

# Youth and Saving in Ghana:

## A Baseline Report from the YouthSave Ghana Experiment

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# Youth and Saving in Ghana: A Baseline Report from the YouthSave Ghana Experiment

## Executive Summary

Learning to earn, use, and save money is viewed widely in higher income countries as an important step in preparing youth to become socially and financially competent adults. However, little evidence exists regarding the impact of financial assets on youth development—particularly educational, health, and psychosocial outcomes—in lower income countries. This report begins to address this gap by presenting research on educational, financial capability, health, and psychosocial outcomes of youth and their parents in the YouthSave Ghana Experiment. YouthSave is a pioneering project designed to increase savings and measure development outcomes among low-income youth in Colombia, Ghana, Kenya, and Nepal. The goals of YouthSave research are to measure the uptake, savings outcomes, experiences, and developmental impacts of youth savings accounts (YSAs) on clients and financial institutions. YouthSave targets youth from low-income families to understand how saving affects the lives of youth from this population. These low-income youth are not representative of all Ghanaian youth but represent a subgroup of youth least likely to experience optimum youth development.

In Ghana, a rigorous research design includes a pre-post nested randomized experiment with three treatment arms and one control condition. Because the YouthSave intervention is being marketed and delivered through junior high schools (JHSs), the sampling frame is limited to students aged 12–14 years in HFC bank’s catchment area. The treatment and control conditions were assigned at the school level to ensure all youth participants within a school belong to either a treatment or control group. The Ghana Experiment uses a cluster randomized design with 100 schools randomly selected from eight of Ghana’s 10 regions. Fifty schools were assigned randomly to the treatment condition, and another 50 schools were assigned randomly to the control condition. Of the 50 treatment schools, 25 were assigned randomly to participate in in-school banking, thus forming the second treatment group. The third treatment group consists of all third-year JHS students who will receive text messages about the intervention. Sixty students were selected randomly from each school for a total of 3,000 youth in the treatment group and 3,000 in the control group with oversampling for attrition. This process yielded a sample of 6,252 youth.

This report uses data from baseline surveys with 6,252 youth and 4,576 parents and guardians of these youth. Of youth surveyed at baseline, 73% had a parent or guardian also surveyed at baseline. Data were collected from May through June 2011 by the Institute of Statistical, Social and Economic Research (ISSER) at the University of Ghana. These data are pre-treatment and will be presented descriptively to paint a picture of the demographics and economic conditions of the youth and their financial knowledge, money management behaviors, educational performance, academic aspirations and expectations, future orientation, and health behaviors and knowledge.

After the endpoint data are collected in August 2014, the savings and developmental outcomes of the treatment and the control groups will be compared to assess the impact of the YouthSave intervention. The three treatment groups with different interventions also will be compared to assess possible differences in outcomes.

## Intervention

The YouthSave intervention is the offering of a youth-tailored savings account to youth ages 12–18. While the savings account is open to in-school and out-of-school youth, the Ghana Experiment is restricted to in-school youth interviewed at baseline. The YouthSave account is marketed to out-of-school youth at markets, workplaces, and lorry parks. For youth participating in the Ghana Experiment, HFC Bank is conducting intensive marketing in the treatment schools only. In addition, youth in 25 randomly selected treatment schools can make school-based deposits, which involves HFC bank staff going to the selected schools to collect deposits. The other 25 treatment schools have outreach from the bank but can make deposits at the banking hall only. The aim of this design is to measure the effect of in-school banking on financial capability.

The YouthSave product is called *Enidaso*, which means “hope” in Akan, a dominant Ghanaian dialect. The Enidaso account includes a free photo ATM card that can be used to check account balance only with no charge. Withdrawals are restricted for the first three months. Youth can make deposits alone but can withdraw only in the presence of a custodian (i.e., a parent or guardian).

The YouthSave Ghana Experiment investigates the hypothesis that educational performance will improve, financial capability will increase, health choices will be safer, and psychosocial outcomes will be positive among youth who own financial assets. An additional hypothesis is that families will have positive financial outcomes and will be more involved in the lives of the youth. Specifically, we hypothesize that participation in the YouthSave intervention will:

1. increase youth’s financial assets, financial knowledge, and money management behaviors; increase frequency of parent’s or guardian’s interaction with their children about money; and increase family economic stability;
2. improve academic performance; increase likelihood of youth transitioning from junior high school (JHS) to senior high school (SHS); increase youth’s academic aspirations and expectations; and increase youth’s future orientation; and
3. positively influence family protective factors; youth’s aspirations and expectations; and youth’s future orientation, which will in turn affect youth’s health-risks and influence youth’s health perception.

## Findings

YouthSave aims to improve financial inclusion and well-being of low-income youth. The average monthly income of YouthSave participants’ households is approximately 135 USD, lower than Ghana’s estimated 2011 GDP per capita purchasing power parity of 258 USD per month (Central Intelligence Agency [CIA], n.d.). Other characteristics from baseline survey data suggest that the Ghana YouthSave population has lower socioeconomic status than the general Ghanaian population. Among parents or guardians, for example, only 9% have postsecondary education or higher contrasted with 14% in the general population (Ghana Statistical Service, 2008). A higher percentage of parents or guardians (41%) are shop and market workers contrasted with only 13% of the general population (Ghana Statistical Service, 2008). These are predominantly low-wage jobs (Losby, et. al. 2002), further suggesting that many in the YouthSave sample fall in the low-income bracket. Conversely, a lower percentage of parents or guardians (13%) are employed in the formal sector contrasted with 18% of the adults in the general population (Ghana Statistical Service, 2008).

Living conditions of YouthSave youth and their families vary widely by type of toilet facility, sources of drinking water, and type of dwelling, but the conditions reported are consistent with the living conditions of low-income areas of Ghana. Little variation is observed in terms of sources of energy for cooking and main construction materials used for the outer walls, floors, and roofs of the dwellings. Family asset-ownership also varies. Appliances are the most commonly owned asset among households, with 98% owning at least one type of appliance.

Findings suggest that participants and their parents or guardians might benefit from structured opportunities to save money for longer term, future-oriented purposes. Although youth and their parents or guardians view themselves as active money managers and say they favor saving and the use of formal financial institutions, they appear to lack experience with saving and financial institutions.

Most youth surveyed have received financial education, but for no more than five hours. Parents are identified as a common source of financial information, perhaps because there is a cultural expectation that parents provide financial knowledge to their children through the socialization process (Ansong & Gyensare, 2012). Parents and guardians view themselves as good money managers but save mostly for near-term and consumptive purposes. They support their children managing their own money and saving but may be unaware of the extent to which their children already are saving informally.

Academic performance among children in the YouthSave Ghana sample is generally low. Based on the Ghana Education Service's criteria of a 50% score as average performance, the results from the baseline survey indicate that the majority of students scored below average in math and English. Youth in the most economically deprived part of the country (i.e., the northern regions) performed equally as well as—and in some cases, better than—students in less economically deprived regions, which may be attributed to increased education investment in deprived areas of Ghana. There is no significant relationship between the educational performance of youth who save and those who do not. Generally, a youth's tendency to work for money while in school does not make a substantial difference in academic performance. Youth who are concerned that financial constraints could interfere with their educational goals save at least once a month, which may be an indication that saving for education is a major motivation for youth savings.

No measure of future orientation—except having a plan for tertiary education—is significantly associated with academic performance (i.e., scores in math and English). In other words, the prospect of advancing to university is a strong motivating factor for Ghanaian youth to study hard at the earlier stages of their education. It is noteworthy, however, that while increased capacity of tertiary institutions makes it possible for more youth to progress to higher education, a large proportion of youth still may be unable to attend because of either poor academic performance or inability to afford the tuition.

Data on several health topics critical for safe transition from adolescence to young adulthood (e.g., attitudes toward risky sexual behaviors and HIV prevention, family-level protective factors, and perceived health status) suggest there may be differences according to gender, grade level, and whether or not the young person earns or saves money. However, results are preliminary and

exploratory because we did not control for other variables associated with various health outcomes (e.g., education level, income, asset ownership, and access to health facilities). The next phase of data analysis will focus on multivariate analyses of health outcomes.

The majority of Ghanaian youth in YouthSave have positive perceptions of their health shared by their parents or guardians. Self-perceived health status differs by gender and financial behavior. Most youth are close to their parents who provide advice, support, and encouragement, and most also have negative attitudes toward sex at a young age and positive attitudes toward HIV prevention. Although most youth do not believe that young people should have sex until they are married, a majority of them believe condoms are effective for preventing infection with HIV/AIDS. One third knows a friend who has had sex within the last school term. Young people's attitudes appear to be significantly influenced by social norms and motivation to comply with friends and peers. Attitudes toward sex and HIV prevention differ by gender and grade level.

Households have varying levels of access to health facilities. Hospitals and health centers or polyclinics are the closest health facility for YouthSave experiment households. Access to health facilities, including distance, traveling time, and type of transportation used to get to the nearest health facility, differs by region of residence.

### **Toward the Future: Impact Assessment**

The next steps in the Ghana Experiment will examine the primary question: How do youth and household characteristics influence the uptake of savings accounts and savings outcomes in the YouthSave Ghana Experiment? Multivariate analysis will be conducted to determine which youth and household characteristics have significant effects on saving and other related outcomes. Another important research question is whether youth in the treatment group shift from setting aside money for short-term needs to long-term, goal-oriented purposes. It also will be important to understand the nature and timeline of their goals (e.g., short-term goal of saving to maintain attendance in senior high school or long-term goal of paying for trade school or college).

Overall, the baseline data have provided insight into students' academic performance and parental involvement in their education. YouthSave post-intervention data are expected to provide additional insight into whether the offering of a youth savings account has any impact on these measures. We will investigate whether the treatment group demonstrates improved academic performance and other educational outcomes contrasted with the control group.

Two waves of data collection will allow us to test potential causal relationships among participation in YouthSave, future orientation, and academic performance. Because the YouthSave dataset also includes information on other youth and family characteristics, future studies will focus on understanding different predictors of future orientation and academic expectations.

The Ghana Experiment will provide rigorous and high-quality evidence. The key aspect of the research design is its strong internal validity (Shadish, Cook, & Campbell, 2002) that will allow us to make causal inferences. The cluster randomized design will increase confidence in drawing causal relationships (i.e., whether participation in YouthSave leads to better youth outcomes). The

randomized design also addresses methodological weaknesses common in studies evaluating the impact of savings programs on youth development outcomes.

YouthSave is innovative in its focus on lower income youth savings and its use of survey instruments created to measure youth development indicators that go beyond financial outcomes. The follow-up data collection (scheduled for 2014) will be critical in determining the impact of YouthSave on savings, asset accumulation, and a wide range of social, health, financial, and educational outcomes.

In addition to savings and development outcomes, the YouthSave Ghana Experiment provides a rich source of information about institutional characteristics that promote financial inclusion—including access and security—and spur positive savings performance (Beverly et al., 2008; Sherraden & Barr, 2005). Institutional characteristics can inform future financial inclusion programs and policies. Because policy can affect institutional structure, an important research question to be addressed is how institutional characteristics of YouthSave are associated with savings outcomes.

YouthSave is the largest experiment to test youth financial inclusion in developing countries, and findings from the Ghana Experiment will offer numerous policy implications for public and private institutions in the developing world. Follow-up data collection will allow us to examine all potential causal relationships hypothesized in this baseline report.



## Chapter 1: Financial Assets, Financial Capability, Youth Development, and Family Economic Stability

### Youth Development and Financial Assets

*Youth development* is a process by which activities and experiences prepare young people to meet the challenges of adolescence and adulthood and become socially, emotionally, physically, financially, and cognitively competent. One youth development process is learning to earn, use, and save money, which can prepare them to be socially and financially competent adults. Financial assets—those owned by youth and those owned by their families—may have a positive impact on educational, health, and psychological outcomes.

For the purposes of this report, *financial assets* are defined as economic resources in the form of savings, which derive their value from a contractual claim with a formal bank account, within a community savings group, or with a *susu* savings collector. Savings can ensure continued consumption during periods of irregular income, act as a buffer for economic shocks from job loss and illness, and be invested for long-term development.

Financial inclusion refers to access to and capable use of formal financial services, such as savings accounts with banks and credit unions. Despite growth of the formal financial sector, these services are less prevalent in Sub-Saharan Africa (SSA) compared to higher income countries. In SSA, there are far fewer bank branches per capita—as measured by deposits and credit—than countries in other regions (Beck, Maimbo, Faye, & Triki, 2011). In a sample of seven SSA countries, the percentage of people ages 16 and older who use banking services ranged from under 20% to just over 50% (Bankable Frontier Associates, 2007), which suggests that SSA youth may have limited access to banks.

Youth perceive formal savings mechanisms as unattractive because of high transaction costs, complicated and restrictive rules, and onerous documentation requirements (Chowa & Ansong, 2010; Okoye & Okpala, 2001). To cover higher costs of operating accounts for youth—who are often small depositors and borrowers—banks usually pass on the expense to customers through transaction fees and charges (Food and Agriculture Organization of the United Nations [FAO], 2002). In addition, restrictive rules governing youth engagement with the formal financial sector include minimum legal age for opening an account, Know-Your-Customer (KYC) regulations, parental consent, and considerable documentation (Orozco, 2006). Many financial institutions and international non-governmental organizations (INGOs) have embarked on providing or enhancing financial services to youth, including:

- YouthStart, which seeks to reach 200,000 SSA youth with financial services by 2013 (United Nations Capital Development Fund [UNCDF], 2011);
- Hatton National Bank (HNB) in Sri Lanka, which reached over 600,000 students as of 2009 (Abeywickrema, 2009); and
- Xac Bank in Mongolia and credit unions in Mexico and Guatemala that are perceived as youth-friendly because of their efforts to expand youth savings accounts and provide products tailored to savers under 18 years of age (Klaehn, Branch, & Evans, 2002; Shell,

2009; World Council of Credit Unions [WOCCU], 2005; World Savings Bank Institute, 2011).

The YouthSave project not only aims at improving youth financial inclusion but also seeks to investigate, document, and disseminate the impact of savings on youth well-being. Findings will inform policy to enhance youth development into socially, economically, and politically engaged citizens.

### **Financial Assets and Youth Financial Capability**

*Financial capability* includes financial knowledge and skills in addition to access to formal financial services (Sherraden, 2010). Many youth-inclusive efforts contain elements of financial education and literacy to bolster financial capability once youth have access to savings and credit.

A global trend of promoting financial capability, saving, and asset accumulation among youth has emerged with financial education as the most common intervention strategy. *Financial education* is defined as a set of learning activities intended to increase financial literacy among a target population (Caskey, 2006; Fox, Bartholomae & Lee, 2005; Hathaway & Khatiwada, 2008). The International Gateway for Financial Education from the Organisation for Economic Co-Operation and Development (OECD) (n.d.) lists 40 distinct governmental, nongovernmental, and private efforts in various countries to promote youth financial capability.

Youth financial education programs incorporate age-appropriate content; hands-on, experiential learning exercises that build practical skills (e.g., how to balance a checkbook); topics of immediate relevance to youth (e.g., how to buy a car); opportunities for youth to apply what they have learned; goal setting; and encouragement to save (Friedman, 2005). In lower-income countries, financial education, inclusion, and savings programs typically integrated with other services for youth (Deshpande & Zimmerman, 2010). For example, the Tap and Reposition Youth (TRY) intervention in Kenya combines financial education, access to savings accounts and credit, life skills training, and mentoring for female youth (Erulkar & Chong, 2005). The Bangladesh Rehabilitation Assistance Committee (BRAC) combines financial education and savings accounts with efforts to improve the livelihoods of female youth (Deshpande & Zimmerman, 2010). Other strategies include radio and television programs, hands-on budgeting exercises using props, theatre and dance productions, and comic strips (The MasterCard Foundation, Microfinance Opportunities, & Genesis Analytics, 2011). A variety of methods are used in lower-income countries because not all children and youth can be reached in schools.

### **Financial Assets, Future Orientation, Aspirations, and Expectations**

Sherraden (1991) suggests that accumulation of assets has positive effects on well-being, including future orientation. His theory of *asset effects* proposes that having savings provides individuals and households with the sense of security necessary to plan for and create an image of the future (i.e., future-oriented thinking) (Ansong, Chowa, & Grinstein-Weiss, forthcoming; Scanlon & Adams, 2009; Sherraden, 1991). Research also has shown that programs aimed at increasing economic opportunities for low-income households have positive effects on future orientation of youth in the household (McLoyd, Kaplan, Purtell, & Huston, 2011).

*Future orientation* is an individual's tendency to engage in future thinking (Seginer, 2009) and involves conceptualizing the self that individuals expect, hope, or fear to become (Markus & Nurius, 1986; Nurmi, 1991, Seginer, 2009). Research has shown that adolescents engage in future thinking and report future-oriented goals in a variety of life domains (Massey, Gebhardt, & Garnefski, 2008; Nurmi, 1991). Common adolescent future-oriented goals include education and occupation (Lanz, Rosnati, Marta, & Scabini, 2001; Seginer, 1988), social relationships (Carroll, 2002), and money and financial stability (Budhwar, Reeves, & Farrell, 2000; Cohen & Cohen, 2001).

*Aspiration* generally refers to a desire or hope of achieving something. *Expectation*, on the other hand, refers to a strong belief that something will happen or be the case in the future. Aspirations and expectations provide a "subjective goal for performance" and serve "as the reference point for feelings of success or failure" (Starbuck, 1963, p. 51), and their role in motivating, directing, and regulating human behavior has been emphasized by social psychologists (Bandura, 1986; Cantor, Markus, Niedenthal, & Nurius, 1986; Markus & Nurius, 1986; Markus & Wurf, 1987). For instance, when youth aspire to go to college, they are more likely to study and avoid skipping classes. Similarly, some individuals form implementation intentions—concrete plans (when, where, and how) that guide their behaviors in order to achieve goals—after setting a goal based on aspirations or expectations (Gollwitzer, 1999; Gollwitzer & Sheeran, 2006). Studies indicate individuals are more inclined to achieve their goals if they form implementation intentions (Bayer & Gollwitzer, 2005; Oettingen, Hoig, & Gollwitzer, 2000).

### **Financial Assets and Education**

Research in developing countries shows that assets are associated with positive educational outcomes. An experimental study conducted in Uganda, for instance, finds a positive relationship between asset ownership—particularly ownership of youth savings—and higher academic grades and test scores (Curley, Ssewamala, & Han, 2010). Similarly, orphans in Uganda with savings accounts score higher on the Primary Leaving Examination Scores than their peers without savings accounts (Curley et al., 2010). Empirical evidence also suggests positive relationships between assets and other educational outcomes, including school enrollment (Filmer & Pritchett, 2001), increased school attendance (Kruger, Soares, & Berthelon, 2007), higher educational attainment (Filmer & Pritchett, 1999; Montgomery, Grant, Mensch, & Roushdy, 2005), and low school drop-out rates (Curley et al., 2010; Filmer & Pritchett, 1999). However, Chowa, Ansong, and Masa (2010) find in their research review that not all types of assets positively influence children's educational outcomes. For instance, assets that require substantial amounts of time to maintain (e.g., large numbers of livestock or permanent crops) are associated with negative educational outcomes, including low school attendance rates (Admassie, 2002; Cockburn & Dostie, 2007). Otherwise, findings in developing countries are similar to results found in more developed economies. Elliott (2009), for instance, finds a positive association between household assets and children's math achievement, and a research review conducted by Elliott et al. (2011) suggests that the type of asset and the child's age and race affect academic achievement.

Assets, particularly more liquid assets, have a stronger predictive effect on college attendance than early net worth (Huang, Guo, Kim, & Sherraden, 2010), which holds true even when academic achievement is controlled for (Elliott et al., 2011). Similarly, a research review conducted by Williams

Shanks et al (2010) suggests that assets play an influential role on children’s educational outcomes independent of the effects of household income and parent’s education.

### **Financial Assets and Health Outcomes**

We define *health risks* as attitudinal and behavioral factors related to unsafe health practices. The World Health Organization (WHO) has identified unsafe sex as one of the five leading health risks responsible for one quarter of all deaths in the world (2009). Research has shown that health risks, particularly behaviors, directly influence self-perceived health status (Johnson & Richter, 2002; Piko, 2007). Smoking, drinking, and drug use, for instance, have been found to be associated with fair or poor health ratings (Johnson & Richter, 2002; Piko, 2007; Shields & Shooshtari, 2001).

Conversely, empirical studies show that subjective perception of health is a strong predictor of health behaviors and outcomes among young people (Johnson & Richter, 2002; Milligan et al., 1997; Tremblay, Dahinten, & Kohen, 2003). Protective factors at the individual, family, peer, school, and community levels facilitate positive behavior in youth and buffer them from engaging in risky behaviors (Resnick, 2000). Protective factors at the family-level prevent youth violence (Lipsey & Derzon, 1998), suicidal ideation and attempts (Compton, Thompson, & Kaslow, 2005; Eisenberg & Resnick, 2006), and substance abuse (Vakalahi, 2001), among other negative behaviors. On the other hand, family- and school-level protective factors promote academic achievement and performance (Bowen & Bowen, 1998; Gutman & Midgley, 1999) and positive self-esteem (Lord, Eccles, & McCarthy, 1994). However, most of the research is limited to youth in developed countries.

### **Financial Assets and Household Economic Stability**

Sherraden’s theory of asset effects (1991) suggests that saving and asset accumulation can improve household stability. Although household stability generally refers to economic security, it also can pertain to family-level relationship dynamics, including parent-child interactions. Building on Sherraden’s theory, this paper suggests that saving and asset accumulation can influence family-level protective factors in at least three ways. First, by providing resources that buffer income shocks, household assets can decrease a family’s likelihood of experiencing economic chaos and increase their likelihood of maintaining positive social and economic equilibrium and family-level relationships. Second, because savings accounts for youth in most countries require parental or custodial authorization and saving provides youth with financial resources, asset accumulation by youth is likely to increase parent-child interactions as parents give the youth financial advice or assist the youth in making financial decisions. Empirical evidence has shown that participation in a savings program allows young women to be encouraged to consult with family members about the use of their savings (Kalyanwala & Sebstad, 2006). Third, in economically stable households, parents engage children in more conversations, read to them more, and provide more teaching experiences (Hoff-Ginsberg & Tardif, 1995; Shonkoff & Phillips, 2000).

Evidence of the impact of youth-owned financial assets on development of young people in low-income countries—particularly in educational, health, and psychosocial outcomes—is limited, and this report will begin to address this gap.

## Chapter 2: Context, Conceptual Framework, Research Design, and Methodology in the Ghana YouthSave Experiment

In this chapter, we provide context for the YouthSave Ghana Experiment—including the conceptual framework, research design, and methodology—and highlight key theoretical and conceptual hypotheses for the relationships proposed in the experiment, the design of the experiment including sampling procedures, and the data collection processes. We conclude with procedures and reporting methods employed in this report.

### The YouthSave Ghana Experiment

YouthSave is a pioneering project designed to increase savings and measure development outcomes among low-income youth in Colombia, Ghana, Kenya, and Nepal. The goals of YouthSave research are to measure the uptake, savings outcomes, experiences, and developmental impacts of youth savings accounts (YSAs) on clients and financial institutions. YouthSave targets youth from low-income families to understand how saving affects the lives of youth from this population.

In Ghana, a rigorous research design, including a control group with quantitative and qualitative evidence, was implemented to assess the impact of savings accounts on youth development and asset accumulation. The YouthSave Ghana Experiment uses a cluster randomized design with 100 schools randomly selected from eight of Ghana's ten regions. Fifty schools were assigned randomly to the treatment condition, and another 50 schools were assigned randomly to the control condition. Sixty students were selected randomly from each school for a total of 3,000 youth in the treatment group and 3,000 in the control group with oversampling for attrition. This process yielded a sample of 6,252 youth.

This report uses data from baseline surveys with 6,252 youth and 4,576 parents and guardians of these youth. Of youth surveyed at baseline, 73% had a parent or guardian also surveyed at baseline. Data were collected from May through June 2011 by our partners at the Institute of Statistical, Social and Economic Research (ISSER) at the University of Ghana. The youth survey included questions about demographics, education, health, financial capability, asset ownership, living conditions, and future aspirations and expectations. The parent or guardian questionnaire included questions on household socio-demographics, education, future outlook and expectations, health, and financial well-being.

### Context of the Experiment: A Profile of Ghana

Ghana is in western Africa and bordered by the Atlantic Ocean in the south, Burkina Faso in the north, Togo in the east, and Côte d'Ivoire in the west. It has a total land area of 23.9 million hectares (FAO, 2005) with three ecological zones: a high-forest zone in the south, a savanna zone mostly in the north, and a transition zone in between. The national capital is Accra, and other large cities include Kumasi, Tema, and Sekondi-Takoradi. Ghana has ten administrative regions: Ashanti, Brong-Ahafo, Central, Eastern, Greater Accra, Northern, Upper East, Upper West, and Volta. For development purposes, the country is sometimes categorized into northern and southern sectors. The northern sector is predominantly more rural, relatively poor, and more disadvantaged. The

southern sector is wealthier, more urban, and more developed. According to the 2000 population census, the urban population accounted for 43.8% of Ghana's total population (Ghana Statistical Service, 2008), and 2010 estimates place this number at 51% (CIA, 2012). The rate of urbanization is estimated at 3.4% per annum (CIA, 2012).

In 2008, Ghana's population was 23,350,927 with an estimated population growth rate of 2.1% (CountrySTAT Ghana, n.d.). Males constitute about 49% and females about 51% of the population (Ghana Statistical Service, 2008). One third of Ghana's citizens are youth 15 to 35 years of age (Ministry of Youth and Sports, 2011). There are more than 100 ethnic groups in Ghana, the major ones being Akan, Ewe, Mole-Dagbani, and Ga-Dangme (Ghana Statistical Service, 2008). Other ethnic groups include Guan, Gurma, Grusi, and Mande. The three major religions are Christianity (68%) (mostly in the southern sector), Islam (17%) in the northern sector, and a traditional religion (9%) evenly spread across the country (Ghana Statistical Service, 2008).

Ghana's large population of youth has spurred the national government to enact policies that recognize the value of youth and their role in national development. One is the National Youth Policy established by the National Youth Council, which enables government to engage youth and other stakeholders to develop interventions and services for development and empowerment (Center for Social Development, Institute for Statistical, Social, and Economic Research, Kenya Institute for Public Policy Research & Analysis, New ERA, & Universidad de los Andes, 2012; Ministry of Youth and Sports, 2011).

### **Educational Sector**

Ghana views education as a crucial component of the future success of the country and its people (Addai & Pokimica, 2010). A 2003 study of 10–19 year olds identifies educational attainment as the most important factor in having a good career (Chant & Jones, 2005). Other surveys find that students believe the benefits of education to be numerous and substantial. Key benefits cited include the ability to be mobile in one's career and place of residence, having financial assets as insurance against hard times, and the numerous opportunities that education creates. Overall, there is awareness among students in Ghana that education can lead to a positive future (Addai & Pokimica, 2010). On a policy level, Ghana has made educational funding a high priority and has surpassed most other SSA countries in this type of spending (Adesina, 2009; Akyeampong, Djangmah, Oduro, Seidu, & Hunt, 2007).

Despite positive developments, recent research has shed light on ambiguous and ineffective policies with few or no positive outcomes (Osei, Owusu, Asem, & Afutu-Kotey, 2009). Some stakeholders believe the gains in educational achievement actually have slowed or become stagnant. According to the 2008 Ghana Living Standards Survey, 31% of Ghanaians have never been to school. The survey finds that educational access, standards, and achievement vary widely in the country, especially between urban and rural settings. Numerous other studies show education gaps, particularly regarding education disparities among the poor and girls (Palmer, 2005; Pryor & Ampiah, 2003; Sutherland-Addy, 2002; Tuwor & Sossou, 2008). In addition, some parents in Ghana and other developing countries question the value and benefits of school for their children considering the additional costs and resources education requires (Buchmann, 2000; Chant & Jones, 2005; Chowa, Ansong, & Masa, 2010; Laird, 2002). Finally, parental and community involvement in schools often

is lacking, which has been identified as a primary barrier to the further improvement of Ghana's schools (Nyarko, 2007).

### **Health**

Overall, the health situation in Ghana has improved markedly over the past decade as the government continues to increase public expenditure in the health sector. In 2006, health expenditures accounted for 5.1% of Ghana's GDP, which is within the average for Africa (5.5%) but lower than the global average (8.7%) (Ghana Health Service, 2009). Health services typically are provided through government health facilities and private health centers run by religious bodies. Traditional herbal and spiritual centers also provide services to many Ghanaians, especially in rural areas. The country has 3,110 health facilities, but these are distributed unevenly in northern and southern sectors and rural and urban areas. Ashanti and Eastern regions have more than 500 facilities, whereas Upper East and Upper West regions have fewer than 200 (Ghana Health Service, 2009). The public health care system is operated through a National Health Insurance Scheme (NHIS).

Ghana significantly reduced the maternal, infant, and under-five mortality rates and is on track to achieve most of the child and maternal health-related Millennium Development Goals (MDGs) (National Development Planning Commission, Government of Ghana, & United Nations Development Program Ghana, 2010). The country's infant mortality rate in 2008 was 50 per 1,000 live births, and the estimated rate for 2011 is 48.55 per 1,000. The under-5 mortality rate declined from 111 per 1,000 live births in 2003 to 80 per 1,000 live births in 2008. The maternal mortality rate was 451 per 100,000 live births in 2010 (Ghana Health Service, 2009; National Development Planning Commission, Government of Ghana, & United Nations Development Program Ghana, 2010).

Ghana's modest health infrastructure is challenged by high risk of infectious disease, still relatively high infant and maternal mortality, and inadequate sanitation (Ghana Statistical Service, 2005). On average, there is one physician per 13,000 Ghanaians with the highest concentration of physicians in Greater Accra and Ashanti regions (Ghana Health Service, 2009). Life expectancy at birth is 61 years of age, taking into account the death toll resulting from HIV/AIDS (CIA, 2012). Although the epidemic has not reached the same proportions as in other SSA countries, the HIV/AIDS prevalence rate rose from 2.9% in 2001 to 3.1% in 2004 (Ghana Statistical Service, 2005). Youth are particularly vulnerable to this threat, and there is a real need for awareness and prevention efforts among them (Ghana Health Service, 2009).

### **Economy**

Ghana's economy has grown steadily over the past decade. In 2011, Ghana had a GDP growth rate of 14.4% (GES, 2012) and a PPP GDP per capita of USD 1,652 (The World Bank, 2012). Inflation for the same year averaged 10.8%. The main sectors of the Ghanaian economy as a percentage share of GDP are services (48.5%), agriculture (25.6%), and industry (25.9%). The country depends mainly on gold and cocoa beans as exports (Ghana Statistical Service, 2011).

Data show that the proportion of people living in extreme poverty has been halved from about 36.5% in 1991–1992 to about 18.2% in 2005–2006 (Government of Ghana, 2006). The country's estimated unemployment rate is 11% (CIA, 2012). A majority of employed Ghanaians (51%) work

in the private informal sector with the remainder employed in the private formal sector (19%), public sector (29%), and other sectors (1%) (Ghana Statistical Service, 2008). Ghana has a liberalized financial sector conducive for competitive banking. However, the majority of the poor in Ghana are still unbanked.

The unemployment rate among youth ages 15–24 (15.9%) is higher than the national average (11%) (CIA, 2012; Osei-Akoto, 2011). Joblessness among youth is worse in rural areas, particularly in northern regions of the country where fewer economic opportunities exist (Osei-Akoto, 2011). The Government of Ghana (GoK) has implemented short-term employment programs to address this need and has promoted labor-intensive efforts to build the country’s infrastructure during the agricultural off-season (Osei-Akoto, 2011). This investment has improved the transport of goods through Ghana to neighboring West African states, contributing to economic growth.

### **Financial Sector**

Ghana is making a significant transition from low-income to lower middle-income status in the global economy (Osei-Akoto, 2011). Its formal financial sector has expanded to 28 registered banks due to a high demand for financial services from the growing business sector (Osei-Akoto, 2011). More than 120 rural banks provide financial services outside urban centers, and an active microfinance network and informal financial sector—including *susu* savings collectors and traditional moneylenders—provides services (Consultative Group to Assist the Poor [CGAP], 2011; Osei-Akoto, 2011).

Despite these efforts, 44% of Ghana’s adult population lack access to any type of financial service, while 59% lack access to formal financial services such as savings, loans, and insurance (Grundling & Kaseke, 2010). About 25% of the rural population and 57% of the urban population have formal savings accounts in a bank (Grundling & Kaseke, 2010). Access to financial services for youth under 18 is restricted mainly to trust savings accounts, which have been managed on a large scale by only a few financial institutions (Osei-Akoto, 2011). To encourage greater access to financial services for both adults and youth, the Bank of Ghana has developed regulations to promote branchless banking and launched financial literacy and consumer protection efforts (Center for Social Development et al., 2012; CGAP, 2011).

## **Conceptual Framework for the YouthSave Ghana Experiment**

The Ghana Experiment investigates the hypothesis that educational performance will improve, financial capability will increase, health choices will be better, and psychosocial outcomes will be positive among youth who own financial assets. An additional premise is that families will have positive financial outcomes and be more involved in the lives of the youth.

### **Assets, Financial Knowledge, Attitudes, Behaviors, and Experiences**

Youth assets are financial and non-financial. Financial assets include accumulated savings (i.e., money set aside for a future use) and money youth have in their possession. Non-financial assets are tangible things of value youth possess and retain control over, such as bicycles, radios, cell phones, and equipment used for income-generating activities.

Evidence indicates that youth understand the importance of saving yet tend to put off saving in favor of near-term wants (Pettigrew, Taylor, Simpson, Lancaster, & Madden, 2007; Ssewamala, Sperber, Blake, & Ilic, 2011). The YouthSave Ghana Experiment is primarily a financial inclusion strategy that seeks to offer youth a structured opportunity to save money and accumulate assets. Seven variables promote asset accumulation: access to financial services, information, incentives, facilitation, expectations, restrictions, and security (Sherraden & Barr, 2005).

Evidence suggests that youth can save and accumulate assets when given access to and help in using financial products like savings accounts (Erulkar & Chong, 2005; Mason, Nam, Clancy, Kim, Loke, 2010; Sherraden & Stevens, 2010; Ssewamala & Ismayilova, 2009). Financial inclusion strategies also may promote improvements in children and youth's financial knowledge and skills. Sherraden, Johnson, Guo, and Elliott (2011) find a modest effect on financial knowledge for elementary school students in the US who received access to savings accounts, savings clubs, incentives, and financial education. Mandell (2006) finds that high school students in the US who used financial services showed greater gains in financial knowledge compared to those who did not use any financial services.

Most youth are members of households that act as economic units. Parents and guardians generate income and other resources to meet consumptive needs and achieve other household goals. The extent to which they are able to do so depends on (a) human capital and behavioral factors (i.e., their ability to demand desired wages or generate business income as a result of their education, skills, effort, and productivity), (b) external conditions (e.g., drought, gender oppression, market exploitation, and inflation), and (c) events (e.g., illness, life transitions, and natural disasters). If these factors render a household materially insecure (i.e., unable to consistently meet consumptive needs), members' saving behavior and asset accumulation likely will suffer. In such circumstances, youth may not receive money from parents and guardians to save, or they may be called upon to generate income to meet the household's consumptive needs.

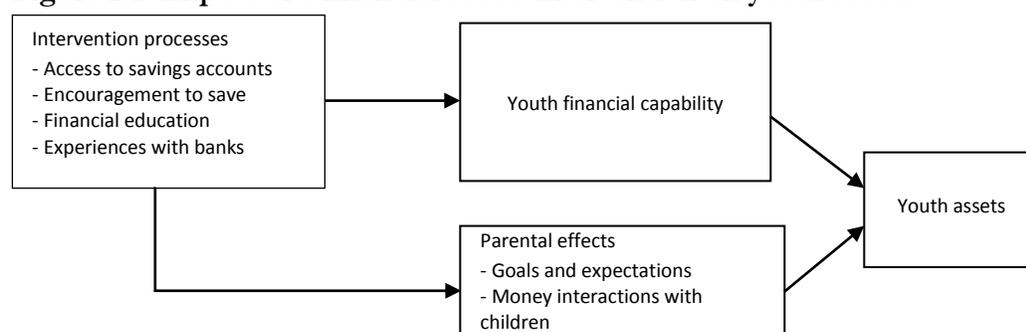
We use Sherraden's (2010) conceptualization of *financial capability*, which views financial well-being as a product of financial literacy (i.e., having financial knowledge and skills) and having access to and using accessible, affordable, attractive, easy-to-use, safe, and reliable formal financial products. Thus, financial capability in our model reflects both individual-level constructs (e.g., youth's money management behaviors and understanding of key financial concepts) and institutional-level constructs (e.g., whether and how savings products facilitate saving and asset accumulation). Money management behaviors are actions that youth take to maximize their financial self-interest (e.g., carefully monitoring how they spend money).

Participation in YouthSave is expected to increase the frequency and amount of deposits by encouraging youth to save and making it easy for them to do so by offering in-school banking opportunities. As posited by Sherraden (2010), the use of financial services is expected to positively impact youth's financial knowledge and skills. Participants' enhanced financial capabilities are expected to help them accumulate financial and non-financial assets. We also expect the intervention's effect on participants' financial capabilities will be mediated by their goals and future outlook. Parents' expectations for and interactions with their children also are expected to have a direct effect on financial capability of the youth.

**Table 2.1. Hypotheses of the relationships of opportunities to increase financial assets and financial knowledge, attitudes, behaviors, and experience**

|                |   |
|----------------|---|
| Hypothesis 1.1 | Participation in the YouthSave intervention will increase youth’s financial assets.   |
| Hypothesis 1.2 | Participation in the YouthSave intervention will improve youth’s financial knowledge.   |
| Hypothesis 1.3 | Participation in the YouthSave intervention will improve youth’s money management behaviors.  |
| Hypothesis 1.4 | Parents and guardians’ expectations of and goals for participants will directly affect participants’ money management and savings behaviors.      |
| Hypothesis 1.5 | Parents and guardians’ interactions with participants concerning money will directly affect participants’ money management and savings behaviors. |
| Hypothesis 1.6 | Youth participation in the YouthSave intervention will increase families’ economic stability.   |

**Figure 2.1. Impact of a financial assets intervention on youth assets\***



\*Individual, household, and community covariates include educational level and occupation of parents, residency (rural, urban), age, household size, assets, social economic status, and access to formal financial services.

### **Financial Assets, Academic Performance, Aspirations and Expectations, and Transition to Higher Education**

Formal education, especially beyond JHS<sup>1</sup> can equip individuals with knowledge, specialized skills, and competencies to enhance their future job prospects, self-employment, and self-sufficiency (Maliyamkono & Ogbu, 1999). However, barring structural restraints, a Ghanaian JHS student’s educational advancement beyond the basic level depends a great deal on the student’s desires, efforts, and ability to afford school expenses (Elliott, 2011). In Ghana, it is estimated that of more than 280,000 students who take national exams at JHS 3, only 25% are admitted to the few SHSs in the country (Education USA, n.d.). Transitioning from JHS to SHS is competitive, and students must perform well on the exams. Students also need resources to pay tuition and other school expenses. Many JHS students in Ghana have academic potential and may want to proceed to higher education but lack financial resources to fund continued schooling.

<sup>1</sup> JHS is three years of compulsory schooling for all children ages 12 to 14 who have completed primary school. The next phase after JHS is SHS, which consists of four years of optional schooling, typically for youth aged 15-18.

Many JHS youth in Ghana know that to successfully transition to SHS, they need good grades and financial resources. To motivate youth to work hard toward higher education, “a means for positively interpreting and overcoming difficulty” is necessary (Elliot, Chowa, & Loke, 2011, p. 7). That is, for the youth to sustain hard work toward future goals, they must be convinced of the availability of resources to pay future tuition and school-related expenses.

Destin and Oyserman (2009) find an association between perceived availability of financial assets and an “open-path” mindset among students, which then affects academic effort. Elliott, Sherraden, Johnson, and Guo (2010) find that children who participate in a school-based savings program are more likely to associate saving with going to college than a comparison group. Having motivation to achieve some future goal may explain why some youth are more financially literate than others and able to translate this literacy into action (Fox & Bartholomae, 1999; Mandell & Klein, 2007).

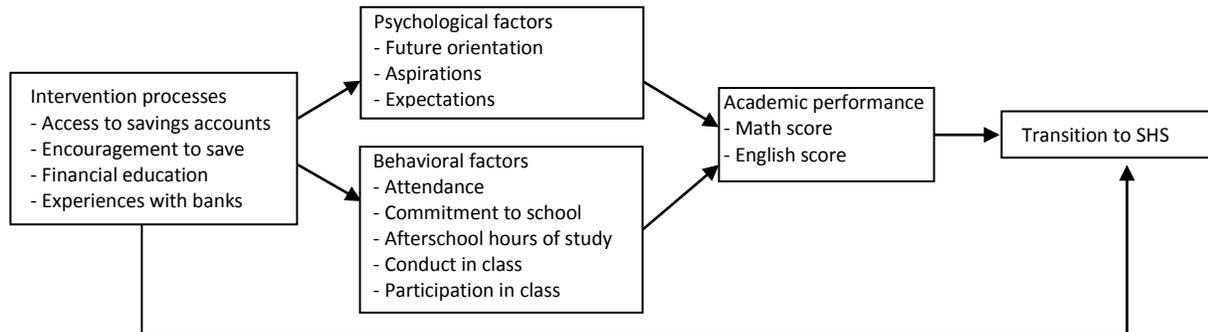
The theory of identity-based motivation (IBM) suggests that opportunities to help youth accumulate savings may motivate them to work hard to achieve better academic outcomes. According to IBM theory, academic success and transition to higher education is salient to many youth because they know the importance of education (Oyserman & Destin, 2010). However, understanding and interpretation of obstacles may lead to behavior that facilitates or hinders achievement of their aspirations and goals. For instance, if a Ghanaian youth from a poor household perceives high tuition as a hindrance to educational advancement, the youth may be less likely to exert effort on school work.

Asset theory posits that asset-building programs for youth may help students pay for higher education. As in other SSA countries, many young people in Ghana have limited access to education because their families cannot afford school-related fees (Agbewode, 2009). The increase in fees between JHS and SHS levels in Ghana may contribute to fewer students transitioning to SHS. However, research suggests that youth perceive assets held in their own savings accounts as a way to pay for higher education (Elliott, Sherraden, Johnson, & Guo, 2010).

**Table 2.2. Hypotheses of the relationships between financial assets and educational performance and transition to higher education**

|                |  |
|----------------|--|
| Hypothesis 2.1 | Participation in the YouthSave intervention will improve academic performance (English and math scores) for youth. |
| Hypothesis 2.2 | Participation in the YouthSave intervention will increase the likelihood of youth transitioning from JHS to SHS.   |
| Hypothesis 2.3 | Participation in the YouthSave intervention will increase youth academic aspirations and expectations.             |
| Hypothesis 2.4 | Participation in the YouthSave intervention will increase youth’s future orientation.                              |

**Figure 2.2. Impacts of a financial asset intervention on academic performance and transition to higher levels of education**



Covariates include youth characteristics (age and gender), household characteristics (household size, assets, social economic status parent’s education, occupation, and involvement), and school characteristics (class size, student-teacher ratio).

### Financial Assets, Protective Factors, Health Risks, and Health Perceptions

*Protective factors* are conditions that facilitate positive youth development and buffer them from engaging in risky behaviors (Resnick, 2000). Although protective factors exist at different levels (e.g., individual, family, peer, school, and community), our focus is on family-level protective factors. Strong bonds between youth and parents and parental involvement in a youth’s life are protective factors.

In our conceptual model, we expect that the YouthSave intervention will influence family-level protective factors. Sherraden’s theory of asset effects (1991) suggests that saving and asset accumulation can improve household stability. Household stability generally refers to economic security but also can pertain to family-level relationship dynamics, including parent-child interactions. Building on Sherraden’s theory, we assert that saving and asset accumulation can influence family-level protective factors in at least two ways: (1) Because saving provides resources that buffer income shocks, a family is less likely to fall into economic chaos and more likely to stay together and maintain positive social and economic equilibrium, including positive family-level relationships and (2) Because the savings account in YouthSave requires parental authorization and saving provides youth financial resources, parents are more likely to increase interactions with their children to give them financial advice or assist with making financial decisions, among other things. Empirical evidence has shown that participation in a savings program encourages young women to discuss the use of their savings with family members (Kalyanwala & Sebstad, 2006). Similarly, in economically stable households, parents engage children in more conversations, read to them more, and provide more teaching experiences (Hoff-Ginsberg & Tardiff, 1995; Shonkoff & Phillips, 2000).

Self-determination theory (SDT) suggests that there are three basic psychological needs—autonomy, competence, and relatedness to others—that must be satisfied in order for individuals to experience optimal growth and health (Deci & Ryan, 1985; Ryan, 1995). When parents fail to satisfy these basic needs, youth seek direction and a sense of satisfaction from sources outside of the family, adopting extrinsic goals and behaviors that put youth development at risk (Deci & Ryan, 1985). On the other

hand, when parents satisfy these needs, children adopt intrinsic goals that foster positive and healthy development.

Family-level protective factors (e.g., parental support), promote perceived opportunities and expectations (Wall, Covell, & Macintyre, 1999). Positive and encouraging feedback from parents, for instance, is likely to increase young people’s beliefs that they can achieve a goal (Nurmi, 1991). Empirical evidence has shown that positive relationships between parents and youth—including parental support and demands (Marjoribanks, 1994a), closeness (Cohen & Cohen, 2001), parental involvement in learning (Marjoribanks, 1994b), and parental encouragement and interest (Marjoribanks, 2003)—are related to a wide range of youth behaviors (Resnick, 2000). Empirical evidence also suggests that family-level protective factors and having a more positive future orientation (Peters et al., 2005; Robbins & Bryan, 2004; Somers & Gizzi, 2001) prevent young people from engaging in health risk behaviors—including substance abuse (Martyn et al., 2009; Peterson, Buser, & Westburg, 2010; Vakalahi, 2001; Williams, Hedberg, Cox, & Deci, 2000), suicidal ideation and attempts (Compton, Thompson, & Kaslow, 2005; Eisenberg & Resnick, 2006), smoking (Resnick et al., 1997), and unsafe sexual practices (Fulkerson et al., 2006; Vesely et al., 2004; Williams et al., 2000). Family-level protective factors also promote positive youth development, including better academic performance (Bowen & Bowen, 1998; Gutman & Midgley, 1999) and positive self-esteem (Fulkerson et al., 2006; Lord, Eccles, & McCarthy, 1994).

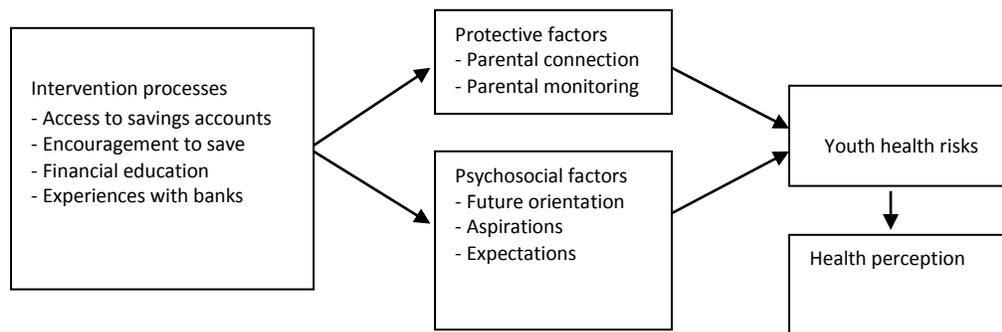
Based on theory and evidence, we predict that the YouthSave intervention will decrease youth health risks indirectly via the direct effect of future orientation. Positive health behaviors among youth lead to better self-perceived health status, which in turn further decreases negative health behaviors (Pastor, Balaguer, Pons, & Garcia-Merita, 2003). However, little is known about the impact of sexual health risks on self-perceived health status of youth.

Subjective measurements of self-health provide young people’s perspectives of their overall state of health. Although self-perceived health status has been correlated with mortality (Hesitaro et al., 2001; Kaplan & Camacho, 1983), it also may be viewed as a psychosocial health indicator, particularly among youth (Piko, 2007). In our conceptual model, health perception is influenced by health risks.

**Table 2.3. Hypotheses of the relationship between financial assets and health risks, protective factors, and health perceptions**

|                |  |
|----------------|--|
| Hypothesis 3.1 | Participation in the YouthSave intervention will influence protective factors positively at the family-level, which will in turn influence youth’s health risks. |
| Hypothesis 3.2 | Participation in the YouthSave intervention will influence youth’s expectations and aspirations positively, which will in turn influence youth’s health risks.   |
| Hypothesis 3.3 | Participation in the YouthSave intervention will influence youth’s future orientation positively, which will in turn influence youth’s health risks.             |
| Hypothesis 3.4 | Participation in the YouthSave intervention will have an indirect influence on youth’s health risks, which will in turn influence youth’s health perception.     |

**Figure 2.3. Impact of a youth financial asset intervention on youth health risks and perceptions**



Covariates include education level and occupation of parents; location of residence; age; household size, assets, socioeconomic status; youth general health status; and parental aspirations and expectations.

### **YouthSave Ghana Experiment Design**

The YouthSave Ghana Experiment is a pre-post nested randomized experiment with three treatment conditions and one control condition. Because the YouthSave intervention is being marketed and delivered through JHS, the sampling frame is limited to students aged 12–14 years in HFC bank’s catchment area. The treatment and control conditions were assigned at the school level to ensure all youth participants within a school belong to either a treatment or control group. This design was chosen because of its rigor and ability to allow researchers to assess the impact of the intervention scientifically.

A multi-stage cluster randomization was used to select the final sample of 6,252 in-school youth aged 12–14 years, with half in the treatment and half in the control group. This multi-stage sampling method was designed carefully to prevent possible contamination of the control group. The following sampling steps were used in selecting the final sample:

- Step 1: Identification of the eight administrative regions in Ghana where the local financial institution partner, HFC Bank, operates
- Step 2: Random selection of 100 JHSs from HFC’s catchment areas
- Step 3: Random assignment of the 100 schools into 50 treatment schools and 50 control schools
- Step 4: Randomization of the 50 treatment schools into two sets of treatment groups with 25 schools randomly assigned to in-school banking by HFC and 25 schools to outreach marketing by HFC
- Step 5: Random selection of 60 students within all 100 schools (This should have resulted in 3,000 treatment cases within 50 treatment schools and 3,000 control cases within 50 control cases, but we oversampled to allow for attrition in the sample. Therefore, the sample was 3,126 youth in the control group and 3,126 youth in the treatment group.)

After the endpoint data is collected in August 2014, the savings outcomes and developmental outcomes of the treatment and the control groups will be compared to assess the impact of the

YouthSave intervention in Ghana. The two treatment groups also will be compared to assess possible differences in the impact of the two kinds of interventions.

### **Intervention**

The YouthSave intervention is the offering of a youth-tailored savings account to youth ages 12–18. While the intervention is open to in-school and out-of-school youth, the Ghana Experiment is restricted to in-school youth. The project will be marketed to out-of-school youth at markets, workplaces, and lorry parks. For the youth participating in the YouthSave Ghana Experiment, HFC Bank is conducting intensive marketing of the savings product to youth in the treatment schools only. Half of the youth in the 25 randomly selected treatment schools can make school-based deposits, which involves HFC bank staff going to the selected schools to collect deposits. The other 25 treatment schools receive outreach from the bank, but participants can make deposits only at the banking hall, not in school. The purpose is to determine the effect of in-school banking on youth's financial capability.

The savings product is called *Enidaso*, which means hope in Akan, a dominant Ghanaian dialect. The YouthSave account includes a free photo ATM card that can be used to check account balance only without a charge. Withdrawals are restricted for the first three months. Youth are allowed to make deposits alone but can withdraw only in the presence of a custodian (i.e., a parent or guardian).

### **Pilot Testing of Instrument**

Prior to data collection, rigorous pilot testing allowed for (a) evaluation of the survey questionnaire's capacity to collect accurate information, (b) the efficiency of data collection methods, and (c) the overall adequacy of field procedures, including negotiating with schools concerning times of the day for the interviews and follow-up and interviews for parents. In particular, pilot testing of the questionnaires aimed at investigating whether the questions and scales measured the intended attitudes, values, reported facts, and behaviors specified in the conceptual framework guiding the research in the YouthSave Ghana Experiment.

Three face-to-face data collection methods were used in the pilot testing: interviewer-administered interviews, cognitive interviews, and in-depth interviews. Debriefings were held at the end of each field work day to discuss field interviewers' feedback and experiences related to data collection and overall field procedures. Feedback and suggestions were incorporated into the final questionnaires and data collection.

### **Recruitment and Training of Interviewers**

Data collection was preceded by a full week of training more than 40 interviewers. To ensure quality data collection, people with at least a university degree were recruited and trained to do the interviews. Training sessions were led by ISSER researchers. As part of the training, the questionnaires were discussed item by item to make sure the interviewers understood what the questions were trying to measure. The interviewers were trained to administer the survey questionnaires adequately, and specific issues included (a) standardizing how questions are asked, (b) understanding of questionnaire format and conventions, (c) probing for clarity of responses; 4) providing respondents with culturally appropriate feedback, and 5) assuring interviewees of confidentiality and privacy. As part of the training, interviewers were taken to the field for on-site training and a simulation of data collection procedures.

### **Types of Data Collected and Measurement**

Five types of data will be collected in the course of the YouthSave project, namely:

- quantitative survey data on youth and parents at baseline and endpoint;
- administrative data on youth academic performance at baseline and endpoint;
- administrative data on characteristics of participating schools;
- qualitative survey data; and
- savings transaction data.

The current report presents data from the baseline survey, administrative data drawn from school records, and data on school characteristics. These datasets will be merged for data analyses.

### **Data Collection**

Two data points—baseline and endpoint—are planned for the YouthSave Ghana Experiment, which will allow researchers to assess changes in project participants' educational and health outcomes and financial well-being after the intervention. Baseline data collection commenced in May 2011 and spanned 39 weeks. More than 40 interviewers were grouped into nine teams, each of which focused on one geographical region. The interview teams were supervised closely by ISSER researchers throughout the data collection period.

Two surveys were administered at baseline, one to the youth and the other to their parents or guardians. The youth survey captured information on five domains: socio-demographics and economic circumstances, future orientation and aspirations, education, health, and financial capability. The parents' survey covered information on multiple areas, including socio-demographics, involvement in their children's education, expectations and future orientation, health, and financial capability.

Two types of administrative data were retrieved from school records. The first were individual-level data, including math and English scores, attendance, and teachers' assessment of the youth's in-school behavior. Data abstraction templates were used to transfer this information from school registers and report cards. The second type of administrative data collected were characteristics of participating schools. A one-page abstraction form was given to each head teacher to fill out.

In August 2014, another round of data collection will be organized to obtain endpoint data for comparison with the baseline data.

### **Data Management, Analysis, and Reporting**

After collection, baseline data was entered by ISSER researchers. As part of the quality assurance process, multilevel data cleaning and management procedures were followed. This report analyzes the baseline survey data and school records and presents descriptive statistics to describe the project participants and their households' development outcomes prior to implementation of the YouthSave intervention. When necessary, bivariate associations between measures are assessed and their corresponding statistics and probability values are presented.

## Chapter 3: Youth and Parent Demographics and Economic Circumstances

This chapter describes the demographic characteristics of youth in the YouthSave Ghana Experiment, including age, gender, grade level, and region of residence. These characteristics may influence how and when the young person has access to resources and opportunities. For instance, people in rural areas may have limited access to financial products and services in contrast to their peers living in urban areas. Prior research also has identified these characteristics as predictors of a wide range of youth outcomes (Duraismy, 2002; McCarthy et al., 2000).

### Youth Demographics

#### Age, Gender, Grade Level, and Residency

The total sample size at baseline is 6,252 youth, 51% of whom (3,174 youth) are girls (Figure 3.1). More than half (57%) are between the ages of 14 and 16, 18% are 13 years and younger, and 25% are 17 years and older (Figure 3.2). Youth's ages range from 9 to 26 with an average age of 15. The average age of boys (16) is slightly older than the average age of girls (15). Figure 3.3 shows the gender breakdown of the sample by age group. As Figure 3.4 shows, roughly one third of youth are in grade level 6 (36%), JHS1 (32.2%), or JHS2 (31.8%). The three classes are approximately half girls and half boys (Figure 3.5).

**Figure 3.1: Percentage of youth by gender**

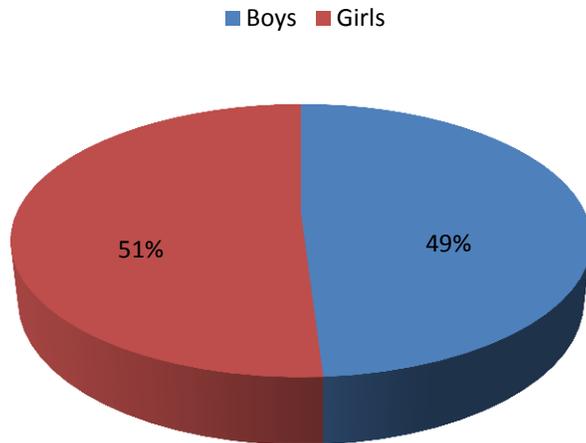


Figure 3.2. Percentage of youth by age

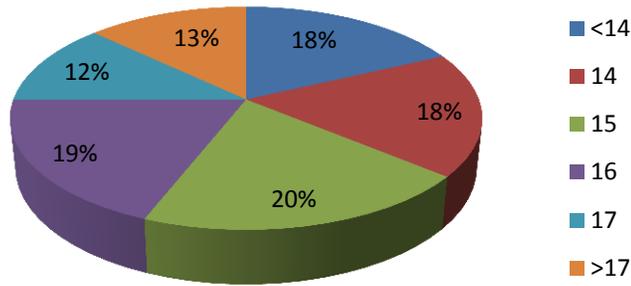


Figure 3.3. Percentage of youth by age and gender

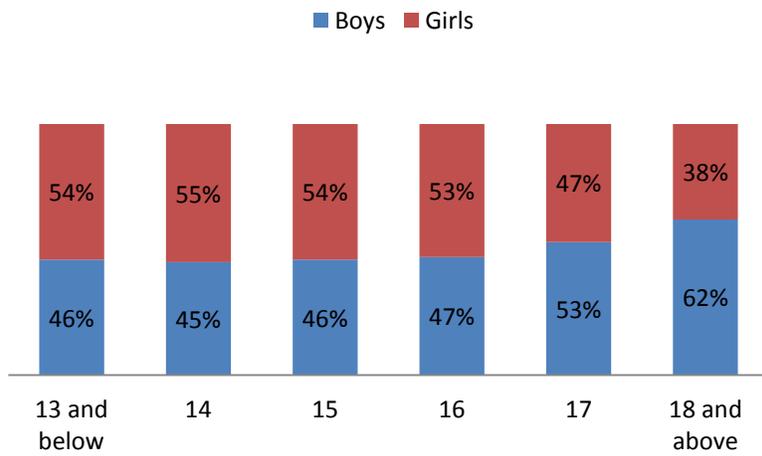
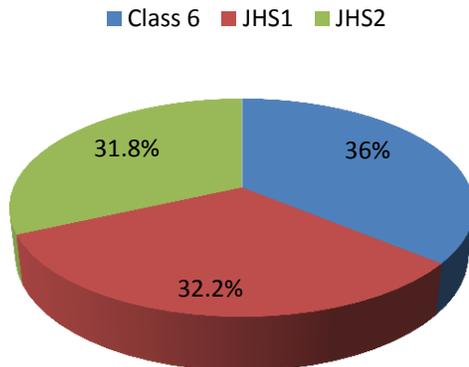
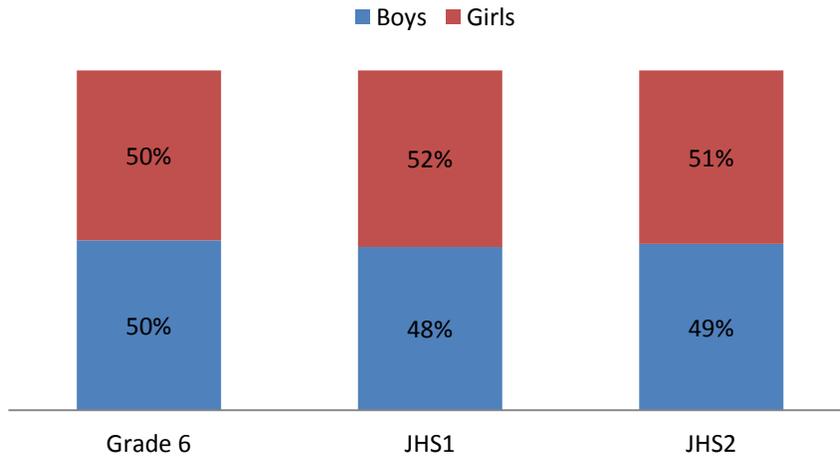


Figure 3.4. Percentage of youth by grade level

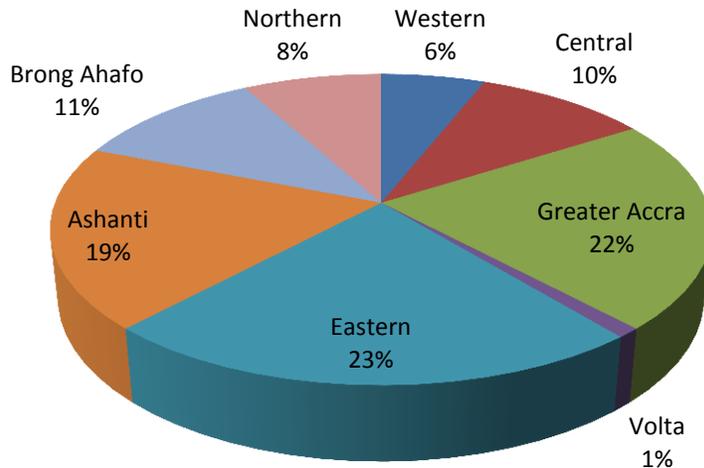


**Figure 3.5. Percentage of youth by grade level and gender**

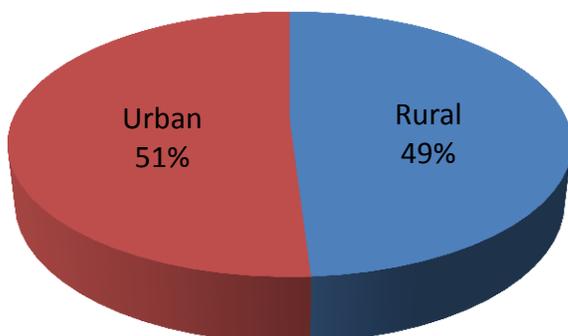


Youth come from eight different regions in the country. More than 60% (4,005) are from the Greater Accra, Eastern, and Ashanti regions (Figure 3.6). The least represented regions are Volta with only 1% of youth and Western with 6%. Fifty-one percent (or 3,191 youth) live in urban areas, and 49% live in rural areas (Figure 3.7), which reflects the overall distribution of the Ghanaian population.

**Figure 3.6: Percentage of youth by region of residence**



**Figure 3.7. Percentage of youth by urban-rural classification**



### Youth Economic Characteristics

#### Living Conditions

Living conditions are an indicator of socioeconomic status and have substantial implications for well-being of youth. Living conditions indicate how many resources are at the youth's disposal to enhance development (Sclar & Northridge, 2003). A lack of electricity, for example, might mean that youth cannot work on their homework after dark or that they have to use unsafe and unhealthy lighting alternatives. Needing to fetch drinking water from outside the home reduces the time available for youth to do homework. In addition, the quality of living conditions may indicate access (or lack of access) to services and facilities such as education, health care, and financial services.

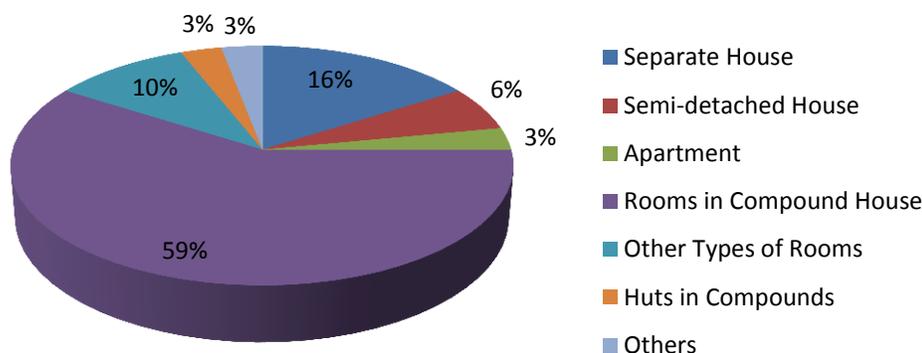
The number of household dependents and level of household income also affect youth development. Several theories have proposed that the number of children in the household has an effect on youth development (Blake, 1981; Zajonc & Markus, 1975). For instance, research has shown the number of children in the household influences education (Downey, 1995; Lu, 2009). Youth in households with more dependents may have fewer resources for engaging in activities important for youth development. Similarly, income provides the means for households to buy food, send their children to school, and pay for health care costs, and extensive research has studied the effects of being income-poor on various domains of youth development (e.g., Aber, Bennett, Conley, & Li, 1997; Brooks-Gunn & Duncan, 1997; Duncan, Yeung, Brooks-Gunn, & Smith, 1998). This chapter reports on living conditions, the number of dependents in the household, and household income because each characteristic has been shown to influence youth development trajectories.

Youth were asked to describe their housing conditions including the type of dwelling, source of drinking water, source of energy for cooking, type of toilet facility, and materials used for the houses' outer walls, roof, and floor. Households have greater variation in drinking water source, toilet facility, type of dwelling, and source of energy for cooking, but little variation exists in the main construction materials used for the houses' outer wall, roof, and floor.

*Dwelling*

Fifty-nine percent of youth (3,658) live in rooms in compound houses<sup>2</sup> (Figure 3.8); 16% live in bungalows or separate houses; 10% live in other type of rooms; and 6% live in a semi-detached house. Ninety-four percent of youth live in houses that are permanent structures.

**Figure 3.8: Percentage of households by type of dwelling**



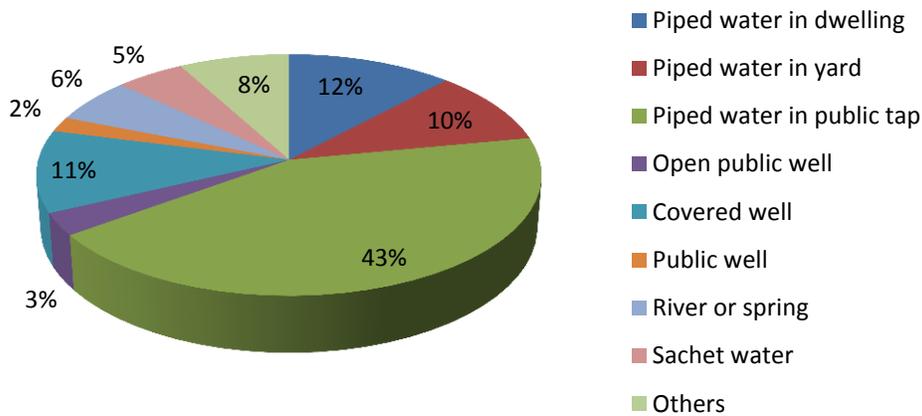
*Drinking water source*

Forty-three percent of youth live in households that have piped water from a public tap as the main source of drinking water. Twelve percent live in households that have piped water inside the dwelling as the main source of drinking water. Other common sources of drinking water include water from a covered well or borehole (11%); piped water in a yard or plot (10%); a spring, river, or stream (6%); and sachet water<sup>3</sup> (5%). Figure 3.9 shows the breakdown of households by type of drinking water source. When source of drinking water is categorized into permanent or temporary, 81% of households have a permanent drinking water source.

<sup>2</sup> A compound house is one that has many rooms. It is located within a group of houses. The rooms normally have doors or entrances from the outside for direct access to the outdoors.

<sup>3</sup> Sachet water is a locally sourced low-cost drinking water packaged and sold in polythene sachets.

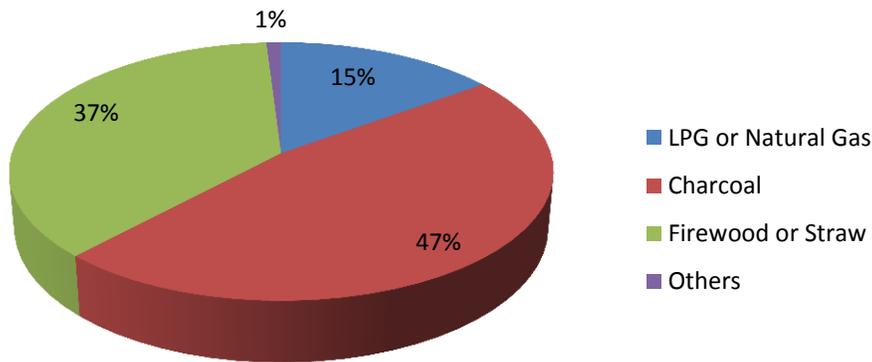
**Figure 3.9. Percentage of households by source of drinking water**



*Source of energy for cooking*

Common sources of energy for cooking include charcoal (47%), firewood or straw (37%), and LPG or natural gas (15%). The least common sources of energy for cooking include electricity, biogas,<sup>4</sup> and kerosene. Figure 3.10 shows the breakdown of households by type of energy for cooking.

**Figure 3.10. Percentage of households by source of energy for cooking**

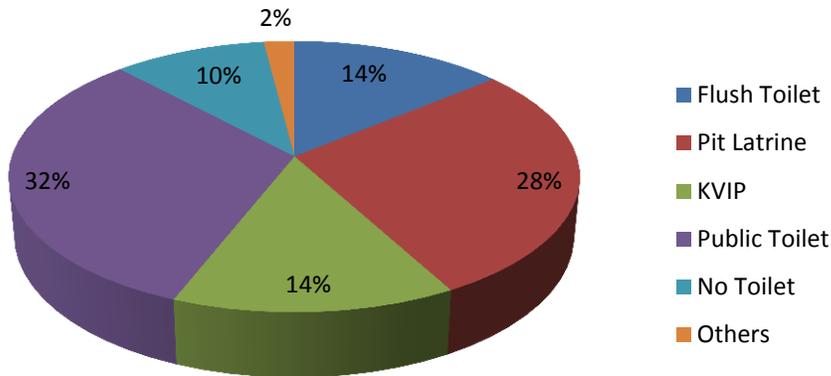


<sup>4</sup> Biogas refers to gas produced by the biological breakdown of organic waste such as dead plants and animals and kitchen waste.

*Toilet facility*

Common types of toilet facilities include public toilets (32%), pit latrines (28%), private Kumasi Ventilated-Improved Pits<sup>5</sup> (KVIPs) (14%), and private flush toilets (10%). Public toilet facilities include flush, bucket, and KVIPs. Ten percent of youth are from households that have no toilet facility. Figure 3.11 shows the breakdown of households by type of toilet facility.

**Figure 3.11: Percentage of households by toilet facility**



*Outer wall of house*

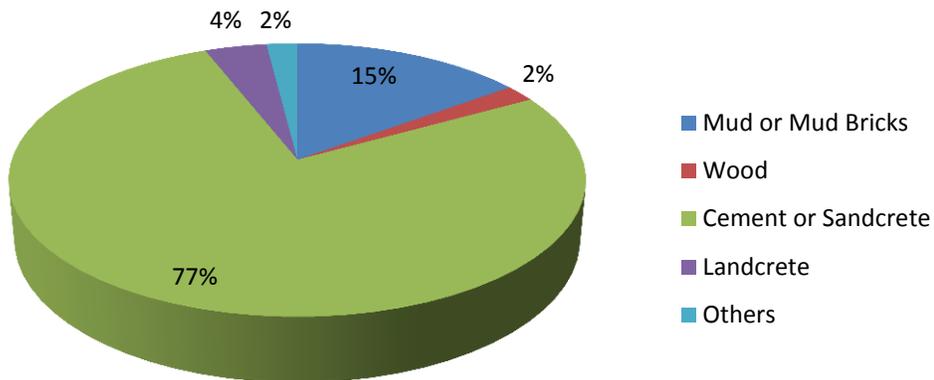
The most common type of materials used for outer walls of houses is cement or sandcrete<sup>6</sup> blocks (77%). Other materials used for outer walls of houses include mud or mud bricks (15%), landcrete<sup>7</sup> (4%), and wood (2%). Figure 3.12 shows the breakdown of households by type of outer wall.

<sup>5</sup> Kumasi Ventilated-Improved Pits (KVIPs) are twin-pit ventilated improved latrines.

<sup>6</sup> Blocks made of a mix of concrete and sand

<sup>7</sup> A mix of concrete and mud

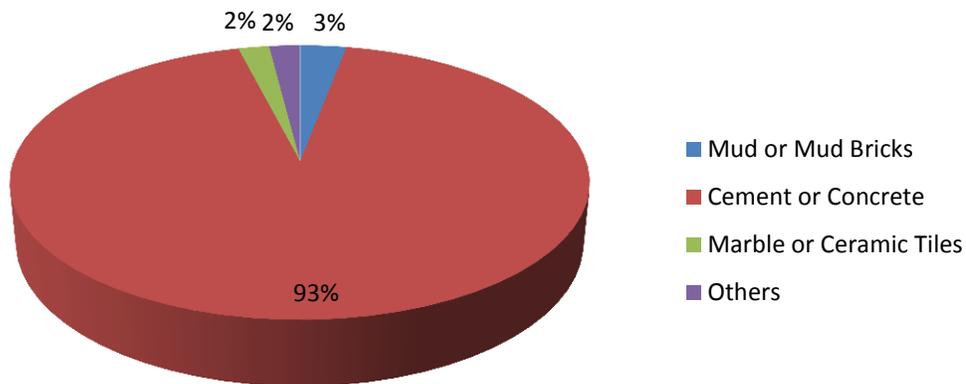
**Figure 3.12. Percentage of households by type of outer wall**



*House floor*

The most common type of material used for the floors of houses is cement or concrete (93%). Other floor materials include mud or mud bricks (3%) and marble or ceramic tiles (2%). Figure 3.13 shows the breakdown of households by type of floor.

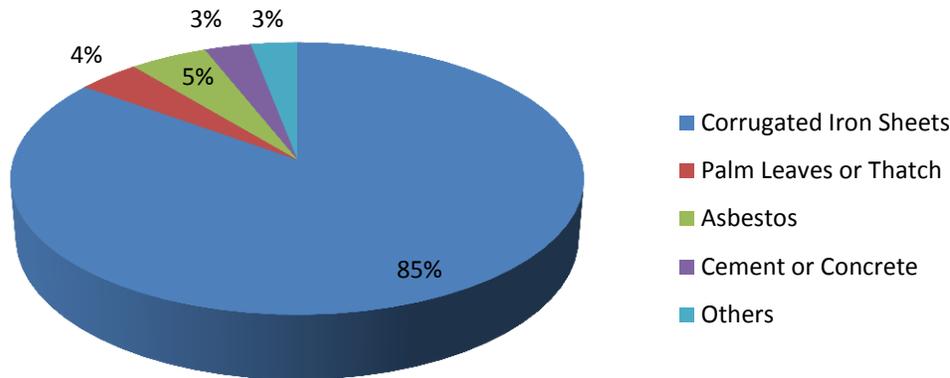
**Figure 3.13. Percentage of households by dwelling floor type**



### Roof

The most common type of material used for the roofs of dwellings is corrugated iron sheets (85%). Other materials include palm leaves or thatch (4%), cement or concrete (3%), and asbestos (5%). Figure 3.14 shows the breakdown of households by type of dwelling roof.

**Figure 3.14: Percentage of households by dwelling roof type**



## Youth and Family Assets

Assets are a key pathway to youth well-being because they can provide the needed resources for youth's education and nutrition, among other things. Households with assets are able to pay for their children's education, food, and clothing. Families with assets also are able to ensure continued consumption in times of income shocks (e.g., natural disasters), thus reducing families' vulnerability to long-term adverse consequences. Empirical research also has shown that family asset ownership is associated with positive youth educational, economic, health, and social outcomes (Chowa, Ansong, & Masa, 2010; Kim & Sherraden, 2011; Williams Shanks, Kim, Loke, & Destin, 2010).

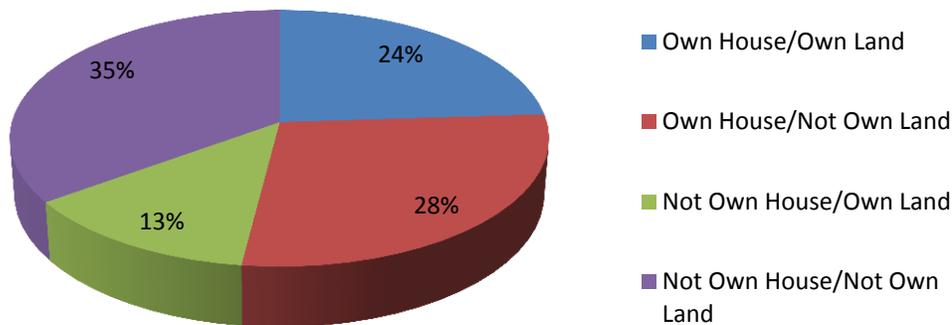
The Ghana Experiment baseline survey asked youth to identify the type and number of assets their families owned. Assets are grouped into three main categories: property, livestock, and appliances. Property refers to real property (e.g., a house, land) and personal property related to transportation (e.g., bicycle, canoe or boat, motorcycle, or vehicle). Livestock refers to cattle, chickens, donkeys, goats, pigs, and sheep. Although appliances are considered personal property, we distinguished them from personal properties used for transportation. These include irons (box and electric), phones (cell/mobile and land), stoves (electric/gas and kerosene), radios, refrigerators, and televisions.

### Real Properties (House and Land)

Thirty seven percent of youth (2,317) are from families that own land. Of those, 52% own one plot of land; 17% own two plots of land; and 31% own three or more plots of land. Fifty-two percent of youth (3,255) are from families that own a house. Of those, 88% own one house, and 12% own two

or more houses. Although most youth are from families that own a house, and more than one third are from families that own land, only 24% (1,520) are from families that own a house and land. Thirty-five percent (2,200) are from families who do not own any real property. Figure 3.15 illustrates the breakdown of households by real property ownership. Ashanti Region has the highest percentage of households who do not own land (81%) or a house (63%).

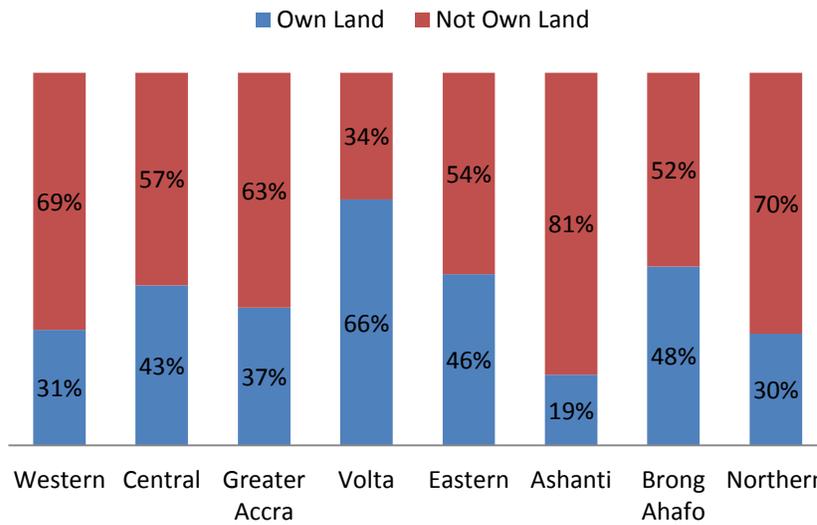
**Figure 3.15: Percentage of households by real property ownership**



Ownership of land varies by region ( $\chi^2(7) = 293.02, p < .001$ ) (Figure 3.16). Families from Volta<sup>8</sup>, Brong Ahafo, Eastern, and Central regions are more likely to own land than families living in other regions. For instance, 48% of families from Brong Ahafo reported owning a plot of land in contrast with 19% of families from Ashanti.

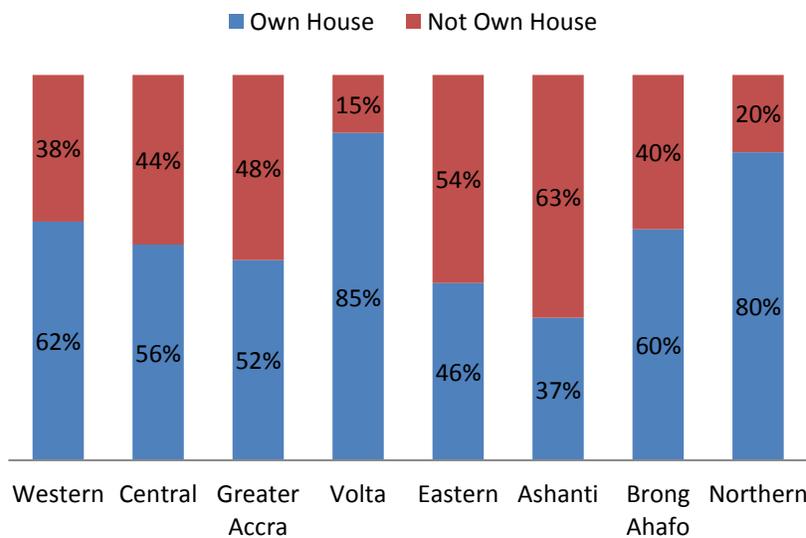
<sup>8</sup> There are only 59 observations from the Volta region in the YouthSave sample.

**Figure 3.16: Percentage of households with land ownership by region**



Home ownership also varies by region ( $\chi^2(7) = 343.33, p < .001$ ) (Figure 3.17). Families from Volta, Northern, and Western regions are more likely to own a house than families from other regions. For instance, 80% of families who live in Northern region own a house in contrast with 37% of families from Ashanti.

**Figure 3.17: Percentage of households with house ownership by region**

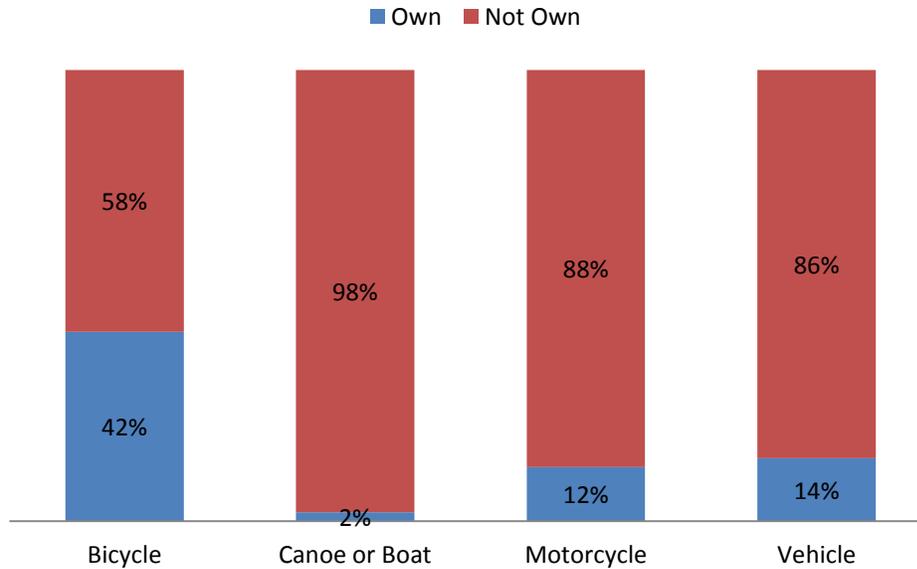


### Personal Properties Used for Transportation

The most common type of transportation-related personal property is a bicycle (42%), and the least common is a canoe or boat (1%) (Figure 3.18). Fifty-two percent of youth (3,227) are from families that own at least one type of personal property. Among those who own transportation-related

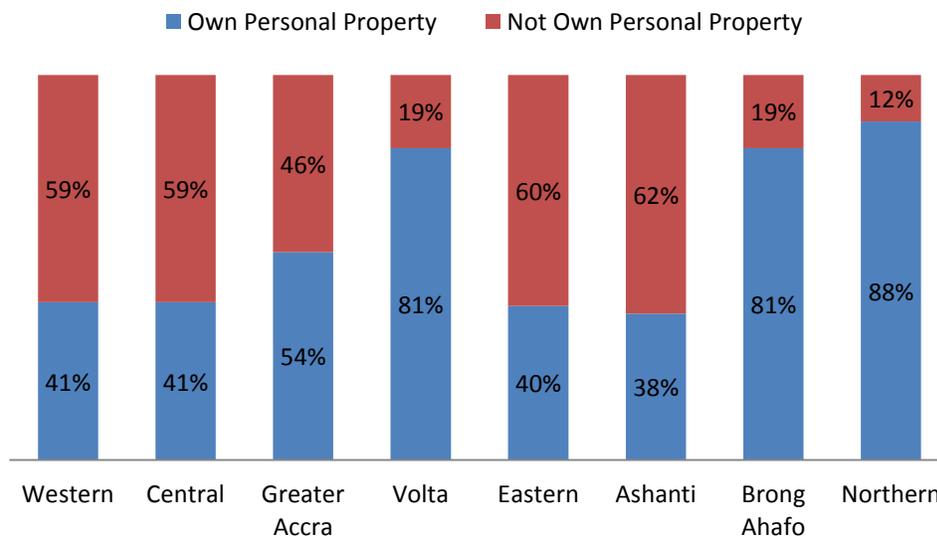
personal property, the average number of bicycles and boats/canoes owned is two, and the average number of motorcycles and vehicles owned is one.

**Figure 3.18: Percentage of households by type of personal property owned**



Ownership of any transportation-related property varies by region ( $\chi^2(7)=751.32, p<.001$ ). Families from Volta, Northern, and Brong Ahafo regions are more likely to own at least one type of personal property contrasted with families from other regions (Figure 3.19). Most vehicle owners are from Greater Accra (29%), Ashanti (24%), and Eastern (16%) regions.

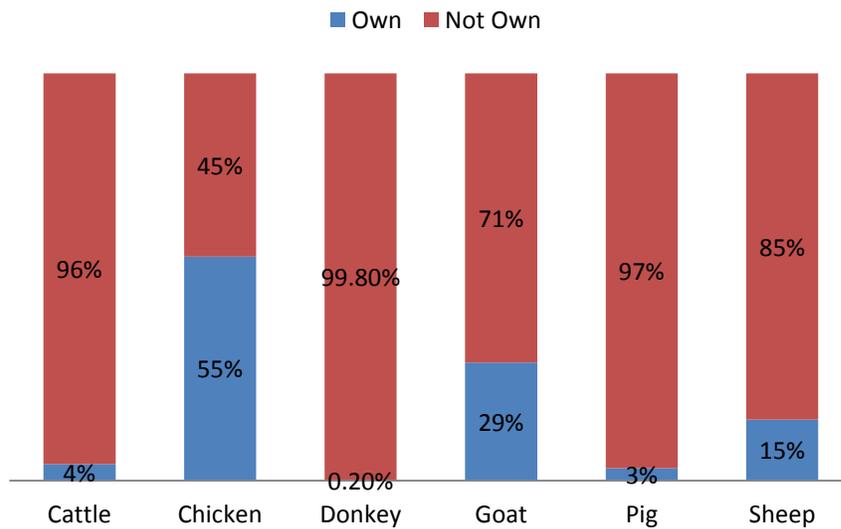
**Figure 3.19: Percentage of households with personal property ownership by region**



### Livestock

Sixty-two percent of youth (3,894) are from families that own at least one type of livestock. The most commonly owned livestock are chickens (55%), goats (29%), and sheep (15%). Cattle (4%), pigs (3%), and donkeys (0.20%) are the least commonly owned (Figure 3.20). Among households owning a particular kind of livestock, the average number of chickens owned is 12 (median=10), the average number of goats owned is 6 (median=5), and the average number of sheep is 6 (median=4). Ownership of livestock varies by region. Families from Ashanti and Greater Accra are less likely to own livestock contrasted with families from other regions ( $\chi^2(7) = 481.31, p < .001$ ). For instance, 57% of families from Ashanti do not own any livestock contrasted with 21% from Northern Region and 24% from Central Region.

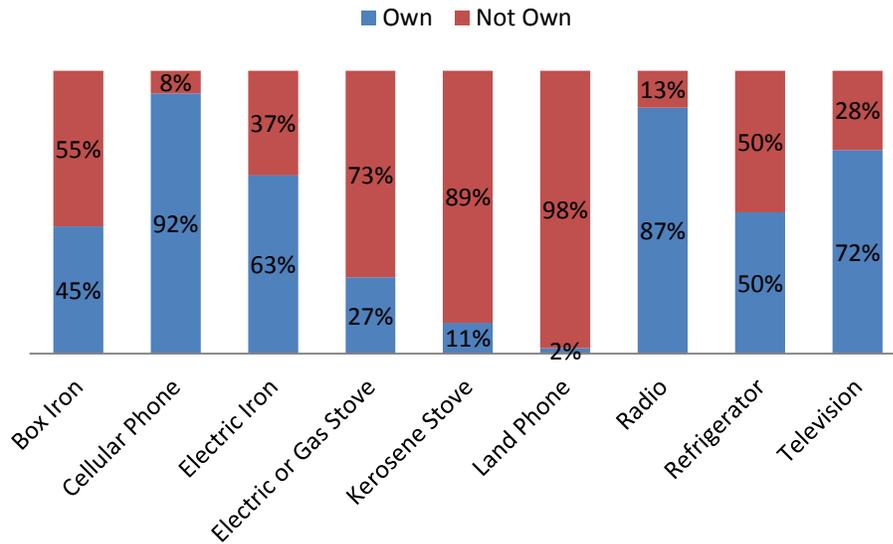
**Figure 3.20. Percentage of households by type of livestock owned**



### Appliances

Almost all households (98%) own at least one type of appliance, the most common of which is a cellular phone (92%). Other commonly owned appliances include radios (87%), televisions (72%), electric irons (63%), and refrigerators (50%). The least commonly owned appliance is a land phone (2%). Figure 3.21 depicts the breakdown of asset-ownership by type of appliance. Among households that own a particular appliance, households have an average of 3 cellular phones (median=3), 1 radio, and 1 television.

**Figure 3.21: Percentage of households by type of appliances owned**



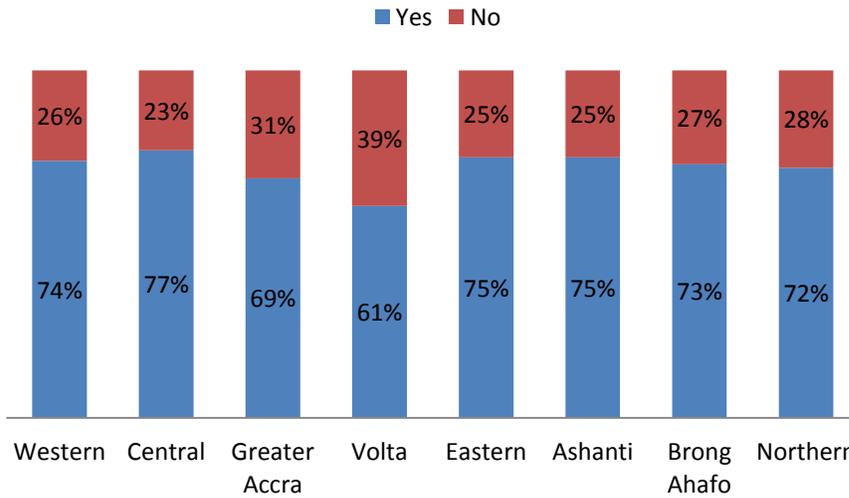
### Parent Demographics

Parents' or guardians' educational levels are highly associated with positive academic achievement and attainment of their children (Davis-Kean, 2005). Parents' and guardians' educational levels also have an effect on youth's health. Fewer years of parent education are associated with poorer health outcomes in children (Chen, Martin, & Matthews, 2006).

#### Age, Gender, and Marital Status

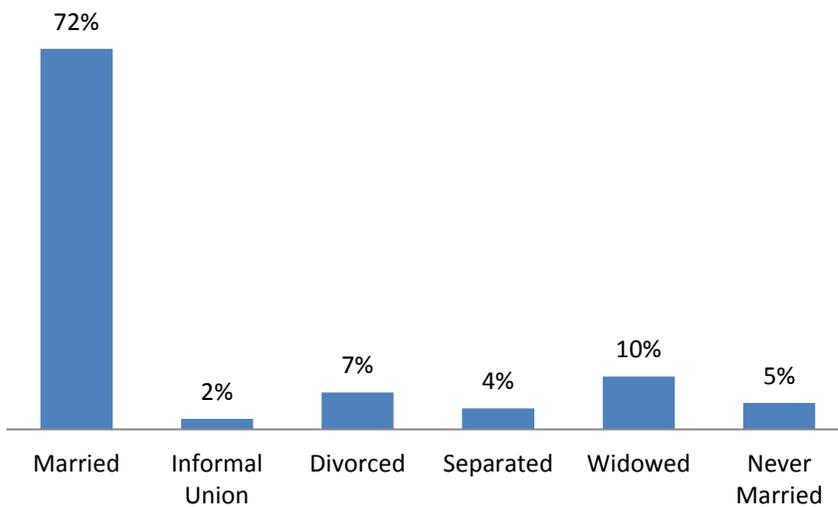
Of the 6,252 youth interviewed at baseline, 73% (4,576) have a parent or guardian also interviewed at baseline. More than 60% of youth's parents or guardians from each region were interviewed (Figure 3.22). The highest percentage is in Central region where 77% of parents or guardians were interviewed at baseline. The lowest percentage is in Volta region where only 61% of parents or guardians were interviewed.

Figure 3.22: Percentage of parents or guardians interviewed by region



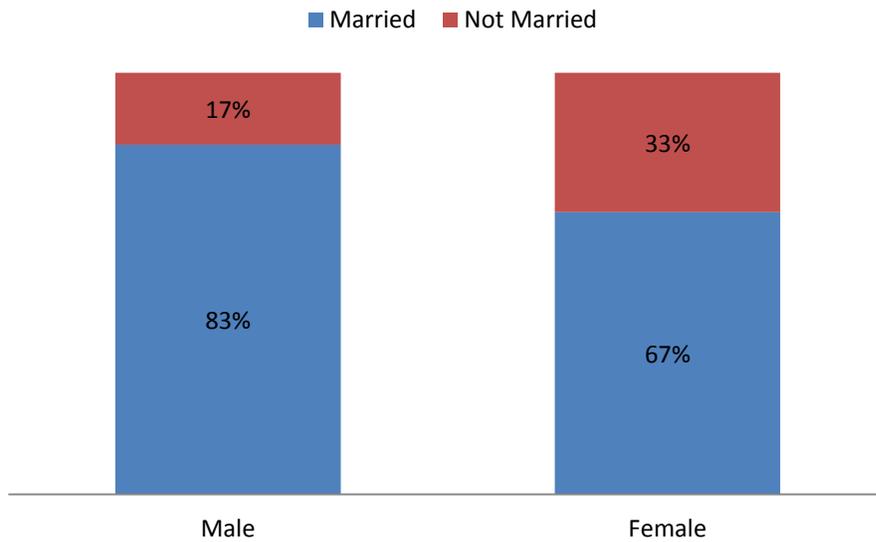
Seventy percent of parents or guardians interviewed are female. The average age of the parent or guardian is 46. Seventy-two percent of parents or guardians are married (Figure 3.23).

Figure 3.23. Percentage of parents or guardians by marital status



Male parents or guardians are more likely (83%) than their female counterparts (67%) to be married ( $\chi^2(3)=126.80, p < .001$ ) (Figure 3.24).

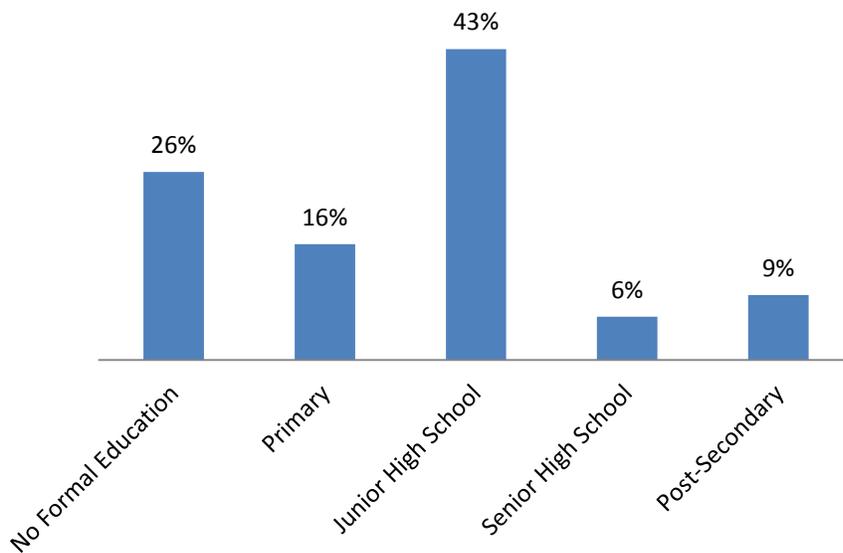
**Figure 3.24. Percentage of parents or guardians by gender and marital status**



### Education and Employment

The majority of parents or guardians (74%) have some formal education, but very few (9%) have a post-secondary education. Twenty-six percent of parents or guardians have no formal education. Figure 3.25 shows the percentage of YouthSave parents or guardians by education level.

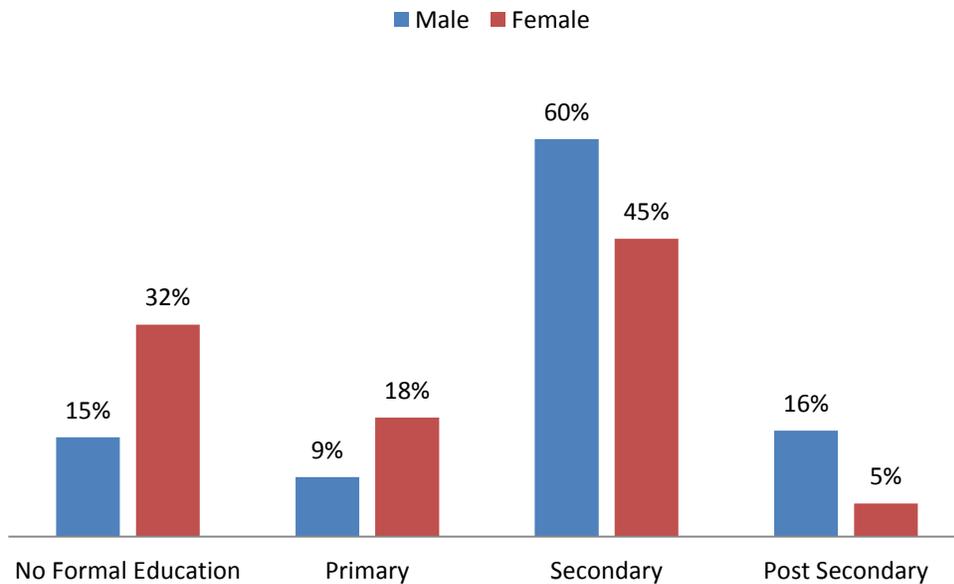
**Figure 3.25. Percentage of parents or guardians by education level**



Among parents and guardians, males are more likely than their female counterparts to have a high school or higher level of education ( $\chi^2(3)=341.47, p < .001$ ). More males (16%) completed a post-secondary education than females (5%), and more males (60%) completed high school than females

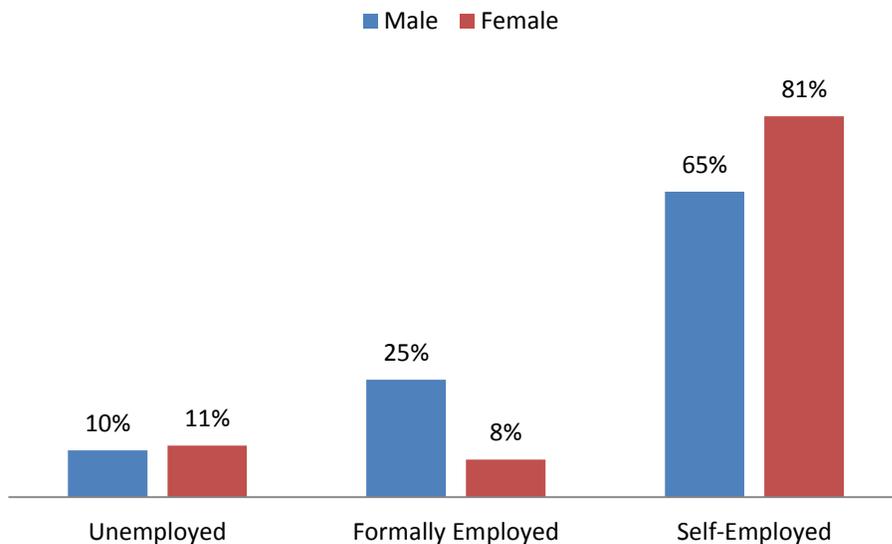
(45%). Females are more likely than their male counterparts to report no formal education (32% vs. 15%, respectively) (Figure 3.26).

**Figure 3.26. Percentage of parents or guardians by gender and education level**



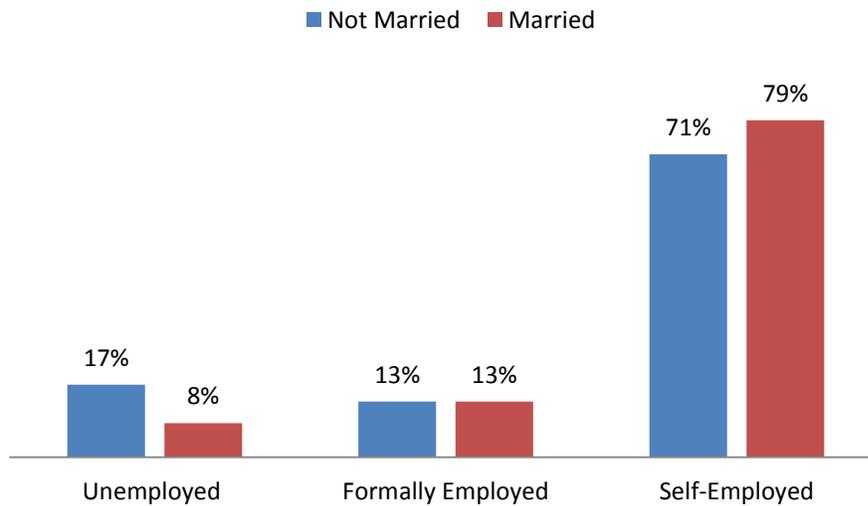
Seventy-seven percent of YouthSave parents or guardians are self-employed, 13% are formally employed, and 10% are unemployed. Males are more likely than females to be formally employed (25% vs. 8%, respectively), and females are more likely than males to be self-employed (81% vs. 65%, respectively) (Figure 3.27). The relationship between gender and employment status is statistically significant ( $\chi^2(2) = 239.03, p < .001$ ).

**Figure 3.27. Percentage of parents or guardians by gender and employment status**



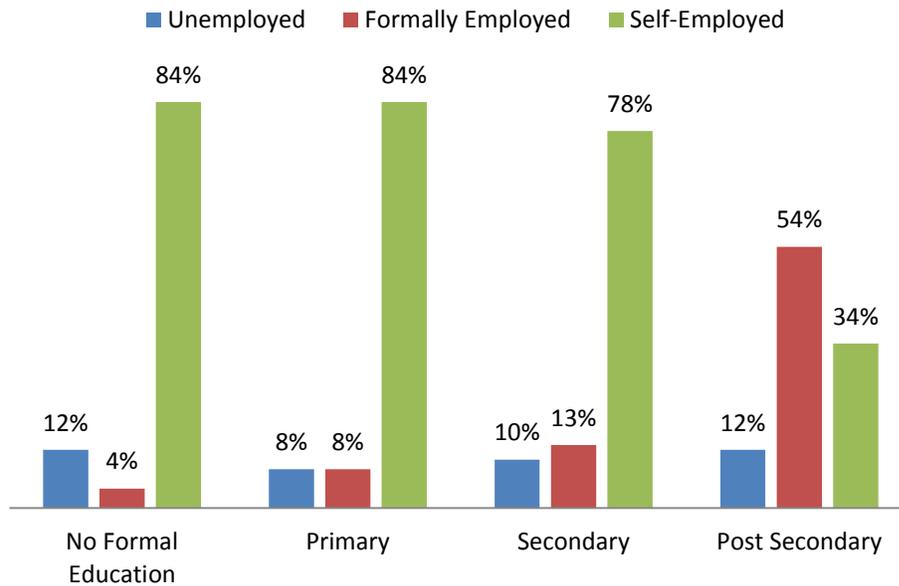
The relationship between marital status and employment status is also statistically significant ( $\chi^2(2) = 78.18, p < .001$ ). Married parents or guardians are more likely than single parents or guardians to be self-employed (79% vs. 71%, respectively) (Figure 3.28). Further, single parents or guardians are more likely than married parents or guardians to report being unemployed (17% vs. 8%, respectively).

**Figure 3.28. Percentage of parents or guardians by marital and employment status**



The relationship between education and employment status is statistically significant ( $\chi^2(6)=697.98, p < .001$ ). Parents or guardians with higher education are more likely than parents with lower or no formal education to be formally employed (Figure 3.29). For instance, 54% with post-secondary education are formally employed contrasted with 8% with primary education and 4% with no formal education. Similarly, parents or guardians with lower or no formal education are more likely than their counterparts with higher education to be self-employed (84% vs. 34%, respectively). However, similar percentages of parents/guardians reported that they are unemployed across educational level.

**Figure 3.29. Percentage of parents or guardians by education level and employment status**

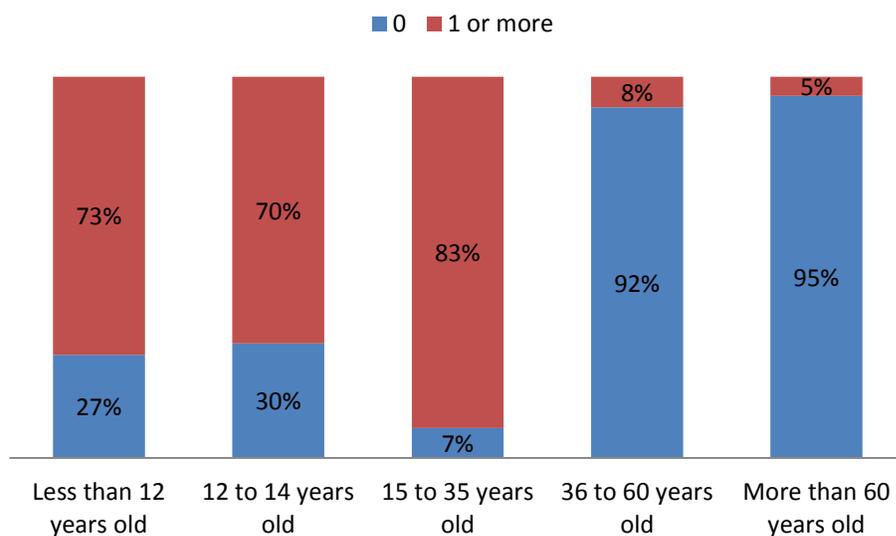


### Household Dependents

The number of economic dependents<sup>9</sup> varies by household (Figure 3.30). The average number of dependents is 5; the median is 4. The majority of households have at least one economic dependent between 15 and 35 years old (83%), age 11 or younger (73%), or between 12 and 14 years old (70%). Small numbers of households have an economic dependent between 36 and 60 years old (8%) or over 60 years old (5%). Among households that have a dependent of age 11 or younger or between 15 and 35, the average number of dependents is two. Among households with at least one dependent between 12 and 14 years old, the average number of dependents is one.

<sup>9</sup> Economic dependents refer to individuals who rely on the adult respondent for food, shelter, clothing, or other basic needs.

**Figure 3.30. Percentage of households by number and age of dependents**

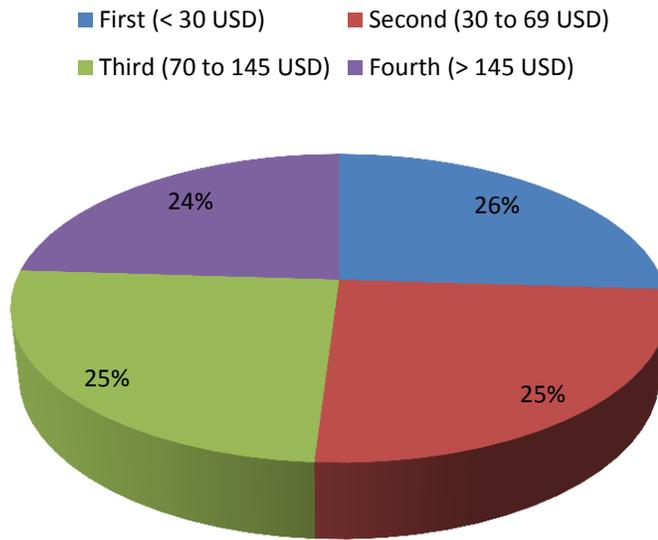


### Household Monthly Income

The average monthly household income is GHS 204 (USD 135)<sup>10</sup> (SD 314). The median monthly income is GHS 120 (USD 79). When household income is divided into quartiles, the average monthly household income of in the first quartile is GHS 29 (USD 19) (SD 18), and the median income is GHS 30 (USD 20). Households in the second income quartile have an average income of GHS 89 (USD 59) (SD 19); median income is GHS 98 (USD 65). Households in the third income quartile have an average income of GHS 185 (USD 122) (SD 37); median income is GHS 190 (USD 125). Households in the fourth income quartile have an average income of GHS 532 (USD 351) (SD 501); median income is GHS 400 (USD 264). When households are divided into quartiles by income, 26% percent (1,211) are in the first income quartile (<USD 35); 25% in the second quartile (USD 35–80); 25% in the third quartile (USD 81–165); and 24% in the fourth quartile (>USD 165; Figure 3.31).

<sup>10</sup>Exchange rate used was 1 GHS=0.66 USD.

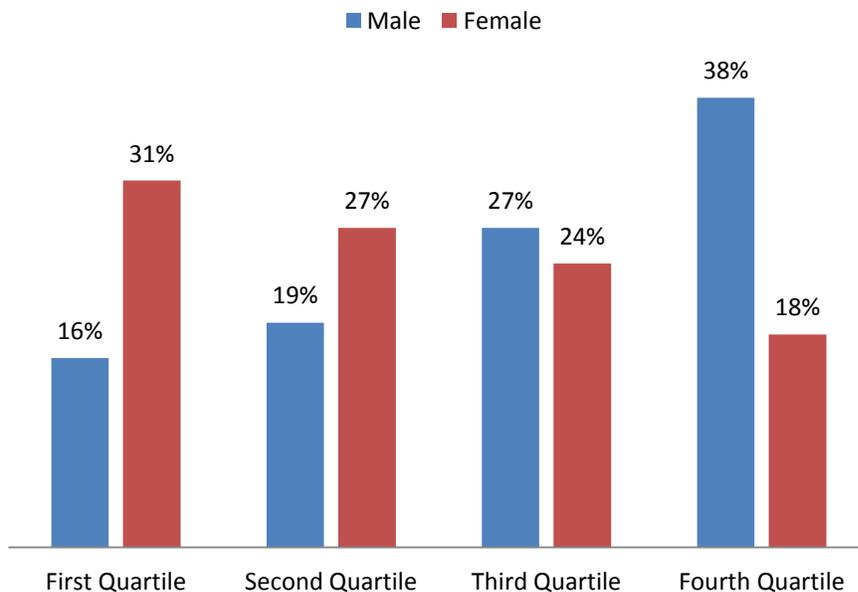
**Figure 3.31. Percentage of households by income quartile**



*Gender*

When parental characteristics are taken into consideration, the relationship between gender and income quartile is statistically significant ( $\chi^2(3) = 262.06, p < .001$ ). Male parents or guardians are more likely than female parents or guardians to have higher monthly income (Figure 3.32). Thirty-eight percent of males reported that they earn more than GHS 250 (USD 165) per month contrasted with only 18% of females. Further, only 16% of males reported that they earn GHS 50 (USD 33) or less per month contrasted with 31% of females.

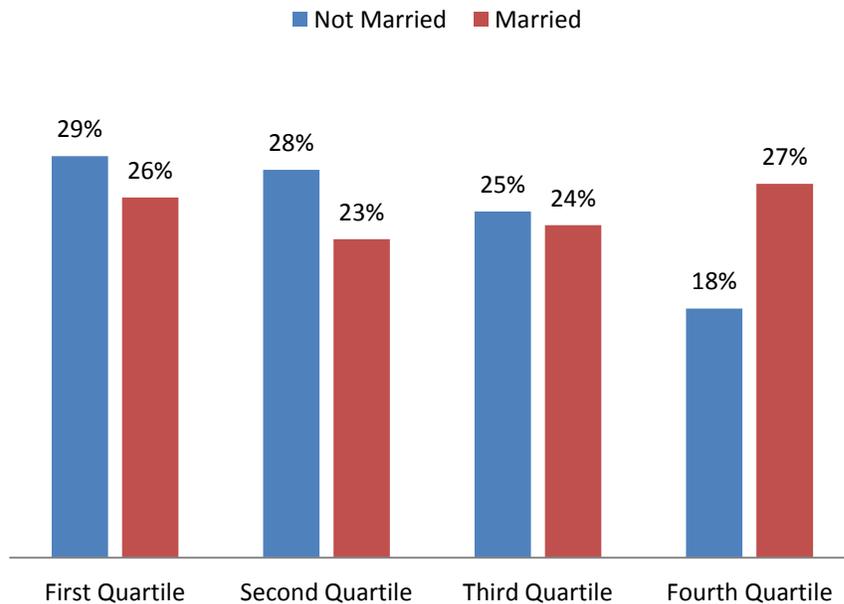
**Figure 3.32. Percentage of households by gender and income of parents or guardians**



*Marital status*

The relationship between marital status and income quartile is also statistically significant ( $\chi^2(3) = 38.06, p < .001$ ). Married parents or guardians are more likely than single parents or guardians to have higher incomes (Figure 3.33). For instance, 27% of married parents or guardians report earning more than GHS 250 (USD 165) per month contrasted with only 18% of their single counterparts. The percentage of single parents or guardians (29%) in the lowest income quartile is higher than their married counterparts (26%).

**Figure 3.33. Percentage of households by marital status and income of parents or guardians**



*Education level*

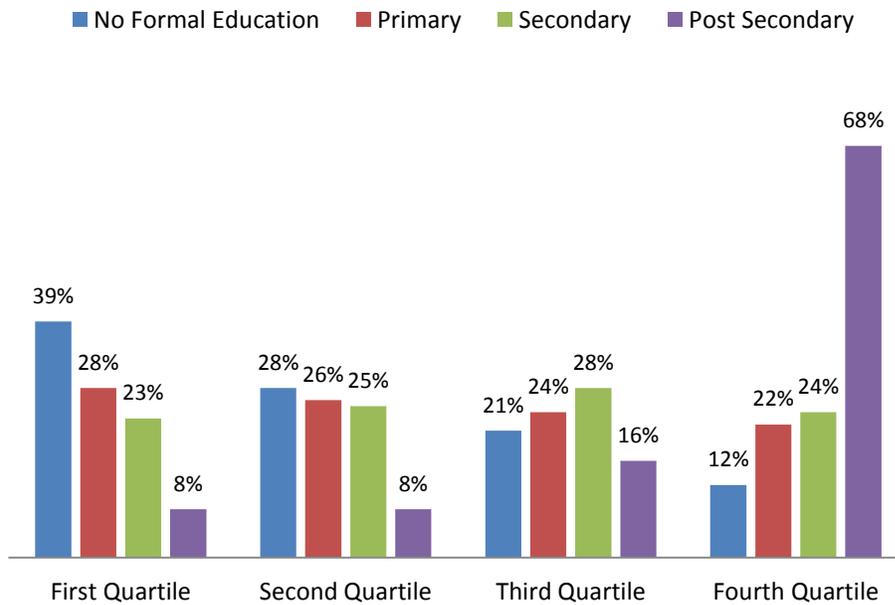
The relationship between education and income is also statistically significant ( $\chi^2(9) = 590.48, p < .001$ ). Parents or guardians with higher education are more likely than their counterparts with lower or no formal education to earn a higher income (Figure 3.34). For instance, 68% of parents or guardians with postsecondary education reported earning more than GHS 250 (USD 165) per month contrasted with 24% and 12% of their counterparts with high school education and no formal education, respectively. Similarly, only 8% of parents or guardians with postsecondary education reported earning GHS 50 (USD 33) or less per month contrasted with 39% and 28% of parents or guardians with no formal education and primary education, respectively.

*Employment status*

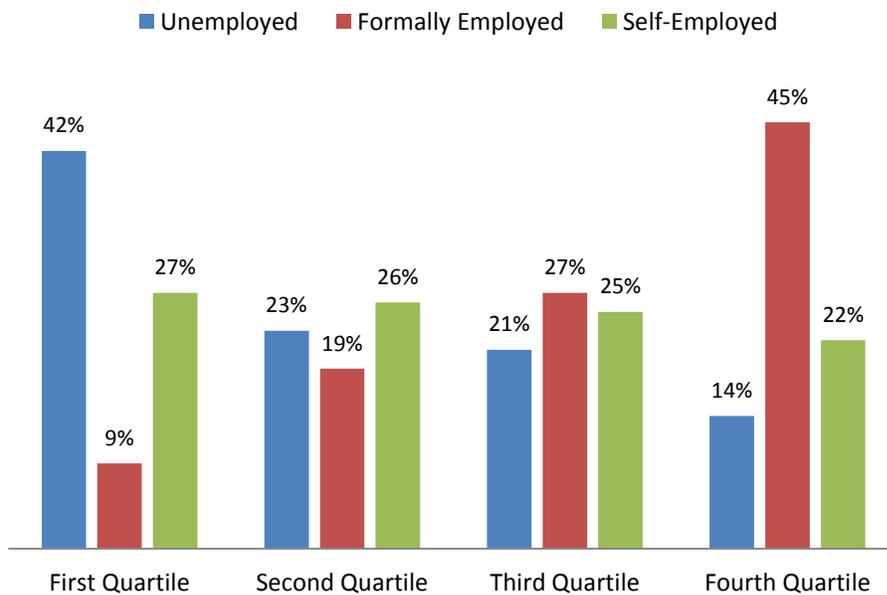
The relationship between employment status and income is also statistically significant ( $\chi^2(3) = 258.90, p < .001$ ). Formally employed parents or guardians are more likely than self-employed and unemployed parents or guardians to earn higher incomes (Figure 3.35). Forty-five percent of formally employed parents or guardians report earning more than GHS 250 (USD 165) per month, contrasted with 22% and 14% of self-employed and unemployed parents or guardians, respectively. Similarly, only 9% of formally employed parents or guardians reported earning less than GHS 50

(USD 33) per month contrasted with 27% of self-employed and 42% of unemployed parents or guardians.

**Figure 3.34. Percentage of households by education and income of parents or guardians**



**Figure 3.35. Percentage of households by employment and income of parents or guardians**



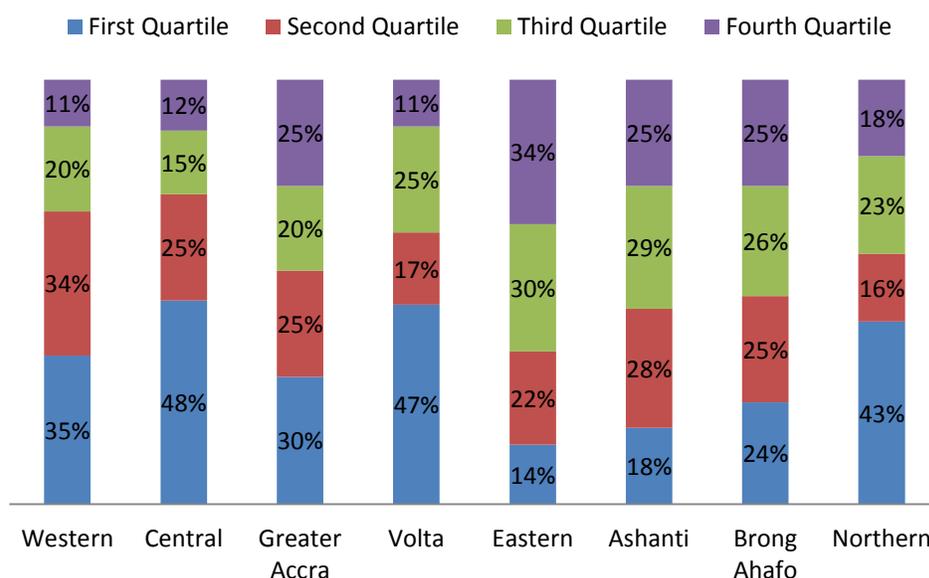
*Region of residence*

The relationship between household income and region of residence is statistically significant ( $\chi^2(21)=398.62, p < .001$ ). Households from Eastern region are more likely than households from

other regions to be in higher income quartiles with an average monthly income of GHS 242 (USD 159.72) and median income of GHS 200 (USD 132). Both amounts are higher than the overall household mean and median incomes for all households in the sample.

On the other hand, households from Central, Volta, and Northern regions are more likely than households from other regions to be in the lowest income quartile (Figure 3.36). For instance, 48% of households from Central region are in the lowest income quartile with an average monthly income of GHS 125 (USD 82.5) and median income of GHS 60 (USD 39.6). Both amounts are lower than the overall household mean and median incomes for all households in the sample.

**Figure 3.36. Percentage of households by region of residence and income**



### Summary

This chapter describes the characteristics of youth in the YouthSave Ghana Experiment and their parents or guardians. The study includes 6,252 youth with an average age of 15. The baseline data include only in-school youth in class level 6, JHS1, or JHS 2. Youth come from eight different regions, 42 districts, and 101 public and private schools throughout Ghana. Although the overall sample is 51% girls, variation in gender exists within grade level and region of residence. Although the distribution of youth by grade level is almost equal, variation exists by gender and within region of residence. Other key findings include the following:

- Living conditions of youth and their families vary. Type of toilet facility used by household members, sources of drinking water, and type of dwelling vary widely. Energy sources for cooking and main construction materials used for the outer wall, floor, and roof of the dwelling vary little.
- Living conditions vary by income level. Higher income households are more likely to live in better conditions (e.g., permanent-structure dwellings) than lower income households.

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- Family asset ownership varies. Appliances are the most commonly owned asset with 98% percent of households owning at least one type. Land is the least commonly owned asset with only 35% of families owning land. Family asset ownership varies by region of residence.
- Asset ownership varies by level of household income and type of asset. Higher income households are more likely than lower income households to own personal property. However, lower income households are more likely than higher income households to own livestock.
- Seventy percent of parents or guardians in the study are female. Significant variations in parent demographic characteristics exist (e.g., parental education varies by parent gender, and parental employment status varies by gender, marital status, and education level).
- The average monthly income of households is GHS 204 (USD 135), which is lower than Ghana's 2011 GDP per capita purchasing power parity of USD 258 per month (CIA, n.d.).
- Household income varies by parent characteristics, including gender, marital status, education, employment, and region of residence. Parents or guardians with higher education are more likely than their counterparts with lower or no formal education to earn more than GHS 250 (USD 165) per month.



## Chapter 4: Youth and Parent Financial Knowledge, Behavior, Attitudes, and Experiences

Very little is known about how youth in SSA interact with money. In this chapter, we describe participants' financial circumstances, what they think about different financial topics, what they do with their money, and experiences they have had, such as visiting a bank or receiving financial education. Parents and family members are an important source of economic socialization, so we also describe the financial attitudes, knowledge, and behaviors of participants' parents and guardians.

### Amounts and Sources of Money

Saving money and accumulating assets increase education and entrepreneurial opportunities for youth (Elliott, Jung, Kim, & Chowa, 2010) and promote their future planning (Scanlon & Adams, 2009). Many youth in SSA save or try to save part of their income—usually for school materials and fees, clothing, entertainment, and emergencies—using informal methods, such as cash boxes and hiding places (UNCDF, 2011). Research shows youth in SSA are able to save and accumulate financial assets when given access to formal savings products, incentives, and support (Chowa & Ansong, 2010; Erulkar & Chong, 2005; Mason, Nam, Clancy, Kim, & Loke, 2010; Ssewamala & Ismayilova, 2009), but little is known about their saving attitudes and behavior. YouthSave research is expected to fill some of the gaps in knowledge.

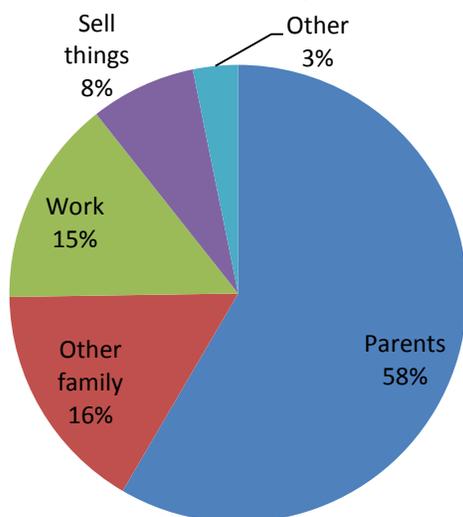
While it is less common for youth to manage household resources and make financial decisions, they may receive money and make their own decisions about how to use it. Most participants (72%) say they have at least some money that belongs to them. The average amount is GHS 15.38 (USD 10.15), though the median is much lower—GHS 5 (USD 3.30)—which means that most participants have modest amounts of money, while relatively few have large amounts. For example, the top 1% has an average of GHS 331 (USD 218), and the top 5% have an average of GHS 140 (USD 92). Removing the top 1% and 5%, the average amounts are smaller: GHS 12 (USD 8) and GHS 9 (USD 6), respectively.

As seen in Figure 4.1,<sup>11</sup> most participants (74%) receive money from their parents or other family members, yet nearly a quarter (23%) has earned income. Other sources of money include gifts from family members, friends, and boyfriends. More than a third of participants (37%) report having just one source of money, 28% have two sources, and 7% have three or four sources. Nearly a third (28%) reports no sources of money. Participants with two or more sources of money report having more money (GHS 25.93 [USD 17.11]) than those with only one source (GHS 17.11 [USD 11.29]). Those who only receive money from their parents or guardians (N=2,032) have much less money (GHS 14.92 [USD 9.85]) than those who only receive money from earned income (N=226) (GHS 35.87 [USD 23.67]).

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<sup>11</sup> Percentages reflect the proportion of all responses in each category. Some participants had more than one source of income.

**Figure 4.1. Sources of money**



Boys have significantly more money than girls (GHS 18.02 vs. 12.80 [USD 11.89 vs. 8.45]) ( $p < .001$ ), and average amounts are highest (GHS 19.24 [USD 12.70]) among JHS2 students and lowest (GHS 12.43 [USD 8.20]) among Primary 6 students. The greatest difference in amount depends on whether participants have earned income. Those who work or sell things for money have a significantly higher average amount than those who do not (GHS 30.17 vs. 10.78 [USD 19.91 vs. 7.12]) ( $p < .001$ ). These same patterns are observed after removing outliers (top 1%).

Understanding the financial lives of youth is important for guiding interventions and policies that will enhance their financial capabilities and outcomes. For example, if we learn that youth have favorable attitudes about saving but know little about how banks work, financial education and inclusion efforts might be tailored accordingly. If we learn that girls and boys have different financial behavior patterns, we may want to take somewhat different approaches to financial education and inclusion based on gender.

### Money Management and Savings Behaviors

Little is known about how youth in SSA—particularly younger adolescents—use money, but it is particularly important to understand multiple characteristics of youth savings behaviors to guide interventions and policies. Saving may mean something different to youth than to practitioners and policymakers, and how youth describe their savings behaviors may give us important clues about *how* we want to influence their behavior. Youth agree that saving money is important, but they tend to postpone saving and favor short-term purchases (Pettigrew, Taylor, Simpson, Lancaster, & Madden, 2007; Ssewamala, Sperber, Blake, & Ilic, 2011). However, youth in SSA develop positive savings attitudes and behaviors when given opportunities and incentives to save (Ssewamala & Ismayilova, 2009). Thus, interventions and policies should encourage longer durations of retaining savings and more future-oriented uses of accumulated savings.

This section will answer the following questions about YouthSave Ghana Experiment study participants:

- If they have money, what do they do with it?
- Do they try to save some of their money?
- If so, how often do they save?
- How long do they hold their savings?
- For what purposes do they save?

### Money Management

Table 4.1 depicts participants' self-reported money management behaviors. Over two thirds (70%) of participants say they pay close attention to how much money they spend most or all of the time. Most comparison shop (62%) and have a plan for using their money (59%), yet a little less than half (48%) follow their plans most or all of the time.

**Table 4.1. Self-reported money management behaviors**

| Indicator   | N    | Never | Once in a long time | Sometimes | Most of the time | Always |
|---|------|-------|---------------------|-----------|------------------|--------|
| I pay close attention to how much money I spend.                      | 6233 | 4%    | 4%                  | 21%       | 30%              | 40%    |
| Before I buy something for myself, I compare prices on similar items. | 6232 | 9%    | 6%                  | 24%       | 30%              | 32%    |
| I have a plan for how to use my money.                                | 6230 | 9%    | 7%                  | 26%       | 28%              | 31%    |
| I follow the plan I have for how to use my money.                     | 6222 | 12%   | 12%                 | 29%       | 24%              | 24%    |

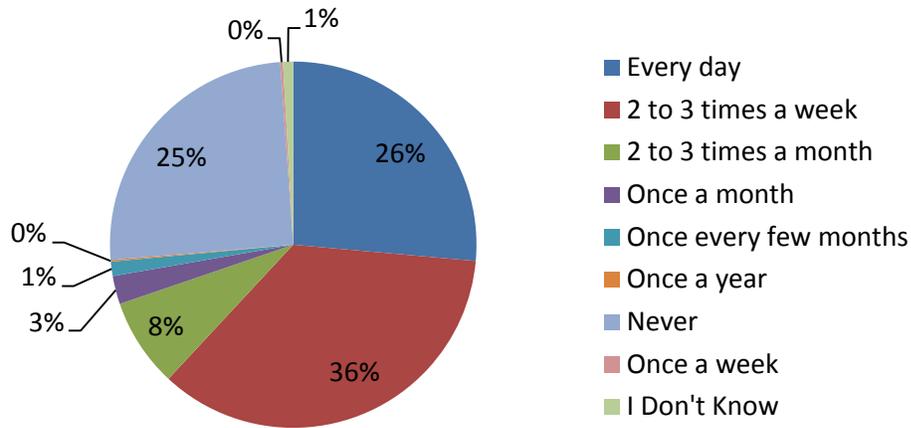
There is virtually no difference in self-reported money management behaviors between boys and girls with the percentage point differences by gender for responses to all indicators ranging from only 0% to 4%. The largest difference is that slightly more boys (33%) than girls (29%) say they always have a plan for how to use their money.

### Saving

Saving behavior is operationalized in the survey as *setting aside money to use later*. Participants were asked about multiple dimensions of saving behavior: frequency, duration, amount, intended uses, and vehicle (i.e., where they actually keep their saved money). It is important to examine each of these dimensions—including whether they differ by participant characteristics—to gain a meaningful understanding of self-reported savings behaviors.

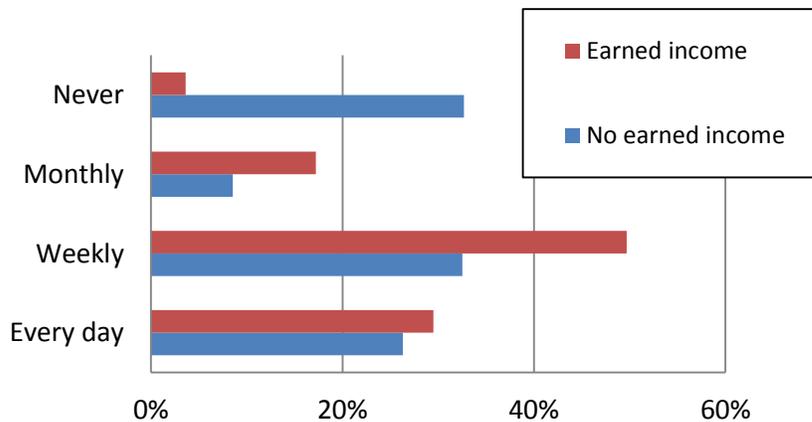
Most participants (74%) say they save, though the frequency of saving varies (Figure 4.2). A majority of participants (62%) say they are frequent savers, setting aside money on a daily or weekly basis. Only 25% say they never save money.

**Figure 4.2. Saving frequency**



The frequency of saving differs little between girls and boys, by grade level, and by age. Girls (26%) are only slightly more likely than boys (24%) to say they never save. The percentage of participants who say they never save is the same (25%) for participants younger than age 15 (N=2,468) and those age 15 and older (N=3,781). However, a clear difference in saving frequency exists between participants with and without earned income (i.e., money they receive from working or selling things) (Figure 4.3). Participants with earned income are more likely than participants without earned income to be daily or weekly savers (79% vs. 59%, respectively) and much less likely to say that they never save (4% vs. 33%, respectively).

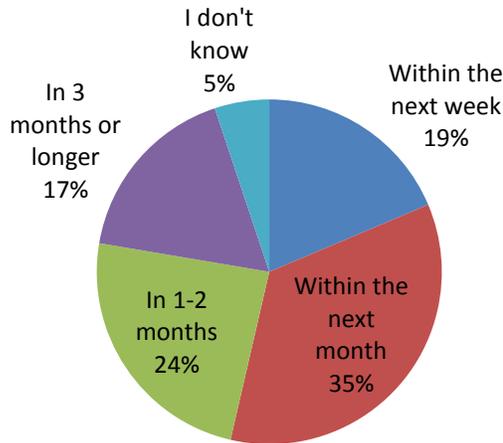
**Figure 4.3. Saving frequency by earned income**



Though most participants say they are frequent savers, relatively few participants (17%) intend to retain their savings for three months or longer (Figure 4.4). Saving duration differs very little by gender and grade level. A slightly greater percentage of participants age 15 and older (18%) intend to keep their savings for three months or longer contrasted with participants younger than age 15

(15%). Participants also differ little in intended saving duration based on whether participants have earned income.

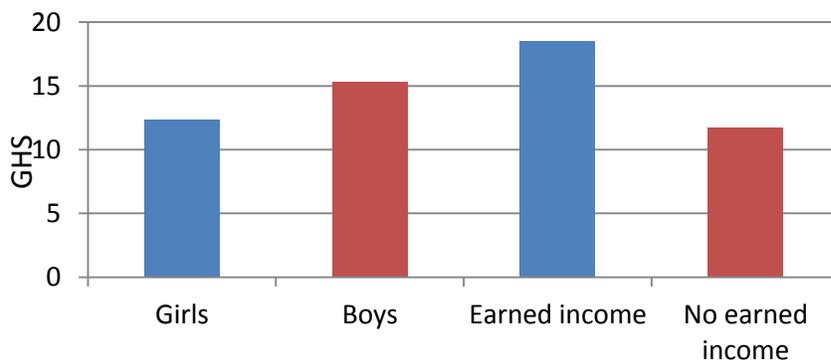
**Figure 4.4. Saving duration**



Participants consider most of their money (60%) to be savings. This finding differs little by gender, grade level, and age. However, participants with earned income consider a greater proportion of their current money to be saved (67%) than participants without earned income (55%). This difference is statistically significant at  $p < .001$ .

Among participants who say they save, the average amount of money in savings in a typical month is GHS 13.82 (USD 9.12), but the median value is lower at GHS 10 (USD 6.60) (Figure 4.5). A smaller number of participants save larger amounts, while most save modest amounts. For example, the average amount saved below the 75<sup>th</sup> percentile is GHS 6.01 (USD 3.97), while the average amount at and above the 75<sup>th</sup> percentile is GHS 31.02 (USD 20.47).

**Figure 4.5. Average monthly savings**

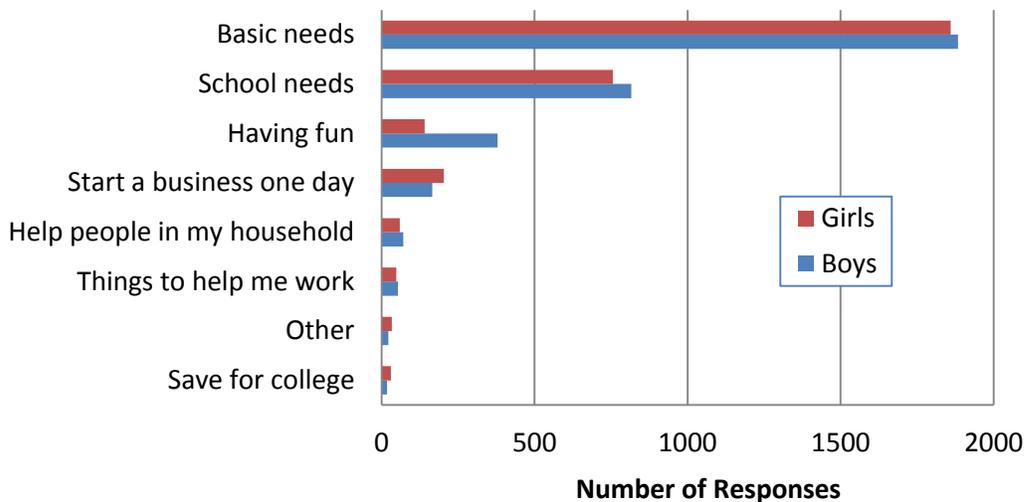


The difference in the amount saved in a typical month between boys (GHS 15.33 [10.12 USD]) and girls (GHS 12.32 [8.13 USD]) is statistically significant ( $p < .001$ ; see Figure 4.5). An even greater difference is found between participants who have earned income (GHS 18.49 [USD 12.20]) and those who do not (GHS 11.75 [7.76 USD]) ( $p < .001$ ). Also, the average amount saved in a typical month increases as grade level increases.

Why might participants who are fairly frequent savers and consider most of their money to be saved retain savings for relatively short periods of time? Examining participants' goals (i.e., intended use of savings) can help further describe saving behaviors. Of participants who say they save money, 91% say they have goals for how to use their savings. A greater percentage of participants who have earned income say they have savings goals (95%) than those who do not (89%), a statistically significant finding ( $p < .001$ ). Other characteristics such as gender, age, and class are not associated with differences in savings goals.

Figure 4.6 illustrates two important findings concerning savings goals. First, participants have very short-term plans for using their savings, such as meeting basic needs (e.g., clothing, shoes, sanitary items, and school needs). Relatively few participants say they plan to use their savings to go to college or start a business. The observed short *duration of* and *short-term intended use for* most participants' savings suggest that perhaps participants are well-practiced in setting money aside, but that this behavior is not indicative of the common preconception of saving (i.e., setting aside money for a long-term future use).

**Figure 4.6: Savings goals**



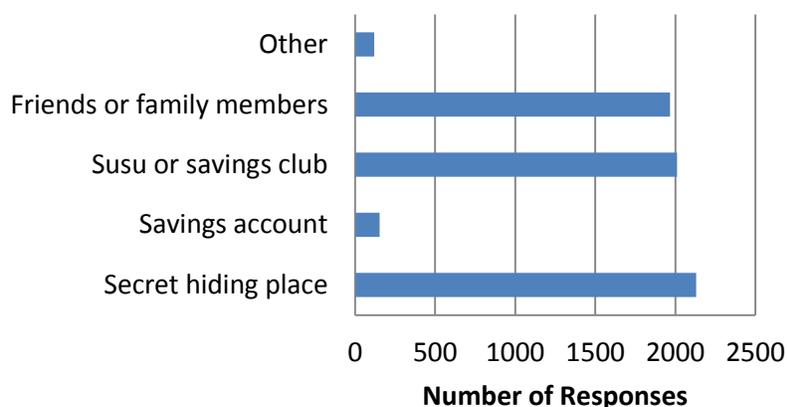
Second, there are few differences between girls and boys, except that many more boys (N=379) than girls (N=141) plan to use their savings to buy things to have fun. Also, of all possible responses, a slightly greater percentage of girls (6.5%) than boys (4.9%) intend to use their savings to start a business one day.

### Access to and Use of Financial Services

Financial capability refers to financial knowledge and skills and the opportunity to put them into action through access to formal financial services (e.g., savings accounts with local banks or credit unions) (Sherraden, 2010). Youth lack access to financial services, particularly in lower income countries (Hirschland, 2009; Nagarajan, 2005), which may cause them to save less (Sherraden, 2010). It is important to understand youth’s access to and use of formal financial services to assess the potential for financial inclusion efforts such as YouthSave. If most participants are saving money—albeit for short durations and mostly short-term purposes—where are they actually setting aside their money? Do any participants use banks to deposit their savings? Do they use informal mechanisms, such as susu collectors?

Participants rely on various informal methods of saving, such as using friends or family members as safekeepers or using secret hiding places, while very few participants (N=153) make deposits with a formal financial institution (e.g., bank, cooperative, savings and loans institution, credit union, or microfinance institution). The most common “other” saving method participants identify is keeping money in their school bag (Figure 4.7).

**Figure 4.7. Saving methods**

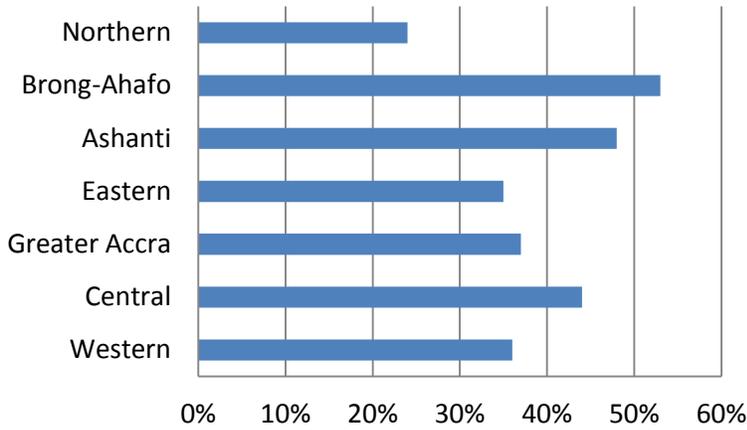


More girls (N=1,039) than boys (N=927) say they depend on friends or family members to safeguard their savings, but otherwise differ very little in their savings methods. A greater percentage of participants with earned income than those without it say that they use a hiding place (51% vs. 44%, respectively), susu collector or savings club (47% vs. 42%), and friends or family members (46% vs. 41%). These differences likely reflect the finding that participants with earned income are more active savers and thus make more use of various methods to set aside their money.

Less than half of all participants (40%) say they have ever visited a formal financial institution such as a bank, including a greater percentage of boys (44%) than girls (36%) and a greater percentage of participants in JHS2 (46%) than those in Primary 6 (36%). Participants with earned income (43%) are also slightly more likely than those without it (39%) to have visited a formal financial institution. However, there is no difference in age between those who have and have not visited a formal

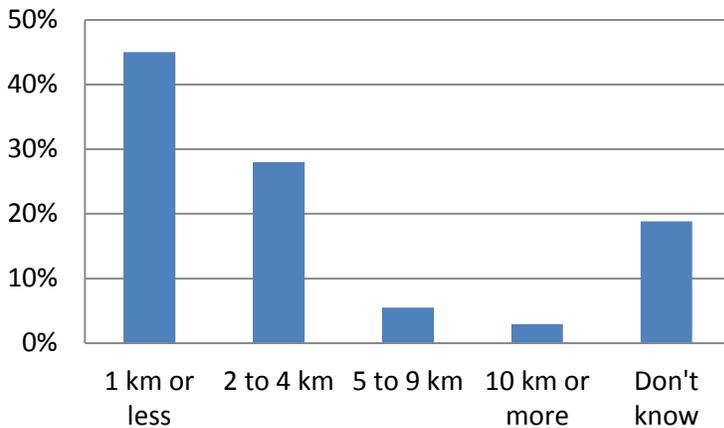
financial institution. There are some regional differences in experience visiting a formal financial institution (Figure 4.8).<sup>12</sup>

**Figure 4.8. Experience visiting a bank**



Participants were asked to estimate how far they live from the nearest formal financial institution such as a bank (Figure 4.9). Most participants (73%) estimate they live relatively close (less than 5 km), but 19% (21% of girls and 16% of boys) are unable to provide a distance estimate.

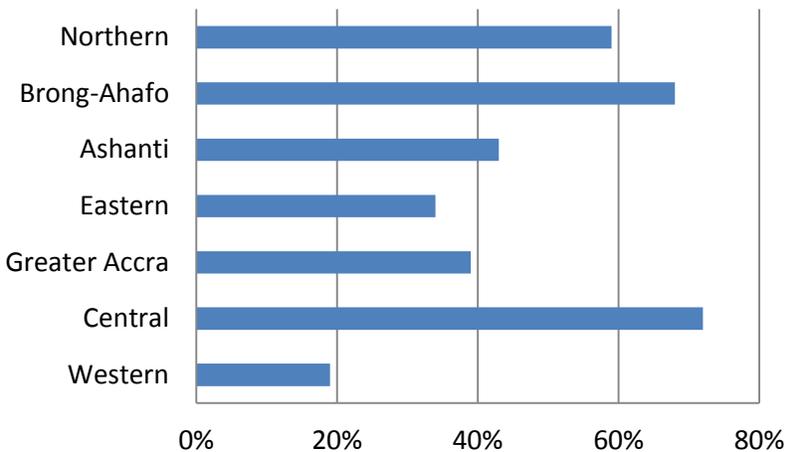
**Figure 4.9. Distance to nearest bank**



Across regions (excluding Volta), the percentage of participants who say the nearest bank is within 5 km ranged from 64% in Greater Accra to 96% in Central with an even wider range of responses for banks within 1 km (Figure 4.10).

<sup>12</sup>Volta region was excluded due to a low number of cases (N=59).

**Figure 4.10. Distance to bank within 1 km by region**



Participants were asked how they would get to their nearest bank. Most (60%) say they would walk, while one third (34%) says they would use public transportation. Across regions, a majority of participants say they would walk, except in Western region, where a majority (73%) says they would use public transportation. While the percentage of participants who say they would use a bicycle ranges from 0.39% to 2.96% in most regions, a bicycle is the transportation choice of nearly a third (31%) of participants in Northern Region. As one might expect, transportation methods vary by estimated distance to the nearest bank. Most participants who live within 1 km of the nearest bank say they would walk, while a greater percentage of those who live farther distances would use public transportation.

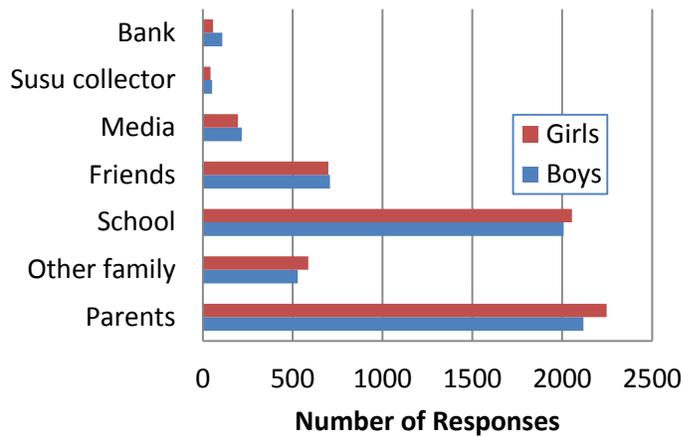
The average amount of time participants estimate it would take to get to the nearest bank is 20.39 minutes, but there is considerable variation since the standard deviation was 17.70 minutes. Participants with longer estimated distances to the nearest bank also gave longer estimates for the amount of time it would take to get to the bank. Average time estimates range from 17 minutes in Ashanti region to 26.53 in Western region (Volta is excluded due to a low number of cases).

### Financial Education

Schools are an increasingly important source of financial education. In the US, the number of states with personal finance content standards for K-12 curricula has risen from 21 in 1998 to 44 in 2009 (Council for Economic Education, 2009). Governments in several other countries—including Ghana, Kenya, Brazil, Indonesia, and Estonia—are planning and/or implementing large-scale efforts to incorporate school-based financial education. However, parents are also an important source of knowledge about money (Bowen, 2002; Danes, 1994; Moschis, 1985; Serido, Shim, Mishra, & Tang, 2010).

To better understand youth’s financial behaviors, it is important to know whether these behaviors are associated with having received financial instruction from various sources, including school and parents. Participants were asked a series of questions about how and from what sources they learn about money (Figure 4.11). For girls and boys, parents and school are the main sources from which participants learn about money.

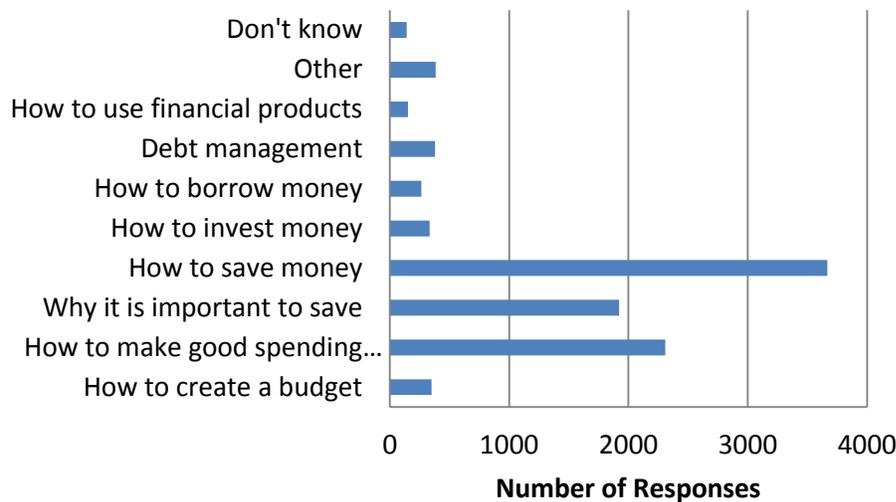
**Figure 4.11. Sources of financial education**



While parents are a common source of learning for participants, 44% say their parents or guardians never explain how they make financial decisions. This varies little by gender, grade level, or age. However, a greater percentage of participants with earned income (55%) say parents or guardians explain financial decisions sometimes, most of the time, or always, contrasted with 41% of participants without earned income.

Most participants (74%) say they have received financial education in school, though this was more the case in Ashanti region (86%) and considerably less the case in Northern region (44%). Most of the participants who have received financial education in school (86%) got less than five hours of instruction. Participants primarily have learned about spending and saving (Figure 4.12). This may help explain why participants have very favorable attitudes about saving.

**Figure 4.12. Financial education topics**



**Financial Socialization and Saving Behavior**

Youth can have different social interactions that may be associated with various savings behaviors. These types of financial socialization include receiving financial education, talking to parents or

guardians about money, and visiting a bank. Certain indicators of participant saving behavior were examined in relation to exposure to different types of financial socialization. Readers should be aware that the results in Tables 4.2–4.4 below only represent bivariate analyses (i.e., results indicate associations between only two variables without controlling for others).

Table 4.2 shows the percentage of participants who are “savers” (save at least once a month vs. less frequently or not at all) categorized by financial socialization type. Having a parent or guardian that more frequently explains financial decisions, having taken a financial education class, and having visited a bank are associated with being a saver.

**Table 4.2. Saving frequency by financial socialization experience**

| Experience   | N    | Saver | <i>p</i> * |
|--|------|-------|------------|
| Parent or guardian explains financial decisions          |      |       |            |
| Sometimes, most of the time, or always                   | 2799 | 81%   | .001       |
| Never or once in a long time                             | 3394 | 67%   |            |
| Ever received financial education classes                |      |       |            |
| Yes  | 4546 | 75%   | .001       |
| No   | 1602 | 68%   |            |
| Financial education hours                                |      |       |            |
| More than 5 hours  | 389  | 75%   | ns         |
| Less than 5 hours  | 3896 | 76%   |            |
| Ever visited a bank with a parent or other family member |      |       |            |
| Yes  | 2459 | 78%   | .001       |
| No   | 3694 | 70%   |            |

\* Chi-squared test

Table 4.3 shows the percentage of participants who say they keep money saved for at least 1–2 months before using it (“longer savings”) categorized by financial socialization type. Having taken a financial education class is the only financial socialization type associated with being a saver.

**Table 4.3. Saving duration by financial socialization experience**

| Experience   | N    | Longer Savings | <i>p</i> * |
|--|------|----------------|------------|
| Parent or guardian explains financial decisions          |      |                |            |
| Sometimes, most of the time, or always                   | 2196 | 43%            | ns         |
| Never or once in a long time                             | 2212 | 44%            |            |
| Ever received financial education classes                |      |                |            |
| Yes  | 3331 | 45%            | .05        |
| No   | 1075 | 41%            |            |
| Financial education hours                                |      |                |            |
| More than 5 hours  | 292  | 46%            | ns         |
| Less than 5 hours  | 2859 | 45%            |            |
| Ever visited a bank with a parent or other family member |      |                |            |
| Yes  | 1871 | 44%            | ns         |
| No   | 2534 | 43%            |            |

Table 4.4 indicates average monthly savings amounts categorized by exposure to various forms of financial education. Although we might expect greater exposure to financial socialization—from school and parents—to be associated with greater average monthly savings, the only statistically significant association is between average monthly saving and whether participants have attended a financial education class. No other financial socialization experience is associated with average monthly saving at a statistically significant level. However, these findings are from bivariate analyses only; other factors such as gender, receipt of earned income, and parent and household characteristics were not controlled.

**Table 4.4. Average monthly savings by financial socialization experience**

| Indicator  | N    | Average<br>Monthly<br>Savings (GHS) | <i>p</i> * |
|--|------|-------------------------------------|------------|
| Parent explains financial decisions                      |      |                                     |            |
| Sometimes, most of the time, or always                   | 2270 | 14.14                               | ns         |
| Never or once in a long time                             | 2305 | 13.52                               |            |
| Ever received financial education classes                |      |                                     |            |
| Yes  | 3461 | 14.16                               | .05        |
| No   | 1090 | 12.70                               |            |
| Financial education hours                                |      |                                     |            |
| More than 5 hours  | 304  | 16.30                               | ns         |
| Less than 5 hours  | 2979 | 13.87                               |            |
| Ever visited a bank with a parent or other family member |      |                                     |            |
| Yes  | 1925 | 15.56                               | .001       |
| No   | 2624 | 12.55                               |            |

\**p*<.05, two-tailed independent samples t-test

### Financial Knowledge and Attitudes

Youth everywhere have low levels of financial knowledge (Charles Schwab & Company, 2011; Lusardi, Mitchell, & Curto, 2010; Mandell, 2008), but studies on this topic have been done primarily in the US. It may be helpful to develop a better understanding of the financial knowledge and attitudes of youth in SSA to know whether knowledge and attitudes have any association with behaviors.

Despite conventional wisdom that financial knowledge is a predictor of financial behavior (Hathaway & Khatiwada, 2008), savings behaviors may be associated with factors other than or even excluding knowledge and attitudes. Knowing this may help practitioners and policymakers more precisely target factors that predict youth saving behaviors. Assessing financial knowledge may allow us to shed light on the relationship of financial knowledge and financial behavior.

Participants were asked the following two questions<sup>13</sup> to assess an understanding of interest that formal financial institutions offer and charge on savings and loans, respectively:

<sup>13</sup> These questions were intended to assess knowledge of bank interest, though it is possible that they also assess basic numeracy skills.

1. Imagine that you put 100 Ghana cedis in a savings account with a bank. The account pays 5% interest and charges no fees for this account. How much would you have in this account after 1 year?
2. Imagine that you borrowed 100 Ghana cedis from a bank, which charged 12% annual interest. If you were required to pay back this loan after one year, how much would you have to pay?

Only 8% and 11% of participants stated the correct answer for these two questions, respectively (Table 4.5). Though participants in higher grades gave more correct answers than those in lower grades, younger participants (younger 15 years) gave more correct answers than older participants (15 years and older). Boys performed somewhat better than girls, but participants with earned income performed better only on the question concerning loan interest.

**Table 4.5. Correct responses to questions about interest**

| Participant Characteristic | F. 23 | F. 24  |
|----------------------------|-------|--------|
| Gender                     |       |        |
| Girls                      | 6.68% | 10.21% |
| Boys                       | 8.97% | 11.31% |
| Earned Income              |       |        |
| Yes                        | 7.70% | 13.17% |
| No                         | 7.84% | 10.00% |
| Grade Level                |       |        |
| Primary 6                  | 6.78% | 9.57%  |
| JHS 1                      | 7.56% | 10.39% |
| JHS 2                      | 9.22% | 12.44% |
| Age                        |       |        |
| Younger than 15 years      | 8.26% | 11.58% |
| 15 years and older         | 7.51% | 10.21% |

Participants were also asked the following question to assess whether they prefer smaller, immediate rewards or larger, more distant ones:

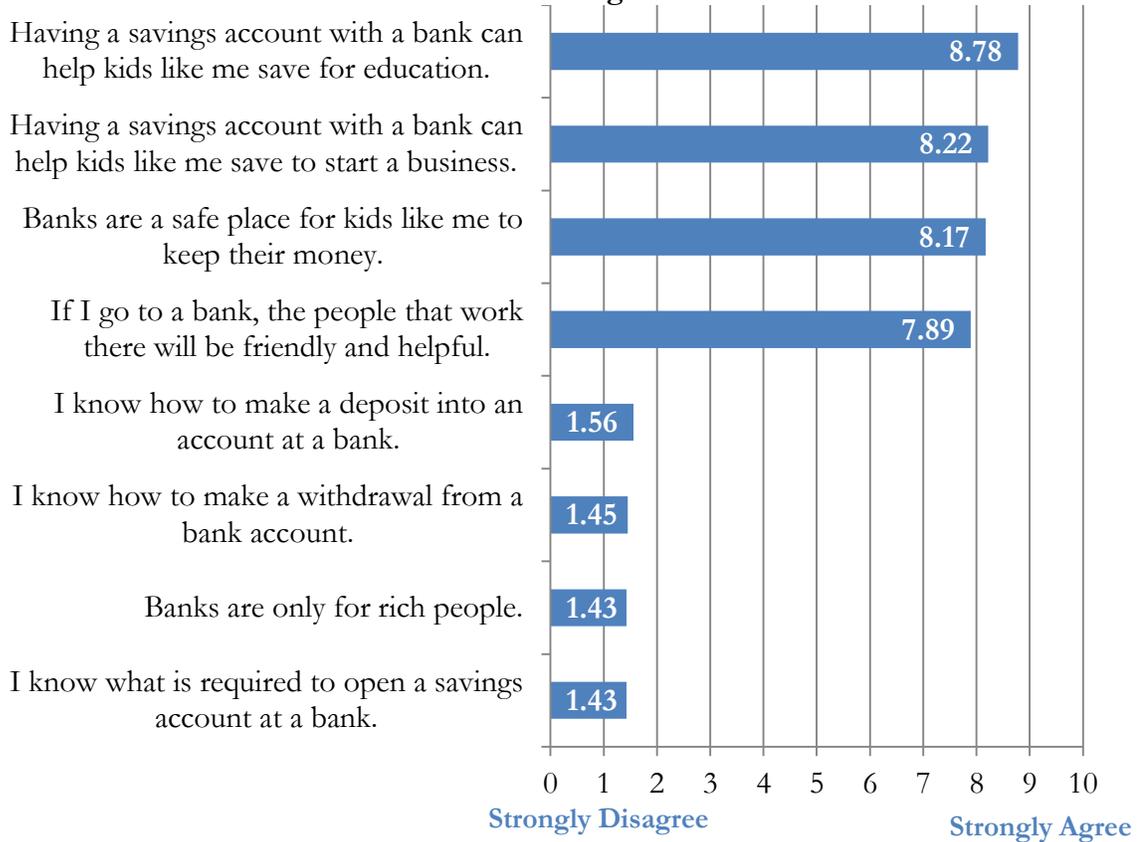
Would you want a prize of 100 Ghana cedis now or a prize of 150 Ghana cedis in one month?

Results show that 62% of participants are willing to wait a month for a larger reward, which differs very little by gender, grade level, or whether participants have earned income. When asked if they could name two financial products that a formal financial institution offers, more than a quarter (27%) were unable to provide a response. Of a random sample of 200 responses, nearly half (49%) were able to name two financial products or services, while the other 51% named only one. Savings accounts and loans were the most common pair of products or services named by participants.

Participants were asked several questions to assess their attitudes toward, expectations of, and familiarity with banks (Figure 4.13). They indicated the extent to which they agreed or disagreed with each statement on a scale of 0 (strongly disagree) to 10 (strongly agree). Participants have very

favorable attitudes about saving and using banks but do not feel that they are familiar with banking services.

**Figure 4.13: Youth attitudes toward banks and saving\***



\*Participants were asked whether they agreed with each statement, providing answers on a 10-point scale with a range of 0 (strongly disagree) to 10 (strongly agree).

### Parent and Guardian Awareness, Behavior, and Attitudes Regarding Child Savings

Parents are primary sources of financial knowledge for youth and can affect how their children’s financial attitudes and behavior develop (American Savings Education Council, 1999; Danes, 1994; Employee Benefit Research Institute [EBRI], 2001; Sallie Mae, 2009). Serido, Shim, Mishra, and Tang (2010) find that college students who perceive they can discuss financial topics with their parents have lower levels of financial stress. In a qualitative study of 49 African American high school students, Slaughter (2006) finds that parents and other family members have a strong impact on students’ financial knowledge, attitudes, and behavior. Shobe and Christy-McMullin (2005) describe how discussing money and observing the financial behaviors of parents and other family members shapes the financial knowledge and attitudes of low-income African American women participating in an Individual Development Account (IDA) program. Cooper and Luengo-Prado (2009) find that low-income children whose parents save more are more likely to move out of the lowest income quintile as adults than low-income children whose parents save less.

Very few (4%) parents report in the Ghana Experiment baseline survey that their child has a savings account with a formal financial institution, which is very similar to the finding that only 3% of participants said that they use formal financial institutions to make savings deposits. When asked if their child uses an informal way to save, 31% said yes, 45% said no, and 24% said that they did not know. When asked whether their child has *any* savings, 24% said yes, 58% said no, and 18% said that they did not know. However, 73% of youth participants say in a typical month they set aside at least some money, and 55% say they have money that includes amounts they had set aside. These findings suggest that some parents are unaware of their children’s saving behaviors and accumulated savings, or parents and their children have different ideas about what saving means.

The average amount that parents or guardians say their child has in savings—including amounts they have saved on their behalf—is GHS 130.13 (USD 85.89). The amount varies tremendously, and ranges from GHS 0.2 to 9000 (USD 0.13 to 5940) with a median of GHS 55 (USD 36.30). Excluding the top 1% and 5% lowers the mean figures to GHS 91.17 (USD 60.17) and GHS 63.81 (USD 42.12), respectively, which indicates a relatively small number of parents or guardians have rather large amounts saved for their children.

The average amount that parents or guardians say their child has in savings (GHS 130.13 [USD 85.90]) is far greater than the average amount of money participants consider to be savings (GHS 14.41 [USD 9.51]). This finding suggests participants maintain control over a fairly small amount of their total financial assets but should be viewed with caution since 76% of parents’ or guardians’ responses to this question are missing.

**Table 4.6. Parent and guardian attitudes about participant’s financial behaviors**

| Statement   | Mean* |
|---|-------|
| It is important for my dependent child to learn to make careful spending decisions.         | 9.46  |
| It does not matter whether my dependent child learns how to save their money.               | 2.51  |
| It is important for my dependent child to learn about financial institutions and banking.   | 9.10  |
| It is important for my dependent child to help pay for things people in our household need. | 3.70  |

\*Participants were asked whether they agree with each statement, providing answers on a 10-point scale with a range of 0 (strongly disagree) to 10 (strongly agree).

### **Parent and Guardian Interactions with Their Child Concerning Money**

Parents and guardians exert an important influence on their children’s financial knowledge, attitudes, and behaviors (Bowen, 2002; Danes, 1994; Moschis, 1985; Serido, Shim, Mishra, & Tang, 2010). It is important to understand the various ways in which parents and guardians may exert this influence. For example, taking their children to the bank with them or having their children observe them making careful spending choices may have as powerful an influence as having conversations about money.

Most youth live with one or more parents or other adult caregivers who make decisions about money as heads of household economic units. This means that youth probably do not make financial decisions. It is important to know how youth are influenced by their parents and guardians

to guide practice and policy. Should financial education and inclusion programs involve parents? In what ways? How can these programs ensure that they are working in concert with the wishes and inclinations of parents and guardians? To answer these questions, we need to develop a better understanding of how parents and guardians influence the financial lives of their children.

Table 4.7 illustrates the frequency with which parents and guardians interact with participants concerning money. Talking to their child about saving is the most prevalent interaction, while taking their child to a bank is the least prevalent. The finding that 49% of parents and guardians never talk to their children about how they make financial decisions is remarkably consistent with the finding that 43% of participants say the same about their parents or guardians.

**Table 4.7: Self-reported interactions with child about money**

| Indicator  | Never | Sometimes | Often |
|--|-------|-----------|-------|
| I talk with my child about how he/she can earn money.                                | 46%   | 9%        | 45%   |
| I talk with my child about how he/she can save money.                                | 29%   | 8%        | 62%   |
| I talk with my child about how we manage and make financial decisions in our family. | 49%   | 10%       | 42%   |
| I take my child with me to the bank, credit union, or microfinance institution.      | 86%   | 7%        | 6%    |

### Parent and Guardian Financial Education and Knowledge

Using the same two questions asked of participants concerning bank interest on savings and loans, only 13% and 12% of parents and guardians gave the correct answers, which is only slightly better than participants (8% and 11%, respectively). A similar percentage of parents or guardians would wait a month to receive a larger reward (55%) as participants (62%). Far fewer parents or guardians (43%) than participants (74%) say they have had a class about money.

### Parent and Guardian Financial Behaviors

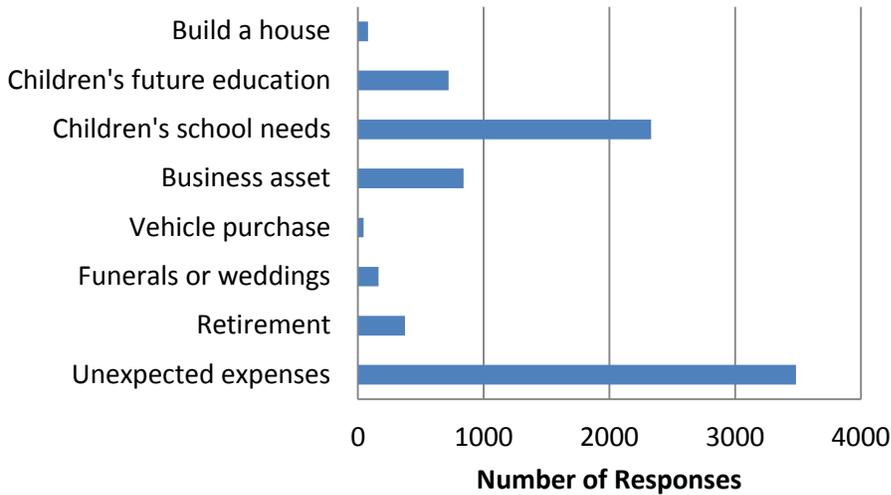
Table 4.8 shows that parents and guardians generally judge themselves to be careful money managers. Most say they watch their spending (91%), comparison shop (84%), and save for needs (71%) most or all of the time.

**Table 4.8: Self-reported money management behaviors**

| Indicator   | N    | Frequency |                     |           |                  |        |
|---|------|-----------|---------------------|-----------|------------------|--------|
|   |      | Never     | Once in a long time | Sometimes | Most of the time | Always |
| I pay close attention to how much money I spend.                      | 4566 | 1%        | 1%                  | 7%        | 27%              | 64%    |
| Before I buy something for myself, I compare prices on similar items. | 4567 | 3%        | 3%                  | 11%       | 30%              | 54%    |
| I save money for things I might <u>need</u> later.                    | 4553 | 4%        | 5%                  | 19%       | 32%              | 39%    |
| I save money for things I might <u>want</u> later.                    | 4530 | 15%       | 20%                 | 24%       | 22%              | 18%    |

Only 11% of parents and guardians have a current account with a formal financial institution, but 44% have savings accounts. Parents and guardians that do not have a savings account with a formal financial institution say they save in another way (N=1,221), mostly by using susu collectors and hiding places. When asked why they save, parents and guardians mostly point to consumptive needs rather than longer term asset-building purposes such as children’s education (Figure 4.14).

**Figure 4.14. Parent and guardian saving goals**



The typical (median) amount of savings for parents’ or guardians’ children’s future is GHS 200 (USD 132). The range of savings is GHS 2 (USD 1.32) to GHS 8,000 (USD 5,280), and the mean amount saved is much higher at GHS 439 (USD 289.74). This indicates that a relatively small group of parents and guardians have saved large sums. Roughly half of these amounts are considered savings for the participants (i.e., for their child who is a participant in the study).

### Summary

Data presented in this chapter give us an important glimpse into the financial lives of younger adolescents in Ghana. We examine several issues, including participants’ and their parents’ and guardians’ self-reported financial behaviors, financial attitudes, access to and use of financial institutions, and goals for saving. We examine how these issues differ according to important participant characteristics such as gender and age. In general, our findings suggest that participants and their parents or guardians might benefit from structured opportunities to save money for longer term, future-oriented purposes. They already judge themselves active money managers and favor saving and using formal financial institutions but appear to lack experience with saving and financial institutions.

Notable findings include the following:

- Most youth have and use money they get from parents or guardians but set aside (i.e., save) money for short durations and more immediate needs, such as school supplies.

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- Most youth consider themselves good money managers, but those who have earned income—from doing odd jobs or selling things—can be considered more financially capable than those without earned income.
- Greater indicators of financial capability are associated with higher grade levels but not age. There are few differences by gender, but boys have and save more money and have a little more experience with banks.
- Youth have very favorable attitudes about saving and using banks but are unfamiliar and have limited experience with banks. Most youth live fairly close to banks, but their experience with and access to them varies by region.
- Most youth have received financial education but for only a few hours. Parents are a common source of financial information. Some financial socialization experiences are associated with savings behaviors but not consistently so.
- Parents and guardians judge themselves good money managers but save mostly for near-term and consumptive purposes. They are very supportive of their children managing their own money and saving but may be unaware of the extent to which their children already are saving informally.
- A very small proportion of participants and their parents or guardians save large amounts. Typical (median) savings amounts are much lower than average (mean) amounts.

## Chapter 5: Youth Educational Performance, Parental Involvement, and Academic Self-Efficacy

This chapter focuses on the academic achievement of YouthSave Ghana Experiment participants. Youth at the JHS level in Ghana are required to take nine courses per academic term, but this chapter focuses on math and English language because these two subjects have been used consistently as proxies for academic achievement in education research. Other topics discussed in this section are parent's involvement in their children's education and youth's sense of academic self-efficacy.

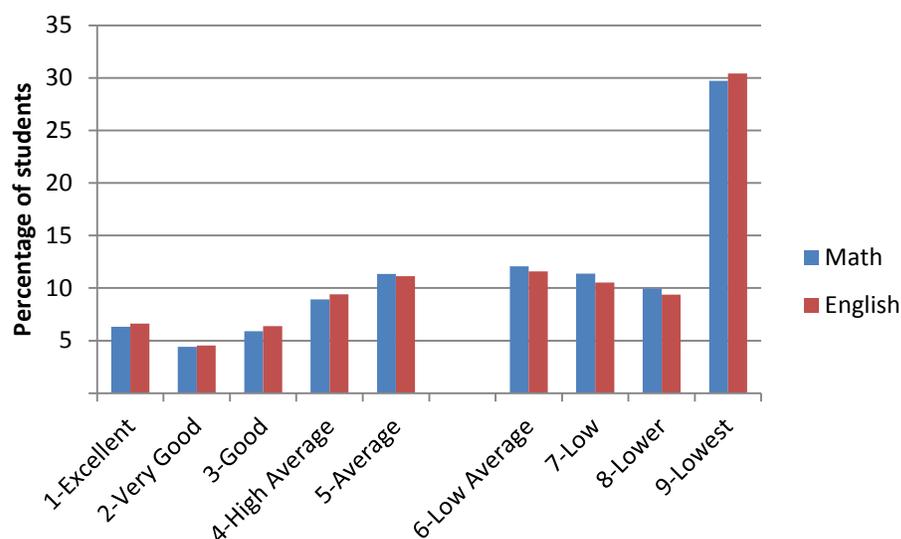
### Educational Performance

To a large extent, educational performance determines how far someone youth will progress in their education. Without good grades, they may have limited access to quality higher education institutions or restrictions on the courses they can take. In Ghana, educational performance may determine how much youth will pay for their education. Some students pay high tuition to access public universities through "fee-paying programs" because they could not gain admission through the competitive, academic performance-based admission process (Bunyi, 2003). Educational performance is not only necessary for educational progress but also a good indicator of quality human capital accumulation, which is critical to economic growth of nations. A relatively small increase in cognitive ability can translate into significant improvements in future well-being (Hanushek & Kimko, 2000; OECD, 2010).

In the YouthSave Ghana Experiment, we investigate youth academic performance by tracking math and English scores using the nine-point grading scale of the Ghana Education Service (GES). English is not the required medium of instruction until the fourth grade in primary school, and students study in any of the local Ghanaian languages for the first three years of formal schooling. This means many students are taught math in school much earlier than English. Hence, one would expect students to perform better in math than in English or equally well.

Based on the GES's criteria of a 50% score as average performance, the results from the YouthSave baseline survey indicate the majority of students (63.1%) scored below 50% in math (Figure 5.1). The average math score for males is 2.8 points higher than for females. Performance in English is also low. Nearly two thirds (61.9%) of youth scored less than 50% in English. Again, on average, males perform better in English than their female counterparts, but the difference (1.58 points) is smaller than it is for math.

**Figure 5.1. Math and English grades**



Students performed slightly better in English ( $M=53.74$ ,  $SD=16.85$ ) than in math ( $M=53.52$ ,  $SD=16.7$ ), regardless of gender. According to the GES’s nine-point grading scale, most males (English: 59.83%; math: 60.4%) and females (English: 63.81%; math: 65.93%) in the YouthSave Ghana Experiment sample fall in the lowest grade (i.e., grade 9), but the data also reveal that females in the lowest grade outnumber the males in the same level. Average math and English scores show modest differences between males and females in both subjects. Male students scored an average of 52.55 in English and 54.99 in math, while female students scored an average of 52.95 in English and 52.08 in math. Table 5.1 presents the breakdown of math and English scores for male and females.

**Table 5.1. Educational performance of males and females**

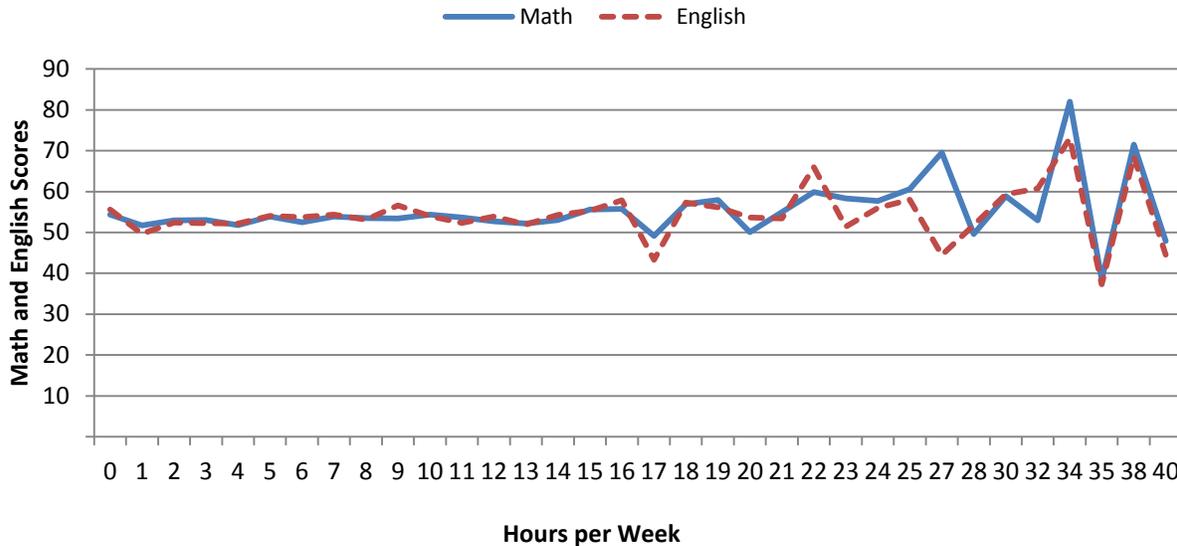
| Continuous Variables | Mean  | Median | Min | Max |
|----------------------|-------|--------|-----|-----|
| Final math score     | 53.52 | 54.00  | 0   | 100 |
| Male                 | 54.99 | 55.50  | 0   | 100 |
| Female               | 52.08 | 52.50  | 10  | 100 |
| Final English score  | 53.74 | 54.29  | 0   | 100 |
| Male                 | 52.55 | 55.00  | 0   | 100 |
| Female               | 52.95 | 53.57  | 8   | 99  |

### School Behavior and Amount of Time Spent on School Work

Students were asked about the amount of time they spend on schoolwork outside of school hours. On average, students spend 7.61 hours per week ( $SD=7$ ,  $mode=5$ ) on schoolwork, and very few (2.2%) avoid schoolwork altogether. Further analyses show that very few (2.2%) of the 6,082 students spend no time on school work after normal class hours. Most students (60.2%) devote 7 hours a week on schoolwork, an average of one hour per day. Just over a third of students (37.6%) spend 8 hours or more on schoolwork. On average, male youth spend slightly more hours ( $M=7.76$ ) than female youth ( $M=7.46$ ) on school work.

It appears that the number of hours spent on schoolwork after normal school hours is associated with better performance for up to 14 hours per week (i.e., about 2 hours or less per day) of schoolwork after class. As shown in Figure 5.2, there is no clear trend in the association between hours of work and performance when students study for more than 14 hours per week (i.e., more than 2 hours per day, on average). The scores stay level for up to 14 hours, and then fluctuate around the average after that.

**Figure 5.2. Academic performance compared to hours spent on schoolwork outside normal school hours**



When students are not engaged in schoolwork during after-school hours, they may enjoy leisure time or engage in some form of income-generating activity. In Ghana, many school-age youth earn money by doing odd jobs or selling retail goods (Arnal, Tobin, & Torres, 2003). Most of this work involves agricultural activities and selling on streets. For some youth who come from deprived households, money earned from economic activity is used to pay tuition for themselves and sometimes for their siblings (Bass, 2004; Moyi, 2011).

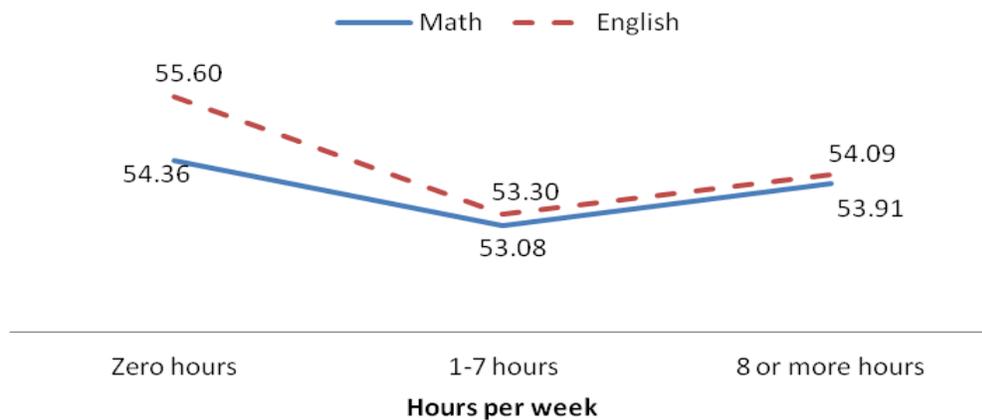
While some school-aged youth shun school for work, the majority engaged in some form of economic activity tend to combine their work with school (Moyi, 2011; Patrinos & Psacharopoulos, 1997). Research on students' involvement in work suggests a detrimental impact on school performance. In one such study in Ghana, Heady (2003) finds that—regardless of innate intellectual ability—children who combine school with work perform poorly on reading and math tests in contrast with those who attend school but are not working. However, some education researchers, such as Patrinos and Psacharopoulos (1997), argue that the relationship is complex and combining school with work may not always be detrimental to academic performance. For some youth, income from work may allow them to afford school tuition and supplies. The vicarious learning perspective suggests that exposure to work may be an important observational learning opportunity that allows young people to relate real-world events to class work (Law & Hall, 2009). In this section, we assess the relationship between earning money for work and academic performance.

### Academic Performance, Hours Spent on School Work, Earning Money, Saving, and Residency

Nonintellectual factors such as self-discipline and motivation are important in determining how well young people perform academically. For instance, a number of empirical studies find a positive association between hours spent on school work after school and academic performance (Bempechat, 2004; Duckworth & Seligman, 2005). In a study of school learning models, Keith and Cool (1992) find that students who devote more time to school work have higher grades regardless of intellectual ability or prior coursework. From the social-cognitive perspective, when students spend normal afterschool hours studying, they not only gain better insight and understanding of the subject of interest but also build time management skills, all of which have implications for how well they will do on tests and exams (Bempechat, 2004). However, these benefits may not be realized when students are too young and have limited cognitive capacity. Cooper, Valentine, Nye, and Lindsay (1999) suggest that until students reach 6<sup>th</sup> grade, there is a negative association between time spent on homework and academic performance.

In the YouthSave sample, where the 6<sup>th</sup> grade (i.e., Primary 6) is the lowest grade, we assess whether our findings of the relationship between the afterschool hours spent on school work and academic performance follows a similar trend as previous studies. Overall, there is no statistically significant association between afterschool hours spent on schoolwork and youth performance in math ( $r(5,879)=.02, p=.068$ ) and English ( $r(5881)=.03, p=.048$ ). In Figure 5.3, a few students (2.2%) who spend no time on schoolwork outside normal school hours perform better in math (M=54.36, SD=17.62) and English (M=55.6, SD=16.08) contrasted with those who spend one to seven hours (math: M=53.08, SD=06.3; English: M=53.3, SD=16.61) or more than seven hours (math: M=53.91, SD=53.42; English: M=54.09, SD=17.24) on schoolwork outside school hours.

**Figure 5.3. Academic performance and hours spent on schoolwork outside class hours**



In the YouthSave Ghana Experiment baseline survey, we asked participants whether they receive money for work and/or from selling goods, and we find that nearly a quarter of participants (23.5%) work and/or sell goods. We compared the incidence of working and/or selling for money with academic performance of participants. The bivariate analyses show that while working and selling for money is not significantly associated with math performance ( $t=.79, p=.43$ ), it is significantly associated with performance in English ( $t=2.99, p<.05$ ). That is, although youth who do not participate in income-earning activities performed slightly better in math (M=53.55, SD=17.07) than

those who do perform income-earning activities ( $M=53.17$ ,  $SD=15.53$ ), the difference of 0.38 points is not large enough to show a clear trend of the relationship between academic performance and earning money. On the other hand, the difference of 1.48 in English scores of those who work for money and those who do not is significant enough to suggest that youth who do not engage in income-generating work are likely to perform better in English than their counterparts who work. Nevertheless, the difference of less than two percentage points does not demonstrate a strong relationship between working to earn money and academic performance. This is contrary to current research findings that have shown substantial effects of work by school-aged youth on learning achievement in reading and math (Heady, 2000).

Several studies find a positive relationship between parents' assets (specifically savings, in some cases) and their children's educational performance (Conley, 2001; Zhan, 2006; Zhan & Sherraden, 2003), but almost all have been conducted outside of SSA with a focus on parents' assets. For instance, Orr (2003) uses the United States' National Longitudinal Survey of Youth (NLSY79) data set and finds that income-producing assets (e.g., estates, farm, stocks, and bonds) are associated significantly with higher standardized math scores. A similar study in the US by Elliott, Kim, Jung, and Zhan (2010) finds that parents' asset holdings are indirectly related to youth's math scores. One of the few studies conducted with youth in SSA (Ssewamala & Curley, 2005) finds that AIDS-orphaned students in Uganda who save in a youth-tailored savings account score better on a national standardized test. Ssewamala and Curley hypothesize that when youth have their own accounts, they may be encouraged by their ability to use their resources to overcome foreseen financial constraints to education; hence they are less likely to waiver in their schooling efforts.

To assess the nature of this relationship in the Ghanaian context, we compared the educational performance of youth who save money at least once a month to those who do not and find no substantial difference regardless of gender (math:  $p=.51$ ; English:  $p=.62$ ). Youth who save perform a little better in math (with a difference of 0.32 points), but youth who do not save surpass those who save by 0.24 points in English. The non-significant relationship between saving and math contradicts the consistently positive relationship found between savings and math scores in other studies (e.g., Elliott, Kim, Jung, & Zhan, 2010).

On the other hand, the non-significant relationship between saving and English language achievement may not be completely surprising because other studies in developed countries have had mixed results. A study in the US by Williams Shanks (2007) finds no significant association between assets (e.g., cash accounts) and reading scores.

To determine whether educational performance differs by geographical area, the Ghana Experiment study area was divided into northern and southern spatial sectors. The northern sector generally has a higher incidence of poverty and is more rural compared to the southern sector (Heyen-Perschon, 2005). An interesting finding is that youth in the northern sector of Ghana perform significantly better in math and English than their southern counterparts ( $t=-5.89$ ,  $7.57$ ,  $p<.001$ ). Youth in the northern sector scored an additional 4.73 points in math and 6.10 points in English.

## School Attendance

School attendance is one of the first steps for ensuring successful educational progression (Railsback, 2004). School attendance is linked positively to higher graduation rates and reduced incidence of school dropout (Allensworth & Easton, 2007). Also, when students attend school, they acquire more knowledge and skills by learning directly from their teachers and peers. Policies and programs in developing countries that aim to improve school attendance include tuition-free policies and free school uniform and feeding programs (Kenny, 2010; Jomaa, McDonnell, & Probart, 2011). Recent data from UNICEF show that over 90% of countries have legally binding regulations requiring children to attend basic school (UNESCO & UNESCO Institute for Statistics, 2010). These and many other initiatives have kept school attendance rates high in many developing countries. In Ghana, for instance, the estimated primary school attendance rate in 2010 was 82 days for rural areas and 70 days for urban areas.

To better understand the school attendance rate in the YouthSave Ghana Experiment sample, data were collected on how often students attended school within the academic term. The maximum number of days students could attend school is 68 days, the length of one academic term. In this sample, students attended 54 days (SD=7.97) on average (Table 5.2). Just over 20% of students (20.4%) were in school 90% of the time (i.e., 62 days or more), but about 60% of students missed up to 2 weeks of classes (i.e., they attended at least 54 days). On average, females attended school about 1 to 2 days (M=54.86, SD=7.6) more than their male counterparts (M=53.40, SD= 8.29).

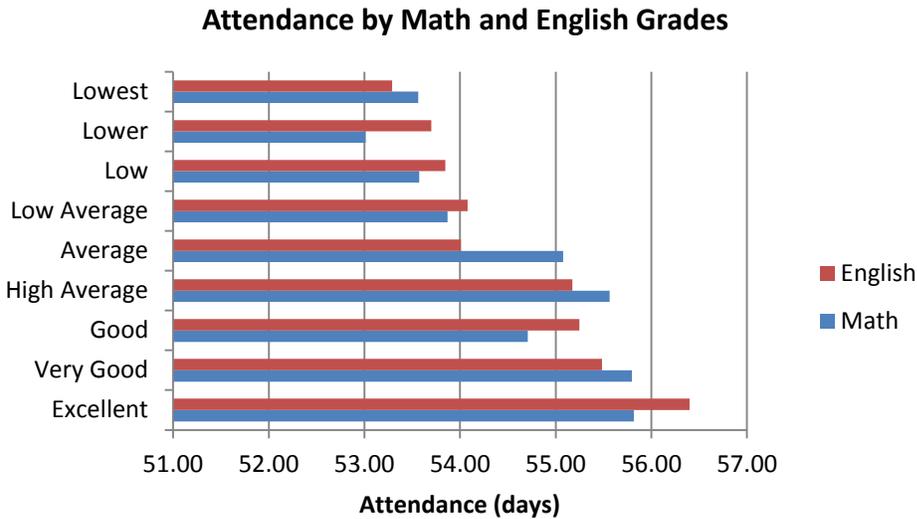
**Table 5.2. Attendance and out-of-school hours**

| Continuous Variables | Mean  | Median | Min | Max |
|----------------------|-------|--------|-----|-----|
| Total attendance     | 54.13 | 56     | 4   | 68  |
| Male                 | 53.40 | 55     | 4   | 67  |
| Female               | 54.86 | 57     | 4   | 68  |

### School Attendance, Academic Performance, In-school Behavior, Earning Money, Hours Spent on School Work, and Saving

Research on school attendance suggests that high attendance rates are tied to higher achievement on tests (Kirby, 2010). A study of 2,860 secondary school students in Nigeria’s Delta State finds a strong positive relationship between school attendance and higher achievement (Oghuvbu, 2010). Moonie, Sterling, Figgs, and Castro (2008) find a negative impact of absenteeism on standardized test scores of 8- to 17-year-old students. We find a similar trend in the relationship between school attendance and academic performance in the Ghana Experiment baseline survey data. Overall, students achieve higher scores in math ( $r=.70, p<.001$ ) and English ( $r=.11, p<.001$ ) when they attend school more often. As depicted in Figure 5.4, students with the highest school attendance rates also achieve the best grades (i.e., “excellent” and “very good”), while the students who attend school the least number of days have the worst performance (i.e., “lowest”) in math and English. When students do not attend school, they miss opportunities to build knowledge on a particular topic in the course, which could have ripple effects on overall performance.

**Figure 5.4. Math and English grades correlated with attendance**



A statistically significant association exists between school attendance and participation in class activities ( $F=166.45, p<.001$ ), conduct in school ( $F=63.131, p<.001$ ), and likelihood of following directions in class ( $F=97.57, p<.001$ ). On average, students whose participation was graded as outstanding by teachers attended school two days more per term than those who had satisfactory participation and six days more per term than students who had unsatisfactory participation. Youth who exhibited outstanding conduct also attended school nearly two days ( $M=1.9$  days) more per term than youth with satisfactory conduct and just under 5 days ( $M=4.97$ ) more per term than youth with poor conduct. Youth who always follow teachers' instructions were in school two days ( $M=2.41$  days) more per term than those who follow instructions some of the time and nearly six days ( $M=5.74$ ) more per term than youth who never follow teachers' instructions.

Combining school with work might influence school attendance because exhaustion associated with certain types of work may require the student to take days off school, or students might work on school days. We find that the odds of doing work or selling things for money is statistically predictive of school attendance ( $p<.001$ ). On average, youth who do not work for money attend school nearly two days (1.58) more per term than those who work for money. Nearly a quarter (21.7%) of youth who work for money miss school for one month (i.e., 20 school days) contrasted with 14.1% of those who do not work for money.

Further analysis reveals wide variability in school attendance for those who work for money from 4 to 67 missed days, which suggests that different economic activities have different influences on school attendance. For instance, studies in Ghana show that school attendance is rather low in cocoa-producing areas because youth tend to use more of their time helping on the farm, particularly during harvest seasons (November and December).

Likewise, youth who engage in work for money spend slightly less of their out-of-school time on schoolwork ( $M=7.52$ ) than those who do not work for money ( $M=7.64$ ), although the difference is not statistically significant ( $p=.41$ ). Most of the money-making activities that youth engage in

happening during weekends or holidays when youth do not have much schoolwork to do may explain the modest difference.

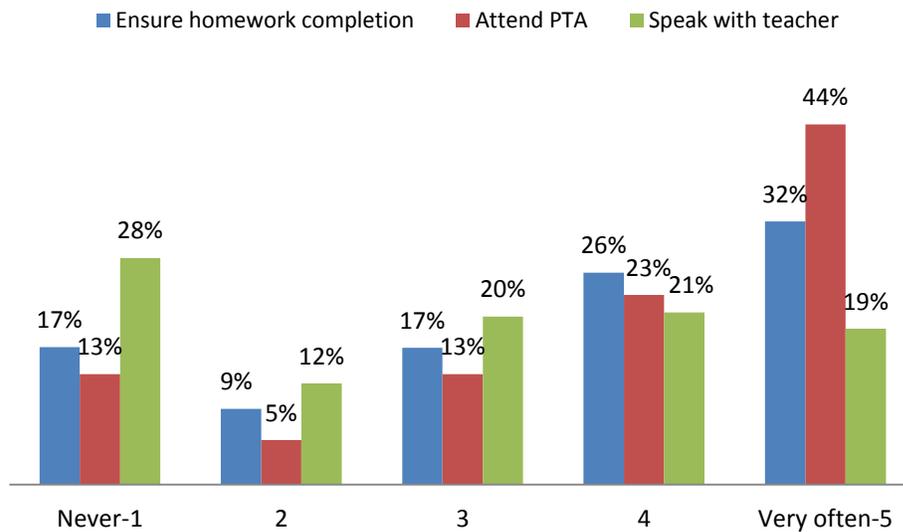
Financial constraints could hinder many students' ability to continue their education. Overall, the YouthSave Ghana Experiment data suggest a significant association between perception of financial constraints on education and the tendency to save at least every month ( $\chi^2=23.49, p<.001$ ). Of the 5,002 participants who think financial constraints could interfere with their educational goals, 73.3% save at least once a month, while about a quarter (26%) does not save. This positive relationship holds for females ( $\chi^2=8.57, p<.001$ ) but not males ( $\chi^2=1.06, p=.304$ ). Among female participants, 57.5% perceive financial constraints as an obstacle to education, but they also say they save at least once a month. Less than a quarter (21.1%) of males perceives financial constraints as an obstacle to education and save at least once a month. This generally positive relationship could show that when young people are concerned about obstacles to their educational advancement, they make plans to address the constraints.

### **Parental Involvement**

Because the school learning community includes parents and families, parental involvement in children's education is important (Donkor, 2010). Nyarko (2011) observes that while Ghanaian parents often are involved in their children's schools in one form or another, their involvement in education is mostly limited to activities at home. Another study reports that more parents are interacting with schools by attending meetings and recreational events (Elam, Rose, & Gallup, 1994). In one study in the Ashanti Region of Ghana, however, Pryor, and Ampiah (2003) find that most parents are not engaged in their children's schooling.

Parents and guardians were asked in the baseline survey about their level of involvement in their children's education. Figure 5.5 shows that the majority of parents (73%–86%) say they sometimes or often attend Parent-Teacher Association (PTA) meetings, speak with their children's teachers about their progress, or make sure their children's homework is done. About 13%–28% say they never get involved in any of the activities. Overall, more parents attend PTA meetings (44%)—which is compulsory in many schools—contrasted with other types of parental involvement.

**Figure 5.5. Parental involvement in children’s education**



**Parental Involvement and Socio-demographic Characteristics of Parents**

The level of involvement differs by marital status of the parents. On all the measures of parental involvement, married parents are more involved in their children’s education than single parents. For instance, married parents check more frequently whether their children have done their homework (M=3.51) than single parents (M=3.37) ( $p<.001$ ), and married parents assist their children with homework more often (M=2.06) than single parents. Married parents’ involvement may indicate a joint effort within the household to support and care for the youth.

The educational level of parents also determines how involved parents are in their children’s education ( $F=7.48-217.66, p<.001$ ). Parents with a university education talk to their children about what they learned in school more often (M=3.95) contrasted with those who have completed SHS (M=2.91) or JHS (M=2.62) or those who have had no formal education (M=2.36). Parents attend their child’s school events more often when they have a university education (M=3.09) than when they have no formal education (M=2.20). Likewise, parents who are university graduates often make sure their children have done their homework (M=4.17) compared to those who have no formal education (M=2.83).

Parental involvement in their male children’s education is not significantly different from involvement in female children’s schooling, except attendance at PTA meetings. When the youth is a male (M=3.83), parents attend PTA meetings more often compared to when the youth is a female (M=3.74).

**Parental Involvement and Youth Academic Performance**

Research suggests that parents’ involvement in their children’s education is predictive of students’ performance in school (Topor, Keane, Shelton, & Calkins, 2010). Nyarko and Vorgelegt (2007) use data from 239 students in Ghana to assess how parental involvement influences the academic performance of 15 to 20 year olds. The results show a significant positive association between parents’ home involvement and academic achievement. Another study by Fantuzzo, McWayne,

Perry, and Childs (2004) shows that students achieve higher grades in math and reading when parents communicate directly with teachers and school administrators.

Most of the measures of parental involvement in the YouthSave Ghana Experiment are not associated statistically with math and English achievement. For instance, our data do not show a significant association between parents' communication with teachers and higher math ( $p=.57$ ) or English grades ( $p=.69$ ). Only two measures of parental involvement are associated with academic performance. The more parents communicate their expectations directly to their children, the better the child's performance in English ( $r=.04$ ,  $p<.01$ ). There is also a significant negative association between parents talking to their children about what they learned in school and math achievement ( $r=-.03$ ,  $p<.05$ ). The more parents talk to their children about what they learned in school, the worse the student performs in math.

These surprising results may be explained by the nature of behavioral factors that mediate the association between parental involvement and performance in school. One explanation offered by Izzo, Weissberg, Kaspro, and Fendrich (1999) for the non-significant and sometime negative results is that some parents may be more likely to be involved when their children already are not performing well in school. For example, when a youth's academic grade gets worse, the parents may increase contact with the youth's teachers to discuss and follow up on efforts to manage the youth's in-school behavior.

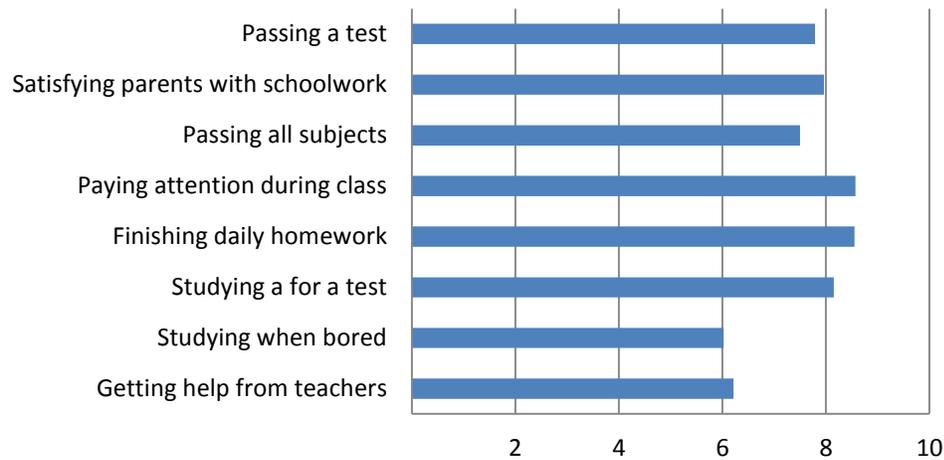
### Academic Self-Efficacy

The social cognitive perspective posits that young people's convictions about their academic capabilities have a direct influence on their choices and effort (Ferla, Valcke, & Cai, 2009). By judging themselves as capable, students may take action to achieve academic goals. In a cross-sectional study of eighth-grade and ninth-grade students, Jonson-Reid, Davis, Saunders, Williams, and Williams (2005) find a strong association between higher self-efficacy and students' GPAs. These findings suggest that promoting academic self-esteem in school-based interventions may promote academic capabilities. In SSA, research on young people's academic self-efficacy is lacking, and the little that exists has focused on older youth, especially youth at the tertiary education level (Matoti, 2011).

To learn more about academic self-efficacy of SSA youth, we investigate the level of academic self-efficacy of youth in the YouthSave Ghana Experiment. In baseline data collection, youth were asked to rate their level of self-confidence related to accomplishing school-related activities and goals. Figure 5.6 depicts participants' self-rated academic self-efficacy. Overall, youth rated themselves as above-average ( $M=6.02$ ) on an 11-point academic self-efficacy scale. On this scale, a score of 5 or higher means that youth believe they are capable of handling school-related work.

There are no noticeable differences between females' and males' level of confidence in their ability to accomplish academic goals or engage in school activities. For both males and females, there are statistically significant associations between academic performance (as measured by math and English scores) and all self-rated measures of academic self-efficacy ( $p<.05$ ). In other words, the more students believe in their academic abilities, the higher their performance is in math and English.

**Figure 5.6. Academic self-efficacy**



### Summary

The low grades in math and English among participants may not be completely surprising, as some education researchers in Ghana have observed that performance at the primary level is generally low but increases significantly by the time students complete junior high school (Mereku, 2003). At the time of baseline data collection, the majority of the YouthSave Ghana Experiment sample was in the process of transitioning or had just transitioned to junior high. Hence, the level of performance may not be significantly different from the norm for that level of education. Further analysis of the YouthSave Ghana Experiment baseline data supports this observation. Results show that YouthSave participants in JHS1 scored slightly lower in math (52.83) and English (52.26) contrasted with those in JHS2, who scored higher in math (53.01) and English (53.56).

However, evidence from the Ghana Experiment contrasts with findings from other research on youth educational attainment in Ghana. Higher performance in English in the Ghana Experiment may be because English is the official language of instruction after the first three years of school, so students are more exposed to English later in their schooling. English is used as the medium of instruction in all other courses, including math, social studies, integrated science, agricultural science, technical, vocational, information, and communication. Students also may have additional exposure to English after school hours through media and social interactions. Some parents speak English at home.

The low performance in math across the board also has been attributed to poor teaching and learning methods at basic and secondary levels in which teachers overstress memorization and imitation rather than comprehension (Fletcher, 2005).

Results reveal differences between male and female participants on a number of topics including math and English achievement, school attendance, and some measures of parental involvement. Other highlights of the chapter include the following:

YOUTH AND SAVING IN GHANA:  
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- Academic performance among the YouthSave Ghana Experiment sample is generally low with most youth performing at a score of 50% or less in English and math.
- Youth in the most deprived part of the country (northern regions) perform equally as well as—and in some cases better than—those in less deprived regions.
- There is no significant relationship between educational performance of youth who save and those who do not.
- Generally, a youth's tendency to work for money while in school does not make a substantial difference in their academic performance, contrary to findings from earlier research.
- Youth concerned that financial constraints could interfere with their educational goals save at least once a month.

## Chapter 6: Health

This chapter describes baseline survey results related to health and health-related outcomes of youth participants and their parents or guardians. Health topics covered in this chapter include health perceptions, protective factors (including parental connection and parental monitoring), risky health behaviors (including attitudes toward sex and HIV prevention), and access to health facilities. The chapter outlines these results and compares health outcomes and key demographic (including gender and grade level) and financial behavior indicators (including earning and saving money).

### Health Status and Perception

Although a growing body of research examining self-perceived health and its impact on health outcomes exists (Johnson & Richter, 2002; Milligan et al., 1997; Tremblay, Dahinten, & Kohen, 2003), most studies have been limited to young people in more industrialized countries. This chapter attempts to address this limitation by providing preliminary evidence on self-perceived health status of young Ghanaians participating in the YouthSave Ghana Experiment. Results show a majority of Ghanaian youth have positive perceptions of their health, which is shared by their parents or guardians.

Results of bivariate analyses suggest health perceptions differ by gender and financial behavior. Some of the preliminary findings support prior studies that find gender to be an important determinant of perceived health status (Benyamini, Leventhal, & Leventhal, 2000; Vingilis, Wade, & Seeley, 2002). Although results are exploratory because we did not control for other variables, our findings suggest that financial behaviors (e.g., earning and saving money) are associated with perceived health status among young Ghanaians.

### General Health Status

Most youth in the study described their general health condition as good or better. As seen in Figure 6.1, of 6,252 youth interviewed, less than 4% describe their health as fair or poor. Four in ten youth describe their health as excellent. Of 4,562 parents or guardians interviewed, 98% describe the general health of their dependent children as good or better. As illustrated in Figure 6.2, nearly five in ten parents describe their children's health as excellent. Although not all parents were interviewed, overall parental self-report results are similar to youth self-report results.

Figure 6.1. Youth self-perceived health status

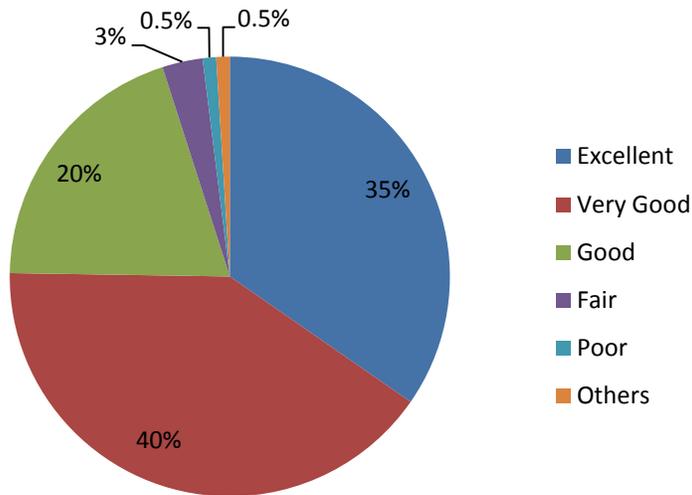
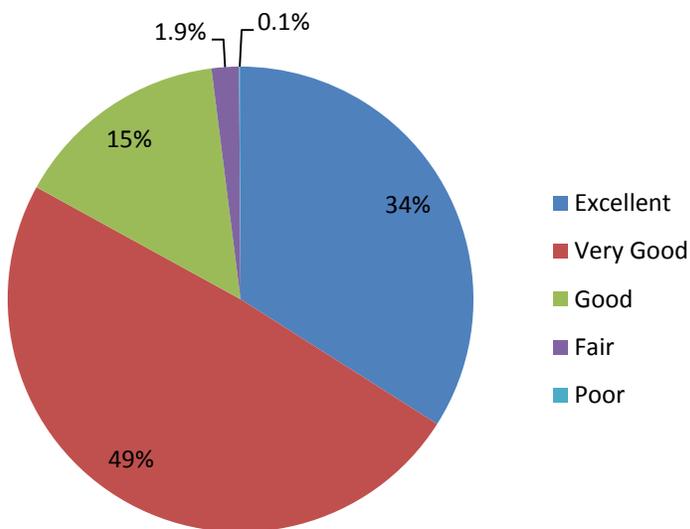


Figure 6.2. Parent perceived health status of youth



## Health Perception

When youth were asked if they seem to get sick a little more easily than other people, 20% agreed; 74% disagreed; and 6% did not know. Nearly all (95%) expect to have better health than other people they know. When gender is taken into consideration, girls are more likely than boys to report that they seem to get sick a little more easily than other people ( $\chi^2(3) = 11.05, p < .05$ ). However, boys and girls do not differ on their expectations of future health condition.

Financial behavior is associated with how youth perceive their health. Youth who earn money are more likely than youth who do not earn money to report that they seem to get sick a little more easily than other people ( $\chi^2(3) = 10.33, p < .05$ ). Twenty-three percent of youth earners say they seem to get sick a little more easily than other people, contrasted with 19% of non-earners. Youth who earn money from working or selling items are less likely than youth who do not earn money to report that their future health condition will be better than that of other people ( $\chi^2(2) = 29.79, p < .001$ ). Although 9 in 10 youth earners expect to have better health in the future, nearly all (96%) non-earners expect their future health condition to be better. Youth who save money at least once a month are less likely than non-savers to report that their future health condition would be better than that of other people ( $\chi^2(2) = 16.56, p < .001$ ). A slightly lower percentage of savers (95%) say they expect their future health condition to be better than other people contrasted with non-savers (97%).

## Family-Level Protective Factors

Protective factors facilitate positive youth development and buffer them from engaging in risky behaviors (Resnick, 2000). Although protective factors exist at different levels (e.g., individual, family, peer, school, and community), this section focuses on family-level protective factors, particularly parental connection with and monitoring of activities and friends. Research has shown that protective factors at the family level prevent youth violence (Lipsey & Derzon, 1998), suicidal ideation and attempts (Compton, Thompson, & Kaslow, 2005), and substance abuse (Vakalahi, 2001), among other negative behaviors. On the other hand, protective factors promote academic achievement and performance (Bowen & Bowen, 1998; Gutman & Midgley, 1999) and positive self-esteem (Lord, Eccles, & McCarthy, 1994), among other positive outcomes.

### Parental Connection

The baseline data suggest that most youth are connected with their parents. During the 30 days prior to the survey, most youth have frequently received support, encouragement, advice, and guidance from their parents or guardians. Unlike other parental connection indicators, a lower number of youth reported frequent discussions with their parents or guardians about sensitive issues such as having a boyfriend or girlfriend.

#### *Support or encouragement from parents or guardians*

When asked how often during the prior 30 days their parents or guardians supported or encouraged them, the majority of youth say their parents supported or encouraged them most of the time or always (68%) or sometimes (22%) (Figure 6.3). Less than 10% report rare or no support. When gender was taken into consideration, boys were slightly more likely than girls to report being frequently supported or encouraged by their parents or guardians ( $\chi^2(6) = 15.61, p < .05$ ). Of the less than 10% who reported rarely or never getting support or encouragement, nearly six in ten are girls.

Financial behavior is associated with the frequency of receiving support or encouragement from parents or guardians. Youth who earn money are less likely than youth who do not earn money to report that their parents or guardians always support or encourage them ( $\chi^2(6) = 41.83, p < .001$ ). Only 32% of youth who earn money say their parents or guardians always supported or encouraged them during the prior 30 days contrasted with 35% of youth who do not earn money (Figure 6.4). On the other hand, youth who save money were more likely than youth who do not save money to report their parents or guardians always supported or encouraged them (35% vs. 33%, respectively (Figure 6.5).

**Figure 6.3. Frequency of getting support from parents**

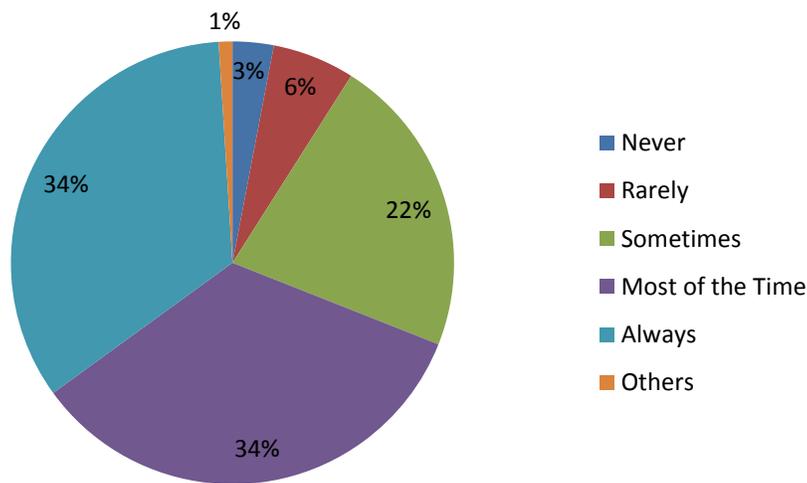
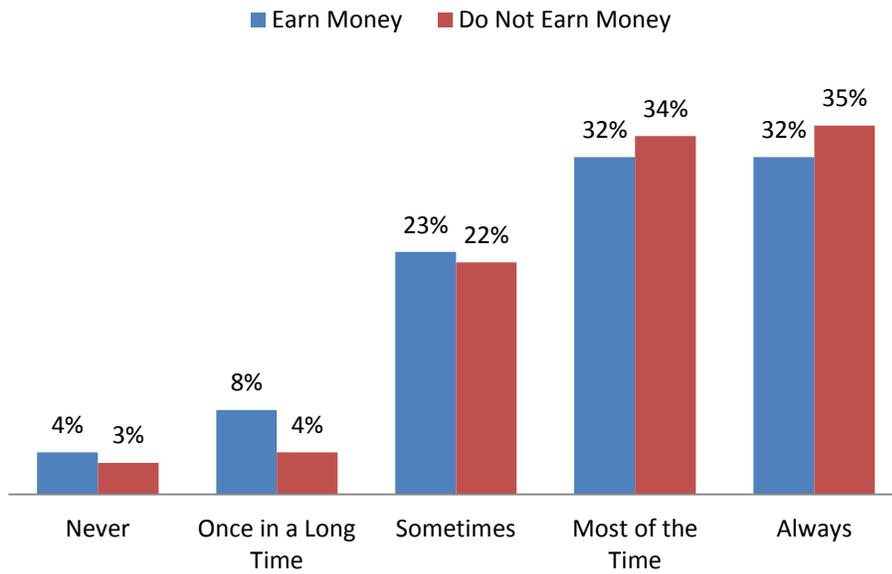
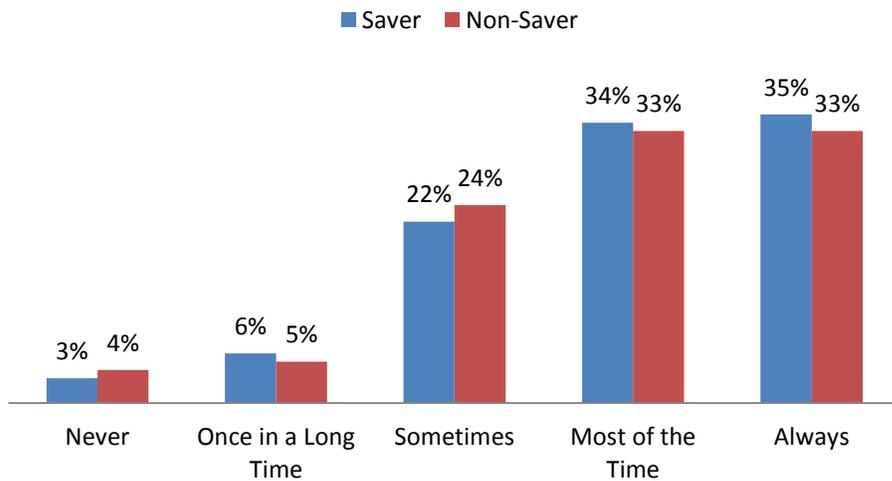


Figure 6.4. Frequency of getting support from parents by earning status



Note: Total percentages may not sum to 100 because of other responses such as “refuse” or “don’t know.”

Figure 6.5. Frequency of getting support from parents by saving status



*Receiving advice and guidance from parents or guardians*

When asked how often during the prior 30 days their parents or guardians gave advice and guidance, 42% say always; 32% say most of the time; and 19% say sometimes. As seen in Figure 6.6, less than 7% of the youth say their parents or guardians rarely or never gave them advice and guidance. Boys and girls do not differ statistically in terms of frequency of receiving advice and guidance from parents or guardians. However, financial behavior is associated with frequency of receiving advice and guidance. As seen in Figure 6.7, youth savers (43%) were more likely than non-savers (38%) to report that their parents or guardians always gave them advice and guidance ( $\chi^2(6) = 58.20, p < .001$ ).

Figure 6.6. Frequency of receiving advice from parents

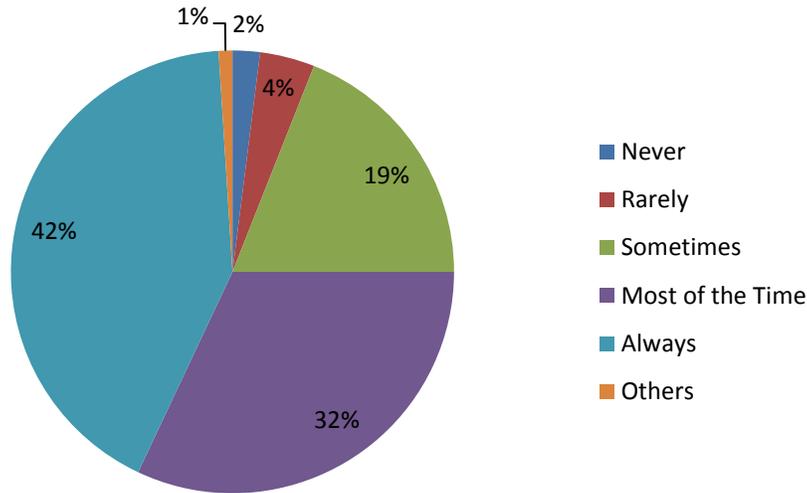
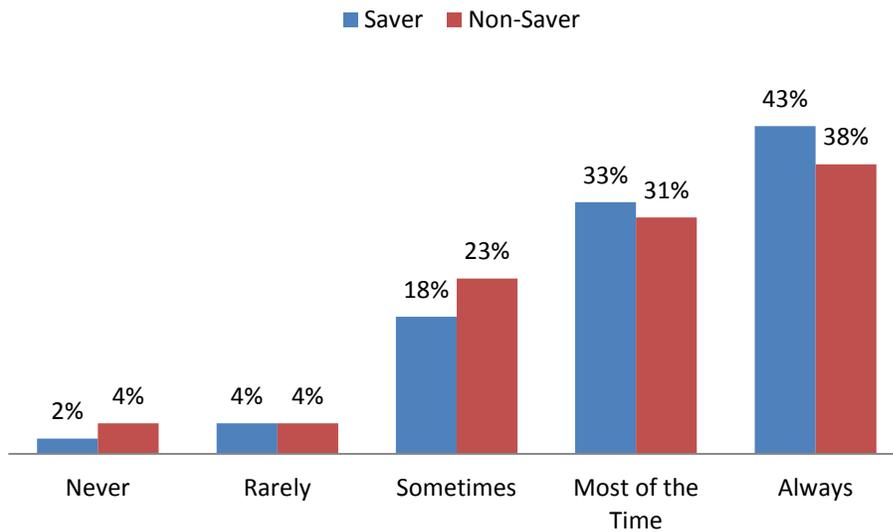


Figure 6.7. Frequency of receiving advice from parents by saving status

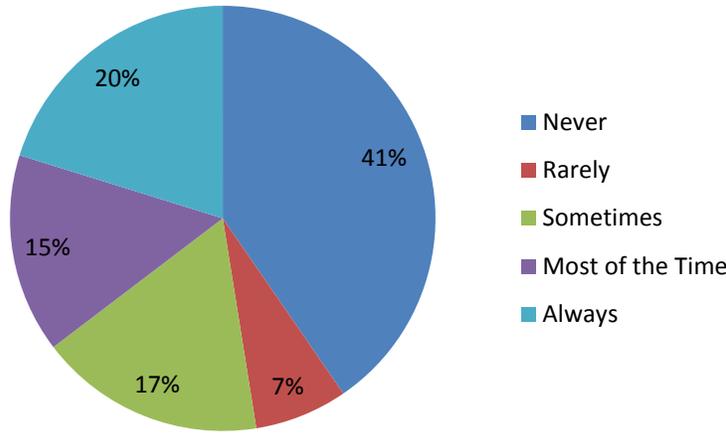


*Discussing sensitive issues with parents or guardians*

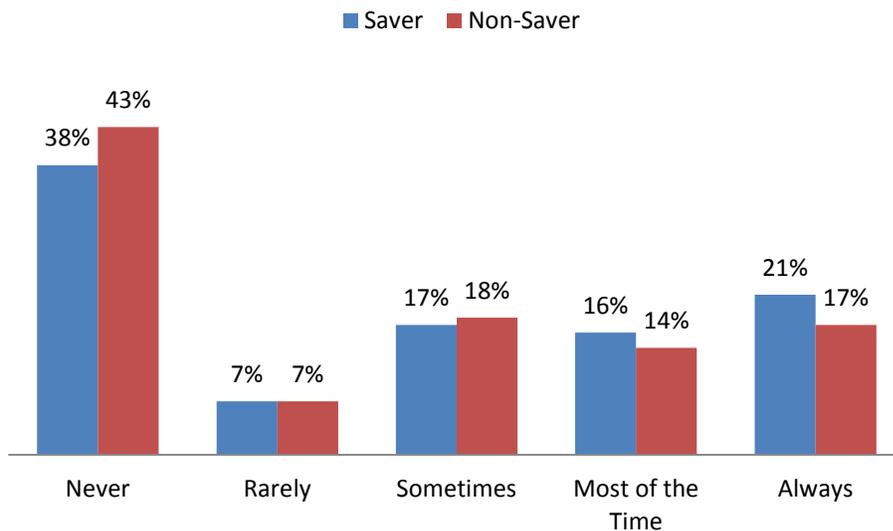
As shown in Figure 6.8, 41% of youth say that their parents never talked with them about sensitive issues, such as having a boyfriend or girlfriend, during the prior 30 days. When gender was taken into consideration, girls (61%) are more likely than boys (39%) to say their parents always talked with them about sensitive issues ( $\chi^2(6) = 202.88, p < .001$ ). Conversely, 59% of boys report they never discussed sensitive issues with their parents or guardians contrasted with 41% of girls. Financial behavior also is associated with frequency of discussing sensitive issues with parents or guardians. As seen in Figure 6.9, youth savers (21%) are more likely than non-savers (17%) to report

they always talked with their parents or guardians about sensitive issues such as having a boyfriend or girlfriend ( $\chi^2(6) = 20.17, p < .01$ ).

**Figure 6.8. Frequency of discussing sensitive issues with parents**



**Figure 6.9. Frequency of discussing sensitive issues with parents by saving status**



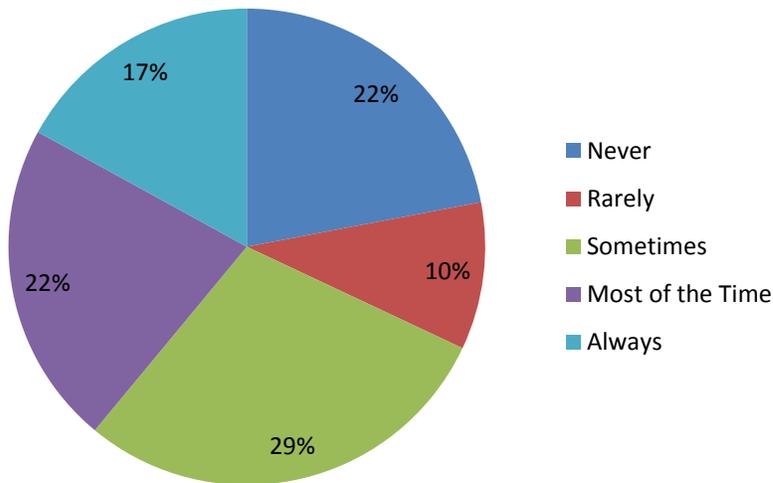
### Parental Monitoring of Activities and Friends

A majority (65%) of youth report frequent parental monitoring of activities and friends, albeit not as frequent as parental connection. Our findings suggest most parents or guardians “sometimes” monitor youth’s activities and friends. More youth report their parents or guardian never monitor their activities and friends than youth who report their parents or guardians always monitor activities and friends.

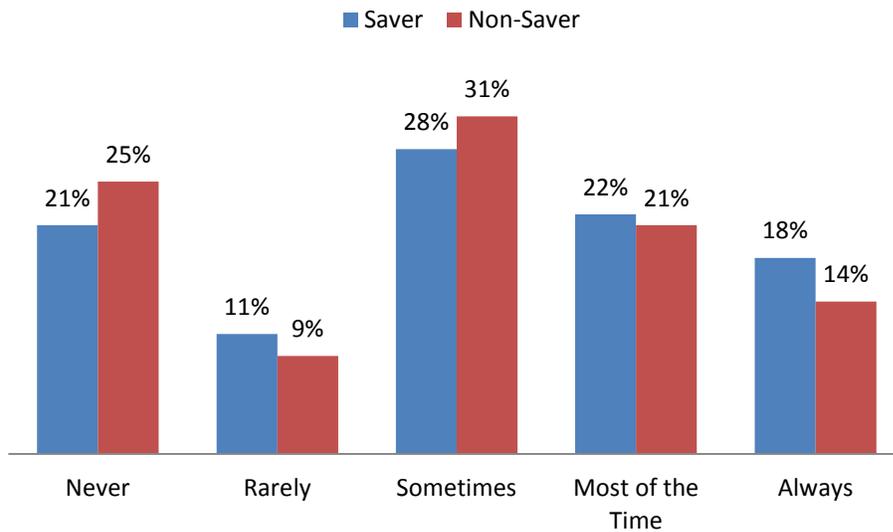
*Parental monitoring of friends*

A number of youth say that during the prior 30 days, their parents or guardians never really knew or tried to know their friends (22%) or only knew or tried to know them once in a long time (10%). As seen in Figure 6.10, similar numbers of youth report that their parents knew or tried to know their friends always (17%), most of the time (22%), or sometimes (29%). Boys and girls do not statistically differ on how frequently their parents or guardians knew or tried to know their friends. However, youth in JHS2 are more likely than students in JHS1 and class 6 to report their parents or guardians always knew or tried to know their friends ( $\chi^2(12) = 28.21, p < .01$ ). Financial behavior also is associated with frequency of parental monitoring of friends. As illustrated in Figure 6.11, youth savers (18%) are more likely than non-savers (14%) to report their parents or guardians always knew or tried to know their friends ( $\chi^2(6) = 26.58, p < .01$ ).

**Figure 6.10. Frequency of parental monitoring of youth's friends**



**Figure 6.11. Frequency of parental monitoring of youth’s friends by saving status**



*Parental monitoring of how youth spend free time*

As seen in Figure 6.12, responses to the question of how often during the prior 30 days youth’s parents or guardians really knew or tried to know what they did with their free time are varied: never (25%), once in a while (13%), sometimes (29%), most of the time (16%), and always (17%). Boys and girls do not statistically differ on how frequently their parents or guardians monitor their free time. However, youth in JHS1 (33%) and JHS2 (34%) were slightly more likely than youth in class 6 (32%) to report their parents or guardians always knew or tried to know how youth spend their free time ( $\chi^2(12) = 23.41, p < .05$ ). Youth savers (18%) are more likely than non-savers (13%) to report their parents or guardians always knew or tried to know what they did with their free time ( $\chi^2(6) = 76.59, p < .001$ ; Figure 6.13).

**Figure 6.12. Frequency of parental monitoring of youth’s free time**

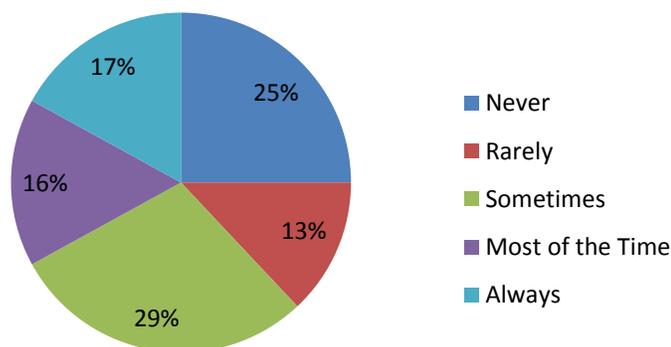
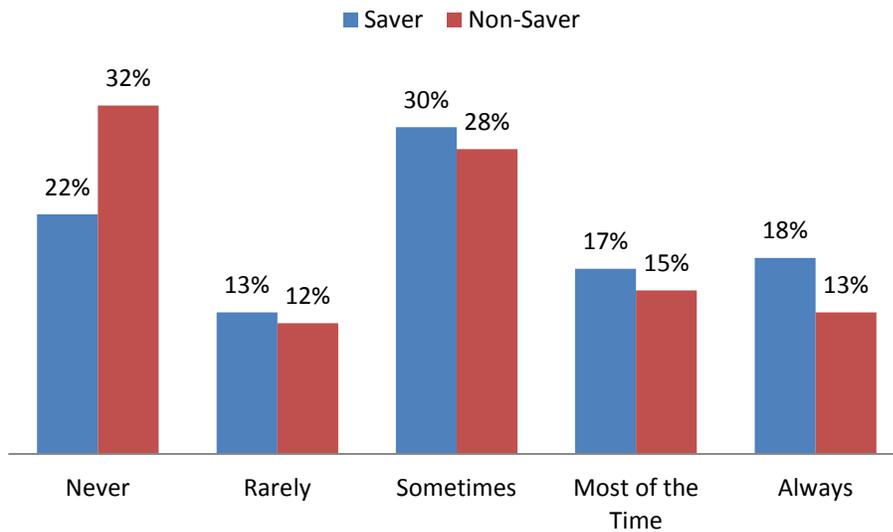


Figure 6.13. Frequency of parental monitoring of youth’s free time by saving status



### Attitudes Toward Risky Behaviors

This section focuses on youth’s attitudes toward risky behaviors, particularly unsafe sexual behaviors. Although numerous factors influence sexual behaviors, theoretical and empirical evidence suggests that attitudes are highly related to sexual behaviors (Ajzen, 1991; Albarracin, Johnson, Fishbein, & Muellerleile, 2001; Fishbein, 2000; Rosenstock, Strecher, & Becker, 1988). Evidence from SSA suggests that attitudes toward condom use are related to intention to use and actual use of condoms (Bryan, Kagee, & Broaddus, 2006; Lugoe & Rise, 1999; Schaalma et al., 2009). In Ghana, attitudes regarding perceived susceptibility to HIV infection, self-efficacy to use condoms, barriers to condom use, and social support are significant predictors of condom use among young men (Adih & Alexander, 1999). This section also explores potential relationships among gender, grade level, financial behaviors, and attitudes toward sex and HIV prevention.

#### Proper age to Have Sex

The average age when youth believe it is proper to have sex is 23. Less than 5% believe it is proper to have sex before 18 years of age. Equal percentages of youth (20%) report it is proper to have sex at ages 18, 20, or 25. Boys and girls report the same average age (23) when it is proper to have sex. The median age when it is proper to have sex for boys is 21, a year older than the median age reported by girls. However, the relationship between gender and age regarding this question is not statistically significant ( $p > .05$ ).

In addition, as youth grow older, they tend to report a lower age when it is proper to have sex. Youth in class 6 reported slightly higher mean and median ages (24 and 23) when it is proper to have sex contrasted with their peers in junior high school (23 and 21 for JHS1; 23 and 20 for JHS2). The relationship between grade level and age when it is proper to have sex is statistically significant ( $p < .001$ ).

### Number of Friends Who Have Had Sex in the Last School Term

When asked whether their friends had sex in the last school term, similar numbers of youth respond they do not know (36%), none of their friends have had sex (32%), and at least one friend has had sex (31%). Students in Primary 6 (38%) are more likely than their peers in JHS1 (31%) and JHS2 (30%) to report none of their friends has had sex ( $\chi^2(12) = 79.22, p < .001$ ). Conversely, a slightly higher percentage of youth in JHS1 (31%) and JHS2 (37%) report that one or more of their friends had sex in the last term contrasted with youth in Primary 6 (26%). Gender is not associated with youth report of friends who had sex in the last term ( $p > .05$ ).

### Attitudes Toward Sex

A majority of youth disagree that it is OK for young people to have sex with someone they have just met (92%) or with someone they love (79%). Although 40% do not believe that having sex would make a person feel loved, 25% believe that it would, and 37% do not know. Similarly, 44% of youth do not believe that having sex would make a person feel good, while 18% believe that it would, and 30% do not know. When asked about their attitude toward premarital sex, 82% of youth do not believe that it is OK for people to have sex before marriage (Table 6.1).

**Table 6.1. Attitude toward sex by level of agreement or disagreement**

| Indicator   | N     | Disagree | Do not Agree or Disagree | Agree A Lot | Do Not Know |
|---|-------|----------|--------------------------|-------------|-------------|
| I believe it is OK for people my age to have sex with someone they have just met. | 6,250 | 92%      | 4%                       | 3%          | 1%          |
| I believe it is OK for people my age to have sex with someone they love.          | 6,249 | 79%      | 6%                       | 14%         | 1%          |
| Having sex will make a person feel loved.   | 6,247 | 40%      | 8%                       | 25%         | 27%         |
| Having sex will make a person feel good.  | 6,250 | 44%      | 8%                       | 18%         | 30%         |
| I believe it is OK for people to have sex before marriage.                        | 6,245 | 82%      | 5%                       | 12%         | 1%          |

Beliefs about the consequences of having sex differ by gender. As illustrated in Figure 6.14, boys (29%) are more likely than girls (21%) to report having sex will make a person feel loved ( $\chi^2(4) = 60.81, p < .001$ ). As seen in Figure 6.15, boys (22%) also are more likely than girls (13%) to report having sex will make a person feel good ( $\chi^2(4) = 104.29, p < .001$ ). Attitudes toward premarital sex also differ by gender. Boys (14%) are more likely than girls (10%) to believe that premarital sex is OK ( $\chi^2(4) = 22.00, p < .001$ ; Figure 6.16).

Figure 6.14. Beliefs about sex making a person feel loved by gender

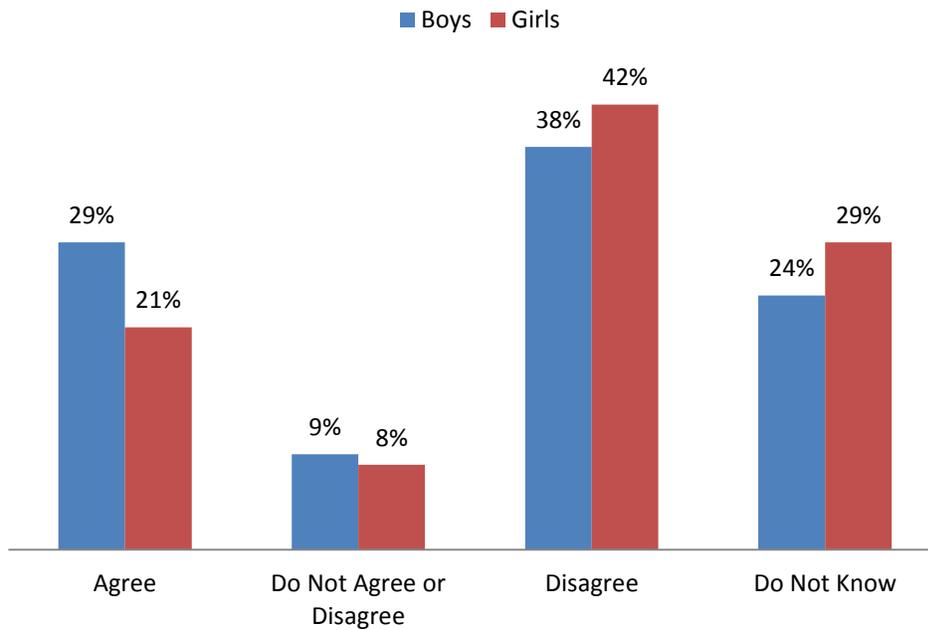
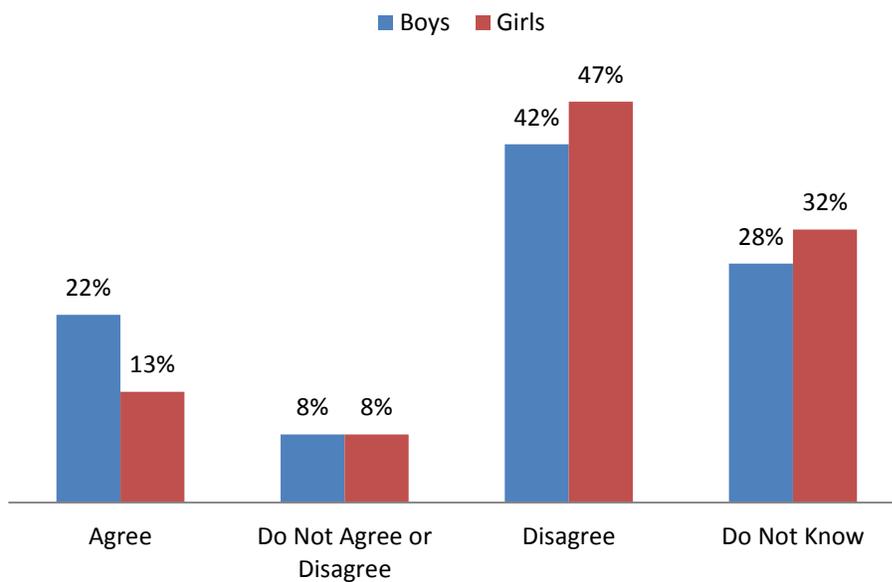
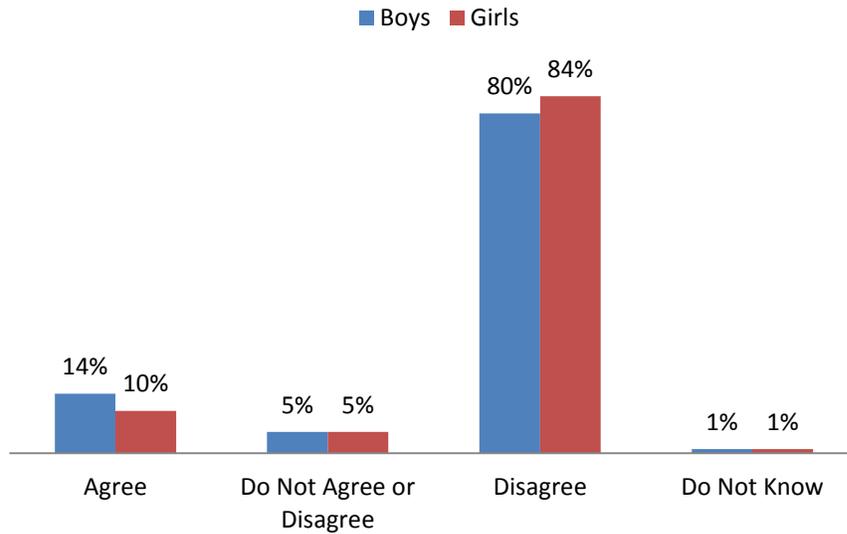


Figure 6.15. Beliefs about sex making a person feel good by gender



**Figure 6.16. Beliefs about premarital sex by gender**



Aside from gender, attitudes toward sex differ by grade level. Youth in JHS2 (17%) are more likely than youth in Primary 6 (12%) and JHS1 (14%) to agree having sex with someone they love is OK ( $\chi^2(8) = 37.47, p < .001$ ). Further, youth in JHS1 (18%) and JHS2 (20%) are more likely than youth in Primary 6 (16%) to report having sex will make a person feel good ( $\chi^2(8) = 25.92, p < .01$ ). Youth in JHS1 (12%) and JHS2 (14%) also are more likely than youth in Primary 6 (10%) to believe premarital sex is OK ( $\chi^2(8) = 23.59, p < .01$ ).

### Motivation to Comply with Friends and Peers

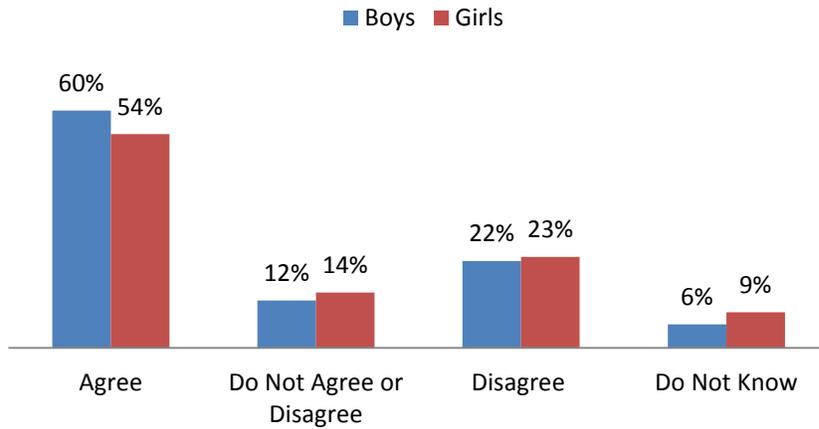
A majority of youth indicates motivation to comply—particularly among friends and peers—is important to young people (Table 6.2).

**Table 6.2. Motivation to comply with friends by level of agreement or disagreement**

| Indicator  | N     | Disagree | Do not Agree or Disagree | Agree A Lot | Do Not Know |
|--|-------|----------|--------------------------|-------------|-------------|
| Young people are happier if they are part of the crowd.                          | 6,236 | 23%      | 13%                      | 57%         | 7%          |
| The worst thing that can happen to young people is to be considered an outsider. | 6,248 | 27%      | 16%                      | 52%         | 5%          |

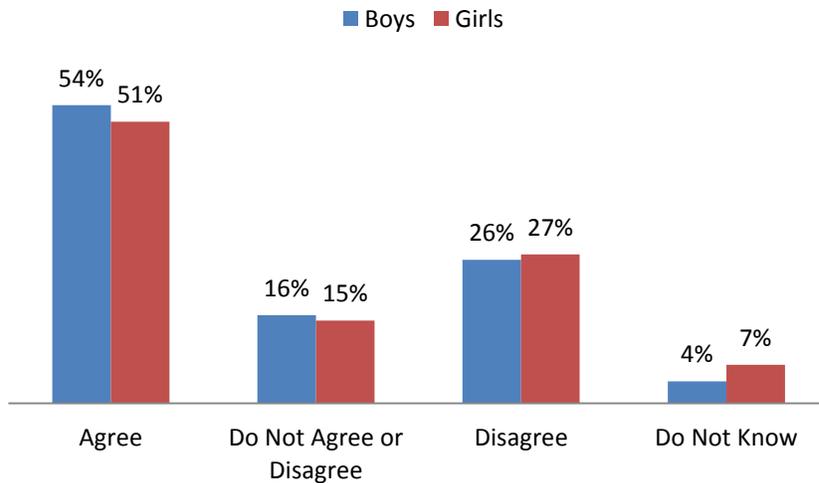
Fifty percent of youth agree young people are happier if they are part of the crowd, and only 23% disagree. Although 52% agree the worst thing that can happen to a young person is to be considered an outsider, 27% do not agree. Motivation to comply with friends and peers differs by gender. Boys (60%) are more likely than girls (54%) to report young people are happier if they are part of the crowd ( $\chi^2(4) = 37.65, p < .001$ ) (Figure 6.17).

**Figure 6.17. Beliefs about young people being happier if they are part of the crowd**



Boys (54%) are more likely than girls (51%) to report the worst thing that can happen to young people is to be considered an outsider ( $\chi^2(4) = 12.36, p < .05$ ; Figure 6.18). Further, youth in higher grade levels are more likely than youth in lower grade levels to report young people are happier if they are part of the crowd ( $\chi^2(8) = 19.63, p < .05$ ) or not considered an outsider ( $\chi^2(8) = 40.99, p < .001$ ). For instance, a slightly higher percentage of JHS1 (57%) and JHS2 (59%) students say young people are happier if they are part of the crowd contrasted with students in Primary 6 (55%).

**Figure 6.18. Beliefs about the worst thing that can happen is to be considered an outsider**



## HIV/AIDS Prevention

Baseline survey results suggest that most Ghanaian youth have negative attitudes toward sex and positive attitudes toward HIV prevention. Although youth do not believe young people should be having sex until they are married, a majority of youth believe that using condoms is an effective way to prevent getting infected with HIV/AIDS. Aside from their own personal beliefs, young people's attitudes are influenced by social norms and motivation to comply with friends and peers. Although the results are exploratory in nature because we did not control for other factors, our findings suggest that gender, grade level, and financial behaviors (e.g., saving and earning money) are associated with differences in attitudes toward sex and HIV prevention.

### Learning About HIV/AIDS in School

Nearly all youth (95%) have been taught about HIV/AIDS in school at least once. Among youth who have been taught in school about HIV/AIDS, 50% had one to three lessons, 26% had four to six lessons, and 22% had seven or more lessons. Students in higher grade levels are more likely than students in lower levels to report a higher number of times they have been taught HIV/AIDS in school ( $\chi^2(8) = 59.06, p < .001$ ). Twenty percent of students in JHS2 have had 10 or more lessons on HIV/AIDS contrasted with 15% in JHS1 and 13% in Primary 6.

### Beliefs about HIV/AIDS

#### *Perceived benefits of condom use*

The majority of youth (84%) agree that condoms are effective against HIV/AIDS. Boys are more likely than girls to report that condoms are effective against HIV/AIDS ( $\chi^2(4) = 99.98, p < .001$ ). Nearly 9 in 10 (88%) boys agree that condoms are effective against HIV/AIDS contrasted with 8 in 10 (80%) girls. Youth in higher grade levels are more likely than youth in lower grade levels to report that condoms are effective against HIV/AIDS ( $\chi^2(8) = 78.24, p < .001$ ). Nearly 9 in 10 JHS1 (85%) and JHS2 (86%) students believe that condoms are effective against HIV/AIDS contrasted with 8 in 10 of class 6 (81%) students.

#### *Perceived severity of HIV/AIDS*

Ninety percent of youth agree that HIV/AIDS is incurable, and this proportion does not differ by gender or grade level.

#### *Perceived susceptibility of young people to HIV/AIDS*

Eighty-nine percent of youth agree young people get infected with HIV/AIDS, although boys (91%) are more likely to agree than girls (88%) ( $\chi^2(3) = 16.31, p < .01$ ). Students in JHS1 (90%) and JHS2 (93%) are more likely than students in Primary 6 (86%) to believe young people can get infected with HIV/AIDS ( $\chi^2(6) = 58.18, p < .001$ ).

#### *Perceived social support*

Half of youth (52%) believe their friends think condoms should be used during sex, but 29% do not know what their friends think about condom use. Boys (57%) are more likely than girls (48%) to believe their friends think condoms should be used during sex ( $\chi^2(4) = 60.03, p < .01$ ). Students in JHS1 (55%) and JHS2 (60%) are more likely than students in Primary 6 (43%) to believe their friends think condoms should be used during sex ( $\chi^2(8) = 147.66, p < .001$ ).

**Table 6.3. Attitudes toward HIV/AIDS by level of agreement or disagreement**

| Indicator  | N     | Disagree | Do not<br>Agree or<br>Disagree | Agree | Do Not<br>Know |
|--|-------|----------|--------------------------------|-------|----------------|
| Condoms are effective against HIV/AIDS.            | 6,252 | 7%       | 2%                             | 84%   | 7%             |
| HIV/AIDS is incurable.                             | 6,245 | 6%       | 2%                             | 90%   | 2%             |
| Young people can get infected with HIV/AIDS.       | 6,249 | 6%       | 3%                             | 89%   | 2%             |
| My friends think condom should be used during sex. | 6,233 | 11%      | 8%                             | 52%   | 29%            |

### Access to Health Facilities

This section outlines the breadth of access to health facilities among households participating in the YouthSave Ghana Experiment and focuses on the physical accessibility of health facilities. Particularly in developing nations, physical accessibility is an important predictor of health care utilization (Buor, 2003; Gage & Calixte, 2006; Tanser, Gijsbertsen, & Herbst, 2006; Tsoka & le Sueur, 2004) and affects a wide range of health outcomes (Acharya & Cleland, 2000; Seiber & Bertrand, 2002; Thaddeus & Maine, 1994). This section explores the distance and traveling time to the nearest health facility and the most common forms of transportation available to YouthSave Ghana Experiment households to get to the nearest health facility.

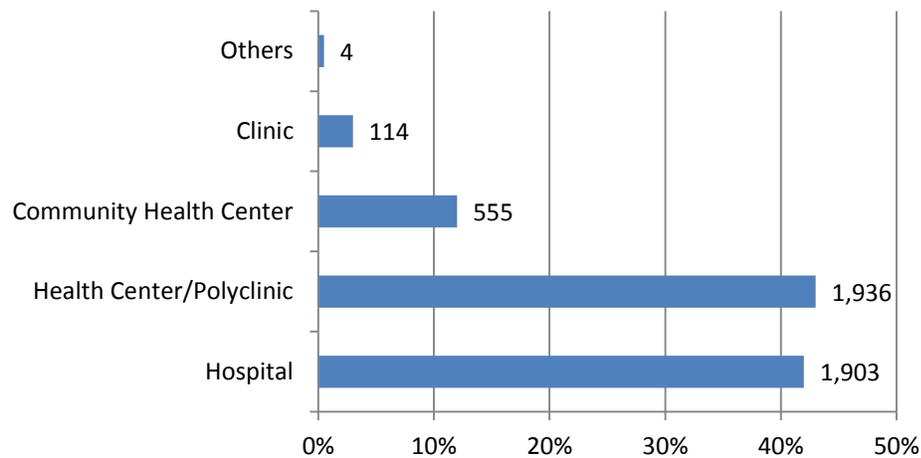
Our findings indicate that Ghana Experiment households have varying levels of physical access to health facilities. Hospital and health centers or polyclinics are the closest health facilities for most households. A majority of households walk to get to the nearest health facility, which is on average 2 kilometers away from their houses. It takes households 18 to 19 minutes on average to reach the nearest health facility.

#### Health Facility

The health facilities closest to households are health centers or polyclinics (43%), followed by hospitals (42%), and community health centers (12%) (Figure 6.19). Other close health facilities include clinics, herbal clinics, drug stores, and infirmaries.<sup>14</sup> Among households in Western, Greater Accra, Eastern, and Brong Ahafo regions, health centers or polyclinics are the nearest health facilities, while hospitals are the nearest health facility among households who live in Central, Ashanti, and Northern regions. Hospitals are the closest facilities for households in Volta region. Among households near hospitals, the most common forms of transportation are walking and public transportation. Among households near health centers or polyclinics or community health centers, walking is the most common means of reaching the facilities.

<sup>14</sup> Clinics are outpatient facilities that specialize in one type of health issue (e.g., only optometry or pediatrics), and they are smaller. Polyclinics are larger outpatient health care facilities where a wide range of health care services can be obtained without the need for an overnight stay. Community health centers may function as either a clinic or a polyclinic, depending on the local availability of other health services. In rural areas without other health facilities, the single community health center may function as a small polyclinic, treating all kinds of minor cases.

**Figure 6.19. Type of health facility nearest to households**



### **Distance, Traveling Time, and Transportation to Nearest Health Facility**

The average distance between a household and the nearest health facility is 2 kilometers. Fifty-one percent of households are located within one kilometer from a health facility, while 23% of households live more than 2 kilometers away.

The nearest health facility mostly commonly is reached on foot (58%), by public transportation (36%), and by motorbike (3%). Other forms of transportation include bicycle and personal or family car.

Among households that walk to get to the nearest health facility, the average time for this trip is 18 minutes. Among this group of households, the average distance between their houses and the nearest health facility is 1.4 kilometers. Among households that walk to the nearest health center, the nearest health facility is a health center or polyclinic (48%), hospital (34%), or community health center (14%).

Among households that use public transportation, the average time to get to the nearest health facility is 19 minutes, and the average distance between their houses and the nearest health facility is 3 kilometers. Among households that use public transportation, the nearest health facility is a hospital (55%), health center or polyclinic (36%), or community health center (9%).

Among households in Central, Greater Accra, Eastern, Ashanti, Brong Ahafo, Volta, and Northern regions, walking is the most common form of transportation to get to the nearest health facility. Only households in Western region use public transportation as the most common form of transport to reach the nearest health facility.

### **Summary**

The data in this chapter provide an important description of young Ghanaians' health. We examine several health topics critical for safe transition from adolescence to young adulthood and explore how these issues differ according to gender and grade level and whether a young person earns or

saves money. Although we find statistical differences based on gender, grade level, and financial behaviors, our results are preliminary and exploratory because we did not control for other variables associated with various health outcomes. Thus, the next phase of data analysis will focus on multivariate analyses of health outcomes.

The baseline data provide a rich source of information that can be used to perform more rigorous analyses. Our findings raise questions about possible associations between and among health topics. As prior research has shown, we may find that health risk behaviors predict self-perceived health status, or that parental protective factors positively influence sexual attitudes and behaviors among youth. Similarly, multivariate analyses will allow us to use the data collected to better understand other youth well-being outcomes, including educational, economic, financial capability, and psychosocial. In particular, the baseline results will help us understand if health has any potential effects on other YouthSave outcomes, particularly savings performance. A primary question is whether health factors play a mediational or moderating role or both. In addition, comparison of the baseline results and follow-up data to be collected in 2014 will allow us to investigate whether YouthSave leads to more positive health outcomes for young Ghanaians who participated in the Ghana Experiment contrasted with their peers who did not participate. The results of the project may provide empirical support for the potential of a youth-focused savings program as a health intervention.

Our findings can be summarized based on the following key points:

- The majority of youth have positive perceptions of their health that are shared by their parents or guardians. Self-perceived health status differs by gender and financial behavior.
- Most youth are closely connected with their parents or guardians who frequently give advice, support, and encouragement. Youth's activities and friends are frequently monitored by parents or guardians. Gender and financial behaviors are associated with frequency of parental connection and parental monitoring.
- Most youth have negative attitudes toward sex at a young age and positive attitudes toward HIV prevention. Although most youth do not believe that young people should have sex until they are married, a majority believe condoms are an effective way to prevent getting infected with HIV/AIDS, and a third know a friend who has had sex within the last school term. Young people's attitudes appear to be significantly influenced by social norms and motivation to comply with friends and peers. Attitudes toward sex and HIV prevention differ by gender and grade level.
- Households have varying levels of access to health facilities. Hospital and health centers or polyclinics are the closest health facility for most households. Access to health facilities—including distance from, traveling time to, and type of transportation used—differs by region of residence. Physical accessibility to health facilities is an important predictor of health care use (Gage & Calixte, 2006; Tanser, Gijsbertsen, & Herbst, 2006) and affects a wide range of health outcomes (Acharya & Cleland, 2000; Seiber & Bertrand, 2002). In some cases, adequate financial resources alone may not predict health care use, particularly if access to health facilities is very limited. Long distances from and hours to get to a health facility may discourage youth and their families from accessing appropriate health care.

## Chapter 7: Future Orientation of Youth and Their Parents

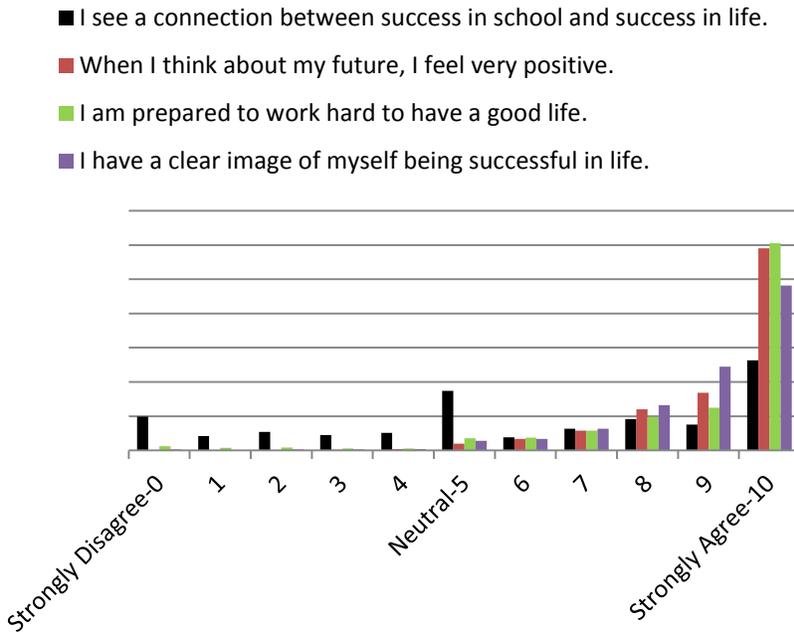
In this chapter, we present data on future orientation of youth. Research suggests that future orientation, hopes, and expectations may explain the relationship between savings and youth developmental outcomes. Current research on the impact of savings on education describes how expectations can play an intermediary role (Elliott, Choi, Destin, & Kim, 2011). In this chapter, we present findings from the baseline survey investigating how future orientation is related to parents' and youth's expectations in the YouthSave Ghana Experiment sample.

### Future Orientation

*Future orientation* is summarily defined as the ability to think about and anticipate future events (McCabe & Barnett, 2000). It is a multidimensional construct that covers a wide range of domains including people's plans, goals, aspirations, hopes, and—sometimes—behavior. Attached to these domains are anticipated outcomes that may or may not materialize. Nevertheless, the ultimate relevance of future orientation to youth development stems from its ability to influence current behavior to achieve future goals. A study by Quinton, Pickles, Maughan, and Rutter (1993) finds that adolescents in the US who are highly oriented toward the future—as measured by future planning—have significantly lower incidences of misconduct. By focusing on future plans, these adolescents have little room to engage in misconduct that could jeopardize their future aspirations. While there is a positive relationship between future orientation and desired behavioral outcomes in Western countries, not much is known about SSA youth's future orientation.

In the YouthSave Ghana Experiment, we assess the nature of future orientation by asking youth about their dreams, hopes, and plans. Generally, youth are hopeful and oriented toward the future (Figure 7.1). For instance, most youth report they feel positive when they think about the future; 92.4% are prepared to work hard to have a good life; and 95.8% have a clear image of themselves being successful. The majority report a belief they will succeed and are prepared to work for their success. Only a little over half the sample (53.4%) sees a connection between school and success in life, which suggests many students see other pathways to success.

**Figure 7.1. Orientation toward the future**



The only gender difference in responses about future orientation are whether youth see a connection between school and success in life ( $t=-.54, p=.59$ , male mean=6.07, female mean=6.11) and whether they plan to pursue tertiary education after JHS ( $t=-.36, p=.72$ , male mean=8.50, female mean=8.52). Contrasted with female peers, male youth are more optimistic about whether they see themselves being successful in life ( $t=2.88, p<.01$ , male mean=9.17, female mean=9.07) and whether they think more positively about the future ( $t=2.77, p<.01$ , male mean=8.97, female mean=8.86). Nearly half (46.6%) does not see a connection between school and success in life, but 70% would like to complete tertiary education.

### Future Orientation, Academic Performance, Parental Involvement, and Savings

The association between future orientation and academic performance is mixed. Confidence about having what it takes to be successful in life is not associated with math performance ( $r=.02, p=.25$ ) but is associated with English scores ( $r=.07, p<.001$ ). Plans for tertiary education are associated with math ( $r=.06, p<.001$ ) and English performance ( $r=.11, p<.001$ ). Although there is no association between youth being prepared to work hard to have a good life and math scores ( $r=.01, p=.35$ ), there is a significant but weak association with English scores ( $r=.07, p<.001$ ).

There is a statistically significant association between parent involvement and children's education and future orientation. The more often parents talk to their children about their expectations, the more youth plan to attend higher education ( $r=.07, p<.001$ ), feel on track for future success ( $r=.07, p<.001$ ), and have a good sense of what it takes to be successful in life ( $r=.06, p<.001$ ). Parental involvement also helps youth regard themselves as successful ( $r=.05, p<.001$ ).

When people are optimistic about a brighter future, they may plan and save for future needs (Li, Lerner, & Lerner, 2010; Sherraden, 1991). Conversely, having accumulated savings or the process of

saving may impact one's future orientation (Bynner & Paxton, 2001; Zhan, 2006). There may be a causal loop between future orientation and savings whereby both impact each other simultaneously. Clarity on the nature and direction of this relationship may be addressed best when the endpoint data are collected. In the meantime, we glean preliminary insight into this relationship by using the YouthSave Ghana Experiment baseline data to compare participants' level of orientation toward the future with their likelihood of saving at least once a month. With the exception of participants' plans to attend tertiary school ( $t=3.24, p<.01$ ), none of the measures of future orientation is associated significantly with the propensity to save at least once a month. However, we find one positive association that is somewhat contrary to common expectations: Youth who do not save at least once a month are more oriented toward the future ( $M=8.67$ ) contrasted with those who save ( $M=8.45$ ).

### Youth and Parent Expectations

Embedded in future orientation are people's expectations about the future. Expectations may be developed based on personal experiences. Research interest in expectations is growing because of the predictive and mediational impact of expectations on outcomes such as educational performance. For instance, in a longitudinal study of 5 to 14 year olds in the US, Zhan (2006) finds that the relationship between parental assets and children's math and reading test scores is partially mediated by parents' expectations. Both parents and youth have expectations about their children's education, but sometimes parents' expectations may be incongruent with youth's desires.

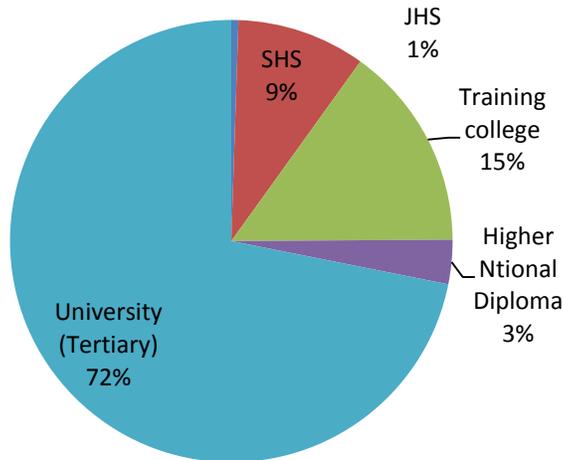
The YouthSave Ghana Experiment baseline survey collected data on parental and youth expectations and youth educational attainment. Parents' expectations are generally consistent with youth's expectations of themselves, but there are nuances. Of the 4,567 parents who responded to the question about their expectations for their children's education, 78.9% say they expect their children to be university graduates. However, slight differences exist between what male and female parents expect ( $\chi^2(8)=37.89, p<.001$ ). While 76.8% of female parents expect their children to acquire university education, more male parents (83.6%) would like to see their children pursue university education. The trend of male parents having higher expectations relative to female parents is the same regardless of the child's gender. However, more parents (82%) expect their children to attend university when the youth is a male in contrast with 76% when the youth is a female ( $\chi^2(8)=42.93, p<.001$ ).

Of the 26.6% ( $n=1,215$ ) of parents who do not have any formal education, 71.68% expect their children to attain a university education. Of the 147 parents who are university graduates, 88.02% expect their children to attain a university education. Generally, parents want their children to attain a higher educational level than they did.

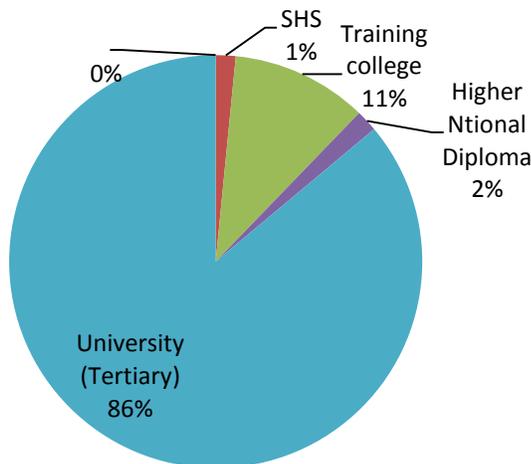
Parents' educational expectations of their children are consistent with those of their children (Figures 7.2 and 7.3). For example, nearly 80% of parents want to see their children attend university, and 70.8% of youth have the same expectation. The data set does not include enough information to adequately explain the observed consistency between parents' and youth's expectations. It may be that parents communicate their expectations to the youth either directly or indirectly, and youth take on these expectations.

Youth's expectations of their educational advancement differ by gender ( $\chi^2(11)=34.11, p<.001$ ). While 71.7% of male youth aspire to university level education, slightly fewer female students (69.9%) aspire to the same level of education.

**Figure 7.2. Youth's educational expectations**



**Figure 7.3. Parents' expectations of youth's education**

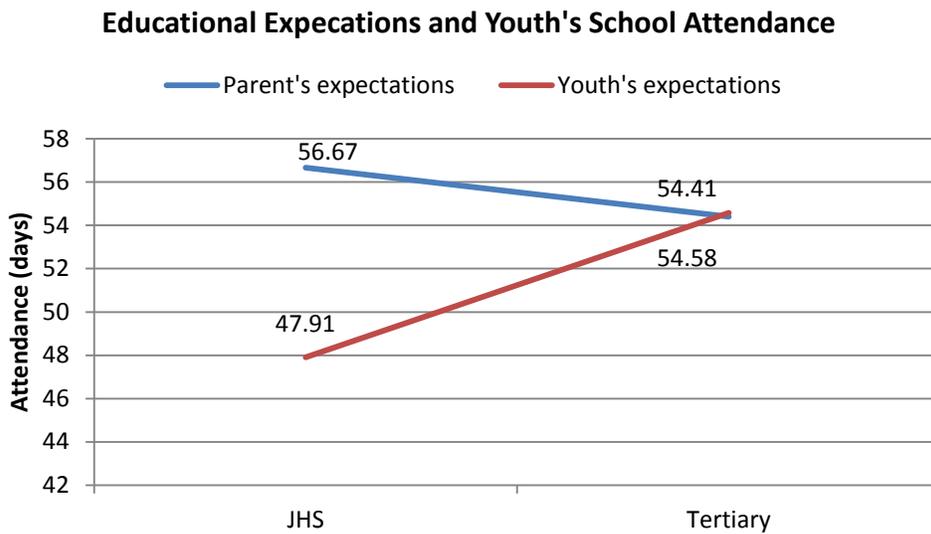


**Expectations and Academic Performance, School Attendance, and School Grades**

Youth academic performance varies by their expectations of educational advancement ( $p<.001$ ). Youth who expect to attain tertiary education perform significantly better in English (32.6 score) than those who expect to complete JHS only (25.53 score). Similarly, youth who expect to attain tertiary education perform significantly better in math (31.91 score) than youth who expect to complete JHS only (25.53 score).

The data also reveal that youth attend school more often when they expect to advance to higher education levels ( $F=7.95, p<.001$ ). On average, youth attend school 47.91 days when they expect to complete JHS, 51.92 days when they expect to complete SHS, and 54.58 days when they expect to complete tertiary education. Interestingly, parents' expectations of their children's educational advancement is inversely associated with school attendance ( $F=3.06, p<.01$ ). As shown in Figure 7.4, when parents do not expect their children to go beyond JHS, the youth attend school nearly 2.5 days more ( $M=2.26$ ) than when parents expect their children to reach tertiary education level. One explanation of this finding could be that when youth know their parents do not expect them to advance in school, the youth may decide to work hard (attend school) to prove they can make it.

**Figure 7.4. Educational expectations and school attendance**



The data reveal that the higher young people expect to advance in education, the more hours they spend on their school work after normal school hours ( $F=4.94, p<.001$ ). In other words, when youth aspire to higher education, they put in more effort to succeed. Youth who expect to reach tertiary education spend a little over 2.5 hours ( $M=2.66$ ) more on their school work contrasted with youth who do not expect to proceed beyond the JHS level. In contrast, parents' expectations of their children do not reflect the amount of hours their children put into their school work after normal class hours ( $p=.45$ ). As parents' expectations are consistent with their children's expectations, one would expect that parents' expectations would also be associated with the hours their children spend on school work. The statistically non-significant results suggest that perhaps parents who expect their children to advance very far in school may not necessarily have control over how much time their children spend on school work outside of normal school hours.

Youth were asked about the scores they expect to earn in their math and English classes. On average, they expect to score 66.42% in math and 67.06% in English. While the expected math scores vary by gender ( $t=7.69, p<.001$ ), expected English scores do not ( $t=.59, p=.55$ ). Males expect 3.12 points more than their female counterparts in math (Table 7.1).

**Table 7.1. Male and female youth’s expectations and actual of educational performance**

| Variables              | Mean<br>Expected<br>Score | Mean<br>Actual<br>score |
|------------------------|---------------------------|-------------------------|
| Expected math score    | 66.42                     | 31.59                   |
| Male                   | 68.00                     | 32.64                   |
| Female                 | 64.88                     | 30.62                   |
| Expected English score | 67.06                     | 32.02                   |
| Male                   | 67.18                     | 32.02                   |
| Female                 | 66.94                     | 31.53                   |

Overall, youth have higher grade expectations in math and English than their actual performance in both courses. Average expected score for math is 66.42 contrasted with an average actual score of 31.59. Similarly, the average expected score for English is 67.06 contrasted with an actual average score of 32.02. Nevertheless, youth who set higher expectations score higher than those who set lower expectations in their math and English courses.

### In-school Behavior

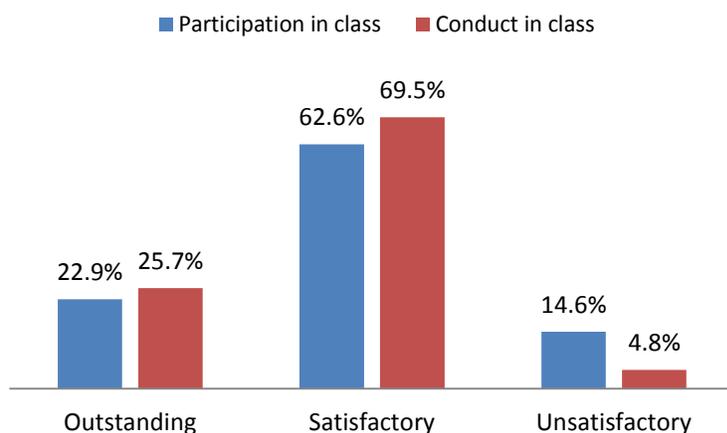
As part of their assessment of students’ academic performance, JHS teachers in Ghana rate students’ overall in-school behavior. Data were collected from teachers on their perceptions of students’ behaviors, including level of participation in class, conduct in class, and attention to instructions. These behavioral assessments—in combination with students’ academic grades—are included in students’ end-of-term report cards. Data show most youth exhibited positive school behavior (Table 7.2).

**Table 7.2. Teachers’ assessment of in-school behavior**

| Behavior                             | Frequency | Valid % |
|--------------------------------------|-----------|---------|
| Student follows teacher’s directions |           |         |
| Always                               | 2649      | 42.7    |
| Sometimes                            | 3375      | 45.4    |
| Never                                | 179       | 2.9     |
| Student’s conduct in class           |           |         |
| Outstanding                          | 1595      | 25.7    |
| Satisfactory                         | 4309      | 69.5    |
| Poor                                 | 298       | 4.8     |
| Student class participation in class |           |         |
| Outstanding                          | 1419      | 22.9    |
| Satisfactory                         | 3880      | 61.6    |
| Unsatisfactory                       | 904       | 14.6    |

Participation was satisfactory for the majority of youth (62%) and outstanding (22.9%) or poor (14.6%) for smaller proportions (Figure 7.5). Similarly, conduct was satisfactory for the majority of students (69.5%) and outstanding (25.7%) or poor (4.8%) for smaller numbers of students.

**Figure 7.5. In-school behavior**



### Summary

No measure of future orientation is significantly associated with academic performance (i.e., math and English grades) except students' plans to attend tertiary education. The prospect of advancing to university is a strong motivating factor for Ghanaian youth to study hard at earlier stages of their education. This is confirmed by another finding from the baseline survey that shows the more students expect to advance in education, the more time they spend on their school work after normal school hours. The implication of this finding is an increased demand for university education in Ghana, which already has spurred the exponential increase in the number of private universities from two in 1992 to more than two dozen in 2012. However, while increased capacity of tertiary institutions makes it possible for more youth to progress to higher education, a large proportion of youth still may be unable to attend either because of poor academic performance or inability to afford the tuition.

Results also reveal that students obtain only about half the scores they expect in their math and English classes, but the data does not allow us to explicate the wide discrepancy in the expected and actual scores. The youth clearly did not base their grade expectations on current abilities, but for some youth, setting high (perhaps unrealistic) expectations drives them to work harder toward the expected grade. Indeed, proponents of goal-setting theory posit that setting higher goals may motivate one to use existing and untapped abilities (Locke & Latham, 2006). Such abilities may come in the form of spending more out-of-school time or weekend hours studying and doing homework, or joining a study group. In the long term, consistent mismatch between ability and goals could lead to discouragement as it becomes harder to achieve high expectations. After follow-up data collection, we will analyze how academic expectations affect students' abilities to perform.

Other major findings from this chapter include the following:

- Although the association between future orientation and academic performance is inconsistent, there are more positive associations with math than English.
- Generally, youth who are more future oriented do not save more than youth who are less future oriented. In addition to having a well-planned experimental design for this project, our finding of no association between saving and future orientation at baseline may allow us

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to draw stronger conclusions about whether and how the provision of savings opportunities for youth impacts or does not impact future orientation.

- Male parents tend to have higher expectations for their children's education than female parents.
- Parents' expectations of their children's education are not significantly different from their children's own expectations.
- Youth's academic expectations are associated strongly with math and English scores.
- Overall, youth perform worse in math and English than they expect.

## Chapter 8: Key Findings and Implications for Research in the Ghana YouthSave Experiment

The baseline survey included questions about demographics, education, health, financial capability, asset ownership, living conditions, and future aspirations and expectations. The parent or guardian questionnaire included questions on household information, education, outlook and expectations, health, and financial well-being. This final chapter reviews key findings from the YouthSave Ghana Experiment baseline survey and discusses implications for future research.

### Characteristics of YouthSave Ghana Experiment Youth, Parents or Guardians, and Households

#### Findings

Data from the baseline survey indicate the average age of youth in the Ghana Experiment is 15. Because the Ghana Experiment is a school-based intervention, all youth are in school and evenly distributed across grade level 6 (36%), JHS1 (32.2%), and JHS2 (31.8%). Youth come from eight different regions, 42 districts, and 101 public and private schools throughout Ghana. Although the sample is 51% girls, variation in gender exists within grade level and region of residence. Although the distribution of youth by grade level is almost equal, variation exists by gender and within region of residence.

The average age of parents or guardians is 46. Seventy percent are female, and 72% are married. Most parents (43%) have a JHS education, but 26% have no formal education. The majority (77%) are self-employed, and only 13% are formally employed. Among those who are employed, common types of work include shop and market workers (41%), farmers (15%), and teachers (12%).

Households vary in terms of drinking water source, toilet facility, type of dwelling, and source of energy for cooking. Main construction materials used for the houses' outer walls, roof, and floor varies little.

Household appliances are the most commonly owned asset among Ghana Experiment households. Ninety-eight percent of households own at least one type of appliance, but only 35% own land. The most common appliance is a cellular phone (92%), followed by radios (87%), televisions (72%), electric irons (63%), and refrigerators (50%).

YouthSave aims at improving financial inclusion and well-being of low-income youth, and data from the baseline survey indicate the Ghana Experiment sample is low-income. For instance, the average monthly income of households (approximately USD 135) is lower than Ghana's estimated 2011 GDP per capita purchasing power parity of USD 258 per month (CIA, n.d.). Other characteristics suggest the Ghana Experiment population has lower socioeconomic status than the general Ghanaian population. Among parents or guardians, only 9% have postsecondary education or higher contrasted with 14% of the general population (Ghana Statistical Service, 2008). A higher percentage of parents or guardians (41%) are shop and market workers contrasted with only 13% of the general population (Ghana Statistical Service, 2008). Conversely, a lower percentage of parents

or guardians (13%) are employed in the formal sector contrasted with 18% of the general population (Ghana Statistical Service, 2008).

### **Implications for Future Research**

Next steps will examine potential influences of youth demographic and household characteristics on YouthSave outcomes. A primary question is as follows: How do youth and household characteristics influence uptake of savings accounts and savings outcomes in the YouthSave Ghana Experiment? Multivariate analysis of youth and household characteristics will be conducted to determine which youth and household characteristics have significant effects on saving and other related outcomes. The data also raise potential questions on how youth and household characteristics may affect the impact of a savings intervention such as YouthSave on other youth development outcomes. Analysis will investigate whether individual or household characteristics buffer the potential relationship between participation in the YouthSave project and a range of youth development outcomes.

## **Youth Financial Capability**

### **Findings**

Baseline data indicate youth in the YouthSave Ghana Experiment regularly set aside money for future use, but they do so in small amounts and for near-term purposes (e.g., school supplies or personal care items). Youth generally do not associate setting aside money with achieving a long-term goal, and very few use formal financial services. Less than half say they usually or always follow a plan for how to use their money. However, youth in the study have very favorable attitudes about using banks to save money, most say that they manage their money well, and most have been exposed to savings-focused financial education. Thus, youth seem well primed to respond to new opportunities to access and use formal financial services to save.

### **Implications for Future Research**

An important research question to explore going forward is whether youth in the treatment group shift from setting money aside for short-term needs to doing so for long-term, goal-oriented purposes. It will also be important to understand the nature and timeline of youth's goals associated with their saving behaviors, such as whether they save to maintain their attendance in SHS or have longer term goals in mind such as paying for trade school or college. In addition, it will be important to examine sub-group differences—for example, between youth with and without earned income—that may help explain variation in saving behaviors. Finally, other differences among youth should be examined, such as differences by gender, income, or region of residence.

## **Youth Education**

### **Findings**

Baseline data indicate that participants' academic performance is only slightly better than that of the typical Ghanaian youth. The majority of participants (61%) scored below-average in math and English. While this performance is generally low, it is more promising than the national trend, which shows that over 90% of youth score below 50% in English and math. Males have a slight edge over females in academic performance, which may be because girls are more preoccupied with chores during out-of-school hours, resulting in less time for homework and preparation for school.

One striking finding of the baseline survey is that nearly half of participants do not see a connection between school and success in life, although 70% would like to complete tertiary education. This suggests there are other reasons—such as parental involvement—for the seemingly inconsistent result. Overall, the majority of Ghanaian parents are involved in their children’s education, a finding consistent with results of prior studies by Nyarko (2011) and Pryor and Ampiah (2003). The level of involvement tends to be stronger when parents are married.

Findings in this report also reveal that only one measure of parental involvement is significantly and positively associated with academic performance. The more a parent talks to the child about what he or she has learned in school, the better the child’s academic performance. The mix of significant and non-significant findings is not surprising because previous studies find mixed results in the relationship between parental involvement and academic performance. What is surprising is that in some cases, children perform somewhat better when parents stayed uninvolved. Behavioral factors that mediate the association between parental involvement and performance in school may not have been controlled for in this analysis. Izzo and colleagues (1999) speculate that non-significant and sometimes negative results are due to parents becoming involved only when their children are not performing well in school.

### **Implications for Future Research**

Overall, baseline data has provided insight into Ghanaian students’ academic performance and their parents’ involvement in their education. We expect post-intervention data to provide additional insight into whether the offering of a youth savings account has any impact on these measures. An important research question to explore is whether youth in the treatment group demonstrate improvement in academic performance and other educational outcomes when compared to youth in the control group. We also will be able to examine whether parental involvement continues to increase—as suggested by Nyarko (2011)—and whether the offering and take-up of a youth savings account could impact the level of parental involvement.

## **Youth Health**

### **Findings**

Most youth (95%) describe their health as good or better, and most (90%) receive support, encouragement, advice, and guidance from their parents or guardians sometimes or more frequently. However, only 52% discuss sensitive issues with parents or guardians sometimes or more frequently. Sixty-five percent of youth report frequent parental monitoring of activities and friends. Most youth (>80%) have negative attitudes toward sex at an early age and positive attitudes toward HIV prevention. About 54% of youth believe compliance with friends and peers is important for young people. Statistically significant differences in health based on gender, grade level, and financial behaviors of youth may disappear if other variables that have been shown to affect youth health outcomes are controlled for.

### **Implications for Future Research**

Future research will examine potential influences of youth health factors on different YouthSave outcomes. Multivariate analyses will allow us to use the data collected on youth health to better understand other youth well-being outcomes, including educational, economic, financial capability, and psychosocial. Another important research question to examine is the role of financial assets on

youth health outcomes. Future research will explore the direct and indirect effects of financial assets on health. These findings may provide empirical support for the potential of a youth-focused savings program as a health intervention.

## **Youth Future Orientation**

### **Findings**

Overall, participants are oriented toward the future, which suggests they have hopes and aspirations. However, this report finds that hopes and aspirations are not associated consistently with high academic performance. As noted above, nearly half of participants do not see a connection between school and success in life, but 70% would like to complete tertiary education.

### **Implications for Future Research**

Two waves of data collection will allow us to test potential causal relationships between future orientation and academic performance. We also will investigate whether participation in YouthSave leads to positive future orientation of youth. Because the YouthSave Ghana Experiment dataset includes information on other youth and family characteristics, future studies will focus on understanding different predictors of future orientation and academic expectation of youth.

## **Toward the Future: Impact Assessment**

Evaluation of YouthSave Ghana Experiment data will provide rigorous and high-quality evidence. The key feature of the research design is its strong internal validity (Shadish, Cook, & Campbell, 2002), which will allow us to make causal inferences. The cluster randomized design will increase confidence in drawing causal relationships (i.e., whether participation in YouthSave leads to better youth outcomes). Unlike in quasi-experimental or observational studies, the randomization in the YouthSave Ghana Experiment balances the observed and unobserved data between treatment and control groups and makes treatment assignment independent of the outcomes under the treatment and control conditions (Rubin, 2008).

The randomized design also addresses methodological weaknesses common in studies evaluating the impacts of savings programs on youth development outcomes. Earlier studies primarily have used individual case studies, quasi-experimental designs that lack either a control group or pretest (i.e., baseline) observations on the outcome, or quasi-experimental designs that use both control groups and pretest without random assignment. In those studies, drawing causal inferences or testing causal relationships is misguided, and the quality of evidence is weak.

This report outlines 14 hypotheses based on theoretical models and previous research that guide researchers' thinking about the impact of YouthSave on youth development. The strong research design will allow investigation of this potential impact. YouthSave is innovative in its focus on savings by lower income youth and its use of survey instruments created to measure youth development indicators that go beyond financial outcomes. Follow-up data collection scheduled for 2014 will be critical for determining the impact of YouthSave on savings, asset accumulation, and a wide range of social, health, financial, and educational outcomes.

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The YouthSave Ghana Experiment provides a rich source of information about program or institutional characteristics that promote financial inclusion and spur positive savings performance (Beverly et al., 2008; Sherraden & Barr, 2005). YouthSave provides information about and access to a savings account and security. These institutional characteristics may inform future programs and policies designed to promote financial inclusion and encourage positive youth development.

As the first large-scale test of youth financial inclusion in a developing country, findings from the YouthSave Ghana Experiment offer numerous policy implications for public and private institutions in the developing world. Follow-up data collection will allow us to examine all potential causal relationships we hypothesize in this baseline report. The randomized design increases the quality of evidence that can be used to inform, develop, and support policies and programs designed to promote financial inclusion and increase positive youth development.



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