessness and stated whether he/she believed the student was qualified for the program. The application was then submitted to Servicing Youth for review and approval. If the student was approved, the student met with a drop-in center representative, who explained the

services of the program. The application data were entered into a data file by a Servicing Youth employee.

Students submitted the stipends form to the Servicing Youth center monthly. Each class teacher signed the monthly form verifying the student's grade for the month. If the student received a "C" or above in a class, and the teacher signed the form, the student was eligible for a financial stipend for that class. The lump sum of the monthly stipends for each student was entered into the data file containing the participant's application data, and the monthly forms containing the grades were filed. A de-identified data file containing the students' data was provided to me. I did not have data regarding specific courses in which the students were enrolled. For the variables analyzed see the code book in Appendix A.

There were two possible ways to calculate the stipends variable. One way is simply to total up all of the stipends students received. However, students were eligible for the stipends for varying periods of time due a host of reasons. For example, students did not qualify for the stipends (and were considered "ineligible") if they were suspended from school during a month, moved out of the served area, or if they returned to reside with their parents or legal guardians. Additionally, if students received income from other sources (i.e. death of a parent, Social Security, etc.), they were not eligible for the financial stipends, although they were eligible to receive services only (food, clothing, etc.) that the agency offered.

The second approach was to create a proportion that reflected the ratio between the amount of money earned to the maximum amount that student could earn based on the months of eligibility. Each student's entry and exit date had to be reviewed for length of program eligibility. For example, if the student entered the program at the beginning of January and left the at the beginning of May, the student was only eligible for four months (January-April), as the

student would not have the opportunity to earn a stipends for the month of May. Additionally, each month of ineligibility (e.g., school suspension) was not included into the calculation of eligible months. Due to the way the data were coded by the drop-in center employee, students' reasons for being ineligible in some months were not recorded, so were excluded from eligibility calculation.

Because of the variations in months that students were eligible to receive the monthly stipends, due to the date of entry to the program, the date of exit from the program, and the months the student was eligible (as reported in the data set), the percent earned was used as an additional outcome variable instead of using the total sum of money. The three outcome variables included in this research includes the student's percent of stipends earned, number of eligible months, and the total amount of stipends earned.

The data file contained additional variables other than the ones for this project, however, only the variables listed in this project were analyzed. Students who were denied services at enrollment, stayed in the "pending" category (and were never approved), or received "services only" were deleted from data analyses. This process resulted in 236 students, almost 20% of the students from the dataset, who were not eligible for inclusion in this study.

### **Statistical Analyses**

Descriptive statistics were calculated for each of the student demographic predictor variables (age, grade, race, and ethnicity), student experience predictor variables (current living situation, teenage parenting status, primary reason for homelessness, and the program enrollments status), and the three dependent variables (percent of stipends earned, length of program enrollment, and the total amount of stipends earned).

Data for Research Questions 1-6 were subjected to a t-test or one-way analysis of variance (ANOVA) to determine if there were significant differences between the means within each of the independent variables for the dependent variables. For the significant variables in the t-test models, Cohen's  $d$  was reported for the effect size measure. For the significant variables in the ANOVA models, Tukey's HSD post-hoc tests were computed to determine where the differences occurred between groups. The Tukey's HSD post-hoc test was selected as it is the most powerful test for pairwise comparisons (Peng, 2009).

Data for Research Questions 7 and 8 were subjected to a multiple regression analysis to determine the relationship between the predictor variables and the outcome variables. The unstandardized regression coefficient ( $B$ ) was reported to determine the predictor variables impact on the outcome variable (Rosenthal, 1994).

## CHAPTER 4:

### RESULTS

The results section begins with the descriptive statistics for each of the three outcome variables: the percent of stipends earned, the number of eligible months students were enrolled in the program, and the total amount of stipends students earned during the program. Results for Research Questions 1-3 can be found under the section entitled, “Descriptive and Inferential Statistics: Student Demographics”. The student demographic variables include gender, age, grade, race, and ethnicity. Results for Research Questions 4-6 can be found under the section entitled, “Descriptive and Inferential Statistics: Student Experiences”. The life experience variables include the student’s current living situation, teenage parenting status, reason for homelessness, and program enrollment status (new or returning to the program). Last, the results for Research Questions 7- 8 can be found under the section entitled, “Relationship Statistics: Student Demographics and Experiences as Predictors”. The multiple regression statistics analyze both the student demographic and experience variables combined together as one set of predictor variables for the relationship with the percent of stipends earned (Research Question 7) and the number of months students were enrolled in the program (Research Question 8).

#### **Descriptive Statistics of Outcome Variables**

On average, the students in this study received 82% of the maximum stipends available for the months they were eligible ( $M=.82$ ,  $SD=.23$ ). For the months students were eligible, almost one-third of the sample ( $n= 311$ , 32.2%) received the maximum possible stipends, as displayed in Table 1. Fifteen students received zero percent, while over half of the students ( $n=526$ , 54.51%) received 90% or more of the total monthly stipends available to each of them.

Table 1

*Frequency Chart of Percent of Earned Stipends*

Percentage Earned	Frequency	Percent of Sample
0%	15	1.55
1-10%	3	.31
11-19%	4	.41
20-29%	16	1.66
30-39%	24	2.49
40-49%	37	3.83
50-59%	56	5.80
60-69%	66	6.84
70-79%	83	8.60
80-89%	135	13.99
90-99%	215	22.28
100%	311	32.23

Student frequencies for the number of months students were eligible for stipends ranged from 76 to 128, as shown in Table 2. The number of months students were eligible produced an bi-modal distribution with modes of 3 and 9 months ( $n=128$ , 13.3% in each category), with an average of nearly 5 months ( $M=4.92$ ,  $SD=2.61$ ). Table 3 shows that there was positive relationship between the number of months students were enrolled in the program and the percent of monthly stipends earned. The longer students were enrolled, the greater the probability that they earned a higher percent of the possible stipends. For example, students who were enrolled for only a month earned on average \$93.09 ( $74.47\% \times \$125$ ), while students who were enrolled for the full nine months earned on average \$112.15 per month ( $89.72\% \times \$125$ ).

Table 2

*Frequencies of Eligible Months*

Number of Months	Frequency	Percent of Sample
1	100	10.4
2	119	12.3
3	128	13.3
4	115	11.9
5	95	9.8
6	100	10.4
7	104	10.8
8	76	7.9
9	128	13.3

Table 3

*Percent of Stipends by Eligible Months*

Number of Months	Percent of Stipends Earned
1	74.47
2	74.11
3	78.81
4	83.72
5	78.81
6	86.31
7	86.81
8	86.00
9	89.72

Students could earn up to \$125 each month for good grades during the months students were eligible to receive a financial stipends and enrolled in the program. The earning potential ranged from zero dollars to \$1125. Fifteen students from the sample received zero dollars and 44 students received the maximum total stipends possible. The mean of earned total stipends earned was \$520.62 (S.D.= \$323.45).

### **Descriptive and Inferential Statistics: Student Demographics**

**Gender.** Females represented three-fifths of the sample ( $n= 588, 60.9\%$ ; Table 1). No significant differences existed between males ( $M=.81, SD=.22$ ) and females ( $M=.83, SD=.24$ ) in regards to the percent of stipends earned  $t(963)= -1.07, p=.28$ . Males ( $M=5.07, SD=2.56$ ) were enrolled in the program slightly longer than females ( $M=4.82, SD=2.63$ ), although there was no statistical significance,  $t(963)= 1.50, p=.133$ . Additionally, there were no significant differences between males ( $M=528.39, SD=315.23$ ) and females ( $M=515.64, SD=328.78$ ) on the average of total overall earnings,  $t(963)= .60, p=.55$ .

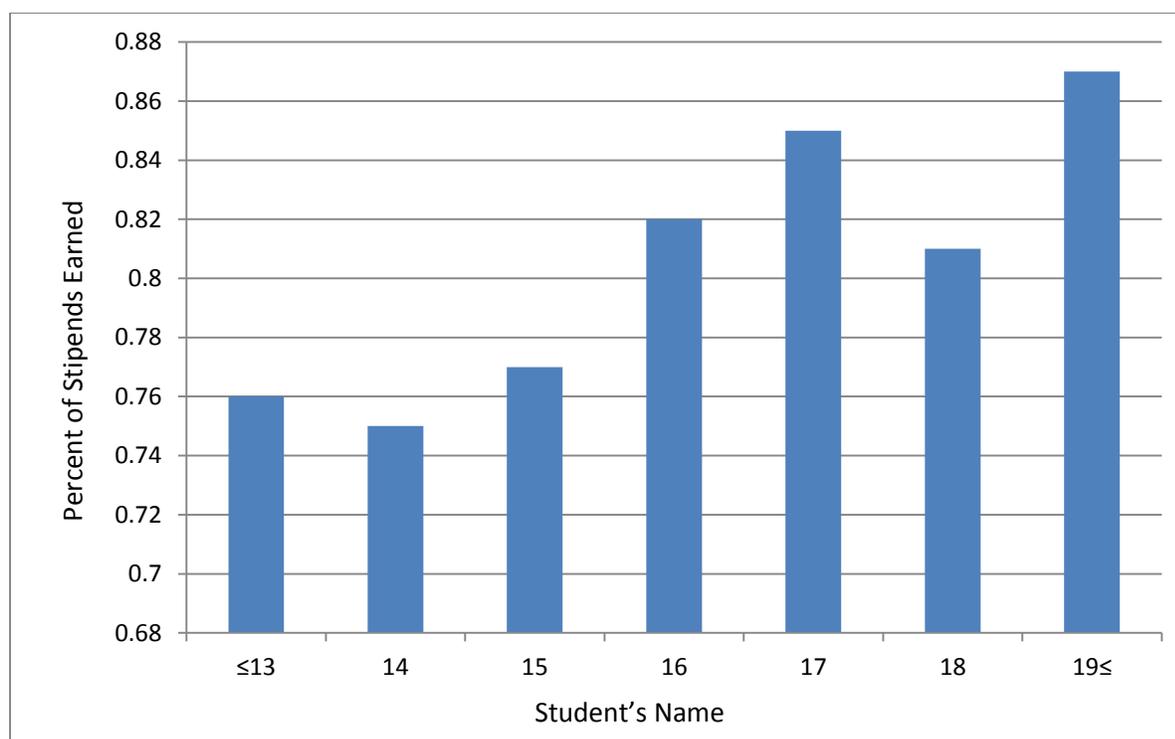
**Age.** A majority (n=630, 65%) of the students were between the ages of 16-18 years old, as displayed on Table 4. The mean percent of stipends earned by age group ranged from 75% to 87% (see Figure 1).

Table 4

*Demographic Descriptive Statistics by Dependent Variables*

	n	% Stipends Earned		Months Enrolled		Total Stipends Earned	
		M (SD)	95% CI	M (SD)	95% CI	M (SD)	95% CI
<b>Gender</b>							
Male	377	.81 (.22)	[.79, .83]	5.07 (2.56)	[4.82, 5.33]	528.39 (315.24)	[496.47, 560.31]
Female	588	.83 (.24)	[.81, .85]	4.82 (2.63)	[4.60, 5.03]	515.68 (328.78)	[489.01, 542.27]
Total	965	.82 (.23)	[.81, .83]	4.92 (2.61)	[4.75, 5.08]	520.62 (323.45)	[500.19, 541.05]
<b>Age</b>							
≤13	50	.76 (.21)	[.70, .82]	5.02 (2.31)	[4.36, 5.68]	492.48 (300.70)	[407.02, 577.93]
14	62	.75 (.27)	[.69, .82]	4.39 (2.63)	[3.72, 5.06]	448.39 (332.75)	[363.89, 532.89]
15	97	.77 (.26)	[.72, .83]	4.73 (2.34)	[4.26, 5.20]	485.61 (313.11)	[422.51, 548.72]
16	176	.82 (.23)	[.79, .85]	5.32 (2.69)	[4.92, 5.72]	563.99 (326.23)	[515.46, 612.52]
17	226	.85 (.20)	[.83, .88]	5.31 (2.70)	[4.96, 5.67]	577.46 (336.74)	[533.32, 621.60]
18	228	.81 (.24)	[.78, .84]	4.58 (2.58)	[4.24, 4.92]	480.56 (317.70)	[439.10, 522.02]
≥19	123	.87 (.20)	[.83, .91]	4.67 (2.50)	[4.23, 5.12]	510.84 (300.54)	[457.19, 564.48]
Total	962	.82 (.23)	[.81, .83]	4.93 (2.60)	[4.76, 5.09]	521.52 (323.52)	[501.05, 541.99]
<b>Grade</b>							
≤8	69	.76 (.21)	[.71, .81]	4.77 (2.45)	[4.18, 5.36]	468.26 (302.62)	[395.57, 540.96]
9	96	.76 (.28)	[.71, .82]	4.23 (2.46)	[3.75, 4.70]	429.97 (302.96)	[368.59, 491.36]
10	170	.82 (.21)	[.79, .86]	4.82 (2.46)	[4.44, 5.19]	509.81 (307.04)	[463.33, 556.30]
11	326	.79 (.26)	[.76, .82]	5.01 (2.74)	[4.71, 5.31]	513.19 (333.82)	[476.82, 549.57]
12	304	.88 (.17)	[.87, .90]	5.12 (2.62)	[4.83, 5.42]	575.14 (324.16)	[538.55, 611.72]
Total	965	.82 (.23)	[.81, .83]	4.92 (2.61)	[4.75, 5.08]	520.62 (323.45)	[500.19, 541.05]
<b>Race</b>							
Afri Am.	78	.81 (.21)	[.76, .85]	5.35 (2.57)	[4.77, 5.93]	557.27 (321.61)	[484.76, 629.78]
Am. Ind	66	.78 (.25)	[.72, .84]	4.65 (2.40)	[4.06, 5.24]	485.73 (305.66)	[410.59, 560.87]
Mulrac	95	.79 (.27)	[.74, .85]	4.54 (2.72)	[3.98, 5.09]	481.66 (342.66)	[411.85, 551.46]
Other	13	.80 (.28)	[.63, .97]	5.15 (1.91)	[4.00, 6.31]	490.97 (243.74)	[343.68, 638.26]
Total	965	.82 (.23)	[.81, .83]	4.92 (2.61)	[4.75, 5.08]	520.62 (323.45)	[500.19, 541.05]
<b>Ethnicity</b>							
Hispanic	560	.83 (.22)	[.81, .84]	5.01 (2.56)	[4.80, 5.23]	532.99 (319.28)	[506.49, 559.49]
Non-Hisp	405	.81 (.25)	[.79, .84]	4.78 (2.57)	[4.75, 5.08]	503.52 (328.76)	[471.40, 535.63]
Total	965	.82 (.23)	[.81, .83]	4.92 (2.61)	[4.75, 5.08]	520.62 (323.45)	[500.19, 541.05]

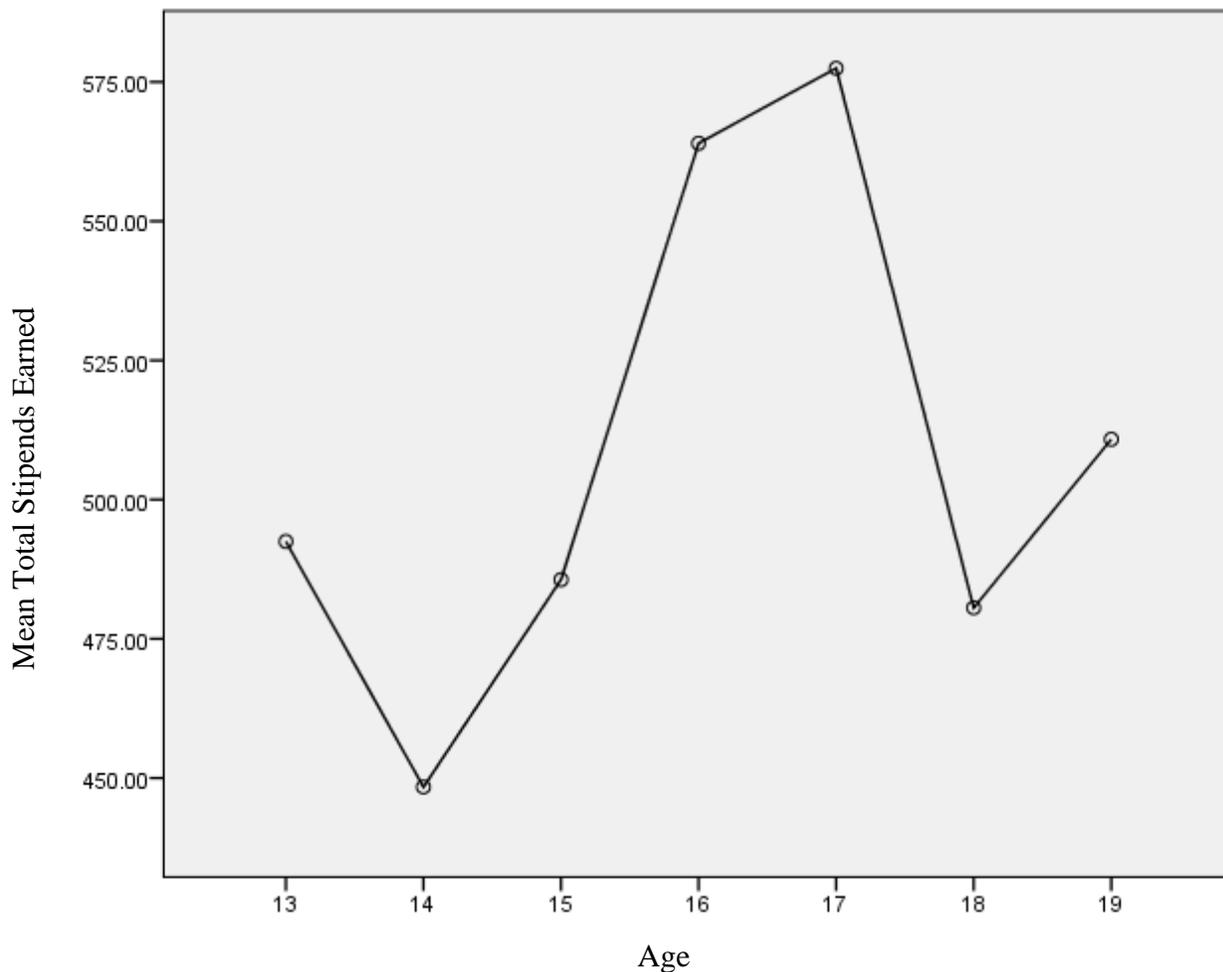
A one-way ANOVA revealed a significant effect of age on the mean percent of stipends earned,  $F(6,955)=3.96$ ,  $p<.001$ . A post hoc comparisons using the Tukey HSD test yielded significant variations in the percent of stipends earned between 19 and older students ( $M=.87$ ,  $SD=.20$ ) and students 15 years old ( $M=.77$ ,  $SD=.27$ ), 14 years old ( $M=.75$ ,  $SD=.27$ ), and 13 years and younger ( $M=.76$ ,  $SD=.21$ ). However, there was no significant difference between students 19 and older and students 16, 17, and 18 years old in percentage of stipends earned. Additionally, the post-hoc analysis revealed a significant difference between the percent of stipends earned between 17 year old students ( $M=.85$ ,  $SD=.20$ ) and 14 year old students ( $M=.75$ ,  $SD=.27$ ). No other significant differences existed between age groups and percent of earned stipends.



*Figure 1.* Mean Percentage of Stipends Earned by the Age of the Students

Students 14 years old had the shortest average length of enrollment at 4.39 months and students 16 years old had the longest length of enrollment of 5.32 months, closely followed by 17 year old students at 5.31 months. A one-way ANOVA revealed a significant effect of age on the number of months a student was enrolled in the program  $F(6,955)=2.97$ ,  $p=.007$ . A Tukey HSD test indicated 17 year olds ( $M=5.31$ ,  $SD=2.70$ ) were enrolled in the program significantly longer than 18 years olds ( $M=4.58$ ,  $SD=2.58$ ). Due to unequal sample sizes in each age group, a Harmonic Mean Sample Size was used to calculate significant differences in the post-hoc analysis. Although the mean of the months enrolled for 17 year olds and 16 year olds are nearly the same, using the Harmonic Mean for the Tukey's HSD calculation indicated no significant difference between the length of enrollment for 16 year old and 18 year olds. No other age groups were identified to have a significant variation on enrollment length.

On average, 14 years old students earned the least amount of total stipends at \$448.39 (see Figure 2). Seventeen year old students earned the largest amount at an average of \$577.46. The total average earning difference of \$129.07 between 14 and 17 year old groups nearly equates to the one month difference of earning potential (\$125) between the average enrollment length between the two age groups ( $MD= -.927$ ). To be clear, these variables are inter-related, as the number of months of eligibility increases, and the percent earned increases, so does the overall earning potential of each age group. Age groups resulted in a significant difference on the total sum of stipends students earned while in the program  $F(6,955)=3.10$ ,  $p=.005$ ; however a Tukey HSD post hoc test indicated only significant differences in overall earning between 17 ( $M=577.46$ ,  $SD=336.74$ ) and 18 years olds ( $M=480.56$ ,  $SD=317.30$ ). No other age groups were identified to have a significant variations on the total stipends earned.



*Figure 2.* Mean Total of Stipends Earned by the Age of the Students

**Grade.** The distribution of grade by age is shown in Table 5; the mode of the grade distribution is 11<sup>th</sup> grade. As the grade advanced, the spread of ages increased. In the 8<sup>th</sup> grade, all students were ages 13 or 14. As of 9<sup>th</sup> grade the ages spanned across six years, aged 14 years and older, no students 13 or younger, with one student 18 years old and one student 19 years old or older. In the 10<sup>th</sup> grade, the ages again range across a six-year span, 18 students who are 18 years old and six students who are 19 years old or older. This widened variation of ages continued through the 12<sup>th</sup> grade.

Table 5

*Crosstabulation of Grade and Age*

Grade	Age							Total
	≤ 13	14	15	16	17	18	≥ 19	
≤ 8	50	19	0	0	0	0	0	69
9	0	39	36	13	5	1	1	95
10	0	4	59	55	28	18	6	170
11	0	0	1	101	96	82	44	324
12	0	0	1	7	97	127	72	304
Total	50	62	97	176	226	228	123	962

Students in the 9th grade and under earned approximately three-quarters of the potential monthly percentage, a lower monthly percentage on average than students in the higher grades, as indicated in Table 4. Students in 12<sup>th</sup> grade earned the highest percent of stipends at 88% ( $M=.88$ ,  $SD=.17$ ). The student's grade had a significant impact on the percent of stipends earned,  $F(6,958) = 7.68$ ,  $p < .001$ . A Tukey HSD *test* indicated 12th grade students earned a significantly higher percent of stipends earned as compared to all other grade levels (see Table 5). There were no other significant differences between grade levels and the percent of stipends earned.

There was a significant effect of students' grade level and the number of months students were enrolled in the program  $F(4,960) = 2.38$ ,  $p = .05$ . A Tukey HSD test indicated 12<sup>th</sup> grade students ( $M= 5.12$ ,  $SD= 2.62$ ) were enrolled in the program significantly longer than 9<sup>th</sup> grade students ( $M=4.23$ ,  $SD=2.35$ ), the only statistical difference identified between any two grades (at the  $p<.05$  level).

Students' grade level had a significant relationship with the overall stipends earned,  $F(4,960) = 4.66$ ,  $p < .001$ . Twelfth-grade students earned the highest average total stipends of \$575.14, which was significantly more, based on Tukey's HSD, than the average earnings from 9<sup>th</sup> grade students who earned \$429.97.

**Race/ Ethnicity.** The distributions of the outcome variables by student's race and ethnicity separated are located in Table 4. The distributions of the outcome variables by students' combination of race and ethnicity are presented in Table 6. Nearly three-quarters (n=713, 74%) of the students were identified as Caucasian. The remaining students identified as Multiracial (n=95, 10%), African-American (n=78, 8%), American-Indian (n=66, 7%), or Other (n=13, 1%). Of the entire student sample, just over half of the sample identified as Hispanic in ethnicity (n=560, 58%). There were no significant statistical relationships between race and ethnicity and the age, grade, or gender of the students.

Table 6

*Race and Ethnicity Descriptive Statistics by Dependent Variables*

	n	% Earned M (SD)	# of months M (SD)	Total Earned M (SD)
<b>Race by Ethnicity</b>				
Caucasian, Hispanic	511	0.83 (0.21)	5.05 (2.57)	541.19 (320.58)
Caucasian, Non-Hispanic	202	0.82 (0.25)	4.65 (2.73)	486.07 (329.76)
African Am., Hispanic	8	0.78 (0.16)	5.75 (2.76)	583.41 (333.61)
African Am., Non-Hispanic	70	0.81 (0.21)	5.30 (2.56)	554.28 (322.56)
Am. Indian, Hispanic	14	0.73 (0.23)	5.21 (2.19)	497.82 (260.54)
Am. Indian, Non-Hispanic	52	0.80 (0.26)	4.50 (2.45)	482.48 (318.93)
Multiracial, Hispanic	25	0.77 (0.30)	3.92 (2.58)	387.27 (302.29)
Multiracial, Non-Hispanic	70	0.80 (0.27)	4.76 (2.75)	515.37 (351.85)
Other, Hispanic	2	0.69 (0.44)	4.00 (1.41)	305.03 (98.96)
Other, Non-Hispanic	11	0.82 (0.27)	5.36 (1.96)	524.78 (249.28)
<b>Total</b>	<b>965</b>	<b>0.82 (.23)</b>	<b>4.92 (2.61)</b>	<b>520.62 (323.45)</b>

Neither the students' racial group,  $F(4,960)=1.10$ ,  $p=.357$ , nor the students' ethnicity  $t(963)=.935$ ,  $p=.35$ , had a significant impact on the percent of stipends earned. The students' racial group,  $F(4,960)=1.25$ ,  $p=.288$  and student's ethnicity  $t(963)=.136$ ,  $p=.173$ , did not have a significant impact on the length of enrollment. Lastly, neither the student's racial group,

$F(4,960)=.856$ ,  $p=.490$ , nor ethnicity  $t(963)= 1.40$ ,  $p=.425$ , had a significant impact on the average of total earned income.

A combination of student's race and ethnicity (Table 6) indicated similar results with the outcome variable as the student's race and ethnicity variables analyzed separately (Table 4). The cross distribution of race and ethnicity represented no significant effects on percent of stipends earned,  $F(4,960)=1.10$ ,  $p=.360$ , the number of months a student was enrolled,  $F(4,960)=1.35$ ,  $p=.288$ , or with the total amount of stipends earned  $F(4,960)=.86$ ,  $p=.490$ .

### **Descriptive and Inferential Statistics: Student Experiences**

**Current Living Environment.** Upon intake, the most frequently reported living situation, which accounts for almost half of the sample, was living with a relative ( $n=440$ , 45.6%), as displayed in Table 7. The following three reported living situations of the homeless students in the sample were closely ranked: living with a friend ( $n=123$ , 12.7%), in a group home (121, 12.5%), and living with a significant other ( $n=118$ , 12.2%). Living alone was reported by 39 students (4%) and Other/Multiple locations was reported by 32 students (3.3%), yet from the way the data were collected it is unclear if these students were living in housed or unhoused environments (e.g. on the street, in cars). The remaining students lived with a host-family ( $n=69$ , 7.2%) or in transitional living ( $n=9$ , .9%). There were no statistically significant relationships between the current living situation and age, gender, racial or ethnic groupings of the students.

Table 7

*Experience Descriptive Statistics by Dependent Variables*

Variable	n	%	% Stipends Earned		Months Enrolled		Total Stipends Earned	
			M (SD)	95% CI	M (SD)	95% CI	M (SD)	95% CI
<b>Program</b>								
New	731	75.8	0.81 (.24)	[.79, .83]	4.50 (2.46)	[4.32, 4.69]	474.31 (306.84)	[451.59, 497.03]
Returning	234	24.2	0.85 (.19)	[.82, .88]	6.21 (2.63)	[5.89, 6.53]	665.29 (331.86)	[625.13, 705.46]
Total	965	100	0.82 (.23)	[.81, .84]	4.92 (2.61)	[5.17, 5.54]	569.80 (323.45)	[546.73, 592.87]
<b>Teen Parent</b>								
Yes	143	14.8	.86 (.19)	[.82, .90]	4.83 (2.63)	[4.40, 5.25]	528.42 (325.62)	[475.32, 581.53]
No	822	85.2	.81 (.23)	[.80, .83]	4.93 (2.60)	[4.76, 5.11]	519.26 (323.25)	[497.11, 541.41]
Total	965	100	.82 (.23)	[.82, .86]	4.92 (2.61)	[4.65, 5.11]	520.62 (323.45)	[495.07, 552.61]
<b>Reason Homeless</b>								
CPS Rem/ Crt Ordr	40	4.1	.80 (.23)	[.72, .87]	5.60 (2.62)	[4.76, 6.44]	565.47 (320.04)	[463.11, 667.82]
Court Ordered	99	10.3	.82 (.22)	[.78, .87]	4.81 (2.46)	[4.32, 5.30]	501.15 (300.55)	[441.21, 561.10]
Parent Death	75	7.8	.85 (.16)	[.82, .89]	5.33 (2.66)	[4.72, 5.94]	575.69 (319.35)	[502.21, 649.16]
Parent Chooses	181	18.8	.82 (.23)	[.79, .85]	5.17 (2.49)	[4.81, 5.54]	543.84 (317.03)	[497.34, 590.34]
Parent Sub. Abuse	111	11.5	.83 (.23)	[.79, .88]	5.11 (2.71)	[4.60, 5.62]	564.33 (343.17)	[499.78, 628.88]
Cnft w/ Par. Step.	127	13.2	.83 (.23)	[.79, .87]	4.35 (2.56)	[3.90, 4.80]	459.13 (302.03)	[406.09, 512.17]
Parent Illness	31	3.2	.84 (.24)	[.75, .93]	4.77 (2.46)	[3.87, 5.68]	507.48 (309.01)	[394.14, 620.83]
Parent Incarceration	42	4.4	.76 (.28)	[.67, .85]	4.83 (2.65)	[4.01, 5.66]	491.16 (340.26)	[385.13, 597.20]
Poverty	82	8.5	.81 (.24)	[.76, .87]	4.93 (2.53)	[4.37, 5.48]	529.83 (323.47)	[458.76, 600.91]
Phy or Sex Abuse	75	7.8	.77 (.28)	[.71, .83]	4.92 (2.71)	[4.30, 5.54]	488.96 (340.04)	[410.72, 567.20]
Verb or Emo Abuse	44	4.6	.82 (.22)	[.75, .89]	5.05 (2.84)	[4.18, 5.91]	541.23 (361.56)	[431.30, 651.15]
Student Life Style	58	6	.86 (.19)	[.81, .91]	4.19 (2.67)	[3.49, 4.89]	470.87 (330.73)	[383.91, 557.83]
Total	965	100	.82 (.23)	[.81, .83]	4.92 (2.61)	[4.75, 5.08]	520.62 (323.45)	[500.19, 541.05]
<b>Current Living</b>								
Alone	39	4	.81 (.29)	[.71, .90]	4.95 (2.93)	[4.00, 5.90]	509.81 (347.34)	[397.22, 622.41]

Table 7 (Cont'd)

*Experience Descriptive Statistics by Dependent Variables*

Relative	440	45.6	.82 (.22)	[.80, .85]	5.14 (2.59)	[4.89, 5.38]	551.91 (327.26)	[521.24, 582.57]
Significant Other	118	12.2	.87 (.19)	[.83, .90]	4.57 (2.55)	[4.10, 5.03]	509.81 (323.64)	[450.80, 568.81]
Friend	123	12.7	.78 (.26)	[.73, .83]	4.59 (2.48)	[4.14, 5.03]	461.57 (304.46)	[407.22, 515.91]
Group Home	121	12.5	.79 (.24)	[.75, .84]	4.88 (2.68)	[4.40, 5.37]	493.04 (320.67)	[435.32, 550.76]
Host Family	69	7.2	.85 (.22)	[.79, .90]	5.03 (2.65)	[4.39, 5.66]	549.32 (329.09)	[470.26, 628.37]
Transitional House	9	0.9	.84 (.21)	[.68, 1.0]	4.67 (2.24)	[2.95, 6.39]	478.89 (263.41)	[276.41, 681.37]
Roommates	14	1.5	.73 (.28)	[.57, .89]	4.86 (2.77)	[3.26, 6.46]	460.36 (302.73)	[285.56, 635.15]
Other/ Multiple	32	3.3	.83 (.21)	[.75, .90]	4.41 (2.67)	[3.44, 5.37]	450.98 (310.53)	[339.02, 562.93]
Total	965	99.9	.82 (.23)	[.81, .83]	4.92 (2.61)	[4.75, 5.08]	520.62 (323.45)	[500.19, 541.05]

The students' living condition had a relatively small influence on the percent of stipends earned; however, the results were not statistically significant,  $F(8,956) = 1.739$ ,  $p = .086$ . The students' living situation was not statistically significant on the length of program enrollment,  $F(8,956) = 1.09$ ,  $p = .368$  or on the amount of total stipends earned also indicated no significant relationship,  $F(8,956) = 1.50$ ,  $p = .154$ .

**Teenage Parent.** The majority of the students in the study were not parents ( $n=822$ , 85.2%), although teen parents made up nearly 15% of the sample, as shown in Table 7. Of the students who indicated being a teen parent ( $n=143$ ), an overwhelming number of the individuals were female ( $n=121$ , 85%) and over the age of 16 ( $n=131$ , 92%). Over 75% of teenage parents identified as Caucasian, with almost 70% of the teenage parents identifying as Hispanic in ethnicity. A majority of the teenage parents lived with a significant other ( $n=57$ , 40%) or a relative ( $n=40$ , 28%). The percent of stipends earned between the parents ( $M=.86$ ,  $SD=.192$ ) and non-parents ( $M=.81$ ,  $SD=.235$ ) was statistically significant,  $t(963) = 2.19$ ,  $p=.029$ ,  $d=.24$ . Students who were teenage parents had a small effect on the percent of stipends earned. However, being a teenage-parent did not have a significant impact on the number of months eligible,  $t(963) = -.457$ ,  $p=.648$  or the overall total stipends earned,  $t(963) = .312$ ,  $p=.755$ . Teenage-parents earned on average a total of \$528.42, while non-parents earned on average a total of \$519.26.

**Primary reason for homelessness.** Over half of the student sample reported one of four reasons as the primary reason for student homeless (Table 7): Parent Chooses Not to be Parent ( $n=181$ , 18.8%), Conflict with Parent or Step-parent ( $n=127$ , 13.2%), Parent Substance Abuse ( $n=111$ , 11.5%), and Court Ordered ( $n=99$ , 10.3%). The remaining primary reasons for

homelessness included Poverty (n=82, 8.5%), Physical or Sexual Abuse (n=75, 7.8%), Student Lifestyle (n=58, 6%), Verbal or Emotional Abuse (n=44, 4.6%), Parent Incarceration (n=42, 4.4%), CPS Removal-Court Ordered (n=40, 4.1%), and Parent Illness (n=31, 3.2%).

Males were more likely than females to report Court Ordered (13.5% vs 8.2%), CPS removal/ Court Ordered (5.6% vs 3.2%), and Parent Illness (4.5% vs 2.4%) as primary reasons for homelessness. Females were more likely to report Parent Substance Abuse (13.1% vs 9%) and Student Lifestyle (7.3% vs 4.0%) as the primary reason for homelessness. A majority of the students who selected Student lifestyle (n=58) for reason of homelessness were also teenage parents (n=41, 70% vs n=17, 30%).

The average percent of stipends earned across all of the reported reasons for homeless was between 75-86% of the potential earnings. A majority of the reason for homelessness categories had average student percent earnings of over 80% except the categories of CPS Removal/ Court Ordered, Physical or Sexual Abuse, and Parent Incarceration. Students who reported Parent Incarceration or Physical or Sexual Abuse for the primary reason of homelessness had the largest variations in earned stipends ( $SD=.28$  for each category). Students who reported Parental Death ( $M= .86$ ,  $SD=.16$ ) and Student Lifestyle ( $M= .86$ ,  $SD=.19$ ) had the smallest variation in stipends earnings and the largest percent of earned stipends. However, reason for homeless had no statistical effect on the percent of stipends earned  $F(11,953) = .992$ ,  $p = .452$ .

The students' reason for homelessness had a small relationship to the students' length of enrollment in the program but was not statistically significant,  $F(11,953) = 1.64$ ,  $p = .08$ . The students' reason for homelessness on the total sum of money earned was not statistically significant  $F(11,953) = 1.24$ ,  $p = .256$ . Students who reported CPS/Court Ordered as the reason

for homelessness remained in the program longest with a mean of 5.6 months and earned the highest overall stipends of \$565.47. Students who left the home due to Life Style were enrolled in the program for the shortest length of time with a mean of 4.2 months and earned the second lowest overall stipends of \$470.87. Students who left the home because of a Conflict with a Parent or Step-parent earned the lowest total of stipends at \$459.13.

**Program Enrollment Status.** There were 731 newly enrolled students and 234 returning students eligible to receive a stipend (Table 7). Students who returned to the program ( $M=.85$ ,  $SD=.19$ ) earned a significantly higher percent of stipends than students who were new to the program ( $M=.81$ ,  $SD=.24$ ),  $t(963) = -2.31$ ,  $p = .021$ ,  $d=.18$ . There was a small effect of the students' new or returning enrollment status on the percent of stipends earned. Additionally, students who returned to the program stayed in the program significantly longer than students who were new to the program,  $t(963) = -9.82$ ,  $p < .001$ ,  $d=.67$ . The student's new or returning status on the number of months enrolled represented a medium effect size. Students who returned to the program ( $M=6.2$ ,  $SD=2.6$ ) were enrolled, on average, 1.5 months longer than students who were new to the program ( $M=4.5$ ,  $SD=2.45$ ). Additionally, students who returned to the program earned significantly more than students who were new to the program, with a medium effect size,  $t(963) = -8.12$ ,  $p < .001$ ,  $d=.60$ . Students who returned to the program earned on average \$665.29, over 40% more overall than students who were new to the program, who earned on average \$474.31, as presented in Table 7.

### **Relationship Statistics: Student Demographics and Experiences as Predictors**

Multiple regression models were used to analyze the relationship between the student characteristic (student demographics and experiences) predictor variables and the percent of stipends earned (Research Question 7) and the number of months students were enrolled in the

program (Research Question 8). Because the total stipends a student earned is a function of the percent of stipends a student earned and the number of months a student is enrolled in the program, the total stipends earned variable was left out of the multiple regression analyses as the analysis did not add any further understandings to the aim of the research paper.

Of the predictor variables, the student's Age and Grade variables were multicollinear ( $r = .796$ ). Because of this, only one of these two predictor variable was selected and the other was excluded for the multiple regression models. To select a variable for inclusion, I ran the multiple regression models for each outcome variable with all predictor variables except Age then again with all predictor variables except Grade. The models that included Grade instead of Age produced a slightly higher effect size than the models that included Age instead of Grade. I decided to use the Grade variable instead of the Age variable in the regression models for three reasons. First, the Grade variable had a slightly higher effect size within the models than the Age variable. Second, three students had missing data on the Age variable, and there was no students missing data for the Grade variable. Third, the program and stipends are based on schooling outcomes (enrollment in school is required for program participation and obtaining a grade of C or above is required to obtain the stipends). As grade level is uniquely tied to schooling this variable seemed to be the most appropriate choice.

For each of the dummy coded variables, one variable was removed from the analysis to represent the control variable (Cohen, Cohen, West, & Aiken, 2013). For the dummy coded variables of Race and Current Living Situation, I selected the modal category (the most commonly occurring in the data) as the referent category: Caucasian for Race and Living with a Relative for the Current Living Situation. For the dummy coded variable of Reason for Homeless, I selected the second most frequently answered reason: Conflict with Parent or Step-

Parent. The other Reason for Homelessness variables are more likely categorized as outside the students' control for homelessness (Parent Incarceration, Court Ordered, Physical or Sexual Abuse, Verbal or Emotional Abuse, etc.), whereas leaving due to conflict gives the impression the student had a choice.

**Percent of Stipends Earned.** As there was no theoretical basis for considering one variable over another, or prior to another, all student characteristic predictor variables (excluding age) were entered simultaneously into a multiple regression model (Cohen & Cohen, 1975): Grade, Gender, Ethnicity, Teen Parenting Status, New/ Returning Student, each Race category, each Current Living Condition category, and each Reason for homelessness category. The entered student variables significantly predicted the percent of stipends earned,  $F(28, 936) = 2.165, p < .001$ , as shown in Table 8. The combination of these predictors accounted for 3.3% of the variance in the percent of stipends earned (Adjusted  $R^2 = .033$ ). The Adjusted  $R^2$  was reported to adjust for the number of predictor variables in this model (Klimberg & McCullough, 2013). Tests met the assumption of collinearity, all data demonstrated a variance inflation factor of under 3 ( $VIF < 3.0$ ). Three variables in this model were significant in predicting the percent of stipends earned: student Grade,  $B = .033, p < .001$ ; Living with a Friend,  $B = -.065, p = .007$ ; and Living with a Roommate,  $B = -.131, p = .036$ . In this model, Living with a Roommate had the largest influence on the percent of stipends earned. The movement from any other living condition (coded as 0) to the condition of Living with a Roommate (coded as 1) produced a 13.1% decrease in the percent of stipends earned ( $B = -.133$ )

Table 8

*Summary of Multiple Regression Analysis for Variables Predicting Percent of Stipends Earned (N = 965)*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>Zero Order</i>	<i>Part Correlations</i>	<i>Partial Correlations</i>	<i>p</i>
Constant	.503	.080		6.289				.000
Program Status	.024	.018	.045	1.353	.074	.043	.044	.177
Grade	.033	.007	.176	4.859	.158	.154	.157	.000
Ethnicity	.006	.017	.014	.369	-.030	.012	.012	.712
Gender	.007	.016	.015	.445	.035	.014	.015	.656
Teen Parent	-.036	.024	-.056	-1.525	-.070	-.048	-.050	.128
R: American Indian	-.049	.031	-.054	-1.622	-.044	-.051	-.053	.105
R: Multiple	-.030	.026	-.039	-1.146	-.038	-.036	-.037	.252
R: African American	-.025	.029	-.029	-.844	-.017	-.027	-.028	.399
R: Other	-.018	.065	-.009	-.270	-.011	-.009	-.009	.787
RHL: CPS/ Court Ord	-.014	.043	-.012	-.313	-.020	-.010	-.010	.754
RHL: Court Ordered	.019	.032	.025	.582	.002	.018	.019	.561
RHL: Parental Death	.030	.034	.035	.890	.044	.028	.029	.374
RHL: Parent Chooses	-.003	.027	-.006	-.127	-.002	-.004	-.004	.899
RHL: Parent Sub. Ab	.017	.031	.024	.565	.019	.018	.018	.572
RHL: Parent Illness	.035	.046	.027	.751	.017	.024	.025	.453
RHL: Parent Incar.	-.057	.041	-.051	-1.389	-.058	-.044	-.045	.165
RHL: Poverty	-.023	.033	-.028	-.721	-.007	-.023	-.024	.471
RHL: Phys/ Sex Abuse	-.045	.035	-.052	-1.289	-.063	-.041	-.042	.198
RHL: Verb/ Emo Abuse	-.016	.040	-.015	-.410	.001	-.013	-.013	.682
RHL: Student Lifestyle	-.011	.039	-.012	-.286	.041	-.009	-.009	.775
CLS: Alone	-.054	.039	-.047	-1.394	-.012	-.044	-.046	.164
CLS: Significant Other	.007	.027	.010	.264	.076	.008	.009	.792
CLS: Friend	-.065	.024	-.095	-2.717	-.067	-.086	-.088	.007
CLS: Group Home	-.011	.025	-.015	-.417	-.042	-.013	-.014	.677
CLS: Host Family	.025	.030	.028	.826	.030	.026	.027	.409
CLS: Transitional Home	.019	.077	.008	.245	.010	.008	.008	.807
CLS: Roommates	-.131	.062	-.068	-2.102	-.050	-.067	-.069	.036
CLS: Other/ Multiple	-.034	.042	-.026	-.794	.007	-.025	-.026	.427

*Note:* R stands for Race. RHL stands for Reason for Homelessness. CLS stands for Current Living Situation. Caucasian, RHL: Conflict with Parent or Step Parent, and CLS: Living with Relative served as the reference group.

**Number of Months Enrolled.** Due to the lack of theory to guide the analysis, all characteristic variables were entered into a multiple regression model simultaneously. The multiple regression model with all student characteristic variables (excluding age) was statistically significant for the number of months students were enrolled in the program,  $F(28, 936) = 4.182, p < .001$ , as shown in Table 9. This model accounted for 8.5% of the variance in the number of months students were enrolled in the program (Adjusted  $R^2 = .085$ ). Tests met the assumption of collinearity, all data demonstrated a variance inflation factor of under 3 (VIF < 3.0). Five variables in this model were significant predictors for the percent of stipends earned: Student Program Status (new or returning),  $B = 1.61, p < .001$ ; Reason for Homelessness reported as CPS/ Court Ordered,  $B = 1.02, p = .032$ ; Reason for Homelessness reported as Parent Chooses Not to be a Parent,  $B = .680, p = .021$ ; Reason for Homelessness reported as Physical or Sexual Abuse,  $B = .686, p = .045$ ; and Living with a Friend,  $B = -.552, p = .038$ . The student's Program Enrollment Status (new or returning) had the largest influence length of program enrollment. The movement from being a new student (coded as 0) to being a returning student (coded as 1) produced an increase of 1.61 months in program enrollment ( $B = 1.61$ ).

Table 9

*Summary of Multiple Regression Analysis for Variables Predicting Number of Months Enrolled (N = 965)*

Variable	<i>B</i>	<i>SE B</i>	$\beta$	<i>t</i>	<i>Zero Order</i>	<i>Part Correlations</i>	<i>Partial Correlations</i>	<i>p</i>
Constant	3.18	.88		3.60				.000
Program Status	1.61	.20	0.26	8.12	.28	.25	.26	<.001
Grade	0.14	.08	0.07	1.88	.08	.06	.06	.06
Ethnicity	-0.29	.19	-0.06	-1.52	-.04	-.05	-.05	.13
Gender	-0.26	.17	-0.05	-1.49	-.05	-.05	-.05	.14
Teen Parent	-0.17	.26	-0.02	-0.64	.02	-.02	-.02	.52
R: American Indian	-0.27	.34	-0.03	-0.79	-.03	-.02	-.03	.43
R: Multiple	-0.22	.29	-0.03	-0.77	-.05	-.02	-.03	.44
R: African American	0.36	.32	0.04	1.10	.05	.03	.04	.27
R: Other	0.64	.72	0.03	0.89	.01	.03	.03	.37
RHL: CPS/ Court Ord	1.02	.48	0.08	2.15	.06	.07	.07	.03
RHL: Court Ordered	0.55	.36	0.07	1.55	-.01	.05	.05	.12
RHL: Parental Death	0.68	.37	0.07	1.84	.05	.06	.06	.07
RHL: Parent Chooses	0.68	.29	0.10	2.31	.05	.07	.08	.02
RHL: Parent Sub. Ab	0.69	.34	0.08	2.01	.03	.06	.07	.05
RHL: Parent Illness	0.18	.51	0.01	0.35	-.01	.01	.01	.73
RHL: Parent Incar.	0.36	.45	0.03	0.81	-.01	.03	.03	.42
RHL: Poverty	0.42	.36	0.04	1.16	.00	.04	.04	.25
RHL: Phys/ Sex Abu	0.57	.38	0.06	1.48	.00	.05	.05	.14
RHL: Verb/ Emo Ab	0.63	.44	0.05	1.43	.01	.04	.05	.15
RHL: Student Lifestyle	-0.10	.43	-0.01	-0.22	-.07	-.01	-.01	.83
CLS: Alone	-0.70	.43	-0.05	-1.62	.00	-.05	-.05	.11
CLS: Signif Other	-0.43	.30	-0.06	-1.47	-.05	-.05	-.05	.14
CLS: Friend	-0.55	.27	-0.07	-2.08	-.05	-.06	-.07	.04
CLS: Group Home	-0.26	.28	-0.03	-0.94	-.01	-.03	-.03	.35
CLS: Host Family	-0.18	.34	-0.02	-0.54	.01	-.02	-.02	.59
CLS: Transitional Hm	-0.75	.85	-0.03	-0.89	-.01	-.03	-.03	.38
CLS: Roommates	-0.93	.69	-0.04	-1.36	.00	-.04	-.04	.18
CLS: Other/ Multiple	-0.88	.47	-0.06	-1.88	-.04	-.06	-.06	.06

*Note:* R stands for Race. RHL stands for Reason for Homelessness. CLS stands for Current Living Situation. Caucasian, RHL: Conflict with Parent or Step Parent, and CLS: Living with Relative served as the reference group.

**Additional Statistical Analyses.** Two other forms of analysis were conducted in addition to the regression models. Because of the low effect sizes in the regression model, I recoded the outcome variable (percent of stipends earned) into a dichotomous variable to run a logistic regression to see if this approach would account for more of the variance in the outcome variables. The outcome variable was coded as 1 for students who earned 100% of the stipends and 0 for the students who earned less than 100% of the stipends possible. This analysis did not add additional information regarding the relationship between, or interpretations of the variables.

Additionally, this coding limited analysis by aggregating students who earned just fewer than 100% into a category with students who earned 0%. This dichotomization of the outcome variable weakened the relationship analysis (MacCallum, Zhang, Preacher, & Rucker, 2002).

The second form of analysis conducted was a Cluster Analysis. Cluster analysis was explored to determine if the data would divide into meaningful and useful groups/clusters. This model did not produce meaningful results from this data set. Although several combinations were explored for variable inclusion in the models, one variable would dominate the clustering leaving the other variables to be irrelevant or unutilized in the clustering of data. Most importantly, because Cluster Analysis is an exploratory analysis, the model does not differentiate dependent variables from independent variables so this analysis was unable to answer the research questions this paper sought to address (Kent, 2015).

## CHAPTER 5:

### DISCUSSION

As neoliberal ideals become increasingly intertwined in the schooling discourse, students are seen more as future “consumers” in the marketplace and future “workers” for the economy than members of a community (Ylimaki, 2011). Schooling and education benefit students on a personal level- developing socially acceptable behaviors, learning to follow instructions, developing well rounded, informed, knowledge individuals- however, these types of motivators within the education policy discourse are nearly absent. In the policy arena of education, developmental discourse is often put on the backburner or forgotten whereas economic discourse dominates the field. For example, there is an increasing concern for youth to graduate from high school (and college) in order to compete in the global economy. For policymakers who continue to face budget constraints, there is an increased need to identify cost-effective solutions and interventions that increase vocational competencies (by increasing the graduation rate) to add to the competitiveness in the global marketplace. The results from this study answer the research questions aimed to identify the subgroups of one of the highest drop-out populations in the United States- the unaccompanied, homeless youth population- who pursue a financial incentive for educational outcomes. These results are intended to support policy-makers’ goals as well as to enhance the live’s and the development of homeless individuals.

#### **Compared to Financial Incentives Research with At-Risk Groups**

The results from this study indicate that the unaccompanied, homeless youth enrolled in the Servicing Youth program pursued financial stipends for educational outcomes at a higher rate than the low-income students in the all four treatment groups across three major cities from the Fryer (2011) study. The average percent of maximum earnings for the four treatment groups of low income students in Fryer’s (2011) study ranged from 17% to 57%; whereas, the homeless

students in this study (for the months eligible and enrolled) earned on average 82% of the maximum potential earnings. Of the four treatment groups in Fryer's (2011) study, the most comparable experiment to this study by participant age and the educational outcome variable was the Chicago experiment. The Chicago experiment was the only experiment to include high school students (9<sup>th</sup> graders) and distribute the financial incentive based upon class grades as the educational outcome variable, as opposed to test scores or the number of books read.

The Chicago students had a higher earning potential of \$1,875. However, the average earnings by the students was \$695.61, only 37% of the potential earnings. None of the 3,275 students in the treatment group earned 100% of the potential financial incentive. In my study of homeless youth, in which the maximum earning potential varied by the number of eligible months, nearly one-third (n=311, 32.23%) of the students received the maximum earning potential. These results indicate the differences between the homeless youth populations and the low-income, non-homeless, population in regards to the pursuit of a financial incentive for educational outcomes. Further, these results reiterate Cutuli et. al's (2013) point that many homeless students do succeed academically despite hardships and that there is a need for further research on the risk and resiliency processes among homeless in to order to better address the academic disparities.

Further analysis of this study's results in comparison to previous research is limited because of large methodological variations that exist in the financial incentive research literature. For example, there is a wide range of educational outcome variables that are able to be measured: the number of books read (Fryer, 2011), results on a state exam (Fryer, 2011), grades within a class (Fryer, 2011), attainment of a GED or high school diploma (Slavin, 2009), school attendance (Slavin, 2009), passing the Advanced Placement (AP) exam (Slavin, 2009), or

combinations of educational outcome variables (Slavin, 2009). The ages of students also vary in financial incentive studies: from second grade (Slavin, 2009) to college students (Scott-Clayton, 2011). Further variations in methodologies exist by the amounts (\$5 to \$1000) of awarded incentives, frequencies of financial awards (immediate to upon successful high school graduation), and the combinations of financial awards with financial sanctions for educational outcomes (Fryer, 2011; Slavin, 2009). Reconciliation of research designs for stronger analysis and comparisons are cited in the research literature (Allen & Fryer, 2011; Altana, 2010).

### **Characteristics of Homeless Youth**

There were no significant mean differences between the groups in student gender, race, and ethnicity in regards to the percent of stipends earned, the length of program enrollment, or the total amount of stipends earned. Additionally, the student's gender, race, and ethnicity were not significant predictors of the percent of stipends earned or the length of program enrollment. These findings indicate that the serving agency is successfully serving a diverse population of youth regardless of gender, race, or ethnicity. These findings indicate that homeless, unaccompanied youth of both genders and of various racial/ ethnic backgrounds pursue the financial incentive at a comparable rate.

However, the results from this study do indicate that variations exist within the homeless, accompanied youth population in regards to the pursuit of financial stipends for educational outcomes. These findings suggest that financial stipends may be a better aligned educational incentive for certain types of homeless, unaccompanied youth. Four homeless student characteristics resulted in significant mean differences in the financial stipends obtained for educational outcomes: teen parenting, age of the student, grade of the student, and program enrollment status (a new or returning student). Three of these variables also resulted in

significant mean differences for the numbers of months a student was enrolled in the program: student age, student grade, and the program enrollment status. Additionally, certain student characteristics were stronger predictor variables for the educational outcomes than other student characteristics. Furthermore, trends in the data appeared in regards to the homeless student's age and grade advancement and in regards to a relationship between the length of enrollment and the percent of stipends earned. Each point is discussed in further detail.

The financial incentive studies I have found in the research literature include only pregnant or parenting teens, specifically exclude pregnant or parenting teens, or do not specifically indicate if and how many pregnant or parenting teens were included in the study (Slavin, 2009). This is the first study that explicitly compares parenting and non-parenting teens in regards to financial incentives for educational outcomes. Because this study is based upon homeless, accompanied youth, it is unclear how these results would compare to a study comparing parenting and non-parent youth from a general, housed population. The results from this study indicate that parenting homeless youth obtained a higher percent of financial stipends for educational outcomes as compared to non-parenting homeless youth. A financial stipend is likely a well aligned educational incentive for homeless, parenting youth. Parenting youth have additional financial obligations, such as diapers, baby food, and baby clothing, that financial stipends could assist in providing the basic essentials without needing to quit school to get a job. Further, 85% (n=121) of the teenage parents were female. This finding could indicate that there are more high-school aged, homeless, parenting females than males, or more likely, that more females are taking on the sole parenting roles, while males are not indicating being a parent (and perhaps, not providing for the child).

Students who were older and students in higher grades both earned a higher percentage of the financial stipends and were enrolled in the program longer. These results support claims from Bettinger's (2012) study indicating that younger students respond differently to financial incentive programs than older students. As studies of children in the fields of economics, education, and psychology indicate, children are often more motivated by immediate, tangible rewards as many children are impatient (Bettinger, 2012). Therefore incremental rewards, offered monthly, may not be the best educational incentive for younger children. On average, students 19 years and older earned 10-12% more financial stipends than students aged 15 years and younger. From these results, and the prior literature (Bettinger, 2012; Fryer, 2011), despite homelessness or housed, age does seem to be an individual characteristic tied to the success of a financial incentive for educational outcomes.

Furthermore, the multiple regression analysis indicated that grade was a significant predictor for the percent of stipends earned, for each increase in grade level there was a predicted increase of 3.3% in the percent of stipends earned. This may indicate a heightened financial need of students who are older and may be an incentive that better serves older students. As students get older they take on more responsibilities and often have more financial obligations. It is also likely the older students are expected by those individuals they live with to contribute to their food or shelter costs.

Students who continued in Serving Youth program from the previous school year earned a significantly higher percent of stipends and were enrolled in the program longer compared to new program enrollees. Therefore, it may be beneficial for servicing agencies to follow up and pursue homeless students to continue enrollment in a servicing program. Additionally, homeless youth who often lack parental and adult support may need additional encouragement to continue

with school and program enrollment, therefore it may be beneficial to provide additional support services to students in their first year of program enrollment. Research by Mauldon, Malbin, Stiles, Nicosia, and Seto (2000) indicated that youth provided with financial incentives and case management had higher rates of graduation and satisfactory school progress as compared to the youth provided only financial incentives, only case management, or no treatment (Slavin, 2009). Serving Youth case providers only reach out to youth who submit applications at the beginning of the school year; they may want to change this process to provide additional outreach for continued program enrollment and first year support. Further research is needed to identify if a financial bonus for re-enrollment at the start of the school year or a bonus based on the length of enrollment may be additional beneficial incentivizing techniques.

Furthering the concept of additional case manager or caring adult support that unaccompanied, homeless youth may need are two of the significant predictors for the percent of stipends earned. Students living with a friend and students living with a roommate both predicted a significant decrease in the percent of stipends earned. Similarly, students living with a friend predicted a significant decrease in the length of program enrollment. This result may be explained by primary socialization theory (Thompson, Kost, & Pollio, 2003). According to the primary socialization theory, the family typically serves as a primary, positive role model to teach the child social norms, prosocial behaviors, and protect the youth from risks. If the family fails at this role, the youth may instead bond with deviant peers and engage in negative behaviors (Thompson, Kost, & Pollio, 2003).

Although none of the reasons for homelessness variables significantly predicted the percent of stipends earned, three of the reason for homelessness variables significantly predicted the length of program enrollment: CPS/ Court Ordered, Parent Chooses not to be a Parent, and

Physical/ Sexual Abuse. All three of these variables predicted a significant increase in the length of program enrollment. Self-determination theory has been used to explain the positive practices that have emerged from homeless youth (Dennis, McCallion, & Derretti, 2012; Usborne, Lydon, & Taylor, 2009). According to self-determination theory, goal pursuit and the size of individuals' social networks were positively related to individual's positive well-being (Usborne, Lydon, & Taylor, 2009). Students who have been in uprooting situations may be more likely to commit to a program they find is stable and trustworthy. This program not only supports the students to go to school- where positive social networks are likely to ensue- but the program provides a financial stipend that may allow the student to participate in social events/ activities (such as going to the movies or having a cell-phone) and provides a support system of a case manager who works with the school liaison.

Returning to the trends that were revealed in the results section, homeless, unaccompanied students who were enrolled in the program for a higher number of months earned a higher monthly percentage of stipends. These results suggest that students who were engaged in the program for more months most likely had higher grades in their courses as the months progressed. Recall that students had to earn at least a C in a course for credit for that course to be applied to their stipend. However, this finding might also have resulted from a selection bias in which students who were in the program longer earned higher classroom grades initially. The data set does not have actual grades earned for each course in each month. However, additional analyses that examine the average stipend percentage earned by month of program enrollment could provide a more penetrating answer to this question. Further analyses are needed, beyond the basic descriptive and average relationships to the outcome variables to explore this question.

As the grade of the student advances, the variance in students' age increases. This may be a contributing factor to why homeless youth do not finish school. The variance in age increases as the grades get higher because some students drop out or fail courses, thereby requiring them to stay in school longer as their same aged peers who are more successful in school graduate on time. As cited in literature, one contributing factor to homeless youth dropping out of school is failing classes or not passing through the grades as expected leading the students' to feeling they are unable or unwilling to catch back up in school (Buckner, 2001).

### **Implications**

**Implications for Practice.** From the results of this analysis, there are subgroups of homeless, unaccompanied youth that pursue a financial stipend at a higher rate than other youth. It may be beneficial for agencies of this kind to collect baseline data before applying an incentive strategy. Quality baseline data would also be imperative. Although a student's prior GPA is informative and likely quick and easy to collect, the GPA does not tell us much information about the student. From simply the student's GPA, it is unclear if the student has failed classes for three whole years and is now getting straight A's or if the student was getting straight A's then failed all classes since experiencing a life-changing event (like homelessness). A more effective collection of baseline data would include grades from each class for each semester, including the number of classes failed, the number of times the student has transferred school (an event that often impacts grades), and information from the student regarding previously earned grades. With thorough baseline data, the agency can determine if the intervention is an effective and cost-effective practice or if the student was continuing on a trajectory that had been established before the incentive was initiated. Also, the agency is more likely to be granted funding if the agency has an understanding of the degree to which the incentive is impacting the student's academic achievement.

Further, it would be beneficial for providers to document the frequency and duration of services utilized by each student. In addition, it would be beneficial for the provider to measure the quality of services the student feels they are provided. For example, data stating a student has visited the agency's counselor three times for thirty minutes each does not tell us if the student's concerns were addressed or goals were met for that meeting. It also does not tell us if the student felt connected or trusted the counselor and felt the session was beneficial. This type of data collection could help the providing agency determine which types of services are most likely influencing the student's academic performance. This practice of data collection would also allow the agency to better align services and programs to the youth for which the service(s) would likely benefit the most. Understanding that the homeless youth population is not a homogenous group goes along with the idea that understanding that the homeless population would not benefit from a homogenous set of intervention, incentives, and services.

**Implications for Research.** This results indicated low effect sizes throughout the analyses. I would attribute these findings to what two sets of researchers have found before me. First, Altena, Brillesliper-Kater, and Wolf (2010) found no compelling interventions that are effective at addressing the specific needs within the subgroups of the homeless youth. They attribute this finding to the lack of methodologically sound research in the field. Many essential factors are left out of methodologies, specifically Altena, et. al. (2010) mention quality of life. Second, Buchner (2012) discusses how the measures for the frequency of "toxic events" are absent in homeless research. I would further this argument by saying not only is the frequency of toxic events left out but so too is the duration of the experienced toxic event, the severity of the event, and how the participant perceives that event. All of these absent variables likely contribute to lack of variance able to be accounted for by the current methodologies.

In addition, the field would also benefit from mixed methods studies in which quantitative data, including frequency or “toxic” events and duration of events and/ or the positives like the number of dependable people in the person’s life, is enhanced by qualitative data. For example, understanding the degree to which the individual has experienced trauma or understanding how the individual perceives the trauma would greatly enhance our understanding of the homeless youth population and how to better service these youth.

### **Limitations**

**Research Design.** The design of this study only allowed me to evaluate the characteristics of homeless students who pursued and obtained a financial stipend for educational outcomes. Because the data set lacked prior academic data, there was no way to determine whether the financial stipends were an effective intervention for homeless youth. In addition, the service provider in this study offered other services to the homeless youth including a mini-mall (stocked with clothes, food, and school supplies) and student advocates. By the design of this research study, it is unclear how the usage (and frequency of usage) of those services may have influenced the outcome variables. For example, it is possible that a student stayed in the program not to pursue or obtain a financial stipends but rather because of the availability of a relationship with a caring adult (Student Advocate) or the convenience of the mini-mall.

**Data.** From the limited data on the participants, it was unclear as to the extent of previous academic achievement. For example, there were no data on the students’ prior grades or the number of classes (or grade levels) students had failed. Prior academic achievement information would be helpful to determine if the student was already receiving satisfactory grades before entering the program and simply continued on the same trajectory or if the student had failed so

many classes that continuing in school was not worthwhile to the student despite an incentive offered.

Additionally, there were no data on the students' prior homelessness experiences. The continued enrollment within the program was the only indicator for the length of homelessness. It is unclear if students were homeless for several years prior to enrollment or if the homeless period started on the day of enrollment. The length of homelessness, particularly the length of students' shelter stay, is positively correlated with stress and depression (Buckner, Bassuk, Weinreb, & Brooks, 1999), known factors to impact school performance negatively. Furthermore, like Buckner (2012) suggests, understanding the frequency of "toxic events" instead of a yes/ no question would help researchers and policy makers better understand youth which could lead to better aligned services and interventions. Adding these types of data would likely increase the variance explained and predictability of the outcome variables.

### **Future Research**

Future research is needed to examine additional educational interventions for homeless youth, including models that provide multiple layers of support or interventions. Rigorous studies that include control groups, randomized groups, resemblance between groups, large sample sizes, follow ups, and a clear definition of interventions would enhance our understanding of the homeless youth population and allow for quality and targeted educational interventions (Altena, 2010). Follow up data would be beneficial to understand if the financial stipends adversely impacts intrinsic motivation, as suggested in the research of Leuven, Oosterbeek, and Klaauw (2010) along with other behavioral economists. Lastly, further research is needed to determine if there is a "magic number" for a financial stipend to be a strong

motivator for homeless youth. Is \$125 per month worth staying in school for homeless, unaccompanied youth, or is the appeal to drop out and obtain employment or participate in (illegal) street-activities for earnings more enticing?

Further research is needed to identify the combinations of homeless youth characteristics that best align with services and incentives to improve educational outcomes. The understandings of the subgroups best serviced by financial incentives will help the design and implementation of services and programs to help improve the success and completion of K-12 education for homeless youth. The development of cost effective solutions to the drop-out epidemic of homeless youth will help improve the livelihood of the youth in this unfortunate situation and the nation as a whole as we increase the number of educated individuals with the skills to be productive citizens.



- e. 5= Parental substance abuse
- f. 6= Conflict with parent/ step parent
- g. 7= Parental Illness
- h. 8= Parental Incarceration
- i. 9= Poverty
- j. 10= Physical or Sexual Abuse
- k. 11= Verbal or Emotional Abuse
- l. 12= Students Lifestyle
- m. 13= Parents live out of town
- n. 14= Aged out of Foster Care

#### 10. Reason for Homelessness for Multiple Regression (Dummy Variables)

- |                                      |   |
|--------------------------------------|---|
| 1= CPS Removal/ Court ordered        | 0= Reason other than CPS Removal/ Court ordered                               |
| 1= Court Ordered                     | 0= Reason other than Court Ordered  |
| 1= Parental Death                    | 0= Reason other than Parental Death   |
| 1= Parent Chooses not to be a parent | 0= Reason other than Parent Chooses not to be a parent                        |
| 1= Parental substance abuse          | 0= Reason other than Parental substance abuse                                 |
| 1= Conflict with parent/ step parent | 0= Reason other than Conflict with parent/ step parent<br>(excluded variable) |
| 1= Parental Illness                  | 0= Reason other than Parental Illness   |
| 1= Parental Incarceration            | 0= Reason other than Parental Incarceration                                   |
| 1= Poverty                           | 0= Reason other than Poverty  |
| 1= Physical or Sexual Abuse          | 0= Reason other than Physical or Sexual Abuse                                 |
| 1= Verbal or Emotional Abuse         | 0= Reason other than Verbal or Emotional Abuse                                |
| 1= Students Lifestyle                | 0= Reason other than Students Lifestyle                                       |
| 1= Parents live out of town          | 0= Reason other than Parents live out of town                                 |
| 1= Aged out of Foster Care           | 0= Reason other than Aged out of Foster Care                                  |

#### 11. Current Living Situation

- a. 1=Alone
- b. 2=Relative
- c. 3=Significant Other
- d. 4=Friend
- e. 5=Group Home
- f. 6=Host Family
- g. 7=Transitional Housing
- h. 8=Roommates
- i. 9=Other- Multiple Living Situation

12. Current Living Situation for Multiple Regression (Dummy Variables)

1=Alone	0= Living Condition other than Alone
1=Relative	0= Living Condition other than Relative (excluded variable)
1=Significant Other	0= Living Condition other than Significant Other
1=Friend	0= Living Condition other than Friend
1=Group Home	0= Living Condition other than Group Home
1=Host Family	0= Living Condition other than Host Family
1=Transitional Housing	0= Living Condition other than Transitional Housing
1=Roommates	0= Living Condition other than Roommates
1=Other- Multiple Living Situation	0= Living Condition other than Other/Multiple

13. Sum of Months= Sum of all student's monthly totals added together (\$0-125 for each month enrolled)

14. Number of months eligible: Not ineligible, between date entered the program and date withdrew from the program, range of months is 1-9

15. Percent Earned: money earned divided by sum of money possible for the eligible months, this number is used as a decimal in SPSS. For example, earned 76% is earned as .76

## REFERENCES

- Allan, B. M., & Fryer, R. G. (2011). The power and pitfalls of education incentives. *The Hamilton Project*, (September). Retrieved from [http://www.brookings-tsinghua.cn/~media/Files/rc/papers/2011/09\\_incentives\\_fryer\\_allen/092011\\_incentives\\_fryer\\_allen\\_appendix.pdf](http://www.brookings-tsinghua.cn/~media/Files/rc/papers/2011/09_incentives_fryer_allen/092011_incentives_fryer_allen_appendix.pdf)
- Altena, A. M., Brilleslijper-Kater, S. N., & Wolf, J. L. M. (2010). Effective interventions for homeless youth: a systematic review. *American Journal of Preventive Medicine*, 38(6), 637–45. doi:10.1016/j.amepre.2010.02.017
- Aratani, Y., (2009) Homeless Children and Youth: Causes and consequences. *National Center for Children In Poverty, Mailman School of Public Health Columbia University*, September 2009 , PP: 14
- Attles, H. S. (1997). The effects of homelessness on the academic achievement of children. New York: Garland.
- Bass, D. (1995). Runaways and homeless youths. *Encyclopedia of social work* (19<sup>th</sup> ed.). Washington, DC: NASW Press.
- Bettinger, E. P. (2012). Paying to learn: The effect of financial incentives on elementary school test scores. *Review of Economics and Statistics*, 94(August), 686–698. doi:10.1162/REST\_a\_00217
- Buckner, J.C. (2008). Understanding the impact of homelessness on children: Challenges and future research directions. *American Behavioral Scientist*, 51, 721-736
- Buckner, J. C. (2012). Education research on homeless and housed children living in poverty: Comments on Masten, Fantuzzo, Herbers, and Voight. *Educational Researcher*, 41(9), 403–407. doi:10.3102/0013189X12466588

- Buckner, J. C., Bassuk, E. L., Weinreb, L. F., & Brooks, M. G. (1999). Homelessness and its relation to the mental health and behavior of low-income school-age children. *Developmental psychology*, 35(1), 246.
- Buckner, J.C., Bassuk, E.L., & Weinreb, L.F. (2001). Predictors of academic achievement among homeless and low-income housed children *Journal of School Psychology*, 38, 45-69.  
Doi:10.1016/S0022-4405(00)00059-5
- Bridgeland, J. M., Dilulio, J.J., Morison, K.B. (2006). *The silent epidemic: Perspectives of High School Dropouts*. Washington, DC: Civic.
- Cauce, A. M., Paradise, M., Aaron, J., Embry, L., Morgan, C. J., & Lohr, Y. (2000). The characteristics and mental health of homeless adolescents: Age and gender differences. *Journal of Emotional & Behavioral Disorders*, 5(4), 230
- Cohen, J., & Cohen, P. (1975) *Applied multiple regression/correlation analysis for the behavioral sciences*. Hillsdale, NJ: Lawrence Erlbaum.
- Cohen, J., Cohen, P., West, S. G., & Aiken, L. S. (2013). *Applied multiple regression/correlation analysis for the behavioral sciences*. Routledge.
- Coontz, S., Folbre, N. (2002) *Marriage, Poverty, and Public Policy*. A Discussion paper from the Council on Contemporary Families, Prepared for the Fifth Annual CCF Conference, April 26-28, 2002. Retrieved from  
<http://www.pbs.org/wgbh/pages/frontline/shows/marriage/etc/poverty.html#41>
- Coward, B.C., (2007) Toward a needs-based typology of homeless youth. *The Journal of Adolescent Health*: Official publication of the Society of Adolescent Medicine 2008 vol: 43 (6P pp: 549-54

- Culhane, D. P., Metraux, S., & Hadley, T. (2002). Public service reductions associated with placement of homeless persons with severe mental illness in supportive housing. *Housing Policy Debate*, 13,107–163. <http://dx.doi.org/10.1080/10511482.2002.9521437>.
- Culhane, D. P. (2008). The Costs of Homelessness : A Perspective from the United States. *European Journal of Homelessness*, 2, 97–114.
- Cutuli, J. J., Desjardins, C. D., Herbers, J. E., Long, J. D., Heistad, D., Chan, C.-K., Masten, A. S. (2013). Academic achievement trajectories of homeless and highly mobile students: resilience in the context of chronic and acute risk. *Child Development*, 84(3), 841–57. doi:10.1111/cdev.12013
- Dennis, C. B., McCallion, P., & Ferretti, L. A. (2012). Understanding implementation of best practices for working with the older homeless through the lens of self-determination theory. *Journal of gerontological social work*,55(4), 352-366.
- Detota, M. (2012). Definitions and counts of doubling pp, public policy capstone, 1–19.
- Durso, L. E., & Gates, G. J. (2012). Serving our youth: Finding from a national survey of services providers working with lesbian, gay, bisexual and transgender youth who are homeless or at risk of becoming homeless, 1–16. Retrieved from <http://williamsinstitute.law.ucla.edu/wp-content/uploads/Durso-Gates-LGBT-Homeless-Youth-Survey-July-2012.pdf>
- Edidin, J. P., Ganim, Z., Hunter, S. J., & Karnik, N. S. (2012). The mental and physical health of homeless youth: a literature review. *Child Psychiatry and Human Development*, 43(3), 354–75. doi:10.1007/s10578-011-0270-1
- Feldmann, J., & Middleman, A. (2003). Common clinical concerns among homeless youth. *Seminars in Pediatric Infectious Disease*, 14,6–11.

- Ferguson, K.M. (2009) Exploring family environment characteristics and multiple abuse experiences among homeless youth. *J Interpers Violence* 24: 1875-1891
- Fernandes, A. L. (2007). Runaway and homeless youth: Demographics, programs, and emerging issues. Washington, D.C.: Congressional Research Service. Retrieved from [www.endhomelessness.org/files/1451\\_file\\_CRS\\_RHYA\\_Dec\\_10\\_07.pdf](http://www.endhomelessness.org/files/1451_file_CRS_RHYA_Dec_10_07.pdf).
- Fernandes-Alcantara, A. L. (2013). Runaway and homeless youth: Demographics and programs, 1–38. Retrieved from [http://www.nchcw.org/uploads/7/5/3/3/7533556/crs\\_2013\\_rhya\\_history\\_and\\_lit\\_review.pdf](http://www.nchcw.org/uploads/7/5/3/3/7533556/crs_2013_rhya_history_and_lit_review.pdf)
- Finzel, R. (2013) Homeless and runaway youth Retrieved from <http://www.ncsl.org/research/human-services/homeless-and-runaway-youth.aspx>
- Fryer, R.G. (2011). Financial incentives and student achievement: evidence from randomized trials. *The Quarterly Journal of Economics*. (2011) vol: 126, (4), pp: 1755 – 1798
- Greene, J. M., Ennett, S. T., & Ringwalt, C. L. (1999). Prevalence and correlates of survival sex among runaway and homeless youth. *American Journal of Public Health*, 89(9), 1406–1409.
- Haber, M. G., & Toro, P. A. (2004). Homelessness among families, children, and adolescents: An ecological-developmental perspective. *Clinical Child and Family Psychology Review*, 7, 123–164. doi:10.1023/B:CCFP.0000045124.09503.f1
- Hammer, H., Finkelhor, D., & Sedlak, A. (2002). Runaway/throwaway children: National estimates and characteristics, (October), 1–12. Retrieved from <http://digitalcommons.unl.edu/humtraffdata/20/>
- Heffner, C.L. (2015) Chapter 4:Section 3: Reinforcement and Reinforcement Schedules, retrieved from <http://allpsych.com/psychology101/reinforcement/#.VTQ1YvnF-So>

- Hoffman, C. (2009). Young and homeless in Nashville: The score of runaway and throw away youth and the experiences of homeless youth. *Dissertation*.
- Julianelle, P. (2008). Using What We Know : Supporting the Education of Unaccompanied Homeless Youth.
- Kelly, E. (2007) The long –term effects of homelessness on children. Council Report for Vermont Senate
- Kent, R. A. (2015). *Analysing quantitative data: Variable-based and case-based approaches to non-experimental datasets*. SAGE.
- Klimberg, R., & McCullough, B. D. (2013). *Fundamentals of predictive analytics with JMP*. SAS Institute.
- Kort-Butler, L. a, & Tyler, K. a. (2012). A cluster analysis of service utilization and incarceration among homeless youth. *Social Science Research*, 41(3), 612–23.  
doi:10.1016/j.ssresearch.2011.12.011
- Krueger, A. B. (2003), Economic considerations and class size. *The Economic Journal*, 113: F34–F63. doi: 10.1111/1468-0297.00098
- Leuven, E., Oosterbeek, H., & Klaauw, B. (2010). The effect of financial rewards on students' achievement: Evidence from a randomized experiment. *Journal of the European Economic Association*, 8(6), 1243-1265
- Mallett, S., Rosenthal, D, & Keys, D, 2005 Young people, drug use and family conflict: pathways into homelessness. *J Adolesc* 28, 185-199
- Malone, D. K., Atkins, D. C., Garner, M. D., Larimer, M. E., Lonczak, H. S., Ginzler, J., Hobson, W. G. (2009). Health care and public service use and costs before and after

provision of housing for chronically homeless persons with severe alcohol problems.

JAMA, 301(13), 1349-1357. doi:10.1001/jama.2009.414

Mawhinney-Rhoads, L. (2006). Educational policy and reform for homeless students: An overview. *Education and Urban Society*, 38(3), 288–306. doi:10.1177/0013124506286943

Mehana, M., Reynolds, A.J (2004) School mobility and achievement: a meta-analysis. *Children and Youth Services Review*, 26, 2004) 93-119

Milburn, N., Liang, L., Lee, S., Rotheram-borus, M. J., Rosenthal, D., Mallett, S., & Lester, P. (2009). Who is doing well? A typology of newly homeless adolescents, 37(2), 135–147. doi:10.1002/jcop

Miller, P. M. (2009). An Examination of the McKinney-Vento Act and its influence on the homeless education situation. *Educational Policy*, 25(3), 424–450.

doi:10.1177/0895904809351692

Miller, P.M., (2011) *A critical analysis of the research on student homelessness*

Moore, J. (2005) Unaccompanied and homeless youth: review of the literature 1995–2005.

Washington, National centre for homeless education. Retrieved 1 December 2007, from [http://srvlive.serve.org/nche/downloads/uy\\_lit\\_review.pdf](http://srvlive.serve.org/nche/downloads/uy_lit_review.pdf)

National Alliance to End Homelessness (2011) State of homelessness in america, Retrieved from <http://www.endhomelessness.org/content/article/detail/3664>

National Alliance to End Homelessness (2012) Changes in the HUD definition of “Homeless” Policy Brief: Retrieved from: <http://www.endhomelessness.org/library/entry/changes-in-the-hud-definition-of-homeless>

National Alliance to End Homelessness (2014a), Cost of homelessness

Retrieved from: [http://www.endhomelessness.org/pages/cost\\_of\\_homelessness](http://www.endhomelessness.org/pages/cost_of_homelessness)

National Alliance to End Homelessness (2014b) State of homelessness in america, Retrieved from [http://b.3cdn.net/naeh/d1b106237807ab260f\\_qam6ydz02.pdf](http://b.3cdn.net/naeh/d1b106237807ab260f_qam6ydz02.pdf)

National Alliance to End Homelessness (2015) FY 2016 Appropriations: HUD's homeless assistance grants, Federal Policy Update, February 2015

National Association for the Education of Homeless Children and Youth, National Health Care for the Homeless Council, National Policy and Advocacy Council on Homelessness, and Volunteers of America (2013), Questions and answers about expanding HUD's definition of homelessness

<http://www.ncdsv.org/images/QandAAboutExpandingHUDsDefofHomelessness.pdf>

National Center for Homeless Education (NCHE) (September, 2014). Education for homeless children and youth: Consolidate state performance report data- School Years 2010-2011, 2011-2012, and 2012-2013

The National Center of Family Homelessness (2014). America's youngest outcasts, (November 2014). <http://new.homelesschildrenamerica.org/mediadocs/280.pdf>

National Coalition for the Homeless (2009) Homeless families with children. Retrieved from <http://www.nationalhomeless.org/factsheets/families.html>

The National Network for Youth (2015) RHYA 2015 Reauthorization: Act now to reauthorize the Runaway and Homeless Youth Act, Retrieved from <https://www.nn4youth.org/policy-advocacy/rhya-2015-reauthorization/>

Nicholas, R. (2006) Lesbian, gay, bisexual and transgender youth: An epidemic of homelessness, National Coalition for the Homeless, Retrieved from [www.thetaskforce.org/downloads/HomelessYouth.pdf](http://www.thetaskforce.org/downloads/HomelessYouth.pdf)

- Nunez, R. (1995). *An American family myth: Every child at risk*. New York: Homes for the Homeless.
- Obradović J Long J Cutuli J Chan C Hinz E Heistad D Masten A (2009). Academic achievement of homeless and highly mobile children in an urban school district: longitudinal evidence on risk, growth, and resilience. *Development and psychopathology*, vol:21. (2) pp:493-518
- One Family, Inc. (2011) Advocacy Alert From National Alliance  
Retrieved from: <http://www.onefamilyinc.org/Blog/category/advocacy-alerts/page/2/>
- Peng, C.Y. (2009). *Data analysis using SAS*. Thousand Oaks, CA: SAGE Publications, Inc.  
doi: <http://dx.doi.org/10.4135/9781452230146>
- Perl, L., Bagalman, E., Fernandes-Alcantara, A. L., Heisler, E. J., McCallion, G., McCarthy, F. X., & Sacco, L. N. (2013). Homelessness: Targeted federal programs and recent legislation. *Assets.Opencrs.Com*, 1–36. Retrieved from  
[http://assets.opencrs.com/rpts/RL30442\\_20060926.pdf](http://assets.opencrs.com/rpts/RL30442_20060926.pdf)
- Rafferty, Y., Shinn, M., & Weitzman, B. C. (2004). Academic achievement among formerly homeless adolescents and their continuously housed peers. *Journal of School Psychology*, 42(3), 179–199. doi:10.1016/j.jsp.2004.02.002
- Review of Educational Research September 2011 81: 308-337, first published on July 29, 2011  
doi:10.3102/0034654311415120
- Ringwalt, C. L., Greene, J. M., & Robertson, M. J. (1998). Familial backgrounds and risk behaviors of youth with runaway experiences. *Journal of Adolescence*, 21, 241–252.  
doi:10.1006/jado.1998.0150
- Robertson, M.J., Toro P.A. (1999) Homeless youth: Research, intervention, and policy. In: Fosburg LB, Dennis DB, editors. *Practical lessons: The 1998 national symposium on*

- homelessness research. Washington, DC: *U.S. Department of Housing and Urban Development*; 1999. pp. 3-1–3-32.
- Rodríguez-Planas, N. (2012). Mentoring, educational services, and incentives to learn: what do we know about them? *Evaluation and Program Planning*, 35(4), 481–90.  
doi:10.1016/j.evalprogplan.2012.02.004
- Rosa, C. J. De, Montgomery, S. B., Ph, D., Kipke, M. D., Iverson, E., Ma, J. L., & Unger, J. B. (1999). Service utilization among homeless and runaway youth in Los Angeles , California : Rates and Reasons, 190–200.
- Rosenthal, R. (1994). Parametric measures of effect size. In H. Cooper & L. V. Hedges (Eds.), *The handbook of research synthesis* (pp. 231 – 244). New York: Russell Sage Foundation
- Rubin, D.H., Erickson, C.J., San Agustin, M., Cleary, S.D., Allen, J.K., & Cohen, P. (1996). Cognitive and academic functioning of homeless children compared with housed children. *Pediatrics*, 97, 289-294
- Runaway and Homeless Youth Act. (42 U.S.C. 5601 note).
- Samuels, J., Shinn, M., & Buckner, J.C. (2010). *Homeless children: Update on research, policy, programs, and opportunities*: Prepared for the Office of the Assistant Secretary for Planning and Evaluation. Washington, DC: U.S. Department of Health and Human Services.
- Slavin, R. E. (2009). Can financial incentives enhance educational outcomes ? Evidence from international experiments, 1–23.
- Slesnick, N., Dashora, P., Letcher, A., Erdem, G., & Serovich, J. (2009). A Review of services and interventions for runaway and homeless youth: Moving forward. *Children and Youth Services Review*, 31(7), 732–742. doi:10.1016/j.childyouth.2009.01.006

Slesnick, N., Glassman, M., Garren, R., Toviessi, P., Bantchevska, D., & Dashora, P. (2008).

How to open and sustain a drop-in center for homeless youth. *Children and Youth Services Review*, 30(7), 727–734. doi:10.1016/j.childyouth.2007.12.004

Slesnick, N., Kang, M. J., Bonomi, A. E., & Prestopnik, J. L. (2008b). Six- and twelve-month

outcomes among homeless youth accessing therapy and case management services through an urban drop-in center. *Health Services Research*, 43(1 Pt 1), 211–29. doi:10.1111/j.1475-6773.2007.00755.x

Soika, M. J. (2004). Under the radar: A survey of homeless adults in Milwaukee. Milwaukee,

WI: Milwaukee Continuum of Care Homeless Coalition.

South, S., Trent, K. and Shen, Y. (2001) Changing Partners: Toward a Macrostructural-

Opportunity Theory of Marital Dissolution, *Journal of Marriage and Family*, 63, no. 3: 743-754

Spellman, B. (2010). *Costs associated with first-time homelessness for families and individuals*.

DIANE Publishing

State Interagency Council to End Homelessness and Interagency Council on Hunger and

Homelessness. Oregon Executive Order 06-05, April 4, 2006. Available at

<http://governor.oregon.gov/Gov/pdf/eo0605.pdf>.

Sum, A., Khatiwada, I., and McLaughlin, J., (2009) The consequences of

dropping out of high school : joblessness and jailing for high school dropouts and the high cost for taxpayers Center for Labor Market Studies Publications. Paper 23.

<http://hdl.handle.net/2047/d20000596>

Tanner-McBrien, L. (2010). How does school mobility impact indicators of academic

achievement for highly mobile students ? By Laura Tanner-McBrien B . A . ( California

State University , Fresno ) 1987 M . A . ( California State University , Fresno ) 1990

DISSERTATION Submitted in p. *Dissertation*.

Thompson, S.J., Bender, K.; Windsor, L., Cook, M.S., Williams, T. (2010) Homeless youth: Characteristics, contributing factors, and service options. *Journal of Human Behavior in the Social Environment*, Vol. 20, Iss. 2, 2010

Thompson, S.J., Kost, K.A., Pollio, D.E. (2003). Examining risk factors associated with family reunification for runaway youth: Does ethnicity matter? *Family Relations*, 52(3), 296-304

Tyler, K. a, Akinyemi, S. L., & Kort-Butler, L. a. (2012). Correlates of service utilization among homeless youth. *Children and Youth Services Review*, 34(7), 1344–1350.

doi:10.1016/j.childyouth.2012.03.010

U.S. Department of Education. (2001). The McKinney-Vento Homeless Assistance Act, Subtitle B -- Education for Homeless Children and Youths. *42 U.S.C., 11431 et s(c)*.

U.S. Department of Education (July 2004). Education for homeless children and youth program, Title II-B of the McKinney Vento Homeless Avt EDUCATION FOR HOMELESS  
Washington, DC

U.S. Department of Housing and Urban Development (October, 2014) The 2014 Annual homeless assessment report (AHAR) to Congress (2014)

U.S. Department of Housing and Urban Development (2014b) Point-in-time count tethodology guide

United States Interagency Council on Homelessness. (2015). Proposed fiscal year 2015 budget fact sheet: Homelessness assistance.

- Usborne, E., Lydon, J. E., & Taylor, D. M. (2009). Goals and social relationships: Windows Into the motivation and well-being of “street kids” 1. *Journal of Applied Social Psychology, 39*(5), 1057-1082.
- Vissing, Y. (2000). Meeting the educational needs of intermediate and middle school homeless students. In J. H. Stronge & E. Reed-Victor (Eds.), *Educating homeless students: Promising practices* (pp. 45-66). Larchmont, NY: Eye on Education.
- Williams Institute, U. S. of L. (2012). The Williams Institute Mission. Retrieved from <http://williamsinstitute.law.ucla.edu/mission/>
- Wong, Y.-L., Park, J.M., & Nemon, H. (2005) Homeless service delivery in the context of the Continuum of Care. *Administration in Social Work 30* pp. 67-93
- Wong, J., Salomon, A., Elliott, L. T., Tallarita, L., & Reed, S. (2015). Program : Turning good law into effective education, *1*.
- Ylimaki, R. M. (2011). *Critical curriculum leadership: A framework for progressive education*. Routledge.
- Ziesemer, C., Marcoux, L., & Marwell, B. E. (1994). Homeless children: are they different from other low-income children? *The Social Worker, 39*(6), 658–668.
- Zlotnick, C., Kronstadt, D., & Klee, L. (1998). Foster care children and family homelessness. *American Journal of Public Health, 88*(9), 1368–1370. doi:10.2105/AJPH.88.9.1368