

# **INVESTING IN OUR YOUTH, STRENGTHENING OUR ECONOMY**

**The Economic Impact of  
Boys & Girls Clubs in the State of California**



**December 2011**

## Acknowledgements

We would like to express our sincere gratitude to the management and staff of all 26 randomly selected Boys & Girls Clubs within the state of California who participated in our study. Despite logistical difficulties, they helped us to gather the needed information for the project. Without their effort, it would have been impossible to generate the data necessary for this study. We owe a special thanks to the Chief Professional Officers' senior management, program managers and line staff of the following clubs:

Boys & Girls Club of Burbank and Greater East Valley

Boys & Girls Club of Camarillo

Boys & Girls Clubs of Capistrano Valley

Boys & Girls Club of Carlsbad

Boys & Girls Club of Carson

Boys & Girls Club of Cathedral City

Boys & Girls Clubs of Central Sonoma County

Boys & Girls Club of El Sobrante

Boys & Girls Clubs of Imperial Valley

Boys & Girls Clubs of Kern County

Lodi Boys & Girls Club

Boys & Girls Clubs of Long Beach

Los Angeles Boys & Girls Club

Boys & Girls Club of Merced County

Mid-Peninsula Boys & Girls Club

Boys & Girls Clubs of Napa Valley

Boys & Girls Clubs of North County

Boys & Girls Club of North Lake Tahoe

Boys & Girls Clubs of North Valley

Boys & Girls Club of Palm Springs

Boys & Girls Club of Pasadena

Boys & Girls Clubs of St Helena and Calistoga

Boys & Girls Clubs of Santa Monica

Boys & Girls Club of Simi Valley

Boys & Girls Clubs of the Sequoias

United Boys & Girls Clubs of Santa Barbara County

We are grateful for the support of the Club members and their parents who took time out of their days to complete our surveys. Their participation was a pivotal piece of this study.

We recognize and convey our sincere words of appreciation for the support and encouragement of the California Alliance of Boys & Girls Clubs Board of Directors for their investment in this study. They trusted our research work and invested in it by approving the proposal for this study.

We want to recognize the pivotal role and the enormous contribution of Ms. K.J. Lavoie, Senior Director Boys & Girls Clubs of America Office of Government Relations in helping us in every step of this research work starting from the development of the initial ideas to the last stage of the development of this study. We cannot imagine how we could have possibly succeeded in our work without her support and generous devotion to meeting every research need of this project.

Finally, we would like to thank our research assistants, Amit Chawla, M.B.A. and Jenish Patel, M.B.A. for their valuable and hard work in processing the gathered data and preparing them for analyses. This was a huge task, and without their help, completion of our work would have been much harder, if not impossible. We thank Adam Erickson, M.Ed. for editing the manuscript of this study.

**Jamshid Damooei, Ph.D.**  
**Professor of Economics and Chair**  
**Department of Economics, Finance, and Accounting**  
**California Lutheran University**  
**President**  
**Damooei Global Research**  
**Tel: (805) 493-3357**  
[Damooei@callutheran.edu](mailto:Damooei@callutheran.edu)

**Alidad A. Damooei**  
**Vice President**  
**Damooei Global Research**  
**Tel: (805) 402-9999**  
[aad@damooei.com](mailto:aad@damooei.com)

## Table of Contents

Acknowledgements .....	2
Executive Summary .....	6
An Overview of Economic Impact Areas and Their Multipliers.....	8
MULTIPLIER: Lifetime Gain from High School Graduation.....	8
MULTIPLIER: Lifetime Savings from Prevented Teen Pregnancies and Births .....	9
MULTIPLIER: Criminal Justice System Savings.....	10
MULTIPLIER: Substance Abuse Reduction Benefits.....	11
MULTIPLIER: Parental Earnings .....	12
MULTIPLIER: Statewide Output .....	13
MULTIPLIER: Total Economic Impact .....	14
ADDITIONAL IMPACT: Development of Healthy Habits at a Young Age.....	15
Qualitative Findings from Student and Parent Surveys.....	16
1) Scope and Structure of the Study .....	18
1.1) Data Collection and Methodology.....	19
2) Benefits of Boys & Girls Clubs for Club Members .....	24
2.1) Improved High School Graduation Rates and Impact on Personal Earnings .....	24
2.2) Cost Savings Due to Reduction in Teen Childbirth .....	38
2.3) Economic Impact through Reduction in Juvenile Arrests and Crimes .....	48
2.4) Development of Healthy Habits at a Young Age .....	55
2.5) Benefiting from Reductions in Substance Abuse .....	61
3) Economic Impact of Clubs to the Broader Community .....	72
3.1) Ability of Boys & Girls Clubs to Help Parents Work and Attend School.....	72
3.2) Impact of Clubs’ Expenditures on Economic Output, Jobs, and Tax Revenue .....	78
3.3) Economic Impact of Capital Expenditures .....	81
3.4) Economic Impact of Volunteer Labor .....	82
4) Qualitative Findings from Surveys.....	85
4.1) Results of Club Members’ Survey .....	85
4.1.1) Demographic Data .....	85
4.1.2) Program and Activities .....	87

4.1.3) Attendance Record in Clubs and School .....	91
4.1.4) Overall Opinion Regarding the Boys & Girls Clubs.....	93
4.2) Results from Parents’ Survey .....	93
4.2.1) Demographic Information .....	94
4.2.2) Family’s Need for Boys & Girls Clubs .....	99
4.2.3) Safety .....	102
4.2.4) Parent Opinions on Impact of the Clubs on their Children .....	103
4.2.4.1) Social and Emotional Skills.....	103
4.2.4.2) Academic Achievement and Promise.....	105
4.2.4.3) Health and Nutrition .....	108
4.2.5) Information on Club Members’ Academic Achievement and Aspirations .....	110
Bibliography .....	114

## Executive Summary

Boys & Girls Clubs in California serve a diverse community of nearly 270,000 registered Club members based on the latest available information during the conduct of this study. These Clubs serve more than 168,522 families. Registered members are only a portion of the youth these Clubs serve, as many Club activities are open to the wider community. The total reach of the Clubs is more than half a million youth. Every day, thousands of youth end their school day and head towards the Clubs; similarly, during school holidays and summer vacation, thousands of youth spend their days at the Clubs. These youth are able to socialize with peers and engage in a wide variety of educational and recreational programs. Without the Clubs, many of these youngsters would be without proper supervision, at-risk, and susceptible to negative influences and threats. In some families, a parent would have to stay home from work to provide such supervision, reducing the family's earnings and economic security. The Clubs are an important social asset serving such working families.

The value of the Clubs extends beyond the direct benefits enjoyed by parents and Club members. The communities where they live also enjoy an important service by having youth positively engaged and away from trouble during non-school hours.

This report provides a comprehensive enumeration of the many ways in which Boys & Girls Clubs throughout California create economic value in the state as a whole. Many of these impacts include "positive externalities", which is an economic term for the extra benefits that spillover from an initial investment. As non-profit organizations, the Clubs provide services directly and indirectly to a network of community stakeholders. There are three primary beneficiaries of the Clubs: Club members, the parents of Club members, and the community.

Club members receive perhaps the greatest 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 or teenage motherhood. Although exact mechanisms by which Club members outperform their peers are uncertain, the consistency of the trend strongly suggests that membership in the Clubs plays a vital role in explaining the behavior patterns of the group. By having access to a safe and nurturing environment, youth avoid negative influences. Moreover, basic Club services provide critical support to youth members, including academic assistance, health & life skills training and character development

While Club members receive the most from their participation, others benefit as well. For instance, parents of Club members are able to be more productive since their children have a safe, supervised place to spend their afternoon and out of school hours. Many parents are able to work or pursue further education as a result of the services provided by the Boys & Girls Clubs.

Finally, the larger community also receives significant benefit from 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 safe and constructive afterschool options for youth that promote education, healthy living and good citizenship.

Many of these benefits to parents, Club members, and the community have an economic value. Using data collected through stakeholder surveys and a review of publicly available information, this report places a monetary value on many of these benefits. The total value of all of these economic benefits is simply tremendous. This report focuses on the following mechanisms and services through which the Boys & Girls Clubs across California create economic value in local communities:

- Impact of better education through higher graduation rates and the resulting improved lifetime earnings 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.
- Lower teen pregnancy and motherhood rates, which create economic savings.
- 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 such reductions generate in the community.
- Health education and its impact on reducing obesity and related diseases that leads to lower productivity and an increase in long-term chronic diseases.
- Lowering the tendency for substance abuse and lowering of the costs associated with underage drinking, tobacco and drug abuse.
- The ability of Club programs to help parents work or attend school in order to upgrade their skills.
- Total employment and income impact of the Clubs through their annual expenditures, including both operational and capital budgets, as well as the donated labor of volunteers

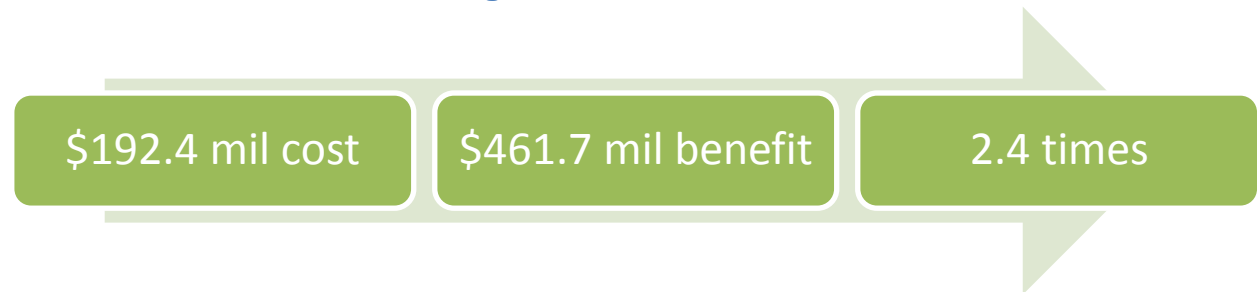
For nearly all of these benefits, a monetary value was calculated. A summary of the analysis is presented below and categorized by the nature of the economic impact. Sections Two and Three of this report present the methodology developed and data used to calculate these values. Section Four provides 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 California is to compare the aggregate budget of the Clubs with the positive economic impacts that they generate in their communities. This framework can allow for a cost-benefit analysis that cogently illustrates the tremendous value of the Boys & Girls Clubs based on the findings of this study.

In order to consider the economic impact on all stakeholders, we have used the data collected in this study to calculate “multipliers”, which are quantitative measurements of the total economic impact of discrete activities. The 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 substance abuse (with emphasis on underage drinking), improved prospects for working parents, and a statewide output stimulus through productivity of budget, capital expenditures and volunteer labor.

#### **MULTIPLIER: Lifetime Gain from High School Graduation**



#### **Boys & Girls Clubs in California play a vital role in helping youth improve their academic outcomes.**

Clubs provide a variety of academic support and enrichment services that help youth succeed in school by providing homework assistance and tutoring services. 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 ensure that Club members make positive choices when it comes to their academic future.

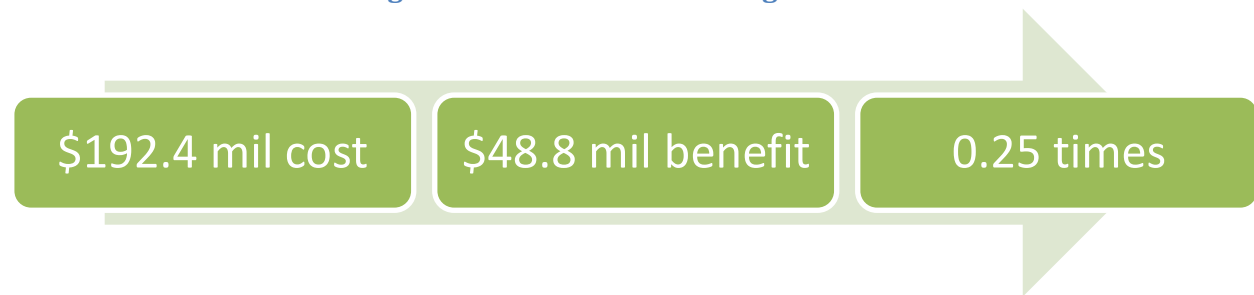
Studies show that students who drop out of high school end up earning much less throughout the rest of their lives relative to their peers who attain a post-secondary degree. Similar studies indicate that those who drop out at some point tend to be less likely to complete college. Specifically, only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

Given the pivotal role that the Clubs 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 State of California.

In the most recent class of graduating seniors, the Clubs generated a positive economic impact of \$461.7 million through the increased lifetime earnings of graduates influenced by the services of the Boys & Girls Clubs. When compared to the annual budget of California Clubs (\$192.4 million), this generates a multiplier of 2.4; **in other words, for every \$1 spent by the Clubs, \$2.40 of increased lifetime earnings is generated by impacted Club members.**

#### **MULTIPLIER: Lifetime Savings from Prevented Teen Pregnancies and Births**



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

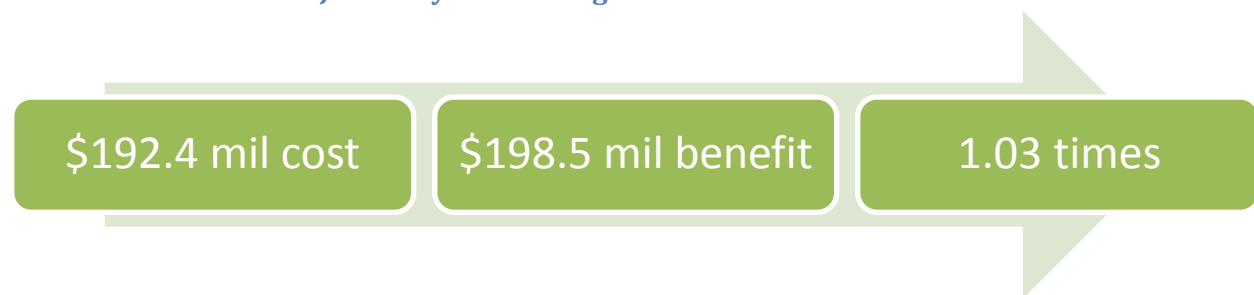
responsibility for their lives. Such support can help an at-risk teenager develop better decision-making skills that can help them avoid risky behaviors that can lead to teenage parenthood.

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 public assistance. 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.

This study showed that the Clubs generate a positive economic impact of \$48.8 million through savings to taxpayers and society for every teenager in this most recent year who waited until they are older to have children. Compared with the annual budget of Boys & Girls Clubs in California, this generates a multiplier of 0.25; **in other words, for every \$1 spent by the Clubs, \$0.25 is saved for taxpayers and the society on costs they would have incurred for teenage pregnancies and births on a yearly basis.**

#### **MULTIPLIER: Criminal Justice System Savings**



Boys & Girls Clubs provide the positive alternatives to youth that help them avoid risky behaviors and make responsible life choices. 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.

According to the California's Legislative Analyst's Office, individuals between ages of 12 to 24 are more likely to both commit and be the victims of violent crimes. The rate of crime spikes upwards dramatically with the highest rate of violent juvenile crimes occurring when youth leave schools between the hours of 3:00 and 4:00 PM. The cost of juvenile crime is most evident in increased spending in the juvenile justice system, but there are other costs to society as well: medical costs because of injuries suffered due to crime; stolen and damaged property resulting from crime; loss of work time by victims of crime and their families, and loss of property values in neighborhoods with high rates of crime.

Boys & Girls Clubs reduce juvenile crime rates by providing Club members a safe, nurturing environment, life skills training, and access to positive role models. The lower arrest rate among Club members generates a savings of \$198.5 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 1.03; in other words, **for every \$1 spent by Boys & Girls Clubs in California, taxpayers save \$1.03 on expenditures for the criminal justice system annually.**

#### **MULTIPLIER: Substance Abuse 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 use of alcohol, tobacco and other drugs. This team approach assures that youth have a network of support to help them make responsible decisions and resist negative peer pressure.

Approximately 1,372,000 underage youth in California drink each year. In 2007-2009, California students in grades 9-12 reported: <sup>1</sup>

- 56.6% had at least one drink of alcohol on one or more days during their life.
- 19.9% had their first drink of alcohol, other than a few sips, before age 13.
- 34.0% had at least one drink of alcohol on one or more occasion in the past 30 days.
- 21.0% had five or more drinks of alcohol in a row (binge drinking) in the past 30 days.
- 7.5% had at least one drink of alcohol on school property in the past 30 days.

**Our study shows that for every dollar spent by Boys & Girls Clubs in California, the economy benefits as much as \$0.71 in the reduction of the cost of juvenile drinking.**

#### **MULTIPLIER: Parental Earnings**



During the school hours, parents are free to work as their children are engaged with the school system. 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, Boys & Girls Clubs help parents avoid this difficult dichotomy by allowing parents to be productive during non-school hours while having the satisfaction of knowing that their children are adequately supervised.

By enabling 80,643 parents to work and earn on average \$22,854 a year, Boys & Girls Clubs enable parents to generate \$1.84 billion in annual earnings for their families. This is a tremendous service that sustains an enormous level of economic activities across the state. Without the Clubs, these parents would be unable to earn this income. In other words, **for every \$1 spent by Boys & Girls Clubs in**

<sup>1</sup> For more information see Center for Disease Control (CDC). (2010), Youth Risk Behavior Surveillance System (YRBSS).

**California, \$9.56 in earnings are generated by parents who can keep their jobs due to the services of the Club.**

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.

**MULTIPLIER: Statewide Output**



The economic impact of social interventions resulting from the services provided by 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, Clubs create tremendous business activity through their operating and capital expenditures in the region that can be measured in terms of output, employment, and tax revenue.

The regular budgetary expenditures through increased statewide income, jobs, and tax payments contribute to the betterment of the state economy. We used the aggregated budgetary expenditures of all the Clubs and employed it in a statewide model that we set up using the IMPLAN Regional Input-Output model. We set up similar models for the capital expenditures and work of the Club volunteers.

In this model, statewide output is defined as the market value of all goods and services produced as the result of a particular economic activity within the state. For the output generated by the Clubs, bear in mind that the total value of the regular budget of all Clubs together amounts to \$345,670,646. This output results in a multiplier of 1.8 times in the statewide economy. Such output also sustains many jobs in the state.

**The model estimates that a total of 5,265 jobs are created by the Clubs.**<sup>2</sup> Boys & Girls Clubs expenditures in California are also helping local, state, and federal agencies through the generation of substantial tax revenues. Based on our estimation, the annual operating budget of the Clubs will create \$49,109,075 in terms of state and local governments' tax revenue.

We should remember that while Clubs may not have sizable capital expenditures every year, the purchasing of equipment, vans and building or repairing the existing structures may occur from time to time which will have a positive economic impact in the region, similarly to when a for-profit company constructs a new building or buys equipment. **The total impact of capital expenditures in 2009 amounts to \$20,999,014. This amount of capital expenditure generates 154 jobs and a total of \$3,058,482 in tax revenue for the state of California and federal governments.**

Our research took a deeper look 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. Based on survey responses, we estimated that volunteers across the state donated 1.5 million hours of their time annually to work for the Clubs throughout California. Our study shows those efforts generated \$61,758,528 in economic output across the region. Their free and voluntary labor provides services that would otherwise require 769 fulltime workers. In addition, because of their work, the Clubs provide 171 paid jobs through indirect or induced impacts on the state economy.

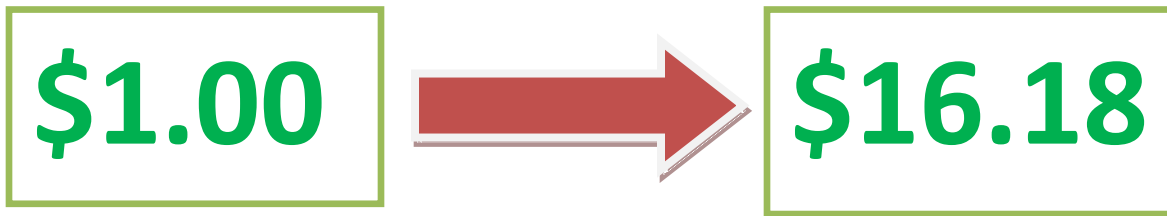
Finally, in this section of the summary, we added the three segments of the impacts (budgetary, capital expenditures and volunteers) in order to estimate the overall statewide output impact. Our multiplier is based on the total output generated over the sum of the inputs stemming from the regular budget of the Clubs, their capital expenditures, and the value of volunteer labor. The overall multiplier in this segment came out to be 2.23.

#### **MULTIPLIER: Total Economic Impact**

Taken separately, each of these economic impacts is impressive on its own. However, when the economic impacts are added together, the results are all the more impressive.

---

<sup>2</sup> It is important to note that this number calculates employment in terms of full-time equivalents. In other words, a part-time employee would not count as "1." Rather, part-time paid positions are combined to yield this full-time equivalent value. A full-time equivalent value of labor assumes 2,040 hours of work in a year. For instance, a part-time employee only working 1,020 hours in the year would only count as "0.5" in this model.



**For every \$1 spent by the Clubs, Boys & Girls Clubs in California generate \$16.18 of positive economic impacts for the state 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.**

Beyond the value of social services provided, Clubs stimulate the economy through their budgetary expenditures and volunteer programs. Just like private for-profit businesses, Boys & Girls Clubs spend money on payroll, supplies, and equipment thereby helping to stimulate the economy. Volunteers further this capacity through a donation of labor that has similar productive qualities as a monetary donation

#### **ADDITIONAL IMPACT: 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.

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 (Par. 4). 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.

Our study shows that some 141,101 youths through physical activities in their Boys & Girls Clubs, reached or maintained their healthy weight **and 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.**

## Qualitative Findings from Student and Parent Surveys

Although the primary purpose of the surveys distributed to parents and youth 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 results of the Club member survey indicate that youth are satisfied with their experience at the Clubs. Moreover, it is clear that they are deriving benefits from their participation. A brief summary of some of the key findings follows:

- Club members indicate a very positive attitude towards participation in Boys & Girls Clubs programs. A very strong majority (70.9%) like the programs in which they participate at least most of the time. An additional 25.4% like participating in the programs sometimes, while only 4.2% never enjoy their participation.
- A majority (68.8%) of respondents feel that the staff is able to help them with their homework most of the time in the Power Hour program.
- The vast majority of Club members (85.3%) have strong school attendance records. 63.4% missed school less than five days during the year.
- A majority of 59.2% believes that their participation in the Club is one of the important reasons for their good school attendance.
- 55.7% indicate that they would always recommend the program to their friends while an additional 34.8% would recommend the program sometimes. As such, more than nine in ten Club members are generally satisfied with the services they receive at their Club. This is a very encouraging rate of satisfaction.

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 follows:

- More than 45% of parents, guardians and other caretakers live in single-parent families or households.
- The primary source of income for nine out of ten parents is jobs or businesses.
- Nine out of ten parents said that their local Boys & Girls Club is the only program to which they can send their children.
- **Nearly all parents (96.4%) agree or strongly agree that their children are in a safe environment when they are attending the Boys & Girls Clubs in California.** This level of unanimity in the



responses 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.

- Parents are uniquely positioned to assess changes in their children. The survey included questions designed to understand how Club member behaviors have changed because of their participation in Club programs.
  - 91% of parents believed that since their children started going to the Club program, their ability to make friends has increased.
  - Club attendance has made children more confident in themselves according to parents. 91% of parents agree or strongly agree that their children have become more confident in themselves since going to the Clubs.
  - The vast majority of parents (84.8%) also observe that, since attending the Clubs, their children get along with their family better.
  - 84.9% of parents agree or strongly agree that they have observed their child's performance in school has improved since they began participating in Boys & Girls Club programs.
  - The majority of parents (81%) have observed improvement in their child's grades since attending the Club.
  - Parents generally report that their children have made better choices when it comes to selecting healthy foods and drinks since attending the Boys & Girls Clubs. The majority of respondents (71.2%) agrees or strongly agrees that their children have made such better choices.
  - The vast majority of parent respondents (84.3%) agrees or strongly agrees that their children have shown more interest in regular physical exercise since joining the Boys & Girls Clubs.
  - 49% of parents believe that as a result of regular exercise, their children are making progress towards a healthy weight. Adjusting for those who said their children were already at a healthy weight shows that 67% of those who need to reach a healthy weight apparently are reaching that state as a result of doing exercise while they are at the Clubs.
  - The vast majority of parents (92.9%) agree or strongly agree that their child has a good school attendance record. 74.3% of them indicated that one important reason for their child's good attendance record is participation in the Boys & Girls Club program.
  - 93.8% of parents agree or strongly agree that their children talk about higher education and its importance in their lives.

## 1) Scope and Structure of the Study

There is a strong national consensus 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, avoid violence, and be safe while they are away from their home and out of school. However, until a few years ago, there had not been a serious attempt to take a close look at the economic impact of Boys & Girls Clubs around the country.

The first study to be carried out with a clear intention of measuring the economic impact of Boys & Girls Clubs was conducted by Florida TaxWatch in 2008. This study looked at the economic impact of the Boys & Girls Clubs on local communities throughout Florida. They found that Clubs have established both short and long term positive economic impacts through lower dropout rates, higher rates of graduation, and lower teen birth rates. They used a group of Clubs and made a comparison between the Club members and their cohorts to find the differences. The differences were used to estimate the pertinent cost savings to taxpayers by extending the findings to the entire state. The savings were calculated based on the difference in income earned or costs saved by comparing the outcomes from the Boys & Girls Clubs' members and others who have not been attending the Clubs.

In 2008, the Boys & Girls Clubs of Greater Oxnard and Port Hueneme (BGCGOPH) commissioned a study with similar intention to be conducted by Dr. Jamshid Damooei (a co-author of this study) to measure the economic impact of its Clubs, 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 an 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 Boys & Girls Club of Greater Oxnard and Port Hueneme brings to thousands of families in the Ventura County. Some, but not all, of these impacts were estimated in monetary values. Following this study, the research team of Damooei Global Research added additional dimensions to the contents of the study and carried out several other studies within and outside the state of California. The scope of the economic impact of the Boys & Girls Clubs broadened every time and the current study includes 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.
- Health education and its impact on reducing obesity and related diseases that lead to lower productivity and an increase in long-term chronic diseases.<sup>3</sup>
- Lowering the tendency to engage in substance abuse.
- Allowing parents to work knowing that their children are looked after in a safe place.
- The impact of Clubs' programs allowing parents to attend school in order to upgrade their skills and reach a higher level of productivity in the economy.<sup>4</sup>
- Total employment and income impact of the Clubs through their annual expenditures including both operational and capital budgets, as well as in-kind contributions by volunteers.

### **1.1) Data Collection and Methodology**

This study began in March of 2011 with use of the latest available data for all the Boys & Girls Clubs within the state of California. Based on the available data for 2009-2010, we have 121 registered or

---

<sup>3</sup> 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.

<sup>4</sup> 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.

incorporated Boys & Girls Clubs in the state. They consisted of 520 Clubhouses and school sites over the entire state. The size of these Clubs and their respective Clubhouses are widely different.

We employed the multistage clustering random method to arrive at random samples with a high level of statistical significance and a low margin of error. We started by dividing all the organizations into three groups: Northern, Central and Southern California. Although there is a significant level of homogeneity among the Club members in most parts of the California, it appeared that a multistage clustering sampling method would work better than a simple or stratified random sampling method.

Deciding on how to proportionate our overall random sample based on the geographic location of the organizations was not a simple decision either. Since we are using the financial information provided by Clubs, and the economic multipliers are based on the rate of return over the total expenditure of Clubs, we could have used a proportion of the financial information of a group of Clubs as the basis of establishing the relative weight of each group. Alternatively, we could have considered the total number of their registered members or the total number of youth served. Since the impact is based on the behavior of Club members who attend the Clubs at least three times per week, the total number of registered members appeared as the most logical basis of dividing the groups and weighing their proportional contributions in the makeup of the total sample. The latter basis shows that Clubs from Southern California together account for around 71% of the total, where as Central and Northern California account for 12% and 17% respectively.

The average spending per registered member varies widely among the Clubs. The lowest was \$174 per member, while the highest was about \$2,926. Looking at the spending per youth served (members and non-members) brings the lowest to a mere \$76 per youth served. Overall, Clubs in Northern California spend higher than Central and Southern California. The average spending per registered member across the geographic locations is as follows:

- Southern California: \$704 per registered member
- Northern California: \$896 per registered member
- Central California: \$504 per registered member

Although these numbers may present a noticeable difference between the three geographic locations, when adjusted for cost of living or doing business in these locations, the gaps may be much smaller than they appear at first glance.

To select a truly representative sample of both the Club members and their parents, we used a multi-staged or multi-step random selection technique. As stated above, we divided all the organizations into three geographic locations, i.e. Southern, Northern and Central California. We then selected a random number of Clubs from those three areas. We selected more Clubs from the areas that have more registered members. We then selected one Clubhouse randomly from each selected organization. The important item to remember is that all organizations and all Clubhouses had a chance to be selected; that is the “golden rule” that we strictly observed in our selection of organizations and their respective Clubhouses school site, and other Club locations. After the random selection of sites, we surveyed all members that were attending the Clubs three times or more during a week and were in the third grade or higher. We also surveyed their parents. The numbers of youth surveys were based on the number of members attending those locations on average during the school year. The numbers of parent surveys was based on an average of every 1.6 members from each family.

We provided clear and easy-to-follow instructions for data collection for each individual Clubhouse from respective organizations. The parents’ survey was administered in both English and Spanish. Club staff were instructed to survey those Club members in the third grade or higher. There was no grade restriction on children for the survey of parents. We also asked members who have been attending the Clubs at least three times a week to be surveyed.

Some of the most important questions regarding the financial situation of Clubs and the demographics of their members were obtained by having the management of the organizations fill out an in-house questionnaire. This primary data was used to understand the characteristics of those who benefit from the interventions of the Boys & Girls Clubs. Such data was also used to understand and measure the impact of the Clubs on behaviors of its members and the consequences on the lives of the families that benefit from the services provided by the Clubs.

Through this method, we gathered the relevant information from 26 organizations. These organizations account for 20% of the institutions of Boys & Girls Clubs based on the proportion of their registered members.

The margin of error for the Club members’ survey was approximately 3% with a 99% confidence level. We had a similarly low margin of error of 3.8% for parents’ survey at 99% confidence level. The total number of surveys completed by the Club members and their families were 1726 and 1066 respectively.

The Club member survey collected data critical to the conduct of this study. The 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 youths' sense of belonging through 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:** Inquiry was made into whether youth had been arrested in the past year.
- **Substance Abuse:** Club members' tendency to consume alcohol and use drugs.

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 benefitted 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 Club (assessing the efficacy of the Club services).
- **Academic Needs of Children:** Assessment of the success of the Club 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 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.

Surveys were administered to Club members and parents using random sampling techniques developed by researchers and explained to Club managers who then instructed their staffs, who then administered the surveys accordingly. A sample size was determined for each of the 26 Clubs based on Average Daily Attendance (ADA) during the school year in 2009-2010. The total population of youth served by the Clubs was indicated by the Club management in the in-house questionnaires.

## 2) Benefits of Boys & Girls Clubs for Club Members

There are a variety of ways in which Boys & Girls Clubs impact the lives of the youth they serve. The ways in which these youth and the greater community at large benefit have been described extensively in qualitative terms. 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
- Benefits received through lower tendency to substance abuse
- Improved healthy habits and increased physical activities

**Youth who participate in the Clubs are more likely to graduate from high school and are less likely to commit juvenile crimes or become teenage mothers than their peers who do not participate in the Clubs.** These findings are based on a combination of published data located by the authors of this report and surveys administered through the course of this study. All three of these social interventions have distinct economic benefits and cost savings that are calculated in this section of the report.

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

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

One of the most important indicators of children's 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, which is based on student test scores.



More than half of the states across the country increased statewide high school graduation rates substantially between 2002 and 2008, according to America's Promise Alliance.<sup>5</sup> Unfortunately, California was not one of those states. In fact, California is one of the states that lost ground in the percentage of high school students graduating during this time period. California's rate of graduation fell by 1.5% during these years. The following table depicts statistics from all the states and their change in graduation rates between the years 2002 and 2008.

**Gains in Statewide Graduation Rates between 2002 and 2008**

State	Percentage Point Change in Graduation Rate from 2002 to 2008	2008 Graduation Rate	2002 Graduation Rate	Estimated Net Gain in # of Graduates
Tennessee	15.3	74.9	59.6	11,749
New York	10.3	70.8	60.5	25,632
Vermont	7.3	89.3	82.0	604
Alabama	6.9	69.0	62.1	4,137
Oregon	5.7	76.7	71.0	2,596
Missouri	5.6	82.4	76.8	4,196
New Hampshire	5.6	83.4	77.8	1,007
South Dakota	5.4	84.4	79.0	549
Wisconsin	4.8	89.6	84.8	3,492
Kentucky	4.6	74.4	69.8	2,434
North Carolina	4.6	72.8	68.2	5,265
Georgia	4.3	65.4	61.1	5,487
Hawaii	3.9	76.0	72.1	596
Massachusetts	3.9	81.5	77.6	3,119
Florida	3.5	66.9	63.4	7,796
Maine	3.5	79.1	75.6	584
Michigan	3.4	76.3	72.9	5,133
Illinois	3.3	80.4	77.1	5,548
Alaska	3.2	69.1	65.9	364
West Virginia	3.1	77.3	74.2	701
Mississippi	2.7	63.9	61.2	1,048
Delaware	2.6	72.1	69.5	266
Connecticut	2.5	82.2	79.7	1,169
Minnesota	2.5	86.4	83.9	1,748
Pennsylvania	2.5	82.7	80.2	3,938
Iowa	2.3	86.4	84.1	921
Montana	2.2	82.0	79.8	279

<sup>5</sup> For more information see <http://www.americaspromise.org/About-the-Alliance/Press-Room/Press-Releases/2010/Building-a-Grad-Nation-Report.aspx>

Kansas	2.0	79.1	77.1	777
Oklahoma	2.0	78.0	76.0	965
Arkansas	1.6	76.4	74.8	602
Wyoming	1.6	76.0	74.4	116
Ohio	1.5	79.0	77.5	2,294
Indiana	1.0	74.1	73.1	835
Idaho	0.8	80.1	79.3	165
Colorado	0.7	75.4	74.7	428
Maryland	0.7	80.4	79.7	515
Rhode Island	0.7	76.4	75.7	95
Virginia	0.3	77.0	76.7	302
Nebraska	-0.1	83.8	83.9	-24
Washington	-0.3	71.9	72.2	-257
Texas	-0.4	73.1	73.5	-1,379
New Mexico	-0.6	66.8	67.4	-164
Louisiana	-0.9	63.5	64.4	-487
New Jersey	-1.2	84.6	85.8	-1,348
North Dakota	-1.2	83.8	85.0	-100
California	-1.5	71.2	72.7	-7,898
Arizona	-4.0	70.7	74.7	-3,491
Utah	-6.2	74.3	80.5	-2,349
Nevada	-20.6	51.3	71.9	-6,881
South Carolina	N/A	N/A	57.9	N/A

**Source: America's Promise Alliance, 2009**

Calculation of high school graduation rates is not a simple task. The intuitive definition of the term differs from the actual calculations used to measure it. In August 2004, [the National Center for Education Statistics \(NCES\)](#) released a report synthesizing the recommendations of a panel of experts on graduation rate calculations. The panel recommended an adjusted cohort graduation rate as the best method for calculating the graduation rate.<sup>6</sup> In 2005, the National Governors Association (NGA) Task Force on High School Graduation Rate Data published its report. The lead recommendation was for all states to adopt and begin immediately taking steps toward implementing a standard four-year adjusted cohort graduation rate consistent with that proposed by the NCES panel.<sup>7</sup>

<sup>6</sup> National Institute of Statistical Sciences and Education Statistics Services Institute. (2004). [National Institute of Statistical Sciences/Education Statistics Services Institute Task Force on Graduation, Completion, and Dropout Indicators](#) (NCES 2005-105). U.S. Department of Education. Washington, DC: National Center for Education Statistics.

<sup>7</sup> National Governors Association. (2005). [Graduation Counts: A Report of the National Governors Association Task Force on High School Graduation Rate Data](#). Washington, DC

A common definition of high school graduation rates is the percentage of students entering 9<sup>th</sup> grade who are likely to graduate from high school in four years. The definition is straightforward but the calculation is very 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. However, states were asked to make the necessary provisions to be able to use the system over time from the starting point of the academic year 2008-2009.<sup>8</sup>

There are many economic and social problems that relate to not graduating from high school and dropping out. Youth who drop out of high school not only earn less money over time, 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 teens are likely to return 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).<sup>9</sup> The results of this longitudinal study are presented in the following chart:

---

<sup>8</sup> For a complete discussion and study of the method of calculation see, US Department of Education (2008), High School Graduation Rate, a non regulatory guidance, Washington DC.

<sup>9</sup> See Susan Rotermund (2007), California dropout project, UC Santa Barbara Gervirtz Graduate School of Education:, Statistical Brief # 5.

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

<b>Ever Dropped Out of High School (19%) \$19,410</b>	<b>High School Diploma (19%) \$19,649</b>	<b>No Post-Secondary Education (40%) \$20,160</b>
		<b>Some Post-Secondary Education (34%) \$19,989</b>
		<b>Certificate/License (15%) \$15,306</b> <b>Associate's Degree (5%) ****</b> <b>Bachelor's Degree or Higher (4%) ****</b>
<b>GED (43%) \$20,228</b>	<b>No High School Diploma (38%) \$15,910</b>	<b>No Post-Secondary Education (41%) \$19,067</b>
		<b>Some Post-Secondary Education (41%) \$20,024</b>
		<b>Certificate/License (14%) \$23,793</b> <b>Associate's Degree (4%) ****</b> <b>Bachelor's Degree or Higher (1%) ****</b>
<b>Never Dropped Out of High School (80%) \$26,003</b>	<b>High School Diploma (100%) \$25,904</b>	<b>No Post-Secondary Education (13%) \$23,526</b>
		<b>Some Post-Secondary Education (33%) \$23,845</b>
		<b>Certificate/License (8%) \$22,181</b> <b>Associate's Degree (8%) \$24,425</b> <b>Bachelor's Degree or Higher (38%) \$29,533</b>

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

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 dropped out of high school.

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

The economic cost of dropping out of school is not limited to the inability to earn a higher income job. 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 accuracy of the findings of their study that they make the following assertion:<sup>10</sup>

“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 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 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 children and teens to complete their studies is worthwhile. Such a service not only helps youth lead more constructive lives, it creates a better educated workforce, a stronger tax base, and reduces the burden on public services. **Boys & Girls Clubs in California play a vital role in helping youth improve their academic outcomes.**



<sup>10</sup> See Steven H. Woolf et al (2007), “Giving Everyone the Health of the 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 Clubs provide a variety of programs that help youth excel academically. Clubs throughout California (and the nation for that matter), as part of their after-school activities, provide homework assistance and tutoring, which is 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, 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.

Given the pivotal role that the Clubs can have on the academic success of Club 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 State of California.

The California Department of Education (CDE) publishes data for the four-year rate of high school graduation for the state as a whole and for various groups and subgroups. Clubs in this study are located throughout the state and the rate of graduation in their immediate geographic location or county may be different from the State as a whole. For the purpose of this study we define the state of California as the cohort for the purpose of the comparison between the graduation rate calculated from our survey and the rate that is obtained from CDE.

In order to make a comparison between the graduation rate of the state and the one related to the Boys & Girls Clubs, we used the findings from our surveys. Our surveys had sections that could be used as indicators of high school graduation rates. These were both in the members’ and in the parents’ surveys. In the members’ survey, we asked members in the relevant age category (high school sophomores and higher) to indicate if they have taken the California High School Exit Exam (CAHSEE) and passed it or are certain that they will pass it. We also asked them to indicate if there is any thought in their mind about dropping out of high school. In the parents’ survey we asked them a similar question about how certain they are about their children graduating from high school and if they are likely to drop out of high school. In both sections, we cross-tabulated the responses given based on their grades and we did the same cross-tabulation for parents’ responses based on their children’s grades.

Parents’ responses showed that based on their judgment, 99% of their children will graduate from high school. Members’ survey showed that 94% of them from 10<sup>th</sup> – 12<sup>th</sup> grade are sure that they will graduate from high school. The positive response of seniors who took the exam and passed it

completely or partly, but will take the rest within the remainder of the year was also 94%. We decided to use the lowest high school graduation rate, which offers a more conservative estimate for the high school graduation rate for this study. This was a ratio of 94% high school graduation rate, which was used for estimating the economic benefit of higher high school graduation rate among those who attended the Boys & Girls Clubs in California compared with their peers statewide.

Strictly speaking, the percentage we calculated from our survey is not the same as the four-year graduation ratio that CDE uses. Their ratio is based on the gathering of information for four years based on what goes on with a cohort of students who enter 9<sup>th</sup> grade for the first time. Our ratio is based on the expectations of those who are currently in grades 9<sup>th</sup> to 12<sup>th</sup>. There is no way one can calculate a ratio for the Boys & Girls Clubs unless we define a cohort based on their entry to 9<sup>th</sup> grade and follow them for four years and assume that they will attend the Clubs during this period of time. Our number, however, is a good proxy for high school graduation as it assumes the students who are currently in these four grades have the mindset of continuing their studies and graduating from high school.

The latest available ratio from CDE is the 2008-09 statewide graduation rate of 70%. The difference in the graduation rate calculated from our sample and the state is 24%. We used this rate to calculate the number of seniors that are likely to graduate from high school if they attend Boys & Girls Clubs compared with their cohort within California who are not attending Club programs.

The California Alliance of Boys & Girls Clubs gathers information on the age distribution of the registered members. However, the Alliance does not gather any information concerning youth grade level in school. Our sample provides both the age and the grade distribution. According to the Alliance's information, 3% of the members in 2009-2010 were of age 17 and higher. According to our sample, this ratio was 4.1%. The ratios are close and the difference can in part can be explained by the fact that our survey was carried out for kids eight (8) years or older.

Our sample shows that 2.5% in the 12<sup>th</sup> grade. The property of our sample, and its structure which appeared to be very close to the actual population from which it was taken, convinced us that considering 2.5% of the total registered members is a good proxy for the calculation of the total number of youth that are seniors in high school attending the Boys & Girls Clubs in California. In order to be more conservative, we further reduced the total number of seniors by the percentage of the members who said they attend the Clubs three times or more per week. According to the result of our survey, 88.8% of the respondents attend the Clubs three times or more per week. We used this percentage to

calculate the number of seniors who are likely to graduate from high school comparatively at a higher percentage because of attending the Clubs. This led to the following calculation:

The total number of registered members X 0.025 X 0.24 = Total number of seniors that, compared to their cohort within the State, are likely to graduate from high school because of attending the Club.

The result of the calculation is **269936 X 0.025 X 0.24 = 1619** registered members that are seniors in high school. We used this figure to calculate the economic impact of creating higher high school graduation rates within the State of California.

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.<sup>11</sup>

**Median Annual Earnings: Wage and Salary Workers Ages 25–34  
by Educational Attainment For Selected years, 1980–2008**

Educational attainment	Median earnings [In constant 2008 dollars]						
	1980	1985	1990	1995	2000	2005	2008
Total	\$39,200	\$39,900	\$37,100	\$35,300	\$37,500	\$37,300	<b>\$37,000</b>
Less than high school	31,400	28,000	25,700	22,900	25,000	24,300	<b>23,500</b>
High school diploma or equivalent	36,600	34,000	31,700	29,400	31,300	30,800	<b>30,000</b>
Some college	39,200	40,000	37,100	32,900	35,000	34,700	<b>32,000</b>
Associate's degree	—	—	—	35,300	37,500	37,500	<b>36,000</b>
Bachelor's degree or higher	47,000	50,000	48,300	46,600	50,000	48,500	<b>50,000</b>

<sup>11</sup> 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 California will differ significantly from those across the country.



Bachelor's degree	—	—	—	43,800	48,800	45,000	<b>46,000</b>
Master's degree or higher	—	—	—	56,500	56,300	55,100	<b>55,000</b>

**Source: U.S. Department of Commerce, Census Bureau, Current Population Survey (CPS), March and Annual Social and Economic Supplement, selected years, 1981–2009**

Following the method of similar studies, we looked at the economic impact of a person’s increased earning potential over a 20-year period due to their 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. 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 to receive a high school diploma. It should therefore be stated that our assumption about the long-term impact of people who fail the high school exit exam but may continue to work in the labor market without a high school diploma is not based on concrete and academically viable studies, and therefore it may overestimate or underestimate the economic impact.

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

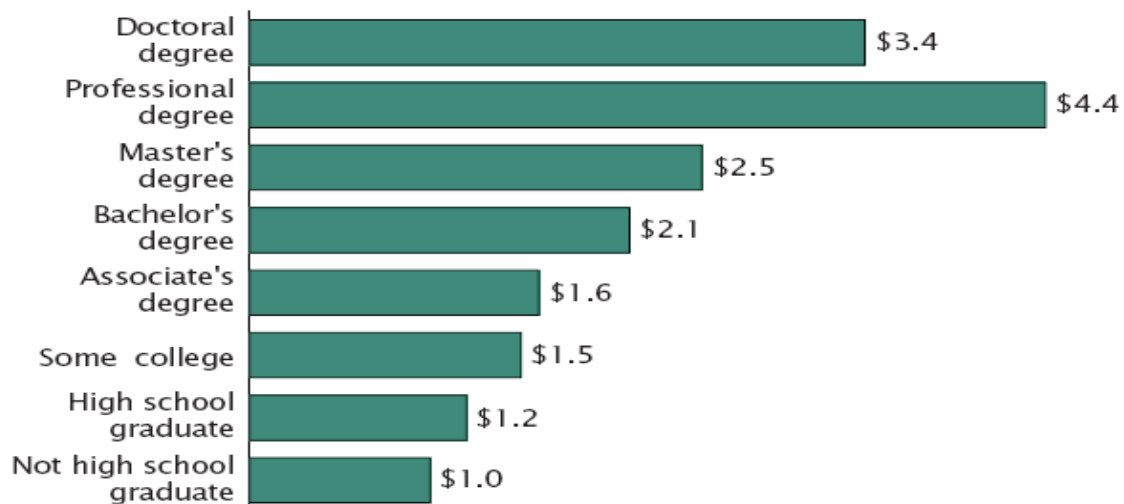
---

<sup>12</sup> 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.



### **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 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 11 years, we can say that a simplified version of this difference in 2011 real terms will be \$285,151 per person. We will use this figure to calculate the lifetime- earning impact of having a high school diploma versus not completing high school.

By helping an additional 1619 young people complete high school, the Boys & Girls Clubs in California have helped increase the total work-life earnings of these young people by almost **\$461,659,469**.

*“By helping an additional 1691 young people complete high school, The Boys & Girls Clubs in the State of California have helped increase the total work-life earning of these young people by more than \$461 million... the annual benefit moving forward will be about \$12,383,731 at 2011 price level”*

---

One can also consider this economic benefit on an annual basis when 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 is \$7,000 in 2008 dollars. Adjusting for three years of 3% inflation, this becomes a difference of \$7,649 in real 2011 dollars. With 1619 teens graduating high school as a result of the Club program, the annual benefit of moving forward will be over **\$12,383,731** at 2011 price level.

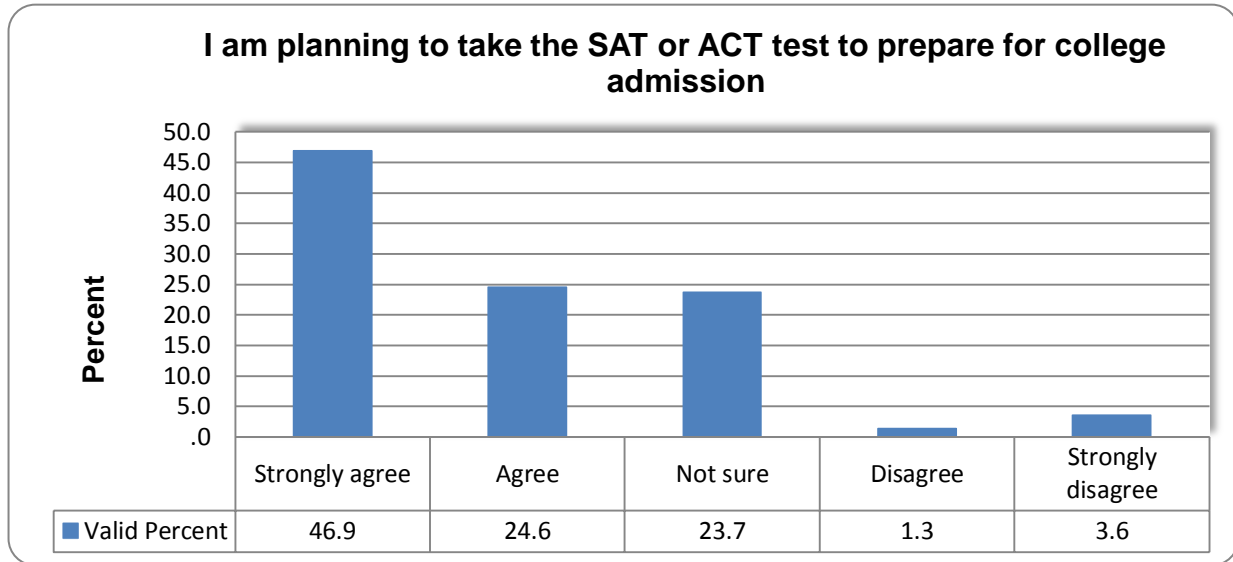
The following table sums up the economic benefits created by the ability of the Boys & Girls Clubs in California to improve high school graduation rates:

Percentage of students passing California High School Exit Exam (CAHSEE)	Percentage of High School Seniors attending Boys & Girls Clubs passing CAHSEE	Additional number of students attending Boys & Girls Clubs passing CAHSEE	Total annual increase in annual wage and salary	Total work-life increase in earnings
70%	94%	1619	\$12,383,731	\$461,659,469

**Sources: Survey of Parents and Youth for the Boys & Girls Clubs in the State of California, Department of Commerce, US Census, California Department of Education.**

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 university and receive a bachelor’s or other 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. These questions illustrate the attitudes of Club youth that will shape the future success and economic contribution of these individuals

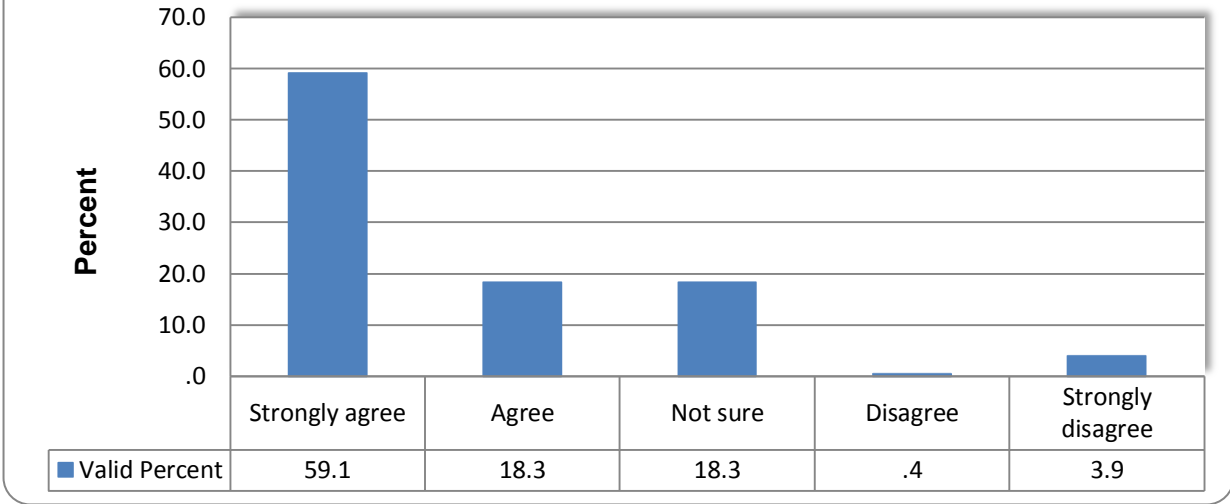
to their communities. These attitudes indicate that it is safe to believe that some of these high school seniors will go on to earn degrees beyond the high school diploma.



**Source: Survey of youth attending Boys & Girls Clubs in California during 2010-2011 school year**

A majority of youth (71.5%) indicate that they plan to take the SAT or ACT exams. This is a positive sign since these tests are important indicators of serious intention to enter four-year college or university programs. Whether or not a student has a successful admissions cycle, the fact that they are taking the exam indicates a degree of special initiative and ambition to pursue further education. It is important to note that an additional 23.7% were not sure whether they would or would not take the exams while only 4.9% were not planning to take the exams.

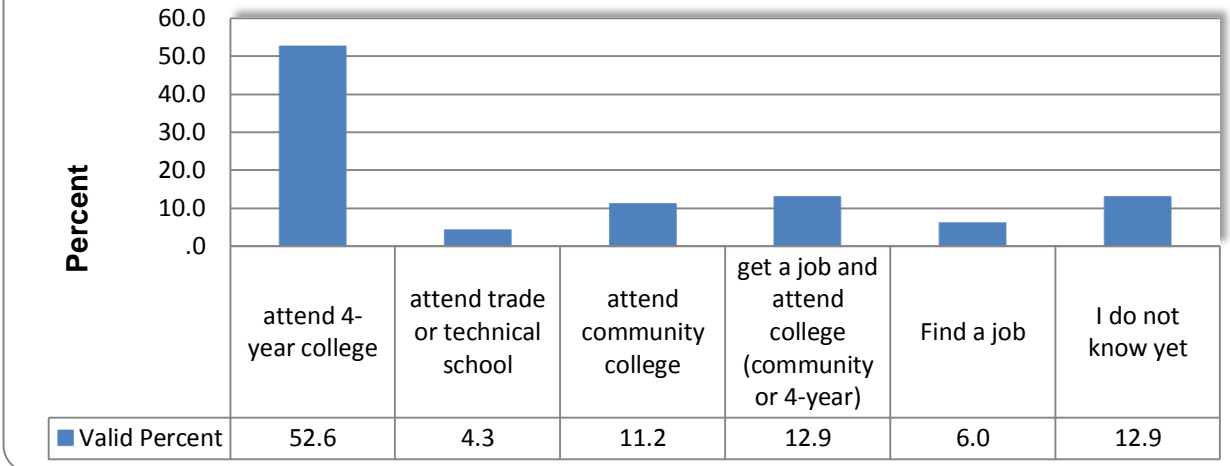
### I am sure that I will attend college after graduating from high school



**Source: Survey of youth attending Boys & Girls Clubs in California during 2010-2011 school year**

One of the most promising findings from the survey of members' attitudes and sentiments is the very strong belief amongst those in the program that they will attend college. Club members' responses to this question indicate that they are ambitious and highly motivated to succeed. These characteristics will help them throughout the course of their professional lives. More than three out of four respondents to the survey (77.4%) indicate that they plan to attend college eventually after completing high school.

### Upon completing my high school I intend to .....



**Source: Survey of youth attending Boys & Girls Clubs in California during 2010-2011 school year**

To get more details on the college ambitions of members in the Clubs, we asked about their specific plans. A majority of respondents (52.6%) plan to be full-time students in a four-year college, 15.5% wanted to attend junior college or trade school, another 12.9% wanted to work while attending college, and 6.0% wanted to find a job and work after graduation from high school. Indeed some 87% have had specific plans and only 12.9% did not know what their plans were going to be upon graduation from high school. This shows the profile of a very enthusiastic, aspiring and focused group of young people.

*“Survey data indicates that at least 81% Club members have plans to pursue higher degrees which will only ensure that they have more skills and an even better livelihood”*

---

The last three exhibits indicate the overwhelming majority of the youth surveyed consider college as the next step in their lives. This seems to verify that our estimates regarding the economic impact of improved academic performance through Club participation is an underestimation. This is due to the fact that we maintained a conservative assumption that those who complete high school will only enter the labor market as high school graduates. The survey data indicates that many will likely pursue higher degrees, which will only ensure that they have more skills and an even better livelihood.

## **2.2) Cost Savings Due to Reduction in Teen Childbirth**

The United States 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 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 a study conducted by Guttmacher Institute in 2010, California is in the top ten of the list (of teen pregnancy rates among all the states within the nation).<sup>13</sup>

### **States ranked by rates of pregnancy among women age 15-19 (pregnancies per thousand):**

---

<sup>13</sup> For more information see <http://womensissues.about.com/od/datingandsex/a/TeenPregStates.htm> the information reported in the ranking is based on data from year 2000.

1. Nevada (113)
2. Arizona (104)
3. Mississippi (103)
4. New Mexico (103)
5. Texas (101)
6. Florida (97)
7. California (96)
8. Georgia (95)
9. North Carolina (95)
10. Arkansas (93)

**States ranked by rates of live births among women age 15-19 (births per thousand):**

1. Mississippi (71)
2. Texas (69)
3. Arizona (67)
4. Arkansas (66)
5. New Mexico (66)
6. Georgia (63)
7. Louisiana (62)
8. Nevada (61)
9. Alabama (61)
10. Oklahoma (60)

Source: January 2010 © Guttmacher Institute [www.guttmacher.org](http://www.guttmacher.org)

It is important to note that while the California was among the ten states with highest rate of teen pregnancy, it is not among the top ten states with highest rate of live births among teen mothers. This is because of a relatively high rate of miscarriage and abortion among teen mothers compared with many other states across the country.

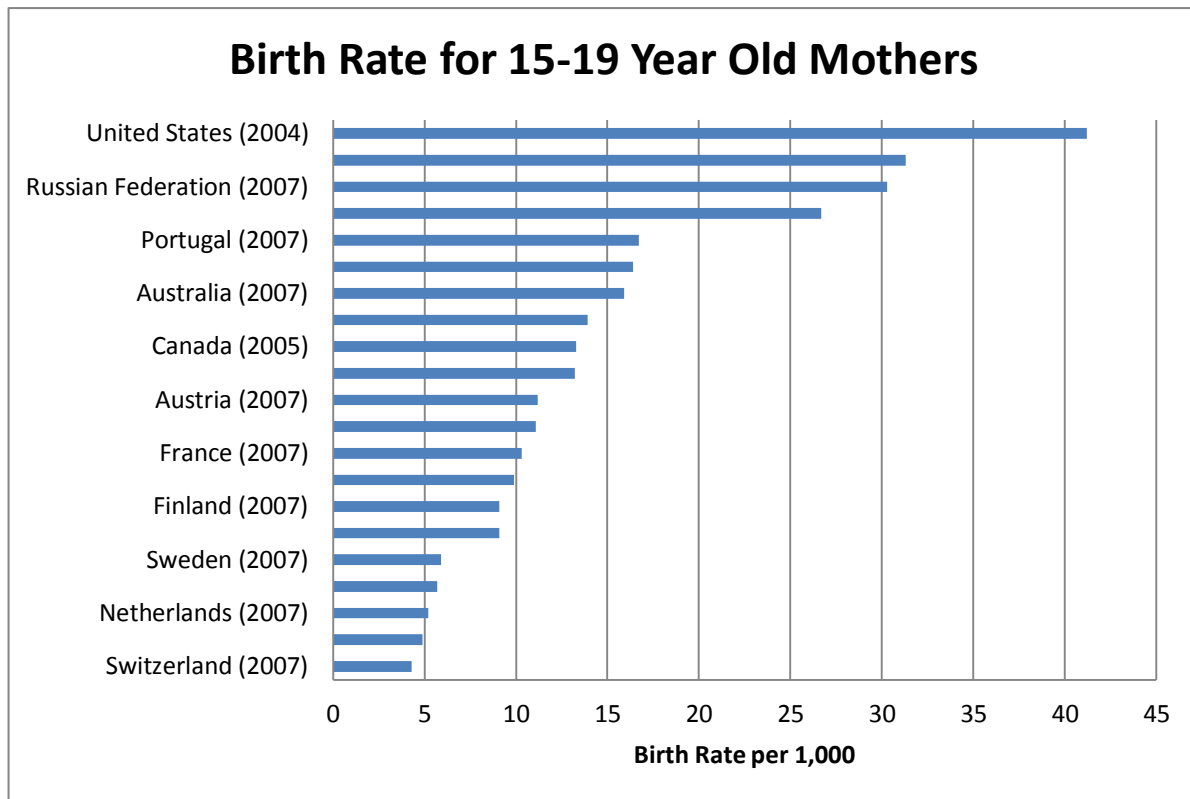
According to a 2006 report from the California Commission on the Status of Women, 83% of teen births occur in low income families, and two out of three teen mothers are Latinas. Many of these young women have low educational attainment and 70% of them drop out of school.<sup>14</sup>

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

---

---

<sup>14</sup> 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. New Zealand, Russia, and the United Kingdom trail with birth rates of 31.3, 30.3, 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. The impact of such programs has real and tangible economic benefits.

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.<sup>15</sup> The cost measured in the referred study is based on expenses in 2004. The inflation adjusted cost in 2011 will be in excess of this estimate, assuming that the

<sup>15</sup> This estimate was done in a 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>



rate did not subside drastically. Most of the costs of teen childbearing are associated with negative consequences for the children of teen mothers, including increased costs for healthcare, foster care, and incarceration.

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 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.
- Healthcare costs for the children of teenage mothers.
- Foster care costs for the children of teenage mothers.
- Criminal justice costs for the children of teenage mothers.

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. These changes can have long-term emotional and economic consequences.

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 21<sup>st</sup> century is to have a well-educated labor pool. Due to the negative impact teenage pregnancy has on educational outcomes, reducing teen pregnancy can help strengthen the future workforce. Teen pregnancy substantially reduces the opportunity of teen parents to continue their education, and thereby makes segments of the American workforce less competitive.

Insufficient education deprives young parents of the opportunity to have stable and high paying jobs in the future. Teen parents and their children are less likely to graduate from high school. In fact, less than four in ten mothers who began their families before age 18 ever complete their high school education.<sup>16</sup>

---

<sup>16</sup> 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.

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%.<sup>17</sup> The same study shows that half of teen mothers drop out of school after becoming pregnant. 52% of all mothers on public assistance 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 rely on public assistance.<sup>18</sup>

In total, the sources of short and long-term costs for the families of teen parents are as follows:<sup>19</sup>

- Teenage parents are less likely to complete high school.
- Teenage parents are more likely to depend on public assistance.
- 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.

Boys & Girls Clubs in California play an important role in saving youth from the serious consequences they will face if they become teenage parents. By providing youth a nurturing environment and programs that develop important life skills, the Clubs provide the youth 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 behavior that can lead to teenage parenthood. Among the

---

<sup>17</sup> Ibid.

<sup>18</sup> 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.

<sup>19</sup> <http://www.vahealth.org/teenpregnancyprevention/>

Clubs' programs that help youth to find a better path for a better future are SMART Moves, SMART Girls, Triple Play, and Passport to Manhood.<sup>20</sup>

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, a professor at the University of Pennsylvania and a member of the National Campaign to Prevent Teen Pregnancy.<sup>21</sup> This study provides cost estimates for the economic impact of teen pregnancy to taxpayers and society, which capture 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 5)

---

<sup>20</sup> These programs are commonly used across various Boys & Girls Clubs organizations. 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>

<sup>21</sup> 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.health.state.nm.us/phd/fp/teen_pregnancy.htm)

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

[http://www.usa.gov/Topics/Reference\\_Shelf/Data.shtml](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://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://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>

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 6).

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

---

*“Each teen birth costs taxpayers and society \$117,336”*

---

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 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 2.5%, this analysis finds that each teen birth costs taxpayers and society \$117,336 in 2011 dollars; in annual terms, this is \$9,025 per year.

The rate of teen pregnancy rate in California in 2005 for 15 to 19 year old females was 75 per 1000 women (this data was last modified in January 2010). The teen pregnancy rates for women aged 15-19 in United States was 70 per 1000 women in the same year. According to the Guttmacher Institute, in the year 2005, California, with a total of 96,490 teen pregnancies, ranked number one with regard to the total number of pregnant teens against the national total of 712,620 teen pregnancies<sup>22</sup>.

According to the same source (Guttmacher Institute), the teen birth rate in 2008 was 38.5 per one thousand youth ages 15 to 19 (this data was last modified in December 2010). Looking at 2005 data, we find out that the teen birth rate for 15- to 19-year-old women was 39 per one thousand for a teen pregnancy of 75 per thousand. This shows that in California in 2005, the rate of abortion and

---

<sup>22</sup> Kost, K., Henshaw, S., & Carlin, L. (2010). U.S. Teenage Pregnancies, Births and Abortions: National and State Trends and Trends by Race and Ethnicity. Retrieved January 2010, from <http://www.guttmacher.org/pubs/USTPtrends.pdf>

miscarriages was 36 per one thousand pregnant women in the age group of 15 to 19. This shows that based on the latest information available, 48% of teen pregnancies are likely to be terminated by miscarriages or abortions. This number may change from year to year, but the rate calculated is the latest available from one source, which is likely to reduce the possibility of error and omission that is more likely to occur when different data from different sources are used.<sup>23</sup>

The data for the Clubs came through two separate sources. The first source was the individual Club staff and a Club administrator from information provided in the in-house questionnaires. According to the reports from the administrators of the surveyed 26 Clubs, 18 teens in the Clubs became pregnant during 2009-2010. The total number of registered Club members from which the sample was taken is 53,739, which represents 20% of all the registered members in the Boys & Girls Clubs in California. This means that based on the administrators' reports, we have had 90 teen Club members in the entire state that became pregnant during 2009-2010. We also know that based on our samples, 88.8% of the registered members were attending the Clubs at least three times a week. We believe that those who attend the Clubs at least three times a week are more likely to reap the benefits of the Clubs' attention and education. The following chart shows the total number of female registered members of the Clubs based on the demographic information of all the Boys & Girls Clubs in California.

**Teen Pregnancy and Birth Rates Calculated from Club Administrators' Responses**

Age	Proportion of total	Total number in the age group	Proportion of female members at age 15, 16, 17 and 18 years old and older	Number of female members in age group	Total number of female members in Age Group	California Clubs' Pregnancy Rate Per 1000 based on the Administrators' Report	California Clubs' Teen Birth Rate per 1000
15	0.05	13496.8	0.43	5803.624			
16	0.03	8098.08	0.44	3563.1552			
17	0.02	5398.72	0.53	2861.3216			

<sup>23</sup> For detailed information see: [http://womensissues.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=womensissues&cdn=newsissues&tm=86&gps=345\\_508\\_1276\\_819&f=00&tt=2&bt=0&bts=0&zu=http%3A//www.guttmacher.org/pubs/2006/09/12/USTPstats.pdf](http://womensissues.about.com/gi/o.htm?zi=1/XJ&zTi=1&sdn=womensissues&cdn=newsissues&tm=86&gps=345_508_1276_819&f=00&tt=2&bt=0&bts=0&zu=http%3A//www.guttmacher.org/pubs/2006/09/12/USTPstats.pdf)



18 & Older	0.01	2699.36	0.41	1106.7376			
<b>Total</b>		<b>29692.96</b>		<b>13334.8384</b>	<b>11841</b>	<b>7.600709400</b>	<b>4.0</b>

Sources: Survey of the Clubs, reports from individual Clubs (in-house questionnaires), data and information received from California Alliance of the Boys & Girls Clubs, and authors' calculations.

### Teen Pregnancy and Birth Calculated from Random Sample

Age	Q37. Has your daughter become pregnant since attending Boys & Girls Club?			Total Response in age group	Proportion of Total	Teen Pregnancy per 1000	Resulting a Teen birth of Per 1000
	Yes	No	I do not wish to answer				
13	1	34	1	36			
14	0	26	0	26			
15	3	22	0	25			
16	0	16	0	16			
17	0	13	0	13			
18 or older	1	8	0	9			
<b>Total</b>	<b>5</b>			<b>125</b>	<b>0.04</b>	<b>40</b>	<b>20.8</b>

Sources: Survey of the Clubs and cross-tabulation of Parents response to the teen pregnancy questions against age of their daughters.

The above two methods of calculation opens a large gap between the teen pregnancy rate calculated for the Clubs based on the administrators' report and the ones given by the parents. Our calculation shows that the rate based on the survey of parents is nearly five times that of the administrators report. There is however some problem with the statistical significance of the positive response of parents from our survey.<sup>24</sup>

The latest teen birth rate available for California in 2009 was 39.1 per one thousand girls aged 15-19.<sup>25</sup> The teen pregnancy rate calculated based on the parents' report was 40 per one thousand. There is a difference between pregnancy rate and birth rate. Based on the latest available information for

<sup>24</sup> Using Chi-Square for the statistical test of significance of our cross-tabulation of parents' response across age of their teenage girls shows that the cells containing positive responses of parents are not statistically significant. This makes it difficult to use the finding of our parents' survey as a reliable base for measuring the rate of pregnancy among teenage girls who attended the Boys & Girls Clubs in California.

<sup>25</sup> Centers for Disease Control and Prevention (2010), Teen Pregnancy. <http://www.cdc.gov/TeenPregnancy/LongDescriptors.htm#PTP1>

California in 2005, only 51.8% of pregnant teens give birth to their children and 48.2% will end up with termination of their pregnancy with either abortion or miscarriage.<sup>26</sup> This suggests that a pregnancy rate of 40 per one thousand may result in actual teen birth of 20.8 per one thousand of teen mothers.

As mentioned earlier we could not accept the rate estimated by our survey since the outcome was not statistically significant. The rate based on our Clubs' report presents a much lower teen pregnancy rate of 7.6 per one thousand of teen female members of the Clubs. As pointed out earlier we understand that with a teen pregnancy of 7.6 per one thousand the rate of teen birth is likely to be four (4) per one thousand of teens. This suggests a saving or rescuing of 35.1 per one thousand teenagers because of the positive impact of the Boys & Girls Clubs in California. We also know that based on our calculation, we have 11,841 teenage girls in the age group of 15 to 19 years of age who attend the Clubs three or more times during a typical week. This suggests that the Clubs are likely to have saved  $11,841 \times 0.0351 = 416$  teen girls from becoming teen mothers.

The overall cost to taxpayers and the society for every teen mother is \$117,336. Considering this lifetime economic cost, the economic savings generated through the social interventions of Boys & Girls Clubs in California are as follows:

Number of female Club members between the ages of 15 and 19 who attend the Clubs at least three times a week	Rate of teen birth in California (per 1,000)	Rate of teen birth among female Club members aged 15 to 19 based on the randomly selected clubs' administrators' reports	Total number of teen child births averted	Estimated long-term cost saving for society for each teen birth averted	Total lifetime saving for taxpayers due to positive influence of Clubs
11,841	39.1	4.0	416	\$117,336	\$48,811,776

<sup>26</sup> Guttmacher Institute (2010), U.S. Teenage Pregnancies, Birth, and Abortions: National and State Trends and Trends by Race and Ethnicity. <http://www.guttmacher.org/pubs/USTPtrends.pdf>

**Boys & Girls Clubs in California save taxpayers and society a total of \$48,811,776 for the 416 teenage females saved from becoming teenage mothers through the positive impact of its programs. This reduced burden for the teens and their communities is very significant.**

### **2.3) Economic Impact through Reduction in Juvenile Arrests and Crimes**

Crimes in general and juvenile crimes in particular are a major source 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 Boys & Girls Clubs that help to reduce juvenile crime are valuable social and economic assets.

The existing data shows that juvenile crimes increased significantly over the last two decades. According to a report published by California's Legislative Analyst's Office (LAO) in January 2007, characteristics of the crime victims can be summed up as follows:<sup>27</sup>

- Individuals between ages of 12 to 24 are more likely to commit and be the victim of violent crimes. The probability of being the victim of crimes is significantly lower for all other ages.
- The likelihood of being a victim of a violent crime was 45% higher for males than for females.
- Violent victimization rates for blacks were 37% higher than those for whites. Hispanics had a violent victimization rate 24% higher than whites. Black households were victims of property crimes at a rate 7% higher than whites, and Hispanic household victimization rates were 35% higher than whites.
- Poorer households were much more likely to experience an unlawful entry into their homes (burglary) than wealthier households. However, while wealthier households do not experience burglary as often, they were more likely to be victims of theft, which includes the taking of household items, motor vehicle accessories, or other objects without entry into the home.

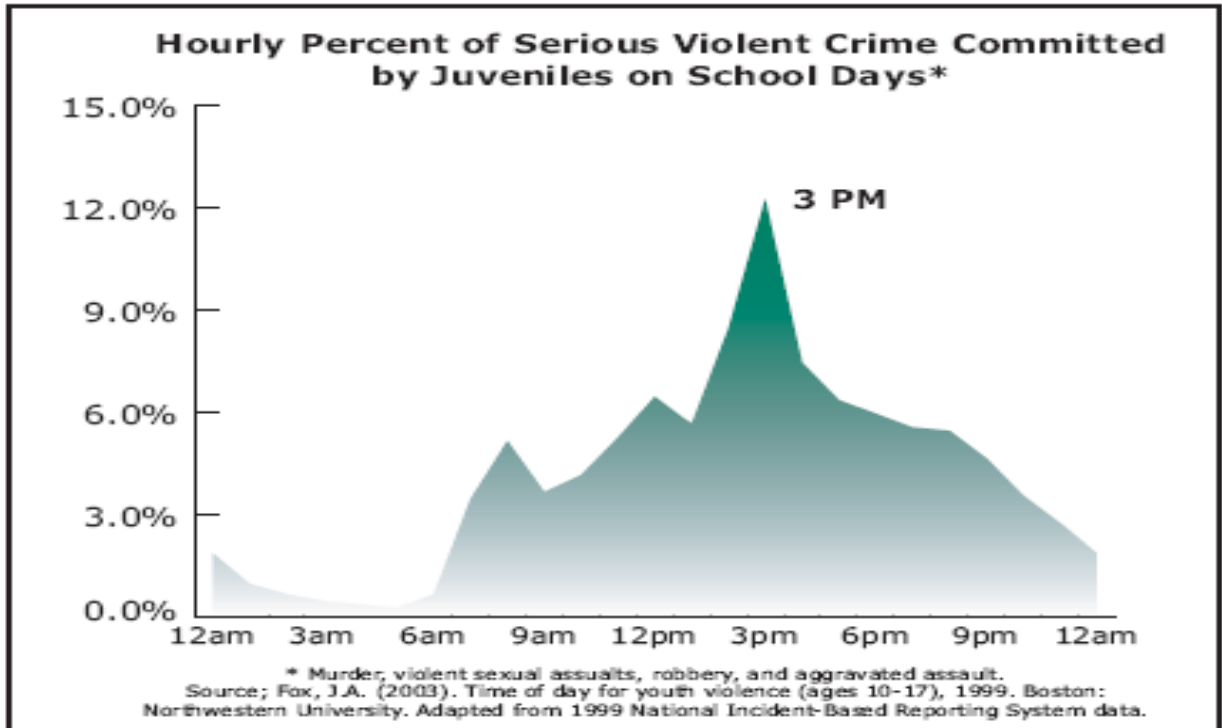
Looking at such statistics shows that age, ethnicity, gender, and economic status are important determinants of who is likely to suffer most from crimes in our communities.

---

<sup>27</sup> California's Criminal Justice System: A Primer, Legislative Analyst's Office (LAO) California Nonpartisan Fiscal and Policy Advisor.



In order to understand juvenile crimes better, one needs to look at patterns that can explain why, how, and when juvenile crime happens. One of the most telling variables is the issue of *when* crime happens during the day. The below chart illustrates patterns of arrest throughout the day:



Source: Fox J.A. (2003) Time of the day youth violence (ages 10-17) , Boston, Northwestern University, Adopted from 1999 National Incidence-Based Reporting System data.

The above diagram illustrates that the rate of crime spikes upwards dramatically with the highest rate of violent juvenile crimes occurring when youth leave schools between the hours of 3:00 and 4:00 PM. Thousands of children and teens head to the Boys & Girls Clubs to be safe and to find a nurturing environment in order to develop their talents and grow to become productive members of their communities.

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 quite rightly 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.

In 2009, the total number of juvenile arrests in California reached 204,696, which constituted 14% of all arrests made in the entire state. The rate of arrest per 1000 youths in the age group of 10 to 17 years of age reached 45.1 per 1000 youths.<sup>28</sup> The majority of juveniles arrested will have a chance to return to society and hopefully lead a productive, crime-free life. Doing so requires a nurturing environment that can help youth find their way forward, gain self-respect, and be encouraged to succeed in their lives.

Finding the cost of juvenile arrests for California was also a very difficult task and it is hard to justify every assumption that one makes in a study when there is not concrete and reliable information about an issue such as the comprehensive cost of juvenile crime in a region.

The latest crime data for California is published by the California State Department of Justice. The number of arrests, types of arrests and cost of criminal justice in the state can be obtained from this source. The latest published figure for the state was in 2007-2008, for a total of \$35,113,844,000 (\$35.1 billion). The latest rate increase in cost from the previous year was around 8.4%. Bearing in mind that the total number of arrests fell from the year before by almost 5%, this shows that the actual rate of increase per head from the year before was around 13%. This is far greater than most rates of increase in public spending.<sup>29</sup>

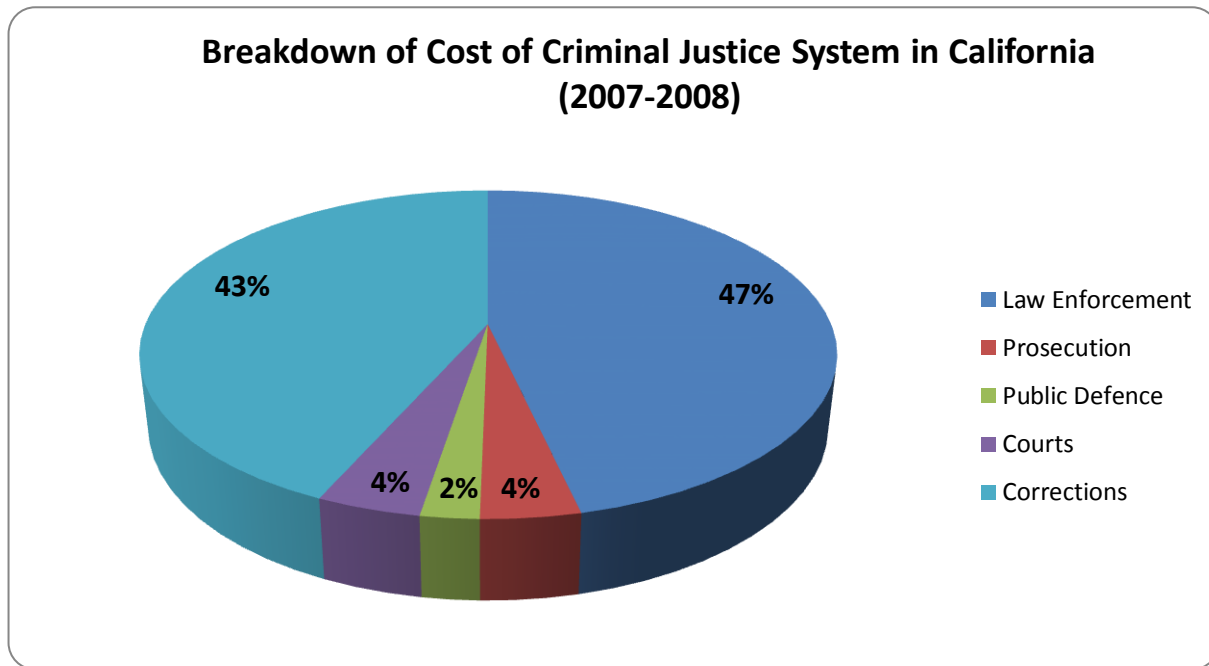
To reach a reasonable cost per arrest for youth, we need to determine what percentage of this cost belongs to adults and which proportion to youths. It is highly inaccurate to divide this cost based on the percentage of youth arrested compared to adults, for as we know, the state spends far a greater amount on youth than on adults, as the underlining justice philosophy for youths is rehabilitation and a focus on a return to life among society as opposed to isolation and punishment. According to the report by the LAO in 2007, the cost of housing a juvenile in a state facility is estimated to be approximately \$180,000 in 2006-07. These costs are substantially more than the state cost to house adult offenders, primarily because juvenile facilities have higher staffing ratio and greater costs for education and rehabilitation programs than adult facilities. The same report shows that the cost of housing an adult inmate in prison in the same year was around \$43,000.

---

<sup>28</sup> For more information see State of California Department of Justice: <http://ag.ca.gov/cjsc/pubs.php#crimeCAUS>

<sup>29</sup> A 13% increase in cost per arrest over a year shows a cost escalation far in excess of any other state public spending.

Looking at the structure of the cost of criminal justice in California offers the ability to divide the total cost as a reasonable proportion between the youth and the adults.



**Source: State Department of Justice for 2009. This is the latest available information at the time of preparation of this study**

The important issue is how to divide cost of crimes between juveniles and adults. In 2007-08, 85.2% of the total arrests were adults.<sup>30</sup> One of the most important and costly categories of offenses are felony crimes. It is hard to make a clear breakdown for dividing various felony crimes between adults and juveniles, and even more difficult is to divide the cost accordingly. At the same time, dividing the cost based on the percentages of juvenile and adult arrests is not an accurate way to divide the cost either. As mentioned earlier, we know all states spend far more on juvenile offenders than on the older segment of the arrested population.

The total cost of criminal justice in California based on the latest available information was \$35,113,844,000 in year 2008. In the same year, the total number of arrests reached 1,543,665 and 14.8% of total arrests consisted of youth offenders. Knowing that the cost of corrections for youths is more than four times and cost of corrections is about 43% of the total cost of crimes in California, we

<sup>30</sup> See <http://ag.ca.gov/cjsc/pubs.php#crimeCAUS>

used a ratio of 2:1 for allocating the cost of crimes per youth compared to an adult. The number of total arrests shows that for every 5.9 adults, one youth between ages of 10 to 17 was arrested in 2008. Using our argument about the relatively higher cost of criminal justice for youths, we divided the total cost of criminal justice in California for the purpose of this study on the proportion of six (6) for adults and two (2) for youth or 75% for adults and 25% for youth. This suggests that in 2008, the total cost of criminal justice for youths was around  $\$35,113,844,000 \times 0.25 = \$9,778,461,000$  (\$9.8 billion). In the same year the total number of youths arrested was about 229,104. This means that the cost per youth arrested reached \$38,317 in year 2008. Earlier, we pointed out that cost of crimes has a much higher rate of escalation. According to our calculations, the cost increased 13% per person arrested from 2008 to 2009. Using a more conservative annual rate increase of 10%, the estimated cost per youth arrested in 2010-2011 will amount to \$56,099.

In order to find out the impact of the Boys & Girls Clubs in reducing the number of youth arrested, we used the results of our survey to estimate the average rate of youth arrests among the clubs in California.

In our parents' survey, we asked them to indicate if their child has been arrested during the year while attending the Boys & Girls Club. A large number of parents answered this question. In order to make sure that we only considered the pertinent responses, we ran the cross-tabulation of parents' responses against the age of their child. We then eliminated the responses of parents with children less than 10 years of age and calculated the positive response rate. Out of 419 parents who responded to this question, 12 said that their child has been arrested. Based on such responses, we calculated 2.9% or 29 per thousand as the rate of youth arrest among the Club members.

Earlier, based on the latest available information, the rate of juvenile arrests in California was 53.2 per thousand of the juvenile population.<sup>31</sup> The difference between the state and the Boys & Girls Clubs in California is 24.2 per thousand of youths. We also know from the information received from the Boys & Girls Clubs in California that 61% of the members are aged 10 and older. Using this ratio and applying it to the total number of registered members in 2009 (269,936), we determined 164,700 of these members were ten years old or older. We also know that 88.8% of them attend the Clubs three times or

---

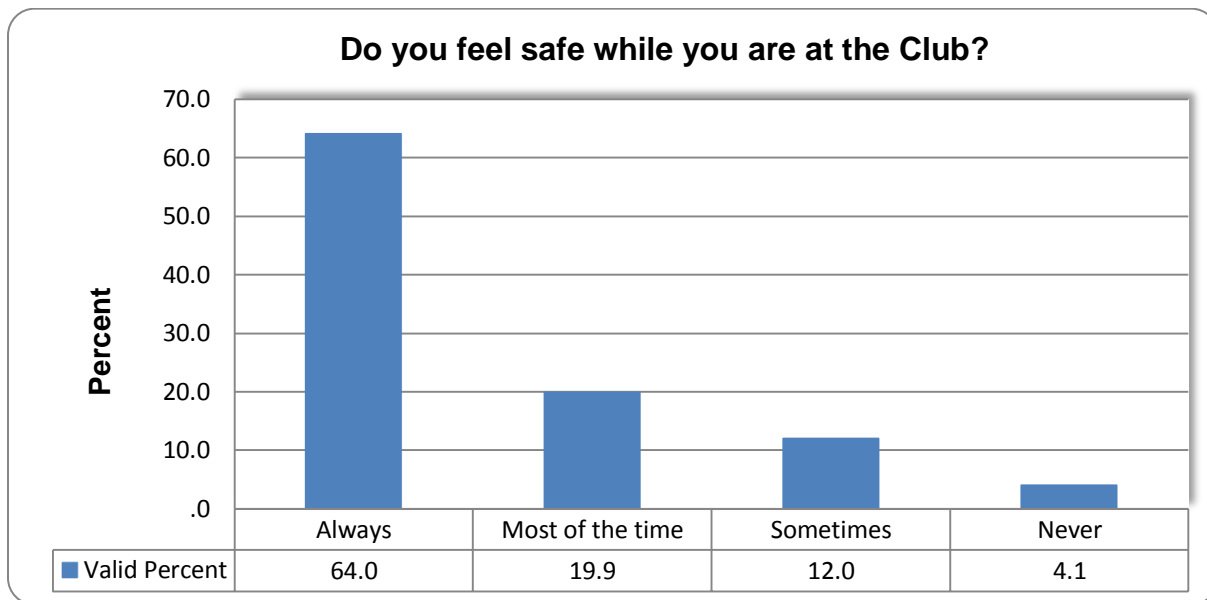
<sup>31</sup> See State Department of Justice, Total Arrests, 2004-2009, published in 2010.

<http://ag.ca.gov/cjsc/pubs.php#crimeCAUS>

more per week, therefore the actual number of children ten years or older will be  $164,700 \times 0.888 = 146,254$ . Based on our calculations, **attending Boys & Girls Clubs in California will save  $146,254 \times .0242 = 3539$  youths from being arrested.**

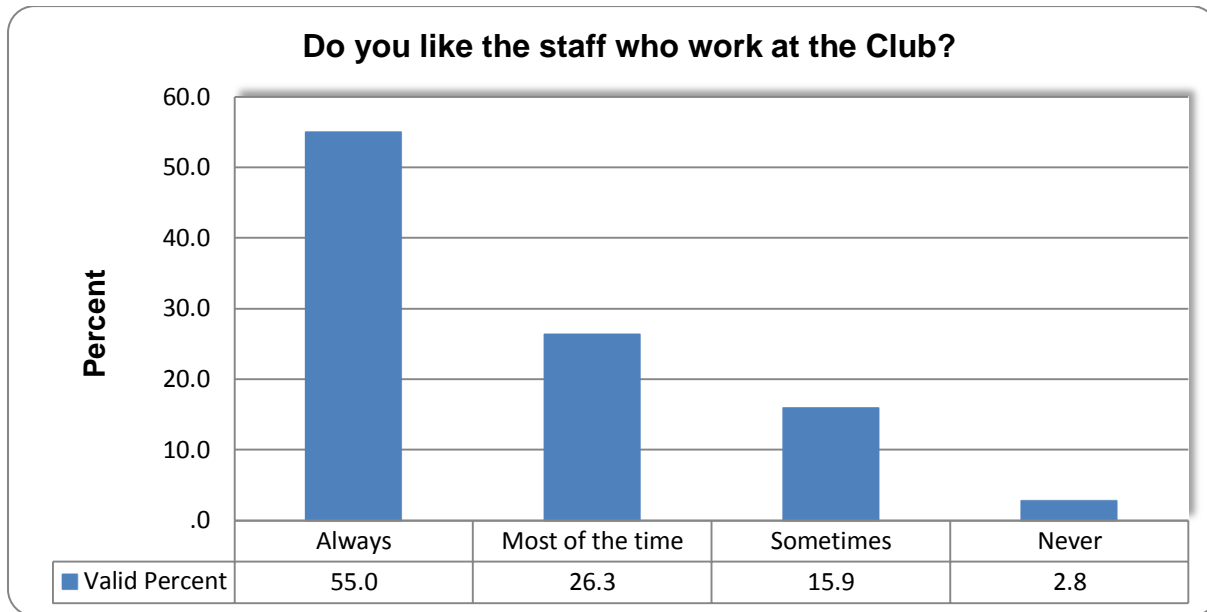
On the most basic and intuitive level, the Clubs reduce crime by taking kids off the streets and guiding them in a safe and nurturing environment where they are safe not only from victimization but also from negative influences that can cause them to perpetuate crime. Such a safe haven is critical during the out of school hours when juvenile crimes are 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 in California are helping these youth develop the decision-making skills necessary to make the productive and positive choices and avoid decisions that will negatively affect 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 against being victimized or security from negative influences. The results are overwhelmingly positive. More than eight out of ten respondents (83.9%) feel safe at the very least most of the time

with the majority (64%) feel 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 Boys & Girls Clubs in California may help youth make better choices is by exposing them to positive role models who are productive members of the community—such as those who work and volunteer for the Clubs. For role models to be effective, they must also be well-liked by Club members. These results from the Club member survey are promising. The vast majority of respondents (81.3%) indicate that they like the adults working at the Clubs at least most of the time with a majority (55%) indicating that they like them always.

Given the intuitive reasons why the Clubs help reduce the likelihood of youth pursuing criminal activity, it is important to measure this impact quantitatively and to understand the related economic impact of this social intervention. Based on the foregoing discussion and calculations, the following table provides a clear picture of the state of juvenile arrests and the savings that Boys & Girls Clubs bring about in the state.

<b>Total number of California Boys &amp; Girls Club members averting arrest because of attending Club programs</b>	<b>Annual cost per juvenile arrested in California</b>	<b>Total annual savings for the State of California due to impact of Boys &amp; Girls Clubs</b>
--	--	---

3539	\$56,009	\$198,534,361
------	----------	---------------

Source: Authors' calculation, Surveys of Boys & Girls Clubs in California, Legislative Analyst's Office (LAO), and California Department of Justice.

The positive, safe, and nurturing environment of **the Boys & Girls Clubs of California saves the taxpayers nearly \$200 million in reduced criminal justice system spending.** However, in real terms, this 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, according to the Legislative Analyst's Office, include:

- **Medical costs:** Paid by victims, families, businesses and government because of injuries suffered due to crime.
- **Stolen and damaged property resulting from crime:** In the NCVS (National Crimes Victimization Survey), victims reported that their property was either stolen or damaged in 95% of property crimes and 18% of violent crimes, resulting in an average loss of almost \$700 per incident.
- **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. According to NCVS data, about 6% of victims missed time from work due to crime.
- **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 3539 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 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 healthcare”*

---

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 nationally (“Economic Consequences” Par.1). Recent studies indicate that these costs have only grown in the last decade and are expected to continue to rise. In a July 2009 press conference, Dr. Thomas Frieden, Director of the United States Centers for Disease Control (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 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 (Par. 4). 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.

This financial cost is significant and is accounted for by the fact that the likelihood of various medical problems increases with obesity, even amongst children. Obese children are 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 youth 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 youth but it is extremely costly given the great expense generally incurred in hospitals.

Given these costs, programs such as those in Boys & Girls Clubs that encourage healthy habits are vital to the wellbeing of the community. All local Boys & Girls Clubs are members of Boys & Girls Clubs of America (BGCA) and provide some sort of program which promotes physical exercise and/or nutritional education. One particularly popular program is BGCA’s Triple Play, a BCGCA which comprises of a three-part objective of helping Club members 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 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 consequent 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 2)

Such research demonstrates that youth participating in organized athletic programs at Boys & Girls Clubs not only develop better fitness skills and habit, 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.

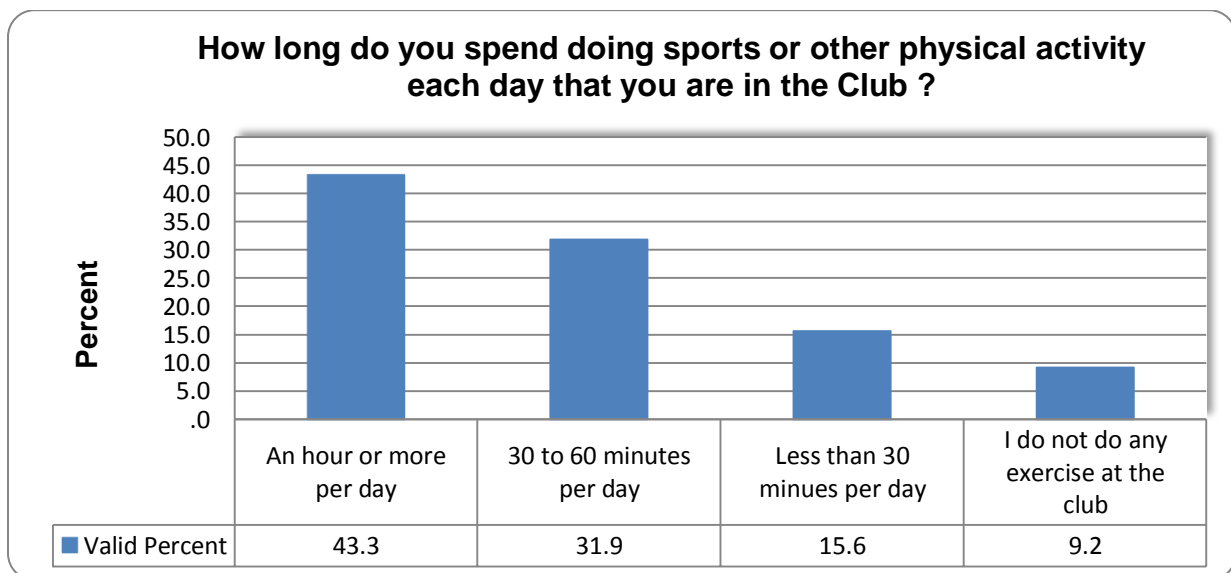
Improved health and wellbeing is good not only for its own sake. Research has shown that weight loss can yield significant economic benefits by reducing one’s lifetime healthcare costs. Dr. Gerry Oster (et al) conducted a thorough study to measure the economic benefits enjoyed by moderately to severely 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 1536). 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.

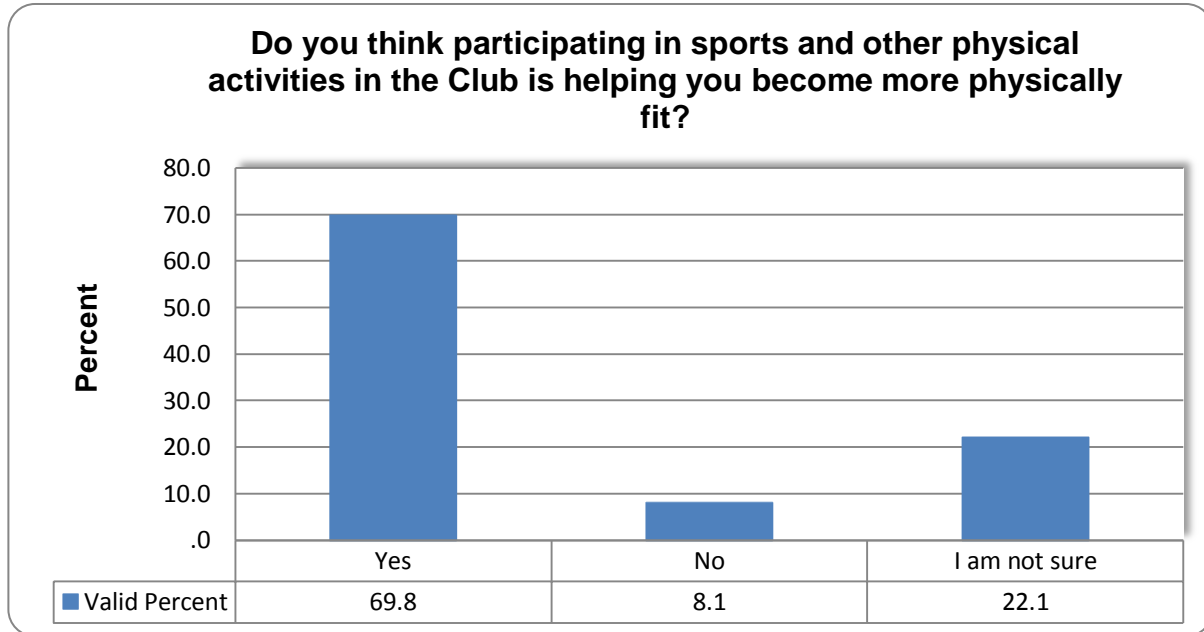
Although the scope of our study did not include a scientifically rigorous pre- and post-collection of data on Club members’ BMI, there is good reason to believe that the programs offered by Boys & Girls Clubs encourage sufficient physical activity and improved nutrition to create long-term economic savings 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 a reduction of daily caloric, sodium, and saturated fat intake can all result in medical cost savings (Dall 417). 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 (416). It is clear, therefore, that by helping to improve lifestyle decisions, Boys & Girls Clubs throughout California are creating an economic benefit to their communities. The impact of the Clubs is further illustrated in Club member surveys.

Several survey questions were designed to determine the impact of the Clubs on members’ health and nutrition. The results were positive and indicate that Clubs are helping to improve the lifestyle choices of members.



A majority of survey respondents (75.2%) exercise for at least 30 minutes a day while at Boys & Girls Clubs. Such levels of regular, daily exercise are beneficial to the health of Club members and help them avoid the physical inactivity that leads many young people to become overweight or obese.



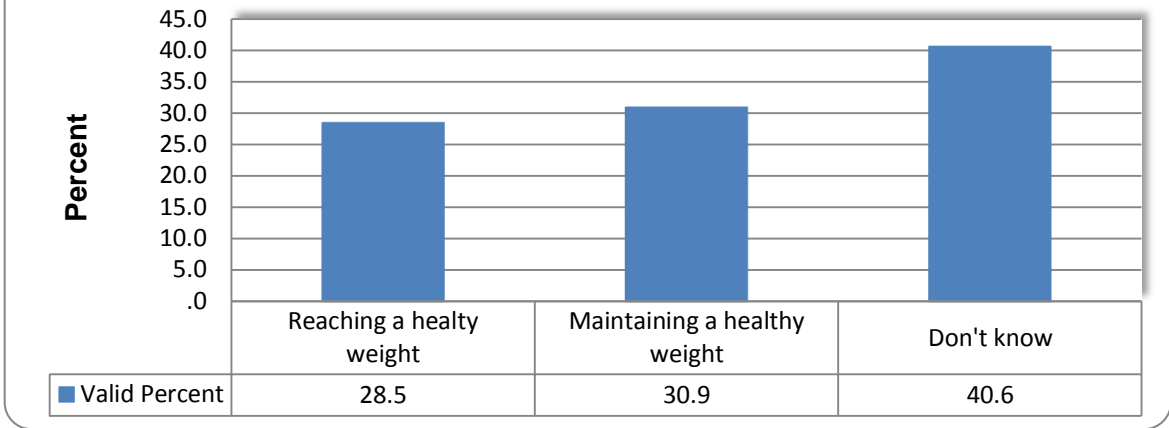
Club members also report a widespread belief that such physical activity is making them more physically fit. 69.8% believe this statement to be true while an additional 22.1% are uncertain. Only 8.1% of Club members do not believe that physical activities at the Clubs are making them more fit.

*“With 141,101 youth reaching or maintaining a healthy weight through participation in the activities of Boys & Girls Clubs in California, 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 questions designed to determine whether Club members have reached a healthy weight. This 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 following chart shows 28.5% of the respondents believed that they reached healthy weight through the physical activities that they have participated in during the last six months of the program at their local Boys & Girls Club. An additional 30.9% believed such physical activities helped them to maintain a healthy weight. This is a remarkable assertion of an enormous achievement that, if we had more scientific information, would be translated into huge economic gains.

**In the last six months or more that I participated in the Club's programs, I feel that physical activities in the Boys & Girls Club resulted in my**



In order to calculate the positive impact of physical activities within Boys & Girls Clubs in California we added the total percentages of those who reached a healthy weight and managed to maintain it. This came to a sum of 59.4%. Applying this ratio to the total number of registered members who participated in Club programs at least three times per week will result in a total sum of  $269,936 \times 0.88 \times 0.594 =$  **141,101 youths** who stated that through physical activities in their Boys & Girls Clubs, they reached or maintained their healthy weight. The summary of the calculation is presented in the following table.

Total number of California Club members who attended Club programs at least three times a week	Percentage of California Club members who have maintained or reached a healthy weight through participation in the physical activities during the last six months at their Club	Estimated number of California Club members who have reached or maintained a healthy weight through participation in physical activities at their Club
<b>237,544</b>	<b>59.4%</b>	<b>141,101</b>

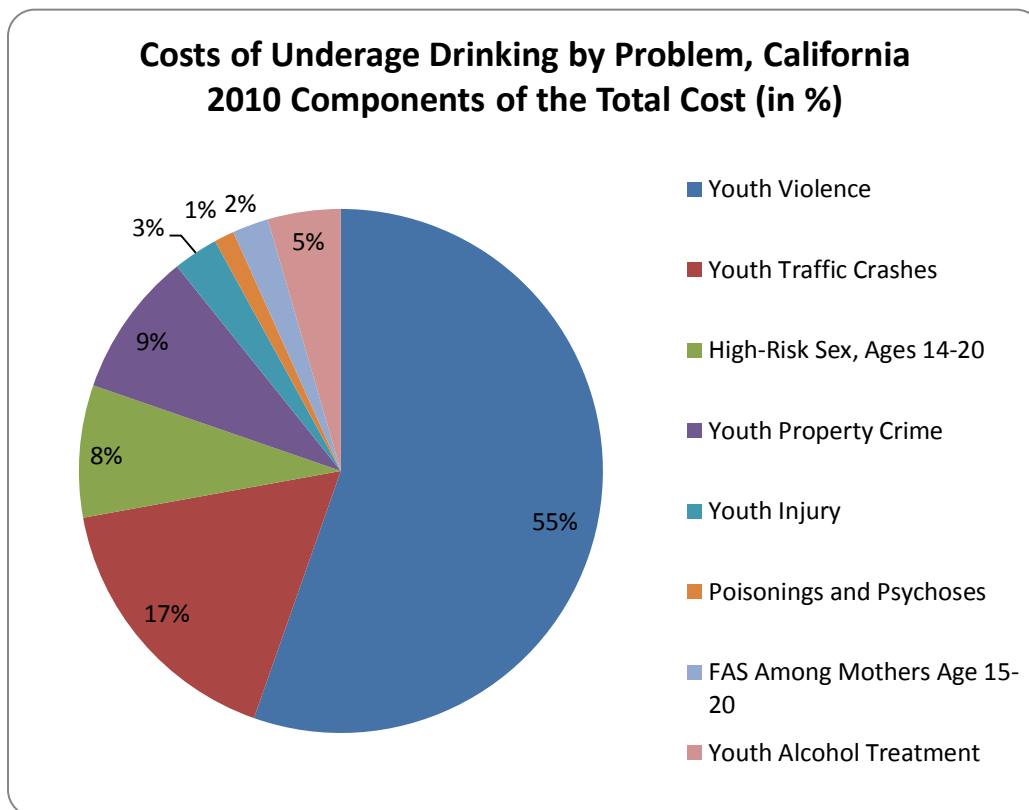
**With 141,101 youths reaching or maintaining a healthy weight through participation in the activities of the Boys & Girls Clubs, it is clear Clubs are helping their members lead healthier and more**

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 California taxpayers \$6.8 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. This translates to a cost of \$1,811 per year for each youth in the state in 2010. Adjusting the cost for a moderate inflation rate of 3%, the cost per youth per year will reach \$1865 at 2011 level of prices. Excluding pain and suffering from these costs, the direct costs of underage drinking incurred through medical care and loss of work in California total \$2.9 billion each year or \$1.31 per drink.



Source: Pacific Institute for Research and Evaluation, 2010.

**Breakdown of the Costs of Underage Drinking in California, 2010 \$**

<b>Problems</b>	<b>Total Costs (in millions)</b>
Youth Violence	\$3,754.5
Youth Traffic Crashes	\$1,136.0
High-Risk Sex, Ages 14-20	\$553.1
Youth Property Crime	\$606.8
Youth Injury	\$188.2
Poisonings and Psychoses	\$83.9
FAS Among Mothers Age 15-20	\$151.5
Youth Alcohol Treatment	\$305.3
<b>Total</b>	<b>\$6,779.4</b>

**Source: Pacific Institute for Research and Evaluation, 2010.**

The table presents a breakdown of the cost of teenage drinking by problems and sheds light on a deeper concern of many and is evident in the types of problems listed. It is the connection between underage drinking and a wide range of social and economic problems that we experience in many communities not only in California but also across the country.

Youth violence and traffic accidents attributed to alcohol use by underage youth in California represent the largest costs for the state. Indeed the combined cost of youth violence and traffic accidents amounts to 72% of total cost of underage drinking in the State of California. However, 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.<sup>32</sup>

Unfortunately we continue to experience widespread underage drinking in California. Approximately 1,372,000 underage youth in California drink each year. In 2007-2009, California students in grades 9-12 reported<sup>33</sup>

<sup>32</sup> 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.

- 56.6% had at least one drink of alcohol on one or more days during their life.
- 19.9% had their first drink of alcohol, other than a few sips, before age 13.
- 34.0% had at least one drink of alcohol on one or more occasion in the past 30 days.
- 21.0% had five or more drinks of alcohol in a row (binge drinking) in the past 30 days.
- 7.5% had at least one drink of alcohol on school property in the past 30 days.

Underage drinking in California leads to substantial harm due to traffic crashes, violent crime, property crime, unintentional injury, and risky sex.<sup>34</sup>

- During 2009, an estimated 141 traffic fatalities and 7,552 nonfatal traffic injuries were attributable to driving after underage drinking.
- In 2009, an estimated 239 homicides; 114,500 nonfatal violent crimes such as rape, robbery and assault; and 179,000 property crimes including burglary, larceny, and car theft were attributable to underage drinking.
- In 2007, an estimated 28 alcohol involved fatal burns, drowning, and suicides were attributable to underage drinking.
- In 2009, an estimated 2,820 teen pregnancies and 115,282 teens having risky sex were attributable to underage drinking.

These statistics indirectly demonstrate the overall cost of underage drinking in the state.<sup>35</sup> 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 9<sup>th</sup> grade student drinks, there is a cost no matter the overall level of alcohol consumed. 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 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

---

<sup>33</sup> For more information see Center for Disease Control (CDC). (2010), Youth Risk Behavior Surveillance System (YRBSS).

<sup>34</sup> Miller, TR, Levy, DT, Spicer, RS, & Taylor, DM. (2007), Societal costs of underage drinking *Journal of Studies on Alcohol*, 67(4) 519-528.

<sup>35</sup> Pacific Institute for Research and Evaluation, 2010

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. 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.<sup>36</sup>

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" because 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 disagreement over what constitutes cutoffs. Therefore, they looked at a range of definitions with different cutoffs.<sup>37</sup>

---

<sup>36</sup> 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

<sup>37</sup> See Ellickson et al., "Does Alcohol Advertising Promote Adolescent Drinking? .... Associations Between Drug Use and Deviant Behavior in Teenagers, 1996



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 naive 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.

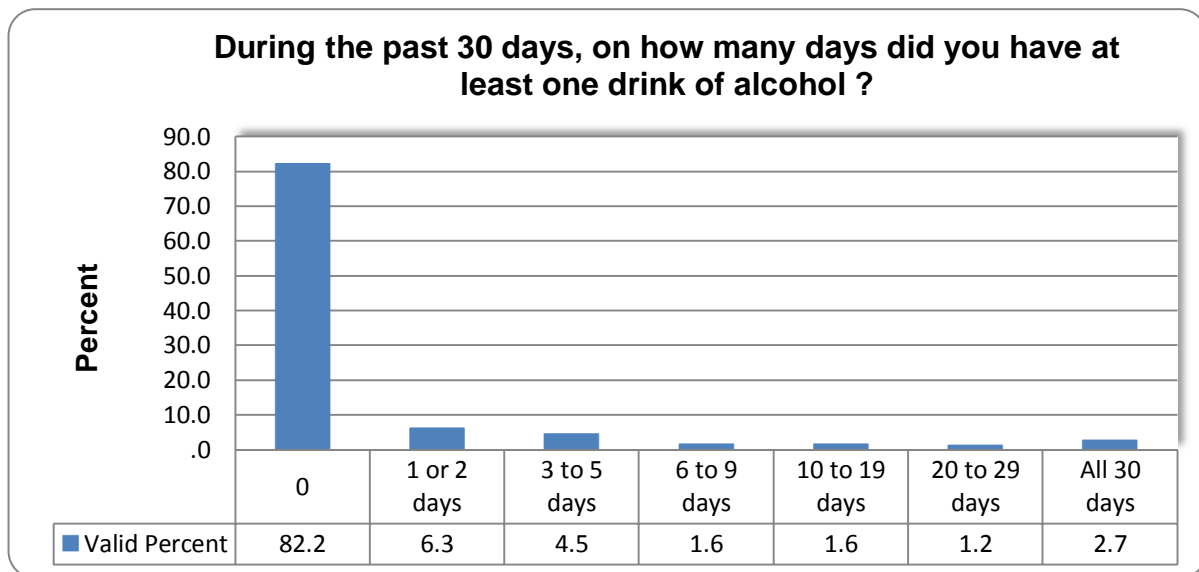
A second common criterion for assessing the level of heavy use is to define it in practical terms of problem intervention: those students who manifest that use have become detrimental to themselves, others, and society and, therefore, warrant services to reduce or stop use. This is known as use-related 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 *(Diagnostic and*

*Statistical Manual version IV*) DSM-IV is a persistent desire or unsuccessful efforts to cut down or control substance use.<sup>38</sup>

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 assessing monetary costs related to youth positively impacted by the intervention of Boys & Girls Clubs and others as control groups in their communities at large.

Finally, we compared the findings of our survey in order 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 California based on the CDC's latest findings. The following charts show some of the most important findings.



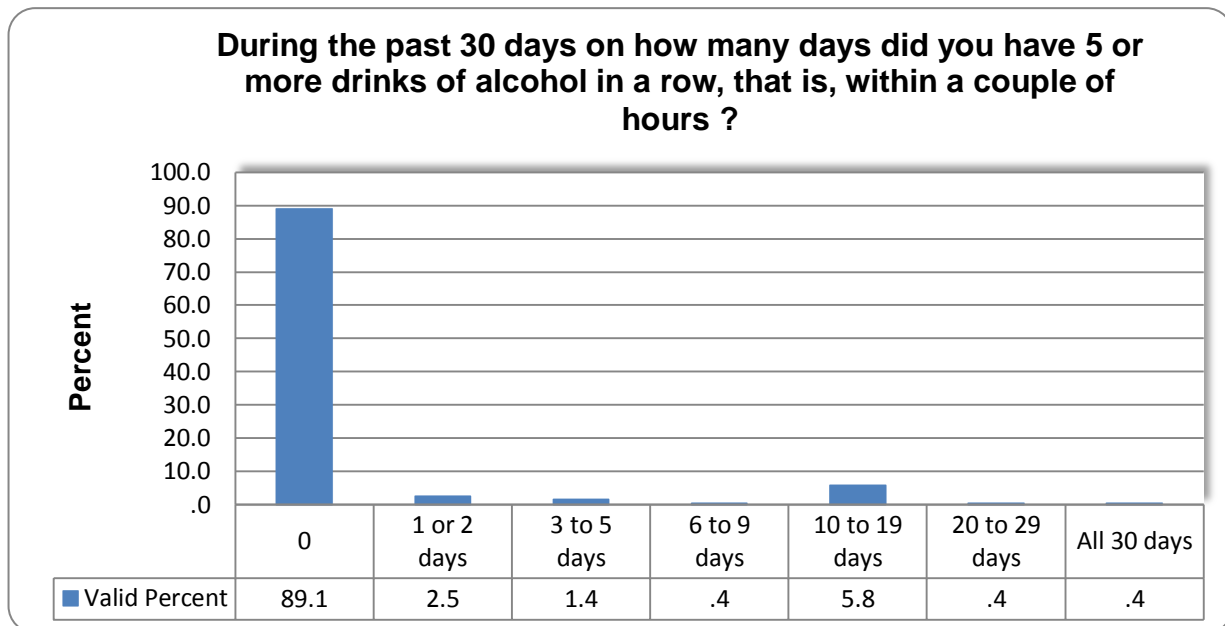
The outcome presented by this graph shows that 17.8% of the respondents said they had one or more drinks during the last 30 days. The CDC Youth Risk Behavior Survey is done for four areas within

<sup>38</sup> For more information see [http://en.wikipedia.org/wiki/Diagnostic\\_and\\_Statistical\\_Manual\\_of\\_Mental\\_Disorders](http://en.wikipedia.org/wiki/Diagnostic_and_Statistical_Manual_of_Mental_Disorders)

California and therefore, the data is not published for the state as a whole. These four districts are Los Angeles, San Diego, San Bernardino, and San Francisco. We used the numbers in Los Angeles for the latest available year (2009) and the nation to make a comparison between the findings of our survey and that of the CDC outcomes.<sup>39</sup> The findings are for 2009, which is the latest available set of statistics during the time of preparation of this report.

Based on the information for Los Angeles County, 35.2% 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 nearly 17.4% which shows a remarkably better behavior among the Club members. The average nationwide rate for the same question was 41.8%. This shows that registered members are making better decisions regarding risky behavior than the average youth in the state or in the nation.

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



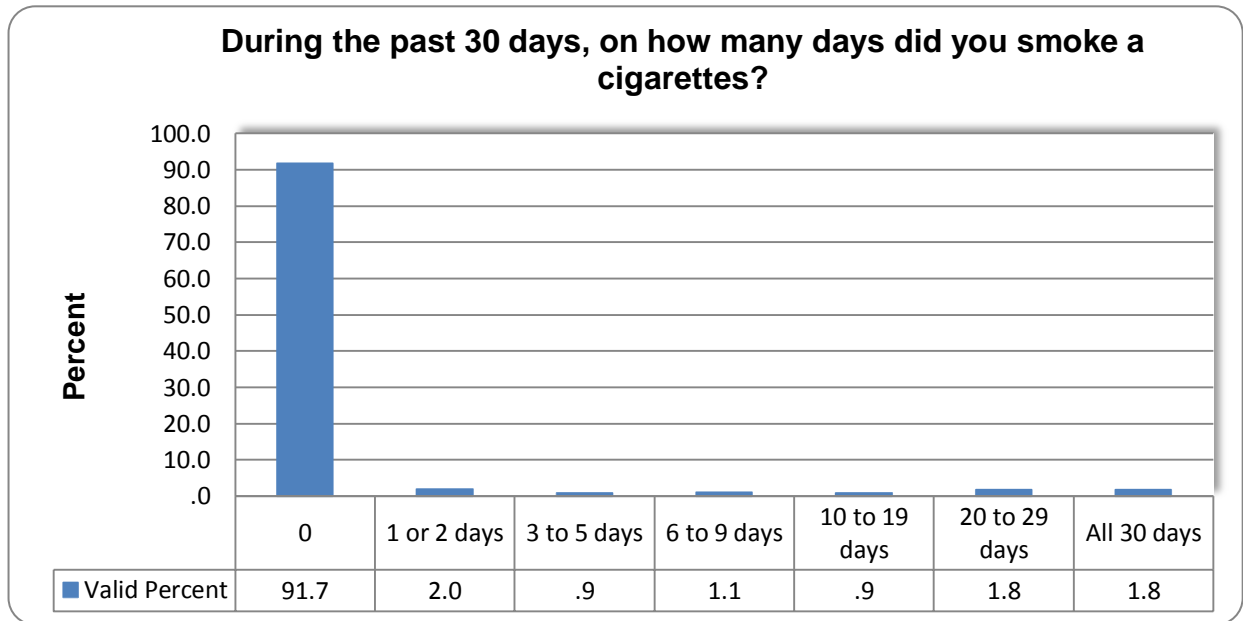
Our survey shows that 10.9% of survey respondents had at least one occasion of binge drinking during the last 30 days, whereas the state level was as high as 18.6%. Again, the rate among the Club

<sup>39</sup> We selected Los Angeles as a proxy for the California for several reasons. The rate for Los Angeles appeared to be somewhat between San Francisco and San Diego/San Bernardino. Southern California Boys & Girls Clubs serve nearly 70% of the all registered members in the state.

members was much lower (almost half of that rate within the state). The average at the national level was 24.2%.

These comparisons clearly indicated that the behavior of Club members is far better than the findings for the state or the nation. Our findings also strongly confirm that the findings for youth in California show a higher level of alcohol abuse than the nationwide figures indicate.

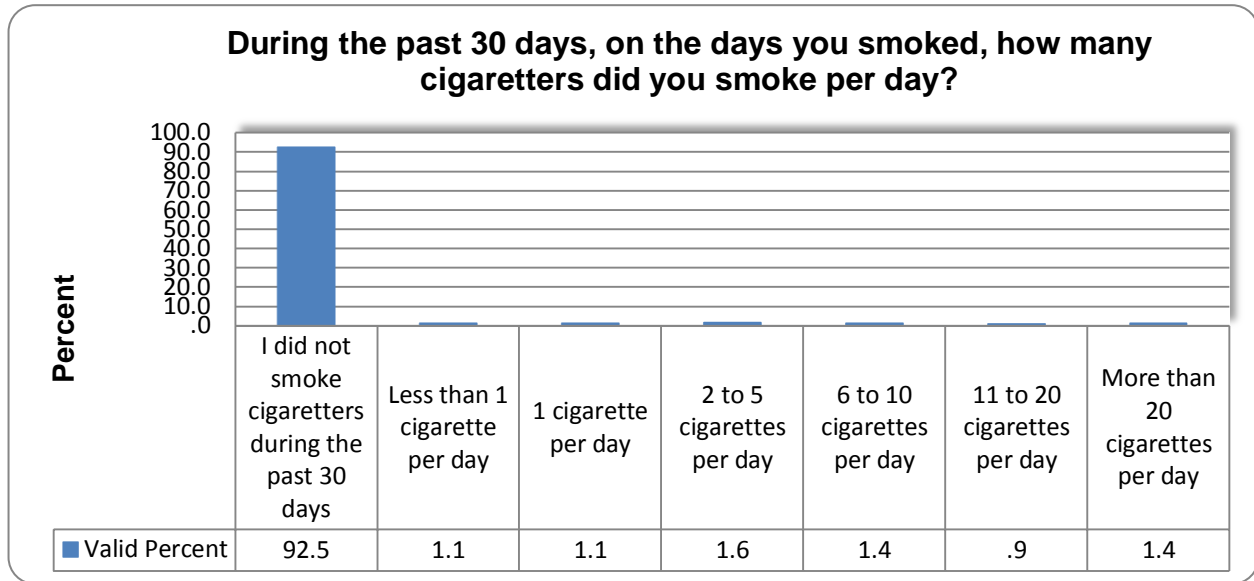
We made the same statewide and nationwide comparison between the findings of our study with regard to use of tobacco. The following exhibits present findings from Club members' surveys.



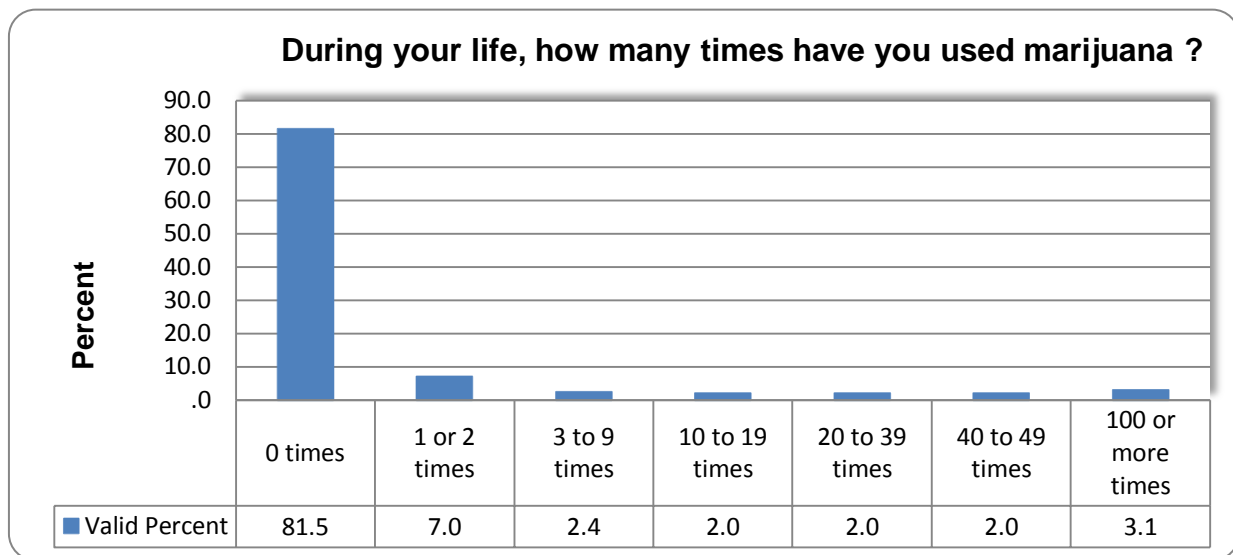
Our survey shows that 8.3% of the respondents had smoked at least one day during the last 30 days. The statewide average for the same question was 10.9% and the nationwide average was 19.5%. Once again, the performance of Club members was better than the state and far better than the nation with regard to smoking cigarettes.

The following chart shows that only 1.4% of Club members said that they smoked 20 or more cigarettes per day during the last 30 days compared with ratios of 1.6% and 7.3% state and nationwide respectively.

With regard to heavy smoking, the rate among the Club members and the state is very close. There is, however, a large gap between the percentage of heavy smokers within the Club members and the nation as a whole.



We made the same comparison between behaviors of Club members with regard to use of drugs. The following charts present our findings and the direct comparison between our findings and those of the state and the nation.



The above chart shows that 81.5% of Club members have never tried marijuana. . The response rates for the state and the nation are both much higher with the state level at 37.6% and the national positive response as high as 36.8%.

The survey of drug use and its comparisons clearly shows that youth in California in almost every category use drugs, drink alcoholic beverages and tobacco in much greater proportion than those who attend Boys & Girls Clubs in California.

Finally, we need to make some basic assumptions about how the cost of substance abuse among the Club members compared to their peers statewide. Our research showed that in almost all categories of substance abuse, Club members' abuse is much lower than the average youth in the California or the nation. While we can clearly state that the Club members show consistently better behavior; it is very hard if not impossible to argue definitively about the cost implied by the Club members versus their other peers statewide.

The obvious point is that Club members show a much lower tendency to abuse substances such as tobacco, marijuana, 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 California. In all of these cases, the ratio of Club members' abuse rate was around 50% of the state level. We therefore argue that the cost born by youth between ages of 10 to 18 per person is more likely to be twice that of those who have been participating at their local Club.

As shown earlier the average **cost of underage drinking per year for each youth equals to \$1,865 in 2011 level of prices.** Our argument is that the average cost of a drinking problem per Club member in that age category is half of this amount, or \$932.5 per person, in the age group of 10 to 20 years old.<sup>40</sup> This suggests a savings of \$ 932.5 per youth 10 to 20 years of age as the positive economic impact of the clubs in the State of California.

---

<sup>40</sup>It should be understood that change of age category does not make an important impact on the overall cost of underage drinking. By reducing the age category the cost per person will go up but on the other hand the total number of youth identified in the age group will rise. By enlarging the age group the cost per person will go down but the number of youth in that category will rise. The results of the multiplication will be more or less the same.

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) was 61% of the total registered members. Bearing in mind that only 88.8% 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  $269,936 \times 0.61 \times 0.888 = 146,219$  youth. Using a savings of \$932.5 per youth in this age category, we calculated total positive savings of \$136,349,217 due to programs offered at Boys & Girls Clubs in California.

<b>Cost of underage drinking per youth aged 10 to 20 in California</b>	<b>Cost of underage drinking based on our findings per Club members in the same age group</b>	<b>Savings per youth of the same age category due to impact of Boys &amp; Girls Clubs</b>	<b>Total number of California Club members between ages 10 to 19</b>	<b>Total savings due to better youth behavior and habits regarding underage drinking among Club members</b>
<b>\$ 1,865</b>	<b>\$932.5</b>	<b>\$932.5</b>	<b>146,219</b>	<b>\$136,349,217</b>

Ideally, we need to add the savings from better behavior avoiding tobacco, marijuana and other drug use. 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 marijuana. Most of the harm of tobacco usage comes in older age and much of the cost of drug abuse is born out of higher legal costs that we have 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 drug 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 the Boys & Girls Clubs in California 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 safe and high-quality supervision at the Boys & Girls Clubs.
- For-profit companies, employees, organizations, and institutions that provide goods and services to the Clubs generate output, jobs, and tax revenue. These economic impacts come through the Clubs' annual operating expenses and capital expenditures.
- Communities benefit from the productive capacity and output of volunteers donating their time and labor to the Clubs.

Aside from Club members, parents derive the most benefits from Boys & Girls Clubs. When the typical school day ends, many parents are still working 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.

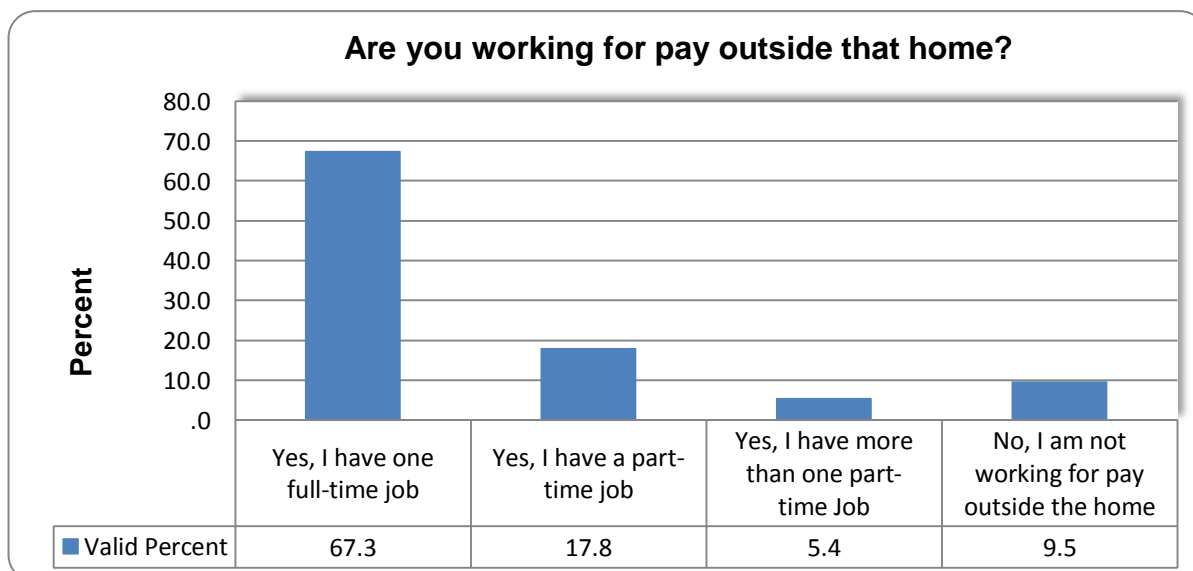
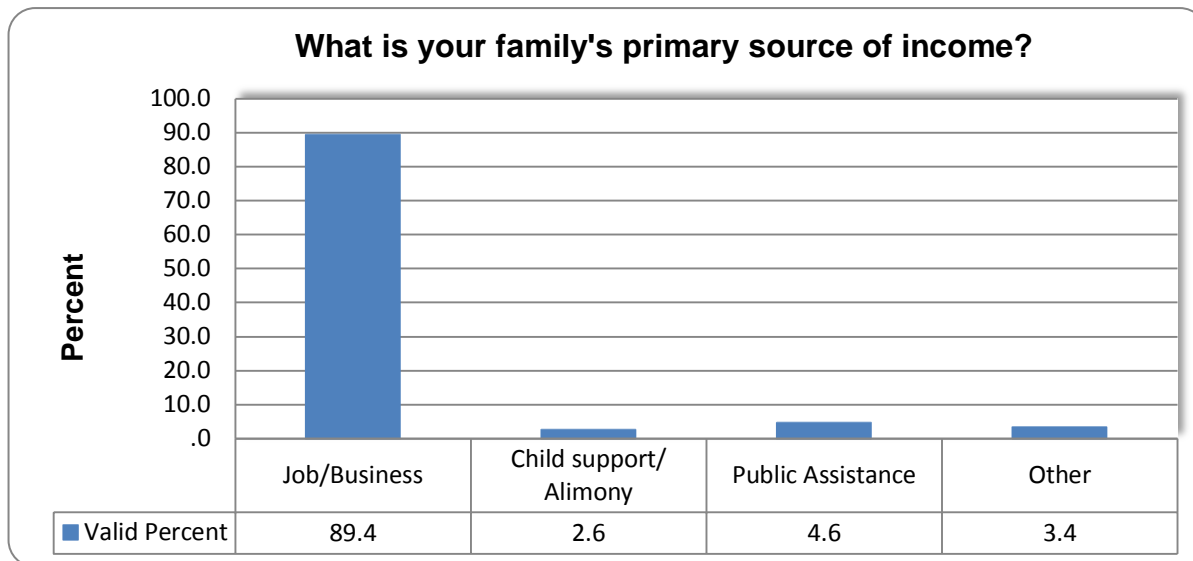
The budgetary expenditures and productive labor of volunteers working Clubs create statewide output, jobs, and tax revenue across the state. The research team for this study developed input-output models to calculate these economic impacts within the state. A summary of the calculations developed through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

#### **3.1) Ability of Boys & Girls Clubs to Help Parents Work and Attend School**

The positive influence of the Boys & Girls Clubs is not limited to the children they serve directly. The Clubs also have an immense impact on the lives of parents who are working or 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 diagrams:



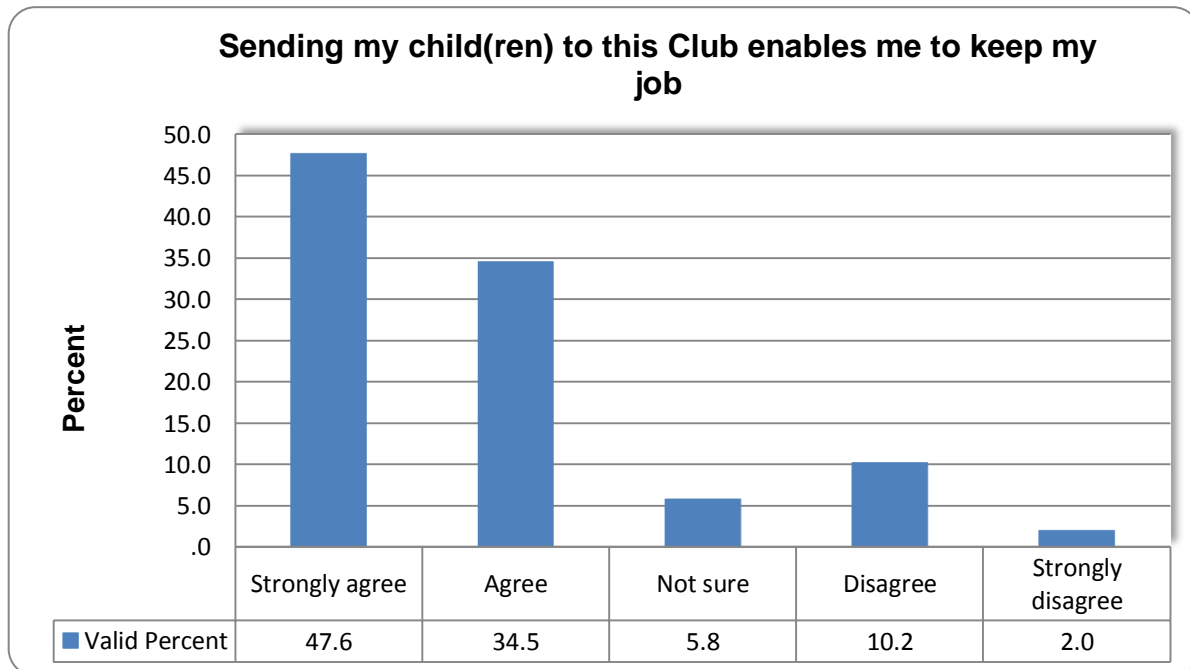


As the parent survey data demonstrates, the Clubs serve working parents who are likely to need after school supervision for their children. Almost 90% of the primary sources of family income come from work outside the family home. The vast majority (67.3%) have a full-time job while an additional 17.8% of parents have part-time jobs and an additional 5.4% have more than one part-time job to earn their living. This data clearly indicates Clubs are primarily serving children of working parents.

By allowing parents to leave their children in a safe, supervised environment, the Clubs are enabling working parents to be more productive either at work or in attaining additional education.. 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 parent survey 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).

The first survey question 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 children to the Club has on their ability to keep their job. The results are as follows:



The survey responses indicate that 47.6% of parents strongly agree while an additional 34.5% agree that sending their children to the Club enabled them to keep their job. While there is a case to be made that both of these groups of parents have been able to keep their job as a result of the Clubs, we will only consider the 47.6% 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 work.<sup>41</sup>

<sup>41</sup> In a similar but conceptually different question, we asked parents to express their view about whether or not the services of Boys & Girls Clubs made it easier to keep their jobs. The response rate to that question was 59.2% in strong agreement and more than 32.4% in agreement. We separated the categorical agreement with the actual agreement of parents as they are currently the beneficiaries of such provisions.

Based on this, we calculated the monetary benefit created by having these parents remain in the workforce.

The most immediate benefit enjoyed by the families and the community as a result of this work is the income generated through their work. Our survey also asked parents to provide a range for their annual individual income. We ran a cross-tabulation of those who strongly agreed that the Club programs enabled them to keep their jobs with the responses regarding average annual income. The outcome is presented in the following tables.

**Q42. What is your individual annual income? \* Q27. Sending my child(ren) to this Club enable me to keep my job Cross-tabulation**

Count		Q27. Sending my child(ren) to this Club enable me to keep my job					
		Strongly agree	Agree	Not sure	Disagree	Strongly disagree	Total
Q42. What is your individual annual income?	Less than 10K	54	42	1	13	3	113
	10K to <15K	48	6	0	3	0	57
	15K to < 20K	79	42	10	10	5	146
	20K to < 25K	20	9	2	2	0	33
	25K to < 30K	62	42	3	3	1	111
	30K to < 35K	13	24	1	6	0	44
	35K to < 40K	37	24	3	9	1	74
	40K to < 45K	10	11	2	1	0	24
	45K and more	47	39	11	22	6	125
	Decline to State	50	30	16	15	1	112
<b>Total</b>		420	269	49	84	17	839

We used the information and calculated a weighted average of the annual individual income of respondents. To calculate a reliable number, we used a \$5,000 income level for those earning less than \$10,000 and an average of \$22,500 for the group that declined to mention their income level. For all other groups, we used the mean value of their groups. For example, for the range of \$10,000 to less than \$15,000, we used an income level of \$12,500. With this calculation, we determined that the weighted average income level of those who strongly agreed with this statement was \$22,854. In other words, every time a parent is able to keep their job as a result of the services of the Boys & Girls Clubs, an additional \$22,854 in income is generated in the community that these Clubs serve.

The next step in this analysis is to consider the number of parents who receive this benefit. Based on in-house questionnaires, we discovered that a total of registered families based on the family size of 1.6 kids per family results in a total number of  $269,936/1.6 = 168,710$  families. We used this information

and calculated the total amount of positive economic impact in terms of family income generation. The details are reported in the following table.

Total estimated number of families served by Boys & Girls Clubs based on number of registered members.	Percentage of parents who strongly believe Boys & Girls Clubs enable them to keep their jobs.	Total number of parents who are able to work due to the services of Boys & Girls Clubs.	Average annual salary of those keeping their jobs due to Boys & Girls Clubs.	Total annual earnings generated by parents due to Boys & Girls Clubs.
168,710	47.8%	80,643	\$22,854	\$1,843,015,122

By enabling 80,643 parents to work and earn on average \$22,854 a year, Boys & Girls Clubs are enabling these parents to generate \$1.84 billion in annual earnings for their families. This is a tremendous service that sustains an enormous level of economic activities across the state. Without the Clubs, these parents would be unable to earn this income.<sup>42</sup> This staggering figure shows the vital role that 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 society through reduced burdens on taxpayers. Beyond the benefit for taxpayers, these individuals and families are able to be more successful and enjoy a better quality of life.

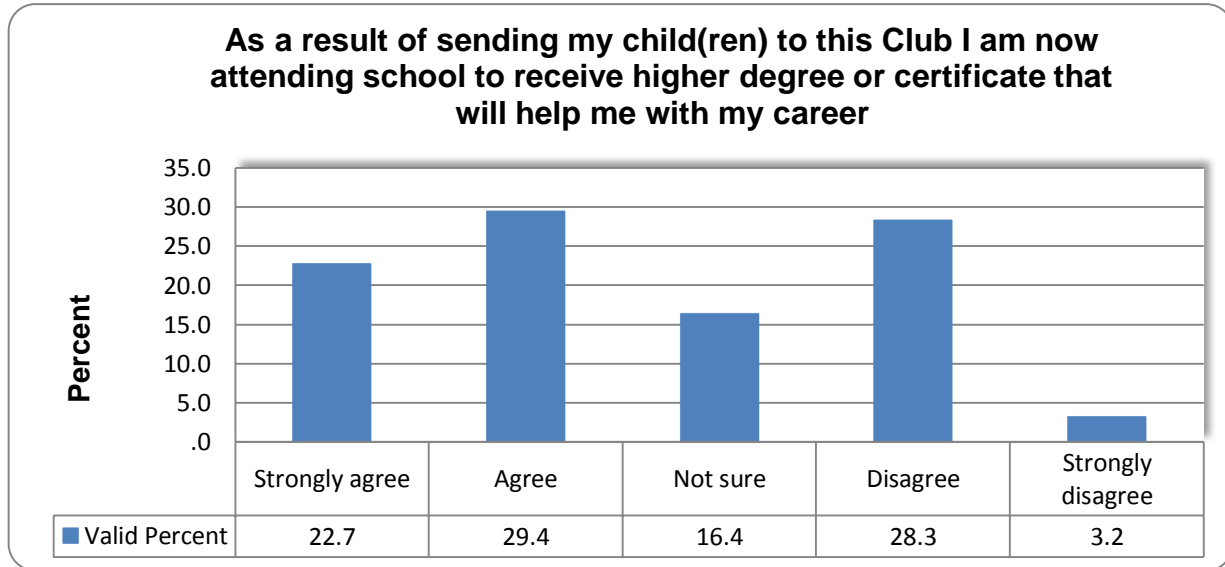
*“By enabling 80,643 parents to work and earn on average \$22,854 per year, the Boys & Girls Clubs in California are enabling these parents to generate more than \$1.84 billion in annual earnings throughout the state”*

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 advance with their career. Such education will ultimately allow them to become even more productive members of the workforce. Without the Clubs, this

<sup>42</sup> An important argument in support of this calculation is that even if parents go to work despite their inability to take care of their children while they are away, the cost of leaving them without care is far more than the earned income. In our study, the assumption is that if these parents would not have accessed the services Boys & Girls Clubs provide, they had to forego the amount of income that we calculated and presented.

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 impact of the Clubs, the parent survey included the following question designed to understand how many parents derive this benefit from the Clubs:

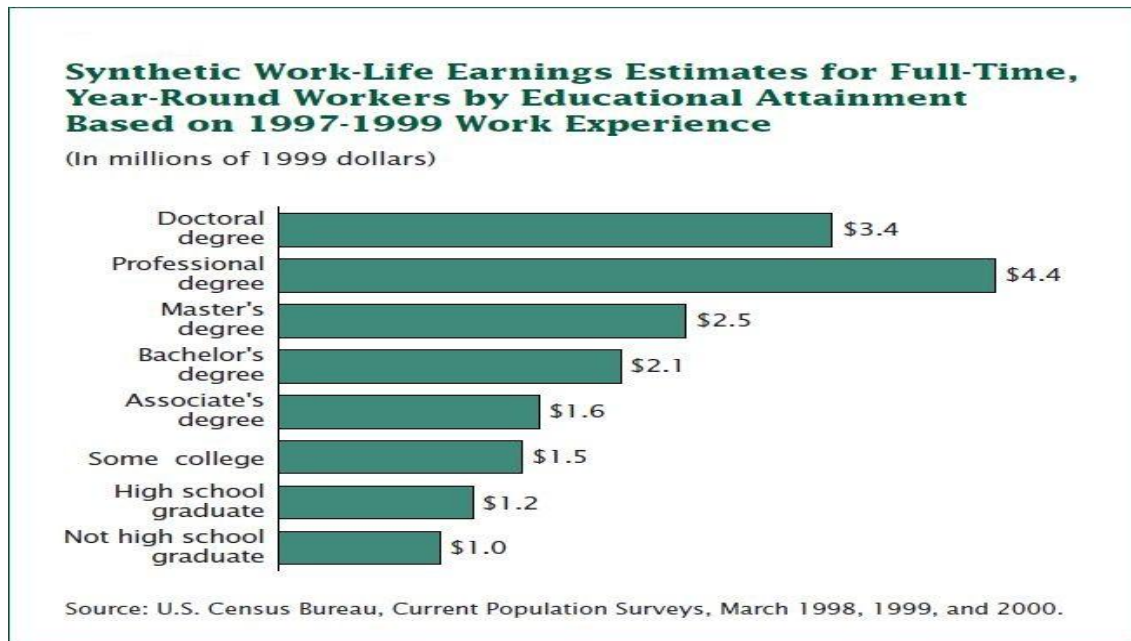


A significant proportion of Club members’ parents indicate that they are, as a result of the Boys & Girls Clubs, “attending school to receive a higher degree or certificate that will help me [them] with my [their] career.” Once again, we will only use the number of parents who strongly agree that they are receiving further education as a result of the Clubs; 22.7% of parents served by the Clubs are within this category. The following table summarizes the positive impact of the opportunity to pursue further education:

<b>Total number of families served by the Boys &amp; Girls Clubs in California.</b>	<b>Proportion of families with at least one parent able to pursue further education or training due to the help of Boys &amp; Girls Clubs (based on those who strongly agreed with the expected impact).</b>	<b>Total number of parents who are upgrading their skills due to the services of Boys &amp; Girls Clubs.</b>
<b>168,710</b>	<b>22.7%</b>	<b>38,297</b>

Based on the survey results, 38,297 parents are able to pursue further education or certification that will help them advance 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 benefits are

likely to be significant simply by reexamining the value of higher education that has been discussed earlier in this report.



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, for a parent who is able to earn an associate's degree as a result of sending their children to the Boys & Girls Clubs, their lifetime earnings will, on average, increase from \$1.2 million to \$1.5 million. Although we are not able to put an exact value on this benefit, census data suggests that the benefit is significant.

### 3.2) Impact of Clubs' Expenditures on Economic Output, Jobs, and Tax Revenue

The economic impact of social interventions resulting from the services provided by Clubs in California 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 and capital expenditures in the region that can be measured in terms of output, employment, and tax revenue.

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 the 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 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.<sup>43</sup> IMPLAN employs a regional social accounting system and can be used to generate a set of balanced economic and social accounts and multipliers. The social accounting system is an extension of the 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 the Boys & Girls Clubs within its region. This analysis, like any other with similar research, aimed to measure the following impacts:

- ✚ **Direct effects:** Budgetary, capital, and other related expenditures that create jobs and add to the production capacity of our region.

---

<sup>43</sup> IMPLAN is a computer software package that consists of procedures for estimating local input-output models and associated databases. The acronym is 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.

- ✚ **Indirect effects:** The economic activity generated among the region’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 city, county, or 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’ regular and capital expenditures based on the Clubs’ 2009-2010 financial information. With regard to regular budgetary expenditure, all randomly selected institutions provided their Club budget. As for the capital expenditures the report included information about the expenditures in 2009 and 2010. Capital expenditure is periodic and may not occur each year. However, the information provides a sample of such an expenditure that may occur from year to year.

The regular budgetary expenditures through increased statewide income, jobs, and tax payments contribute to the betterment of the economy. We used the aggregated budgetary expenditures of all the Clubs and employed it in a regional model that we set up using IMPLAN Regional Input-Output model. We set up similar models for the capital expenditures and work of the volunteers. The results are presented in the following exhibits.

Economic Impact of Budgetary Expenditures of the Boys & Girls Clubs in California						
	Direct	Indirect	Induced	Total		
<b>Output Impact</b>	\$192,445,552	\$72,377,450	\$80,847,644	\$345,670,646		
<b>Indirect Business Tax Impact</b>	\$1,575,093	\$2,814,184	\$4,919,914	\$9,309,191		
<b>Employment Impact</b>	4,307	422.4	535.3	5,264.70		
<b>Tax Impact</b>	<b>Employee Compensation</b>	<b>Proprietary Income</b>	<b>Household Expenses</b>	<b>Enterprises</b>	<b>Indirect Business Tax</b>	<b>Total</b>
	\$14,571,708	\$576,060	\$15,792,062	\$8,860,054	\$9,309,191	\$49,109,075

*“Output generated by the Boys & Girls Clubs in California including direct, indirect, and induced impacts totals \$345,670,646.”*

The model generated by analyzing the Clubs’ budgetary data indicates Clubs are tremendous engines of economic output in the region. The breakdown of economic impacts on the state level is given below.

Statewide output is defined as the market value of all goods and services produced as the result of a particular economic activity within the state. For the output generated by the Clubs, bear in mind that



the total value of the regular budgets of California Clubs totals **\$345,670,646**. This output results in a multiplier of 1.8 times in the statewide economy. Such output also sustains many jobs in the state.

The model predicts nearly 5,265 jobs are created by the Clubs in California.<sup>44</sup>

Boys & Girls Clubs expenditures are also helping local, state, and federal agencies through the generation of substantial tax revenues. Based on our estimation, the regular budget of the Clubs will create \$49,109,075 in terms of state and local governments' tax revenue.

### 3.3) Economic Impact of Capital Expenditures

As briefly mentioned, we also used the amount of capital expenditures that were used in year 2009. We should remember that Clubs may not have sizable capital expenditures every year. However, it is important to use what we had for the year in question to point out that the purchasing of equipment, vans and building or repairing the existing structures may occur from time to time and that will have positive economic impact in the region just as when a for-profit company constructs a new building or buys equipment. The following table shows the impact of the Clubs' total capital expenditures on the state's economy in terms of gross domestic statewide output, employment, federal and state governments' tax revenue.

Economic Impact of Capital Expenditures in the Boys & Girls Clubs in California						
	Direct	Indirect	Induced	Total		
<b>Output Impact</b>	\$11,393,631	\$4,107,692	\$5,497,691	\$20,999,014		
<b>Indirect Business Tax Impact</b>	\$257,676	\$187,822	\$334,561	\$780,059		
<b>Employment Impact</b>	94.7	23.3	36.4	154.4		
<b>Tax Impact</b>	Employee Compensation	Proprietary Income	Household Expenses	Enterprises	Indirect Business Tax	Total
	\$881,531	\$76,555	\$1,074,036	\$246,301	\$780,059	\$3,058,482

As the above table shows, the total impact of capital expenditures in 2009 amounts to \$20,999,014. This amount of capital expenditure generates 154 jobs and a total of \$3,058,482 in tax revenue for the state and federal governments.

<sup>44</sup> It is important to note that this number calculates employment in terms of full-time equivalents. In other words, a part-time employee would not count as "1." Rather, part-time paid positions are combined to yield this full-time equivalent value. A full-time equivalent value of labor assumes 2,040 hours of work in a year. For instance, a part-time employee only working 1,020 hours in the year would only count as "0.5" in this model.

### 3.4) Economic Impact of Volunteer Labor

Our research looked deeply into the economic impact of volunteerism going further than many similar studies to make an attempt at estimating 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.

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 benefitting from their services. In other words, they are making an in-kind donation of their labor and human capital. Such donations of services can operate much the same way as cash donations. Monetary donations make it possible for the organization to make various expenditures—including the ability to hire people who could carry out the services performed 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 the similar productive value to the organization.

Clubs could potentially not be able to deliver some of their services or programs without volunteers. While there might be some argument about the number of paid jobs that the work of volunteers create or the tax payments generated, there is no doubt about the indirect part of the induced job creation or tax revenue that volunteers create in an economy. The same is true about the statewide output impact of volunteers' work.

*“Based on our estimation of volunteers' work, they donate more than 1.5 million hours of work across the State of California to various Boys & Girls Clubs within the state. [This] volunteer labor for the Boys & Girls Clubs generated nearly \$62 million in economic output across the state”*

---

An estimation of the economic impact of the volunteer labor is presented below. In order to derive these calculations, we distributed in-house questionnaires to the managers of 26 Boys & Girls Clubs. Based on their responses, we estimated that volunteers across the state donated 1.5 million hours of their time to work for the Clubs. These total volunteer hours were then converted into an estimated Full-Time Equivalent (FTE) value, which was then used to set up the necessary IMPLAN models to calculate the respective economic impacts. The following tables present the aggregate findings at the statewide level.

	Economic Impact of Volunteers Efforts at the Boys & Girls Clubs in California					
	Direct	Indirect	Induced	Total		
<b>Output Impact</b>	\$34,382,884	\$12,931,167	\$14,444,477	\$61,758,528		
<b>Indirect Business Tax Impact</b>	\$281,411	\$502,790	\$879,006	\$1,663,207		
<b>Employment Impact</b>	769.5	75.5	95.6	940.6		
<b>Tax Impact</b>	<b>Employee Compensation</b>	<b>Proprietary Income</b>	<b>Household Expenses</b>	<b>Enterprises</b>	<b>Indirect Business Tax</b>	<b>Total</b>
	\$2,603,424	\$102,921	\$2,821,456	\$1,582,963	\$1,663,207	\$8,773,971

The above table shows that Boys & Girls Clubs generated \$61,758,528 in economic output across the region. Their free and voluntary labor provides services that would otherwise require 769 fulltime workers. However, because of their work, Boys & Girls Clubs provide 171 paid jobs through indirect or induced impacts on the state economy. The work of volunteers is responsible for an equivalent of \$8,773,791 within the State.<sup>45</sup>

Finally, we added these three segments together with the exception of direct job impacts of volunteers' work. However, the number of jobs created through indirect and induced impacts of volunteers work is included. This can be seen in the following table.

*“This study shows that every dollar of expenditure generates \$2.23 through statewide output, capital expenditures and the work of volunteers that it brings about. We also learn that through the work of the Boys & Girls Clubs in California, about \$61 million is generated in total tax revenue and around 5,590 jobs are created across the state. This does not include around 770 non-paid jobs that support this level of statewide output.”*

	Economic Impact of the Annual Budgetary & Capital Expenditures and Volunteers' Work of the Boys & Girls Clubs at California					
	Direct	Indirect	Induced	Total		
<b>Output Impact</b>	\$238,222,067	\$89,416,309	\$100,789,812	\$428,428,188		
<b>Indirect Business Tax Impact</b>	\$2,114,180	\$3,504,796	\$6,133,481	\$11,752,457		
<b>Employment Impact</b>	4,402	521.2	667.3	5,590		
<b>Tax Impact</b>	<b>Employee Compensation</b>	<b>Proprietary Income</b>	<b>Household Expenses</b>	<b>Enterprises</b>	<b>Indirect Business Tax</b>	<b>Total</b>
	\$18,056,663	\$755,536	\$19,687,554	\$10,689,318	\$11,752,457	\$60,941,528

<sup>45</sup> It is correct to say that a proportion of employees' compensation tax will not be paid to the state or federal governments as there are no payroll payments or tax for the direct equivalency of income paid tax.

The above table provides important information; it shows that budgetary, capital, and the work of volunteers generate in total more than \$238 million within the state that in turn adds more than \$428 million to the State economy. If we look at this impact in direct relation to the annual total expenditures of all the Clubs (\$192,445,600), it shows that for every dollar of expenditure, \$2.23 is generated through statewide output, capital expenditures that it brings about and the work of volunteers. We also learn that through the work of the Clubs across the state, about \$61 million is generated in total tax revenue and around 5,590 jobs are created across the state. This does not include approximately 770 non-paid jobs that support this level of the State output.

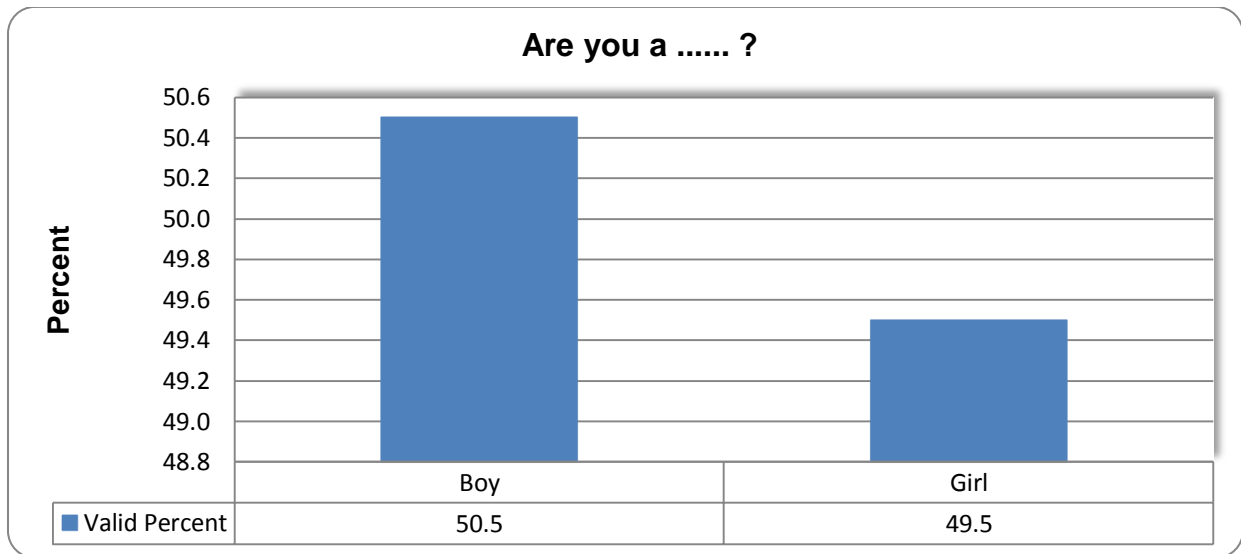
## 4) Qualitative Findings from Surveys

In addition to questions that attempted to monetize the economic benefits of the Boys & Girls Clubs various survey instruments 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

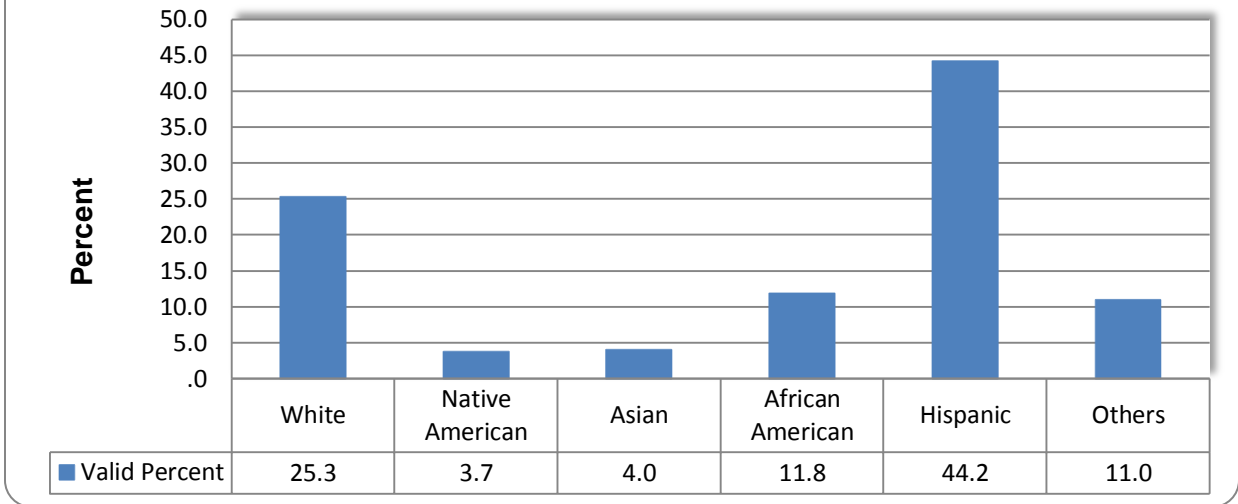
#### 4.1.1) Demographic Data

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.



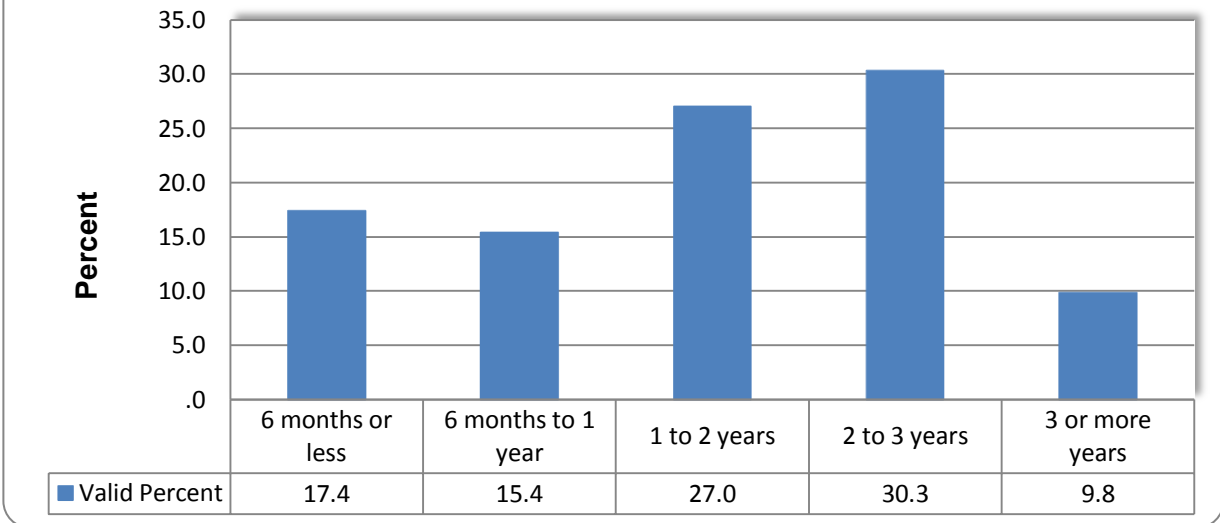
The percentage of boys and girls are almost equal.

### What is your ethnicity?



The majority of Club members (44.2%) are Hispanic. The second most represented group is White at 25.3%, and African American members account for nearly 12% of the total members who participated in the survey.

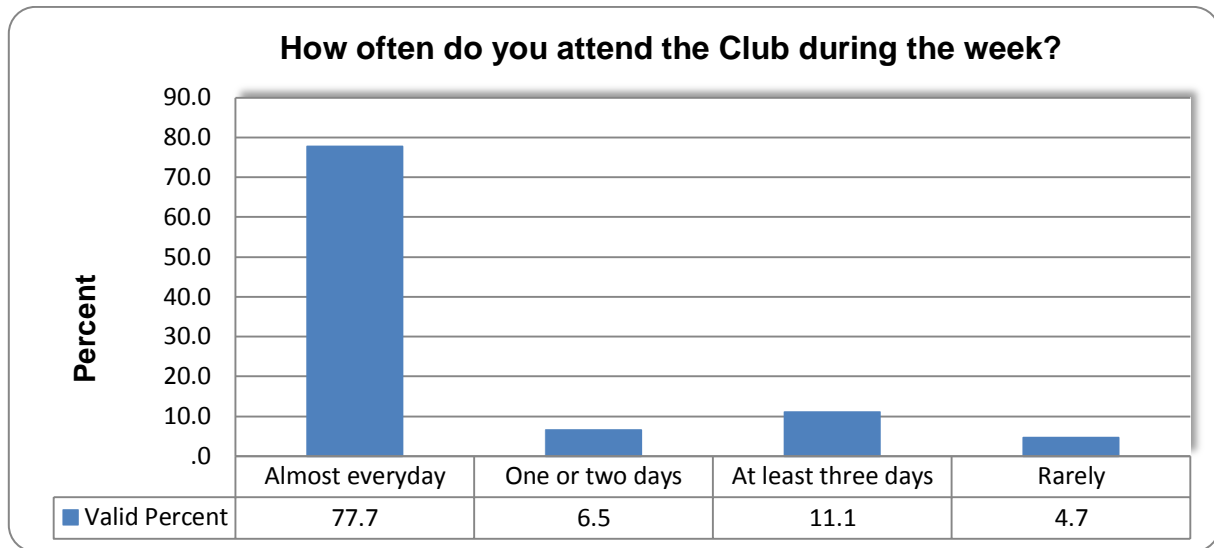
### How long have you been attending the Club?



The above chart shows that the overwhelming majority of members have been attending the Club over a substantial period of time. More than 40% of the members have attended the Club for two years or more.

### 4.1.2) Program and Activities

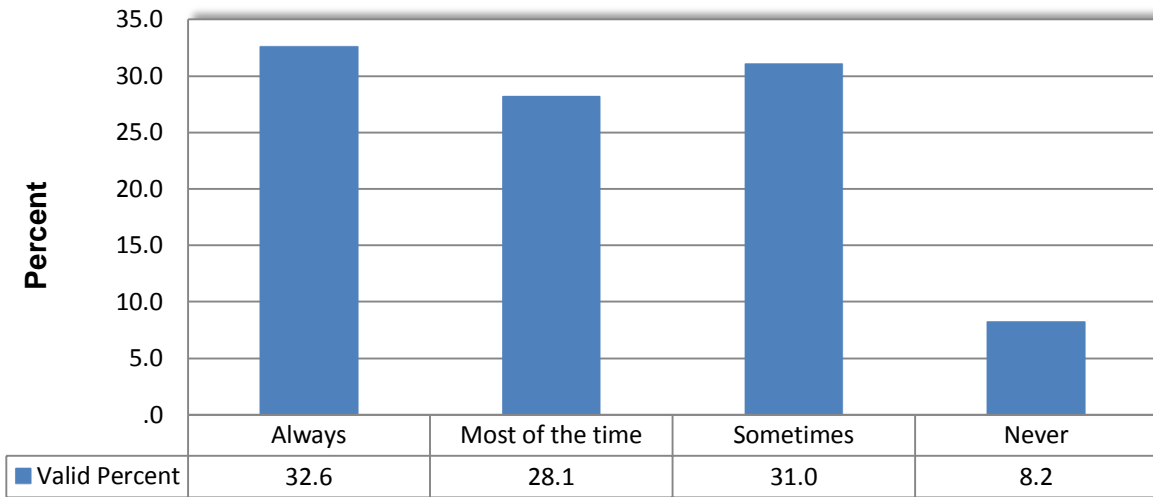
Positive impacts of the Clubs are most likely to influence the members when they attend the Club three or more days per week.



The chart shows that 88.8% attend the Club three or more days during the week. The overwhelming majority of them (77.7%) attend the Club every day.

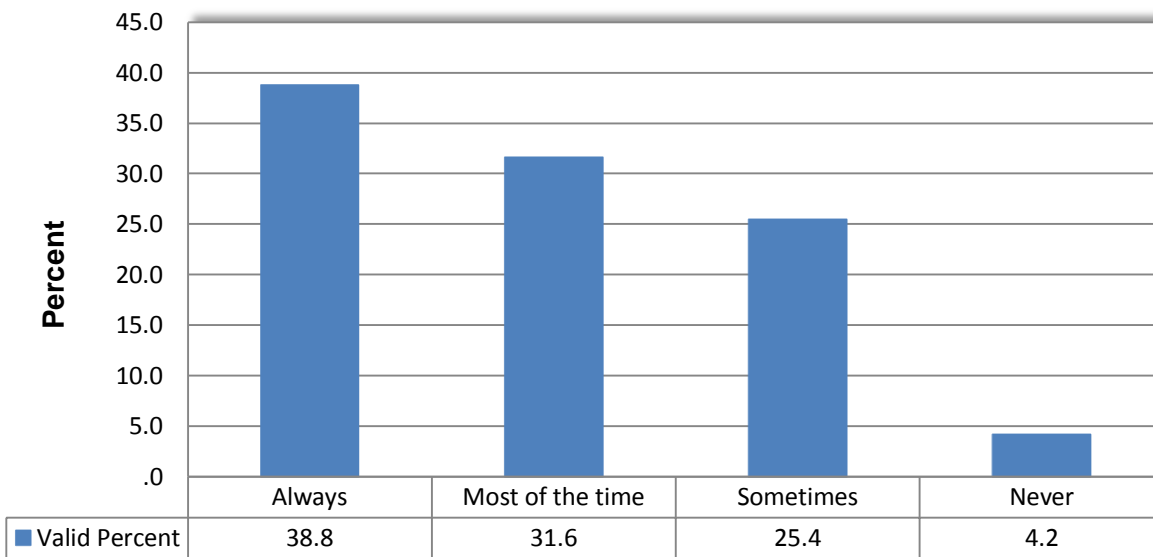
Club management is constantly striving to provide the highest quality programming and activities to Club members. An important consideration when pursuing this objective is to learn what those who are served by these programs feel about the various activities and programs offered. Such feedback can help an organization understand what they are doing well and what they can do to further improve the condition and the programs within their Clubs.

### Do you feel the programs you participate in at the Club help you with your needs?



A majority of respondents (60.7%) said that they feel the Club programs help them with their needs always or most of the time. 31.0% responded that the programs help them sometimes. Only 8.2% indicated they do not find Club programs helping them at all.

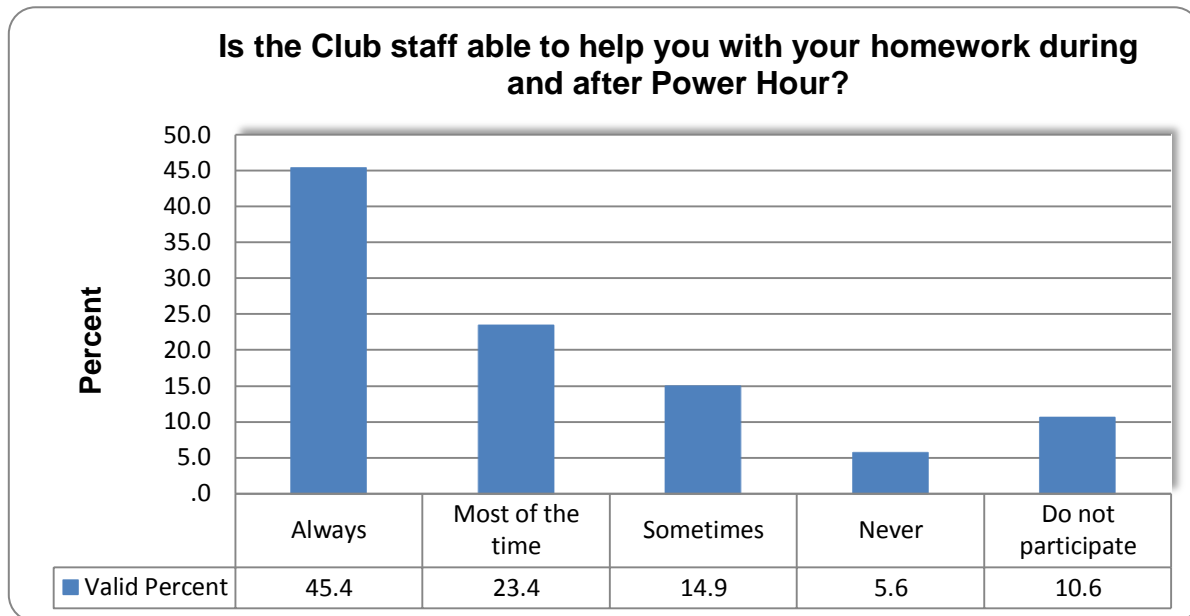
### Do you like participating in the Club program?



The response to whether survey participants like the programs at the Boys & Girls Clubs was overwhelmingly positive. 70.4% said that they always or most of the time like their Boys & Girls Club



programs. Another 25.4% said that they like the Club programs sometimes and only 4.2% did not like programs at all.



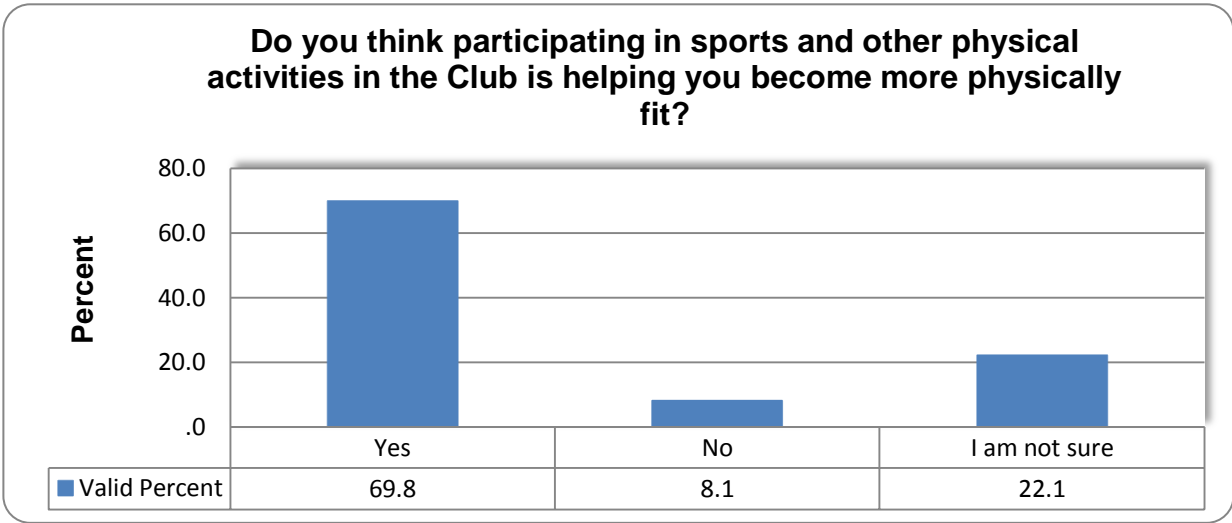
One particular area of interest is the Power Hour program. All Clubs have time dedicated to helping Club members with their schoolwork. This program intends to help improve the academic proficiency of Club members 6 through 12 years old.

Power Hour 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 greater high school graduation rates discussed in Section Two of this report. As such, the success of Power Hour program is critical. A majority (68.8%) of respondents like the tutoring program either always or most of the time.<sup>46</sup> Amongst this group, it is important to note that only 5.6% never like the tutoring program.

However, looking further into the numbers, the popularity of the program is even greater. The data indicates that only 10.6% of Club members do not participate. As such, considering only the youth who utilize the program, 77% of participating Club members always or most of the time like the program and only 6.3% indicated they never liked it.

<sup>46</sup> This calculation excludes the 10.6% who do not participate in the program.

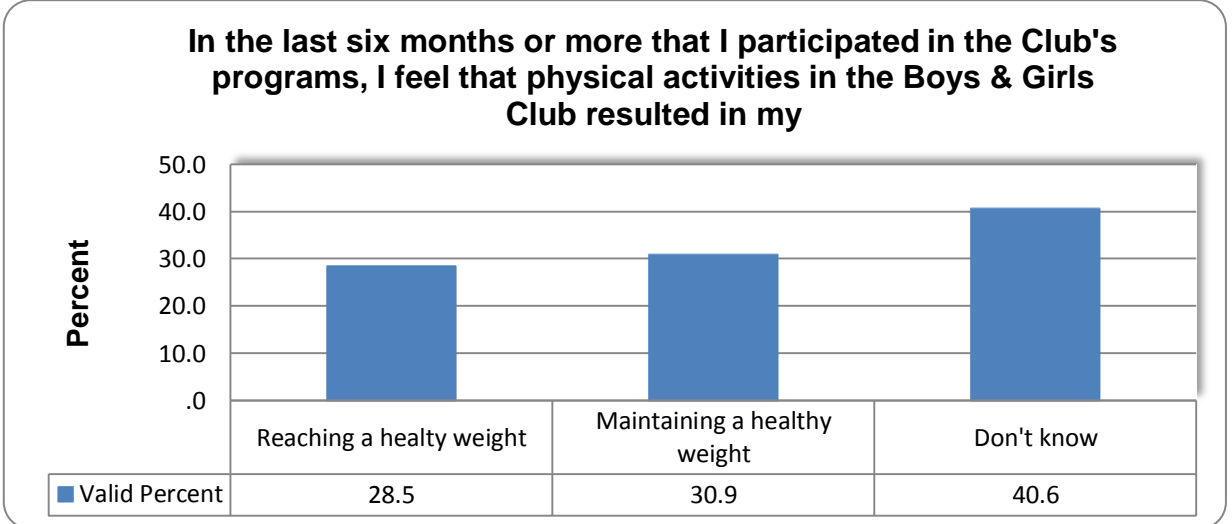
**Do you think participating in sports and other physical activities in the Club is helping you become more physically fit?**



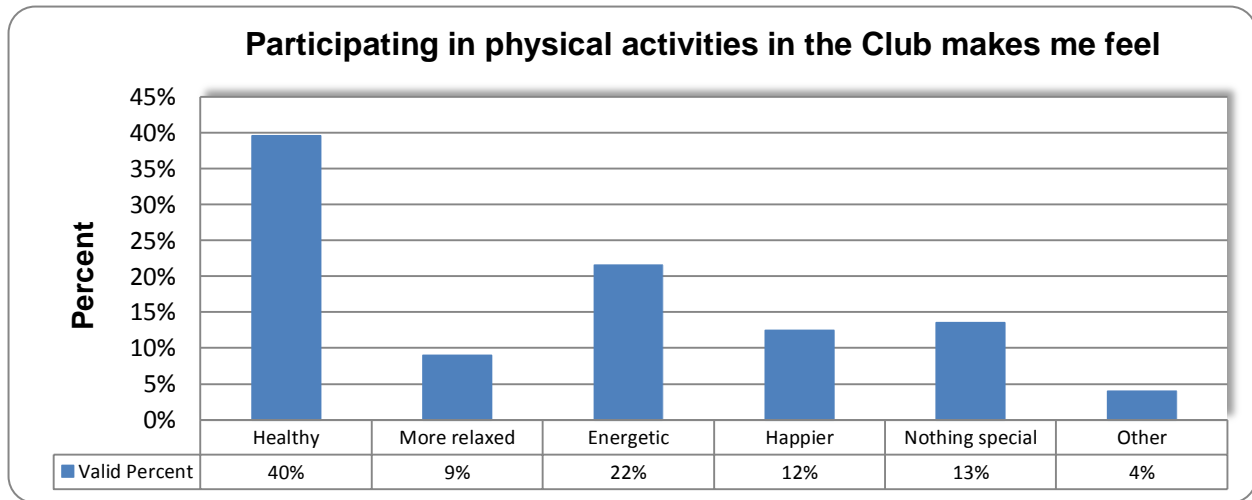
The above chart provides clear evidence of the importance and relevance of Club programs in helping kids to be healthy and physically fit. 69.8% agree that participating in physical activities help them to be physically fit. This is a remarkable assertion by Club members indicating the invaluable contribution of the Clubs in helping member children to learn the good habit of physical activity at a young age and its positive impact on their present and future health.

The following chart provides greater evidence on how useful and important physical activities within the Clubs have been for its members.

**In the last six months or more that I participated in the Club's programs, I feel that physical activities in the Boys & Girls Club resulted in my**



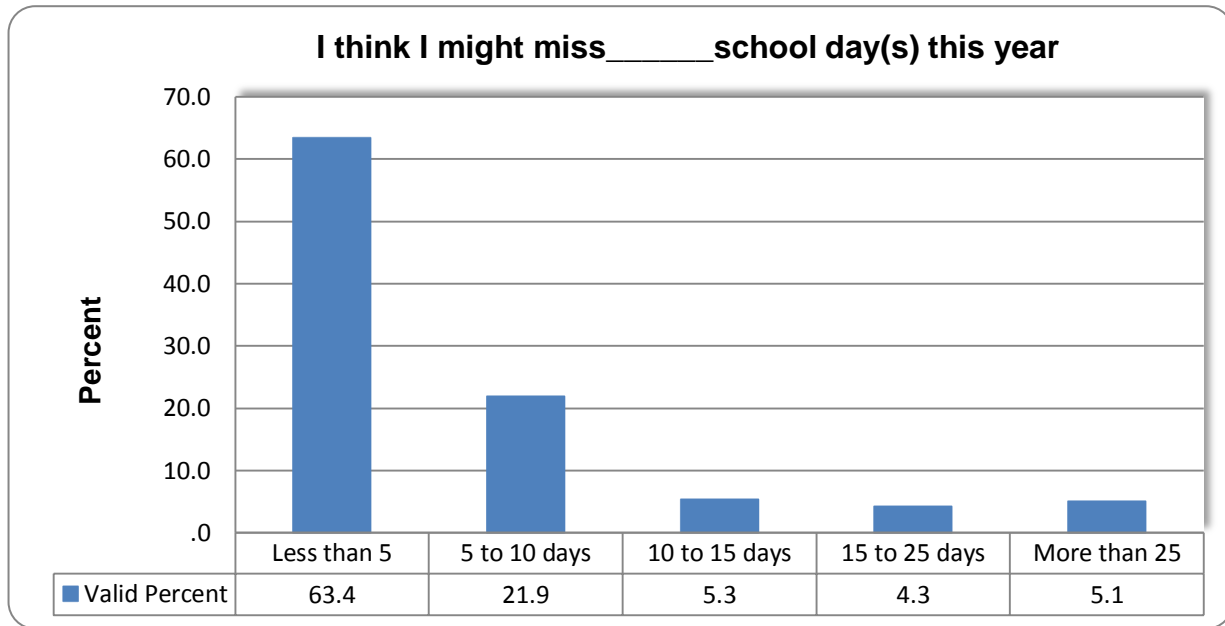
The results presented in the above table are remarkably convincing that being engaged in physical activities at the Club helped them to become healthy or maintain a healthy state of physical existence. According to these results, nearly 60% of Club members have either arrived at or maintained a healthy weight as the result of participating in physical activities while they were in the Clubs during the last six months. The remaining 40% of Club members did not reject the impact but were not sure about it.



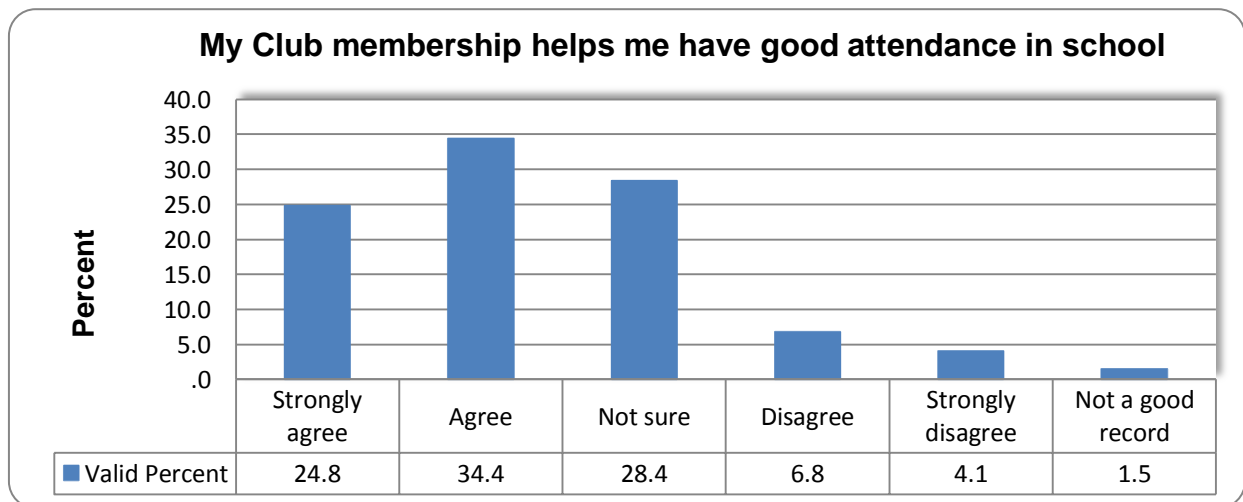
It is important to understand the impact of physical activities offered through Boys & Girls Clubs on how students feel. A notable proportion indicates the activities make them feel healthy and energetic (40% and 22%, respectively). 12% are happier, and 9% feel more relaxed. This shows that 83% of respondents have experienced positive impact.

#### **4.1.3) Attendance Record in Clubs and School**

School attendance is 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 Club members' school day attendance and the impact of Club participation on their school attendance



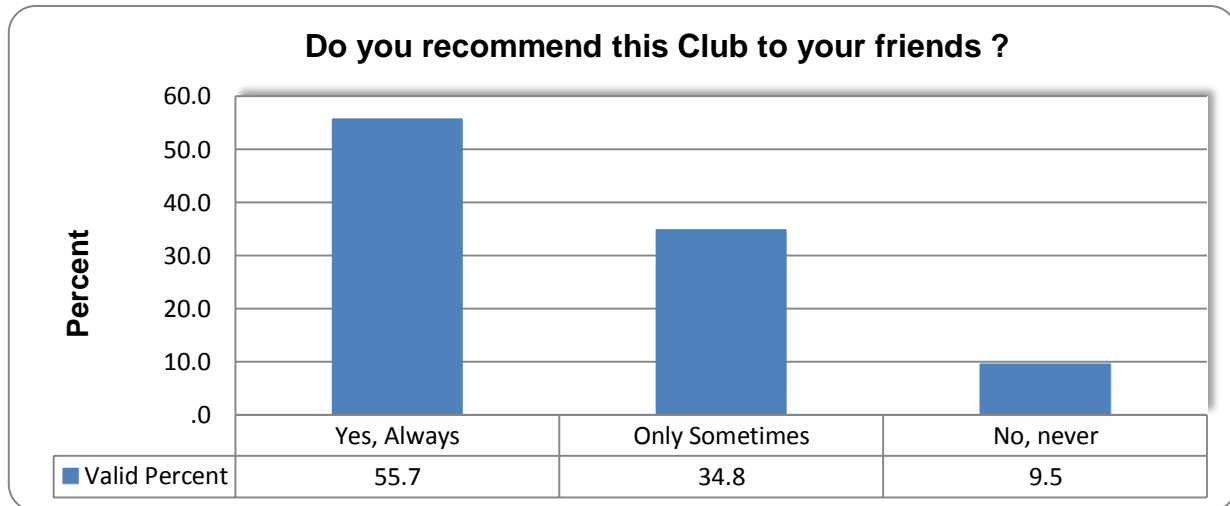
The vast majority of Club members have strong attendance records. 85.3% of respondents indicated that they anticipate missing 10 days or less of school. Only 5.1% anticipate missing more than 25 days of school.



We also asked Club members whether their strong school attendance records are related to the fact that they attend the Boys & Girls Clubs regularly. A majority of respondents (59.2%) believe that their regular attendance at the Clubs accounts for their good attendance records in day school. Only 10.9% disagreed with this statement.

#### 4.1.4) Overall Opinion Regarding the Boys & Girls 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.



A majority of 55.7% indicated that they would always recommend the Club to their friends while an additional 34.8% would recommend the program sometimes. Only 9.5% 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. This is a remarkable rate of satisfaction.

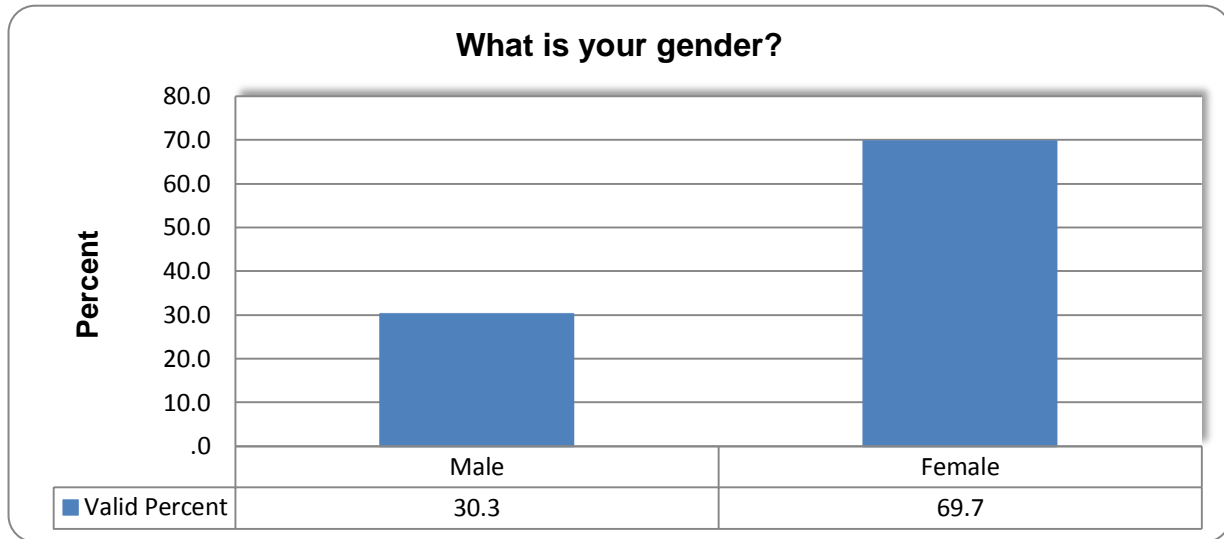
#### 4.2) Results from Parents' Survey

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.

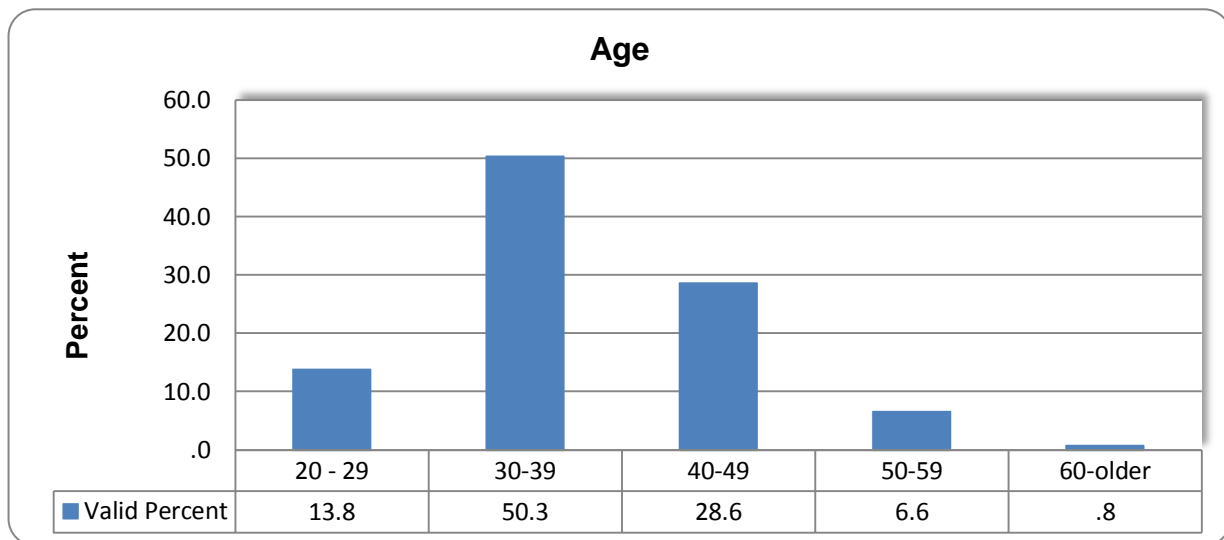
Given these considerations, it was critical to collect data from parents to see how well they are being served by the Clubs and to see how effective they perceive the programs to be.

#### 4.2.1) Demographic Information

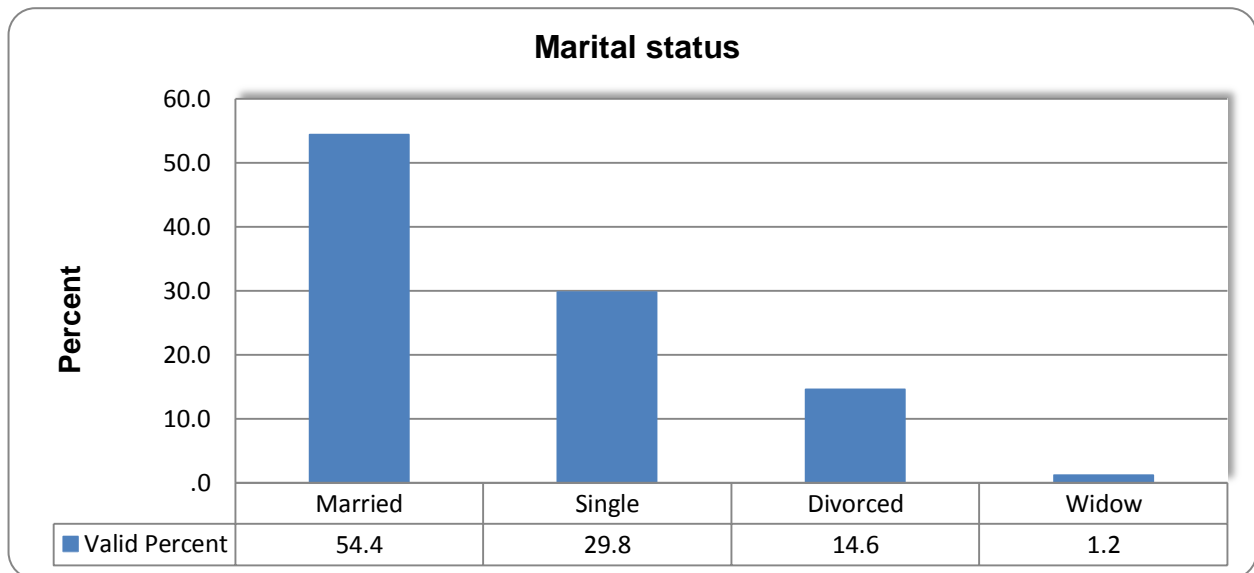
Some demographic data was collected from parents. This information helps us to understand the profile of respondents and the households in which Club members are being raised.



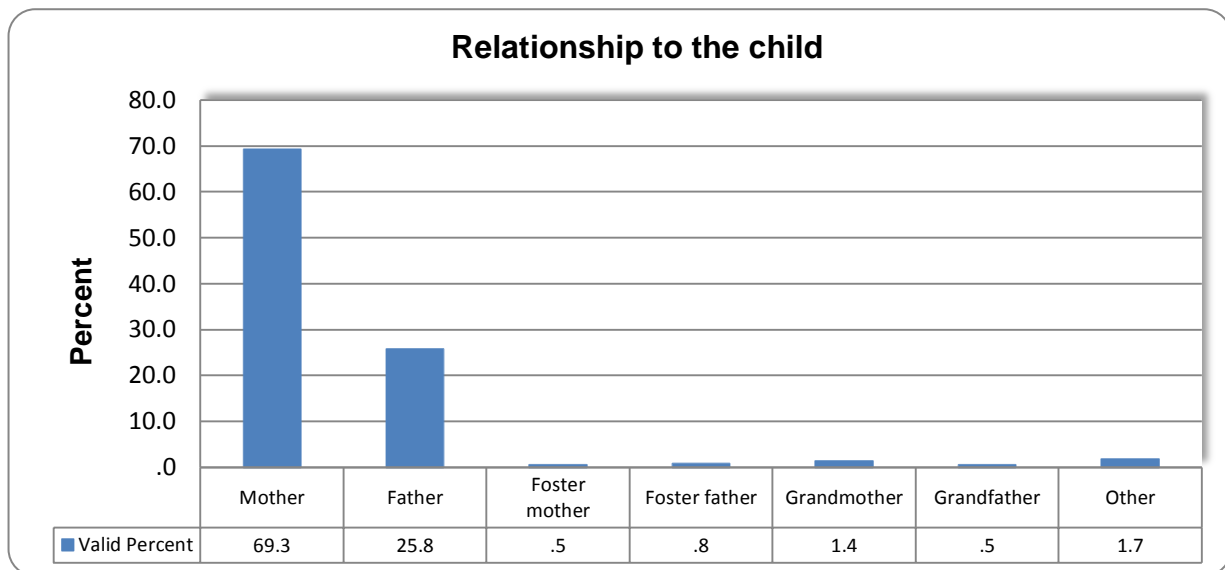
The majority of respondents (69.7%) are females. This indicates that the survey represents the thoughts and opinions of the mothers and grandmothers of Club members for the most part.



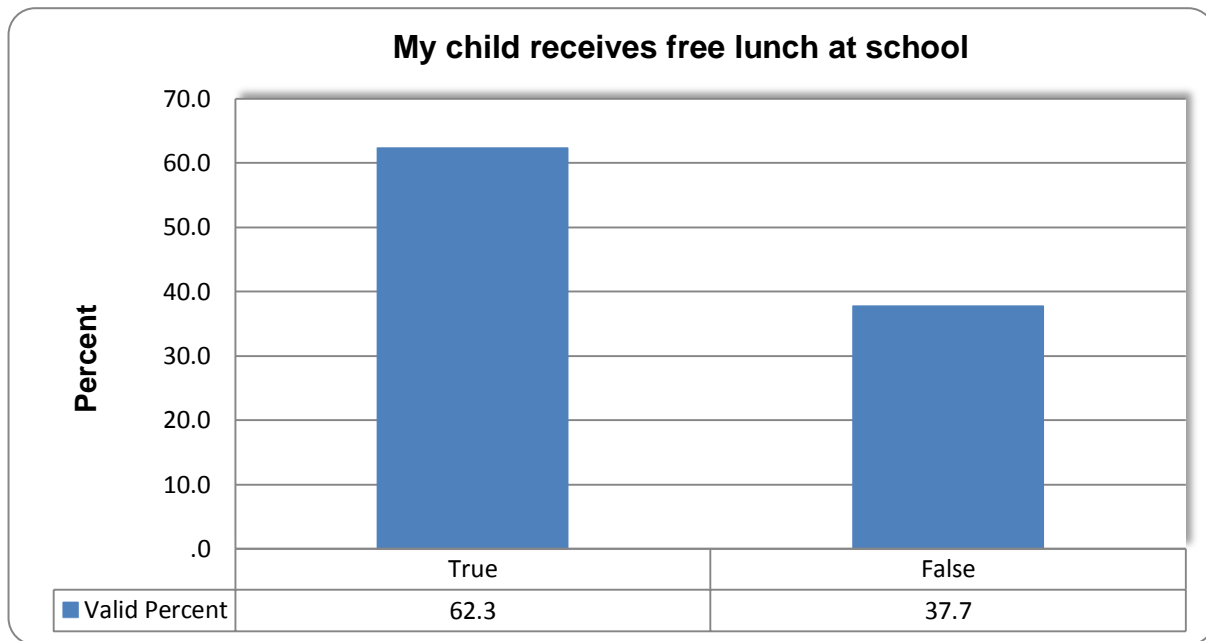
The largest proportions of parents (50.3%) are between the ages of 30 and 39. The second most represented age group is those parents between the ages of 40 and 49 (28.6%).



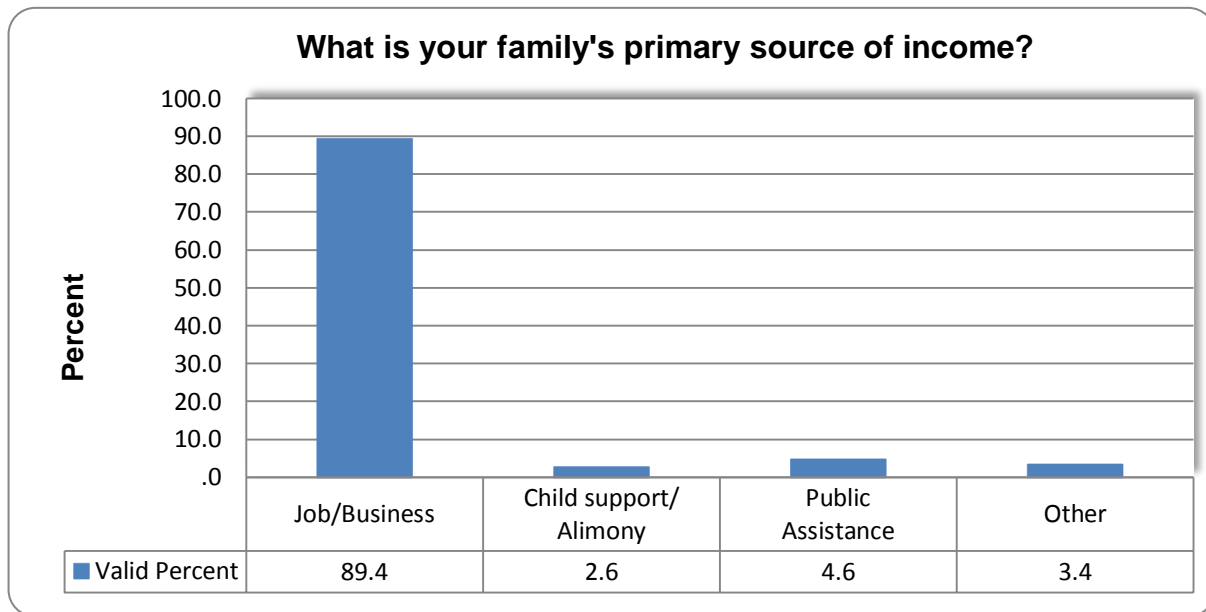
The above chart shows that over 45% of parents and guardians were single, divorced or widowed and as such, the Clubs provide an important service to families headed by single parents. Combining the marital status and gender of respondents, we can clearly see that a significant percentage of families served are single female-headed households.



The above chart shows that almost 70% of respondents were mothers.



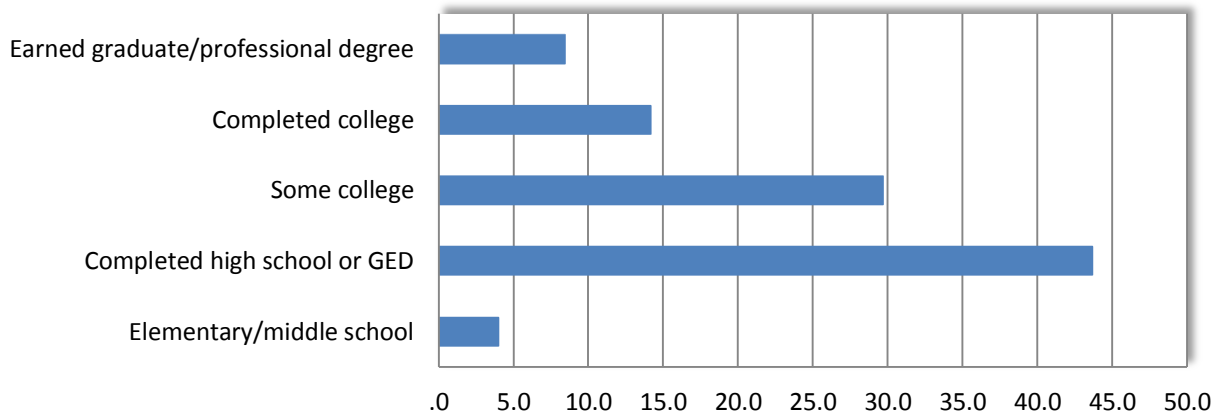
62.3% of the parents indicated that their child receives free lunch, which indicates the economic status of children. The above chart shows a majority of families are economically disadvantaged.



Almost nine out of ten parents indicated that their family's primary source of income is wages earned at a job. This demonstrates that the Clubs predominantly serve working parents and families who need safe supervision of their children during after-school hours.



### What is the highest level of education that you have completed?

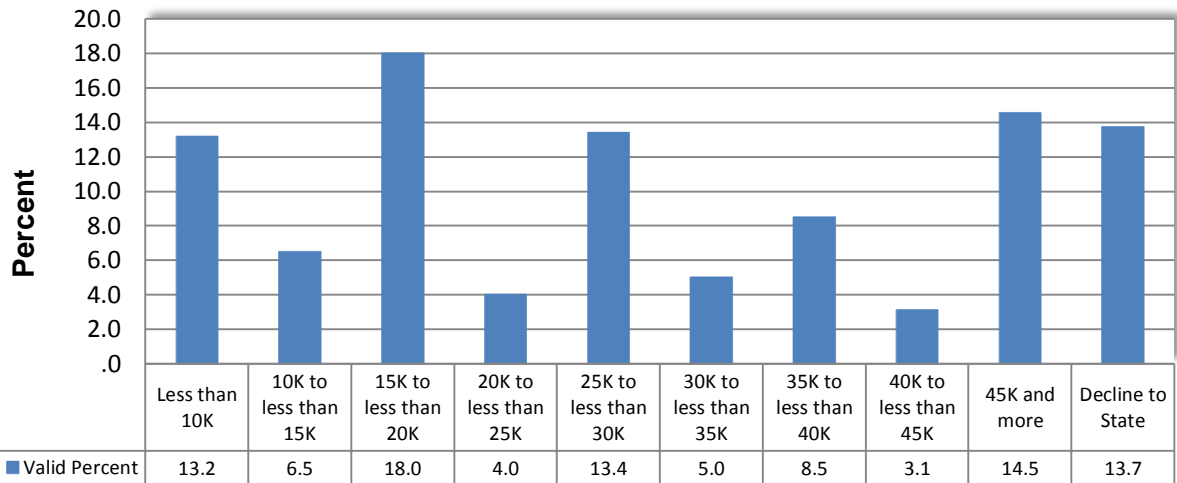


	Elementary/middle school	Completed high school or GED	Some college	Completed college	Earned graduate/professional degree
Valid Percent	4.0	43.7	29.7	14.2	8.5

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 proportion of parents has completed a high school diploma. 48% of parents had high school diploma or no formal education. Almost 30% of respondents have had some college education and just over 22% had earned a college degree, mostly at the bachelor’s level. Out of this 22%, 8% had earned graduate or professional degrees.

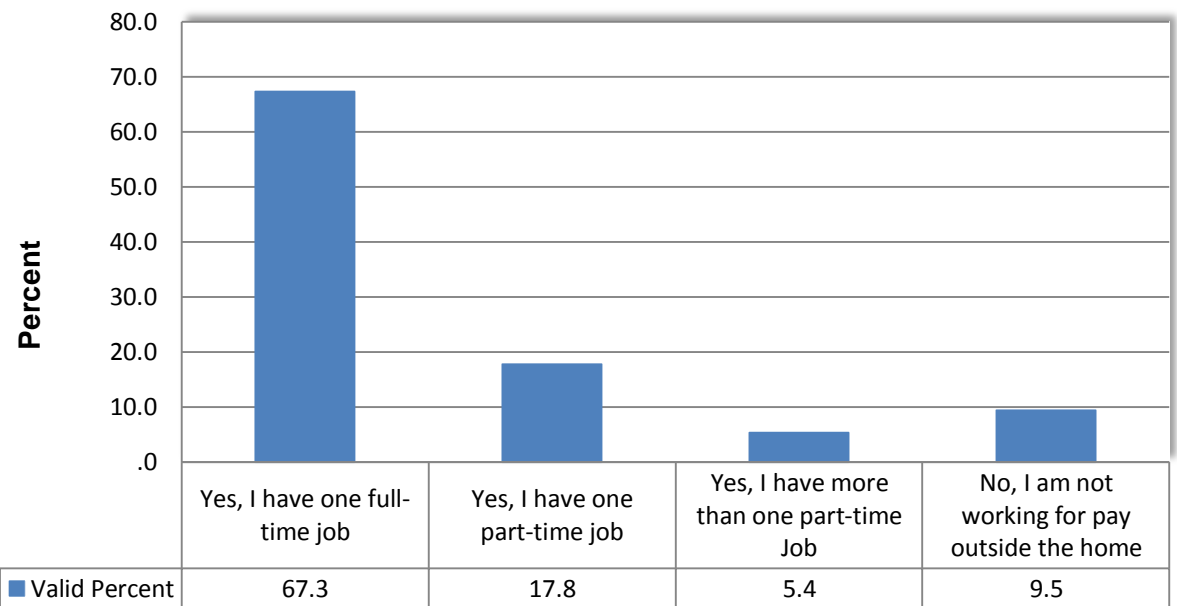
The next chart shows the income distribution of parents. 27.7% of respondents make less than \$20,000 per year. Including those who did not declare their income (13.7%) about 72% of respondents earned less than \$45,000 a year. Excluding those who did not respond, we can report that 84% of the respondents had an income level of less than \$45,000 per annum and only 16% earned \$45,000 or more.

### What is your individual annual income ?



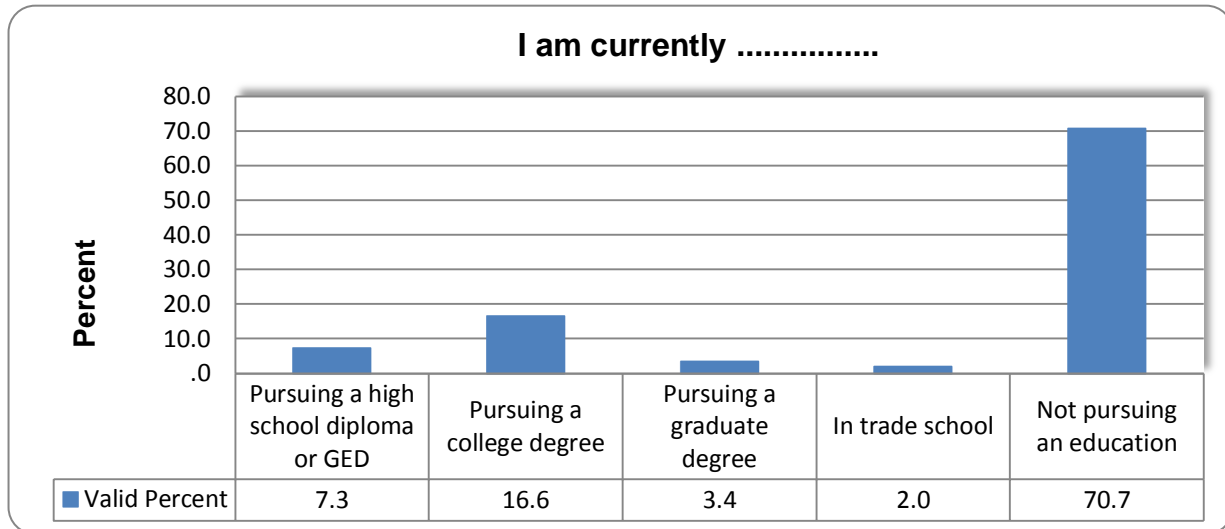
Combining this information (educational attainment and income of parents) and the fact that nearly 70% of the survey respondents were mothers clearly shows the extent of disparity between incomes of men and women in many parts of the state and surely within the nation based on other studies that have been done for income disparity between men and women.

### Are you working for pay outside that home?



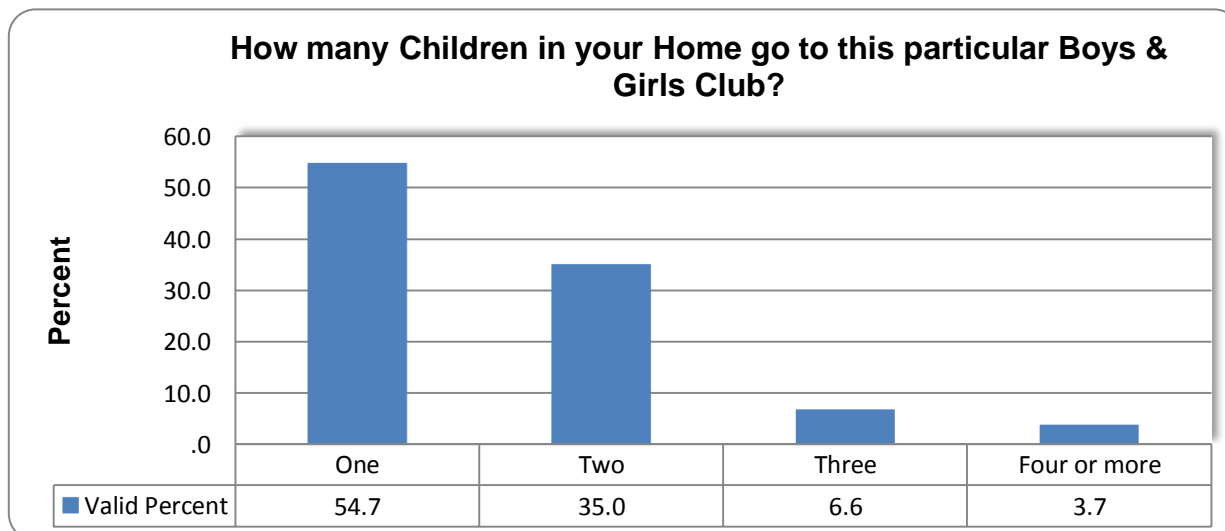
The above chart shows that 91.5% of the respondents are working, 67.3% full time, 23.2% part time, and 5.4% have more than one part-time job. This speaks loudly to the importance and vital role of the Clubs in the economic and social lives of these families.

Finally, the chart below shows that almost 30% of parents are currently studying to elevate the economic status of their families and having a safe place to take care of their children is the pivotal part of the environment that will help them to succeed.

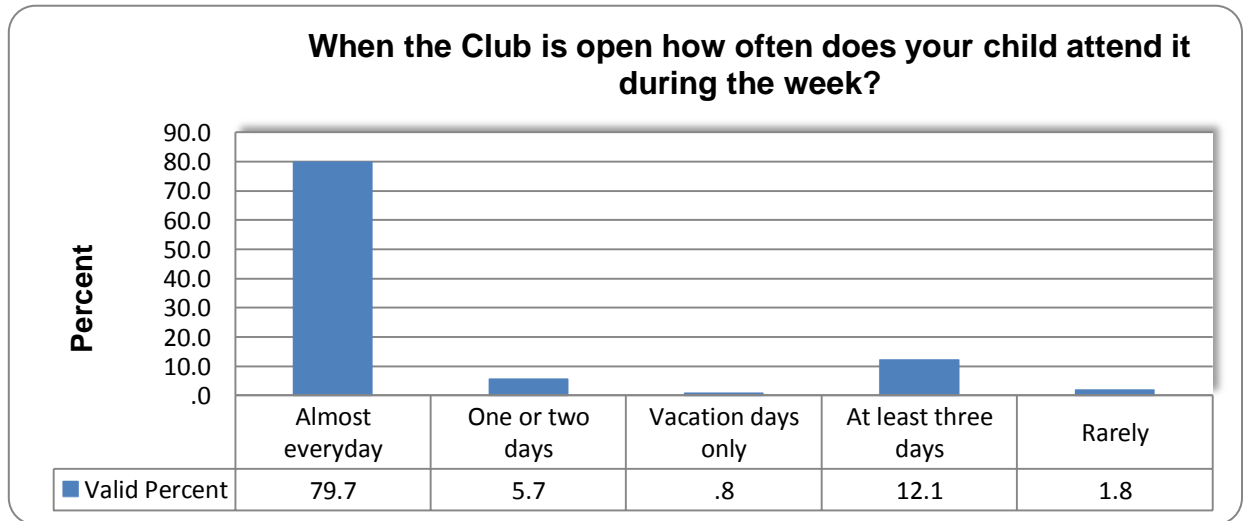


#### 4.2.2) Family's Need for Boys & Girls Clubs

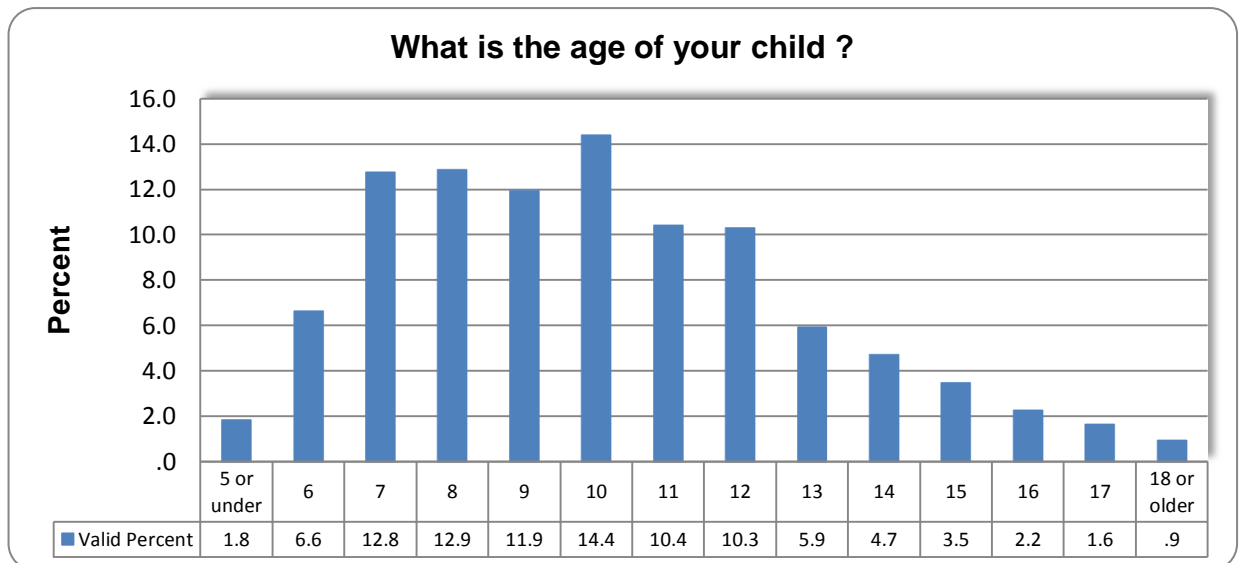
For a better appreciation of the value created by Boys & Girls Clubs in the community, it is important to understand the extent to which families who use the service depend on its existence. The survey included several questions to learn about the frequency and depth of the demand for Club services.

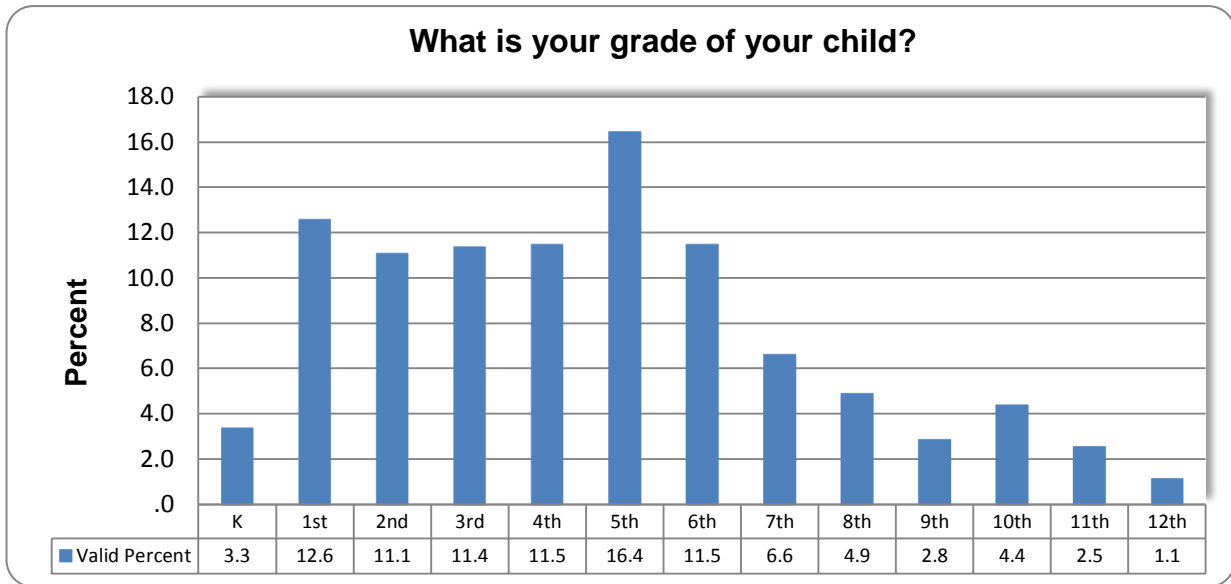


45% of families had more than one child in the Clubs. The need for the Clubs among families with multiple children is amplified since the costs and difficulty of supervising multiple children after school can become significant. As such, the need for the Clubs is particularly acute for the majority of families.



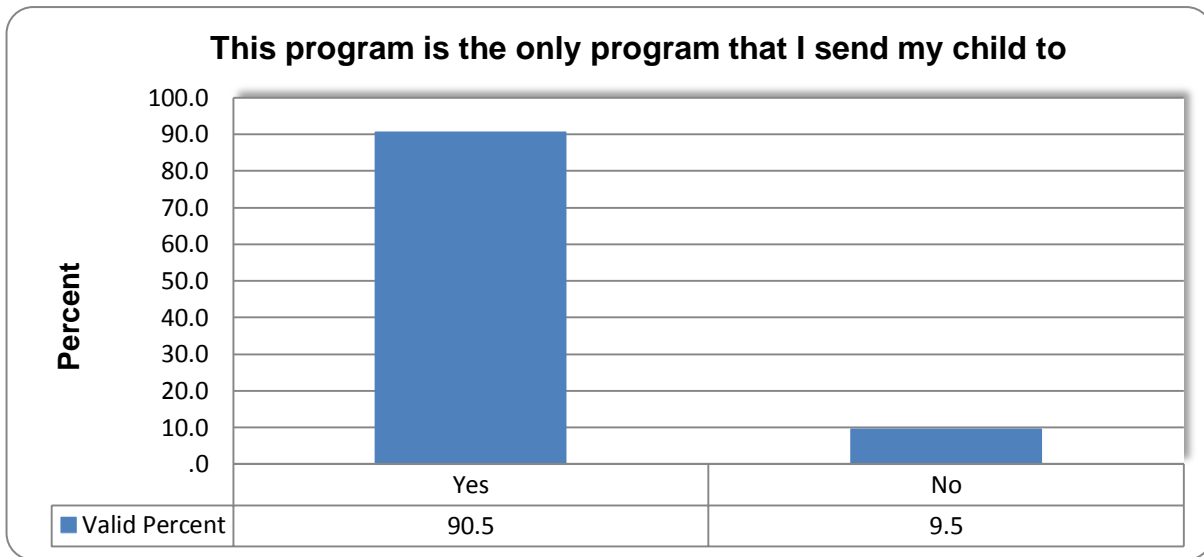
Almost four out of five parents report their children attend the Boys & Girls Club program almost every day while an additional 12.1% report sending their children to the program at least three days per week. With the exception of 1.8%, all other parents depend on the program frequently. Regular use of Club programs shows that families are quite dependent on the program during their daily routine.



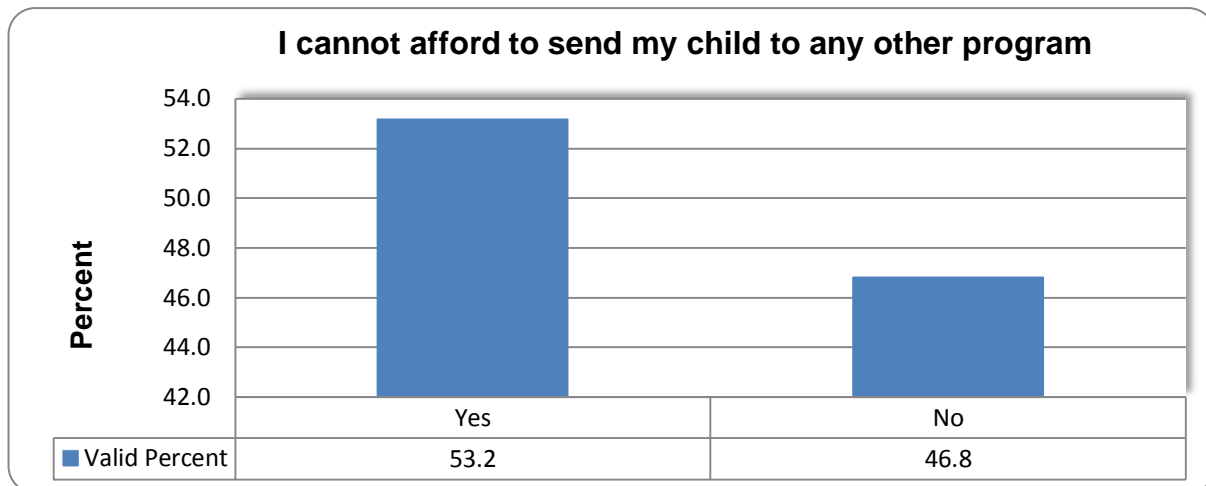


The two charts above show that a significant proportion of Club members are young children.

When determining the level of dependence these families have on the Clubs, it is important to understand challenges the families face with supervision for their children during out of school hours.



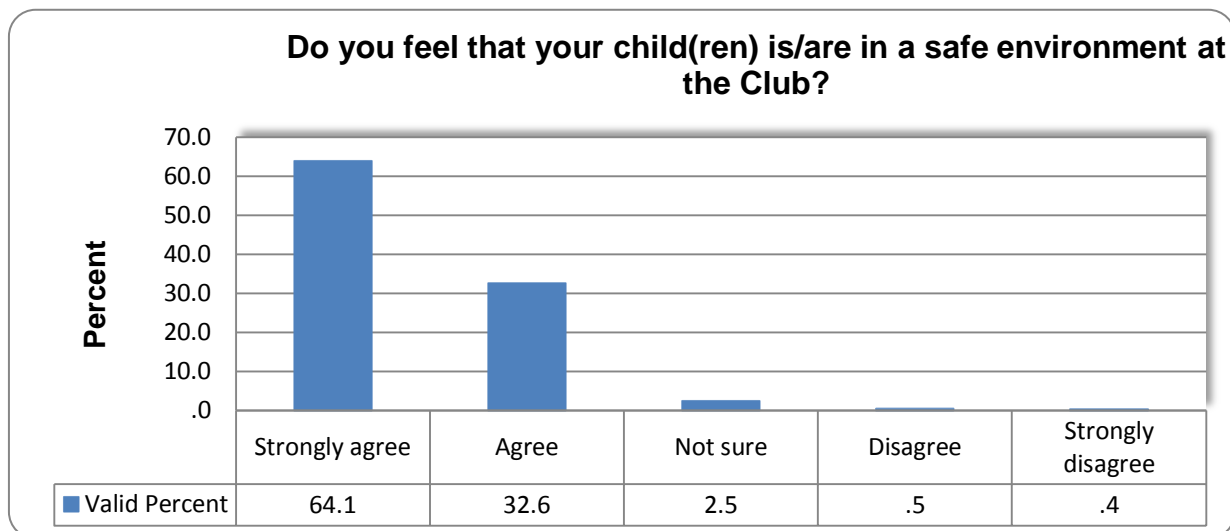
90.5% of parents indicate that the Club is the only program to which they send their children. Without the Clubs, it is unclear what these families would do. Parents would either have to modify their own work schedules or these children would be without proper supervision; either scenario would be troubling. It is clear that parents depend on the Boys & Girls Clubs.



One reason that many families must rely exclusively on the Clubs for out of school supervision is the fact that other programs and private services are cost-prohibitive. According to the parents survey, a majority of parents (53.2%) cannot afford any other program.

#### 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.



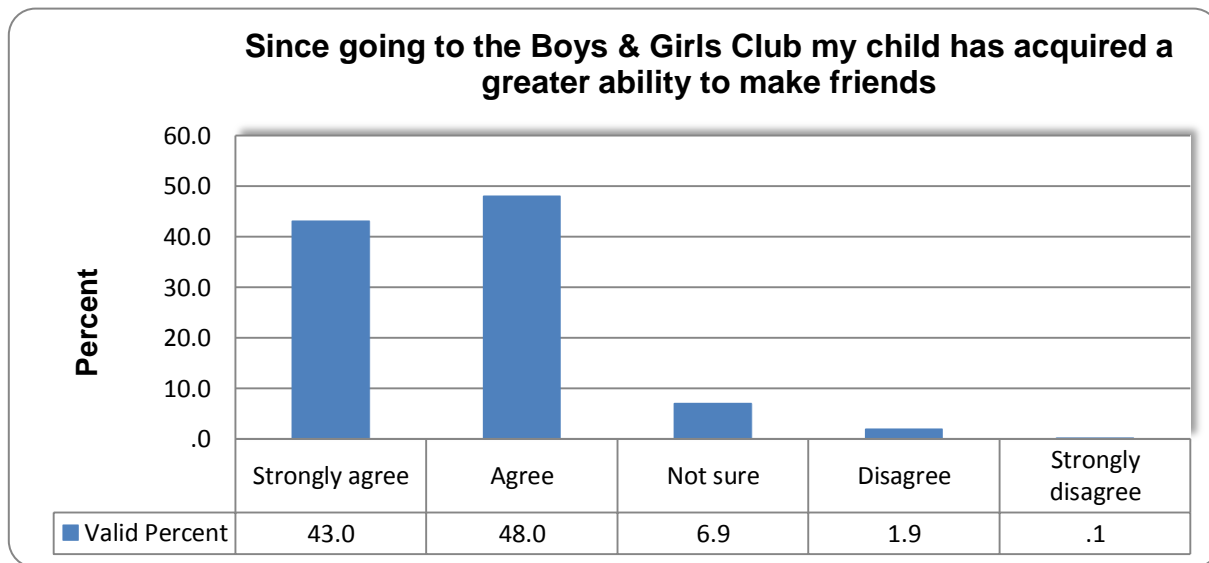
Nearly all parents (96.7%) agree or strongly agree that their children are in a safe environment when they are attending the Boys & Girls Clubs. This level of unanimity in the response is particularly noteworthy and shows the extent to which parents have faith in the safety of the Clubs. There are very few areas in which parents have such a high level of unanimous agreement.

#### 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 questions about the impact of the Clubs on their children. The data derived can be used to assess the impact of attending the Boys & Girls Clubs on Club members.

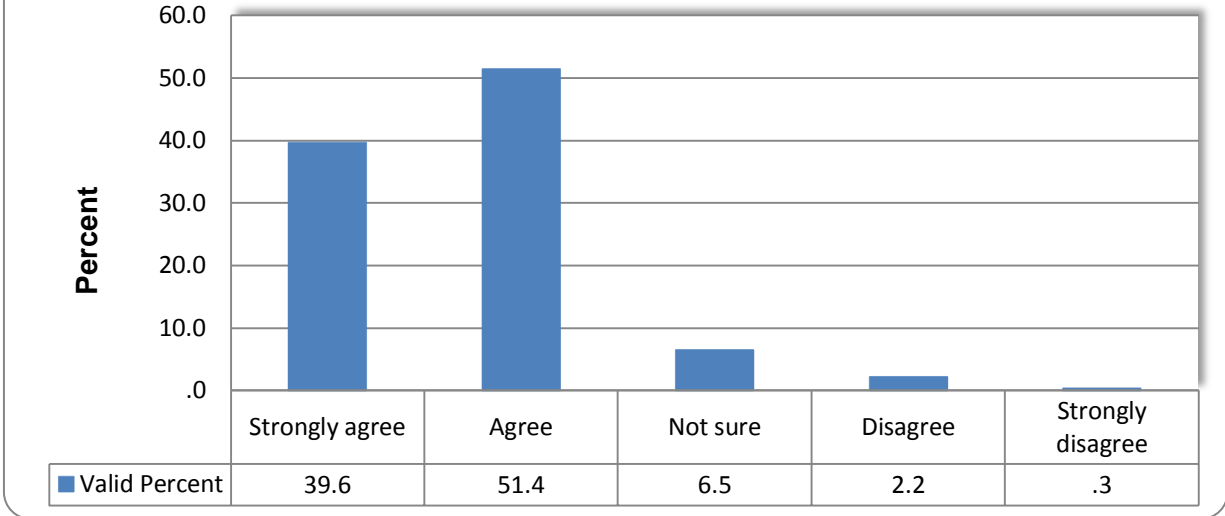
In order to organize this data, the questions have been examined in three separate categories. The first considers questions relating to social and emotional skills, the second considers academic achievement and promise, and the third considers the impact on nutrition and physical activity.

##### 4.2.4.1) Social and Emotional Skills



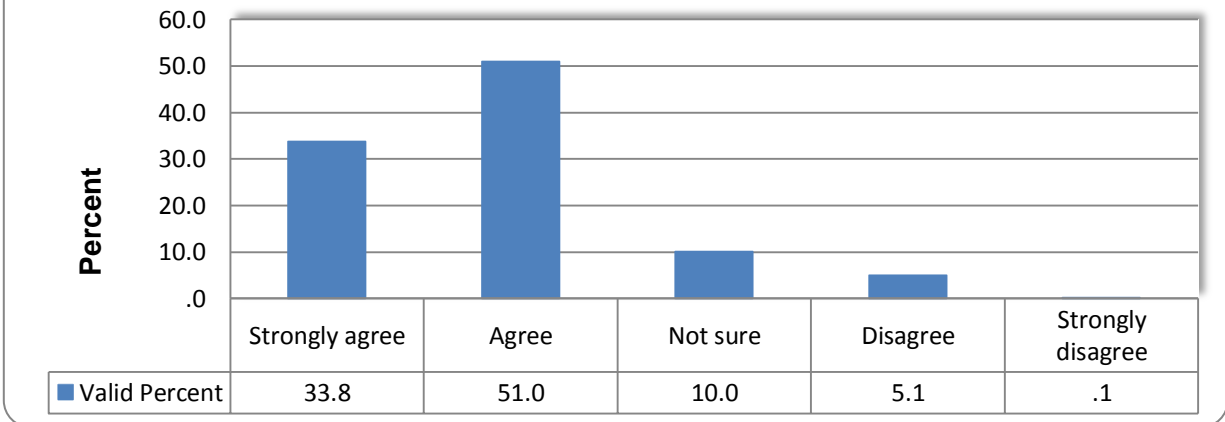
Social skills and the ability to make friends are critical to leading an emotionally healthy life. There is widespread consensus amongst parents that Club attendance has enhanced their child’s ability to make friends. Specifically, 92% of parents either agree or strongly agree that their children have developed this skill set since joining the Club. Developing such a skill supports youth in becoming balanced and productive members of society.

**Since going to the Boys & Girls Club my child is showing more confidence in him/herself**



Self-confidence is another important key to happiness and balanced future life. Yet again, according to parents, Club attendance has made children more self-confident. 91% of parents agree or strongly agree that their children have become more confident since going to the Clubs.

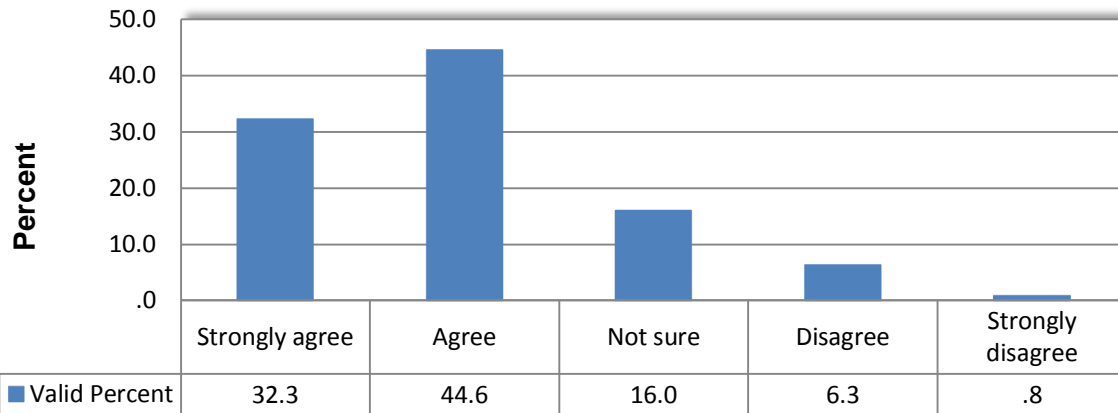
**Since going to the Boys & Girls Club my child is demonstrating a greater ability to get along in the family**



In addition to their relationships with their friends, interactions with parents and others family or household members can be quite telling indicators of a child’s emotional health. According to the vast majority of parents (84.8%), Club members have shown a greater ability to get along in the family since attending the Clubs.



**Since going to the Boys & Girls Club my child seems more interested in doing volunteer work**

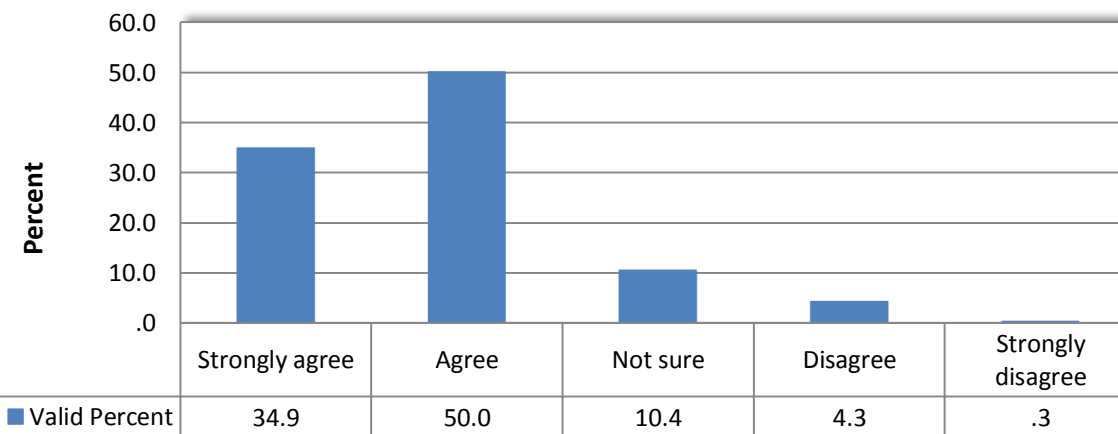


Empathy for others and the willingness to volunteer to help the community are signs of emotional maturity. Moreover, the willingness to volunteer may be influenced by contact with an organization that utilizes generous volunteers. Indeed, the propensity to volunteer may indicate youth are being positively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

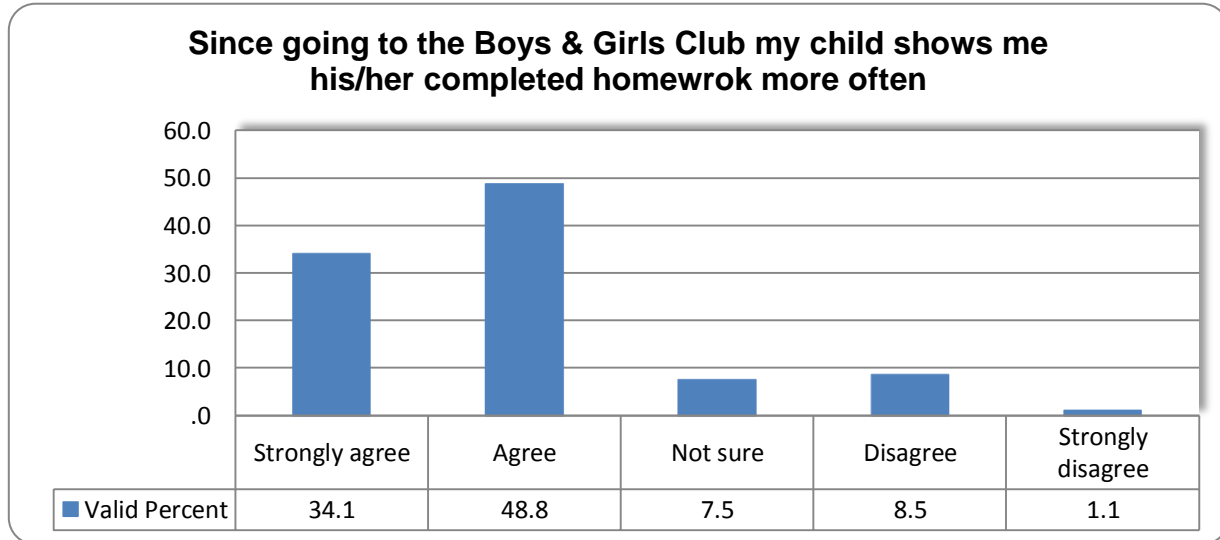
The data is encouraging. An impressive majority of parents (76.9%) indicate that their children are more interested in volunteer work since participating in the Boys & Girls Clubs.

**4.2.4.2) Academic Achievement and Promise**

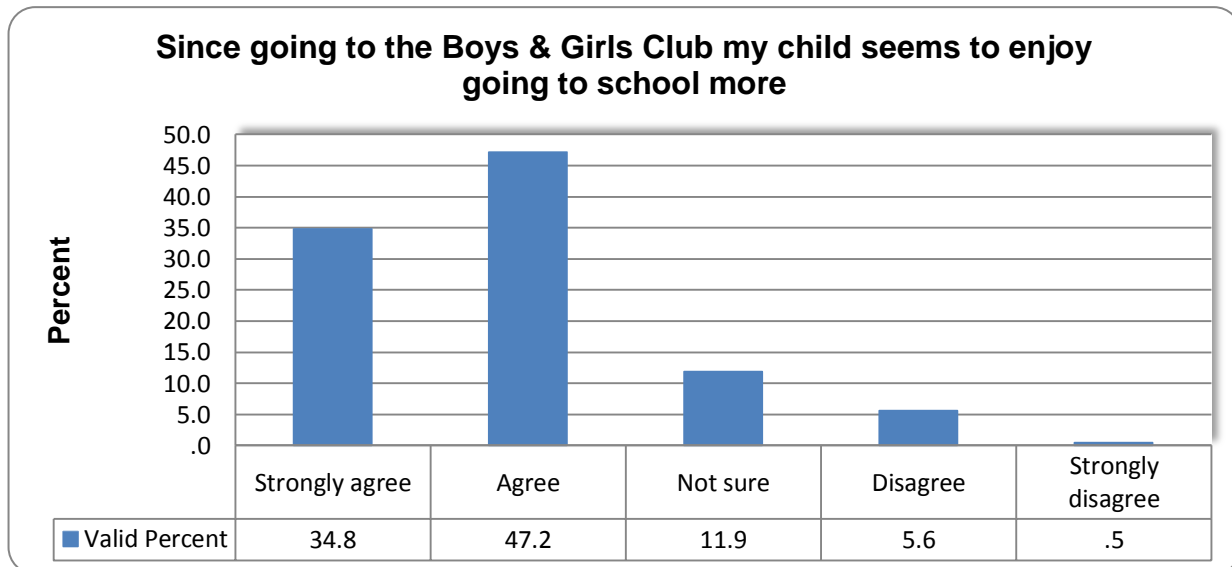
**Since going to the Boys & Girls Club my child has shown improvement in his/her school performance**



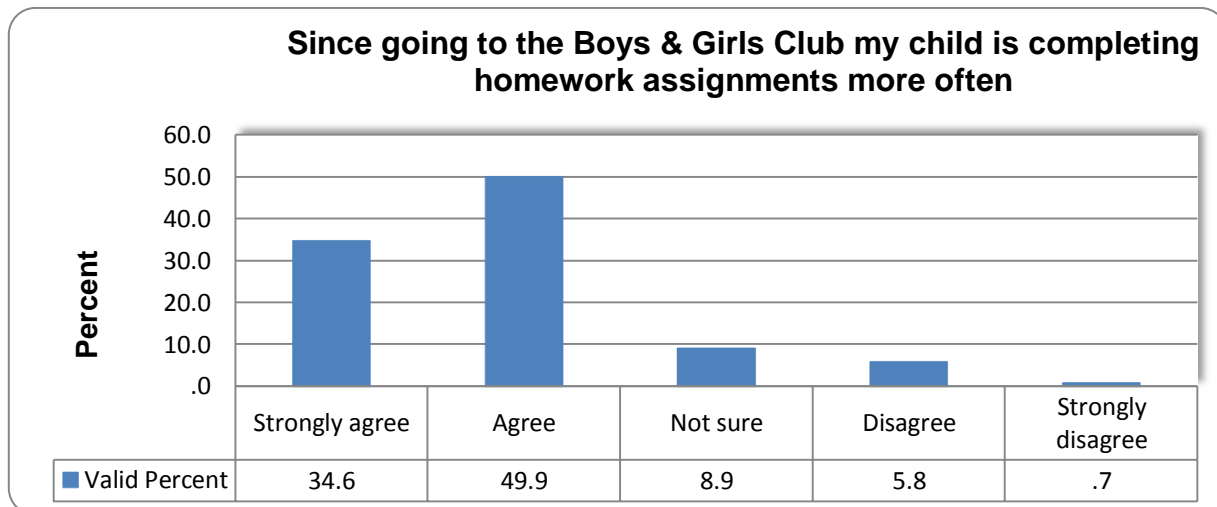
According to parent survey results, 84.9% either agree or strongly agree that they have observed their children have improved school performance since attending the Club. Only 4.6% disagree or strongly disagree that such improvement has occurred.



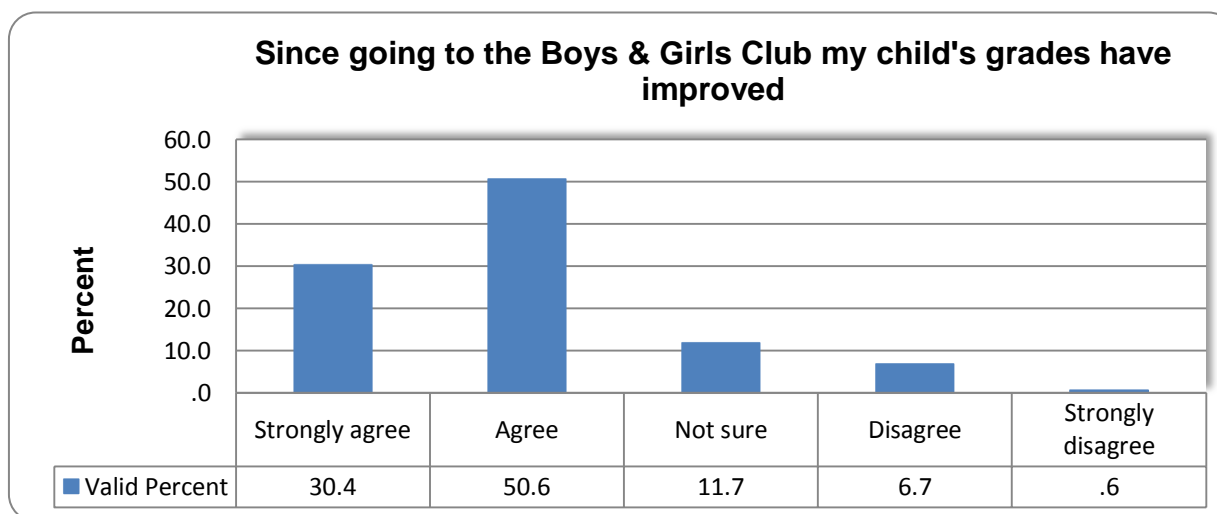
One way for parents to observe the study habits of their children is through their children showing them completed homework. 82.9% of parents (more than four out of five) have observed their children showing them completed homework more often since attending Boys & Girls Clubs.



There is also broad consensus among parents that their children enjoy going to school more since attending the Boys & Girls Clubs. 82% of parents agree or strongly agree that they have seen such improvement while only 6.1% disagree or strongly disagree that such improvement has occurred.



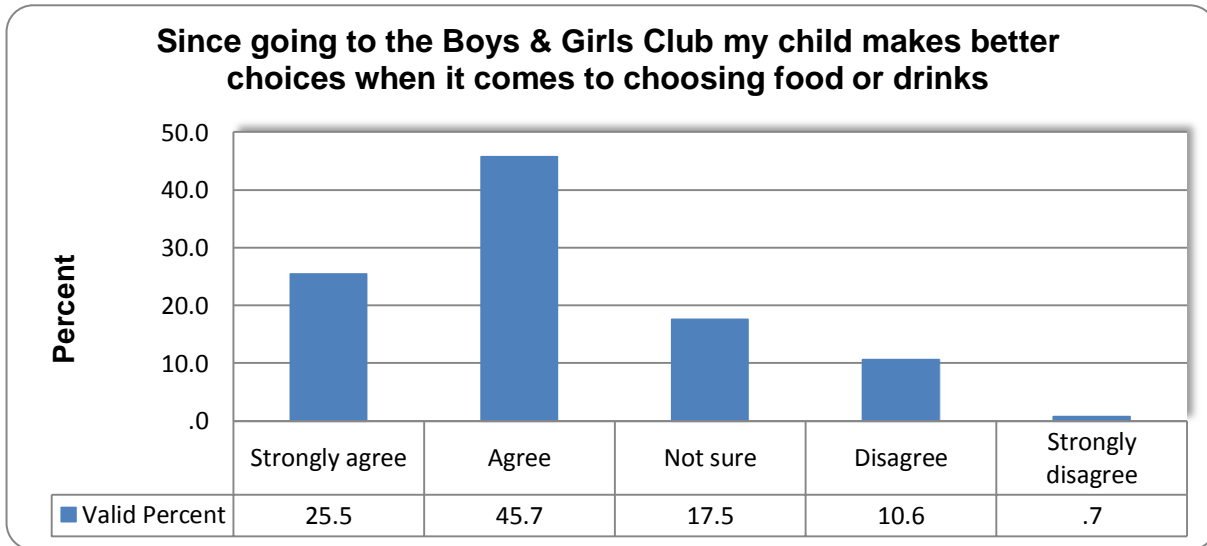
Better academic performance can be seen by regular completion of homework. A majority of parents (84.5%) reported that since going to the Club, their children are completing their homework more often.



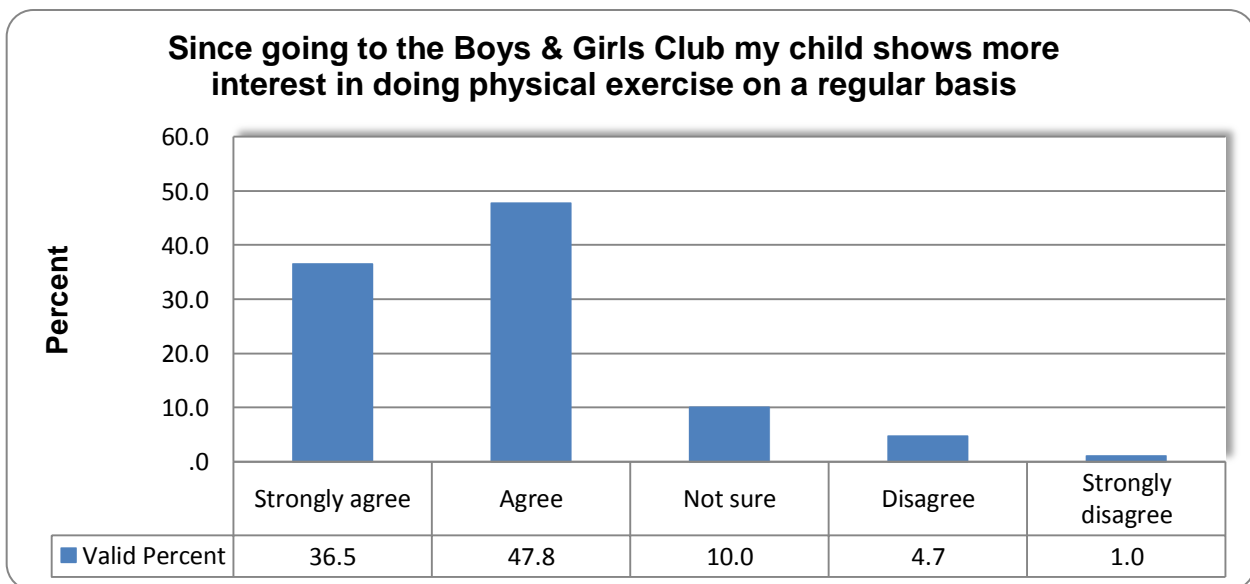
Many of the academic improvements parents have observed are also corroborated by improved grades. Grades are a particularly objective measure of Club member performance and indicative of their long-term prospects. The data is similarly impressive in this regard. The majority of parents (81%) have observed that their children's grades have improved since attending Boys & Girls Clubs.

#### 4.2.4.3) Health and Nutrition

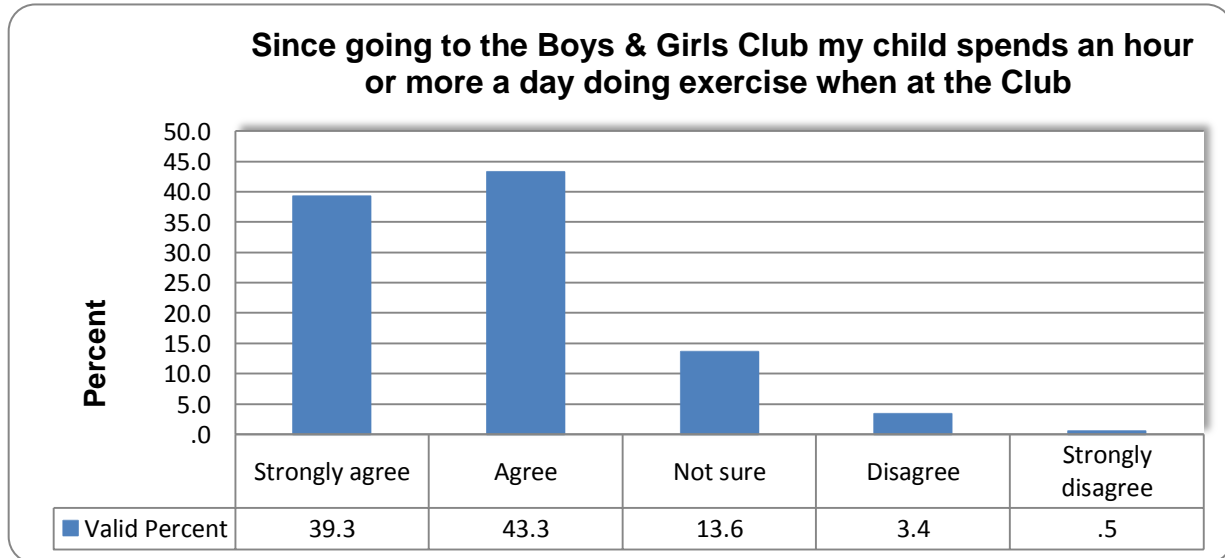
Finally, parents are also in a unique position to observe their children’s decisions regarding nutrition and physical activity. As such, the survey included several questions designed to understand the impact of the Club has on Club members’ health.



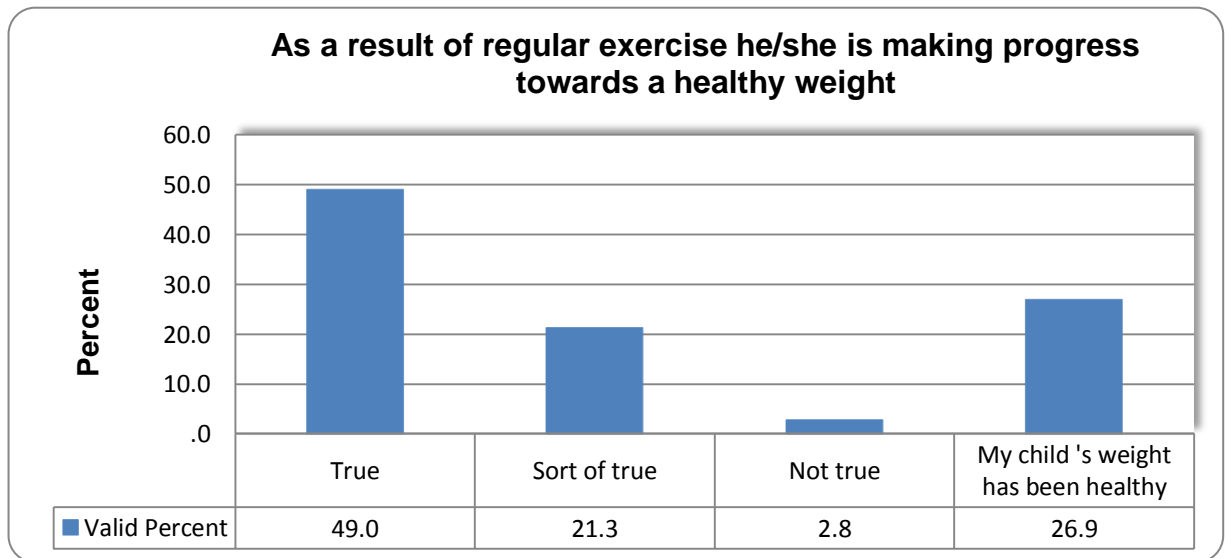
Parents generally report that their children have made better choices when it comes to choosing foods and drinks since participating in Club programs. The majority of respondents (71.2%) agrees or strongly agrees that their children made better choices in food and drinks. Such decision-making skills are critical in ensuring that youth eat nutritious food and consume healthy beverages that are conducive to their long-term health.



The vast majority of parent respondents (84.3%) agree or strongly agree that their children have shown more interest in regular physical exercise since attending the Club. This is a significant finding since physical activity not only staves off obesity, but it can help improve cardiovascular systems and increase self-confidence.



The above chart shows that more than four out of five parents (82.6%) agree or strongly agree that their children do an hour or more of exercise per day while at the Club. This in many respects shows the overwhelming majority of children meet the federal standards for a physical activities program while they are in the Boys & Girls 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 lose weight. Given that many youth face the problem of being overweight or obese, any program that can help children lose weight is beneficial.

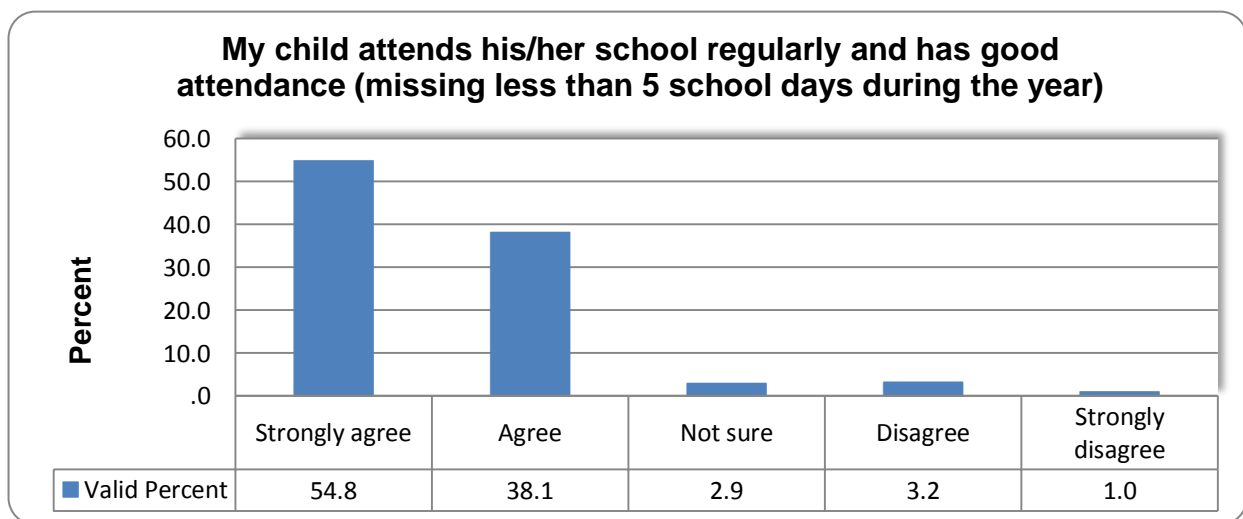
It must be noted that 26.9% of parents indicated that their children are not overweight and that they do not need to lose weight. This is a promising statistic and such children are fortunate not to face the myriad of risks associated with being overweight. Nevertheless, the remaining 73.1% of children may be in need of losing weight based on parents' responses. For these children, the services provided by the Clubs are particularly important.

A majority of parents (70.3%) indicate that it is true or sort of true that their children are becoming less overweight as a result of physical exercise at the Club. However, as a proportion of those who are potentially overweight, 96.2% of parents indicate that their children are progressing towards a healthy weight as a result of regular exercise. The remaining 3.8% were not sure.

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

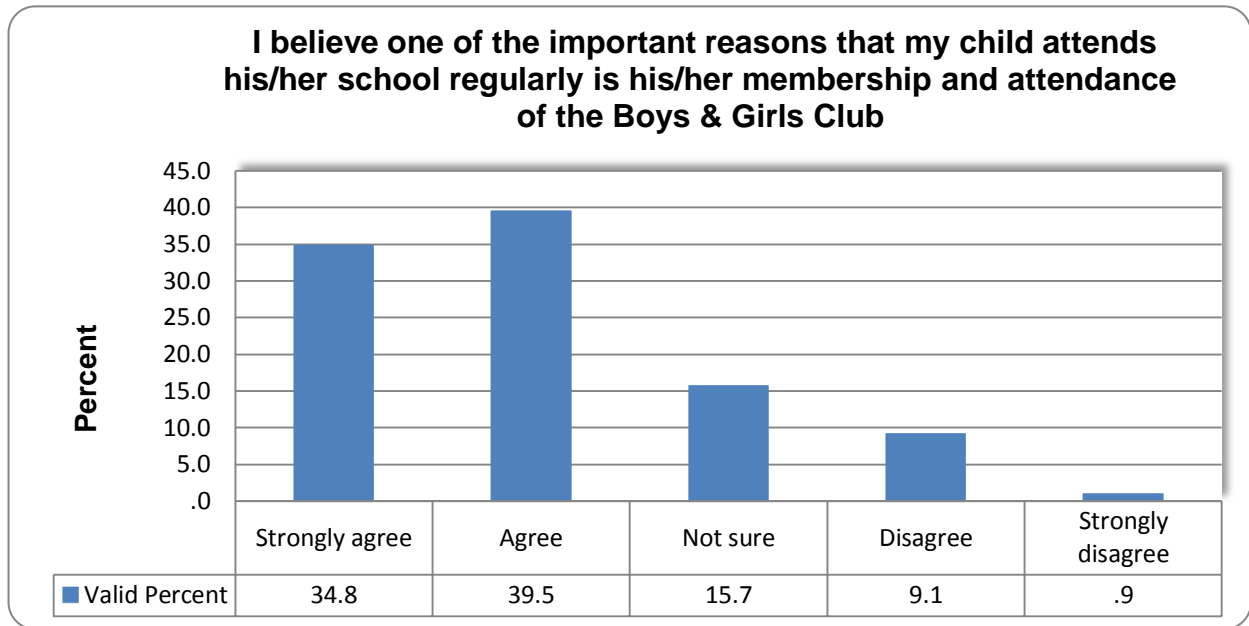
#### 4.2.5) Information on Club Members' Academic Achievement and Aspirations

Beyond the direct impact of Club attendance on a member's 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 Boys & Girls Clubs.



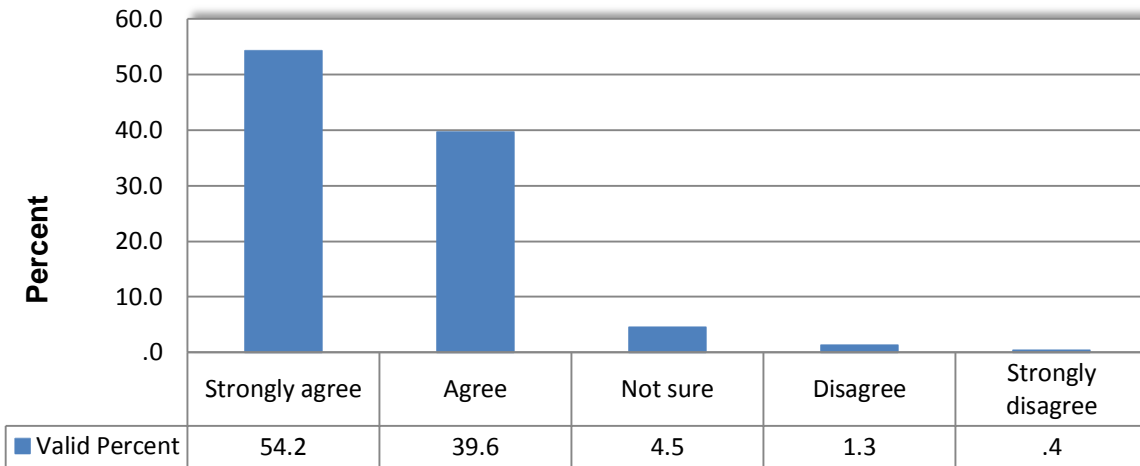
Having a good school attendance record is an important factor in a student’s academic success. Missing school can often lead to a student falling behind and becoming frustrated with their studies. As such, good attendance (defined as missing less than five school days during the year) is an important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

The vast majority of parents (92.9%) agree or strongly agree 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.



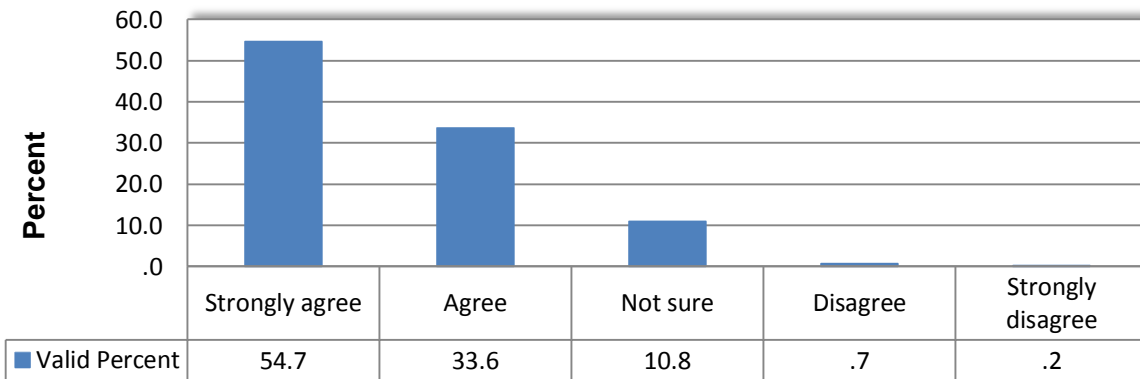
There can be a variety of reasons for the strong attendance records reported by parents. As such, the survey attempted to determine the influence of the Clubs on regular school attendance. Parent respondents (74.3%) indicate that they agree or strongly agree that one of the important reasons that their 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 to their Club members.

### My child talks about higher education and its importance



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. More than nine out of ten parents (94.8%) agree or strongly agree that their children discuss these goals and their importance.

### My child is sure that he/she will attend college after graduating from high school



The vast majority of parent respondents (89.3%) 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.

In brief the findings from both surveys show an impressive level of satisfaction from the services provided by the Clubs to its members and their families. The work of the Clubs can be summed up as transformative and empowering. It allows our children to reach their fullest potential and become productive adults as they grow up. Refrain from risky behavior, develop self-confidence, and have



respect for themselves and other around them. The economic impacts measured in monetary terms and in the form of Return on Investment (ROI) show only a small proportion of the positive development that the Clubs create within the state of California. Most of the positive development cannot yet be measured in monetary terms. They can, however, be seen and felt in faces of the children who come to the Clubs and spend a portion of their day feeling happy, content and hopeful.



## Bibliography

- Albert, Bill. (2000), "With One Voice: America's Adults and Teens Sound Off About Teen Pregnancy," A Periodic National Survey.
- American Promise Alliance (2010), "Significant decline in number of dropout factories," US school when just 60% or fewer students graduate.
- Austin, G., Skager, R. , Bailey, J. and Bates, S. "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).
- "California – State Education Brief." (2007), Diplomas Count: An Essential Guide to Graduation Policy and Rates.
- "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.
- 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). (2007), Youth Risk Behavior Surveillance System (YRBSS).
- Centers for Disease Control and Prevention (2010), Teen Pregnancy.  
<http://www.cdc.gov/TeenPregnancy/index.htm>
- 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.
- Davids, Rebecca and Vecchiarelli, Stephanie (2007), "A report presented to the management of the Boys & Girls Clubs of Greater Oxnard and Port Hueneme."

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.

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

Department of Commerce, Census Bureau, Current Population Survey (CPS), March and Annual Social and Economic Supplement, selected years, 1981–2009

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

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

Fishman, Laura (2010), Why high school students should avoid working long hours.

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 Nation 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), U.S. Teenage Pregnancies, Birth, and Abortions: National and State Trends and Trends by Race and Ethnicity. <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.

Hoffman, Saul D. (2006), "By the number: The public cost of teen childbearing," National Campaign to Prevent Teen Pregnancy.

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., & Carlin, L. (2010). U.S. Teenage Pregnancies, Births and Abortions: National and State Trends and Trends by Race and Ethnicity. Retrieved January 2010, from <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.
- 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.
- Miller, TR, Levy, DT, Spicer, RS, & Taylor, DM. (2007), Societal costs of underage drinking *Journal of Studies on Alcohol*, 67(4) 519-528.
- National Governors Association. (2005). Graduation Counts: A Report of the National Governors Association Task Force on High School Graduation Rate Data. Washington, D.C.
- National Institute of Statistical Sciences and Education Statistics Services Institute. (2004). National Institute of Statistical Sciences/Education Statistics Services Institute Task Force on Graduation, Completion, and Dropout Indicators (NCES 2005-105). U.S. Department of Education. Washington, DC: National Center for Education Statistics.
- "Not Just Another Single Issue: Teen pregnancy prevention's link to other critical social issues." (2002), The national campaign to prevent teen pregnancy.
- 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.
- Pacific Institute for Research and Evaluation (2009), "Cost of underage drinking."
- Petersilia, Joan. (2006), "Understanding California Corrections, A policy Research Program report," California Policy Research Center of California.
- 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.

Russo, Frank D. (2008), "Failure on California High School Exit Exam Can be Predicted as early as the Fourth Grade," *California Progress report*.

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*.

State Department of Justice, Total Arrests, 2004-2009, published in 2010.

<http://ag.ca.gov/cjsc/pubs.php#crimeCAUS>.

"State's youth prisons mired in hopelessness and California's Criminal Justice System." (2007), *San Francisco Chronicle*.

Turner, Susan et al (2007), *Los Angeles County Juvenile Crime Prevention Act, Fiscal Year 2005-2006 Report*.

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

U.S. Census, *American Community Survey (ACS)* various years.

U.S. Census Bureau (various years).

U.S. Department of Education. Washington, DC: National Center for Education Statistics.

U.S. Department of Education (2008), *High School Graduation Rate, a non regulatory guidance*, Washington D.C.

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*.

WestEd. (2004). *California Graduation Rate: the Hidden Crisis*.

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.