

Boys & Girls Clubs of Central Florida

A Safe Place for Our Youth to Realize Their Creativity and Aspire to Become Productive, Caring and Successful Adults as They Grow Up



**This Report Measures the Economic Impact of the
Boys & Girls Clubs of Central Florida**

February 2014

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Executive Summary

The Boys & Girls Clubs of Central Florida serve thousands of youth and their families. Every day, these youth are able to make friends and engage in programming that ranges from educational to recreational. Boys & Girls Clubs provide proper supervision and protect them from negative influences and encourage them to do their best for a better future. In some families, a parent would have to stay home from work to provide such supervision, but this would reduce the family's earnings and economic wellbeing. The Clubs are an important social asset serving such working families.

Youth and their families are not the only beneficiaries of the Clubs; the regional community enjoys an important advantage by having these youths positively engaged and away from trouble and mischief after school.

While it is easy to appreciate the work of the Clubs in qualitative, emotional or social terms, it requires additional analysis to understand the monetary and economic value of these institutions. This report provides a comprehensive account of the many ways in which the Boys & Girls Clubs create economic value in Central Florida. Many of these impacts include "positive externalities."

As non-profit organizations, the Clubs directly and indirectly serve various community stakeholders. There are three primary beneficiaries of these services: Club members, parents, and their communities.

Club members receive the highest benefit of all from their participation in the Clubs. When compared with their peers who do not attend the Clubs, they are more likely to graduate from high school and less likely to engage in risky behaviors resulting in juvenile arrest, teenage motherhood, or substance abuse. The exact mechanisms by which Club members outperform their peers are uncertain. The consistency of the trend suggests that membership in the Clubs may play a vital role in explaining the behavior patterns of the group. By having access to a safe and nurturing environment, these youth avoid negative influences. Moreover, special services provide additional support to Club members. For instance, tutoring programs give Club members a competitive edge in school, which can generate long-term academic success.

Club members are not the only group who receive benefits from their participation, as others benefit as well. Parents of Club members are able to be more productive since they do not have to supervise their children after school. Many parents are able to work or pursue further education as a result of the services provided by the Clubs.

Finally, the larger community also receives significant benefits from Boys & Girls Club services. It is well known that juvenile crime peaks in the hours immediately following the end of the school day. Clubs provide the community with constructive after-school options that go beyond recreation to promote education, healthy living and good citizenship.

The Clubs' services have real economic value. Using data collected through stakeholder surveys and a review of publicly available information, this report places a monetary value on these benefits. The value of all these economic benefits is simply tremendous. This report focused on the following mechanisms and services through which Boys & Girls Clubs in Central Florida create economic value in the state:

- Impact of better education through higher graduation rates and improved lifetime earnings among youth who attend the Clubs on a regular basis.
- Lower teen pregnancy and motherhood rates which create economic savings.
- Reduction in youth crime rates and related savings for the community.
- Deterring students from pursuing self-destructive behaviors such as smoking, drinking alcohol, and other substance abuse.
- Improved lifestyle habits which reduce obesity and related diseases which could lower productivity and increase the likelihood of other chronic diseases.
- The ability of Club programs to help parents work and attend school in order to upgrade their skills.
- Strengthening and promoting volunteerism in the region.
- Total employment and income impact of the Clubs through their annual expenditures, capital spending, and work of their volunteers.

For nearly all of these benefits, a monetary value was calculated. A summary of the analysis is presented below and categorized by the nature of the economic impact. Sections Two and Three of this report present the methodology developed and data used to calculate these values. Section Four provides additional statistics on qualitative questions asked in Club member and parent surveys.

An Overview of Economic Impact Areas and Their Multipliers

One way to illustrate the impact of every dollar spent by Boys & Girls Clubs in Central Florida is to compare the aggregate budget of the Boys & Girls Clubs with the positive economic impacts that it

generates in the community. This framework can allow for a cost-benefit analysis that cogently illustrates the tremendous value of the Clubs within the region based on the findings of this study.

For this calculation, we will consider the economic impact on stakeholders including Club members, parents, and the community. The six areas considered include the impact of the Clubs on increased high school graduation rates, averted teenage pregnancies and births, reduced juvenile criminal activity, reduction in cost of underage drinking, improved prospects for working parents, and regional output stimulus through productivity of regular and capital budget and volunteer labor.

MULTIPLIER: Lifetime Gain from High School Graduation



Boys & Girls Clubs provide a variety of academic support and enrichment services that help students succeed in school. Clubs provide homework assistance and tutoring. Academic enrichment is also integrated throughout the Club during “high yield activities,” which are fun activities with a built-in learning goal. Moreover, beyond the direct academic enrichment provided by the Clubs, Clubs also provide members with positive role models and a nurturing environment that can help them improve decision-making skills. Such skills can help make sure that Club members make the right choices when it comes to their academic future.

Studies show that students who drop out of high school end up earning far less throughout the rest of their lives relative to their peers who attain a terminal degree. Similar studies indicate that those who drop out at some point are less likely to complete college. Specifically, only 5% of those who ever drop out managed to receive a bachelor’s degree, as opposed to 38% of those who never dropped out of high school.

The economic cost of dropping out of school is not limited to the inability to earn a high-income job. High school dropouts face much higher rates of unemployment, live shorter lives, and depend more on government assistance than those who complete high school.

In a comprehensive study calculating the cost of dropping out of high school, one has to include all sources of differential costs stemming from lower pay, higher unemployment, shorter life expectancy, additional medical expenses, and government assistance. Finding an accurate basis requires estimating reliable dropout rates, both at the state and county levels. Unfortunately, our existing database and sampling method does not yield this necessary information. **We must therefore concentrate on a partial—nevertheless instructive—calculation of the cost of not completing high school.**

Given the pivotal role that the Clubs can have on the academic success of their members, this study quantifies the monetary benefit of such services. The first step in such a calculation is to compare the academic success of Club members with the general population across the region.

Percentage of students passing FCAT Adjusted for ethnicity in Central Florida	Percentage of Seniors Attending Clubs Passing FCAT	Additional Number of Students Passing FCAT in Boys & Girls Clubs of Central Florida	Total Annual Increase in Annual Wage and Salary	Total Work life Increase In Earnings
73%	95%	49	\$518,616	\$14,823,284

Sources: Survey of Members of Boys & Girls Clubs of Central Florida, US Census, Florida Department of Education, 2013 Administrative report of the Boys & Girls Clubs of Central Florida, and authors' calculations.

MULTIPLIER: Lifetime Savings from Prevented Teen Pregnancies and Births



Boys & Girls Clubs in Central Florida play a pivotal role in helping youth avoid the serious consequences they will face if they become teenage parents. By providing youth a nurturing environment, life skills programming, positive peer support and caring role models, the Clubs help youth develop a sense of

responsibility for their lives. Such support can help an at-risk teenager develop a sense of better decision-making skills that can help them avoid risky behaviors that can lead to teenage parenthood.

According to recent studies, teen childbearing in the United States costs taxpayers at least \$9.1 billion annually at the federal, state, and local levels. On the national level, these costs include \$1.9 billion for increased public sector healthcare costs, \$2.3 billion for increased child welfare costs, \$2.1 billion for increased costs for state prison systems, and \$2.9 billion in lost revenue due to lower taxes paid by the children of teen mothers over their adult lifetimes.

In addition to the costs of teenage pregnancy that burden the taxpayers, it is important to consider the ways in which teenage parenthood changes the future life and prospects of the parent and the child. Teenage parents are less likely to complete high school and more likely to depend on welfare. The children of teen mothers are more likely to perform poorly in school and are at a greater risk of abuse and neglect. The sons of teen mothers are 13% more likely to end up in prison and are more likely to commit more violent crimes, and the daughters of teen mothers are more likely to become teen mothers themselves.

Female Club members between the ages of 15 and 19 who attend the Clubs	Rate of teen birth for the Central Florida (per 1,000)	Rate of teen childbirth among female Club members aged 15 to 19 (per 1,000)	Total number of teen childbirths averted	Estimated long-term cost saving for society and taxpayer for each teen birth averted	Total lifetime saving for taxpayer and society due to positive influence of Clubs
438	23.7	4.6	9 female teens saved	\$131,326	\$1,181,934

We consider the fact that the Clubs generated a positive economic impact of \$1.18 million through savings to taxpayers and society for every teenager in this most recent year who waited until they were older to have children. Compared with the annual budget of Boys & Girls Clubs in Central Florida, this generates a multiplier of 0.14; in other words, for every \$1 spent by the Clubs, \$0.14 or a saving of 14% is created for taxpayers and the society on costs they would have incurred for teenage pregnancies and

births on a yearly basis. It should be mentioned that teenage pregnancy and teen childbirth differ considerably across various ethnicities. We have not adjusted the rate of teen motherhood for the ethnic makeup of the Club members; therefore, the savings calculated is an underestimation of the actual savings that have taken place.

MULTIPLIER: Criminal Justice System Savings



Club facilities provide a safe haven for youth to escape the streets, meet with friends, and be part of a positive peer group. Club programs teach life skills, conflict resolution and focus on the development of character. Perhaps most important of all, caring adult staff and volunteers at the Club serve as role models, giving youth someone to turn to when they need help and guidance.

When a crime is committed, society and the victims pay a very high price through the cost of the harm itself and the costs to the criminal justice system that has to prosecute and manage the criminals. Juvenile crime in particular burdens the criminal justice system due to the fact that its prosecution and management have a more rehabilitative focus. As such, programs that can prevent such crime are creating a positive economic benefit through the cost-savings that they create for society.

Those who attend the Boys & Girls Clubs are in a safe environment after school, away from temptations that can lead to criminal activity. Moreover, the greatest proportion of juvenile crime has been found to occur between 3:00 and 4:00PM. These are hours during which Boys & Girls Clubs in Central Florida provide a safe haven for youths who want to be secure during this time of the day.

The economic benefit of reduced juvenile crime amongst Club members is presented below:

Total number of juveniles saved from arrest	Estimated annual expected cost of juvenile crimes per person arrested in the Central Florida	Total saving per year for the State of Florida due to impact of the Boys & Girls Clubs of Central Florida
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185	\$73130	\$13,529,050
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Source: Authors' calculation, FBI Crime Reports, Bureau of Justice Statistics, Florida Department of Law Enforcement

The Boys & Girls Clubs reduce juvenile crime rates by providing Club members with a safe, nurturing environment and access to positive role models. The lower arrest rates among Club members generates a savings of \$13.53 million per year for taxpayers who support the criminal justice system. When compared to the annual budget of the Clubs, this generates a multiplier of 1.62; in other words, for every \$1 spent by Boys & Girls Clubs in Central Florida, taxpayers save \$1.62 on expenditures for the criminal justice system annually.

MULTIPLIER: Underage Drinking Reduction Benefits



Boys & Girls Clubs use a team approach involving staff, peer leaders, parents and community volunteers to help youth develop resistance and refusal skills to avoid the use of alcohol, tobacco and other drugs. This team approach assures that youth have a support network to help them make responsible decisions and resist negative peer pressure.

We show that the approximate cost of underage drinking was about \$3.71 billion in the State of Florida in 2012, or \$2,237 per youth. Our argument is that the average cost of a drinking problem per Club member in that age category is one third of this amount, or \$745 per person, in the age group of 10 to 20 years old. This suggests a savings of \$1,492 per youth 10 to 20 years of age as the positive economic impact of the Clubs in the region. The details of this estimated cost is presented in the following table.

Cost of underage drinking per youth aged 10 to 20 per year in the state of Florida in 2012	Cost of underage drinking based on our findings per Club member per year in the same age group	Savings per youth of the same age category per year due to impact of Boys & Girls Clubs	Total number of Club members between ages 10 to 19 attending clubs at least three times a week	Total savings due to better youth behavior and habits regarding underage drinking among Club members
\$2237	\$745	\$1,492	9,134	\$13,627,928

Our calculation shows that for every dollar spent on the Boys & Girls Clubs in Central Florida, the community receives \$1.60 back in terms of the lower cost of underage drinking. This study also indicates that there are considerable savings in the reduction of tobacco and other substance abuse.

MULTIPLIER: Parental Earnings



During the school day, parents are free to work or pursue higher education. However, when the school bell rings and children leave the classroom, parents face a difficult and heart-wrenching decision: to continue working and leave their children with potentially inadequate supervision, or to stop working and reduce their family’s earnings. Both outcomes have their own dangers; however, the Boys & Girls Clubs help parents to avoid this difficult dilemma. Boys & Girls Clubs in Central Florida allow parents to continue being productive in the afternoon while having the satisfaction of knowing that their children are adequately supervised.

The vast majority of parents whose children attend the Boys & Girls Clubs are working parents in the community. Without the Boys & Girls Clubs to supervise their children after school, many would have to reduce their own work and income. This loss of income hurts the parent and the community that loses their productivity.

The economic impact of helping these parents to continue working by providing low-cost, high-quality after-school supervision for their children is presented below:

Total number of families who have children going to the Boys & Girls Clubs in the Central Florida	Percentage of parents who strongly believe that Boys & Girls Clubs in Central Florida enable them to keep their job	Total number of parents who are able to work due to the Boys & Girls Clubs in Central Florida and have full or part-time jobs	Average annual salary of those keeping their jobs due to Boys & Girls Clubs in	Total annual earnings generated by parents due Boys & Girls Clubs in Central Florida
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	and are working full or part-time			
8,433	45.8%	$8,433 \times 0.458 =$ 3,862	\$23,315	\$90,042,530

Through a survey of parents, the study determined that \$90.04 million of additional annual earnings are generated for the parents of Club members who can continue working. Compared with the annual budget of the Clubs, this generates a multiplier of 10.56; in other words, for every \$1 spent by the Clubs, \$10.56 of earnings are generated by parents who can keep their jobs due to the services of the Club.

MULTIPLIER: Region-wide Output



The economic impact of social interventions resulting from the services provided by Boys & Girls Clubs in Central Florida represents a broad category of economic value created by the organization. Such social interventions are an important aspect of the value created by a nonprofit. However, just like any other organization providing services or producing goods, the Clubs create tremendous business activity through their operating expenditures in the region that can be measured in terms of output, employment, and tax revenue.

We used the regular expenditure of the Clubs for the basis of the calculation of our expenditure multiplier in this segment of the study.

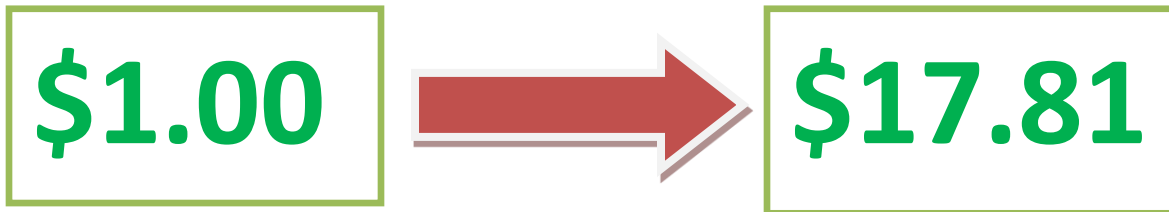
Putting all the impacts of regular budgetary, capital expenditures, and volunteers’ work together, we estimated a total economic impact of \$18, 363,942 for the region. Comparing this with the regular annual expenditures of the Clubs, we calculated a multiplier of 2.15 times only for this portion of the Clubs’ economic impact for the region.

Our research also looked into the economic impact of volunteerism and goes further than many similar studies to attempt to estimate the output, job creation, and tax impact of volunteers' work. It is true that volunteers do not receive monetary compensation for their work and, as such, do not pay any direct tax from financial compensation that they do not receive.

We gathered information about various participating Clubs which showed that in total, there are an impressive total number of 2713 volunteers which include both groups and individuals throughout the year. They include event volunteers who may help the clubs at one-day events such as hosting games at Education Day or building a playground. Individuals complete background checks and help in the Clubs long term with tutoring, sports, art and mentoring. Groups help with one-time projects varying from painting to kickball. There are 158 board members who dedicate a total of 9,480 hours (based on a conservative estimate of their time throughout the year) to overseeing the Clubs' activities. This level of cooperation and assistance by individual and groups is unique and remarkable. This shows the high level of community dedication and commitment to the Boys & Girls Clubs throughout the Central Florida region.

MULTIPLIER: Total Economic Impact

Taken separately, each of these economic impacts is nevertheless impressive. But when the economic impacts are summed together, the results are all the more impressive.



For every \$1 spent by the Clubs, Boys & Girls Clubs in Central Florida generate \$17.81 (nearly \$18) of positive economic impacts for the community. This tremendous rate of return is a testament to the vital role the Clubs play in shaping the lives and futures of Club members and their parents.

The important issue is to translate this overall calculation of a combined multiplier into the overall monetary impact of the Boys & Girls Clubs in Central Florida. Remembering that our total annual expenditure was \$8.53 million, a multiplier of 17.81 indicates an annual monetary impact of nearly \$152 million by the Boys & Girls Clubs in terms of income generations and savings to the families and taxpayers in Central Florida as a whole. It is important to note that all of this impact is generated

every year, most of it is brought back to the economy within a year, and a proportion of it is realized over the lifetime of the members of Boys & Girls Clubs.

Important but Unquantifiable Impacts of Boys & Girls Clubs of Central Florida

In addition to the variables for which we were able to calculate specific monetary values, there are several areas where dollar estimates of the impacts were not calculated, but for which there are significant economic implications.

Many people in the United States, including youth, suffer from a lack of exercise and poor nutritional habits which can often lead to obesity or chronic conditions such as diabetes. These negative lifestyle choices have severe health consequences that reduce one’s length and quality of life.

Data on childhood obesity is just as troubling. A 2005 research brief by Thomson Medstat Research found that the national cost of childhood obesity in terms of medical costs was \$11 billion for children with private insurance and \$3 billion for those with Medicaid. On a per capita basis, this means that the cost is \$3,700 per obese child on Medicaid and \$6,700 per obese child with private insurance.

Accounting for inflation, the national cost for those with private insurance is \$12.75 billion or \$7,767 per capita in 2010. Similarly, in current dollars, the cost is \$3.48 billion or \$4,289 per capita for those with Medicaid.

Nutrition and physical exercise can help youth remain healthy. Many youth across the country who have poor nutrition and lack sufficient physical activity are overweight and obese. As a result of this, they face serious, costly medical problems. Boys & Girls Clubs encourage physical exercise and good nutrition through their routine programs. The student survey found that a significant proportion of students report that through exercise in Clubs they managed to maintain or reach healthy weight. The following table shows the details of our estimation.

Total number of registered Club members	Percentage of Club members who have maintained or reached a healthy weight through participation in the physical activities during the last six months in Boys & Girls Clubs in Central Florida	Estimated number of Club members who have maintained or reached a healthy weight through participation in physical activities at the Clubs
12974	65.2%	8459

It is important to note that this study shows that nearly 7 out of 10 of the registered Club members said that they managed to maintain or reach a healthy weight as a result of participating in physical activities while they are in the Club environment. This is a tremendous achievement that directly contributes to setting and strengthening the foundation of healthy living among the members of the Boys & Girls Clubs at young age.

The findings of this study support some of the findings that have been obtained from a recent study of the Boys & Girls Clubs of America on the impact of its Triple Play Program.¹

Another benefit for which a specific monetary value could not be found is the impact of the Club on parents’ educational attainment. Some parents try to upgrade their skills through formal programs while their children are in the after school program. Such activities can allow the parents to become more productive and eventually earn more money in better professional positions. Due to a lack of published data, a specific monetary value could not be placed on this benefit; the table below presents data on the number of parents who are upgrading their skills as a result of the Boys & Girls Clubs.

Total number of families who have children going to the Boys & Girls clubs in Central Florida	Proportion of families with at least one parent able to pursue further education or training due to assistance from Boys & Girls Clubs of Central Florida	Total number of parents who have upgraded their skills due to the services of Boys & Girls Clubs in
8,433	31.5%	2,656

Although an exact monetary figure could not be calculated, intuition leads one to believe that helping 2,656 adults upgrade their skills will result in a long-term increase in earnings across the community. Such increased earnings not only help these families live more economically secure lives, but they also improve the state’s tax base. Upgrading skills have significant economic impacts on the lives of families that Boys & Girls Clubs serve. Retraining and acquiring new skills are some of the most important steps to reduce unemployment, particularly structural unemployment in many parts of the state. **This study shows that Boys & Girls Clubs in Central Florida contribute towards the creation of healthy people, a productive workforce and a lower cost of healthcare nationwide.**

¹ For more information see “Promoting Healthy Lifestyles: The Impact of the Boys & Girls Clubs of America Triple Play Program on Healthy Eating, Exercise Patterns, and Developmental Outcome.” 2009, Philadelphia, PA.



Qualitative Findings from Student and Parent Surveys

Although the primary purpose of the surveys distributed to parents and students was to determine the economic impact of the Clubs, both surveys included more general questions on topics that may be of interest to Club management and stakeholders. Section Four of the study presents this data in detail.

The Club member surveys indicate that students are satisfied with their experience at the Clubs.

Moreover, it is clear that they are benefitting from their participation. A brief summary of some of the key findings are as follows:

- Nearly four out of ten members (36.3%) believe that the programs always help with their needs while an additional third (33.9%) believe this to be true most of the time. Only 5.2% believed that the Clubs never help them with their needs.
- A very strong majority (81.1%) like the programs in which they participate at least most of the time. An additional (17.5%) like participating in the programs sometimes while only 1.4% never enjoy their participation.
- An overwhelming majority of participants (77.9%) think that participation in sports and physical activities helps them to become physically more fit.
- Some 65.2% of respondents believe that through participating in the Clubs' physical activities, they reached or maintained a healthy weight.
- 76.1% of respondents spend more than 30 minutes on physical activities when they are in the Club. Some 42.8% (roughly half of the members) spend an hour or more doing physical activities.
- The vast majority of Club members have strong school attendance records. 90.5% of respondents indicated that they anticipate missing 10 days or less of school. 72.0% miss school less than 5 days during the year.
- A vast majority of respondents (68.6%) believe that their regular attendance at the Clubs accounts for their good attendance records in day school.
- 64.9% indicated that they would always recommend the Club to their friends while an additional 29.0% would recommend the program sometimes. Only 6.2% of Club members would never recommend the program to their friends. As such, it would seem that over nine out of ten Club members are generally satisfied with the services they receive at Boys & Girls Clubs in Central Florida.

- 70.1% of the responding students indicated that they will attend a four-year university after graduating from high school. 6.9% said that they would get a job and attend college. 3.4% said that they will attend trade or technical school. Only 9.3% did not know what they will be doing when they graduate from high school.

The results of the survey distributed to parents are similarly encouraging. Parents are generally pleased with the Clubs and it seems that they serve their needs well. A brief summary of the findings are as follows:

- An overwhelming majority of parents (86.2%) indicate that their family’s primary source of income is a job or their own business. This demonstrates that the Clubs predominantly serve working parents and families who need safe supervision of their children during after-school hours.
- A vast majority of children (81.1%) receive free snack and supper at the Clubs. This is an important contribution to the family and it helps them to feed their children.
- 79.1% of Club members receive free lunches when they are in school. This data indicates that Boys & Girls Clubs in Central Florida provide a great contribution to serving an economically disadvantaged group.
- By far, the greatest challenge for all these families is the cost of care. Some 48.1% of families served by the Clubs consider the cost of care as the greatest challenge they face. As such, programs such as the Boys & Girls Clubs that provide high-quality cost-effective services are critical to the community. Summer care and having a flexible schedule are the second most important challenge that parents face in taking care of their school-aged children. These issues have a direct impact on the ability of parents to provide for the economic needs of their families.
- Over three out of four parents (75.5%) report that they need the Clubs since they are a “safe place” for their children when they are at work. This response shows that this asset allows parents to be productive members of the community by allowing them to attend to their work. Without the after-school program, such parents would likely have to work less; this would be bad for families since they would lose income, and this would be bad for the community since it loses productive workers.
- Nine out of ten parents (90.6%) said that the Clubs their children go to is the only program to which they can send their children.

- An overwhelming majority of parents (92.8%) agree or strongly agree that their children are in a safe environment when they are attending the Boys & Girls Clubs. This level of unanimity in the response is particularly noteworthy and shows the extent to which parents have faith in the safety of the Clubs. There are very few areas in which parents have such a high level of unanimous agreement. Club management should be proud of this outcome.
- Self-confidence is another important key to happiness. Yet again, Club attendance has made children more confident in themselves according to parents. 84.0% of parents agree or strongly agree that their children have become more confident in themselves since going to the Clubs.
- The majority of parents (63.8%) indicate that their children are more interested in volunteer work since participating in the Boys & Girls Clubs.
- 79.3% of parents have observed their children showing them completed homework more often since attending the Boys & Girls Clubs.
- There is also broad consensus among parents that their children enjoy going to school more since attending the Boys & Girls Clubs. 79.2% of parents agree or strongly agree that they have seen such improvement.
- A majority of responding parents (66.1%) agrees or strongly agrees that their children made better food choices. Such decision-making skills are critical in ensuring that youth eat nutritious food that is conducive to their long-term health.
- The majority of parent respondents (73.9%) agree or strongly agree that their children have shown more interest in regular physical exercise since attending the Boys & Girls Clubs.
- 68.8% of parents agreed or strongly agreed that their children spend an hour or longer doing exercise during a day when they are in the Club environment.
- The vast majority of parents (90.7%) agrees or strongly agrees that their child attends school regularly and has good attendance. This data is very promising and shows that many children in the program are attending school regularly and not falling behind in their classes.
- The vast majority of parent respondents (87.9%) agrees or strongly agrees that their children believe they will attend college after graduating from high school. This data further corroborates the fact that children of these parents have high academic ambitions.

1) Scope and Structure of the Study

Success in life and growing up to be a productive member of society, attain happiness, and enjoying a good life are the results of the hard work of individuals as well as having opportunities to become productive and healthy. Investing in our children is the most certain way of constructing such societies. While many people may disagree over certain complex economic and political issues, there is little debate about the importance of human capital, healthy families, and social cohesion in bringing people together to pave the road ahead.

Despite uncertainty that from time to time prevails in our and in many other communities around the world, there is consensus about the importance of investing in the human capital of future generations. The value of human capital depends on a variety of factors including peoples' educational attainment and physical health. It is a fact that human resources can be transformed into human capital with effective inputs of education, health and moral values. The transformation of crude human resources into highly productive human resources can be explained through a process that is called human capital formation.

The tangible physical and financial capitals are effective instruments of promoting economic growth of a nation. The intangible human capital, on the other hand, is an instrument of promoting comprehensive development of the nation because human capital is directly related to human development, and when there is human development, the qualitative and quantitative progress of the nation is inevitable.

Much of the attention in the last several years and periodically from time to time has been on lack of jobs or good paying jobs for Americans. By comparison, there has been less talk about the lack of needed skills and well-trained workforce in the country. The findings of a survey of nearly 3,500 Human Resources (HR) professionals, released on March 12, 2013, showed that the top three most difficult positions to fill are scientists (88 percent), engineers (86 percent), and high-skilled technical, such as programmers (85 percent). In the labor market overall, 66 percent of organizations that are hiring full-time staff said they're having difficulty recruiting for specific job openings, up from 52 percent in 2011. Other key findings:²

² For more information see "U.S. Technology Labor Pool Stagnant Due to Skills Shortage, Study Finds" <http://www.itbusinessedge.com/blogs/from-under-the-rug/u.s.-technology-labor-pool-stagnant-due-to-skills-shortage-study-finds.html>

- Organizations in the high-tech industries are more likely than those in the finance, health, manufacturing, professional services and state or local government industries to believe that they are facing global competition for hard-to-fill jobs.
- The most common basic knowledge skill gaps are writing in English (55 percent), mathematics (38 percent), reading comprehension (31 percent) and spoken English language (29 percent). The top four applied skills gaps are critical thinking/problem solving (53 percent), professionalism/work ethic (46 percent), written communications (41 percent) and leadership (38 percent).
- Twenty-four percent of organizations have hired workers from outside the U.S., which is the same percentage as in 2011.
- Thirty percent of organizations indicated that in the last 12 months, they had made major strategic changes involving the use of technology (e.g., robotics, computerized systems, software technologies) that affected the work of employees, and 10 percent plan to do so in the next 12 months.

Our study for the Boys & Girls Clubs of Central Florida is based on the consensus that it is vitally important to invest in our children through educational institutions. However, supporting parents to look after their children and nurture them and prepare them for a productive and prosperous life is the other important aspect of finding a viable solution for helping our children to be successful in their lives.

Social mobility is a key factor in creating a prosperous future for the United States. Economic research shows that one of the most important impediments in the creation of a better and brighter future for many Americans is the lack of social mobility in many parts of our nation. This can be seen from a summary of a recent study carried out by Susan K. Urahn at al. (2012).³

This study finds that an overwhelming majority of Americans have a higher family income than their parents did. 84% of Americans have a higher income than their parents at the same age across all levels of income. It should also be said that 93% of Americans whose parents were in the bottom fifth of the income ladder and 88% of those whose parents were in the middle quintile exceeded their parents' family income.

³ Susan K. Urahn at al. (2012), Pursuing the American Dream, Economic Mobility Across Generation, Economic Mobility Project, The Pew Charitable Trusts.

The major issue is that Americans raised at the bottom and top of the family income ladder are likely to remain there as adults, a phenomenon known as **“stickiness at the ends.”** 43% of Americans raised in the bottom quintile remain stuck in the bottom as adults and 70% remain below the middle. In contrast, 40% raised in the top quintile remain at the top as adults, and 63% remain above the middle. Only 4% of those raised in the bottom quintile make it all the way to the top as adults.

This study also shows that:

- African Americans are more likely to be raised in the bottom level of income than whites.
- African Americans have a harder time exceeding their parents’ family income and wealth than whites.
- African Americans are more likely to be stuck in the bottom and more likely to fall from the middle of the family income and wealth ladders than are whites.
- Median family income and wealth is higher for whites than for blacks at all levels of the income distribution.

By international standards, the United States has an unusually low level of intergenerational mobility: our parents’ income is highly predictive of our incomes as adults. Intergenerational mobility in the United States is lower than in France, Germany, Sweden, Canada, Finland, Norway and Denmark. Among high-income countries for which comparable estimates are available, only the United Kingdom had a lower rate of mobility than the United States.⁴

The Pivotal Role of Boys & Girls Clubs

It is easily understood that the Boys & Girls Clubs provide a positive place for youth to develop healthy habits, improve their academic performance, learn conflict resolutions skills, experience the joy of volunteerism, stay away from violence, and be safe while they are away from their home and their day school. However, until a few years ago, there was not any serious attempt to take a close look at the economic impact of Boys & Girls Clubs around the country.

In 2008, the Boys & Girls Clubs of Greater Oxnard and Port Hueneme commissioned a study to be conducted by Dr. Jamshid Damooei (author of this study) to measure the economic impact of its Clubs

⁴ See OECD, (2010), Economic Policy Reforms: Going for growth, A Family Affair: Intergenerational Social Mobility Across OECD Countries

but with an eye to expand the scope of economic impacts considered beyond earlier research in Florida. This study looked at a range of economic impacts that can show the benefits of the Clubs. They included:

- Impact of income, employment, and tax generation of the Clubs through their annual administrative and capital expenditures.
- Impact of better education through the increase in high school graduation rates among youth who attend the Clubs on a regular basis.
- Economic savings generated by reduced juvenile crime rates due to the impact of Clubs' enrichment programs that enable youth to resolve conflicts and become more peaceful with their own peers and others in their communities.
- Lower teen pregnancy and teen childbirth and the economic benefits of such reductions.

This report made an attempt to provide some basic information about other tangible economic benefits that the Boys & Girls Clubs of Greater Oxnard and Port Hueneme bring to thousands of families in the region. Some but not all of these impacts were estimated in monetary values. Building further on this and other earlier research conducted by the research team of Damooei Global Research, the current study of Boys & Girls Clubs in Central Florida considers a broader range of economic impacts in the following areas:

- Impact of better education through higher graduation rates among youth who attend the Clubs on a regular basis as opposed to others who do not benefit from such services within the same socio-economic population in the same region.
- Lower teen pregnancy and motherhood rates, which create an economic benefit.
- Impact of Clubs' enrichment programs that enable youth to resolve conflicts and become more peaceful with their own peers and others in their communities. This is measured by considering reductions in youth crime rates and the savings that it generates in the community.
- Learning healthy living and its impact on reducing obesity and related diseases that lead to lower productivity and an increase in long-term chronic diseases.⁵
- Lowering the tendency to engage in substance abuse.

⁵ The study presents strong evidence for the positive impact of learning healthy habits among the Club members but could not capture it in monetary terms.

- Allowing parents to work knowing that their children are looked after in a safe place.
- The impact of Clubs' programs that allow parents to attend school in order to upgrade their skills and reach a higher level of productivity in the economy.⁶
- Total employment and income impact of the Clubs through their annual expenditures including both operational and capital budgets and strengthening and promoting volunteerism in the region.

1.1) Data Collection and Methodology

We gathered important data from Club management and relevant stakeholders, including Club members and parents. Such primary data was used throughout the study in order to understand the characteristics of those who benefit from the social interventions of the Boys & Girls Clubs in Central Florida.

We began our data collection by obtaining the latest detailed information on membership, income and expenditures of all the Clubs within the counties of Central Florida. We then developed data collection instruments which included an in-house questionnaire to be completed by the regional management of the Clubs. Questions sought to learn basic demographic details about Club members, financial and budgetary information, Club activities and resources, the volunteers who serve the Clubs, and other pertinent areas of inquiry. This information was used to inform the questions in the next set of data instruments that were created for this study: surveys that were distributed to Club members and parents.

We surveyed all the Club members who have been attending the Clubs in its various locations. This provided a census of all the available information during the conduct of our study. The surveys were administered by the staff of each Club using detailed instructions given by the principal researchers. The total number of surveys completed by the Club members and their parents were 1,218 and 864 respectively. We also gathered 157 completed surveys from members in senior or near senior levels through a census. We employed a stratified random sampling procedure to gather information from members and their parents from all the clubs within the counties in the Central Florida. We used a confidence level of 99% and a margin of error of 3% to estimate the overall sample size for both members and parents.

⁶ Once again, the study captures the positive impact of the Clubs in allowing parents to upgrade their skills and therefore being able to increase their earnings, but could not measure it in monetary terms.

The Club member survey collected data critical to the conduct of this study. Themes of inquiry included but were not limited to the following:

- **Clubs' Environmental Assessment:** A measure of the psychological climate relating to emotional support, peer affiliation, and related issues.
- **Belonging Scale:** Measures students' sense of belonging to their involvement in various Club programs.
- **Education Plans:** A measure of the Club members' academic success and attitudes regarding secondary and higher education.
- **Ability to Develop Healthy Habits:** A measure of exposure to and impact of programs that promote nutrition and physical activity within the Clubs.
- **Risky Behavior:** An inquiry was made into whether students had been arrested in the past year.

Not all data relevant to this study could be collected from Club members. As such, a survey was administered to parents to learn more about the impact of the program on Club members while also learning about how parents benefit from the existence of the program. Themes of inquiry included but were not limited to the following:

- **Basic Demographic Information:** Important demographic information that allows us to cross-tabulate information and to learn more about those served by the Boys & Girls Clubs.
- **Measuring Positive Change in Children:** Assessment of changes in the behavior of their children as a result of attending the Clubs (assessing the efficacy of the Club services).
- **Academic Needs of Children:** Assessment of the success of the Clubs in meeting the academic needs of their children.
- **Health and Healthy Habits of Children:** Inquiry about parent views on the programs' ability to help their children to develop healthy habits with regard to eating and exercise.
- **Parents' Needs:** An assessment of how the Club services satisfy the needs and demands of parents, including the ability of parents to work and pursue further education thanks to Club services.

2) Benefits of Boys & Girls Clubs for Club Members

The Boys & Girls Clubs in Central Florida impact the lives of the youth that they serve in many ways. The members, their parents/guardians, students and the greater community all benefit from the services of the Clubs. This section of the report studies the following benefits enjoyed by Club members and the greater community:

- Improved rates of high school graduation
- Reduced levels of teenage pregnancy and motherhood
- Cost savings generated by reductions in juvenile criminal activity and drug/alcohol/substance abuse which benefits the taxpayers
- Improved healthy habits and increased physical activity

Students who participate in the Clubs are more likely to graduate from high school and are less likely to become juvenile criminals or teenage mothers than their peers in Central Florida who do not participate in the Club. They are also less likely to abuse drugs, alcohol, and tobacco. These findings are based on a combination of published data found by the authors of this report and surveys administered through the course of this study. All four of these social interventions have distinct economic benefits and cost-savings that are calculated in this section of the report.

Furthermore, students also get to enjoy better health and nutrition through participation in physical activity and nutrition-education programs offered through the Clubs. A substantial proportion of students reported improved fitness as a result of Club participation, including reaching healthy weight. Unfortunately, no method based on existing research could be found to translate the improved nutritional outcomes and physical exercise into concrete monetary values.

2.1) Improved High School Graduation Rates and Impact on Personal Earnings

One of the most important indicators of school performance is the high school graduation rate. This indicator is often included in both the federal and state accountability systems as one way to assess the performance of schools alongside the more common indicator: student test scores.

The intuitive definition of the term, high school graduation, differs from the actual calculations made to measure it. A common definition is that it is the percentage of students entering 9th grade who are likely to graduate from high school in four years. The definition is straight-forward but the calculation of it is complex because of limitations in the current student data collection system. Such limitations make it

impossible to calculate the numbers of students who graduate, transfer, or drop out of school in a four-year period. In order to do this successfully, researchers need a longitudinal student data system that can overcome these limitations.

There is a well-documented earnings gap between high school graduates and dropouts—an annual difference of nearly \$10,000. There is also a growing challenge for individuals with only a high school diploma to find stable, well-paying jobs. The costs of dropping out are borne not just by individuals, but by the communities in which they live, and the rest of society. The potential economic benefit of improving students' academic outcomes should be a wake-up call to the importance of reforming America's high schools.

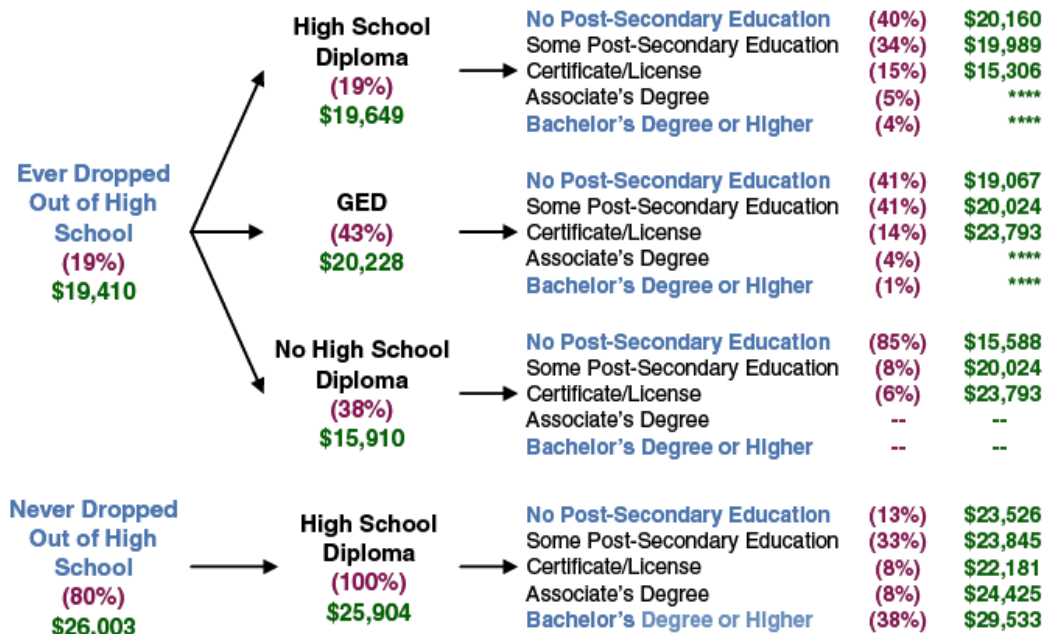
Although the No Child Left Behind (NCLB) Act of 2001 requires states to use a particular graduation rate calculation, poor definitions and inconsistent implementation have resulted in a range of confusing graduation rate calculations that do not provide the accurate measurement intended by the law. Over the last few years, independent researchers have confirmed that many more of the nation's youth are dropping out during high school than is reported, and they have issued estimates that most experts agree are far more accurate than those of most government sources. In most states, there is a wide variation between state-reported, federally-reported, and independently-reported rates. Recently announced federal regulations required that states implement a common formula by the 2010-2011 school year; however, further federal action is needed to clarify the role of graduation rates in reporting and accountability systems.

Students who drop out of high school not only earn less during their lifetimes, but they face a myriad of other economic costs, such as having more health problems and being more likely to depend on government assistance or face unemployment later in life. Some uncertainties exist in the literature on the long-term impact of dropping out. For instance, questions remain as to whether a student returns to school after dropping out and, if they do, what the highest level of education is that they eventually attain. Such uncertainties make it difficult to estimate the long-term economic consequences of dropping out of high school.

Such difficulties led the National Education Longitudinal Study to investigate the subsequent educational attainment and earnings of a nationally representative sample of students. Those participating in the

study were tracked from when they were in the eighth grade (in 1988) until they were about 26 years old (in 2000).⁷ The results of this longitudinal study are presented in the following chart:

Educational Attainment and Earned Income in 2000 for 1988 Eighth-Graders



**** indicates that the sample was too small to provide reliable estimates

Source: Susan Rotermund (2007), California dropout project, UC Santa Barbara Gervirtz Graduate School of Education, Statistical Brief # 5

The study clearly shows that those who “ever dropped out of high school” ended up earning much less throughout the rest of their lives relative to their peers who ended up attaining a terminal degree. The study also shows that those who drop out at some point tend to be less likely to complete college. Specifically, only 5% of those who ever drop out managed to receive a Bachelor’s degree, as opposed to 38% of those who never drop out of high school.

Students “who ‘ever dropped out of high school’ ended up earning much less throughout the rest of their lives relative to their peers”

⁷ See Susan Rotermund (2007), California dropout project, UC Santa Barbara Gervirtz Graduate School of Education, Statistical Brief # 5. As mentioned in the report, the scope of this study is national and the outcome can be applied to what has been going on nationally and not in the State of California alone.



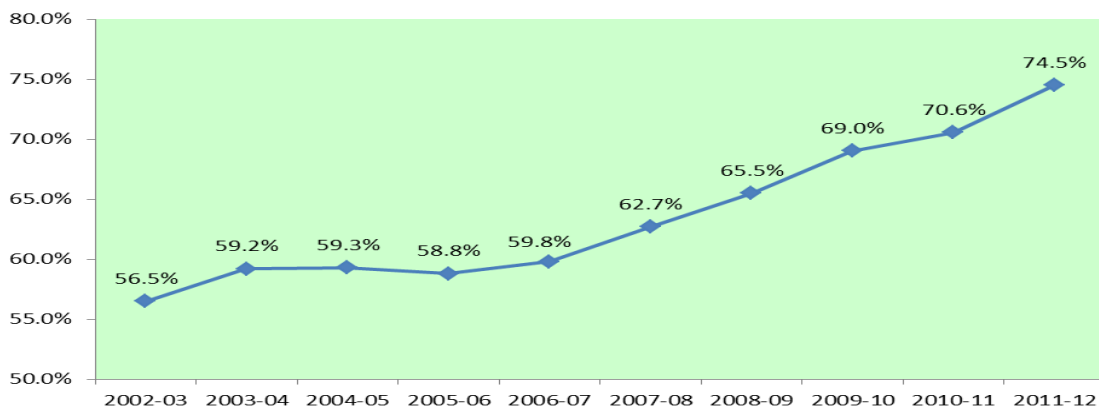
The economic cost of dropping out of school is not limited to the inability to earn a higher income. High school dropouts face much higher rates of unemployment, live shorter lives, and depend more than others on government assistance. Steven H. Woolf et al (2007) argue that giving the health of educated people to everyone would save more lives than investing in medical advances. They are so convinced about the findings of their study that they make the following assertion:⁸

“Higher mortality rates among individuals with inadequate education reflect a complex causal pathway and the influence of confounding variables. Formidable efforts at social change would be necessary to eliminate disparities, but the changes would save more lives than would society’s current heavy investment in medical advances.”

In a comprehensive study calculating the cost of high school dropouts, one has to include all sources of differential costs stemming from lower pay, higher unemployment, shorter life expectancy, more medical expenses, and government assistance. Finding an accurate basis requires estimating a reliable rate of dropout both at the state and county level. Unfortunately, our existing database and sampling method cannot yield this necessary information. We must therefore concentrate on a partial—nevertheless instructive—calculation of the cost of not completing high school.

Graduation rates have improved over recent years in the State of Florida.

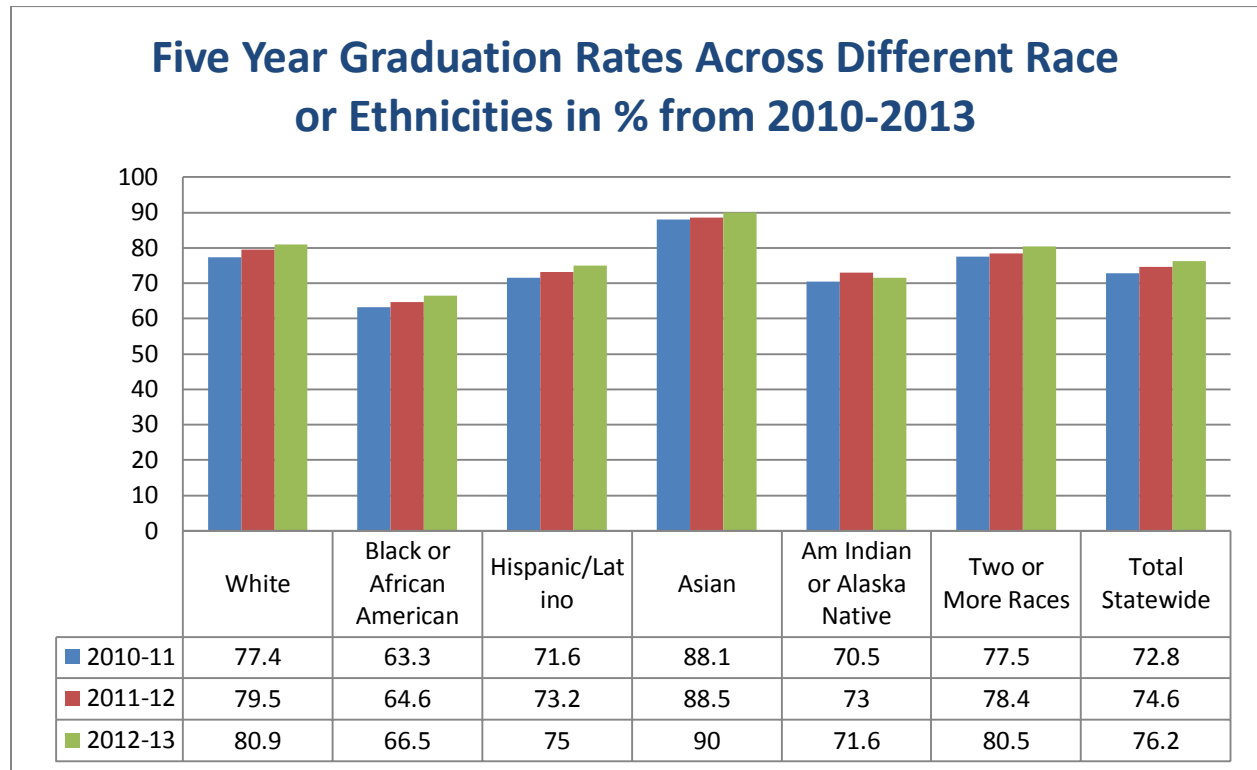
Federal Graduation Rates, 2002-03 through 2011-12SS



Source: Florida Department of Education

⁸ See Steven H. Woolf et al (2007), “Giving everyone the health of educated: An examination of whether social change would save more lives than medical advances” *The American Journal of Public Health*, Vol.97. No. 4.

The rates of improvement have been quite significant among the non-white population. The following chart shows the change in high school graduation rates according to the latest available data.



Source: Florida Department of Education, Education Information & Accountability Services Data Report

According to the data provided, all races and ethnicities showed improvements in most cases. The overall rate increased from 72.8% in 2010 to 76.2% in 2013 according to most recently available data.

Given the serious consequences that young people will face for the rest of their lives by deciding to drop out, any program that can help reduce dropouts and encourage students to complete their studies is worthwhile. Such a service not only helps the youth lead a more constructive life, but it creates a better educated workforce, a stronger tax base, and reduces the burden on public services. Boys & Girls Clubs in Central Florida play a vital role in helping youths improve their academic outcomes.

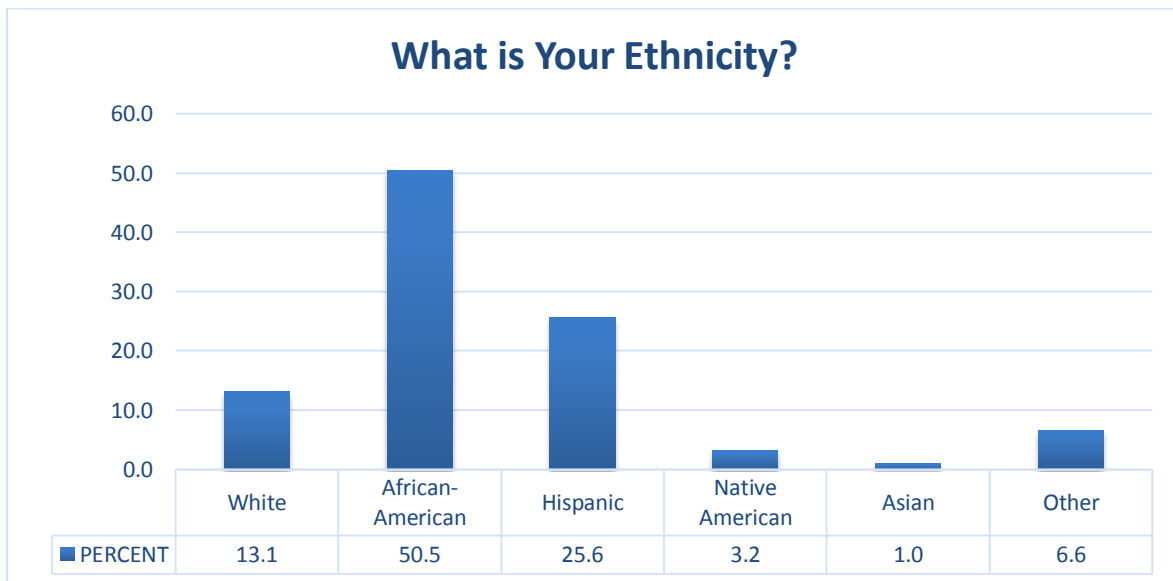
The Clubs provide a variety of services that help students excel academically. Boys & Girls Clubs as part of their after-school activities provide homework assistance and tutoring, often called the “Power Hour” program. This dedicated time supports the members in completing their homework and provides them

access to supplementary instruction through tutoring services so members stay on track in school and do not fall behind.

Moreover, beyond the direct academic enrichment provided by the Clubs, members have positive role models and a nurturing environment that can help them improve decision-making skills. Such skills can help make sure that Club members make the right choices when it comes to their academic future.

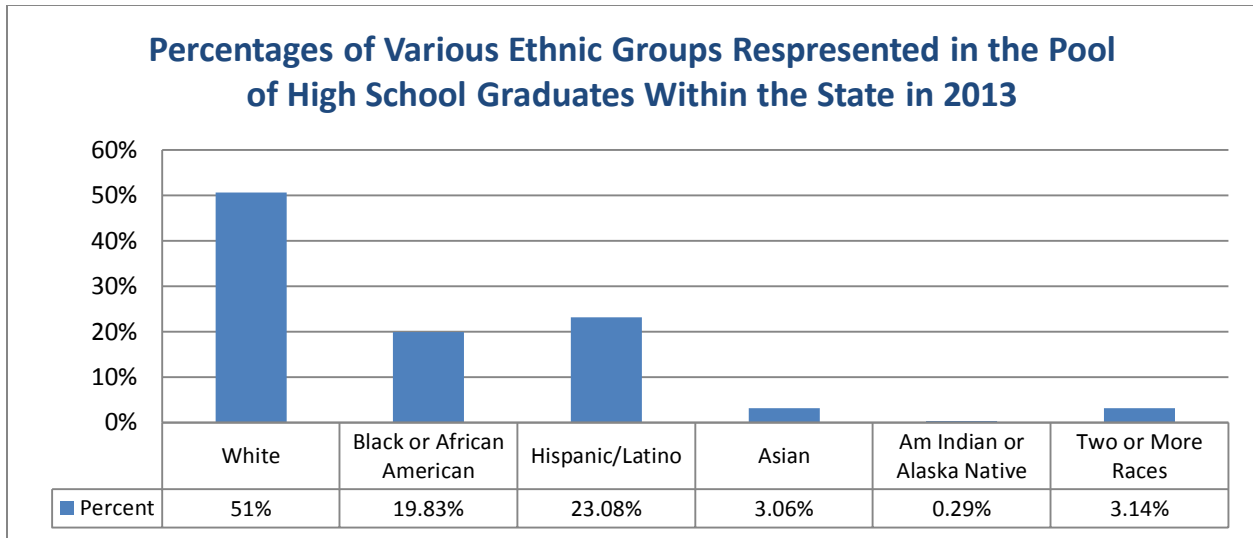
Given the pivotal role that the Clubs can have on the academic success of Club members, this study has made every effort to quantify the monetary benefit of such services. The first step in such a calculation is comparing the academic success of Club members with the general population in the State of Florida.

The ethnic make up of the youth in the region in the age group of the Club members may be different than the racial/ethnic structure of the Club members. The following graph shows the ethnic breakdown of the club members based on our survey.



Source: Survey of Members of the Boys & Girls Clubs of Central Florida.

However, in looking closer, we find a remarkable difference between the two in regards to the proportion of non-whites and decided to adjust the graduation rate based on the ethnic make up of the Club attendees (assuming the same structure for the seniors and the overall population of youth attending the Clubs).



Source: Florida Department of Education, Education Information & Accountability Services Data Report

This chart shows that 50.5% of the members are Black or African American as opposed to 19.83% compared with the state level. Instead, the ratio of white within the Clubs is 13.1% compared with the 51% within the State of Florida. In order to use a more relevant graduation rate, we have adjusted the level of graduation within the state based on the ethnic structure within the Clubs.⁹ This resulted in a calculation of 73% as the ethnically adjusted rate of graduation within the state given the ethnic structure of Club members in Central Florida.

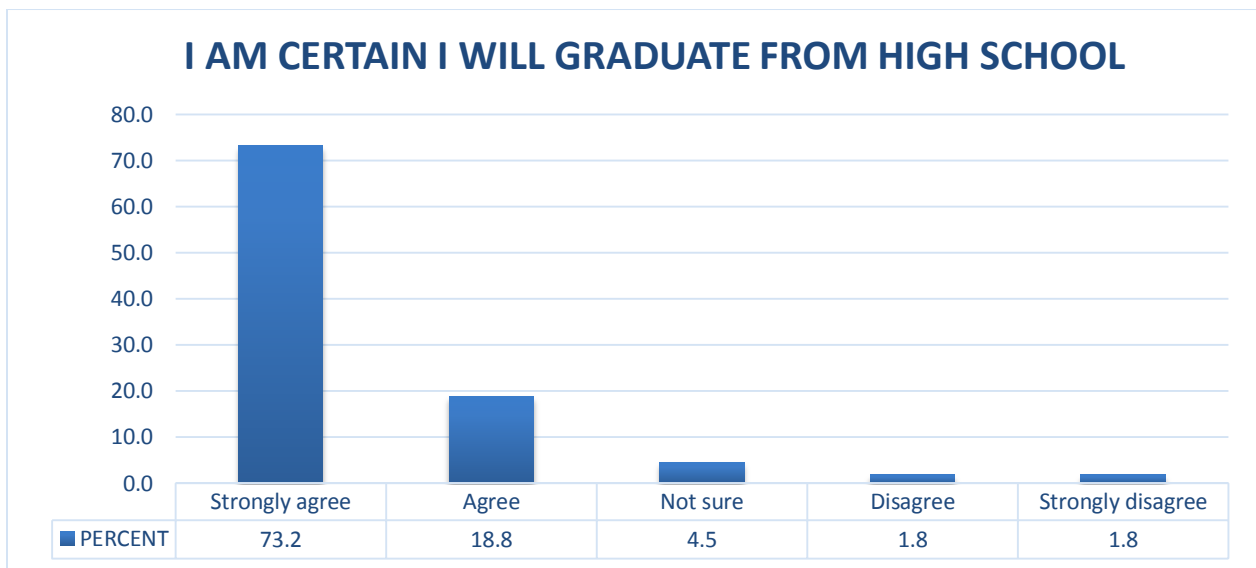
In order to make a comparison between the state data and the data related to the Boys & Girls Clubs of Central Florida, we had to find the status of seniors and their rate of success in passing the Florida high school graduation exams (FCAT). The situation is further complicated since such exams can be taken by students who are not in their senior year but feel that they can pass it. Taking the latter consideration into account would make a close comparison between our calculation and the ones for the state more difficult and uneven.

In order to calculate the rate of high school graduation, we employed several methods that could help to reach an acceptable outcome. We asked the Club management to conduct a survey of high school

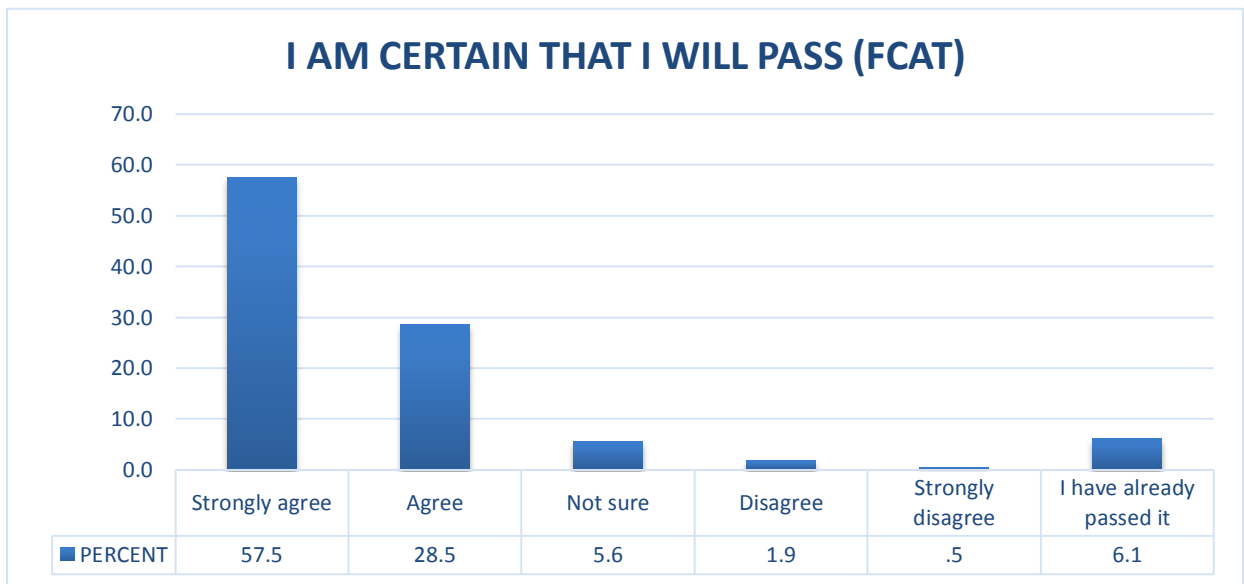
⁹ The adjustment was made by taking the weighted average of graduation by using the rate of graduation for different ethnicities proportioned to the ethnic makeup of the Club members. The average was calculated by using the following method of taking the weighted average. Ethnically adjusted rate of graduation = Sum of the ratio of each ethnicity multiplied by their respective graduation rate.

students from the tenth to twelfth grade. This was a census and the questionnaire was given to all available Club members. We also asked similar questions in our randomized samples inviting high school students from ninth grade onward to respond to those questions. The results were remarkably close, and thus gave a much greater degree of reliability to our research method in calculating the most likely rate of high school graduations among Club members.

The senior census was given to 157 students and we also observed a total of 214 Club members answering the graduation questions in the member survey. The findings can be seen in the following graphs.



Source: Senior census which include 157 club members from 10th to 12th grades, Boys & Girls Clubs of Central Florida



Source: Survey of Club members, Boys & Girls Clubs of Central Florida

In both surveys, the ratio of those who were in disagreement (disagree or strongly disagree) were between 2.5 to 3.5%. Around 5% were not sure, and the remainder either agreed or strongly agreed or had already passed the test for high school graduation. From such findings, we concluded that setting the rate of high school graduation around 95% were plausible and could be supported with some degree of confidence.

We can now begin to calculate the economic impact of high school graduation rates among the seniors attending the Boys & Girls Clubs in Central Florida and their peer groups within the region.

The latest available information for 2013 puts the total number of registered members equal to 12,974. According to the Club information, 3.3% of these students were 16 years of age or older, the closest we can find to being in the 12th grade. On a separate report, the actual percentage of Club members currently registered in the 12th grade is estimated to be around 1.7%. We considered this ratio as the most relevant for the purpose of estimating the differential number for high school graduation among the Club members and the region.

Using the aforementioned information, we calculated that regular attendance at the Clubs allows an additional 49 seniors to graduate from high school than otherwise would have been the case.

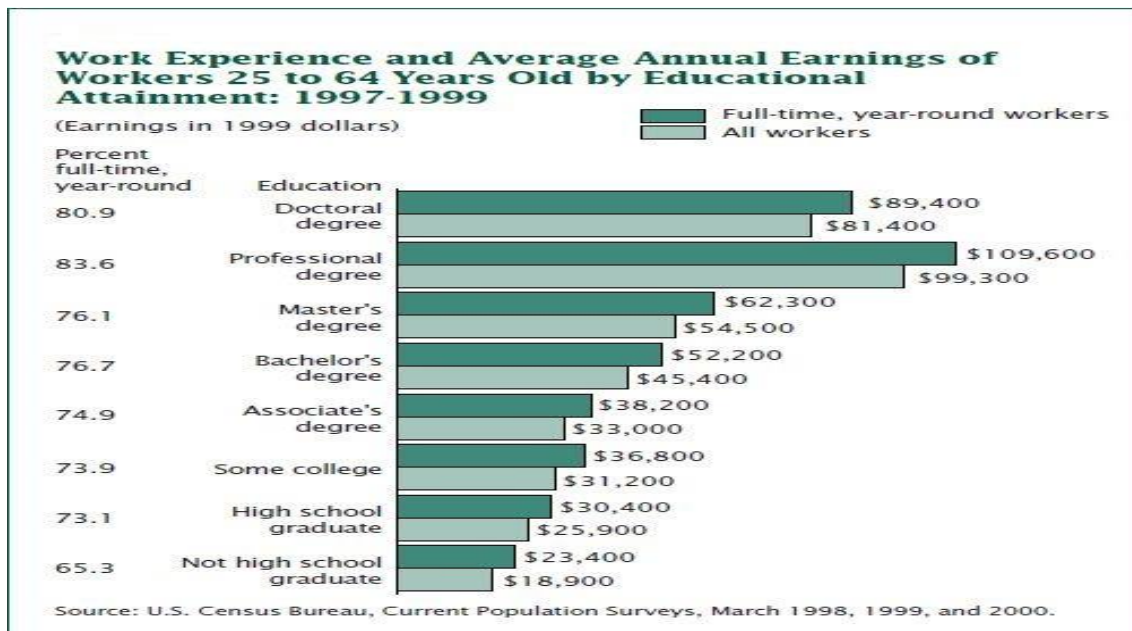
$$12,974 \times 0.017 \times (0.95 - 0.73) = 49$$

Where:

- 12,974 is the total number of registered members at the Boys & Girls Clubs of Central Florida
- 0.017 is ratio (the percentage) of seniors who attend the Clubs
- (0.95-0.73) is the difference between the rate of high school graduation in the region and the estimated rate of Boys & Girls Clubs members' high school graduation in Central Florida.

We consider these four additional graduates a positive externality created by the programs of Boys & Girls Clubs in Central Florida. This positive externality may have resulted from the programs (such as homework assistance and tutoring) and the environment provided by the Clubs that are more conducive to higher academic achievement and future success.¹⁰

In order to calculate the economic impact, we looked at the earning potential of people who graduate with a high school diploma or have an equivalent degree entering the labor force and those who enter the labor force without a high school diploma. The following chart shows the information for annual wages and salary earnings across different levels of educational attainment in the United States. This is based on the most recently available census data.¹¹



¹⁰ There is valid argument that other circumstances may have contributed to a higher rate of success among the Club attendees. A number of such arguments are equally applicable to all other similar studies.

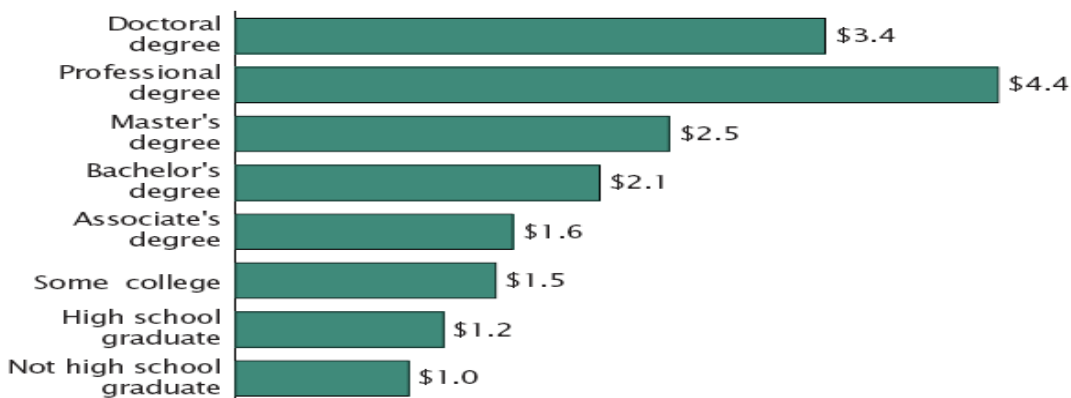
¹¹ We used the wage and salary structure of the United States since there is no particular justifiable reason to assume that the future employment prospects of those young people who are currently living in the Central Florida will differ significantly from those across the country.

Following the method of similar studies, we looked at the economic impact of increased earning potential over a 20-year period due to holding a higher academic credential. Such studies are difficult to conduct and to a great extent inaccurate, as one cannot foresee the future without having a credible study of the long-term consequences of not passing the high school exit exam in one year. Indeed, such estimation must be based on longitudinal studies in order to construct a long-term scenario of what is likely to happen; we have already referred to one such study about the long-term impact of dropping out of school (Rotermund 2007). Nevertheless, we could not find such studies about the long-term consequence of failing the high school graduation exam. It should therefore be stated that our assumption about the long term impact of people who fail the high school exit exam and may continue to be working in the labor market without a high school diploma is not based on concrete and academically viable studies and therefore may overestimate or underestimate the economic impact to some extent.

As for the long term impact of getting a high school diploma or working without one, it does impact the lifetime earnings of people. The results of such differential lifetime earnings are presented in the following chart taken from a study by the US Census.¹²

Synthetic Work-Life Earnings Estimates for Full-Time, Year-Round Workers by Educational Attainment Based on 1997-1999 Work Experience

(In millions of 1999 dollars)



Source: U.S. Census Bureau, Current Population Surveys, March 1998, 1999, and 2000.

¹² See Jenifer Cheeseman Day and Eric C. Newburger (2002), "The Big Payoff: Educational Attainment and Synthetic estimates of Work-Life earning; Special Studies, US Census.

As the above chart demonstrates, based in 1999 dollars, an individual with a high school diploma earns \$200,000 more during their work life than a person without a high school diploma. Taking 1999 dollars and adjusting it with an average rate of inflation of 3% for the last 14 years, we can say that a simplified version of this difference in 2013 real terms will be \$302,516 per person. We will use this figure to calculate the lifetime earnings impact of having a high school diploma versus not completing high school. By helping an additional 49 young people complete high school, the Boys & Girls Clubs in Central Florida have helped increase the total work life earning of these young people by \$ 14,823,284.

“By helping an additional 49 young people complete high school, Boys & Girls Clubs in Central Florida have helped increase the total work-life earning of these young people by \$14,823,284”

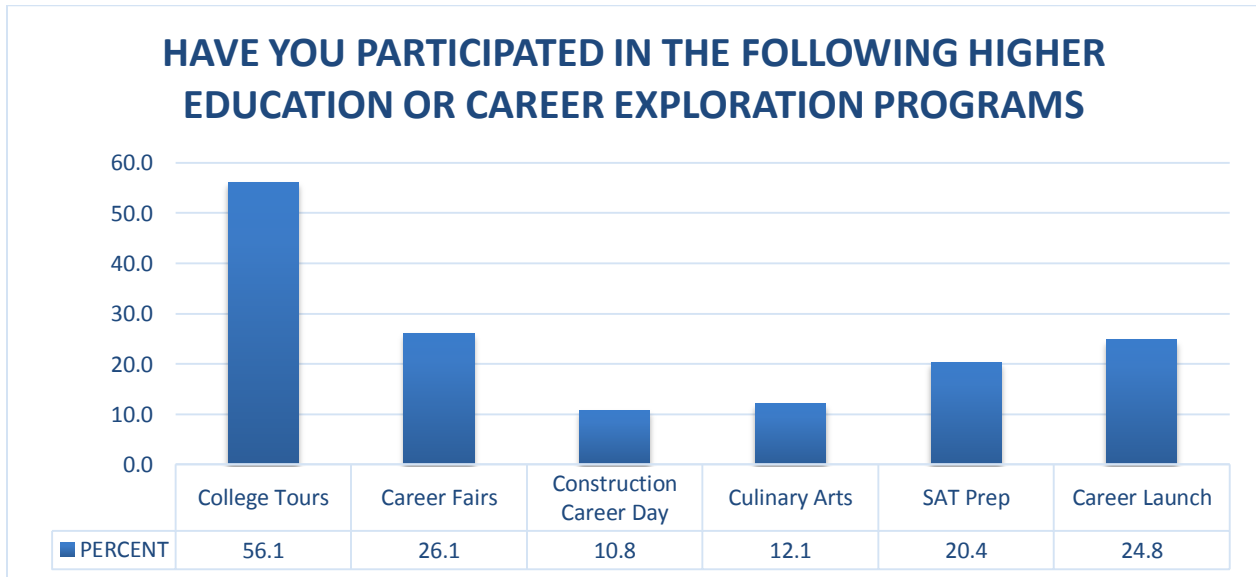
One can also consider this economic benefit on an annual basis, considering data on annual wage differentials. As data presented earlier from the U.S. Census indicated, the annual difference in wages for a full-time working high school graduate and a full-time working non-graduate was \$7,000 in 1999 dollars. Adjusting for 14 years of 3% inflation, this becomes a difference of \$10,584 in 2013 dollars. With four more students graduating high school as a result of the program, the annual benefit moving forward will be over \$518,616.

The following table sums up the economic benefits created by the ability of the Boys & Girls Clubs in Central Florida to improve high school graduation rates.

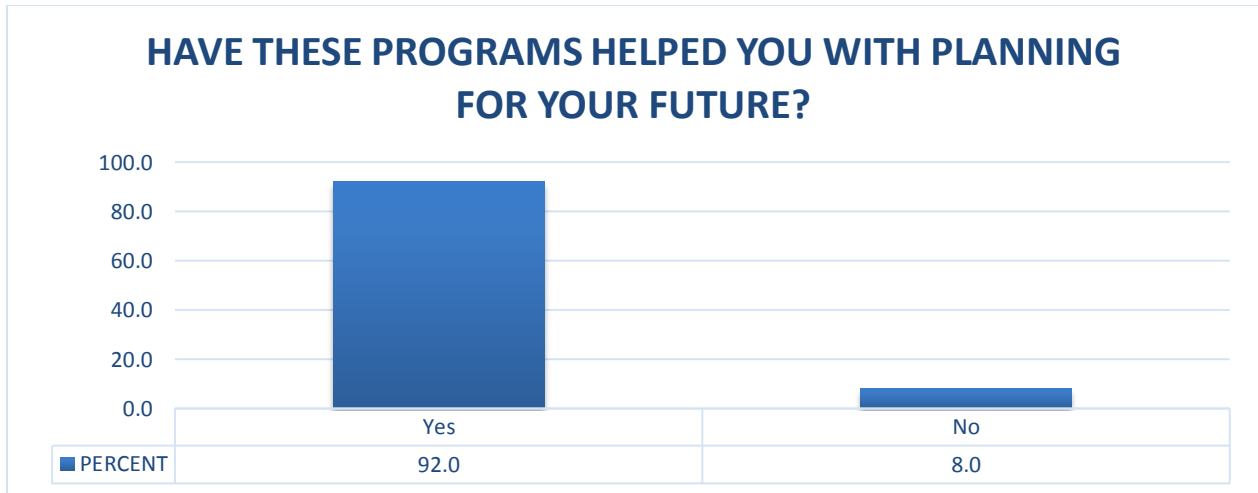
Percentage of students passing FCAT Adjusted for ethnicity in Central Florida	Percentage of Seniors Attending Clubs Passing FCAT	Additional Number of Students Passing FCAT in Boys & Girls Clubs of Central Florida	Total Annual Increase in Annual Wage and Salary	Total Work life Increase In Earnings
73%	95%	49	\$518,616	\$14,823,284

Sources: Survey of Members of Boys & Girls Clubs of Central Florida, US Census, Florida Department of Education, 2013 Administrative report of the Boys & Girls Clubs of Central Florida, and authors' calculations.

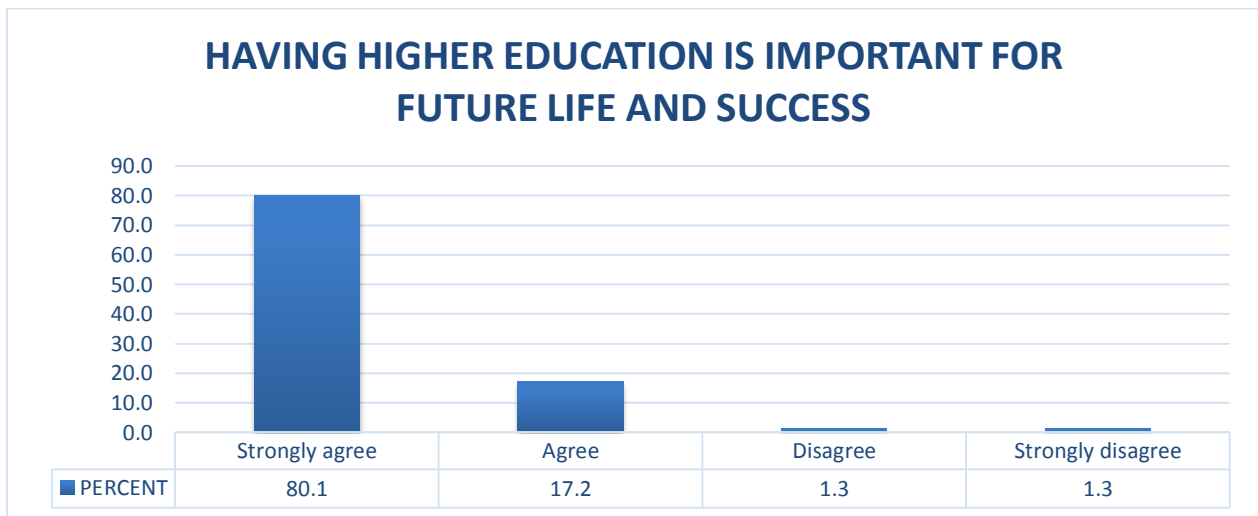
It should also be stated that our calculations may be an underestimation, since our conservative assumptions did not account for the fact that a great number of these students are likely to enter a university and receive a bachelor’s or higher academic degree, thereby earning much more than a high school diploma holder in the labor market. In order to reach this conclusion, it is important to consider data from additional questions which were asked in the survey distributed in the Clubs and the senior census. These questions illustrate the attitudes of students that will shape the future success and economic contribution of these individuals to their communities. These attitudes indicate that it is safe to believe that some of these high school seniors will go on to earn degrees beyond the high school diploma. The responses given and presented are indicators of the desires and aspirations of the students and mindset of their parents as they view their children and assess their ability, eagerness, and willingness to embark on a better path for success and productive life. We will present the following findings that show the desire and propensity of respondents to embrace opportunities for productive and successful life. The following charts show some of the pivotal findings from the senior census.



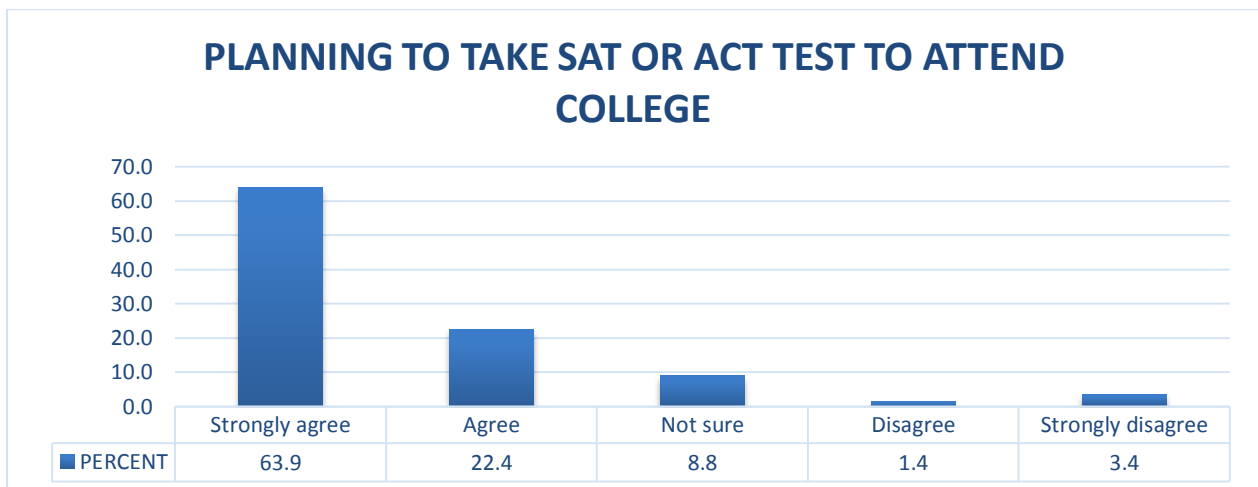
Source: Survey of Seniors, Boys & Girls Clubs of Central Florida



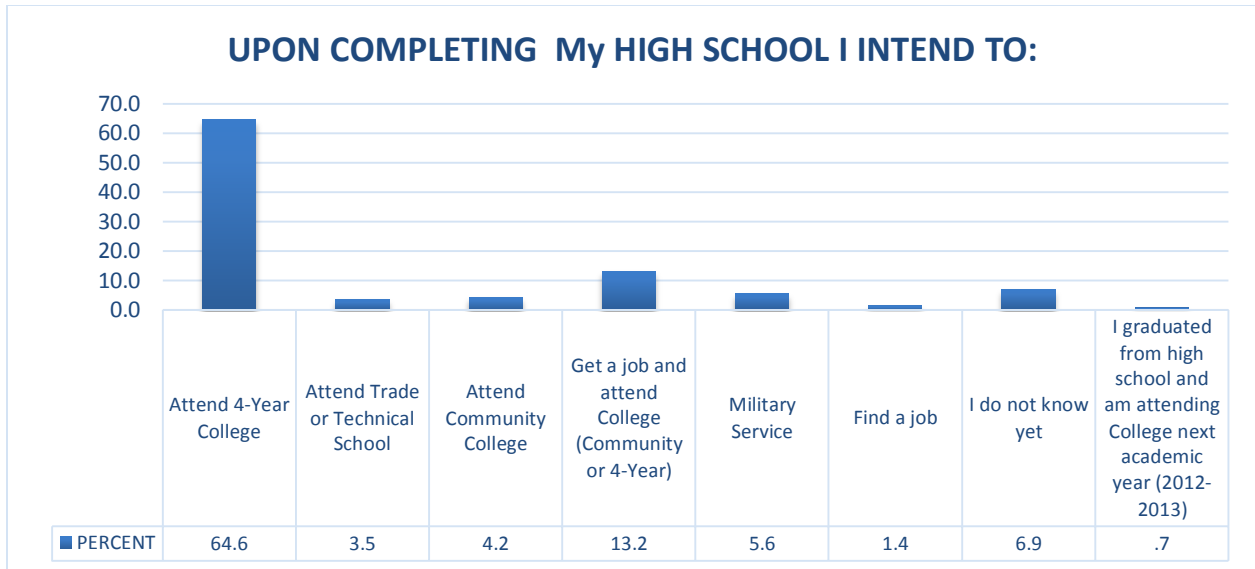
Source: Survey of Seniors, Boys & Girls Clubs of Central Florida



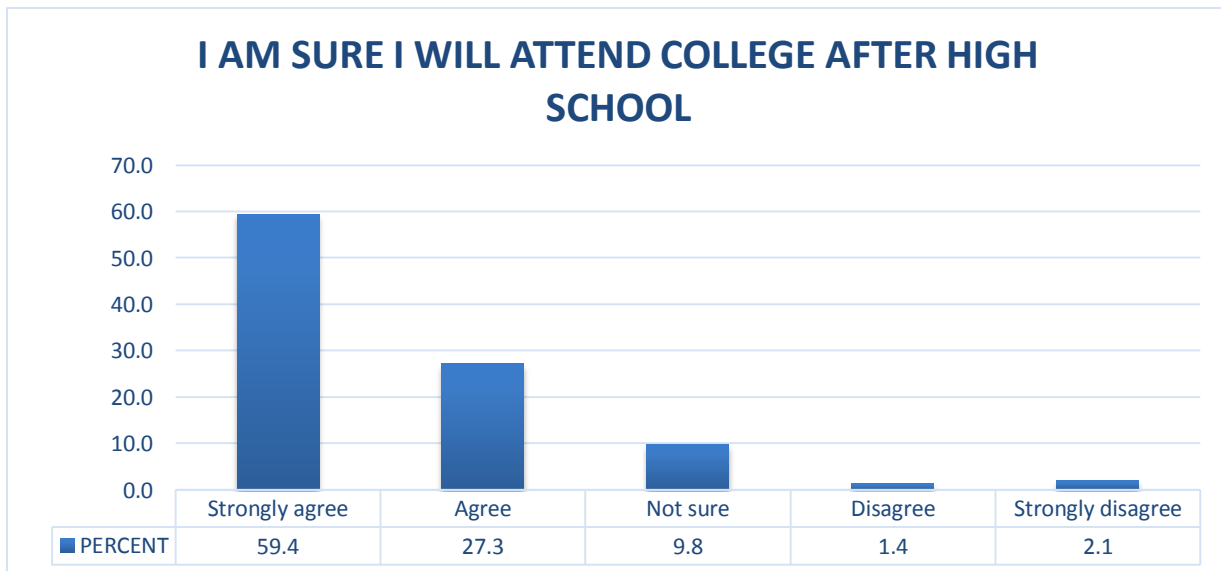
Source: Survey of Seniors, Boys & Girls Clubs of Central Florida



Source: Survey of Seniors, Boys & Girls Clubs of Central Florida



Source: Survey of Seniors, Boys & Girls Clubs of Central Florida



Source: Survey of Seniors, Boys & Girls Clubs of Central Florida

The above charts show the aspiration, hopes and intentions of a group of high achievers who are planning to go far beyond the high school graduation and become successful and positive members of their societies and contribute to the betterment of their own families and others in the community. Less than 4% of the respondents reveal that they are sure that they will not attend college after graduating high school and about 87% agree that they will attend college, out of which 60% strongly agree with this notion.

2.2) Cost Savings Due to Reduction in Teen Childbirth

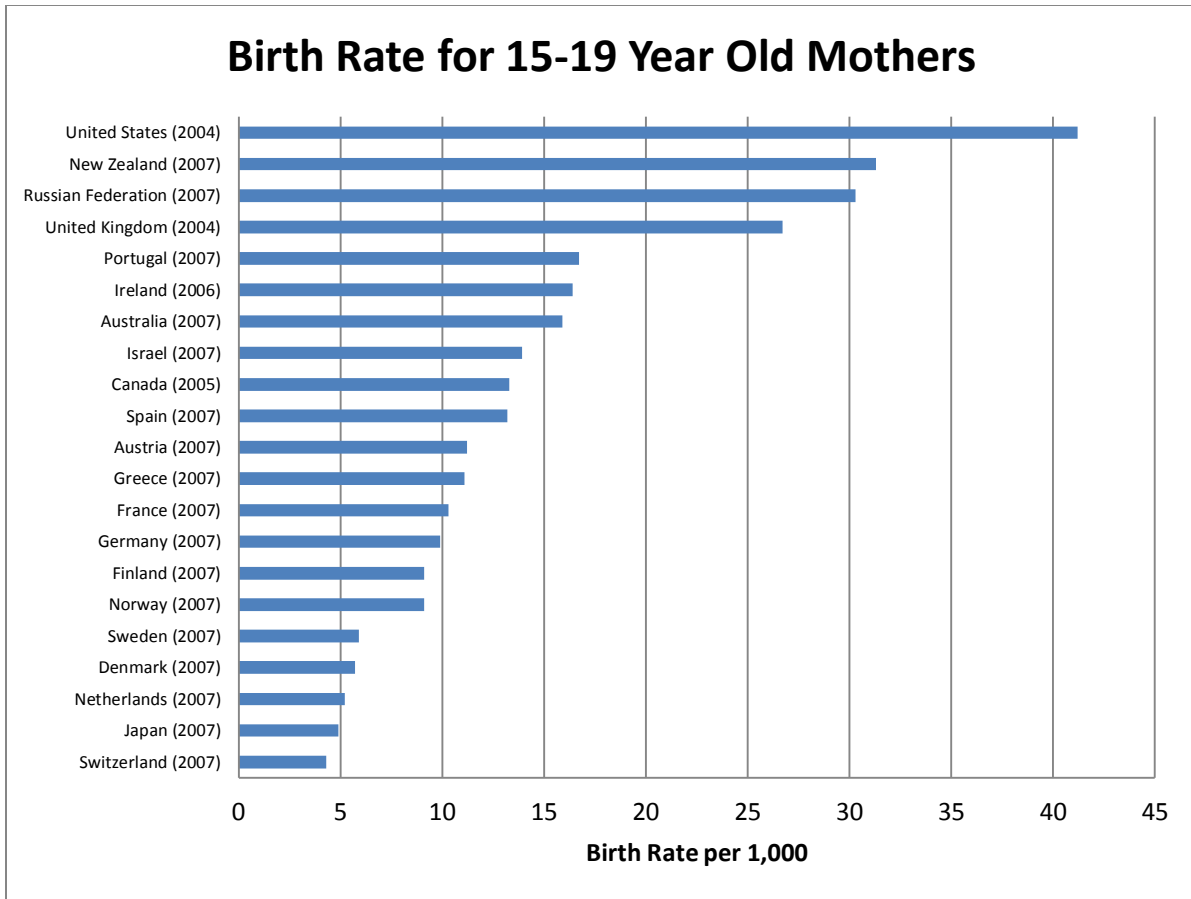
The United States of America has the highest teen birth rate among all the industrialized countries in the world. Nearly four out of ten girls become pregnant at least once before the age of 20. Teen pregnancy causes serious education and health problems for both the mother and the father. Teen mothers are more likely to have serious complications during pregnancy and delivery. Teen mothers and fathers are less likely to earn a high school diploma.

According to the existing reports, teen births have decreased; however, it continues to be a significant problem in many states across the United States. Studies show that the largest proportion of teen birth happens to low income families, and Latinos form the highest proportion of them compared with other ethnicities.¹³

“The United States of America has the highest teen birth rate among all the industrialized countries in the world”

The below diagram best illustrates the relative seriousness of the problem in the United States when it is compared to similarly well-developed countries:

¹³ For more information see <http://women.ca.gov/UserFiles/922.FinalPublicPolicyAgenda.pdf>



Source: United Nations Demographic Yearbook (2007)

Amongst developed countries, the U.S. teen birth rate is staggering at 41.2 per 1,000 teenage females aged 15-19. Russia, New Zealand, and the United Kingdom trail with birth rates of 30.3, 31.3, and 26.7, respectively. The remaining developed countries all have teen birth rates below 17 per 1,000 with Switzerland having the lowest rate of all—4.3 per 1,000 teenage girls aged 15-19.

The relative widespread prevalence of teenage pregnancy in the United States and the serious consequences it can have for teenage mothers and fathers demonstrates the need that exists for programs that can help reduce these troubling trends. Not only would a reduction of teenage pregnancy help the teen parents, but the impact has real and tangible economic impacts for the country.

According to recent studies, teen childbearing in the United States costs taxpayers at least \$9.1 billion annually at the federal, state, and local levels.¹⁴

Most of the costs of teen childbearing are associated with negative consequences for the children of teen mothers. On the national level, these costs include \$1.9 billion for increased public sector health care costs, \$2.3 billion for increased child welfare costs, \$2.1 billion for increased costs for state prison systems, and \$2.9 billion in lost revenue due to lower taxes paid by the children of teen mothers over their adult lifetimes.

In summary, taxpayers face the following economic costs as a result of teenage parenthood:

- Lost tax revenues from the decreased short and long-term earning power of teenage parents.
- Public assistance expenditures necessary to support teen parents and their families.
- Health care costs for children of teenage mothers.
- Criminal justice costs for children of teenage mothers.
- Foster care costs for the children of teenage mothers.

In addition to the costs of teenage pregnancy that burdens the taxpayer, it is important to consider the ways in which teenage parenthood changes the future life and prospects of the parent. These changes can have long-term consequences ranging from emotional to economic.

As the economy has transitioned from an emphasis on manufacturing to an emphasis on services, education has become an important determinant of success. One of most important elements of building a strong workforce for the 21st century is to have a well-educated pool of labor. Due to the negative impact teenage pregnancy has on educational outcomes, reducing teen pregnancy can help strengthen the future workforce. Early teen pregnancy substantially reduces the opportunity of parents to continue their education and thereby makes segments of the American workforce less competitive.

Insufficient education deprives the young parents the opportunity of having stable and high paying jobs in the future. Teen parents and their children are less likely to graduate from high school. In fact, less

¹⁴ This estimate was done in recent study by Saul Hoffman, professor of economics and chair of Department of Economics at Delaware University. For more information see the full study <http://www.buec.udel.edu/hoffmans/Research/By%20the%20Numbers.pdf>

than four in ten mothers who began their families before age 18 ever complete their high school education.¹⁵ A study by the National Campaign to Prevent Teenage Pregnancy in 2002 shows that in the past 25 years, the median income of people without a college education decreased in absolute terms (not inflation adjusted) by 30%, while the median income of college graduates increased by 13%.¹⁶ The same study shows that half of teen mothers drop out of school before becoming pregnant. Some 52% of all mothers on welfare had their first child as a teenager. Teenage mothers are less likely to complete high school and only 1.5% of them earn a college degree by the age of 30. This, in turn, influences their earning capacity and likelihood to live on welfare.¹⁷

In summary, the sources of short and long-term costs for the families of teen parents are as follows:¹⁸

- Teenage parents are less likely to complete high school.
- Teenage parents are more likely to depend on welfare.
- The children of teen mothers are more likely to perform poorly in school.
- The children of teen mothers are at a greater risk of abuse and neglect.
- The sons of teen mothers are 13% more likely to end up in prison and are more likely to commit more violent crimes.
- The daughters of teen mothers are more likely to become teen mothers themselves.

In order to calculate the economic impact of the Clubs' potential to reduce teenage pregnancy, our literature review yielded an impressive nationally representative study by Dr. Rebecca Maynard,¹⁹ a

¹⁵ For more information see <http://www.teenpregnancy.org/resources/data/pdf/notjust.pdf>, not just another single issue: Teen Pregnancy Prevention's link to other critical social issues, Feb. 2002.

¹⁶ Ibid.

¹⁷ Maynard, Rebecca, A, *Kids having kids: Economic costs and social consequences of teen pregnancy*, Published by John Wiley and Sons on behalf of Association for Public Policy Analysis and Management, 1999.

¹⁸ <http://www.richmondgov.com/tpp/background.aspx>

¹⁹ We also looked at a number of other studies for searching the latest information on teen pregnancy and childbearing. To arrive at a long term cost over the life time see the following:

http://www.health.state.nm.us/phd/fp/teen_pregnancy.htm

<http://www.thenationalcampaign.org/costs/pdf/states/california/fact-sheet.pdf>

professor of the University of Pennsylvania and a member of the National Campaign to Prevent Teen Pregnancy. This study yielded cost estimates for the economic impact of teen pregnancy to taxpayers and society which captures many of the adverse impacts of teen pregnancy discussed earlier in this section.

Since this rigorous study looked both at the taxpayer and societal costs, we will use its findings for both categories. In order to derive the taxpayer costs, Maynard

“employed conservative assumptions, and used the most directly attributable costs, including tax revenue costs based on mother’s and father’s income and consumption, public assistance direct costs such as welfare and medical assistance as well as the associated administrative costs of these programs, costs for increased foster placement and incarceration of children, and tax revenue costs based on children’s income and consumption when they reach early adulthood. Some costs such as public assistance were averaged over 13 years of parenthood... Appropriately, and unlike other less rigorous cost analyses, Maynard estimated net costs, adjusted for estimated costs in the same categories had the teen mother delayed her birth until age 20 or 21” (Constantine 2003).

Using a similarly thorough methodology, Maynard calculated the economic costs for society. This analysis considered the impact of teenage pregnancy on other stakeholders beyond the taxpayer. Considerations in this part of the analysis included “estimated changes in earnings of teen mothers, fathers, and children when they reached early adulthood, and privately paid medical costs” (Constantine 2003).

The results of the analysis conducted found that the annual costs per teen pregnancy for teens aged 15-19 was \$2,129 for costs to taxpayers and \$4,750 for costs to society. However, the total outlay per teen pregnancy is much more significant if the long-term costs are considered.

The analysis conducted by Maynard averaged many costs over 13 years. If one considers the future costs over this entire period, the total outlay of economic costs per teenage pregnancy is \$27,677 for taxpayer costs and \$61,750 for societal costs. In other words, each time a teenager between the ages of 15 and

http://www.health.state.nm.us/phd/fp/teen_pregnancy.htm#_ftn5

http://www.usa.gov/Topics/Reference_Shelf/Data.shtml

<http://usasearch.gov/search?v%3Aproject=firstgov-web&query=Economic+cost+of+teen+birth>

http://www.health.state.nm.us/phd/fp/economic_impact06.htm

http://info.sen.ca.gov/pub/07-08/bill/asm/ab_1501-1550/ab_1511_cfa_20070602_170429_asm_floor.html

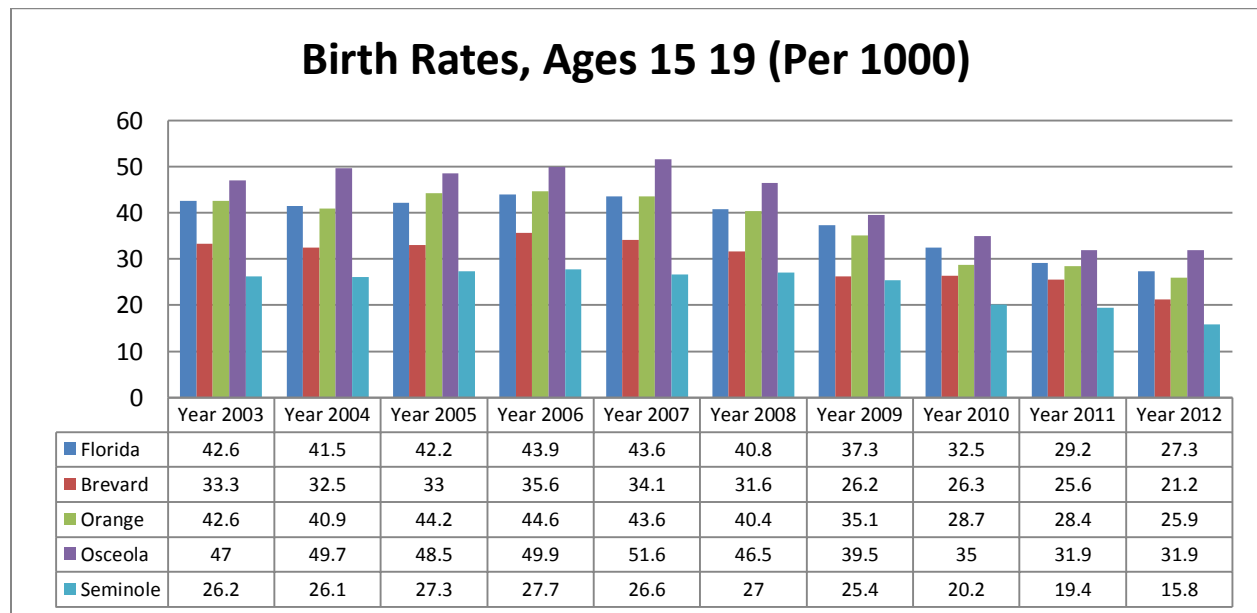
<http://women.ca.gov/UserFiles/922.FinalPublicPolicyAgenda.pdf>

<http://www.thenationalcampaign.org/costs/tables.aspx>

19 gives birth, taxpayers and society incur a marginal cost of \$89,427. Please note that all these calculations are in the year 2000 dollars. Adjusting for inflation and assuming an average rate of inflation each year of 3%, this analysis finds that each teen birth costs taxpayers and society \$131,326 in 2013 dollars; in annual terms, this is \$10,101 per year.

Boys & Girls Clubs play an important role in saving youths from the serious consequences they will face if they become teenage parents. By providing youths a nurturing environment and programs that develop important life skills, the Clubs provide the youths with positive reinforcement and hope for a better life. Such emotional support can help an at-risk teenager develop better decision-making skills that can help them avoid risky behaviors that can lead to teenage parenthood. Among the Club programs that help youth to find a better path for a better future, one can mention SMART Moves, SMART Girls, Triple Play, and Passport to Manhood.²⁰

The following chart provides a comparison between teen birth rates in the state of Florida and the major counties from which the Central Florida Club members come.



Source: Florida Department of Health

The above chart shows that there has been a remarkable success in reducing teen motherhood in the State of Florida. With the exception of Osceola County, other areas within the region have a teen birth

²⁰ These programs are commonly used across various Boys & Girls Clubs of America. For a full description of these programs and how they help Club members to learn more and lead a healthy life see

<http://www.bgca.org/programs/healthlife.asp>

rate lower than the state as a whole. The rate continued to fall within the state and in every county within the region. We used a simple average to calculate the effective teen birth rate within the region. Based on such calculations, the rate was calculated at 23.7 per thousand teens within the ages of 15 to 19 years old.

In order to gauge the teen pregnancy rate, we included a question within the in-house questionnaire submitted to Club management asking whether they were aware of any instances of Club members becoming pregnant. Due to the daily interaction of Club staff and management with those that they serve, we concluded that they would be a good source of information regarding the prevalence of pregnancy among Club members. The report from the Clubs' management indicated that two females become pregnant during the 2012-2013 year.

Based on the information received from the clubs management we calculated the estimated number of girls who attend the Clubs between ages of 15 to 19. In order to calculate this number we used the total percentages of members between ages of 15 to 19. It was estimated at a cumulative rate of 7.1%, we applied this rate to the total number of members and proportionate to the percentage of female attending the Clubs (47.5% of total membership). We estimated the total number of girls between ages of 15 to 19 to be 438. We then used the differential rate of teen birth between the region in general (23.7 per thousand) and the rate of pregnancy within the Clubs (2/438 or 4.6 per 1000) of teen mothers among those who attended the clubs in 2012-13.²¹ This resulted in nine teens who have been saved from teenage pregnancy. We used this number and calculated the economic cost of teen birth that attendance at Clubs may help to alleviate.

“The Boys & Girls Clubs of Central Florida saves taxpayers and the society a total of \$1,181,934 for the nine teenage females served through the positive impact of its services.”

²¹ We need to remember that not all teens who became pregnant actually end up giving birth to their children. With a small rate pregnancy of 4.6 per thousand, the actual birth rate to teen mothers could have been close to zero. Nonetheless, we used a more conservative approach and assumed that the rate of teen childbirth within the clubs is 4.6 per 1000 and used it to calculate the differential rate of teen birth between the Club members and other teens within the region.

Using the number of potential teen mothers saved, we calculated two set of costs that are presented in the following tables. First, we consider the annual cost savings as a result of reduced levels of teenage pregnancy:

Female Club members between the ages of 15 and 19 who attend the Clubs	Rate of teen Birth (per 1,000)	Rate of teen childbirth among female Club members aged 15 to 19 (per 1,000)	Total number of teen childbirths averted	Estimated annual cost of teen pregnancy to taxpayers and society	Total annual costs saved for tax payers and society due to positive influence of Clubs
438	23.7	4.6	9 female teens saved	\$ 10,101	\$ 90,909 Annually

Our calculations indicate that by saving nine females from teen parenthood, the Boys & Girls Clubs in Central Florida are generating economic savings of \$90,909 per year over a period of 13 years. This is a significant level of savings for the community.

As pointed out before, the annual cost above is based on an average of costs over a period of 13 years. It is also important to understand the total long-term economic savings generated for each teen that is saved from becoming a teen parent. The overall cost to taxpayers and the society for every teen mother is \$131,326. Considering this lifetime economic cost, the economic savings generated through the social interventions of the Boys & Girls Clubs in Central Florida are as follows:

Female Club members between the ages of 15 and 19 who attend the Clubs	Rate of teen birth for the Central Florida (per 1,000)	Rate of teen childbirth among female Club members aged 15 to 19 (per 1,000)	Total number of teen childbirths averted	Estimated long-term cost saving for society and taxpayer for each teen birth averted	Total lifetime saving for taxpayer and society due to positive influence of Clubs
438	23.7	4.6	9 female	\$131,326	\$1,181,934

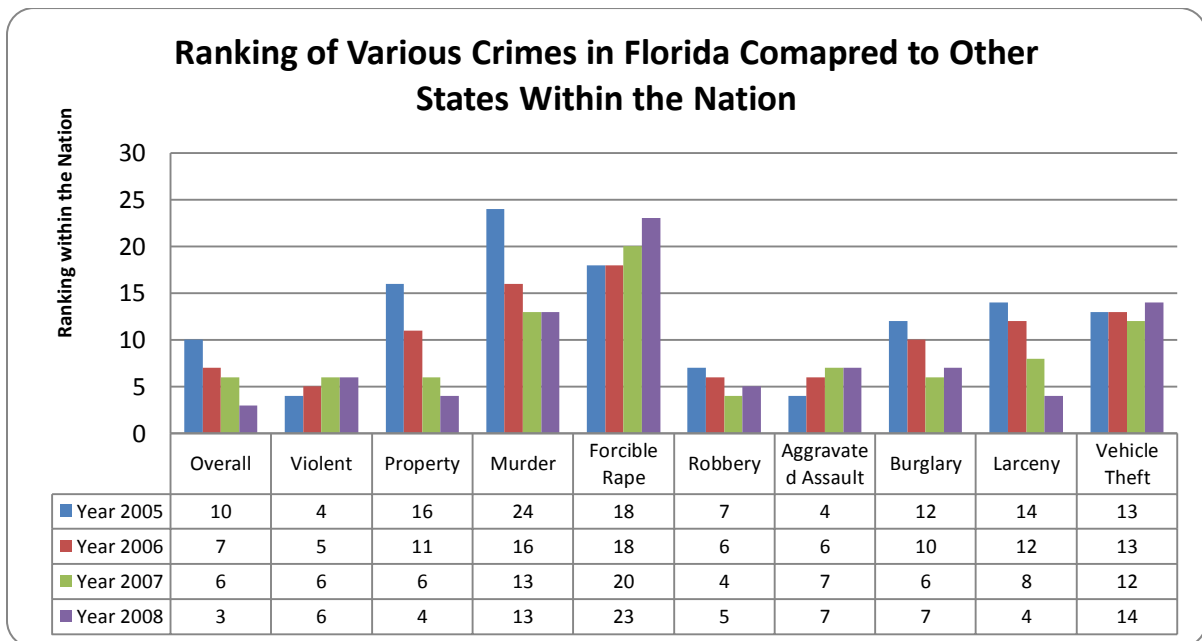
			teens saved		
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The Boys & Girls Clubs save taxpayers and society a total of \$1,181,934 for the 9 teenage females served through the positive impact of its services. This reduced burden for the teens and their community is significant.

2.3) Economic Impact through Reduction in Juvenile Arrests and Crimes

Crimes in general and juvenile crimes in particular are major sources of social disorder, economic loss, and public health concerns in every society. While protecting individuals and families has an important place in the community, prevention of violence has been argued by many scholars and practitioners as the most effective and cost saving long-term solution. As a result, programs such as the Boys & Girls Clubs, which help to reduce juvenile crime are valuable social assets.

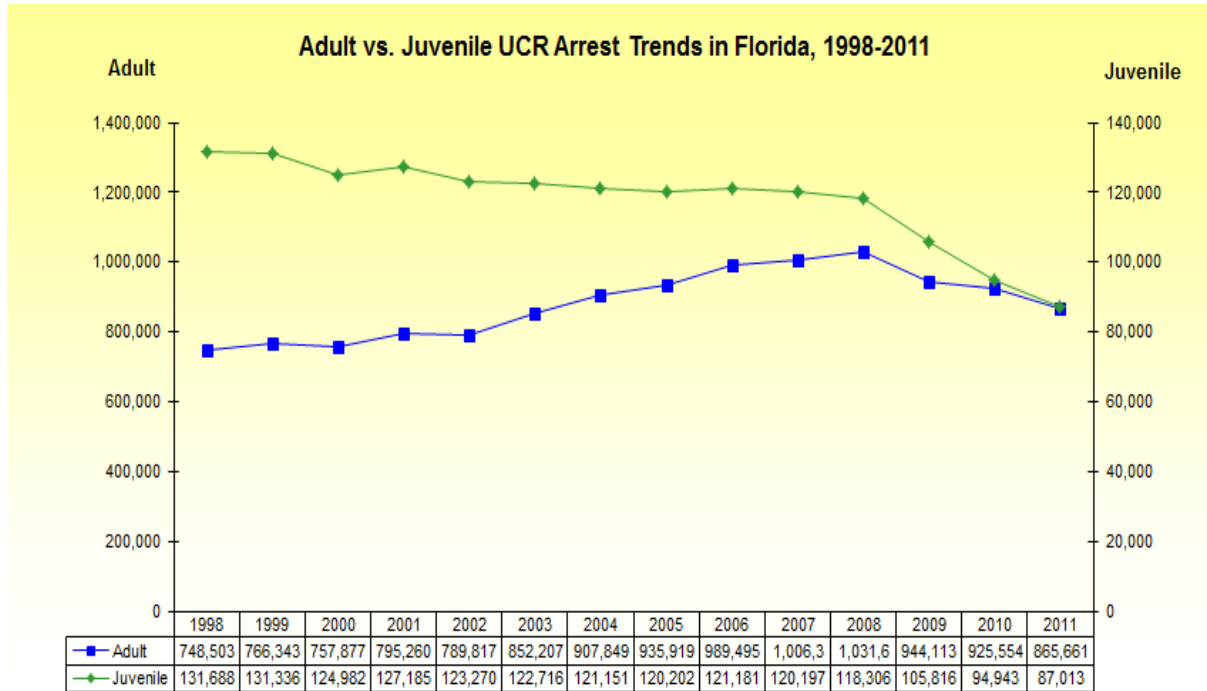
Crime rates in Florida declined over recent years. However, in many areas, the crime rate in Florida compared to other states is quite high and even increased compared other states that experienced a sharper fall over the same number of years. The following table presents a good basis for comparison. In the following table, the numbers present the ranking of the State of Florida compared to other 49 states within the United States of America.



Source: Unified Crime Statistics, FBI UCS, reported by The Disaster Center.
<http://disastercenter.com/crime/flcrime.htm>

The above table shows that the progress in a comparative sense has been mixed. There have been clear improvements in the number of violent crimes, forcible rape, and aggravated assaults since 2005.

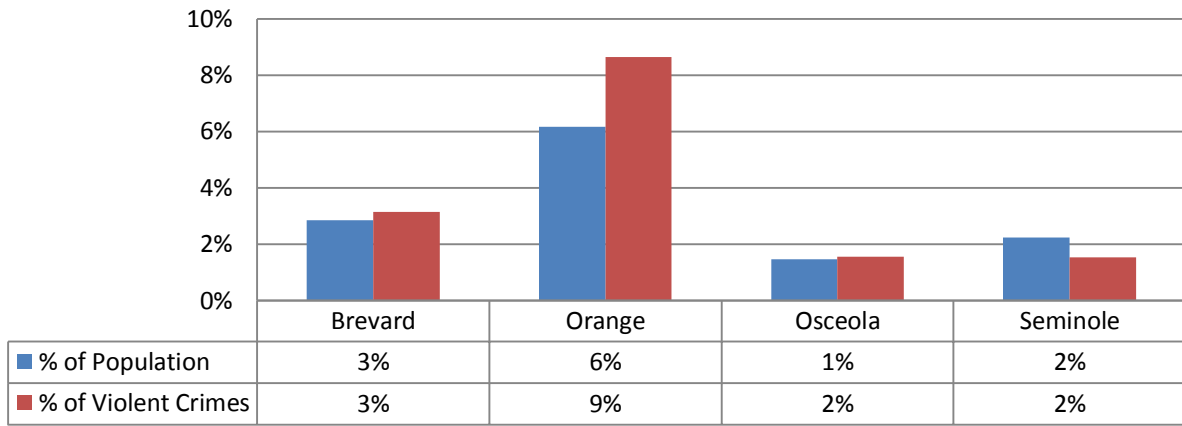
The following chart shows that, based on the latest reports (Unified Crime Reports of FBI), both juvenile and adult crimes have been declining since 2008. There is, however, a marginal gap between the two.



Source: Florida Department of Law Enforcement.

According to the information provided by the U.S. Census and Florida Department of Law Enforcement, the proportion of the population in major counties within the region of Central Florida appears as shown in the following chart.

Distribution of Population and Crimes Within Counties of Central Florida in Year 2012

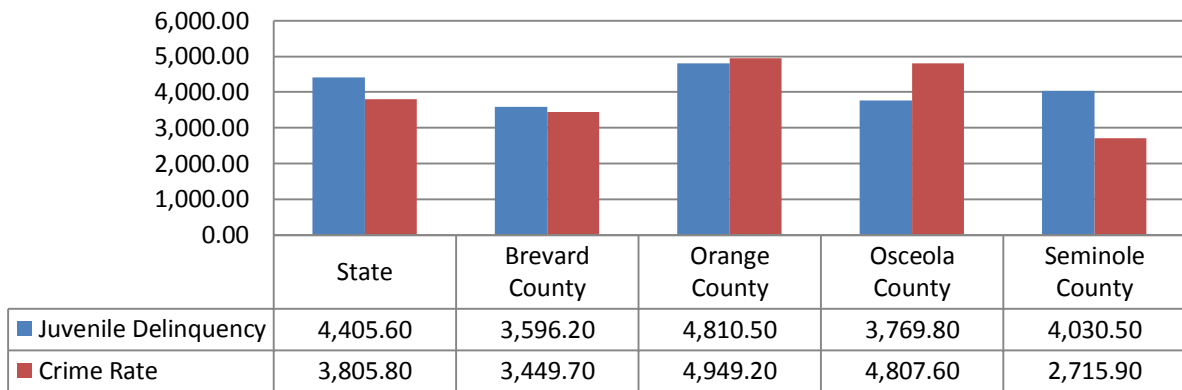


SOURCE: Florida Department of Law Enforcement. 2013. Crime in Florida, 2012 Florida uniform crime report [Computer program]. Tallahassee, FL: FDLE.

The above chart shows that the rate of violent crimes in Orange County is considerably greater than its proportion of the population. The same can be said about Osceola County. In order to make a direct comparison between the rates of overall crime represented by the arrest rate (which is a gross indicator of the overall rate of crime in an area) we had to calculate the rate of juvenile crime within the region.

The following chart provides the latest information concerning the rate of crimes in general and for juvenile crimes within the region.

Rate of Crime and Juvenile Delinquency Rates within the State and the Central Florida Region per 100,000 (2012-2013)

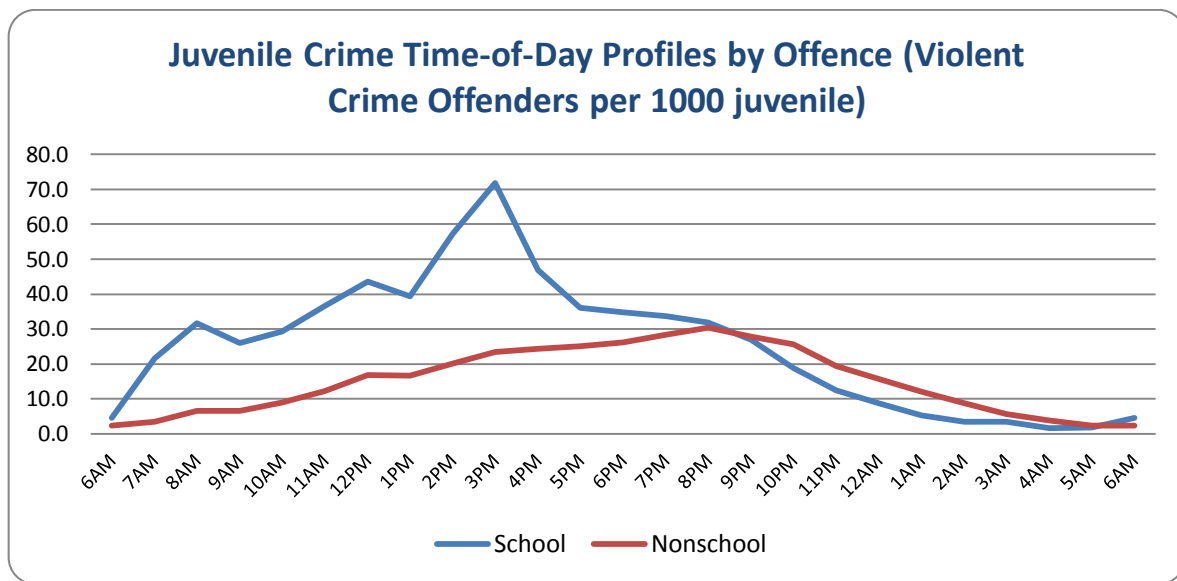


Source: Florida Legislative Office of Economic and Demographic Research May 2013

The above chart shows that in 2012-2013, the rate of crimes in the region was around the state level for both juvenile and overall. In some areas, such as Orange County, the rates for both overall and youth crimes were higher and in other counties, such as Brevard and Seminole, the rates were somewhat lower. In total, the rates of juvenile crimes in most areas were greater than the overall rate within the state.

It should be mentioned in the outset that the cost of controlling and administrating juvenile crimes is much higher than adult crimes. The focus of the juvenile criminal justice system is to rehabilitate and bring back at-risk youth to a productive and crime-free future life. The juvenile criminal justice system correctly and appropriately focuses more on education, treatment, and counseling programs when compared to the adult criminal justice system. This difference in philosophy makes correctional programs for juveniles more expensive than facilities for adults.

Violent crimes by juveniles occur most frequently in the hours immediately following the closing of school on school days. In order to understand juvenile crimes better, one needs to look at patterns that can explain why, how, and when juvenile crime happens. The following chart shows the likelihood of juvenile crime occurrences at specific times during school days and weekends and when schools are closed.



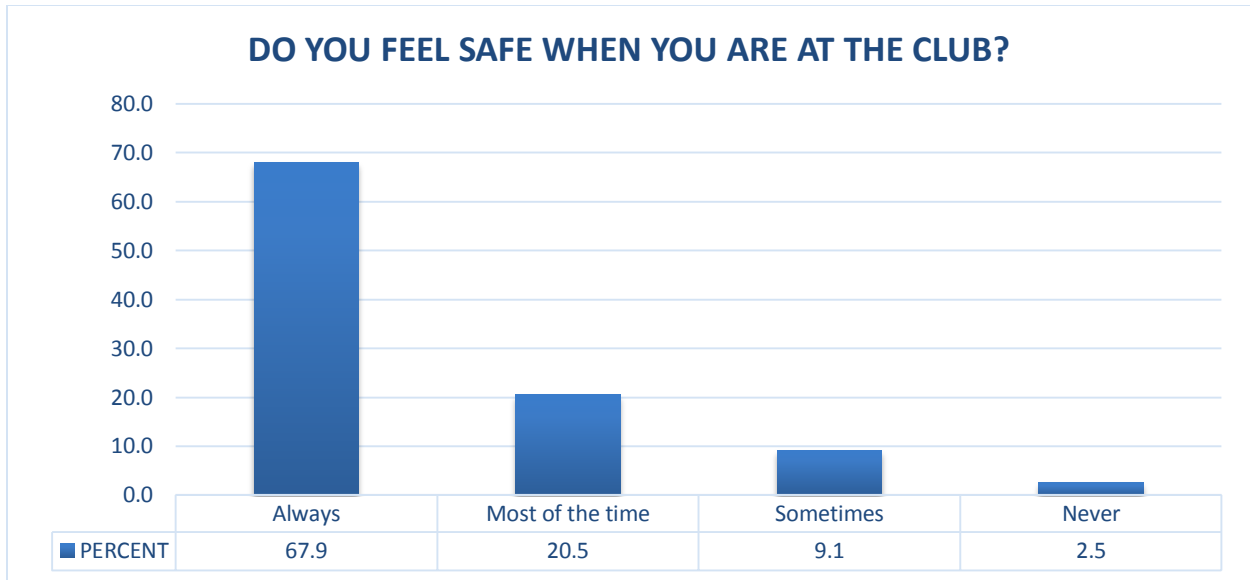
Source: National Archive of Criminal Justice Data. National Incident-Based Reporting System, 2008: Extract Files [Computer file], <http://ojjdp.gov/ojstatbb/offenders/qa03301.asp?qaDate=2008> Ann Arbor, MI: Inter-university Consortium for Political and Social Research [distributor], 2010-08-13.

The above diagram illustrates that the rate of crime spikes upwards dramatically with the highest rate of violent juvenile crimes occurring when students leave schools between the hours of 3:00 and 4:00PM. This data demonstrates clearly the acute need for having a safe environment for kids to go to when the school bell rings and they leave school. Fortunately, the Boys & Girls Clubs are available as safe havens for youth during these dangerous times of the day.

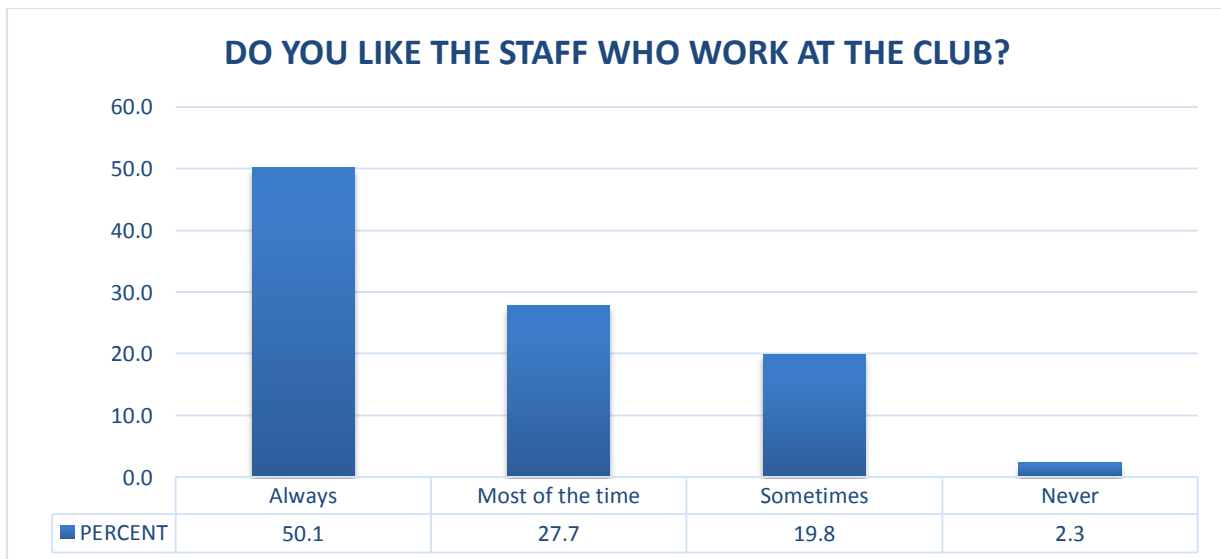
“The rate of crime spikes upwards dramatically with the highest rate of violent juvenile crimes occurring when students leave schools between the hours of 3:00 and 4:00PM... Fortunately, the Boys & Girls Clubs are available as safe havens for youths during these dangerous times of the day”

Boys & Girls Clubs in Central Florida are a critical asset of juvenile crime prevention in the state. On the most basic and intuitive level, the Clubs reduce crime by taking kids off the streets and placing them in a safe and nurturing environment. In such an environment, they are safe not only from victimization but also from negative influences that can cause them to perpetuate crime. Such a safe haven is critical during the after-school hours when juvenile crime becomes most rampant.

Moreover, the services of the Clubs operate on another level as well. By providing various resources and access to positive role models in the Club staff, the Boys & Girls Clubs are helping these youth develop the decision-making skills necessary to make the right choices and avoid poor decisions that will haunt them and the community. In order to understand the positive influence the Clubs can have in keeping youth safe and away from negative influences, our survey to Club members contained the following two qualitative questions:



Given the fact that youth are most at-risk after school, it is important to understand whether youth participating in the Clubs feel safe while they are at the Clubs. A feeling of safety can reflect a sense of security from being victimized or security from negative influences. The results are overwhelmingly positive. Nearly nine out of ten respondents (88.4%) feel safe at the very least most of the time with the majority (67.9%) feeling safe always. Beyond the simple feeling of safety, it is important that Club members feel good about the adults working at the Clubs.



Some teens become engaged in criminal activity or gangs due to contact with negative role models who encourage destructive behavior. One way in which the Boys & Girls Clubs in Central Florida may help youth make better choices is by exposing them to positive role models who are good members of the

community—such as those who work and volunteer for the Clubs. For role models to be effective, they must be well-liked by Club members. Once again, the results from the Club member survey are promising. The vast majority of respondents (77.8%) indicate that they like the adults working at the Clubs at least most of the time with a significant proportion (half) of the respondents indicating that they like them always.

Given the intuitive reasons why the Clubs help reduce the likelihood of youth to pursue criminal activity, it is important to measure this impact quantitatively and to understand the related economic impact of this social intervention. First, it is necessary to compare the crime rates amongst those participating in the Clubs and the general population of youths in the region.

In order to compare the rate of juvenile arrests for those who are Club members with the general population of juveniles in the Central Florida, we conducted a survey for the parents of children that attend the program. Our research team decided that parents are a more reliable source than the children themselves in answering this question. We used the results of this survey in order to determine the arrest rate of Club members.

Among the parents who responded to this question and had children between ages of 10 and older we found a total of 24 positive responses. These were the parents who said their children were arrested during the year. We then calculated the total number of children by these parents who may have been in this age category. In order to come to such estimation, we added the total number of children in the pertinent age category from the parents' survey and adjusted it for the missing responses and structure of the family with regard to the number of their children. Our estimate showed that the average number of children (size of the family from the perspective of the number of children) is about 1.61 children per responding parent. After making all the adjustment, we found that the rate of arrest among the Club members between the ages of 10 and higher was 2378.5 per 100,000 compared with the rate within the state that we earlier decided and argued its reasons for the relevant rate in the Central Florida. This rate was slightly less than half of the rate of youth delinquency within the region. This was used to estimate the cost savings caused by the considerable reduction in rate of juvenile delinquency.

According to the information we received from the management of the Clubs, the best estimates put the percentage of members at age 10 or higher at 85.3%. The percentage of children according the

students survey were very close (83.3%), but this survey excluded members under 8 years of age. The percentages of children at age 10 or higher according to parents survey was about 73%, which were a few percentage points less than the estimated age structure from the Club information minus our margin of error of the sample taken. The important issue is that the percentage we have is valid and could be used to estimate the number of students at age 10 or higher, but to be on the conservative side, we decided to use a rate of 80% as the percentage of members at age 10 and higher for the purpose of the calculation of youth saved from ending up among the juvenile delinquent population.

Based on the following calculation, we found that the existence of the Clubs in Central Florida is likely to save 185 children from being arrested.

Total Number Saved = $12,974 \times 0.88 \times 0.80 \times (0.044056 - 0.023785) = 185$ children saved from being arrested.

Where:

- 12,974 is the total number of registered members at the Boys & Girls Clubs in Central Florida in 2013.
- 88% is the percentage of members who attend the Clubs at least three times during a regular week.
- 80% is the percentage of Club members who are between ages of 10 and higher.
- 4405.6 per 100,000 is the juvenile delinquency rate in the state which is taken to be similar to the region with possible small differences.
- 2378.5 per 100,000 is the rate of juvenile arrest in the region and among the members of Boys & Girls in Central Florida based on the information provided from the parents' survey, data given to the consultants by the Club management and survey of members.

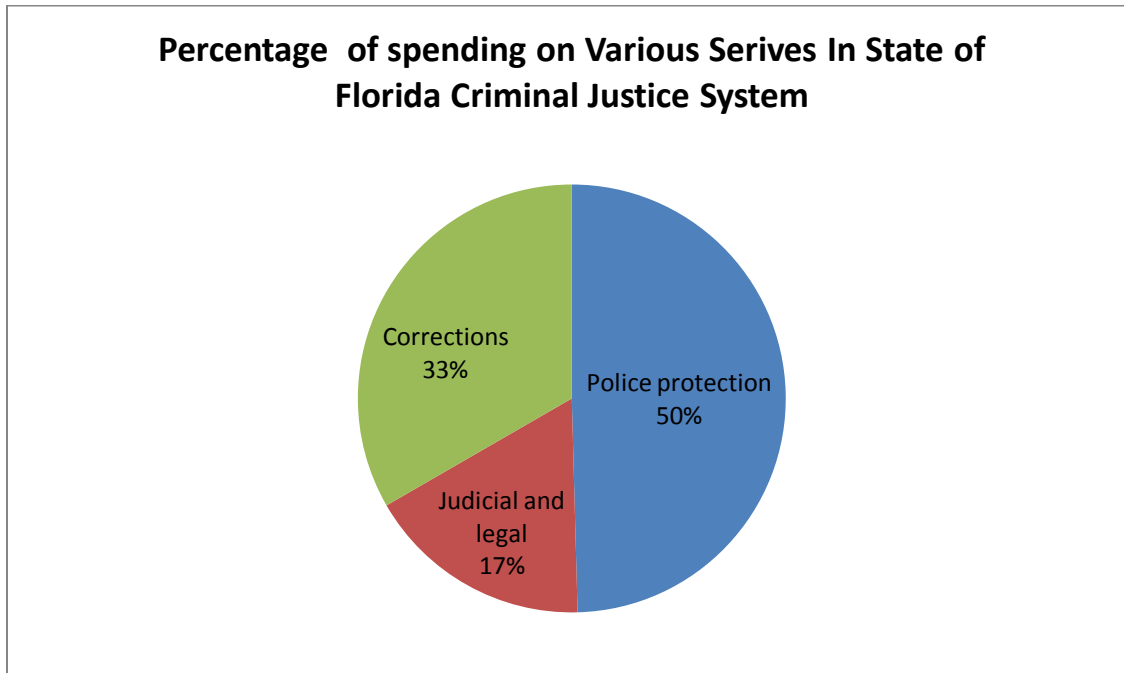
“Some 185 youth are saved from being arrested through their participation in Boys & Girls Clubs in Central Florida”

In order to calculate the total savings that resulted from this reduction in juvenile arrests, we need to have an estimate of the cost related to juvenile arrest and juvenile crimes.

Finding pertinent information that provides a comprehensive and all-inclusive cost of crimes and misdemeanors is extremely complicated, and in some respects, impossible based on the available information. There is, however, some excellent research done by experts at the U.S. Census in which

they used the information available through the states, local governments, and scientific surveys which have been conducted by the U.S. Census Bureau.²²

According to the Bureau of Justice Statistics (BJS) the State of Florida spent \$697 per person in 2007. This is considerably greater than the national average of \$633 per person in the same year.²³



Source: Bureau of Justice Statistics, Office of Justice Program, 2011

As the chart indicates, half of the total expenditure in the State of Florida is spent on police protection. Using the frequency distribution of arrests in the United States as a proxy for the State of Florida and for Central Florida, we found that according to the latest data available for 2009 (data was released in September of 2011), 13.9% of all crimes and misdemeanors were committed by youth between the ages of 10 to 17 . The total expenditure on the criminal justice system, comprising of the state, the regional, and the local spending, amounted to a total of \$12,685,242,000 (about \$ 12.7 billion).²⁴

²² See Bureau of Justice Statistics (BJS) recent publication, 2011 for description of data, mythology of data collection and their definition. <http://www.bjsgov/index.cfm>

²³ The highest per person spending on criminal justice belonged to the District of Columbia, which was \$1,313 during the same year of 2007.

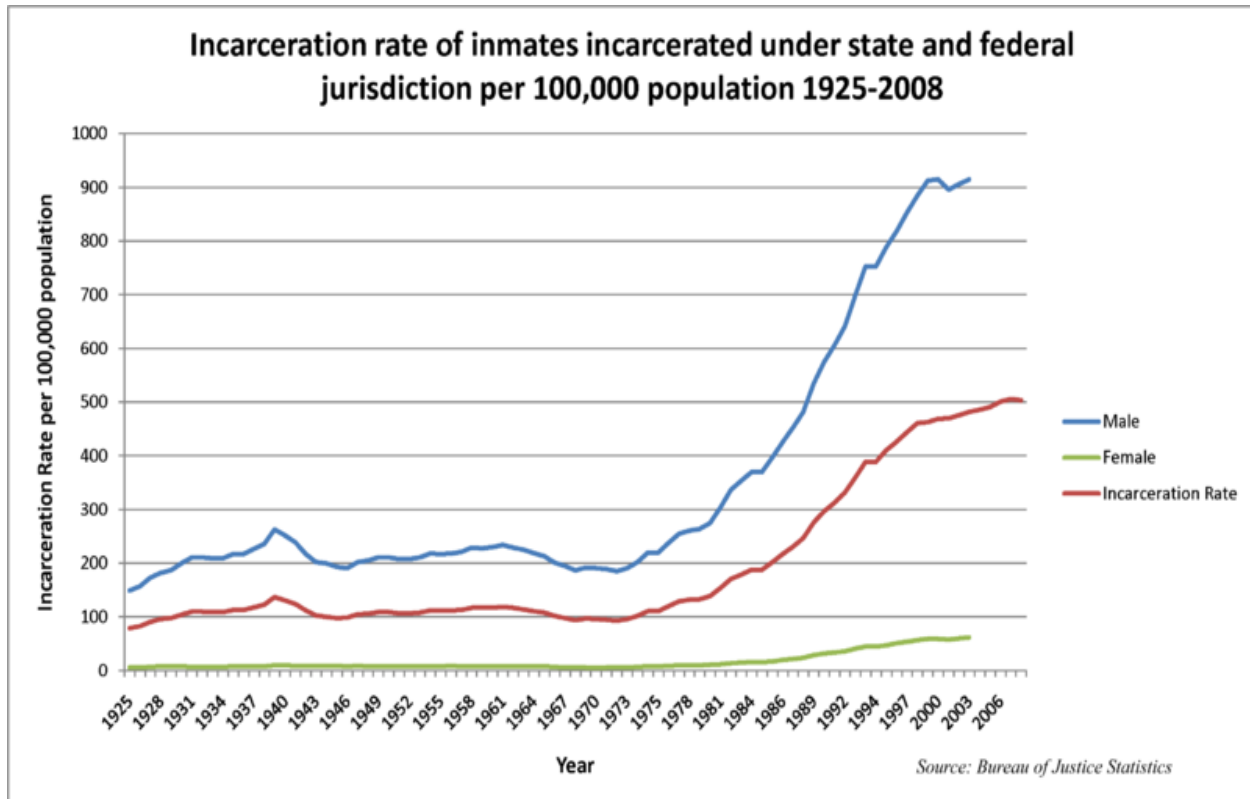
²⁴ See <http://www.bjs.gov/index.cfm>

In order to calculate the cost of criminal justice per arrest as an indicator of what the savings from the prevention of crime may be for those who were fortunate to avoid criminal activities and do not put their and lives of others at risk, we need to find a way to divide the total cost between juvenile and adults committing crimes and misdemeanors.

As indicated earlier, the total cost of the criminal justice system in the State of Florida in 2007 reached a total of \$12,685,242,000. In order to reach a reasonable cost per arrest for youths as opposed to adults, we need to determine what percentage of this cost belongs to adults and which proportion to youths. It is highly inaccurate to divide this cost based on the percentage of youth arrested compared to adults, for as we know, the state spends far a greater amount on youths than on adults, as the underlining justice philosophy for youths is rehabilitation and a focus on a return to normal life as opposed to isolation and mere punishment. These costs are substantially more than the state spends to house adult offenders, primarily because juvenile facilities have a higher staffing ratio and greater costs for education and rehabilitation programs than adult facilities.

According to the most recent report by the Justice Policy Institute in 2009, approximately 93,000 young people are held in juvenile justice facilities across the United States. Some 70% percent of these youth are held in state-funded, post-adjudication residential facilities, at an average cost of \$240.99 per day per youth. The cost can go even higher due to high expenses of secure detention before trial. The cost of detaining adults is much lower. According a recent report, the annual cost of keeping one inmate in Florida is about \$20,553, which suggests a cost per day of \$57. The cost of keeping a juvenile is more than five times this cost.²⁵ The following chart shows the increase in the rate of incarceration and its cost over time.

²⁵ See "The Price of Prison; What incarceration costs taxpayer, Florida", Vera Institute of Justice, <http://www.vera.org/files/price-of-prisons-florida-fact-sheet.pdf>



Source: Bureau of Justice Statistics

As mentioned earlier, we employed the overall national ratio of arrests of youth over the total arrests and in 2007, this ratio was 13.9%. Nonetheless, the cost should not be considered by the same percentage of the total based on the foregoing discussion. At the same time, we do not have any detailed information that can be used for dividing the total cost of criminal justice between youths and adults.

We therefore used the proportion of incarceration costs as a guiding criterion for the division of costs of criminal justice between adults and youths. One had to bear in mind that the cost in Central Florida might be higher than the average and therefore this might present an underestimation of the cost division. For dividing the total cost of criminal justice in the state between the two groups of offenders, we gave a ratio of 1:3 between proportions of the cost of criminal justice toward youths versus adults.

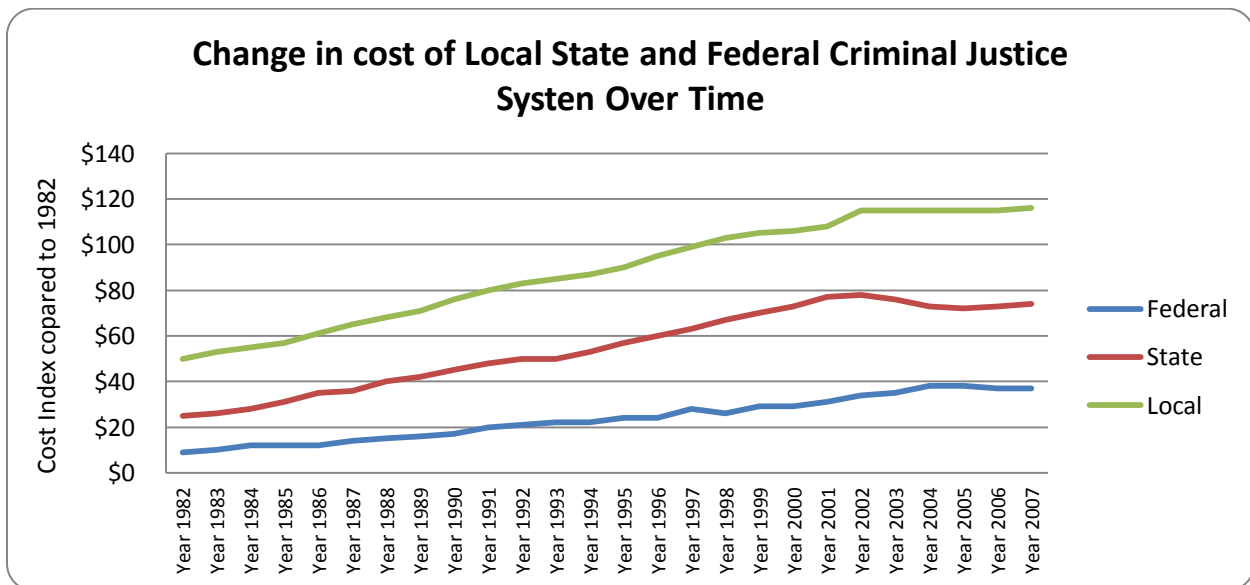
This was done for the following reasons:

- A higher proportion of youth commit misdemeanors.
- The cost of youth incarceration is at least five times that of adult inmates.

- Costs of processing and litigating youth are usually higher than adults because of legal provisions that are in place to help youth to have a better chance of returning to a productive and healthy life. The aim is often focused on rehabilitation than mere punishment.

Using this ratio led us to allocating 33% of the total costs to youth and the remainder to the adult offenders. We then used this ratio to calculate the total cost of criminal justice attributed to youth out of the total expenditure of \$12,685,242,000. This resulted in an estimation of \$4,186,129,860 that had been spent on the youth portion of the criminal justice system in the State of Florida.

In order to arrive at a reasonable allocation of the state budget to the Central Florida area, we used a ratio of population (bearing in mind that earlier we assumed the overall rate of criminal activities in the region is close to the state level). Taking the overall percentage of the four counties, we came to an estimation of 12.7% of the state population lives in this area and we assumed its juvenile crime index to be close to the level of state. We therefore calculated the region’s share of the expenditures on juvenile crimes to be at 12.7% of the state total. This results in the calculation of $\$4,186,129,860 \times 0.127 = \$531,638,492.22$ (about \$531.6 million). This is the data for 2007 and although crime rates decreased every year for most of the years since 2007, we know that the rate of inflation in the cost of criminal justice has been very high. This can be seen in the following chart.



Source: Bureau of Justice Statistics.

We used this information and calculated the weighted average rate of increase per year in real terms for the nation as a whole. This rate came to around 5% per year. This is the change in real cost and as such,

one can add the cost of inflation to the annual rate of change. In light of the economic slowdown, we decided to add a 2% rate of inflation to the annual cost increase. We used a 7% change in cost to calculate the current dollar cost for the cost of juvenile crimes. We used this rate and calculated the cost of criminal justice for juveniles in Central Florida in 2013. This brought the total estimated cost to \$775.4 million per year, which includes all segments of costs of criminal justice.

According to the latest information available, the Florida Department of Juvenile Justice puts the total of juvenile arrests for the state of Florida at 50,803 arrests (83,494 total arrests representing a total of 50,803 delinquent youth which suggests some have been arrested multiple times). Using the same ratio of 12.7% (based on proportion of total population assuming no particular structural difference in age structure of the population of the state and the region) we come to 10,603 arrests in the region in 2012-13, according to the latest available data.²⁶ By dividing the total estimated cost of the juvenile criminal system of the region by this number (10,603), the expected cost is likely to be around \$73,130 per arrest. We can now use this information and estimate the positive impact of preventing juvenile crimes and creating substantial savings for taxpayers.

“The positive, safe, and nurturing environment of Boys & Girls Clubs in Central Florida saves the taxpayer \$5,585,251 in reduced criminal justice system spending”

Total number of juveniles saved from arrest	Estimated annual expected cost of juvenile crimes per person arrested in the Central Florida Area	Total saving per year for the State of Florida due to impact of the Boys & Girls Clubs of Central Florida
185	\$73130	\$13,529,050

Source: Authors’ calculation, FBI Crime Reports, Bureau of Justice Statistics, Florida Department of Law Enforcement

The positive, safe, and nurturing environment of Boys & Girls Clubs in Central Florida saves the taxpayers \$13,529,050 in reduced criminal justice system spending. The estimates may, to some, seem

²⁶ See Florida Department of Juvenile Justice, *Our Children Our Future*, 2014, <http://www.djj.state.fl.us/research/fast-facts/trends-conditions>, we had an option of using the actual number of youth arrested instead of cost per arrest and that could have made more sense in order to use the data calculated through the surveys. However, it was unclear if the such assumption would not increase the estimated cost unreasonably since this would have assumed that youth with multiple arrests have the same cost as a single arrest.

high. But the fact of the matter is that this in real terms is much less than what the actual cost over time might be. This can be better understood when we look at the other cost items that are very realistic and plausible but are not included in the costs of the criminal justice system used in the above calculation.

These costs may include:

- **Medical cost:** Paid by victims, families, businesses and government because of injuries suffered due to crime.
- **Stolen and damaged property resulting from crime.** These items often bring a significant additional cost to crimes.
- **Loss of productivity to society:** This could be due to death or medical and mental disabilities resulting from crime.
- **Loss of work time:** By victims of crime and their families.
- **Loss of property values:** In neighborhoods with high rates of crime.
- **Pain and suffering of crime victims:** This can occur to their families and friends, as well as communities plagued by crime.
- **Foster care and other social services costs:** This is to provide homes and other services for children of offenders.

The fact is that no one can truly estimate the exact costs listed above as they may change from case to case. Therefore, it should be easily accepted that saving 185 juveniles from possible arrests has a monetary value many times greater than the estimate provided in this study.

2.4) Development of Healthy Habits at a Young Age

Many people in the United States, including youth, suffer from a lack of exercise and poor nutritional habits, which can often lead to obesity or chronic conditions such as diabetes. These negative lifestyle choices have severe health consequences that reduce one's length and quality of life. While poor health is a serious problem in and of itself, it is important to consider that it also creates economic problems by reducing individuals' economic productivity and increasing public and private healthcare costs. As such, any organization such as the Boys & Girls Clubs that helps to improve nutrition and encourage exercise deserves to be acknowledged for any such positive contributions to the community.

In 2009, the annual national "cost of obesity [was] \$147 billion and the people who are obese [spent] almost \$1,500 more per year on health care"

The Centers for Disease Control and Prevention (CDC) has attempted to quantify the costs imposed on society due to obesity. Research in 1998 found that the costs of obesity were \$78.5 billion annually nationwide (“Economic Consequences” Par.1). Recent studies indicate that these costs have only grown in the last decade and are expected to rise. In a July 2009 press conference, Dr. Thomas Frieden, director of the U.S. CDC, reported that the current cost of obesity is \$147 billion and that people who are obese spend almost \$1,500 more per year on healthcare (Reinberg Par. 2). Research by Kenneth Thorpe of Emory University suggests that if Americans continue current patterns of obesity, the medical expenses of obesity will cost \$344 billion by the year 2018 (Hellmich Par. 1). Based on these calculations, an obese individual will incur an additional \$2,460 in medical expenses each year as a result of such healthcare expenses.

Data on childhood obesity is as troubling. A 2005 research brief by Thomson Medstat Research found that the national cost of childhood obesity in terms of medical costs was \$11 billion for children with private insurance and \$3 billion for those with Medicaid (Par. 4). On a per capita basis, this means that the cost is \$6,700 per obese child on Medicaid and \$3,700 per obese child with private insurance. Accounting for inflation, the national cost for those with private insurance is \$13.13 billion, or \$8,000 per capita in 2011. Similarly, in current dollars, the cost is \$3.58 billion or \$4,418 per capita, for those with Medicaid.

This financial cost is significant and is accounted for by the fact that the likelihood of various medical problems increase with obesity even amongst children. Obese children are, in fact, two to three times more likely to be hospitalized. There is evidence that such hospitalizations are on the rise in recent years. Between 1999 and 2005, the number of hospitalizations for those between the ages of 2 and 19 with a primary or secondary diagnosis of obesity increased twofold from 21,743 to 42,429 per year (Hellmich par. 2). These hospitalizations were for a variety of obesity-related ailments including “asthma, diabetes, gallbladder disease, pneumonia, skin infections, pregnancy complications, depression and other mental disorders” (Par. 3). Not only is hospitalization traumatic for these youths, but it is extremely costly given the great expense generally incurred in hospitals.

Given these costs, programs such as those in the Boys & Girls Clubs that encourage healthy habits are vital to the wellbeing of the community. Every single Club which is a part of the Boys & Girls Clubs in Central Florida features some sort of program which promotes physical exercise and/or nutritional education. One particularly popular program is Triple Play, a national initiative of the Boys & Girls Clubs

of America provided through sponsorship by the Coca-Cola Company. The program has a three-part objective of helping students improve their health and well-being through a focus on mind, body, and soul. Noteworthy components of the program include a “Healthy Habits” curriculum developed in partnership with the U.S. Department of Health & Human Services.

Certain programs such as organized sports leagues are known to provide additional and further health benefits to participants. One study explains that:

“Appropriate and safe youth sports participation can provide a wide range of complementary health-enhancing benefits and gains in health-related fitness... regular participation in organized sports and consequence enhanced health and fitness in youth may have a positive impact on cardiovascular and other measures of health later in life... Sport and competitive-level specific advantages in cardiorespiratory fitness and general and functional muscular strength, endurance, and power have been shown in boys and girls across a variety of youth sports activities” (Bergeron 2007)

Such research demonstrates that the students participating in athletic programs organized by the Boys & Girls Clubs not only develop better fitness as younger people but are likely to be more fit later in life. Such long-lasting health benefits may help counteract the troubling health and economic consequences of inactivity and obesity.

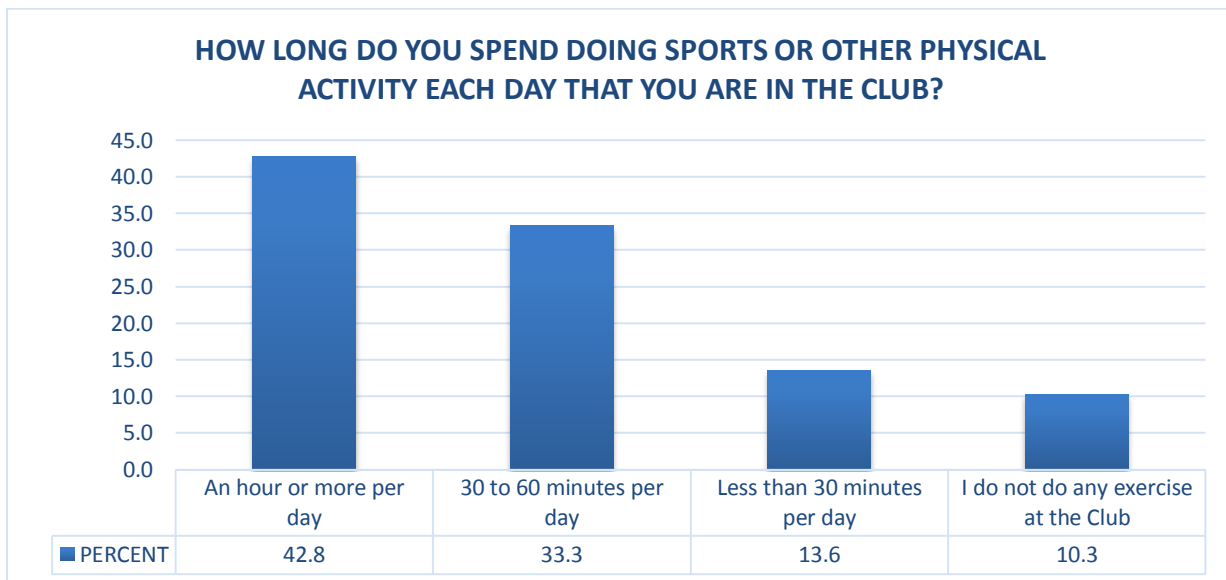
Improved health and wellbeing is good not only for its own sake. Research has shown that weight loss can yield significant economic benefits by reducing one’s lifetime healthcare costs. Dr. Gerry Oster (et al) conducted a thorough study to measure the economic benefits enjoyed by moderately to severely obese individuals who reduce their body weight by 10%. The study took into consideration the relationship between Body Mass Index (BMI) and conditions such as type 2 diabetes, hypertension, hypercholesterolemia, stroke, and coronary heart disease (CHD); such conditions were the focus of the study since they account for 85% of obesity related medical expenditures (Oster 1999). The study employed a model that considered the risks and costs associated with a certain BMI over the life of the individual in question. The model found that a sustained 10% reduction of BMI would reduce lifetime medical costs by \$2,300 to \$5,300 for men and \$2,200 and \$5,200 for women; the range in question depends on the individual’s age and initial BMI.

Although the scope of our study did not include a scientifically rigorous pre- and post-collection of data on Club members’ BMI, there is good reason to believe that the programs offered by Boys & Girls Clubs

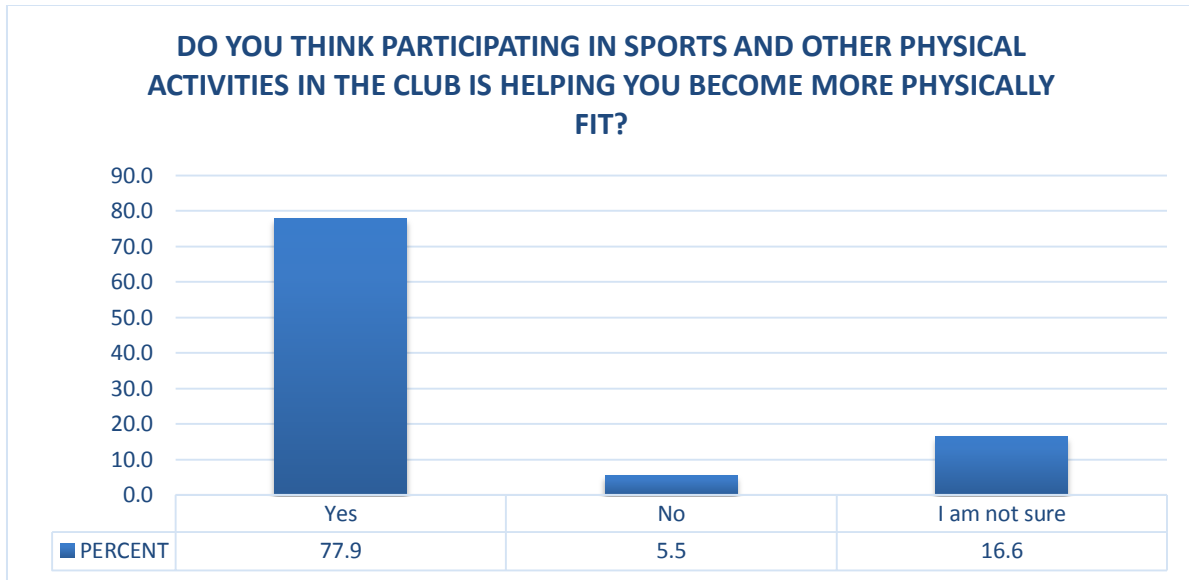
in Central Florida do encourage sufficient physical activity and improved nutrition to create long-term economic savings for the community.

Beyond the Oster study, others have verified the positive economic benefits that can be achieved through lifestyle changes. One study found that reduction of daily caloric, sodium, and saturated fat intake can all result in medical cost savings (Dall 2009). For instance, the study calculated that a 100-kcal reduction in caloric intake across the country would reduce national medical expenditures by \$58 billion, while a more extreme 500-kcal reduction would reduce such expenditures by \$111 billion. It is clear, therefore, that by helping improve lifestyle decisions that the Boys & Girls Clubs within Central Florida region are creating an economic benefit to the community. The impact of the Clubs is further illustrated in Club member surveys.

In the survey we administered to Club members, we included several questions that were designed to determine the impact of the Clubs on their health and nutrition. The results were positive and indicate that the Clubs are helping to improve the lifestyle choices of members.

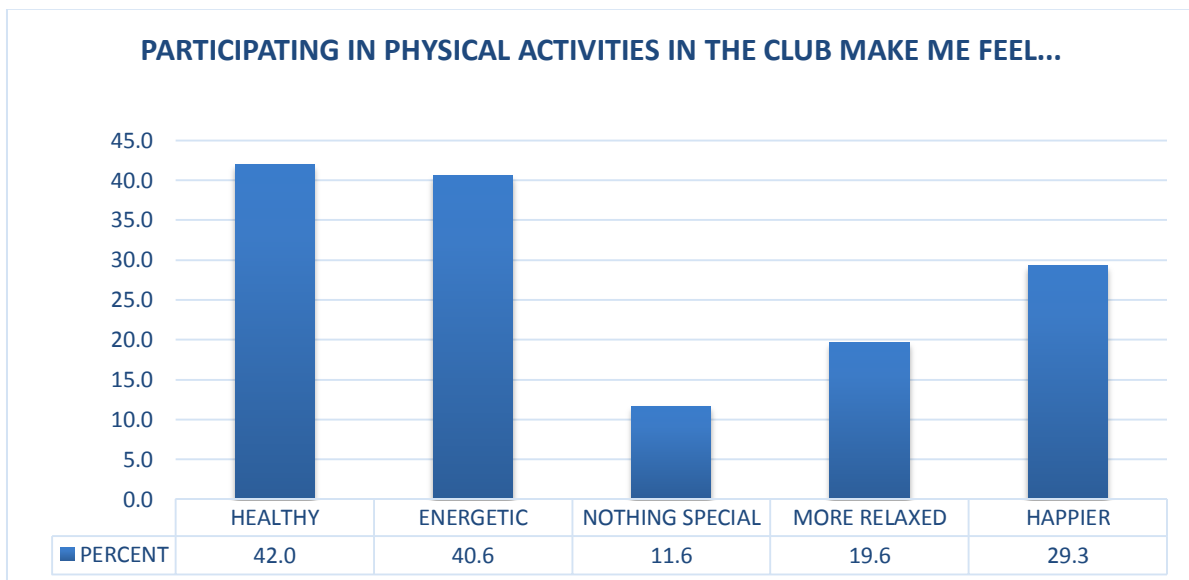


A vast majority of students (76.1%) exercise for at least 30 minutes a day while at the Boys & Girls Clubs. In fact, a significant proportion of them (42.8%) report exercising for an hour or more. Only around 10% do not do any exercise while they are in the clubs. Such levels of regular, daily exercise are beneficial to the health of Club members. It can ensure Club members avoid the physical inactivity that leads many young people across the country to become overweight or obese.

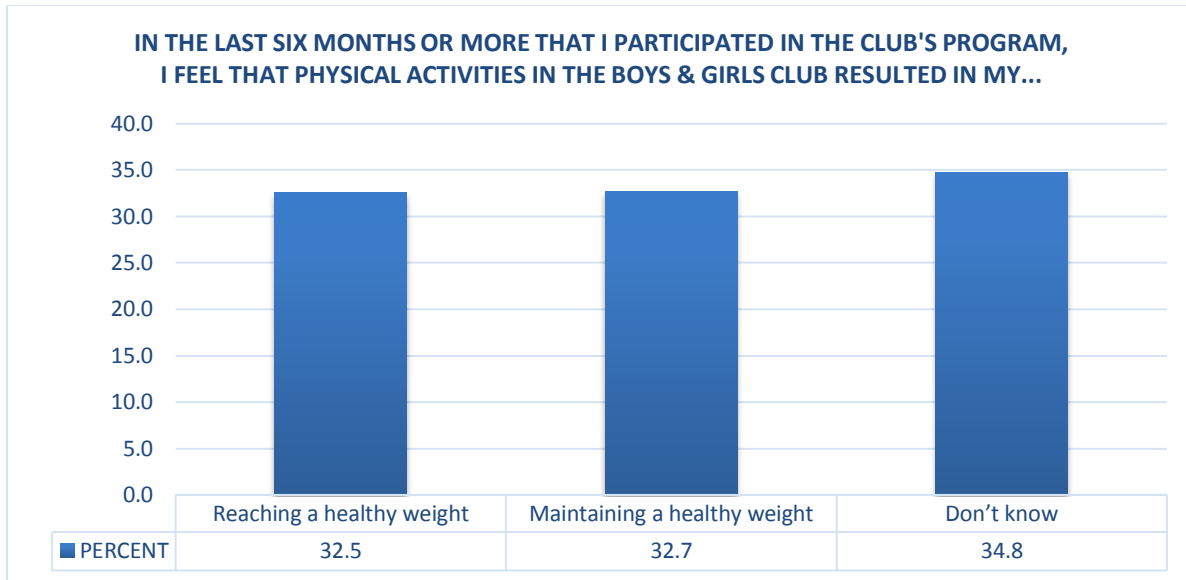


Students also report a widespread belief that such physical activity is making them more physically fit. Some eight out of ten respondents (77.9%) believe this statement to be true while an additional 16.6% are uncertain. Only 5.5% of Club members do not believe that physical activities at the Clubs are making them more fit.

The questionnaire contained a variety of questions about what members may think or feel about doing exercise while they are at the Club. The following chart presents the findings.



The above chart shows multiple benefits that members feel and reported in the survey. 42% feel healthy, 40.6% feel energetic, 29.3% feel happier, and 19.6% feel more relaxed.



The above chart is very enlightening as it shows that a majority of respondents (65.2%) report that their participation in the physical activities of the Clubs helped them to reach or maintain a healthy weight. Taking this ratio and applying it to the total number of Club members, it shows that some 8,459 Club members managed to reach or maintain a healthy weight.

“With some 8459 youths maintaining or reaching healthy weight through participation in the activities of Boys & Girls Clubs in Central Florida, it is clear that the Clubs are helping their members lead healthier and more physically active lives”

In addition to these questions, the survey included several other questions designed to determine whether students have reached a healthy weight. Such a line of inquiry was adopted since such findings are quite important given the nature of research discussed earlier in this section on the positive economic benefits of weight loss among overweight and obese populations. The results of these questions can be seen in the below table.

Total number of registered Club members	Percentage of Club members who have maintained or reached a healthy weight through participation in the physical activities during the last six months in Boys & Girls Clubs in Central Florida	Estimated number of Club members who have maintained or reached a healthy weight through participation in physical activities at the Clubs

12974	65.2%	8459
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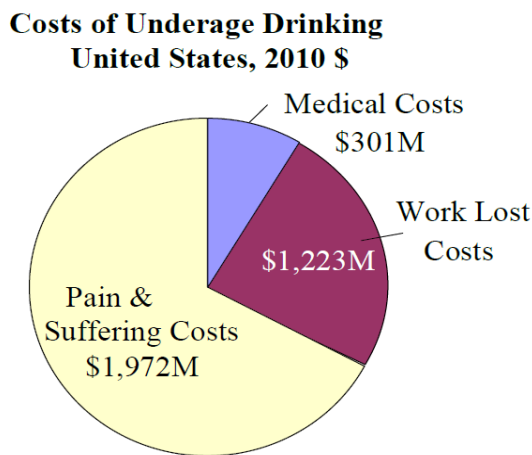
With 8459 youth reaching or maintaining healthy weight through participation in the activities of Boys & Girls Clubs in Central Florida, it is clear that the Clubs are helping their members lead healthier and more physically active lives. Given the epidemic of obesity and inactivity that is crippling this nation's youth, such a program is particularly worthwhile.

2.5) Benefiting from Reductions in Substance Abuse

Tragic social and economic problems result from the use of alcohol by youth. Underage drinking is a causal factor in a host of serious problems, including: homicide, suicide, traumatic injury, drowning, burns, violent and property crime, high risk sex, fetal alcohol syndrome, alcohol poisoning, and the need for treatment for alcohol abuse and dependence.

Underage drinking cost the citizens of Florida \$3.5 billion in 2010. These costs include medical care, work loss, and pain and suffering associated with the multiple problems resulting from the use of alcohol by youth.²⁷ This translates to a cost of \$2,156 per year for each youth in the state, or \$3.62 per drink consumed underage. Excluding pain and suffering from these costs, the direct costs of underage drinking incurred through medical care and loss of work cost Florida \$1,524 million each year, or \$1.58 per drink. In contrast, an average drink in Florida retails for \$1.13.²⁸ We can adjust the cost to 2012 prices by using a 3% rate of inflation and the total amounts to \$3.71 billion at 2012 price levels. Using the same method of adjustment, the cost per youth at 2012 prices is \$2,237 per youth per year.

The following chart shows the breakdown of cost of youth underage drinking into its various components.



Total: \$3.5 billion

Source: Pacific Institute for Research and Evaluation, 2010

²⁷ Based on the study by Levy, D.T., Miller, T.R., & Cox, K.C. (2003). Underage drinking: societal costs and seller profits. Working Paper. Calverton, MD: PIRE.

²⁸ See <http://www.udetc.org/factsheets/FL.pdf>

Costs of Underage Drinking by Problem, Florida, 2010 \$

Problem	Total Costs (in millions)
Youth Violence	\$2,121.5
Youth Traffic Crashes	\$458.1
High-Risk Sex, Ages 14-20	\$263.5
Youth Property Crime	\$386.6
Youth Injury	\$108.8
Poisonings and Psychoses	\$31.1
FAS Among Mothers Age 15-20	\$54.6
Youth Alcohol Treatment	\$71.9
Total	\$3,496.0

Source: Pacific Institute for Research and Evaluation, 2010²⁹

The table presents a breakdown of the cost of teenage drinking by problems and sheds light on a deeper concern that many have in the community and is evident in the types of problems listed. It connects the dots between underage drinking and a host of social and economic problems that we experience in many communities around the country.

Youth violence and traffic accidents attributed to alcohol use by underage youth represent the largest costs for the state. The combined cost of youth violence and traffic accidents amounts to 74% of total cost of underage drinking in the State of Florida. However, a host of other problems contribute substantially to the overall cost.

Research shows that young people who begin drinking before age 15 are four times more likely to develop alcohol dependence and are two and a half times more likely to become abusers of alcohol than those who begin drinking at age 21.³⁰

²⁹ The latest available information dates back to 2010 and there has not been any update of the information by the time of writing of this report.

Underage drinking is widespread in Florida. Approximately 708,000 underage youth in Florida drink each year. In 2009, Florida students in grades 9-12 reported.³¹

- 23.3% had their first drink of alcohol, other than a few sips, before age 13.
- 40.5% had at least one drink of alcohol on one or more occasion in the past 30 days.
- 21.1% had five or more drinks of alcohol in a row (binge drinking) in the past 30 days.
- 4.9% had at least one drink of alcohol on school property in the past 30 days.

In 2009, underage customers consumed 9.5% of all alcohol sold in Florida, totaling \$1,095 million (\$1.1 billion) in sales (in 2010 dollars). These sales provided profits of \$536 million to the alcohol industry.³²

When ranking states based on the percentage of alcohol consumed underage, with 1 the highest, Florida ranked number 48. This percentage is affected by both adult and youth drinking levels.

Annual sales of alcohol consumed by youth in Florida averaged \$1,546 per underage customer.

Underage customers were heavier consumers than adults. They drank an average of 3.7 drinks per day; in contrast, legal customers consumed only 1.8.

These statistics indirectly demonstrate the overall cost of underage drinking in the State of Florida and henceforth in the Central Florida region. However, it is very difficult to assign the cost based on the CDC Youth Risk Behavior Survey in a clear and objective manner. This difficulty arises from several observations. The first issue is that risky behaviors are wrong regardless of the degree of the risk. In other words, each time a 9th grade student drinks, there is a cost no matter how low the overall level of alcohol consumption. If we accept the validity of such an argument, we must assign a cost whenever an underage youth drinks. While this argument may have certain elements of relevance, it is hard to apply

³⁰ For more information see Grant, B.F., & Dawson, D.A. (1997). Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: Results from the National Longitudinal Alcohol Epidemiologic Survey. *Journal of Substance Abuse* 9: 103-110.

³¹ Center for Disease Control (CDC). (2011). Youth Risk Behavior Surveillance System (YRBSS). Available [On-line]: <http://apps.nccd.cdc.gov/youthonline/App/Default.aspx>.

³² Levy, D.T., Miller, T.R., & Cox, K.C. (2003). Underage drinking: societal costs and seller profits. Working Paper. Calverton, MD: PIRE.

it with such a level of severity. It is necessary to establish some standards and threshold for defining what level of abuse constitutes a level that causes the cost associated with substance abuse among various groups of youth. We should establish and apply levels of high risk with which we can identify frequent users and assign the cost to them compared with other users that register a much lower level of use. This is a task that requires the expertise of a public health professional or criminologist.

There is insufficient in-depth research on the impact of substance abuse on adolescents. The California Attorney General's Office conducted a study into this matter in 2007 with the help of the Department of Education and Department of Alcohol and Drug Abuse.³³ The authors of the aforementioned study argue that the field of adolescent substance abuse research has long been challenged by the lack of a clear consensus on how to define heavy use, misuse, or abuse. These are relative concepts. For example, some people consider any recreational drinking by youth to be "abuse" solely by virtue of its illegality. Complicating the determination of abuse among youth is the delay in the development of persistent adverse physiological consequences that are typically used to identify abuse and dependency. For example, alcoholism is difficult to define for any population and it is found rarely among young people when measured by adult criteria. They argue that frequency rates, such as daily and weekly use, are helpful in identifying heavy users, but can by themselves be misleading because they overestimate the potential harm to young people who may use often, but in small amounts. This is especially a problem with alcohol (e.g., a small glass of wine might be consumed once a week with the family meal). Therefore, measures that combine frequency and level of use are more useful. Assessment of heavy drug use is even more complex because it is harder for users to gauge the amount consumed per session (the concentration of active ingredients in illegal drugs varies widely).

In an effort to determine the level of alcohol misuse, Ellickson et al. (1996) utilized a panel of ten experts to provide guidance. Most of the panel felt that frequency and quantity should be considered together in determining misuse, and there was a consensus that experiencing use-related problems or engaging in certain high-risk behaviors once or twice in the past year constituted misuse. However, there was

³³ See Gregory Austin, Ph.D., Rodney Skager, Ph.D. , Jerry Bailey, M.A., and Scott Bates, Ph.D. Tenth Biennial California Student Survey 2003-2004 Heavy Alcohol and Drug Use, Jointly sponsored by California Attorney General's Office California Department of Education and Department of Alcohol and Drug Programs, 2007

disagreement over what the cutoffs should be. Therefore, they looked at a range of definitions with different cutoffs.³⁴

In most studies, four types of data are used typically to estimate heavy use: (a) high-risk patterns of use; (b) use-related problems; (c) dependency-related experiences; and (d) cessation-related efforts. Some behaviors are intrinsically risky and associated with abusive patterns. For example, two common demarcations of heavy drug use are: (a) frequent use of marijuana (once per week or more often); and (b) any use of other “hardcore” illicit drugs (e.g., methamphetamines), because they are more dangerous and less socially acceptable and available, thus indicating a greater level of drug involvement.

For example, even small amounts of alcohol may produce feelings that are interpreted as drunkenness by people who may have never actually been “drunk” as defined by their blood alcohol content or mental and physical changes. Still, the rate of occurrence may help to distinguish the naïve from more seasoned. Students were also asked if they had ever experienced acute adverse pharmacological effects associated with consuming too much (e.g., blacking out, memory loss).

Heavy users typically engage in polydrug use, which is defined as using two or more substances (excluding tobacco) at the same time in the past six months (e.g., alcohol and marijuana). Polydrug use is considered particularly risky because of the possible synergistic interactions that may result when different drugs are used together. It may produce unpredictable combined pharmacological changes in users for which they are not mentally prepared or emotionally mature enough to handle.

Another potential indicator of heavy involvement is using drugs or alcohol at school or during the school day. An inability to forego use during school, despite the inherent risks, suggests a level of involvement that may reflect psychological and/or physiological dependency, as well as disengagement from school. Even if adolescents do not think they will get caught, it is high-risk behavior in any case, due to the potential ramifications of getting caught, and the adverse pharmacological effects on learning are indisputable.

A second common criterion for assessing the level of heavy use is to define it in practical terms of problem intervention: those students who manifest that use have become detrimental to themselves,

³⁴ See Ellickson et al., "Does Alcohol Advertising Promote Adolescent Drinking? Associations Between Drug Use and Deviant Behavior in Teenagers, 1996

others, and society and, therefore, warrant services to reduce or stop that use. This is known as use-related problems indicating heavy substance abuse.

A third area of measurement relates to indicators suggesting dependency or a high level of involvement in a substance-use lifestyle. Another criterion for dependence in the DSM-IV (*Diagnostic and Statistical Manual version IV*) is a persistent desire or unsuccessful efforts to cut down or control substance use.³⁵

Not all the surveys used allow for all three areas of estimating heavy use and long-term problems that may come from youth substance abuse and our survey did not explore the issue of youth substance abuse in such a detailed manner. Nonetheless, it is important to know that detecting and arguing objectively about youth substance abuse does require a much higher level of scrutiny and refined research before going ahead and allocating monetary costs to youth saved through intervention of the Boys & Girls Club and others as control groups in their communities at large.

Finally, we compared the findings of our survey and what is obtained from asking the same questions from the same group of youth in the State of Florida in order to be able to estimate the economic benefit of attending the Boys & Girls Clubs with regard to reduction of the cost of substance abuse. We used the latest available findings for the State of Florida based on the CDC's latest findings. The following charts show some of the most important findings of our survey of members.

³⁵ For more information see

http://en.wikipedia.org/wiki/Diagnostic_and_Statistical_Manual_of_Mental_Disorders



The outcome presented by this graph shows that 9.0% of the respondents said they had one or more drinks during the last 30 days.

The outcome of CDC survey for the State of Florida in 2011 indicates that 37.0% of respondents to the same question had at least one drink 30 days prior to the time of the survey. This creates a gap of 28% which shows a remarkably better behavior among the Club members (at a ratio of 1 to 4). This shows that registered members the Boys & Girls Clubs in Central Florida are doing far better than the average youth in the state of Florida.

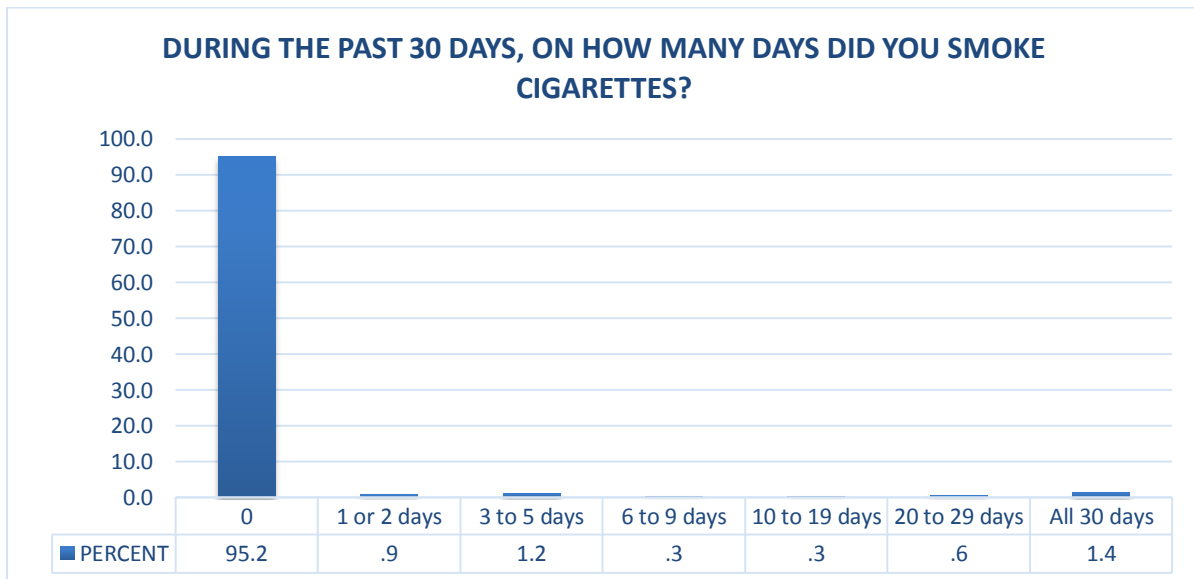
On the issue of binge drinking, the outcome from our survey shows the following.



Our survey shows that only 5.8% had at least one occasion of binge drinking during the last 30 days, whereas the state level was as high as 19.1%. Again, the rate among the Club members was much lower (a ratio of almost a quarter compared to the state level).

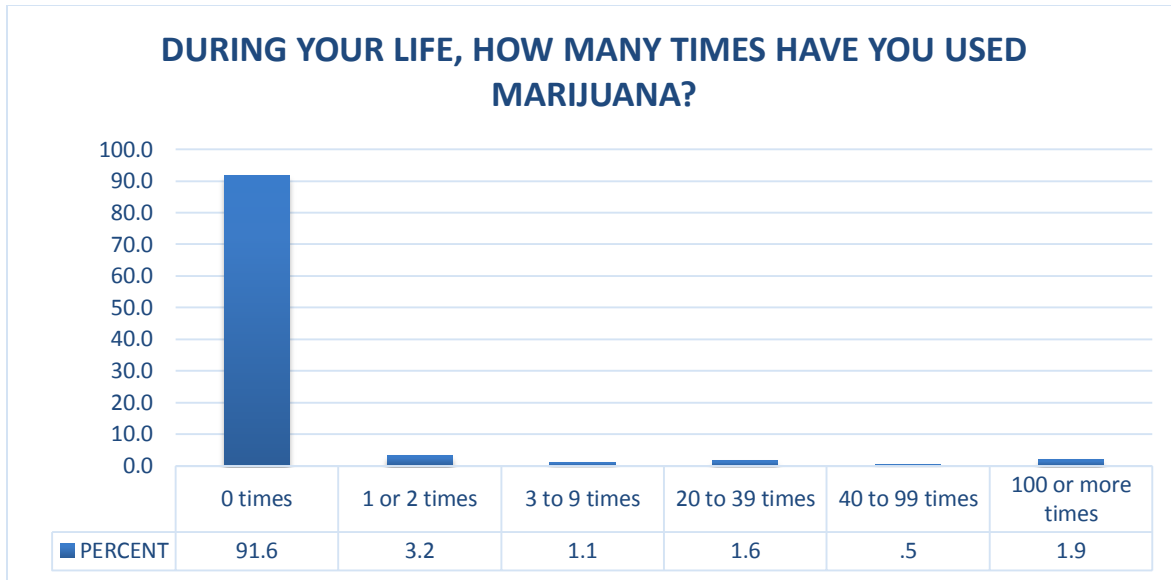
These comparisons clearly indicated that the behavior of Club members is far better than that of the other kids in the state. Our findings also strongly confirm that the findings for youths in the Boys & Girls Clubs of Central Florida show a far lower level of alcohol abuse than their peers within the state.

We made the same statewide comparison between the findings of our study with regard to use of tobacco. The following exhibits present what we discovered from our Club members’ surveys.



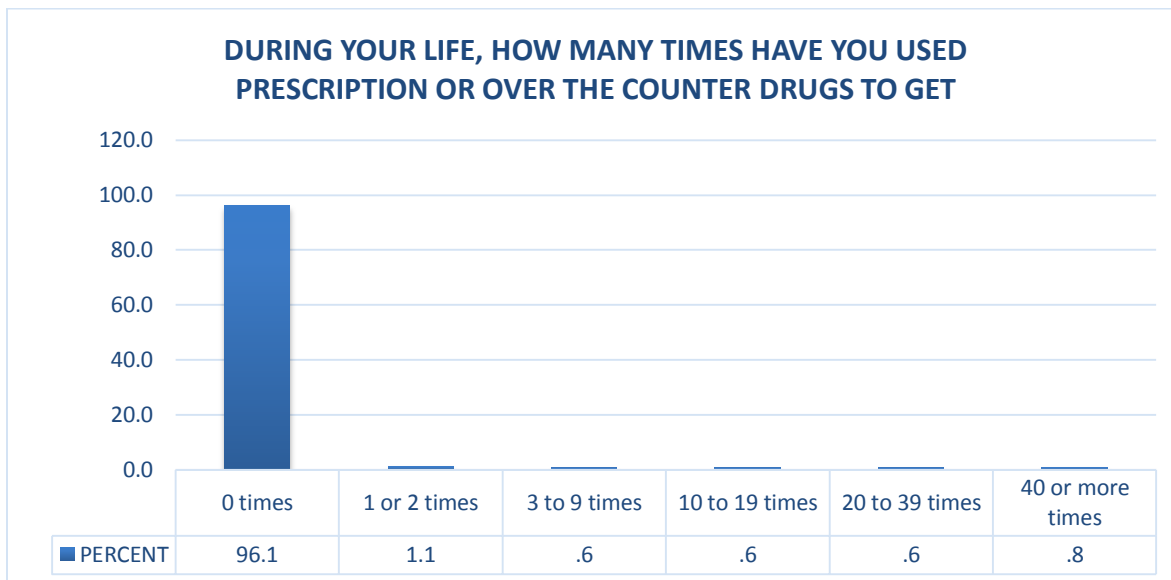
Our survey shows that only 4.8% of the respondents had smoked at least one day during the last 30 days. The statewide average for the same question in 2011 was 14.3%. Once again, the performance of the Club members was better than the state with regard to those who smoked cigarettes (less than a third compared with the state level).

We find the same patterns of much better behavior among those who attend the Boys & Girls Clubs in the Central Florida region and the average kids in the same age category. The following chart shows behavior of Club members with regard to use of marijuana.



The above chart shows that only 8.4% of the kids who attend the Boys & Girls Clubs in Central Florida have use marijuana in their life, whereas this percentage is multiplied more than four times for kids in general within the State of Florida (39.1%).

We also asked Club members about the use of prescription drugs. The result is shown below.



The above chart shows that only 3.9% of the Club members have used prescription drugs in their lifetime, whereas the youth in general within the state have used them more than three times as much

(15%). Overall, Club members use other drugs at rates far lower than the state as a whole. However, the CDC has not reported the rate of use for a number of other drugs for the State of Florida, and therefore, we decided not to report them as it would be impossible to make an accurate comparison between the Clubs and the state.

Finally, we need to make some basic assumptions about how the cost of substance abuse among the Club members compares with that of their peers statewide. The obvious point is that Club members show a much lower tendency to abuse substances such as tobacco and alcohol; the abuse of these substances is the cause of much of the economic cost of substance abuse by youth in the State of Florida. In all of these cases, the ratio of Club members' abuse rate was less than a third of the state level. We therefore argue that the cost borne by the community for youth drug users between the ages of 8 to 18 per person is likely to be three times that of those who have been going to Boys & Girls Clubs in Central Florida. This ratio may be considered arbitrary and, to some extent, this argument has some validity as explained throughout the current section. However, it is also correct to say that the tendency to abuse substances in the general youth population is at least three times what it is among the Club members based on the findings of our survey.

Earlier on, we showed that the approximate cost of underage drinking is about \$3.71 billion in the State of Florida in 2012, or \$2,237 per youth. Our argument is that the average cost of a drinking problem per Club member is a third of this amount, or \$745 per person, in the age group of 10 to 20 years old. This suggests a savings of \$1,492 per youth 10 to 20 years of age as the positive economic impact of the Clubs in Central Florida.

The total number of Club members in this age category (for the Clubs we added the number of Club members from age 10 to 19) earlier was estimated to be 80% of the total registered members. Bearing in mind that only 88.0% of the registered members attend the Clubs three or more times a week based on our survey, the total number of youth affected by this positive impact will amount to **12,974 x 0.88 x 0.8 = 9,134** youth. Using a savings of \$1,492 per youth in this age category, we calculated a **total positive saving in terms of \$13,627,928** for all the impacted members of the Clubs.

Cost of underage drinking per youth aged 10 to 20 per year in the state of Florida in 2012	Cost of underage drinking based on our findings per Club member per year in the same age group	Savings per youth of the same age category per year due to impact of Boys & Girls Clubs	Total number of Club members between ages 10 to 19 attending clubs at least three times a week	Total savings due to better youth behavior and habits regarding underage drinking among Club members
\$2237	\$745	\$1,492	9,134	\$13,627,928

Ideally, we need to add to this amount the savings that can come from better behavior towards the use of tobacco and other substances. Unfortunately, there was no hard data based on current research that we could use to establish a convincing ground and basis for such calculations. Our survey clearly indicated that Club members have better behavior towards the use of both tobacco and alcohol. Most of the harm of tobacco usage comes in advanced age and much of the cost of substance abuse is born out of higher legal costs that we have been taken into account through the cost of juvenile crimes in the earlier part of our study. There is, however, a much greater cost associated with alcohol and tobacco abuse in terms of health cost and loss of productivity that we could not gather and allocate with some level of accuracy to the juvenile segment of the total cost of substance abuse. We can, therefore, clearly state the savings calculated in our study is a fraction of the savings that Boys & Girls Clubs in Central Florida create with regard to substance abuse through their performance and their positive impacts on their members and families.

3) Economic Impact of Clubs to the Broader Community

Although Club members arguably derive the greatest benefit through their relationship with The Boys & Girls Clubs, other stakeholders are impacted as well. This section of the report documents the benefits these additional stakeholders receive. The benefits are as follows:

- Parents are able to work and study while their children receive high-quality supervision at the Boys & Girls Clubs.
- For-profit companies, employees, organizations, and institutions in the region providing goods and services to the Clubs generate regional output, jobs, and tax revenue for the region and state.
- The community benefits from the productive capacity and output of volunteers donating their labor to Boys & Girls Clubs in Central Florida.

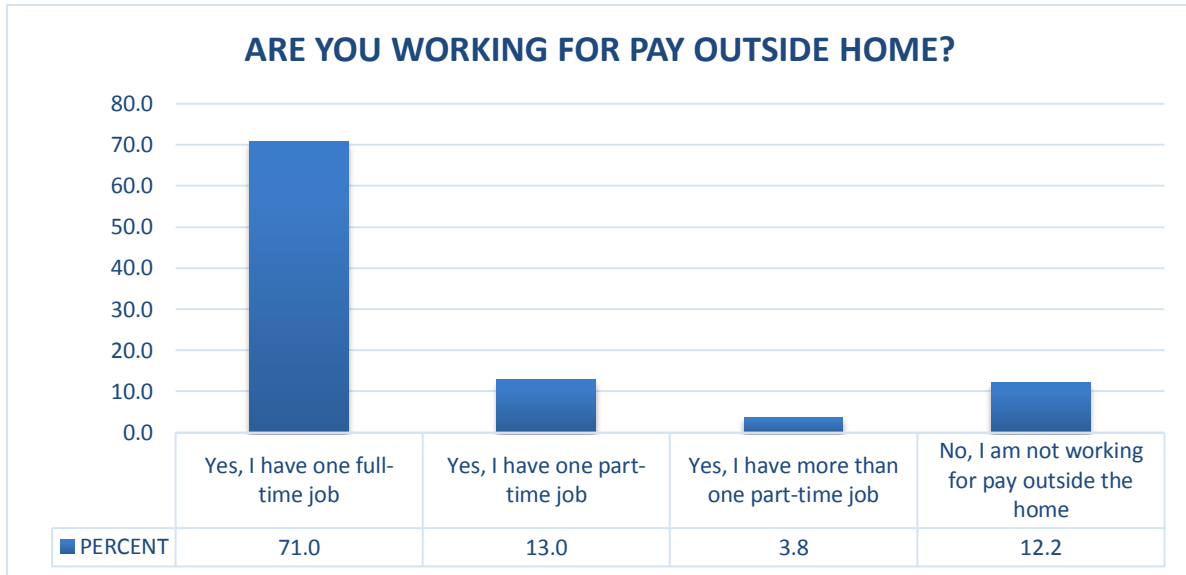
Beyond Club members, parents derive the biggest benefit from the Boys & Girls Clubs. When the typical school day ends, many parents are still working to earn a living or pursuing their own education and investing in their future productivity. By providing a safe environment and supervision for their children, the Clubs help these parents provide for their families. Simply put, the Clubs help parents increase their earnings. The monetary value of these increased earnings is calculated in this section of the report.

The budgetary expenditures and productive labor of volunteers working for Boys & Girls Clubs in Central Florida create regional output, jobs, and tax revenue across the state. The research team for this study developed input-output models to calculate these economic impacts of Boys & Girls Clubs in Central Florida. A summary of the calculations developed through this model are presented in this section of the report.

3.1) Ability of Boys & Girls Clubs to Help Parents Work and Go to School

The positive influence of the Boys & Girls Clubs is not limited to the children that they serve directly. The Clubs also have an immense impact on the lives of parents who are working and pursuing an education. Many child-care services are cost-prohibitive for the families served by the Clubs. Without access to a safe, high-quality facility for their children, many parents would be faced with a tough decision: they would either have to stop working to care for their children, or they would have to risk leaving their children without supervision after school.

The degree to which this is an important decision for parents is illustrated in the following diagram:



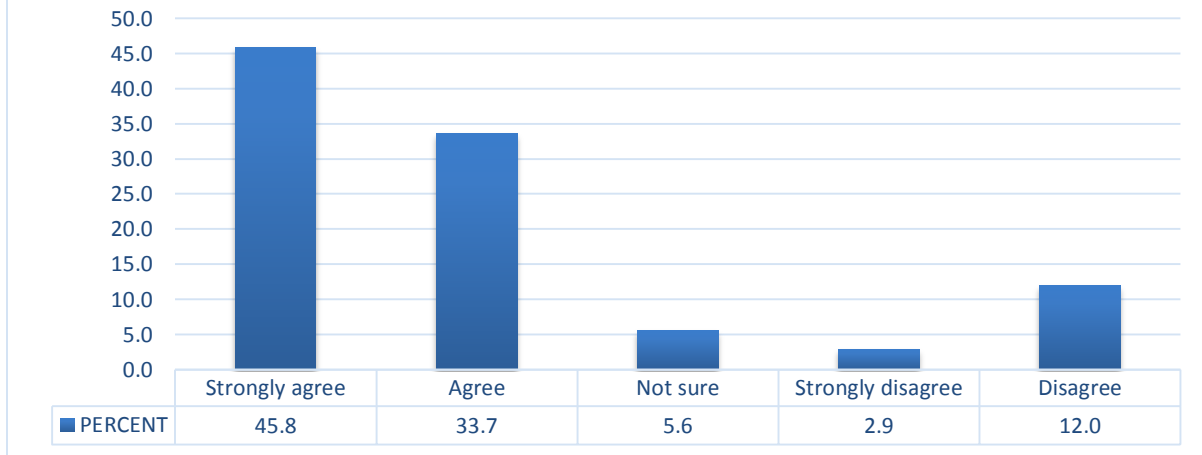
As the data from surveys distributed to parents demonstrates, the Clubs serve working parents who are likely to need after school supervision for their children. The overwhelming majority (71.0%) have a full-time job while an additional 16.8% of parents have one or more part-time jobs. This data indicates that Boys & Girls Clubs in Central Florida are primarily serving the children of working parents.

By allowing parents to leave their children in a safe, supervised environment, the Clubs are enabling such working parents to be more productive members of the community. The Clubs, subsequently, must receive the necessary recognition for the positive impact this has had on the community. In order to better understand and quantify this benefit, the survey distributed to parents included several questions designed to understand the role the Clubs have in allowing them to work and/or further their education (which in turn will make them more productive members of the workforce in future years).

“Boys & Girls Clubs in Central Florida are primarily serving the children of Working parents. 71.0% have full time jobs and 16.8% have one or more part-time jobs”

The first question from the survey which we will consider asked parents whether sending their child(ren) to the Clubs “enables me [them] to keep my [their] job.” The strong wording of this question was specifically designed to be as clear as possible about the direct relationship sending their child(ren) to the Club has on their ability to keep their jobs. The results are as follows:

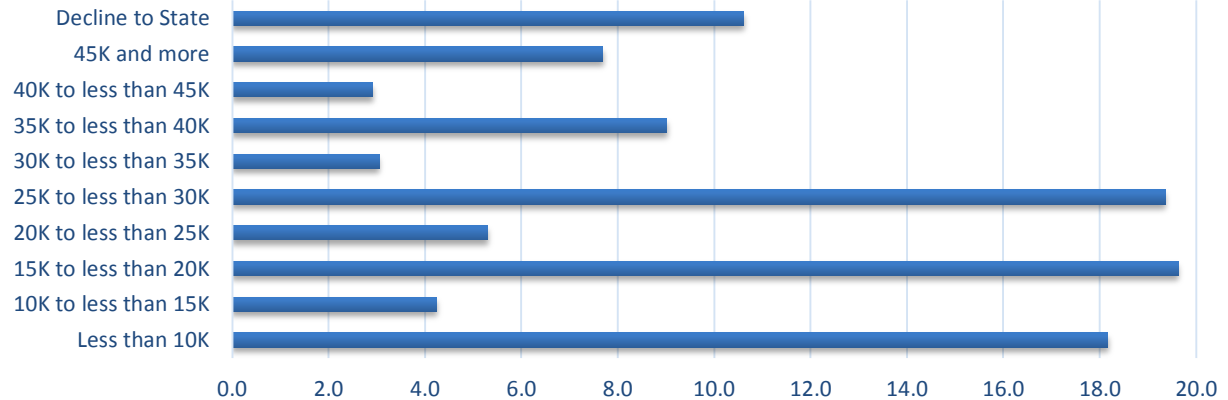
SENDING MY CHILD(REN) TO THIS CLUB ENABLES ME TO KEEP MY JOB



The survey responses indicate that 45.8% of parents strongly agree while an additional 33.7% agree that sending their child(ren) to the Club enabled them to keep their jobs. While there is a case to be made that both of these groups of parents have been able to keep their jobs as a result of the Clubs, we will only consider the 45.8% who strongly agreed with the statement. Due to their strong agreement, it is reasonable to assume that without the Clubs, these individuals would not be able to keep their jobs. Based on this, we will calculate the monetary benefit created by having these parents remain in the workforce.

In order to calculate the monetary benefits, we need to calculate the average salary of the parents who have benefited from the services of the Clubs. We used the responses of parents to the questions about their annual salary. The outcome can be seen in the following chart.

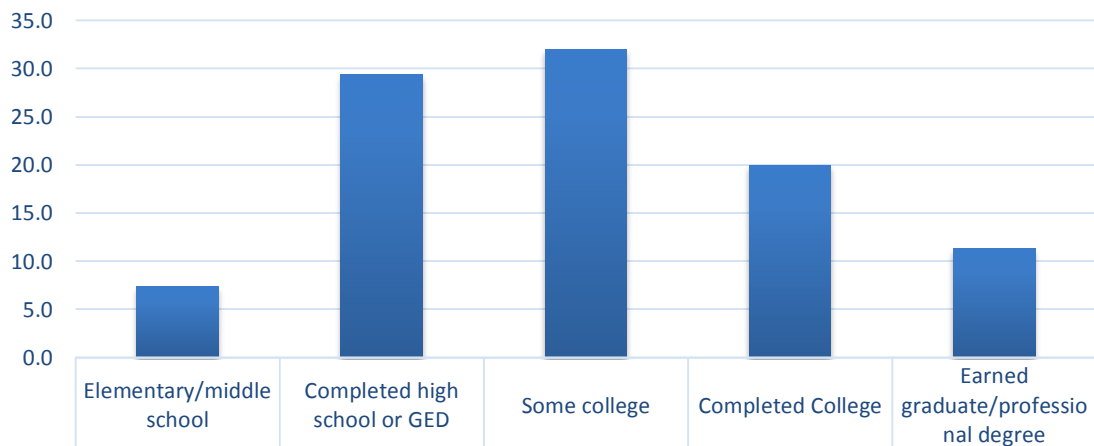
WHAT IS YOUR INDIVIDUAL ANNUAL INCOME?



	Less than 10K	10K to less than 15K	15K to less than 20K	20K to less than 25K	25K to less than 30K	30K to less than 35K	35K to less than 40K	40K to less than 45K	45K and more	Decline to State
■ PERCENT	18.2	4.2	19.6	5.3	19.4	3.1	9.0	2.9	7.7	10.6

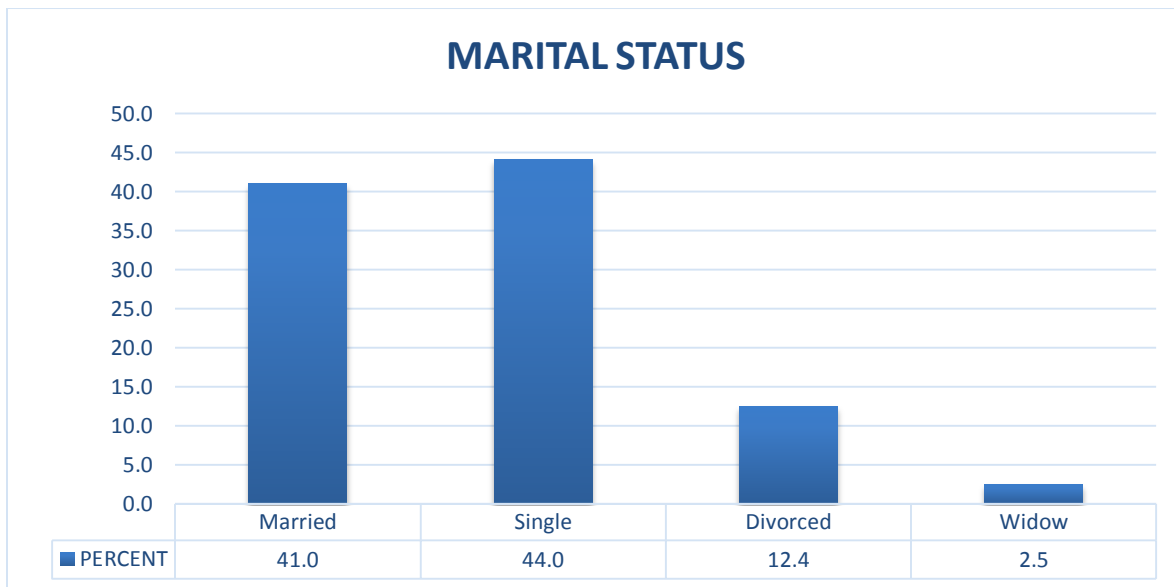
We used the information in the table and calculated the weighted average salary by using the simple mean salary in each group as the salary for that group. We used the information from our survey and calculated the weighted average salary of parents. The average salary of parents was estimated at \$23,315.

HIGHEST LEVEL OF EDUCATION

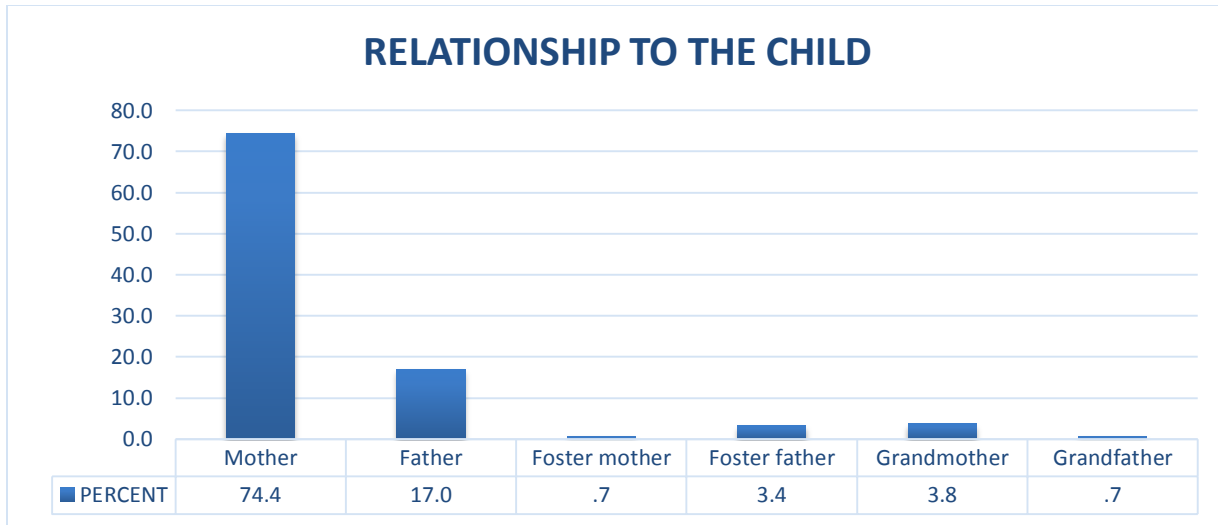


	Elementary/middle school	Completed high school or GED	Some college	Completed College	Earned graduate/professional degree
■ PERCENT	7.3	29.4	32.0	19.9	11.3

The above chart speaks vividly of the possible depression of household income in the families served despite of the level of educational attainments of the parents. Some 31.2% of the parents have completed college and among them, 11.3% earned graduate or professional degrees. This appears strange and somewhat unrealistic. However, when this information is coupled with the rate of single parents and seeing that the majority of respondents were mothers, it becomes more believable as they refer to a single income earner. In addition, salary and wage restriction of women compared with men is widely prevalent in our economy. To this extent, we find the crucial role of the Boys & Girls Clubs of Central Florida in serving the needs of its youth and their families in the area.



The above chart shows that nearly 60% of the responding families are families with only one parent present. The following chart as indicated earlier the majority of respondents are mothers.



The next step in this analysis is to consider the number of parents who receive this benefit. According to the survey of members, 88.0% of members attend the Clubs at least 3 times a week. This is the group that we believe stand to benefit from the positive impacts of the Clubs. Our survey shows that a number of families have more than one child in the Clubs. Based on the information that we received from the Clubs, the estimated number of families whom they serve is about 8,433. We also know that 45.8% of parents strongly agreed that having the Clubs enabled them to keep their jobs and be able to work. At the same time, only we used these numbers to calculate the impact that Clubs have on ability of parents to earn income and support their families. The calculation can be seen in the following table.

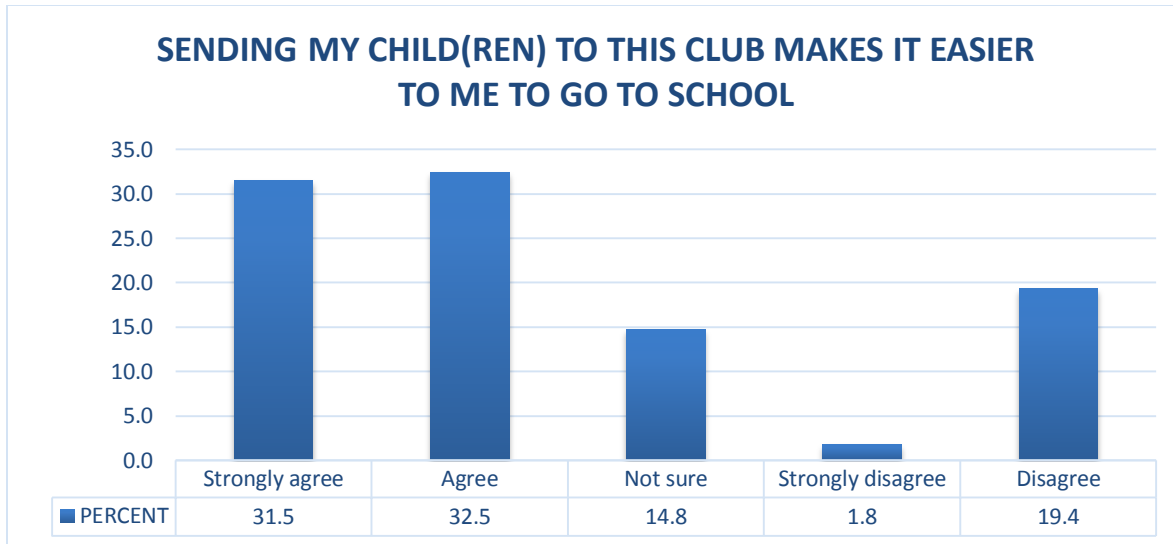
Total number of families who have children going to the Boys & Girls Clubs in Central Florida	Percentage of parents who strongly believe that Boys & Girls Clubs of Central Florida enable them to keep their job and are working full or part-time	Total number of parents who are able to work due to the Boys & Girls Clubs in Central Florida and have full or part-time jobs	Average annual salary of those keeping their jobs due to Boys & Girls Clubs in	Total annual earnings generated by parents due Boys & Girls Clubs in Central Florida
8,433	45.8%	$8,433 \times 0.458 = 3,862$	\$23,315	\$90,042,530

By enabling 3,862 parents to work and earn on average \$23,315 per year, Boys & Girls Clubs in Central Florida are enabling these parents to generate \$90,042,350 in additional annual earnings for their families. This is a tremendous service that sustains a great deal of economic activity across the area. Without the Clubs, these parents would be unable to earn this income. Their families and their communities would have a lower overall average income without the Clubs. This staggering figure shows the vital role that institutions like the Boys & Girls Clubs play in helping families to be economically productive while simultaneously not compromising the wellbeing of their children. It is important to realize that the wellbeing of these families benefits the entire society through reduced burdens on taxpayers for social programs. Beyond the benefit for taxpayers, these individuals and families are able to be more successful and enjoy a better quality of life. Furthermore, there is a secondary impact through indirect and induced economic impact through the income generation that could be inputted through detailed input-output analyses, which we will not be pursuing in order to avoid any possible argument that may be brought against such calculations. We prefer to be on the more conservative side of our estimation.

“By enabling 3,862 parents to work and earn on average \$23,315 a year, Boys & Girls Clubs of Central Florida are enabling these parents to generate \$90,042,530 within the region of Central Florida”

Beyond helping parents pursue work, the Boys & Girls Clubs are also helping some parents to further their education. While some parents need to work during after-school hours, others are pursuing a higher degree or certificate that will help them with their career. Such education will ultimately allow them to become more productive members of the workforce. Without the Clubs, this improved productivity would not be possible. By helping these parents further their education, the Clubs are helping create a long-term investment in the region’s workforce.

In order to determine the scale of the Boys & Girls Clubs impact in this area, the parent survey included the following question designed to understand how many parents derive this benefit from the Clubs:



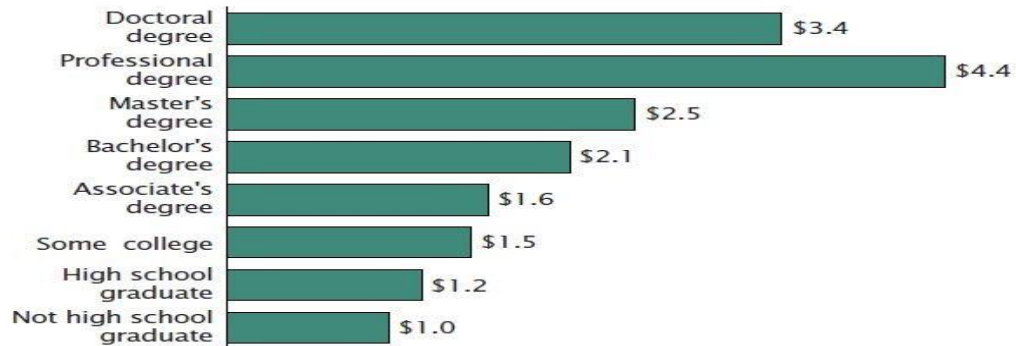
Some 31.5% of Club members’ parents indicate that they are, as a result of the Boys & Girls Clubs, “attending school to receive a higher degree or certificate that will help me [them] with my [their] career.” Once again, we will only use the number of parents who strongly agree that they are receiving further education as a result of the Clubs; some 31.5% of parents served by the Clubs are within this category. The following table summarizes the positive impact of the opportunity to pursue further education:

Total number of families who have children going to the Boys & Girls Clubs in Central Florida	Proportion of families with at least one parent able to pursue further education or training due to assistance from Boys & Girls Clubs of Central Florida	Total number of parents who have upgraded their skills due to the services of Boys & Girls Clubs in
8,433	31.5%	2,656

Based on the survey results, 2,656 parents are able to pursue further education or certification that will help them further their career. Unfortunately, existing research could not be found to determine the exact monetary value of adult education for these parents. However, it is clear that the benefit is likely to be significant simply by reexamining the value of higher education that has been discussed earlier in this report.

Synthetic Work-Life Earnings Estimates for Full-Time, Year-Round Workers by Educational Attainment Based on 1997-1999 Work Experience

(In millions of 1999 dollars)



Source: U.S. Census Bureau, Current Population Surveys, March 1998, 1999, and 2000.

As data from the U.S. Census demonstrates, for every level of higher education, an individual earns significantly more over the course of a lifetime. For instance, if a parent who is able to earn an associate's degree as a result of sending their children to Boys & Girls Clubs in Central Florida, their lifetime earnings will, on average, increase from \$1.2 million to \$1.5 million (in the year 2000 values).³⁶ Although we are not able to put an exact value on this benefit, census data suggests that the benefit is extremely significant.

3.2) Impact of Clubs' Expenditures (Regular and Capital) on Economic Output, Jobs, and Tax Revenue

The economic impact of social interventions resulting from the services provided by the Boys & Girls Clubs represents a broad category of economic value created by the organization. Such social interventions are an important aspect of the value created by a nonprofit. However, just like any other organization providing services or producing goods, the Clubs comprising the Boys & Girls Clubs in Central Florida create tremendous business activity through their operating and capital expenditures as well as the work of their volunteers in the state that can be measured in terms of output, employment, and tax revenue.

³⁶ The gap is based on the year 2000 dollars, when adjusted for a moderate inflation rate of 3% annually the gap will grow to a total of \$415,270 between life time earning of a person without high school diploma with those who have it.

In order to calculate the economic impact of the Clubs' various expenditures, our research team constructed an input-output model. The principal purpose of using an input-output framework is to analyze the interdependence of industries and various economic entities and organizations in an economy through market based transactions. Input-output analysis can provide important and timely information on the interrelationships in a regional economy and the impacts of changes on that economy.

The creation of such models requires a large amount of data to capture all the economic changes that an institution can bring to a community. The first set of data for this purpose consists of information that presents the direct flow of resources from an institution to the community. This includes budgetary and capital expenditures of the institution. The second and equally important component of the economic impact of an institution is the flow of resources into that specific community that would not have occurred had the institution in question not come into existence. This component will include the impact of resources that are generated as byproducts of the institution in question.

We chose IMPLAN (Impact Analyses for Planning) to identify and measure the economic impact of the agency.³⁷ IMPLAN employs a regional social accounting system and can be used to generate a set of balanced economic/social accounts and multipliers. The social accounting system is an extension of input-output analysis. Input-output analysis has been expanded beyond market-based transaction accounting to include non-market financial flows by using a Social Accounting Matrix (SAM framework). The model describes the transfer of money between industries and institutions and contains both market-based and non-market financial flows, such as inter-institutional transfers.

This economic analysis measures the cumulative effects of spending brought about by the activities of Boys & Girls Clubs in Central Florida. This analysis, like any other with similar research, aimed to measure the following impacts:

³⁷ IMPLAN is a computer software package that consists of procedures for estimating local input-output models and associated databases. The acronym stands for *Impact Analyses and Planning*. IMPLAN was originally developed by the U.S. Forest Service in cooperation with the Federal Emergency Management Agency and the U.S. Department of the Interior's Bureau of Land Management to assist in land and resource management planning. Since 1993, the IMPLAN system has been developed under exclusive rights by the Minnesota Implan Group, Inc. (Stillwater, Minnesota) which licenses and distributes the software to users. Currently, there are hundreds of licensed users in the United States, including: universities, government agencies, and private companies.

- ✚ **Direct effects:** Budgetary, capital, and other related expenditures that create jobs and add to the production capacity of the state.
- ✚ **Indirect effects:** The economic activity generated among the state’s businesses to meet the Clubs’ demand for various products and services used for its operations.
- ✚ **Induced effects:** The effects of expenditures made in the state by Club employees and others who receive income because of their work in relation to the activities of the institution as a whole.

Using this model, we calculated the explicit economic impacts of the Clubs’ annual budgetary and capital expenditure, and volunteers’ work through increased regional income and jobs on the regional levels. In order to generate the relevant findings, we collected data regarding the Clubs’ regular and capital expenditures through questionnaires distributed to and completed by Club managers in addition to financial statements provided by the management to our research team for analysis. For all institutions, we used the most recent readily available full fiscal year budget. Based on this review of financial information, the total budget for operational expenditures of all the participating Clubs was found to be \$8,535,515 based on the latest available information (2012-2013). In addition, the Clubs spent \$850,000 on capital expenditures which was primarily spent on a donated facility for the Boys & Girls Clubs that will serve youth in the Cocoa, FL community.

We set up two separate models for the regular and capital expenditures. The model generated by analyzing the Clubs’ budgetary and capital expenditures data indicates that the Clubs are a tremendous engine of economic output in the region. The breakdown of economic impacts on the regional level is given below:

Economic Impact of Budgetary Expenditures of Boys & Girls Clubs of Central Florida				
Impact Type	Employment	Labor Income	Total Value-Added	Output
Direct Effect	208.9	4,433,183.8	5,574,541.4	8,535,514.6
Indirect Effect	25.2	955,861.5	1,586,976.8	3,112,599.6
Induced Effect	34.2	1,445,470.9	2,566,260.0	4,234,509.4
Total Effect	268.4	6,834,516.2	9,727,778.2	15,882,623.6
Economic Impact of Capital Expenditures of Boys & Girls Clubs of Central Florida				
Impact Type	Employment	Labor Income	Total Value-Added	Output
Direct Effect	7.9	402,862.3	430,118.8	850,000

Indirect Effect	2.1	113,349.6	156,008.8	273,627.2
Induced Effect	3.3	137,810.0	244,664.7	403,707.0
Total Effect	13.2	654,021.9	830,792.3	1,527,334.1

3.3) Economic Impact of Volunteer Labor

Our research took a deeper look into the economic impact of volunteerism and goes further than many similar studies to make an attempt at estimating the output and job creation of volunteers. It is true that volunteers do not receive monetary compensation for their work and, as such, do not pay any direct tax from the financial compensation that they do not receive.

However, one can argue that by volunteering to work without pay, volunteers are in reality paying for their own work and this can be considered as payment to the organization that is using their services. In other words, they are making an in-kind donation of their labor and human capital. Such a donation of services can operate much the same way as a cash donation. Monetary donations make it possible for the organization to make various expenditures—including the ability to hire people who could carry out the services done by volunteers. By making a charitable contribution of their labor—rather than their cash—volunteers are simply cutting out the medium of exchange but nevertheless providing a similar productive value to the organization.

The Clubs could potentially be able to deliver some of their services or some other jobs that become available only as a direct result of being assisted (or subsidized as it may be argued) by the volunteers. While there might be some argument about the number of paid jobs that the work of volunteers creates or the tax payments generated, there is no doubt about the indirect and even part of the induced job creation or tax revenue that volunteers create in an economy. The same is true about the regional output impact of volunteers' work.

We gathered information about various participating Clubs and that showed that in total, there are an impressive total number of 2,713 volunteers which include both groups and individuals throughout the year. They include event volunteers help at one day events such as hosting games at Education Day or building a playground. Individuals also complete background checks and help in the Clubs long term with tutoring, sports, art and mentoring. Groups help with one-time projects varying from painting to kickball. There are 158 board members who dedicate a total of 9,480 hours (based on a conservative estimate of their time throughout the year). This level of cooperation and assistance by individuals and groups is unique and noteworthy. This shows the high level of community dedication and commitment to the Boys & Girls Clubs throughout the Central Florida region.

In order to measure the overall impact of volunteerism, we converted the total number of hours into the full-time equivalent number of employees. We set the model and ran the direct, indirect and induced impact of such a number of employees to estimate their economic impacts in terms of creation of regional output (production) and creation of jobs. The results are presented in the following table. In order to use a more conservative estimate of the impact, we reported the sum of indirect and induced impact on regional output and job creation in a separate table and added them to the total economic impact of the Clubs. This undoubtedly should be considered as an underestimation of the impact of Club volunteers' economic impact in the region.

Overall Economic Impact of Budgetary Volunteers' Work of Boys & Girls Clubs in Central Florida				
Impact Type	Employment	Labor Income	Total Value-Added	Output
Direct Effect	12.6	266,278.0	334,833.3	512,683.4
Indirect Effect	1.5	57,413.6	95,312.3	188,957.5
Induced Effect	2.1	88,821.7	154,141.6	254,344.5
Total Effect	16.1	410,513.3	584,296.2	953,985.3

The above table shows that as the result of volunteer work in the Boys & Girls Clubs in Central Florida, nearly one million dollars are created for the region's economy.

Putting all the impacts of regular budgetary, capital expenditures, and volunteers' work together, we estimated a total economic impact of \$18,363,942 for the region. Comparing this with the regular annual expenditures of the Clubs, we calculated a multiplier of 2.15 times for only this portion of the Clubs' economic impact for the region.

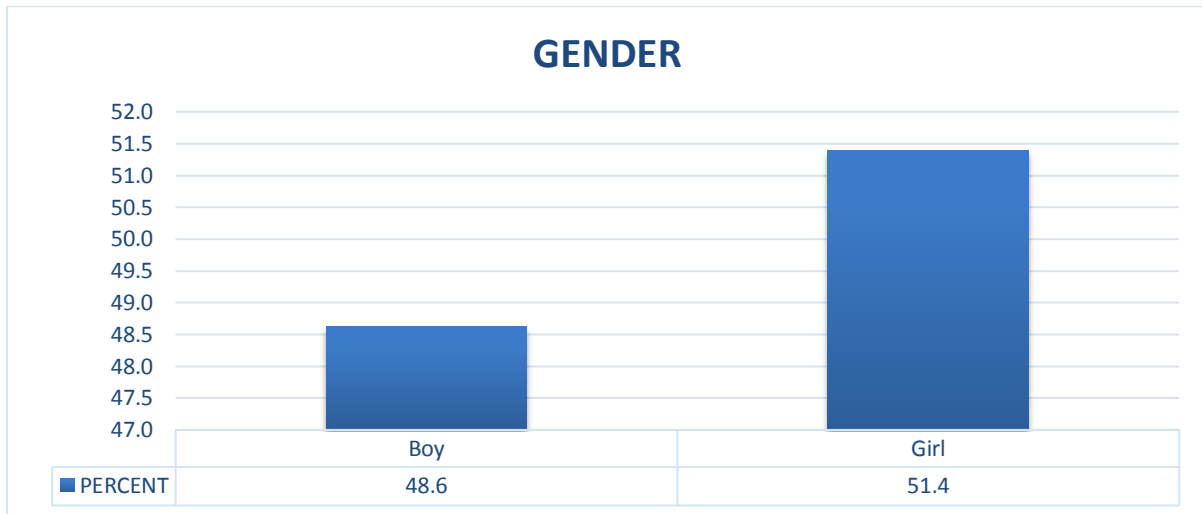
4) Qualitative Findings from Surveys

In addition to questions that attempted to monetize the economic benefits of the Boys & Girls Clubs, the various survey instruments that were created for this study included questions that were more qualitative in nature. This data can be used by Club management to gauge the success of its programming and to learn about the attitudes of the stakeholders who are served by the organization.

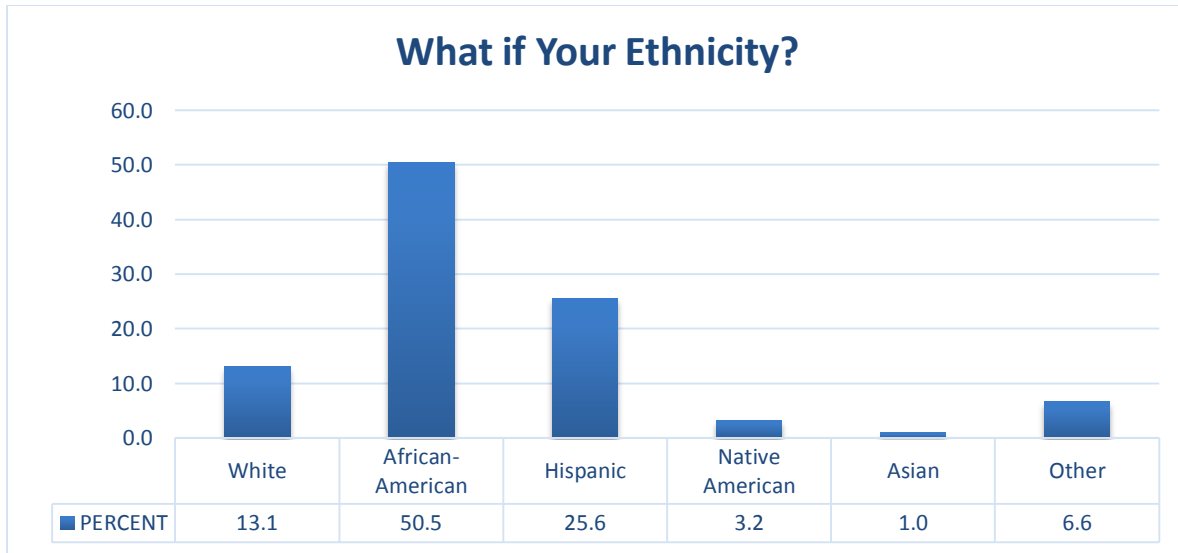
4.1) Results of Club Members' Survey

4.1.1) Demographic Data

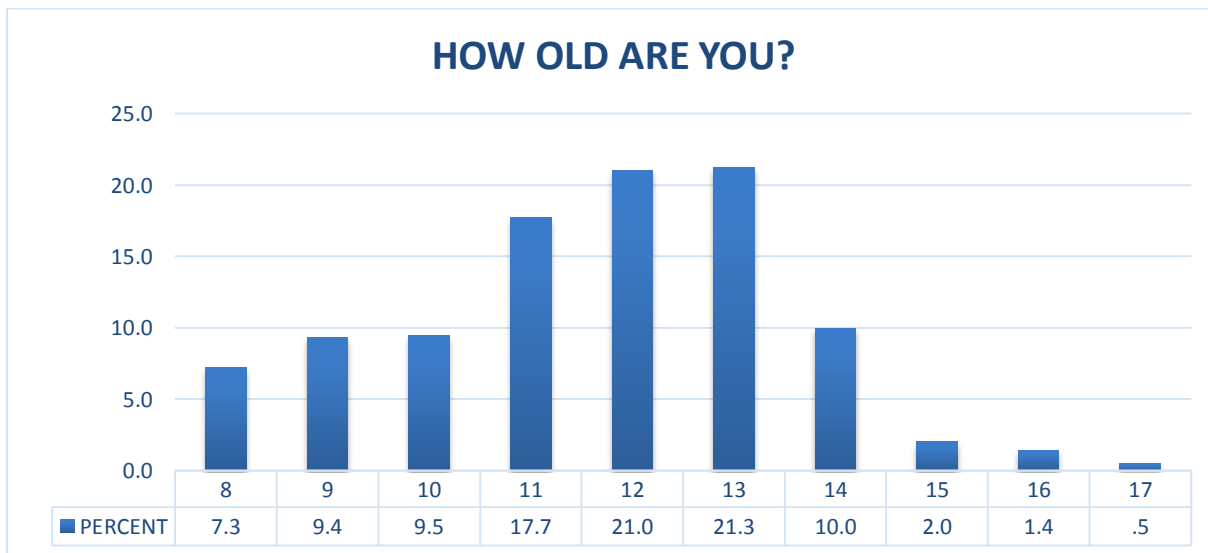
In order to learn more about those who use the Club's services, several demographic questions were included. Not only is such information enlightening but it can also be used for cross-tabulations of other results.



The survey of members shows that 48.6% of the members are boys and the remaining 51.4% are girls. The data received from Club management showed a slightly different gender distribution. This data, compared with the gender breakdown of the registered members, shows a slightly higher proportion of girls. The differences are not outside the margin of error.

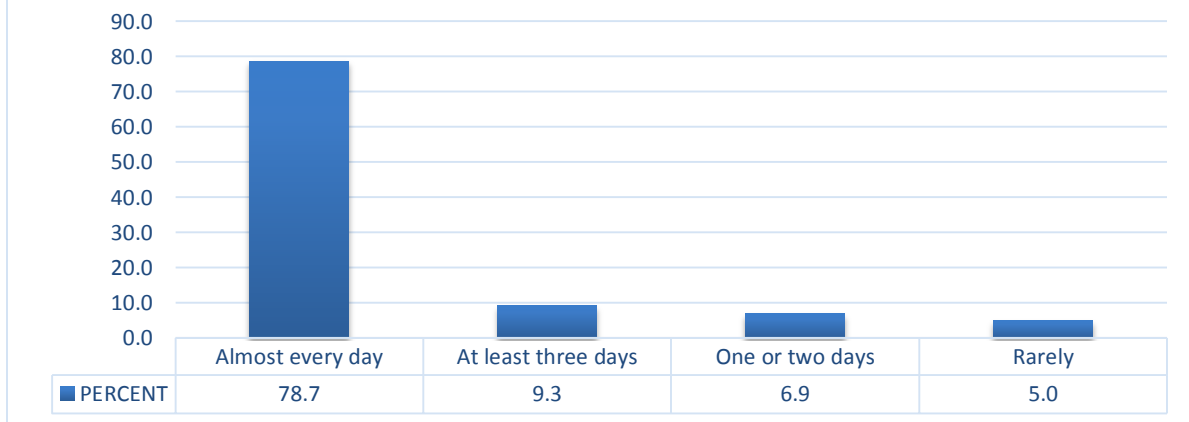


Based on the members' survey, the overwhelming majority of Club members are African American (50.5%). The second highest proportion is Hispanic (25.6%). The percentage of whites, Native Americans, Asians, and others were 13.1%, 3.2%, 1.0%, and 6.6% respectively. The above table shows that an overwhelming majority of Club members are minorities based on the ethnic breakdown of the nation.



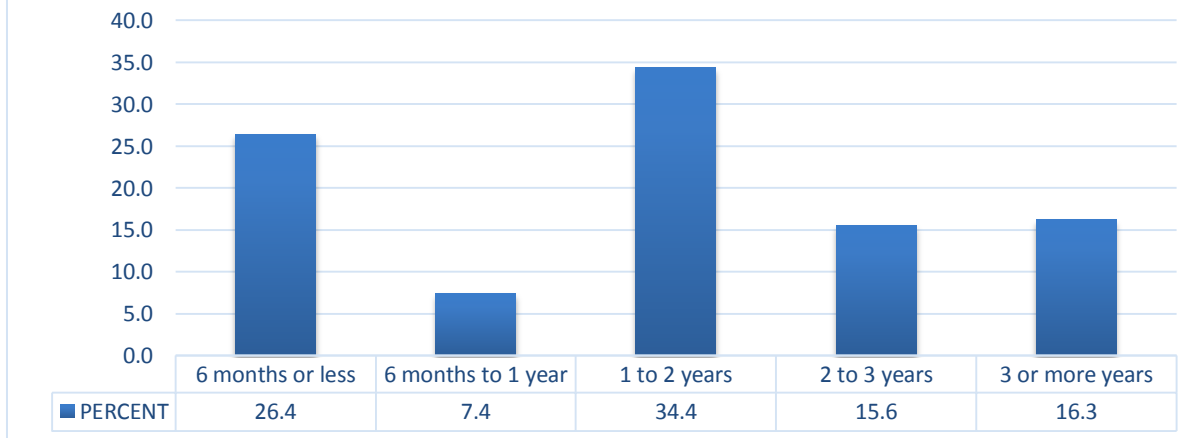
The above chart does not represent an accurate breakdown of the membership since only members at age eight and higher were asked to fill out the questionnaire. It shows that more than 83% of the members responding to the survey were ten years of age or older. Based on the same graph, more than 35% of the Club members were teen agers.

HOW OFTEN DO YOU ATTEND THE CLUB DURING THE WEEK?



The above chart shows that an overwhelming majority of respondents were attending the Clubs every single day (78.7%). The total percentage of those attending the Clubs at least three days per week reached 88.0% of the total respondents.

HOW LONG HAVE YOU BEEN ATTENDING THE CLUB?

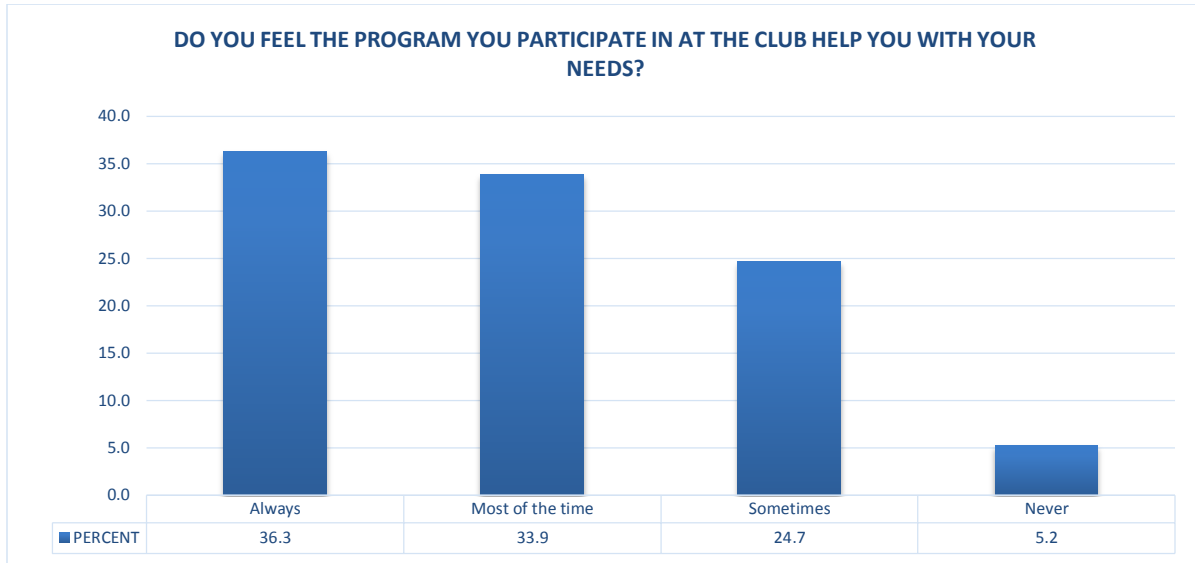


The above chart shows that only a quarter of the respondents have been attending the Clubs six months or less. More than 66% of the respondents (2/3) have been attending the Clubs for more than a year, and a third of them have been attending the Clubs for two years or more.

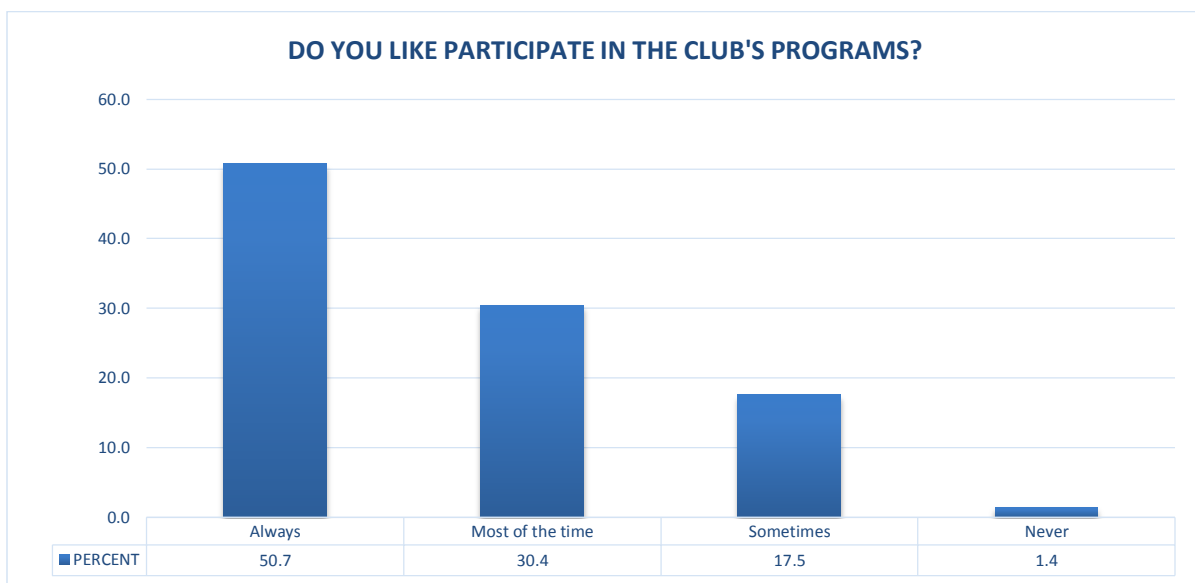
4.1.2) Program Attendance and Activities

Club management is constantly striving to provide the best available programming and activities to Club members. An important consideration when pursuing this objective is to learn how those who are

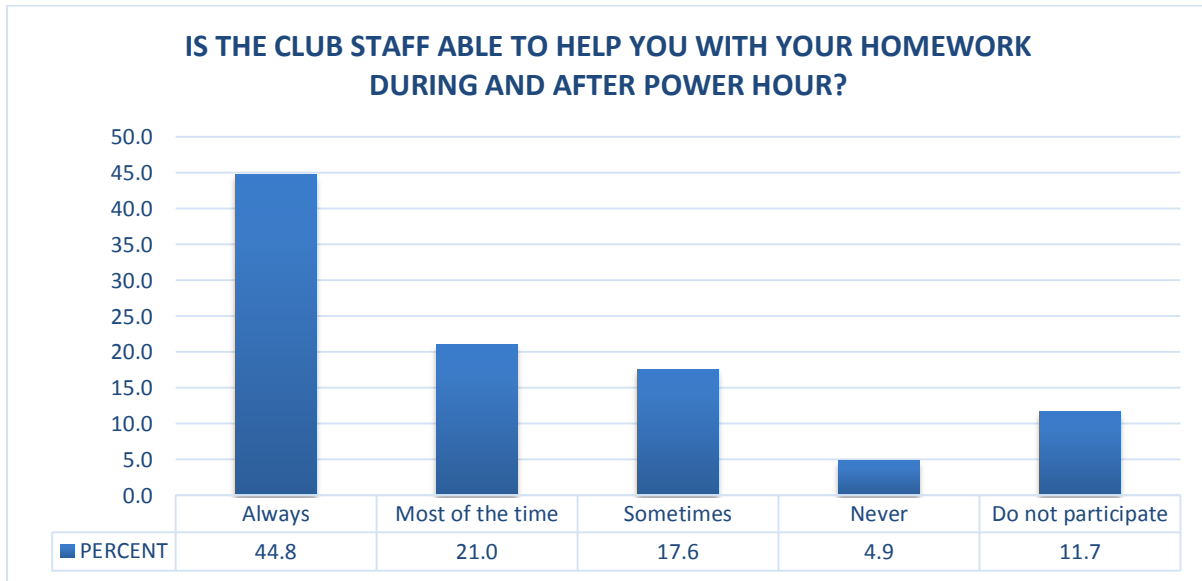
served by these programs feel about the various activities and programs offered. Such feedback can help an organization understand what they are doing well and what they can improve further.



The programs at the Boys & Girls Clubs seem to be doing a great job of satisfying the “needs” of Club members. Nearly 4 out of 10 members (36.3%) believe that the programs always help with their needs, while an additional third (33.9%) believe this to be true most of the time. In total, 70.2%, or almost 7 out of 10 members, believe that their needs are met always or most of the time by their participation in the Club activities. Only 5.2 % believed that the Clubs never help them with their needs.



Club members indicate a very positive attitude towards participation in programs of the Boys & Girls Clubs. A very strong majority (81.1%) like the programs in which they participate at least most of the time. Just over half (50.7%) like them always. An additional 17.5% like participating in the programs sometimes while only 1.4% never enjoy their participation.



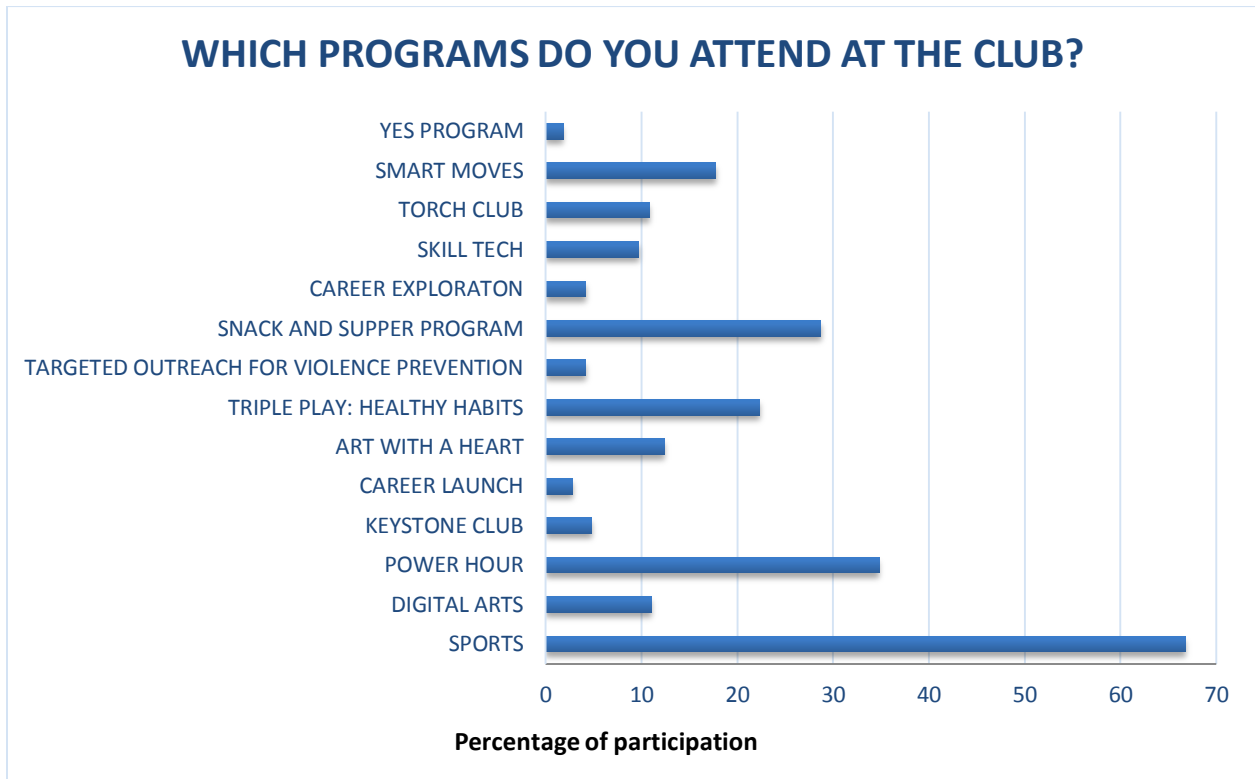
One particular area of interest is the Power Hour program. Boys & Girls Clubs in Central Florida have time dedicated through this program to helping Club members with their school work and providing them tutoring to help them with their homework. This program intends to help improve the academic proficiency of Club members who are 6 through 12 years of age.

This program is particularly important in the context of this study since it contributes to the academic achievement of Club members, thereby contributing to the economic benefits of the higher high school graduation rates discussed in Section Three of this report. As such, the success of Power Hour is critical. Fortunately, the majority of members surveyed (65.8%) of respondents like the tutoring program either always or most of the time.³⁸ Amongst this group, it is important to note that only 4.9% never like the tutoring program.³⁹ Setting aside the percentage of those who do not participate in the program, the percentage of those who participate in the program and find the staff helpful always or most of time reaches 75%.

³⁸ This calculation excludes the 12.4% who do not participate in the program.

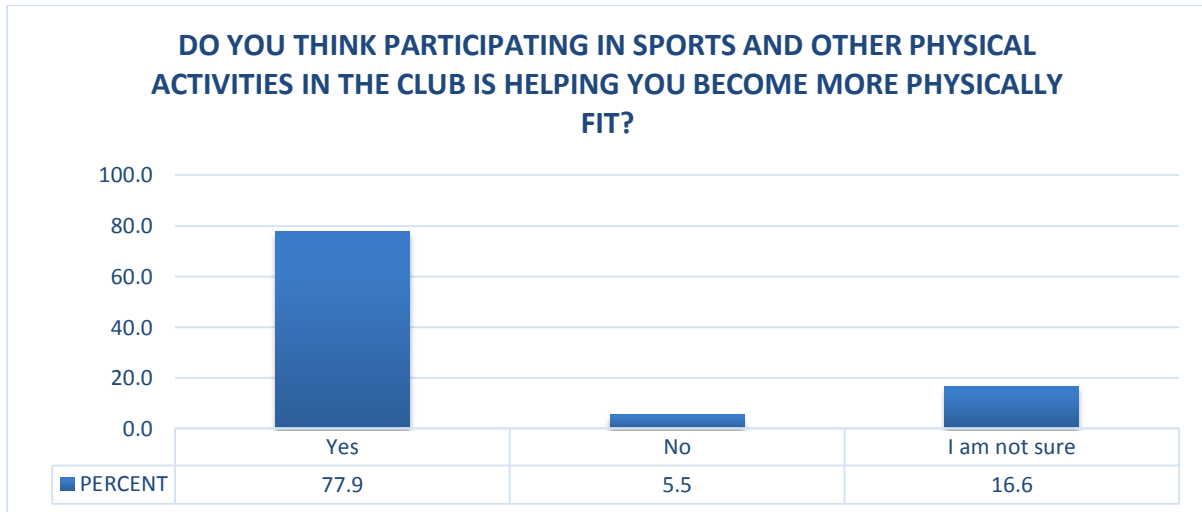
³⁹ This percentage was also adjusted for those who do not participate in the program

The following chart shows the extent of the participation of Club members in the various activities of the Clubs.

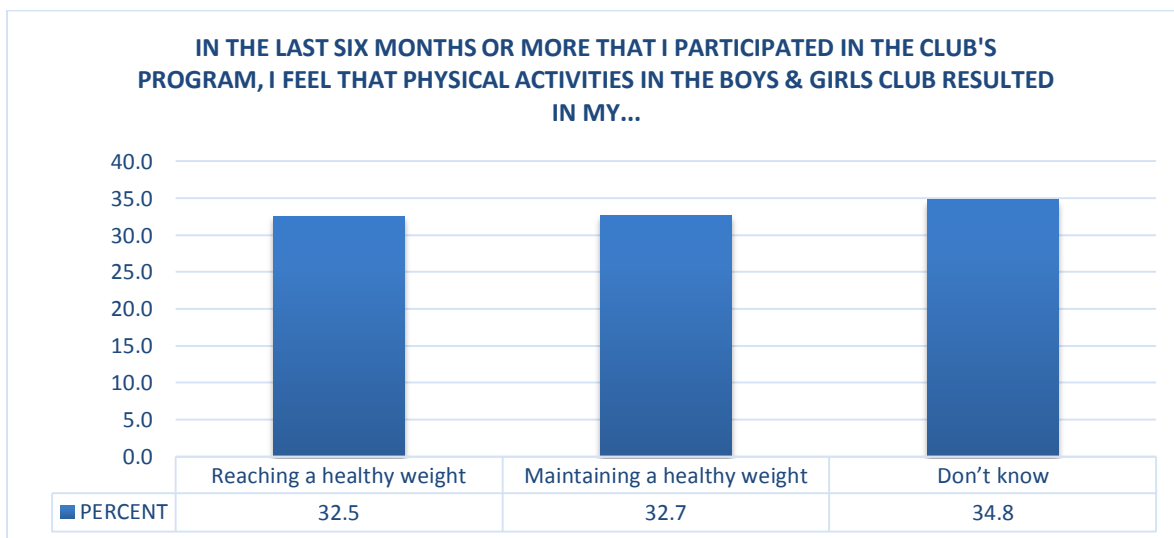


This chart shows that participation in sports is by far the most popular program that attracts club members. Power Hour is second place. The Snack, Supper Program, Triple Play, and Healthy Habits are also among the popular programs by comparison to others.

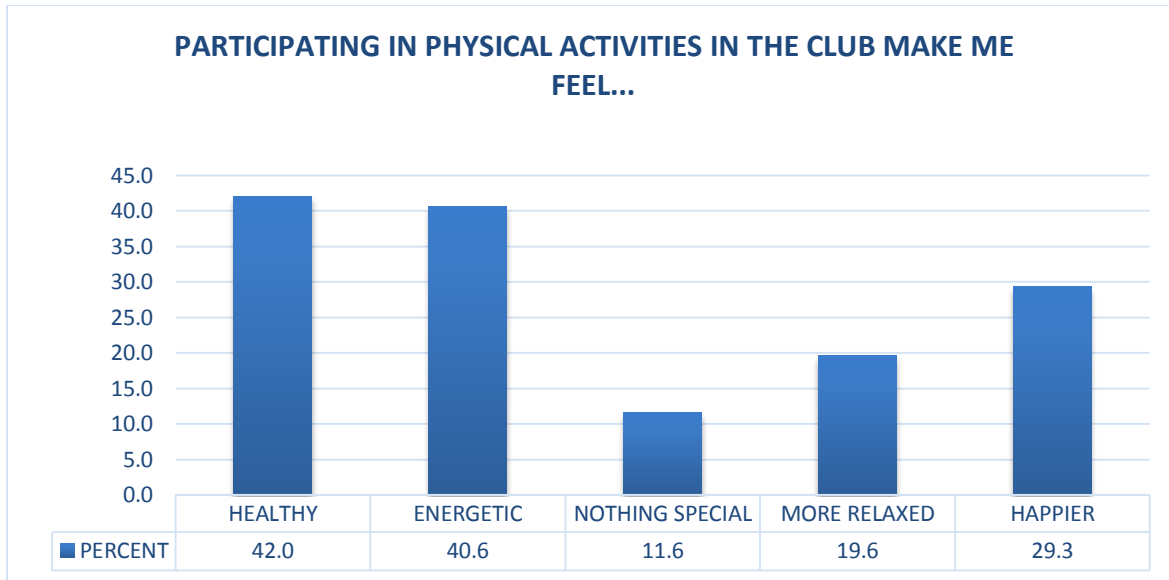
The next chart sheds more light on the perceived expectation of Club members from their participation in the sports programs.



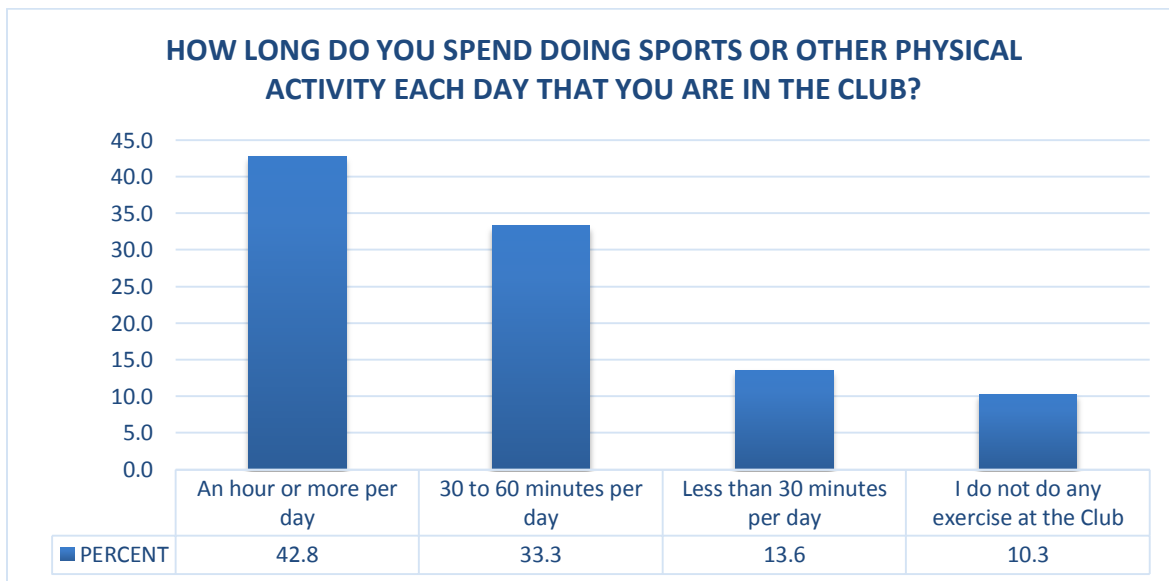
The above chart shows that an overwhelming majority of participants (77.9%) thinks that participation in sports and physical activities helps them to become more physically fit. A large group of 16.6% was not sure and only 5.5% said that such participation does not help them to become more physically fit.



The outcome presented in the above chart is important as it indicates that 65.2% of respondents believe that through participating in the Clubs' physical activities, they reached or maintained a healthy weight. The remaining 34.8% do not know and no one rejects the idea that there is no positive impact from being engaged in physical activities.



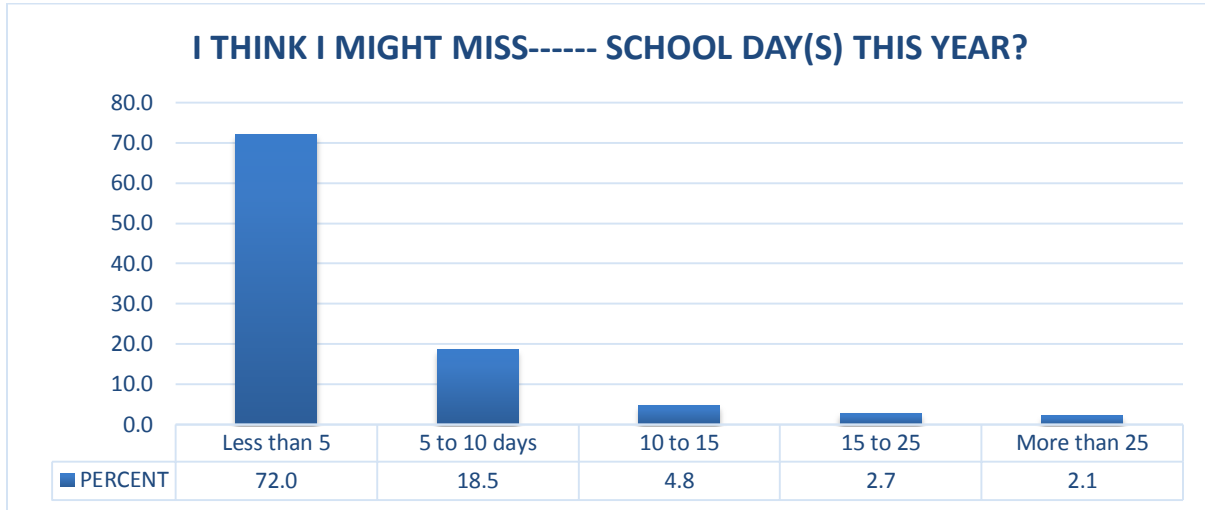
The above chart examines the question of the impact of physical activities further. This chart shows that some 42.0% feel healthy as a result of participating in the physical activities of the Clubs. 40.6% felt energetic, and 29.3% felt happier. Some 19.6% felt more relaxed and only 11.6% said that they feel nothing special.



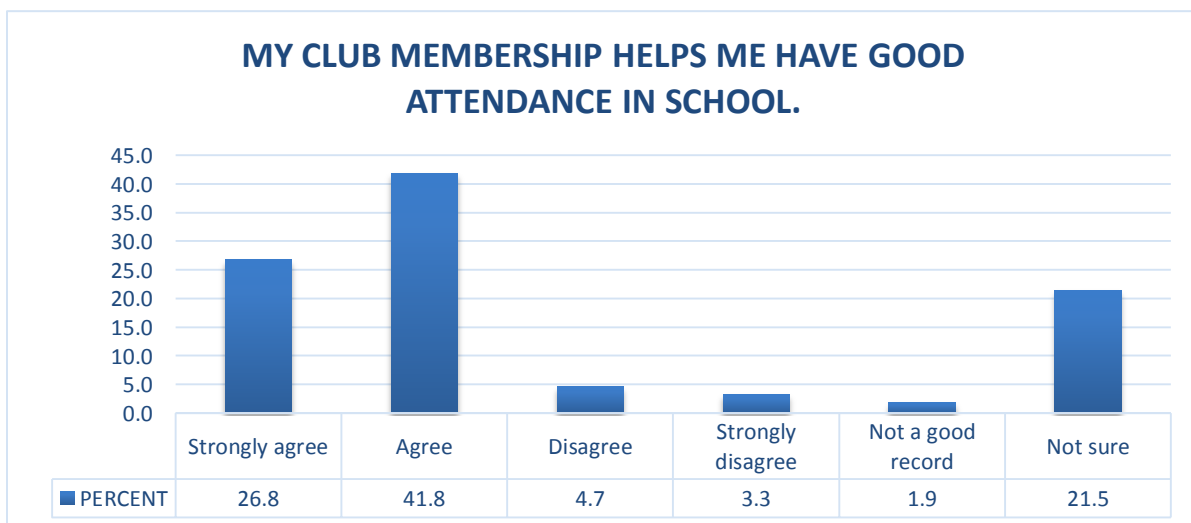
Regular exercise is pivotal for maintaining physical fitness and health. The outcome of the members' survey shows that 76.1% of respondents spend more than 30 minutes on physical activities when they are in the Club. Some 42.8% spend an hour or more doing physical activities.

4.1.3) Attendance Record in Clubs and School

Regular and strong attendance records are an important indicator of academic success. By regularly attending school, students are less likely to fall behind in their studies and thereby more likely to succeed. As such, several questions in the survey sought to learn about student attendance records and the impact of Club participation on these records.



The vast majority of Club members have strong attendance records. 72.0% of respondents indicated that they anticipate missing 5 days or less of school. This is a remarkable record. 90.5% missed school less than 10 days during the year. Only 2.1% anticipated missing more than 25 days of school.

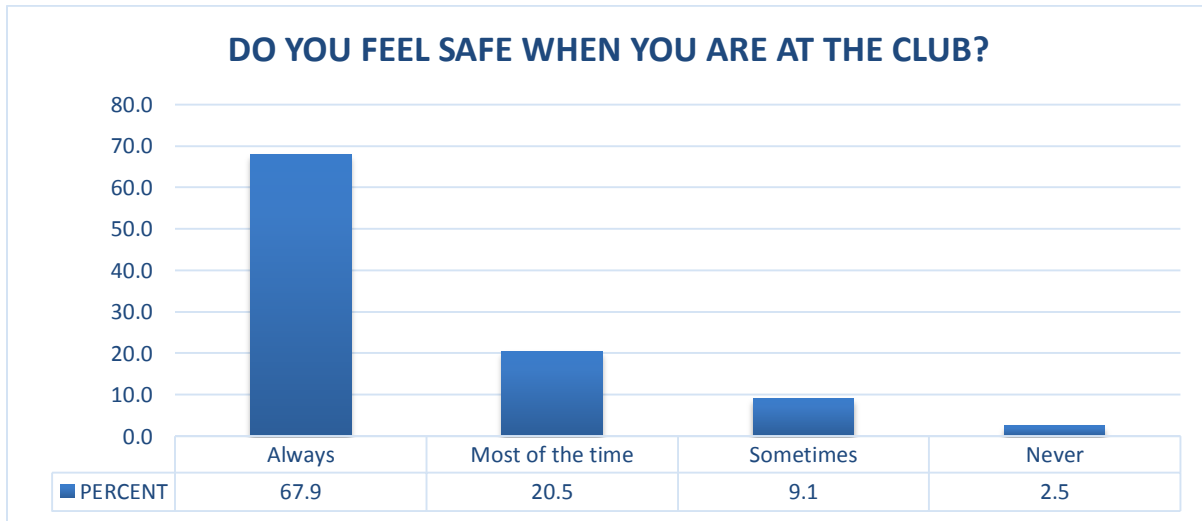


We also asked students whether their strong attendance records are related to the fact that they attend the Boys & Girls Clubs regularly. A vast majority of respondents (68.6% or 2/3 of all respondents) believe

that their regular attendance at the Clubs accounts for their good attendance records in regular day school.

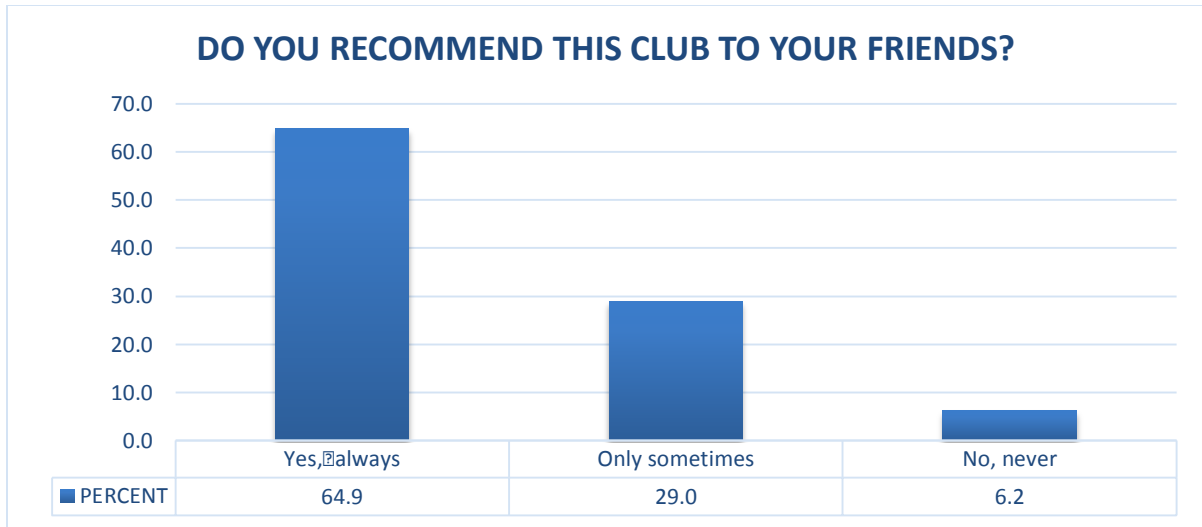
4.1.4) Feeling Safe and Overall Opinion Regarding the Boys & Girls Clubs

Keeping children feeling safe is one of the most important contributions of Boys & Girls Clubs in our community. The following chart shows that an overwhelming majority of members feel safe when they are in the Club environment.



Nearly 9 out of 10 respondents (88.5%) feel safe (always or most of the time) when they are in the Clubs. Another 9.1% feel safe sometimes. Only 2.5% never feel safe when they attend the Clubs.

One way to determine whether an individual is satisfied with something is to ask them whether they would recommend it to their friends. By recommending something, an individual invests their own reputation in the fact that the service is effective. As such, we asked Club members whether they would recommend the Club to their friends.



64.9% indicated that they would always recommend the Club to their friends, while an additional 29.0% would recommend the program sometimes. Only 6.2% of Club members would never recommend the program to their friends. As such, it would seem that over 9 out of 10 Club members are generally satisfied with the services they receive at Boys & Girls Clubs in Central Florida.

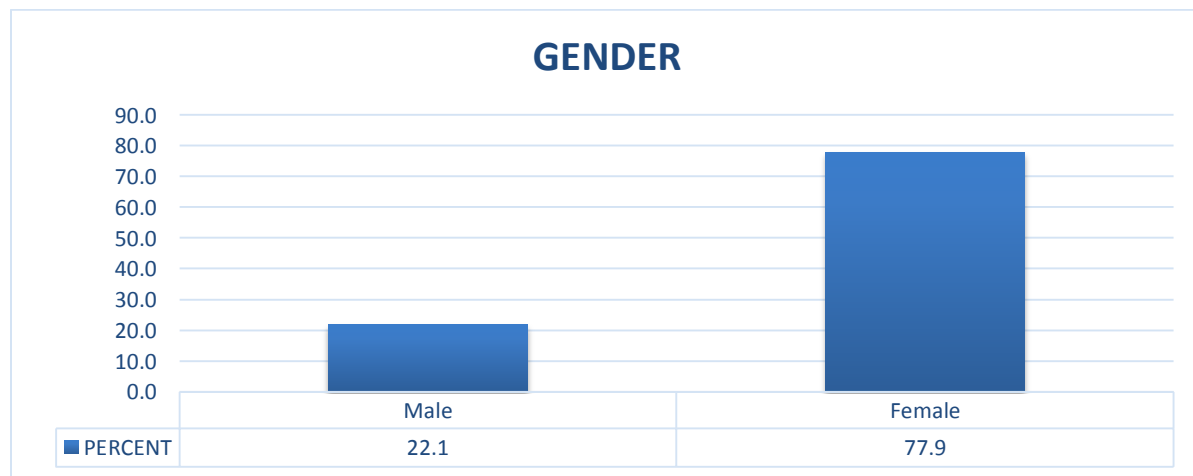
4.2) Results from Parents' Survey

In addition to Club members, parents represent another important group of stakeholders. They are heavily invested in the quality and effectiveness of the program. Without the Clubs, parents would have to find alternate means for taking care of their children during after-school hours. Some may have to work less to stay at home with their children. Others may have to pay more for other services that are of uncertain quality, if they are able to afford it. Moreover, they are an important source of supplementary information to assess the impact of the Clubs on their children due to their special vantage point.

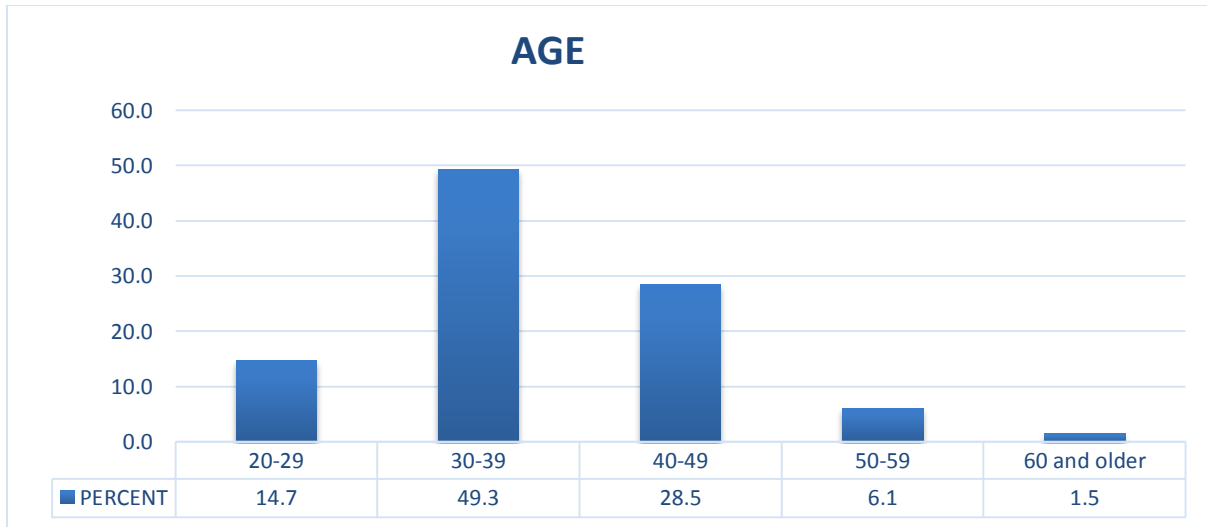
Given these considerations, it was critical to collect data from parents to see how well they are being served by the Clubs and to see how effective they perceive the programs to be.

4.2.1) Demographic Information

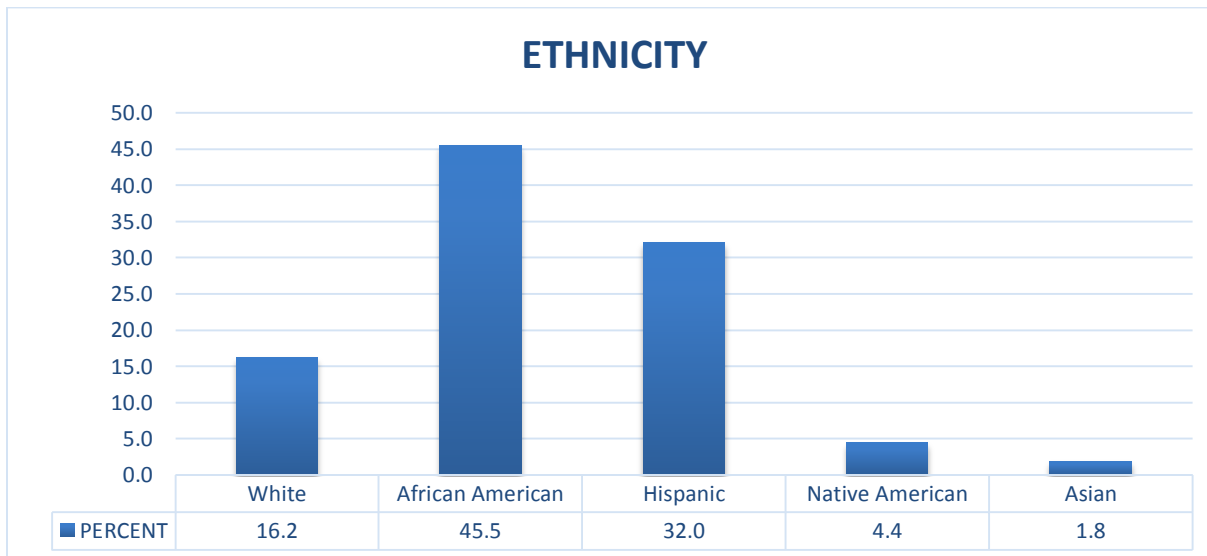
Some demographic data was collected from parents. This information helps us to understand the profile of respondents and the households in which Club members are being raised.



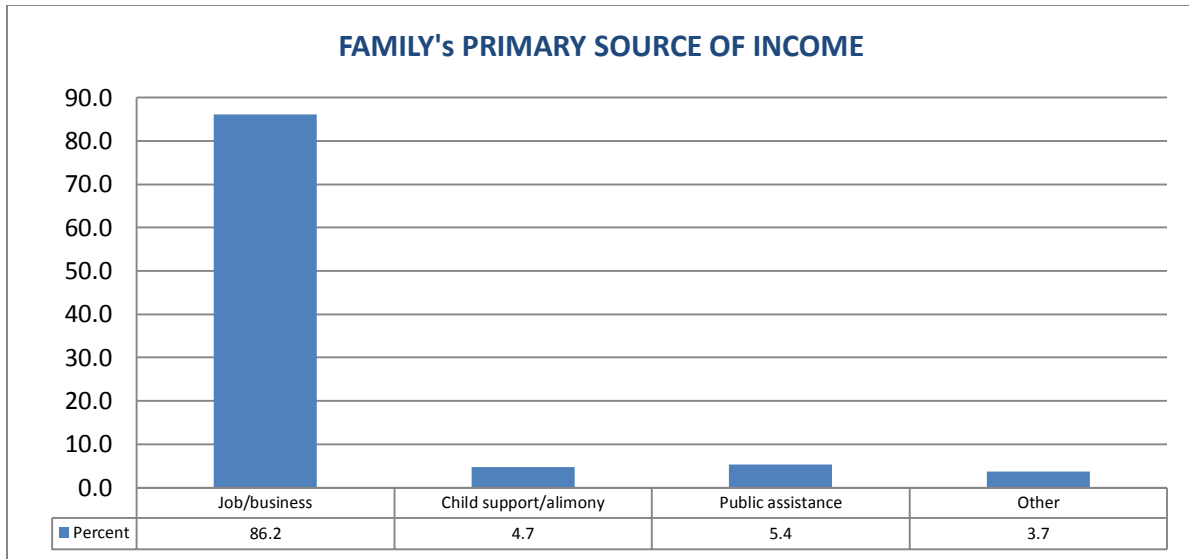
The vast majority of respondents (77.9%) are females. This indicates that the survey represents the thoughts and opinions of the mothers and grandmothers of Club members for the most part. We should remember that, based on the information received from the Club management, 43% of the families whose children attend the Boys & Girls Clubs in Central Florida represent households headed by single parents, and in total, 40% are headed by single mothers. According to our research, 93% of all families headed by single parents are headed by single mothers.



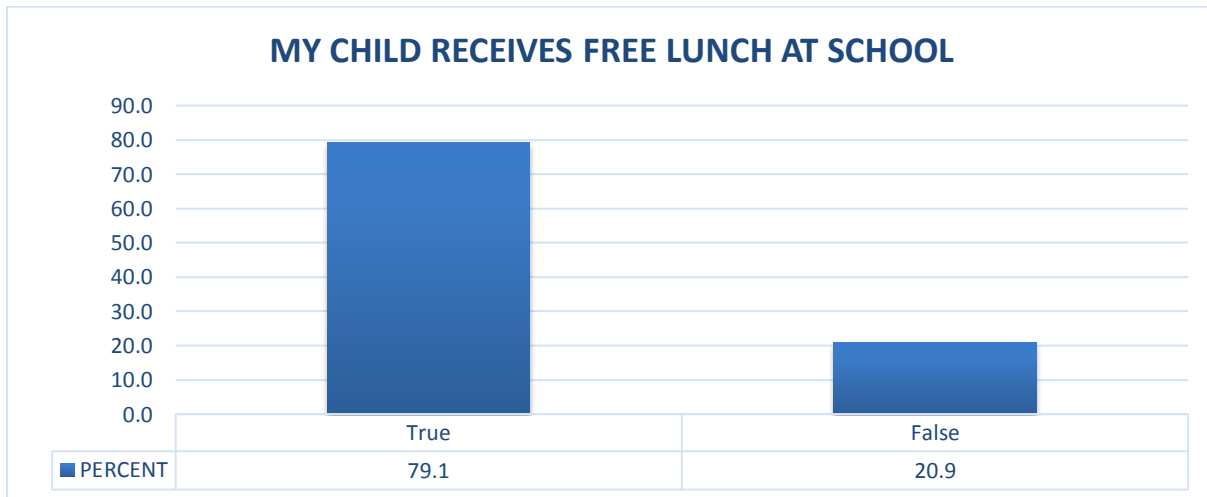
The largest proportion of parents (49.3%) are between the ages of 30 and 39. The second most represented age group is those between the ages of 40 and 49 (28.5%). As such, the survey results seem to indicate the opinions of middle-aged parents for the most part. There is, however, a significant percentage of younger parents between the ages of 20 to 29 (14.7%).



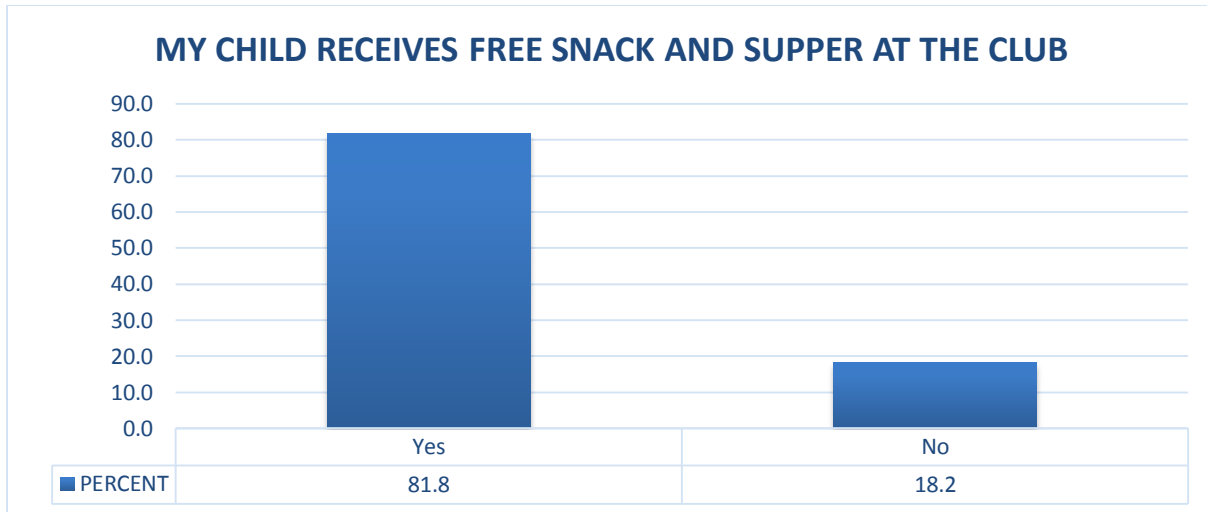
The highest proportion of respondents (45.5%) are African American while the second most represented group is Hispanic, which composes 32.0% of the parents. The ethnic make-up of parents based on this survey is similar to the ethnic make-up of Club members determined in the Club member survey.



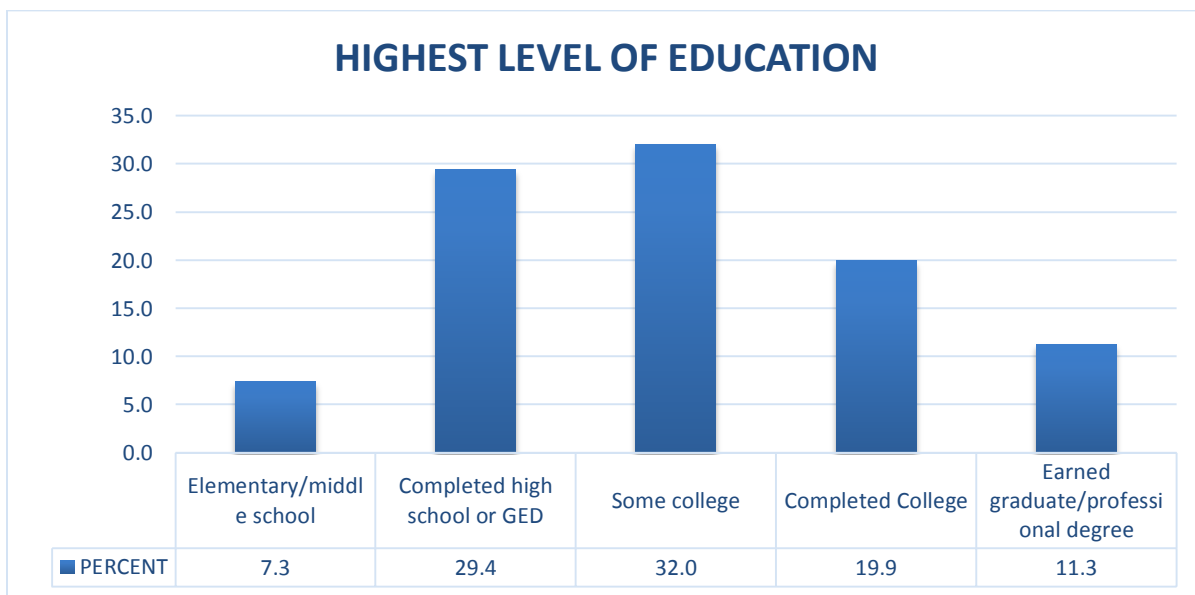
As the above chart shows, most families' primary source of income is a job or their own business. This demonstrates that the Clubs predominantly serve working parents and families who need safe supervision of their children during after-school hours.



Economically disadvantaged young people are eligible through a national program to receive free lunches. By understanding the proportion of those served by the Clubs who receive free lunches, it is possible to learn something about the economic profile of those families served. The results are quite telling. According to the parent surveys, 79.1% of Club members receive free lunches when they are in school. This data indicates that the Boys & Girls Clubs in Central Florida provide a great contribution to serving an economically disadvantaged group.



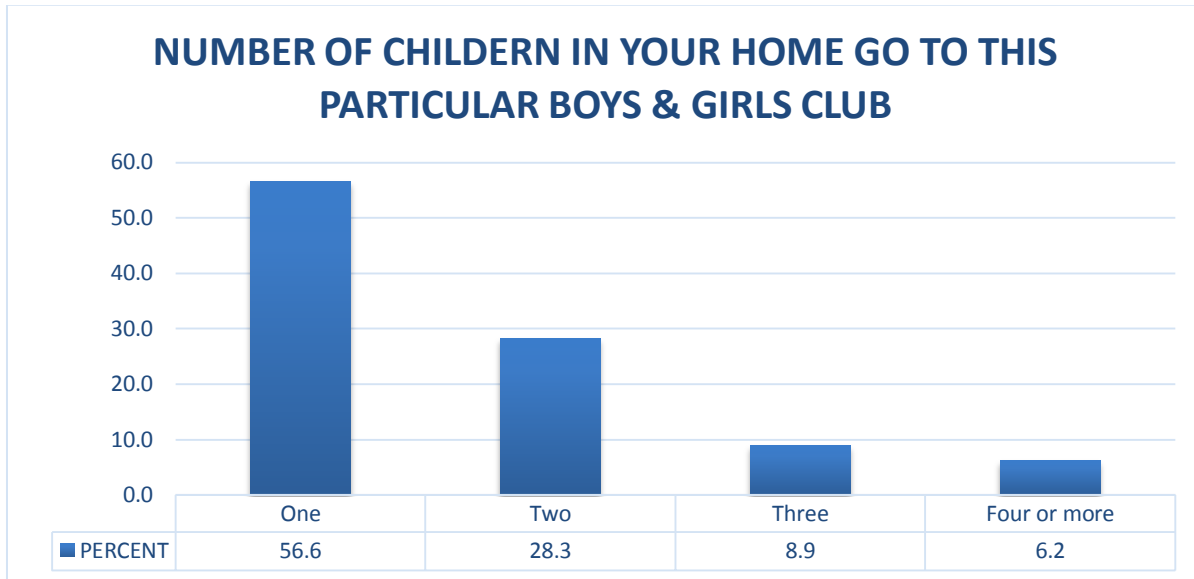
The above chart shows that a nearly overwhelming majority of the children (81.8%) receive free snack and supper at the Clubs. This is an important contribution to the family that helps them to feed their children.



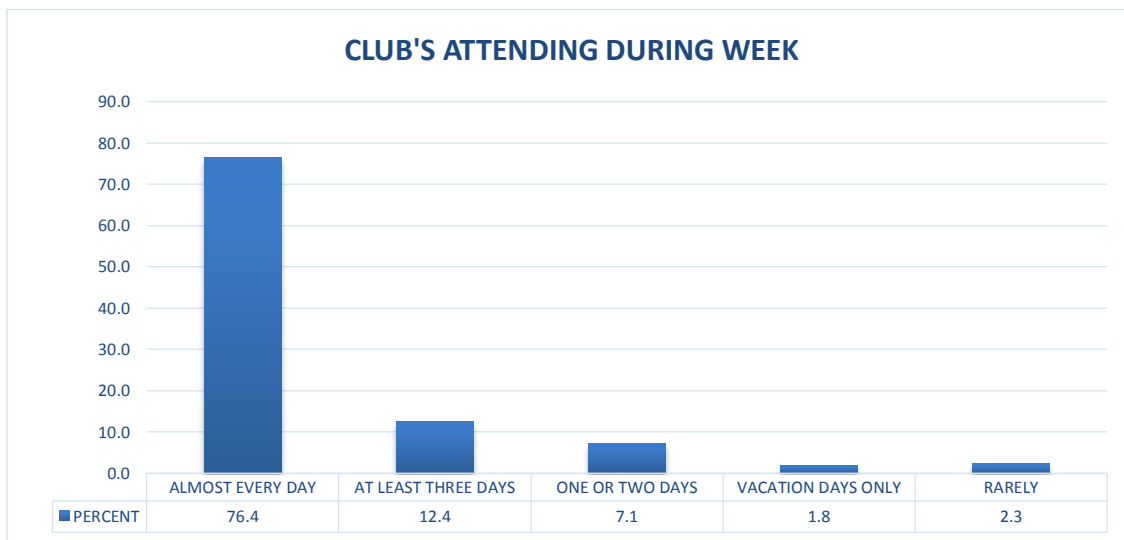
Another important demographic consideration is the level of education attained by parents. Education and earnings are closely related as discussed in earlier sections of the report. Survey results indicate that the educational background of parents is very diverse. The largest portion of parents has some college education (32%). The second largest groups are those with a high school diploma or GED (29.4%). 19.9% have completed college and some 11.3% have earned graduate or professional degree. Some 7.3% of parents surveyed do not have a high school diploma.

4.2.2) Family's Need for Boys & Girls Clubs

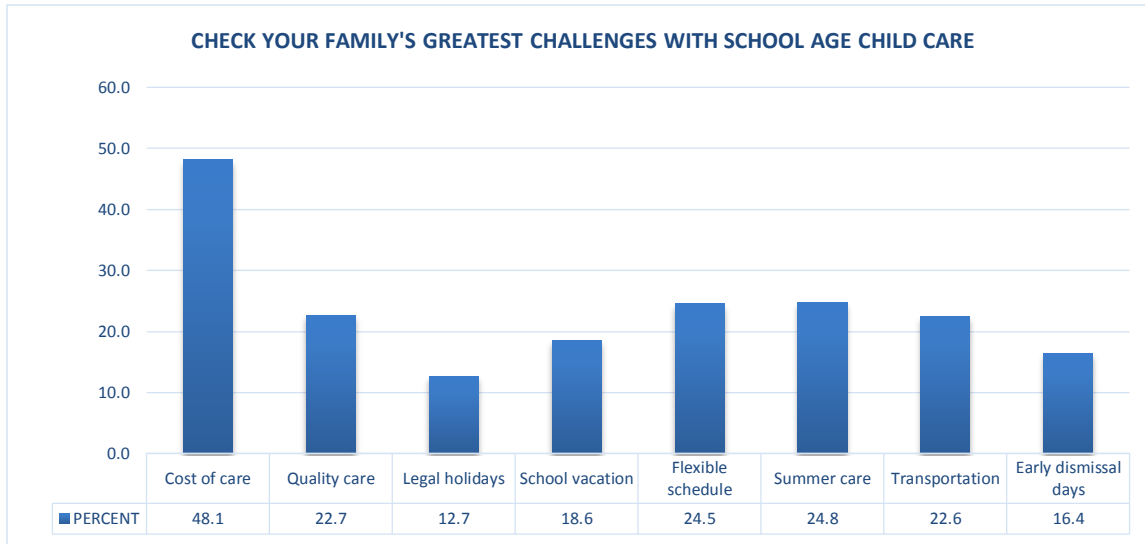
When understanding the value created by the Boys & Girls Clubs in the community, it is important to understand the extent to which families who use the service depend on its existence. The survey included several questions to learn about the frequency and depth of the demand for Club services.



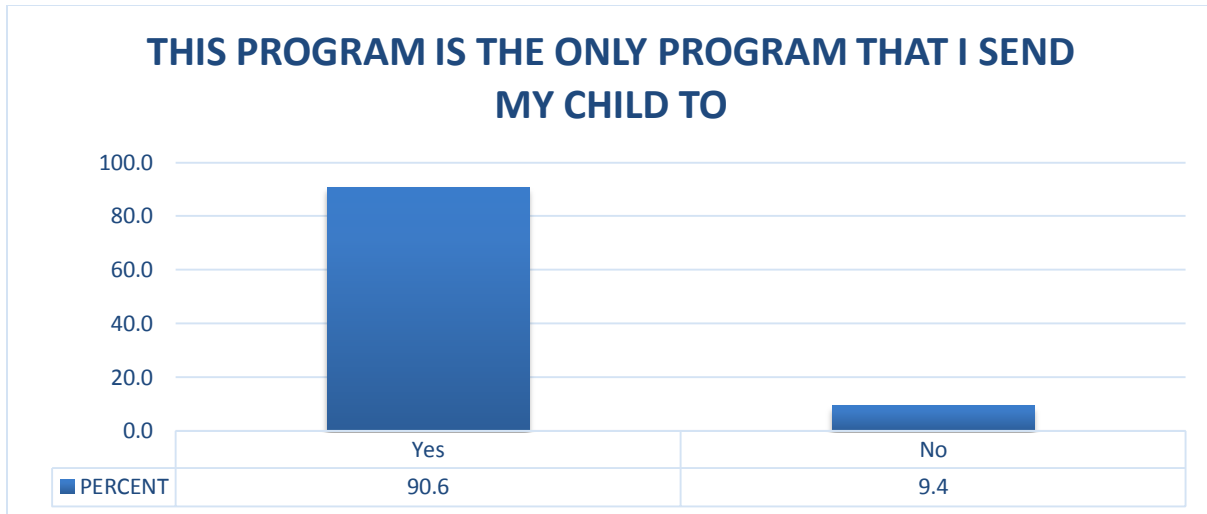
The highest proportion of families (56.6%) have one child in the Boys & Girls Clubs. 28.3% have two, 8.9% have three and the remaining 6.2% of families have four or more. For those with multiple children at the Clubs, the need for the service is amplified since the cost and difficulty of supervising multiple children after school can become significant. As such, the need for the Clubs is particularly acute for the significant proportion of families with multiple children.



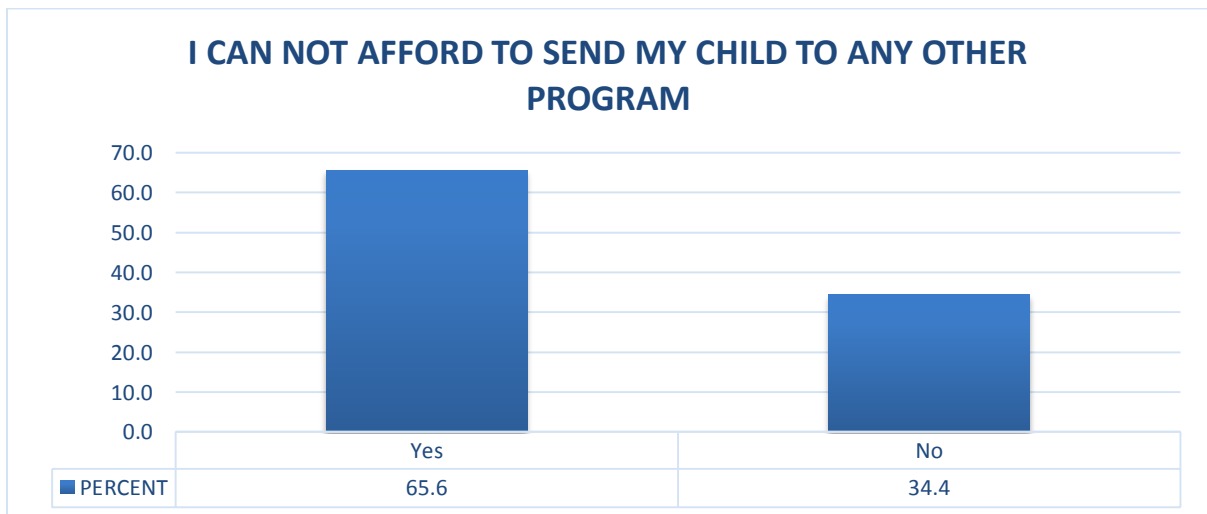
Almost 8 out of 10 parents (76.4%) report sending their children to the after-school program almost every day while an additional 12.4% report sending their children to the program at least three days per week. Putting all of these together, almost 9 out of 10 parents (88.8%) sent their kids to the Clubs at least three times per week. As such, it is clear that an overwhelming majority of parents depend on the program frequently (almost daily). Such regular use of the program shows that such families are quite dependent on the existence of the program to complete their daily routine.



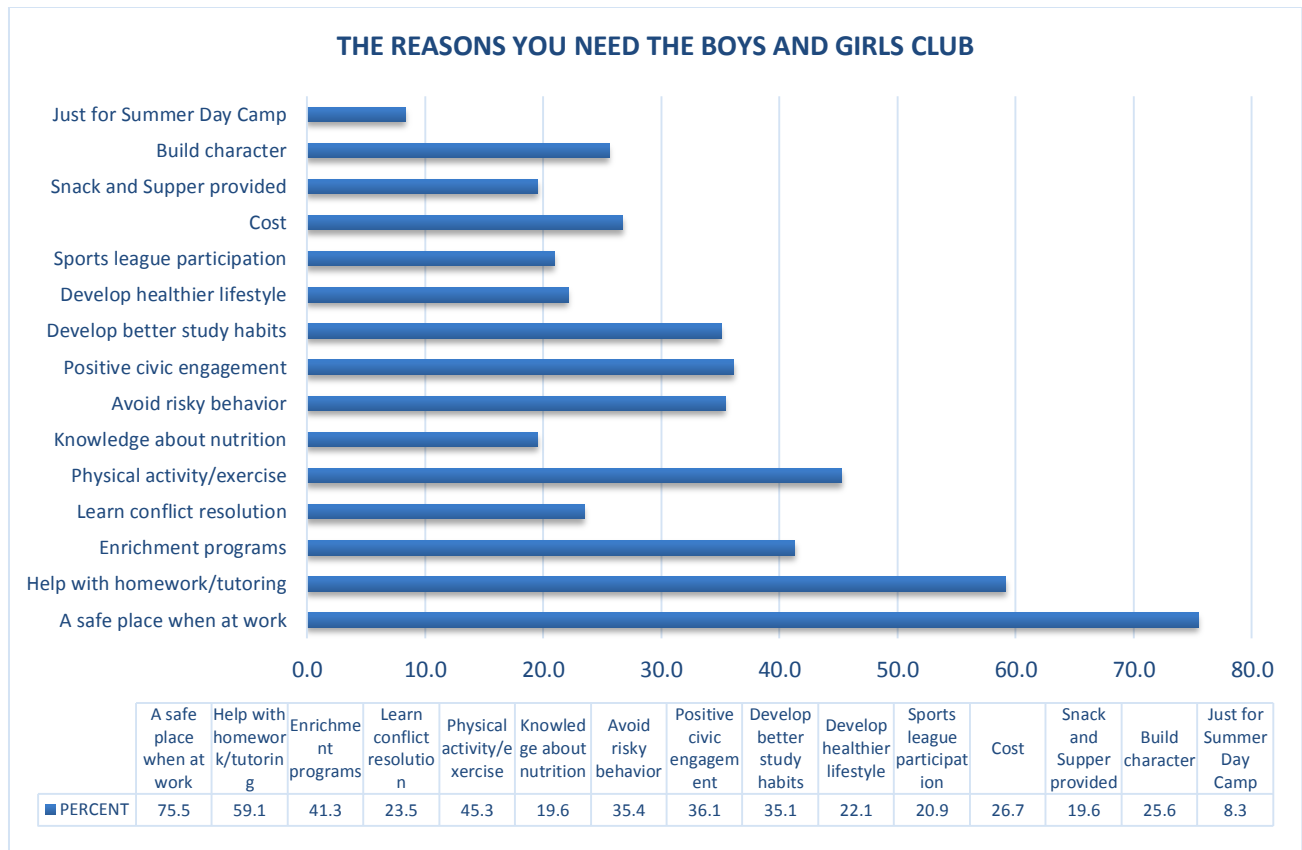
When determining the level of dependence these families have on the Clubs, it is important to understand the source of the challenges that the families face with school-age child care. By far, the greatest challenge for all these families is the cost of care. Some 48.1% of families served by the Clubs consider the cost of care as the greatest challenge they face. As such, programs such as the Boys & Girls Clubs that provide high-quality cost-effective services are critical to the community. Summer care and flexible schedules are the second and the third most important challenges that parents face in taking care of their school-age children. The quality of care and transportation are also close challenges parents face. These issues have a direct impact on the ability of parents to provide for the economic needs of their families.



The degree to which many families depend on the Boys & Girls Clubs is further demonstrated by the fact that 90.6% of parents indicate that the Club is the only program to which they can send their children. Without the Clubs, it is unclear what these families would do. Parents would either have to modify their own work schedules or these children would be without proper supervision; either scenario would be troubling.



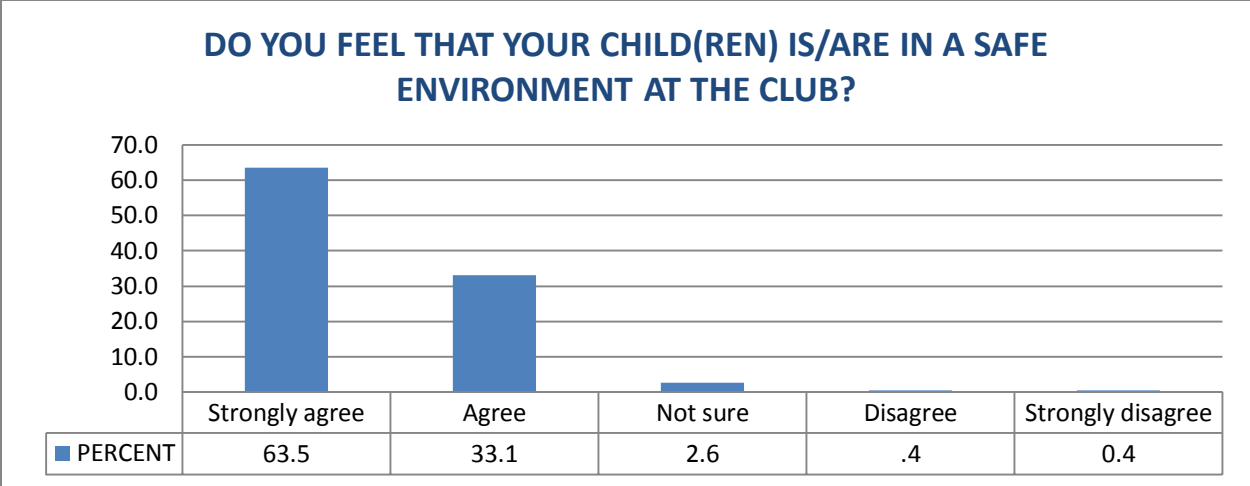
One reason that many families must rely exclusively on the Clubs for after-school care is the fact that other programs and private services are cost-prohibitive. According to the parents survey, almost 2/3 of the parents (65.6%) cannot afford any other program.



The parent survey also asked parents why they need the Boys & Girls Clubs. There is widespread agreement on the reason. More than three quarters of the parents (75.5%) report that they need the Clubs since their children are at a “safe place when they are at work.” This response shows that this asset allows parents to be productive members of the community by allowing them to attend to their work. Without the after-school program, such parents would likely have to work less; this would be bad for families since they would lose income, and this would be bad for the community since it loses productive workers. Other reasons, such as having a place for their children to benefit from the tutoring program (59.1%), and to have access to exercise and enjoy enrichment programs and learn to build character and have positive civic engagement are of significant importance.

4.2.3) Safety

Given the importance parents place on having a “safe place” for their children, it is important to measure whether parents believe that the Clubs are a safe environment. As such, the survey included a question to determine parent sentiments on this point.



Almost all parents (96.6%) agree or strongly agree that their children are in a safe environment when they are attending the Boys & Girls Clubs. This level of unanimity in the response is particularly noteworthy and shows the extent to which parents have faith in the safety of the Clubs. Club management should be proud of this outcome.

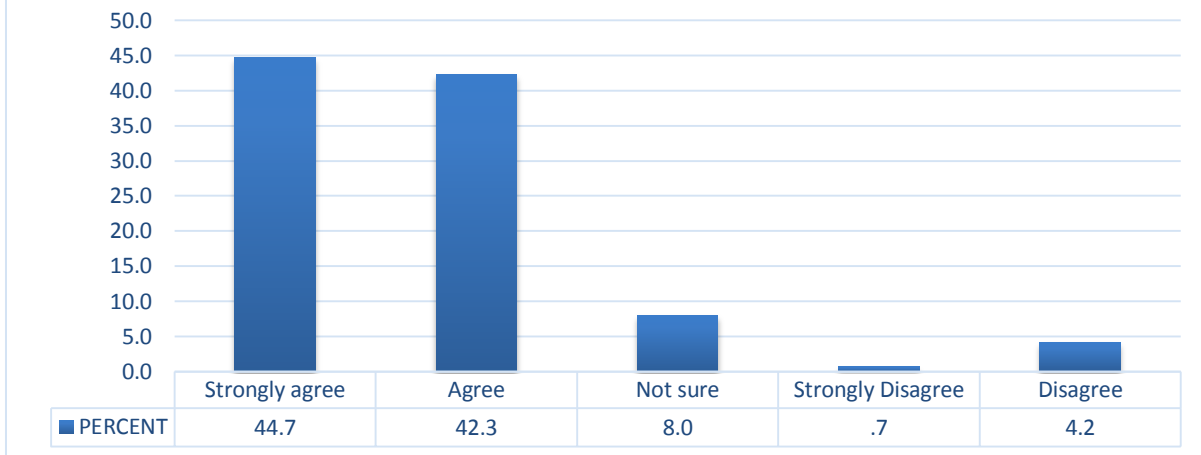
4.2.4) Parent Opinions on Impact of the Clubs on their Children

In some ways, parents know their children better than their children might know themselves. As such, the parent survey included many questions that asked parents about the impact of the Clubs on their children. The data from these questions can be used to assess the impact of attending the Boys & Girls Clubs on Club members.

In order to organize this data, the questions have been examined in three separate categories. The first considers questions relating to social and emotional skills, the second considers academic achievement and promise, and the third considers the impact on nutrition and physical activity.

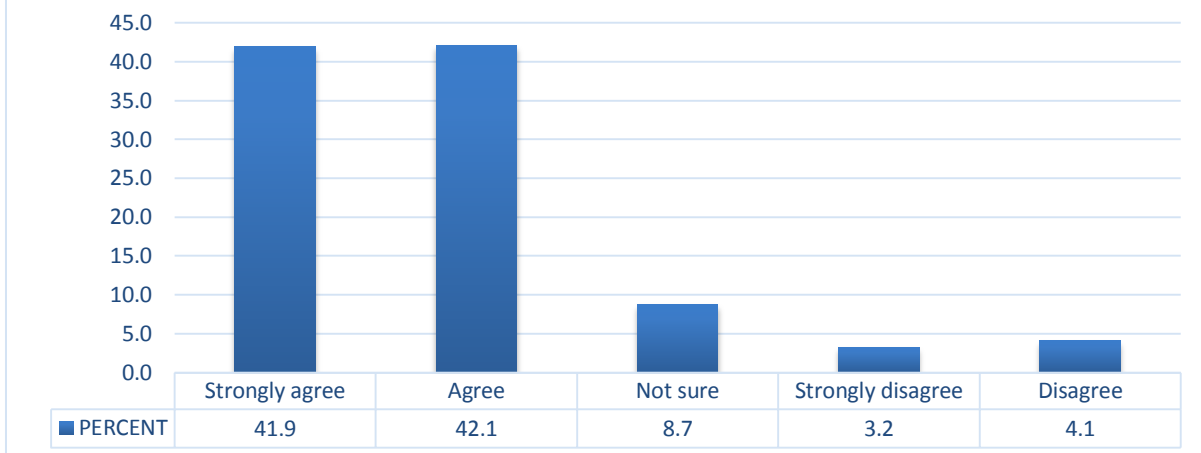
4.2.4.1) Social and Emotional Skills

SINCE GOING TO THE BOYS & GIRLS CLUB MY CHILD HAS ACQUIRED A GREATER ABILITY TO MAKE FRIENDS



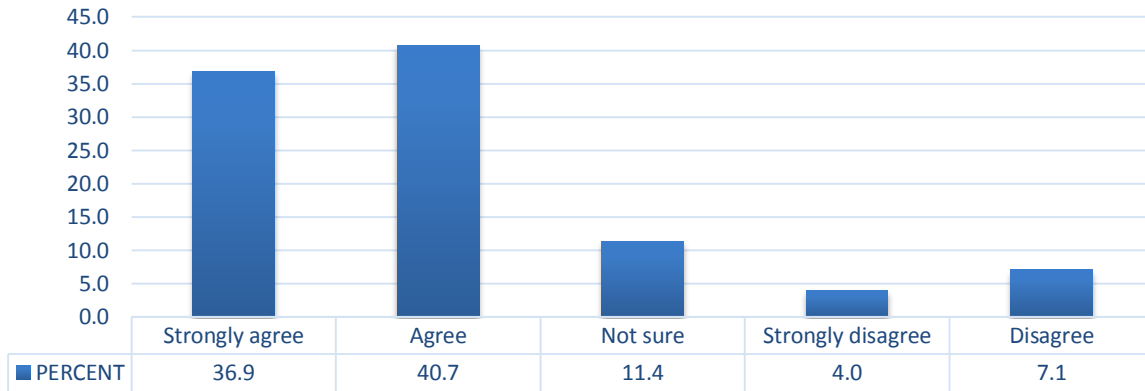
Social skills and the ability to make friends are critical to leading an emotionally healthy life. There is widespread consensus amongst parents that Club attendance has allowed their children to better acquire friends. Specifically, 87.0% of parents either agree or strongly agree that their children have developed this skill set since joining the Clubs.

SINCE GOING TO THE BOYS & GIRLS CLUB MY CHILD IS SHOWING MORE CONFIDENCE IN HIMSELF/HERSELF



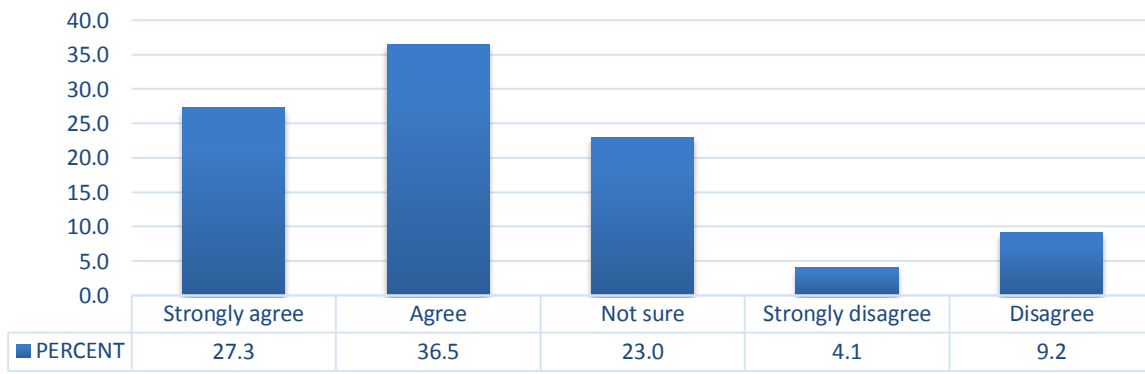
Self-confidence is another important key to happiness. Yet again, Club attendance has made children more confident in themselves, according to parents. 84% of parents agree or strongly agree that their children have become more confident in themselves since going to the Clubs.

SINCE GOING TO THE BOYS & GIRLS CLUB MY CHILD IS DEMONSTRATING A GREATER ABILITY TO GET ALONG IN THE FAMILY



In addition to their relationships with their friends, interactions with parents and others in the family can be quite telling indicators of a child’s emotional wellbeing. According to a vast majority of parents (77.6%), Club members have shown a greater ability to get along in their families since attending the Clubs.

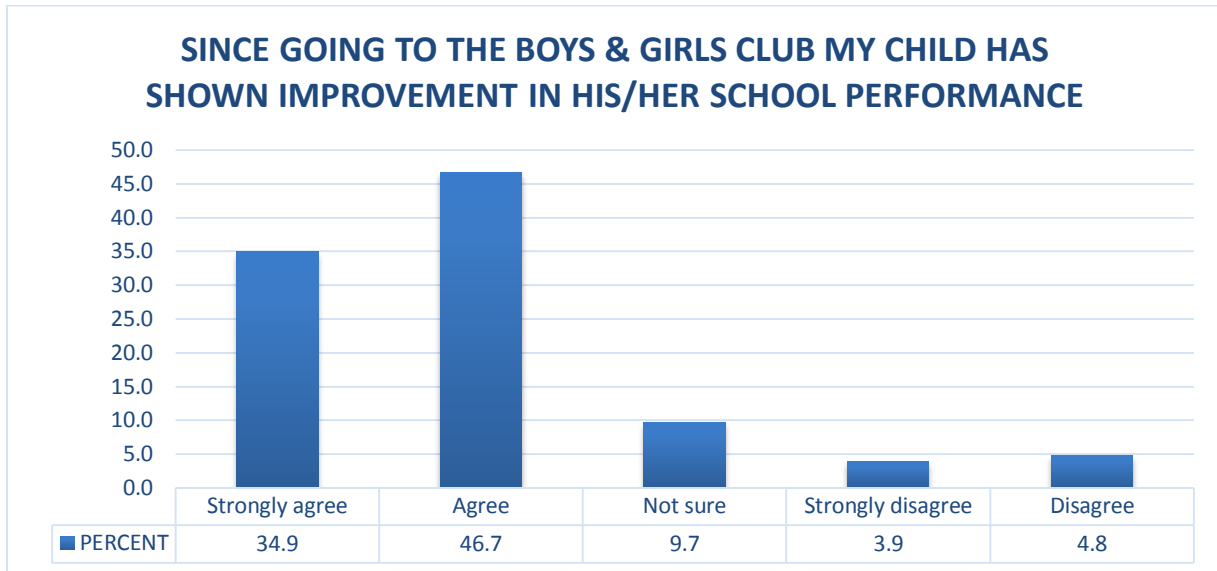
SINCE GOING TO THE BOYS & GIRLS CLUB MY CHILD SEEMS MORE INTERESTED IN DOING VOLUNTEER WORK



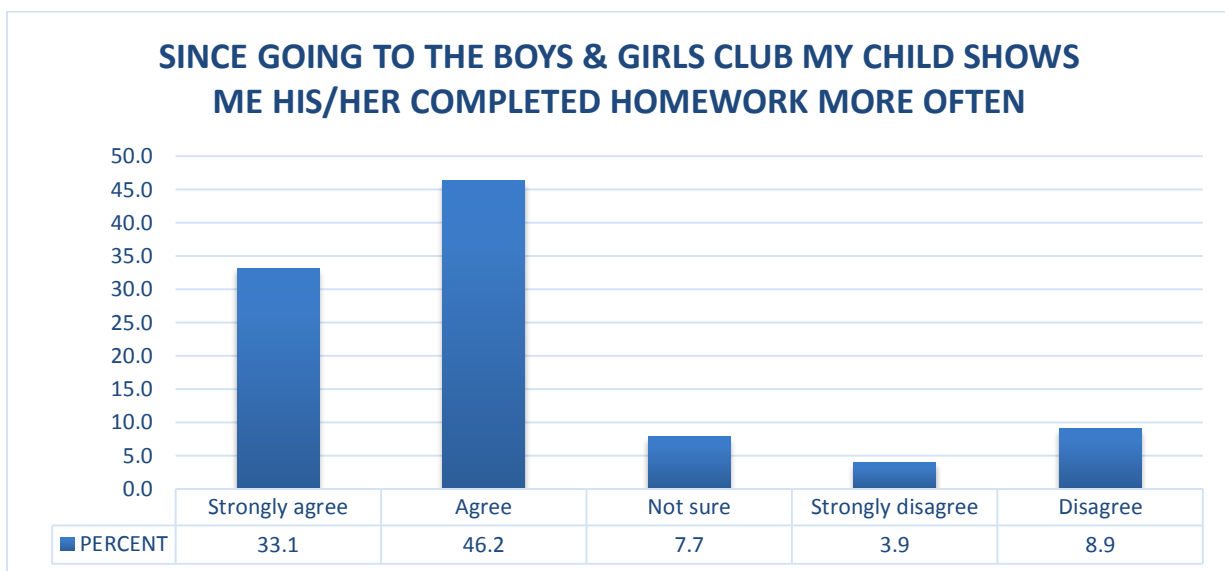
Empathy for others and the willingness to volunteer to help the community are signs of emotional maturity. Moreover, the willingness to volunteer may be influenced by contact with an organization that utilizes many generous volunteers. The propensity to volunteer may indicate that the youth is being positively influenced by those in the Clubs.

The data is encouraging. The majority of parents (63.8%) indicate that their children are more interested in volunteer work since participating in the Boys & Girls Clubs. Some 23.0% were not sure and only 13.3% disagreed or strongly disagreed with such an assessment.

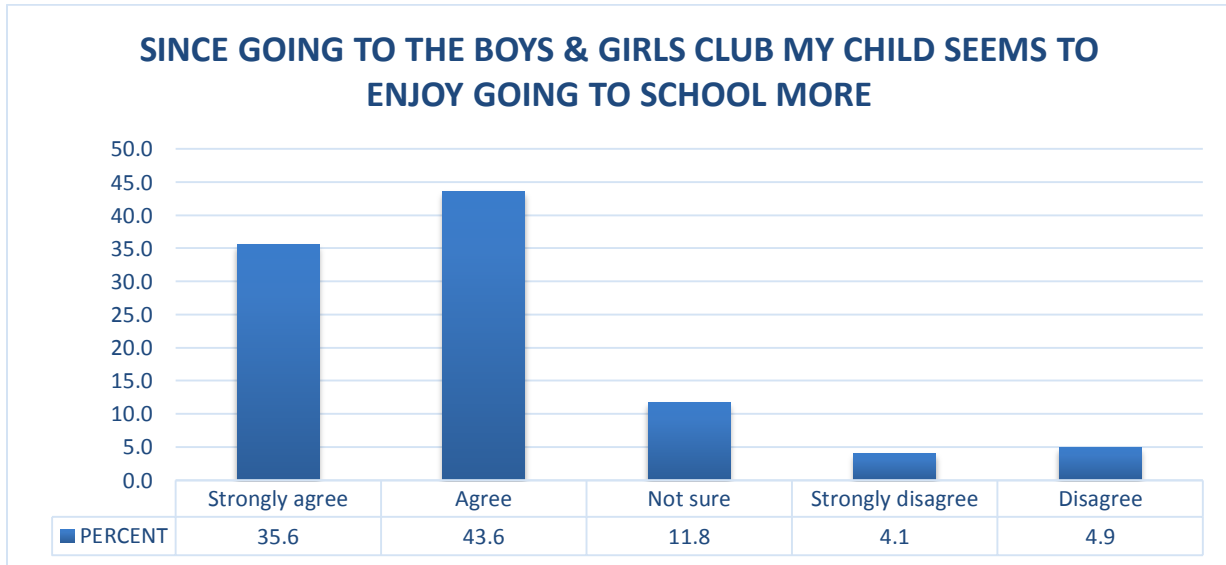
4.2.4.2) Academic Achievement and Promise



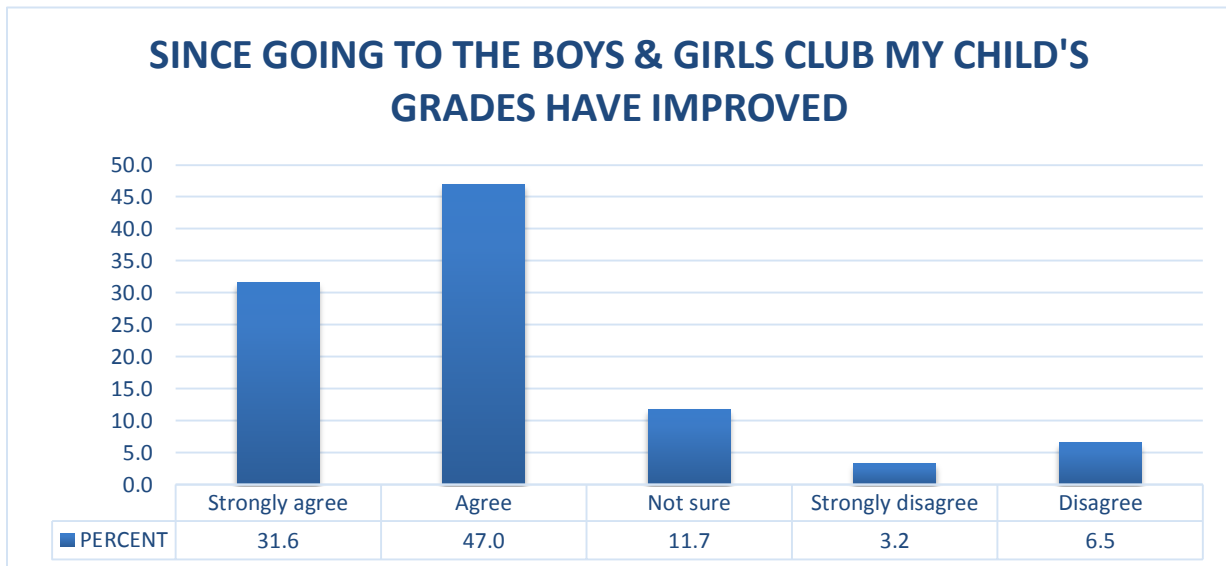
According to the results of the survey, parents report that their children have improved performance in school since attending the Boys & Girls Clubs. Specifically, 81.6% of parents either agree or strongly agree that they have observed this pattern. Only 8.7% disagree or strongly disagree that such improvement has occurred.



One way for parents to observe the study habits of their children is through their children showing them completed homework. 79.2% of parents have observed their children showing them completed homework more often since attending the Boys & Girls Clubs.



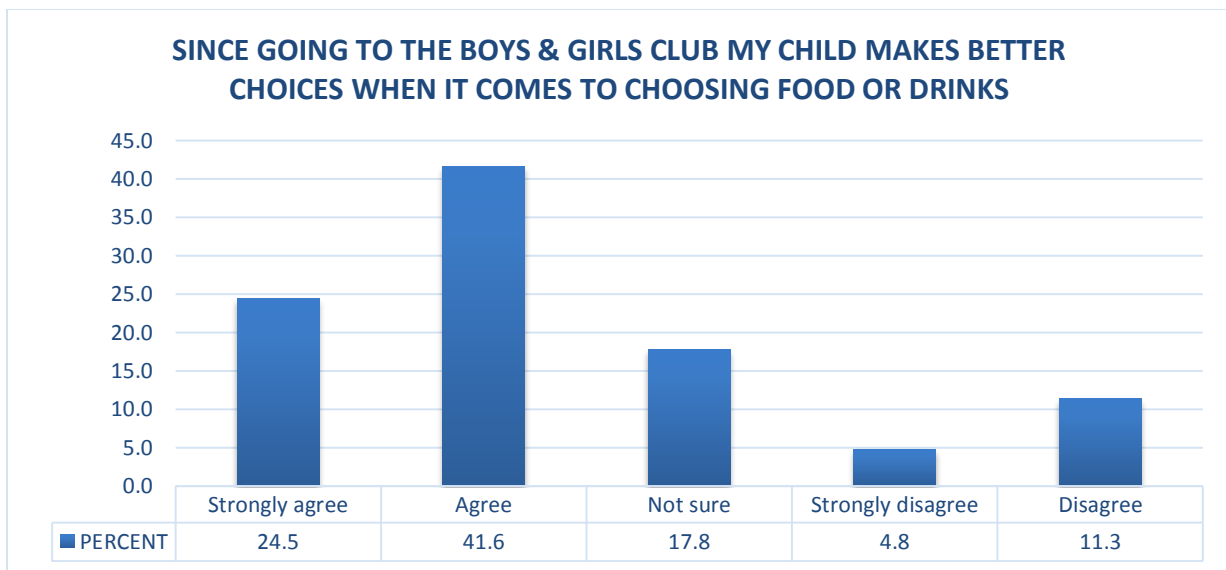
There is also broad consensus among parents that their children enjoy going to school more since attending the Boys & Girls Clubs. 79.2% of parents agree or strongly agree that they have seen such improvement.



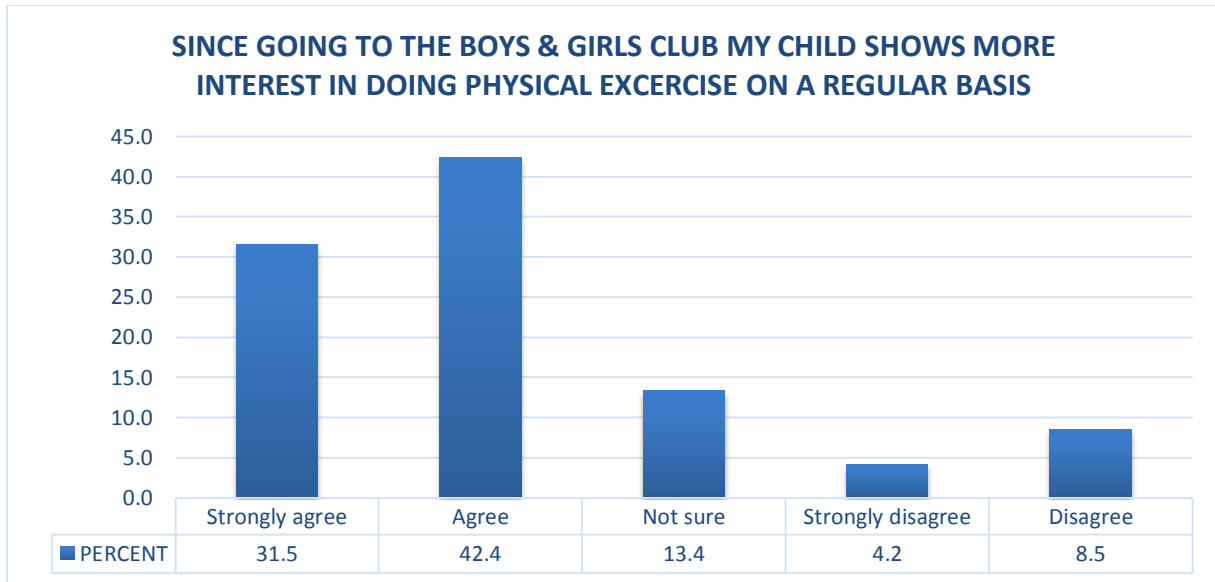
Many of the academic improvements parents have observed in their children are also corroborated by improved grades. Grades are a particularly objective measure of Club member performance and indicative of long term prospects. The data is similarly impressive in this regard. The majority of parents (78.6%) have observed that their children’s grades have improved since attending the Boys & Girls Clubs. Only 8.7% of parents disagreed about whether such an improvement has occurred.

4.2.4.3) Health and Nutrition

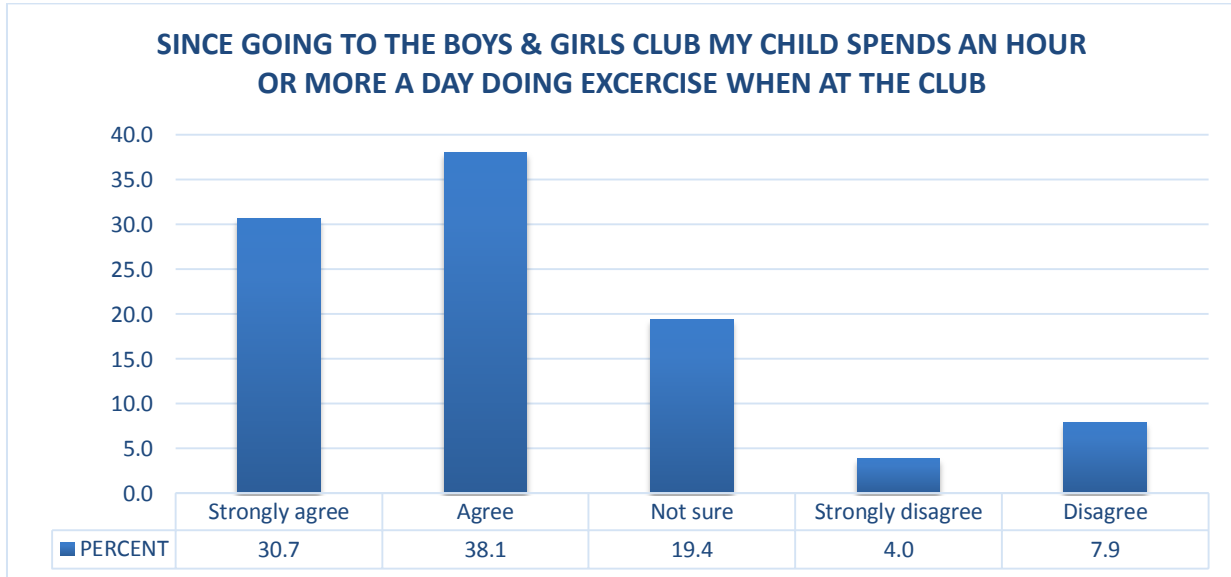
Finally, parents are also in a great position to see the sort of decisions made by their children regarding nutrition and physical activity. As such, the survey included several questions designed to understand the impact of the program on Club members’ health.



Parents generally report that their children have made better choices when it comes to choosing foods and drinks since attending the Boys & Girls Clubs. A significant proportion of respondents (48.4%) agrees or strongly agrees that their children made better food choices. Such decision-making skills are critical in ensuring that youth eat nutritious food that is conducive to their long-term health.

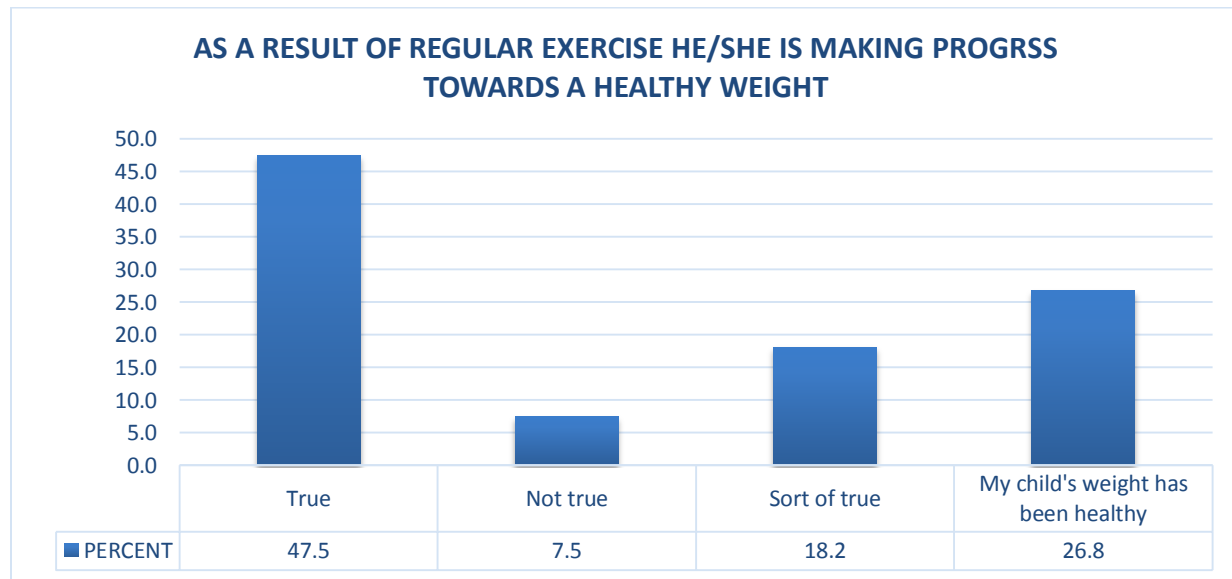


The vast majority of parent respondents (73.9%) agree or strongly agree that their children have shown more interest in regular physical exercise since attending the Boys & Girls Clubs. This is a significant finding since physical activity not only staves off obesity but it can help improve youths in other ways, from developing better functioning cardiovascular systems to having greater emotional confidence.



Doing regular exercise for a certain period of time during a day is highly desirable and recommended by many government-funded programs. Some 68.8% of parents agreed or strongly agreed that their children spend an hour or longer exercising during each day when they are in the Club environment.

Physical exercise has a variety of benefits, from improved cardiovascular health to reduced levels of stress. One particularly important benefit of exercise is that it can help Club members reach a healthy weight level. Given the fact that many youths face the problems of being overweight and obese, any program that can help students lose weight is beneficial.



It must be noted that 26.8% of parents indicated that their children did not need to lose weight. This is a promising statistic and such children are fortunate not to face the myriad of risks associated with being overweight. Nevertheless, the remaining 73.2% of children may be in need of losing weight based on the responses of parents. For these children, the services provided by the Clubs are particularly important.

A majority of parents of those who had children with possible existing or potential weight problems (42.3%) indicate that it is true or sort of true that their children are becoming less overweight as a result of physical exercise. However, as a proportion of those who are potentially overweight, some 61.2% of parents indicate that their children are making progress towards reaching a healthy weight as a result of regular exercise.

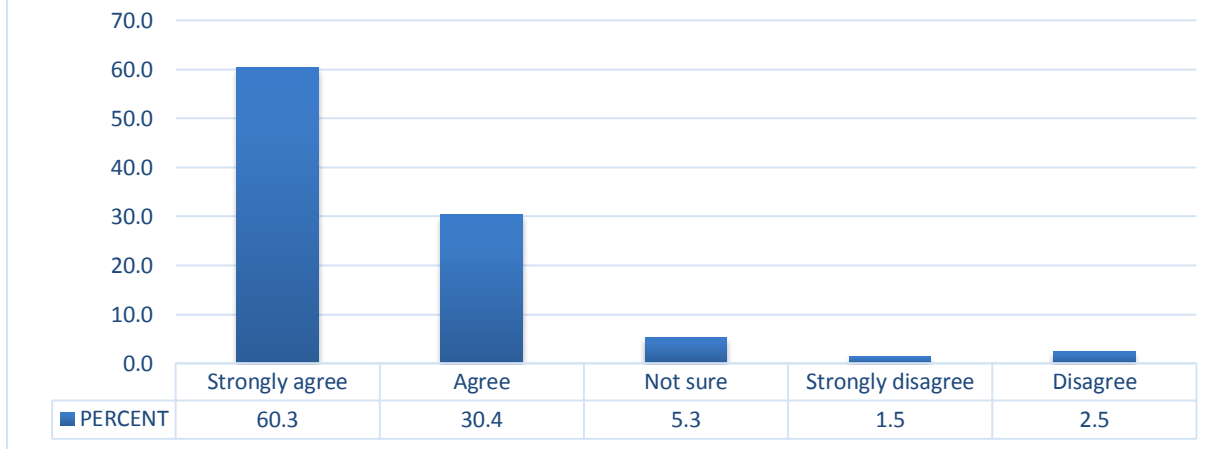
Given the fact that regular exercise is a part of the Club program, it is clear that the Boys & Girls Clubs are playing a vital role in helping the children of these parents become less overweight.

4.2.5) Information on Students' Academic Achievement and Aspirations

Beyond the direct impact of Club attendance on students' academic achievement, the survey also asked parents to give more general information on their children's academic achievements and objectives.

Such information can be used to learn more about the children served by the Boys & Girls Clubs.

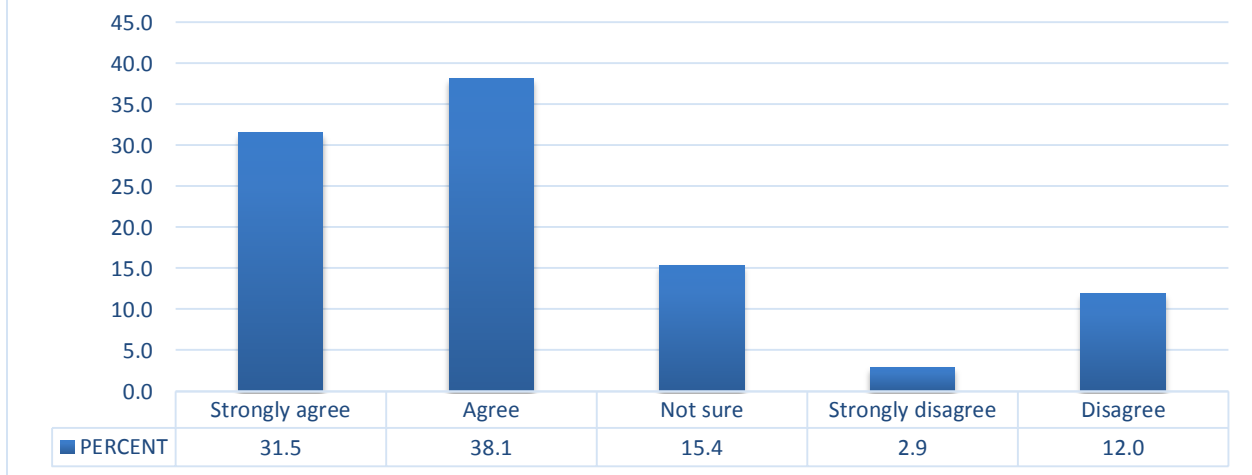
MY CHILD ATTENDS HIS/HER SCHOOL REGULARLY AND HAS GOOD ATTENDANCE



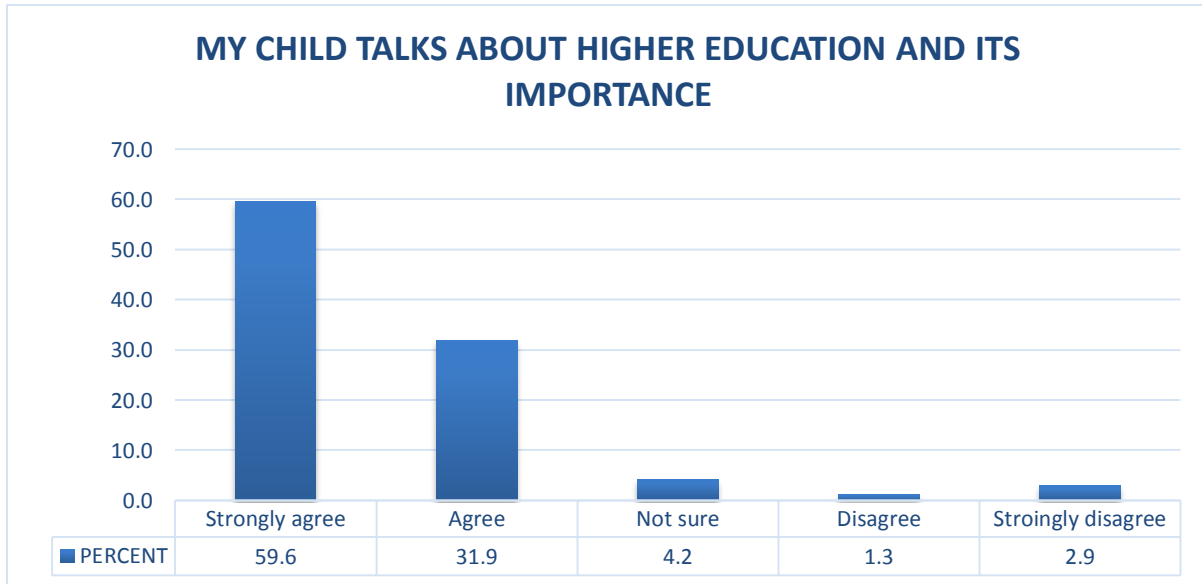
Having a good attendance record in school is an important factor in whether a student becomes academically successful. Missing school can often lead to a student falling behind and becoming frustrated with their studies. As such, good attendance (defined as missing less than five school days during the year) is an important indicator of academic success.

The vast majority of parents (90.7%) agreed or strongly agreed that their child attends school regularly and has good attendance. This data is very promising and shows that many children in the program are attending school regularly and not falling behind in their classes.

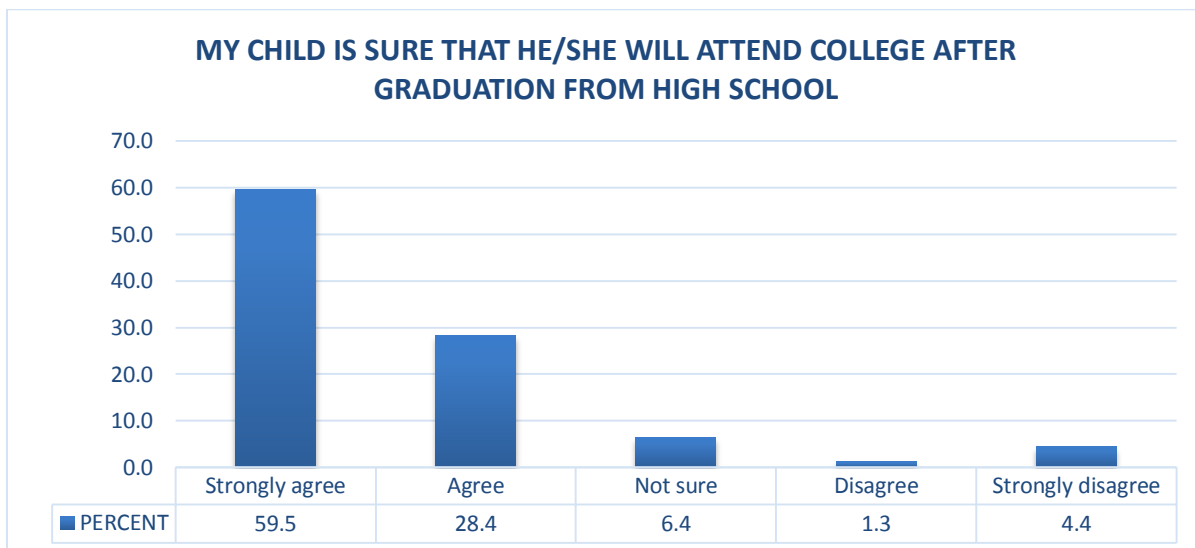
I BELIEVE ONE OF THE IMPORTANT REASONS THAT MY CHILD ATTENDS HIS/HER SCHOOL REGULARLY IS HIS/HER INVOLVEMENT IN THE BOYS & GIRLS CLUB



There can be a variety of reasons for the strong attendance records reported by parents. As such, the survey attempted to determine the influence of the Clubs on regular school attendance. More than three out of five parent respondents (69.6%) indicated that they agreed or strongly agreed that one of the important reasons that their children attend school regularly is their membership and attendance in the Boys & Girls Clubs. This question shows the vital role the Clubs play in providing a positive academic influence on their Club members.



Having ambitions and goals can help motivate children academically. One indicator of ambition can be whether or not a child talks about pursuing higher education beyond high school. A vast majority of parents (91.5%) agree or strongly agree that their children discuss these goals and their importance.



The vast majority of parent respondents (87.9%) agreed or strongly agreed that their children believe they will attend college after graduating from high school. This data further corroborates the fact that children of these parents have high academic ambitions.

In brief, the results of both surveys show the pivotal contribution of the Boys & Girls Clubs to the economic and social wellbeing of tens of thousands of Club members and their families throughout the state of Florida.

Bibliography

- Albert, Bill. (2000), "With One Voice: America's Adults and Teens Sound Off About Teen Pregnancy," A Periodic National Survey.
- America's Promise Alliance,
<http://www.americaspromise.org/About-the-Alliance/Press-Room/Press-Releases/2010/Building-a-Grad-Nation-Report.aspx>
- Austin, Gregory Ph.D.; Skager, Rodney Ph.D.; Bailey, Jerry M.A.; and Bates, Scott Ph.D. Tenth Biennial California Student Survey 2003-2004 Heavy Alcohol and Drug Use, jointly sponsored by California Attorney General's Office California Department of Education and Department of Alcohol and Drug Programs, 2007
- Becker, Barrie. (2005). "County level estimates of the effects of a universal preschool program in California," Rand Labor and population.
- Bergeron, Michael F. "Improving health through youth sports: Is participation enough?" *New Directions for Youth Development*, No. 115 (Fall 2007).
- "Boys and Girls Clubs of the Greater Oxnard and Port Hueneme." (2008) Annual Report for 2007.
- Bureau of Justice Statistics, Office of Justice Program, 2011.
- Bureau of Justice Statistics (BJS) recent publication, 2011 for description of data, mythology of data collection and their definition. <http://www.bjs.gov/index.cfm>
- "California Commission on the Status of Women" (2007), Public Policy Agenda and Proposals to the Governor and State Legislature for 2007-2008.
- "California's Criminal Justice System: A Primer," Legislative Analyst's Office (LAO) California Nonpartisan Fiscal and Policy Advisor.
- "California's Front Line Against Crime." (2007), Fight Crimes Invest in Kids California: A School and Youth Violence Prevention Plan.
- California's Legislative Analyst's Office (LAO),
http://www.ojjdp.gov/ojstatbb/ezaucr/asp/ucr_display.asp?Select_State=10
- Carole, Sharron et al (2006), "State Innovation to prevent Teen Pregnancy," Association of Maternal and Child Health program, State of Utah.

Centers for Disease Control (CDC). (2011). Youth Risk Behavior Surveillance System (YRBSS). Available [On-line]: <http://apps.nccd.cdc.gov/youthonline/App/Default.aspx>.

Constantine, Norman and Carmen Nevarez. "No time for complacency: Teen Births in California." Public Health Institute. March, 2003.

"Cost of Teenage Childbearing and Parenting to Teenage Mothers." (2006). New Mexico Department of Health family Planning Program.

Dall, Timothy. "Potential Health Benefits and Medical Cost Savings from Calorie, Sodium, and Saturated Fat Reductions in the American Diet." American Journal of Health Promotion. 12 Feb. 2009.

Damooei, Jamshid (2008 to 2013). "various studies of Economic Impact of Boys & Girls Clubs in various counties and states.

Davids, Rebecca and Vecchiarelli, Stephanie (2007), "A report presented to the management of the Boys and Girls Clubs of Greater Oxnard and Port Hueneme."

Day, Jenifer Cheeseman and Newburger, Eric C. (2002), "The Big Payoff: Educational Attainment and Synthetic estimates of Work-Life earning; Special Studies," *US Census*.

Ellickson et al., "Does Alcohol Advertising Promote Adolescent Drinking? Associations Between Drug Use and Deviant Behavior in Teenagers," 1996

"Economic Consequences." Center for Disease Control and Prevention, 2009. 27 Dec. 2009. <<http://www.cdc.gov/obesity/causes/economics.html>>.

Florida Association of Counties;
http://www.fl-counties.com/Pages/Advocacy/Public_Safety/Juvenile_Detention.aspx.

Florida Department of Education, Education Information & Accountability Services Data Report, Series 2012-10D February 2012.

Florida Department of Health.

Florida Department of Law Enforcement.

Florida Legislature Office of Economic and Demographic Research, June 2012.

Gambone, et al., Promoting Healthy Lifestyles: The Impact of the Boys & Girls Clubs of America Triple Play Program on Healthy Eating, Exercise Patterns, and Developmental Outcomes, Philadelphia, PA, 2009

Ganderton, P. T. (2006), "The Economic Cost of Teenage Childbearing and Parenting in New Mexico: New Estimates." NMDOH, Santa Fe, NM. 87502.

Goldschmidt, Pete, Huang, Denise, and Chinen, Marjorie. (2006). University of California, Los Angeles.

Grant, B.F., & Dawson, D.A. (1997). Age at onset of alcohol use and its association with DSM-IV alcohol abuse and dependence: Results from the National Longitudinal Alcohol Epidemiologic Survey. *Journal of Substance Abuse* 9: 103-110.

Greene, Jay P. (2006), "Leaving Boys Behind: Public High School Graduation Rate," Manhattan Institute for Policy Research.

Guttmacher Institute (2010, <http://www.guttmacher.org/pubs/USTPtrends.pdf>)

Hamilton, B.E., Martin, J.A., Ventura, S.J., Sutton, P.D., and Menacker, F. (2005). "Births: Preliminary data for 2004." National vital statistics reports; vol 54 no 8. Hyattsville, Maryland: National Center for Health Statistics.

Hellmich, Nanci. "Study: Hospitalization related to childhood obesity nearly double." USA Today. 9 July 2009.

Hetz, Tom (2006), Understanding Mobility in America, American University, Center for the American Progress.

Hoffman, Saul D. (2006), "By the number: The public cost of teen childbearing," National Campaign to Prevent Teen Pregnancy. Department of Economics at Delaware University.
<http://www.buec.udel.edu/hoffmans/Research/By%20the%20Numbers.pdf>

IMPLAN: Economic Impact Modeling System, IMPLAN Group LLC. Regional Data for economic impact assessment for counties in Central Florida, 20143
http://implan.com/index.php?option=com_virtuemart&Itemid=195&vmcchk=1&Itemid=13

Kirby, D., Lepore, G. and Ryan, J. (September 2005). "Sexual Risk and Protective Factors: Factors Affecting Teen Sexual Behavior, Pregnancy, Childbearing And Sexually Transmitted Disease: Which Are Important? Which Can You Change?" The National Campaign to Prevent Teen Pregnancy.

Kost K, Henshaw S and Carlin L, U.S. Teenage Pregnancies, Births and Abortions: National and State

Trends and Trends by Race and Ethnicity, 2010.
<http://www.guttmacher.org/pubs/USTPtrends.pdf>.

Laird, Jenifer, DeBell, Mathew, and Chapman, Chris. (2007), "Dropout Rates in the United States: 2004," US Department of Education, Washington DC National Center for Educational Statistics.

Levy, D.T., Miller, T.R., & Cox, K.C. (2003). Underage drinking: societal costs and seller profits. Working Paper. Calverton, MD: PIRE

Males, Michael. (2006). "Testing Incapacitation Theory: Youth Crimes and Incarceration in California," Center on Juvenile and Criminal Justice, San Francisco.

Maynard, Rebecca, A. (1999), *Kids having kids: Economic costs and social consequences of teen pregnancy*, Published by John Wiley and Sons on behalf of Association for Public Policy Analysis and Management.

"Not Just Another Single Issue: Teen pregnancy prevention's link to other critical social issues." (2002), The National Campaign to Prevent Teen Pregnancy.
<http://www.teenpregnancy.org/resources/data/pdf/notjust.pdf>.

Orfield, Gary, Losen, Daniel, Wald, Johanna and Swanson, Christopher B. (2004). "Losing our future: How minority youth are being left behind by the graduation rate crisis." (Cambridge, MA): The Civil Rights Project at Harvard University.

Oster, Gerry et al. "Lifetime Health and Economic Benefit of Weight Loss Among Obese Persons." American Journal of Public Health. Vol. 89, No. 10. October 1999.

Puzzanchera, C., Adams, B., and Kang, W. (2009). "Easy Access to FBI Arrest Statistics 1994-2007" Online. Available: <http://www.ojdp.gov/ojstatbb/ezaucr/>

Reinberg, Steven. "Almost 10 Percent of US Medical Costs Tied to Obesity." Business Week. 27 July 2009.

Rotermund, Susan. (2007), "California dropout project," UC Santa Barbara Gervirtz Graduate School of Education: Statistical Brief # 5.

Rumberger, Russell W. (2007), "What is California's High School Graduation Rate?, California Dropout Research Project, UC Santa Barbara.

Schaefer, Stephanie, Kass, David, Roger, Mark, and Kirsch, Jeff. (2006). "High-Quality Pre-Kindergarten Can Prevent Teenage Pregnancy and Future Crime in Tennessee," *Fight Crime: Invest in Kids Tennessee*.

Unified Crime Statistics, FBI UCS, reported by The Disaster Center

"United Nations" (2003), *United Nations Demographic Yearbook, 2001*. New York, USA.

US Census Bureau, various years, *Current Population Surveys*.

US Census Bureau, *American Community Survey, 2005-2009*.

U.S. Bureau of the Census. *Interim Projections of the Population by Selected Age Groups for the United States and States: April 1, 2000 to July 1, 2030*.

Vexler, E. and Suellentrop, K. (2006). "Bridging Two Worlds: How Teen Pregnancy Prevention Programs Can Better Serve Latino Youth." Washington, DC: *The National Campaign to Prevent Teen Pregnancy*.

Wilkins, David. "Childhood Obesity: Costs, Treatment Patterns, Disparities in Care, and Prevalent Medical Conditions." *Thomson Medstat Research Brief*. 2006.

Woolf, Steven H. et al (2007), "Giving everyone the health of educated: An examination of whether social change would save more lives than medical advances." *The American Journal of Public Health*, Vol.97. No. 4.