# The Boys and Girls Clubs in Ventura County: Serving the Economic Interests of the Region while Providing a Positive Place for Kids 

This Report Measures the Total Economic Impact of all the Boys and Girls Clubs in Ventura County


June 2014

## Acknowledgements

We would like to thank the management and staff of all seven Boys and Girls Clubs in Ventura Country for giving us the opportunity of conducting this research. We are grateful for their individual personal attention and the utmost cooperation of their stuff and program coordinators during this research. Special thanks are owed to:

- William Locker, CEO/President of Boys \& Girls Club of Camarillo
- Mark Elswick, President of Boys \& Girls Club of Greater Conejo Valley
- Tim Blaylock, CPO of Boys \& Girls Clubs of Greater Oxnard \& Port Hueneme
- Jan Marholin, CEO of Boys \& Girls Club of Santa Clara Valley
- Scott Mosher, CPO of Boys \& Girls Club of Moorpark
- Virginia Hayward CEO of Boys \& Girls Club of Simi Valley
- Patrick Davidson, CEO of Boys \& Girls Club of Ventura

There have been a number of individuals from various clubs who generously gave their time to help us with the sensitive and hard work of data collection. We sincerely apologize if we have missed mentioning any of their names in this acknowledgement. We gratefully acknowledge the help of Mr . Roberto Martinez and Ms. Julie Pope from Boys and Girls Clubs of Camarillo, Ms. Georgi Harden and Ms. Jennifer Wissusik from Boys and Girls Clubs of Greater Conejo Valley, Ms. Erin Antrim from Boys and Girls Clubs of Greater Oxnard and Port Hueneme, Ms. Maricela Soriano from the Boys and Girls Clubs of Santa Clara Valley, Ms. Denise Duarte from Boys \& Girls Club of Moorpark, Mr. Chuck Theobald from the Boys and Girls Clubs of Simi Valley, and Ms. Patti Birmingham from Boys \& Girls Club of Greater Ventura.

We are grateful for the support of the club members and their parents who participated in our surveys. Their participation and support was a pivotal piece of this study. We would like to thank my research assistant Ms. Livinia Kandy for her valuable and hard work in processing the gathered data and preparing them for analyses. We are grateful for the contribution of Adam Erickson, M.Ed. in editing the manuscript of this study.

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## Executive Summary

Boys \& Girls Clubs in Ventura County commissioned an economic impact study in 2010. The findings of that report showed that the clubs are undoubtedly the most vital sources of support for youth and their families in Ventura County. The current report renews this effort with new data and takes the effort further with the latest available information from the clubs and the published data about county and its youth.

Throughout the year more than fifteen thousands of young people throughout Ventura County attend various Boys \& Girls Club locations. The parents of these young people depend on the clubs as a safe, nurturing, and cost-effective environment for their children. Nevertheless, the value of the Boys \& Girls Clubs in Ventura County extends beyond the direct benefits received by parents and club members. The regional community enjoys a private/public funded service that keeps youths positively engaged and out of trouble in the afternoon and early evening.

This report provides a comprehensive collection of information and uses scientifically credible methods to show the ways in which the Boys \& Girls Clubs create economic value. Many of these impacts include "positive externalities." As a non-profit organization, the clubs provide services directly and indirectly to various community stakeholders. These services are provided without remuneration but they nevertheless have value for those that benefit from the club. There are three primary beneficiaries of the club: club members, the parents of club members, and the community

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 in Ventura County 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 in the county 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 Ventura County 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 Ventura County 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 within the county.

In the most recent class of graduating seniors, the Clubs generated a positive economic impact of \$23.5 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 ( $\$ 14.5$ million), this generates a multiplier of 1.62; in other words, for every $\mathbf{\$ 1}$ spent by the Clubs, $\mathbf{\$ 1 . 6 2}$ of increased lifetime earnings is generated by impacted Club members.

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

## \$14.5 mil cost $\$ 2.3$ mil benefit 0.16 times

Boys \& Girls Clubs in Ventura County 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 decisionmaking 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 $\$ 2.3$ million through savings to taxpayers and society for those teenagers who waited until they are older to have children. Compared with the annual budget of Boys \& Girls Clubs in the county, this generates a multiplier of 0.16 ; in other words, for every $\$ 1$ spent by the Clubs, $\mathbf{\$ 0 . 1 6}$ 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 $\$ 21.5$ 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 1.48; in other
words, for every $\$ \mathbf{1}$ spent by Boys \& Girls Clubs in Ventura County, taxpayers save $\mathbf{\$ 1 . 4 8}$ on expenditures for the criminal justice system annually.

## MULTIPLIER: Substance Abuse Reduction Benefits

## \$14.5 mil cost

## $\$ 7.8 \mathrm{mil}$ benefit

### 0.54 times

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 resposnbile 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: ${ }^{1}$

- $56.6 \%$ 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 Ventura County, the economy benefits as much as $\mathbf{\$ 0 . 5 4}$ in the reduction of the cost of juvenile drinking.

[^0]
## \$14.5 mil cost <br> \$144.0 mil benefit <br> 9.93 times

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 heartwrenching 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 allow ing parents to be productive during non-school hours while having the satisfaction of knowing that their children are adequately supervised.

By enabling parents to work and earn on average $\$ 28,467$ a year, Boys \& Girls Clubs enable parents to generate $\$ 144$ million 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 Ventura County, $\$ 9.93$ 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: Countywide 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 and tax revenue through their operating budgets, capital expenditures, and use of volunteer labor.

In order to quantify these types of economic outputs, we used the aggregated budgetary and capital expenditures of all the Clubs and employed it in a countywide 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, countywide 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 $\$ 14.5$ million.

Boys \& Girls Clubs sustain many jobs in the county and their expenditures in the county are also helping local, state, federal agencies through the generation of substantial tax revenue. The model estimates that a total of 355 jobs are created by the Clubs ${ }^{2}$ and that the annual operating budgets of the Clubs generate $\mathbf{\$} \mathbf{2 5 . 0}$ million in regional output.

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. Our study shows those efforts generated $\$ 1,210,482$ in economic output across the county. Their free and voluntary labor provides services that would otherwise require 14 fulltime workers. In addition, because of their work, the Clubs provide 3.3 paid jobs through indirect or induced impacts on the county economy.

Finally, in order to estimate the overall statewide output of Clubs in Ventura County, the impacts of these three components (operating budgets, capital expenditures and volunteers) were added. Calculations based on the total output generated over the sum of the inputs stemming from the regular

[^1]budget of the Clubs, their capital expenditures, and the value of volunteer labor resulted in an overall multiplier in for statewide output of 1.72.

## 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.


For every $\$ \mathbf{1}$ spent by the Clubs (donated or better say invested in the Clubs), Boys \& Girls Clubs in Ventura County generate $\$ 15.45$ of positive economic impact in the region. 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.

## 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. 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 7331 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 ( $66.5 \%$ ) like the programs in which they participate at least most of the time. An additional $27.8 \%$ like participating in the programs sometimes, while only 5.7\% never enjoy their participation.
- A majority ( $70.5 \%$ ) 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 (88.5\%) have strong school attendance records. 71.9\% missed school less than five days during the year.
- A majority of $58.5 \%$ believes that their participation in the Club is one of the important reasons for their good school attendance.
- $51.7 \%$ indicate that they would always recommend the program to their friends while an additional $37.2 \%$ 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:

- About $35 \%$ of parents, guardians and other caretakers live in single-parent families or households.
- The primary source of income for nine out of $93.9 \%$ of parents is jobs or businesses. This ahows that Boys \& Girls Coubs in Ventura County serve working parents.
- $93.7 \%$ of parents said that their local Boys \& Girls Club is the only program to which they can send their children.
- 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 in Ventura County. 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.
- $87.7 \%$ 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. 88.9\% 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 (78.1\%) also observe that, since attending the Clubs, their children get along with their family better.
- 77.8\% 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 ( $70.3 \%$ ) 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 ( $61.5 \%$ ) agrees or strongly agrees that their children have made such better choices.
- The vast majority of parent respondents (75.7\%) agrees or strongly agrees that their children have shown more interest in regular physical exercise since joining the Boys \& Girls Clubs.
- $37.0 \%$ 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 $60.6 \%$ of those who need to reach a healthy weight apprently are reaching that state as a result of doing exercise while they are at the Clubs.
- The vast majority of parents (93.1\%) agree or strongly agree that their child has a good school attendance record. 63.6\% of them indicated that one important reason for their child's good attendance record is participation in the Boys \& Girls Club program.
- $90.1 \%$ 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

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

The first study that made an effort to measure the economic impact of boys and girls clubs was conducted by Florida TaxWatch in 2008. This study looked at the economic impact of the Boys and Girls Clubs on local communities throughout Florida. They found that Boys and Girls Clubs have established both short and long term positive economic impacts through lower dropout rate, higher rate of graduation, and lower teen birth. The saving were calculated based on the difference in income earned or costs saved by comparing the outcome from the Boys and Girls Clubs' members and others who have not been attending the Boys and Girls Clubs.

The Boys and Girls Clubs of Greater Oxnard and Port Hueneme in 2008 commissioned a similar study with a broader set of objectives to measure the economic impact of its clubs. 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 increase in high school graduation rates among youths 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 youths 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 list and provides some basic information about other tangible economic benefits that Boys and Girls Clubs of Greater Oxnard and Port Hueneme bring to thousands of families in the region. Some but not all of these impacts were not estimated in monetary values.

In the beginning of 2009, all the Boys and Girls Clubs in Ventura County decided to collaborate and launch a new study that can measure economic impact and many other non-monetary impacts of all the
clubs. The outcome showed That Boys and Girls Clubs in Ventura County bring a tremendous positive economic impact to the county. Following that study a number of other studies were carried out within the state of California and in other regions and states nationwide. In the new studies the domains of impacts were widened with additional information wider areas of measurable and unmeasurable positive changes were captured.

The new study of Boys \& Girls Clubs in Ventura County investigates the positive impact of all the seven clubs collectively in the following areas:

- Total employment and income impact of the clubs through its annual expenditure including both operational and capital budgets.
- 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.
- Respecting laws and becoming mindful of their behavior, staying away from trouble, leading a positive life and in the process saving an enormous amount of public funds and tax payers' money for enforcement of laws and administration of justice.
- Avoiding risky behavior and resisting negative peer pressure and stay away from substance abuse and in the process helping the economy to have a much lower cost for such abuses in terms of direct cost to the youth and indirect cost to the economy as a whole.
- Learning healthy living and its impact in reducing obesity and related disease that leads to lower productivity and an increase in long-term chronic diseases.
- The impact of clubs programs to allow parents to attend school in order to upgrade their skills and reach a higher level of productivity in the economy.
- Strengthening and promoting volunteerism in the region.


## 1.1) Data Collection and Methodology

The first data collection instrument included an in-house questionnaire distributed to the management of the seven clubs across Ventura County. Questions sought to learn basic demographic details about club members, financial and budgetary information, club activities and resources, and the volunteers and paid employees who work for the clubs. This information was used to inform the questions in the next set of data instruments that were created for this study: surveys distributed to club members and parents. To select a truly representative sample of both the club members and their parents we used a combination of the stratified random sampling and the simple random sampling methods. With a confidence level $99 \%$ the margin of errors were $3.1 \%$ and $3.9 \%$ for the members' and parents' surveys respectively.

We also designed a short questionnaire for the senior members of the clubs defined as members who were studying from $10^{\text {th }}$ to $12^{\text {th }}$ grades. This survey was given all those who were attending the clubs within such grades.

The surveys were administered by the staff of each club using detailed instructions given by the principal researchers. The aim of the protocol provided by the research team was to make sure that surveys were conducted in a manner that can generate a truly representative sample from each club and thus an inferable outcome for all the seven clubs altogether. The total number of surveys completed for the club members and their families were 1563 and 977, respectively.

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

- Club's Environmental Assessment: A measure of the psychological climate relating to emotional support, autonomy/privacy, and peer affiliation.
- Belonging Scale: Measures students' sense of belonging to their involvement in various club programs.
- Education Plans: A measure of the club members' academic success and attitudes regarding secondary and higher education.
- Ability to Develop Healthy Habits: A measure of exposure to programs that promote nutrition and physical activity within the programs of the clubs.
- Risky Behavior: Inquiry was made into whether students had been arrested in the past year. We also asked questions about substance abuse by the older members of the clubs.

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

- Basic Demographic Information: Important demographic information that allows us to crosstabulate information for various policy implications.
- Measuring Positive Change in Children: Assessment of positive 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 to develop healthy habits with regard to eating and exercise.
- Parents' Education and Other Services Received: Educational needs of parents to become more productive and to be able to help their children. In addition to serving the educational needs of parents, the survey sought to measure other needs that are likely to be met, such as:
- Having the ability to attend to their jobs as a result of having good and safe after-school programs for their children.
- Having the ability to continue their education as a result of having safe and high quality after-school programs.

Surveys were administered to club members and parents using random sampling techniques developed by researchers and explained to club managers and program coordinators. Club managers then passed these instructions to their staffs who administered the surveys accordingly. A sample size was determined for each of the seven clubs based on the population of students served by the clubs based on in-house questionnaires.

In addition to the above surveys administered randomly to samples of club members and parents, a shorter more focused survey was administered to high school seniors attending the club. This survey was administered as a census to all high school seniors in the clubs. The focused themes of inquiry pertained to their high school graduation and exit exam status and their attitudes regarding higher education.

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

There are a variety of ways in which the Boys \& Girls Clubs in Ventura County directly impact the lives of the youths that they serve. The ways in which these students 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
- Reduced level of substance abuse and thus reduction in its cost to the individual and the community as a whole
- Improved healthy habits and increased physical activity

Students who participate in the Boys \& Girls Clubs in Ventura County are more likely to graduate from high school and are less likely to become juvenile criminals or teenage mothers than their peers in the county who do not participate in the club. They are less likely to smoke or abuse drugs. These findings are based on a combination of published data found by the author 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, students also get to enjoy better health and nutrition through participation in physical activity and nutrition-education programs offered through the clubs. A substantial proportion of students reported improved fitness as a result of club participation, including weight loss. Unfortunately, no method based on existing research could be found to translate the improved nutritional outcomes into concrete monetary values.

By far the most important transformation that occurs in many who attend the clubs in a regular basis is improvement in their behavior towards themselves and others around them. Character building is an important change which is hard to measure and quantify in terms of improvement in one's life and its payoff in monetary terms. However, youth who go through such transformation end of being more successful in their lives as adults.

## 2.1) Increases in Personal Earnings and National Income As a Result of Higher

## High School Graduation Rates

One of the most important indicators of school performance is the high school graduation rate. This indicator is often included in both the federal and state accountability systems as another way to judge the performance of schools alongside the more common indicator based on student test scores. ${ }^{3}$

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. ${ }^{4}$ In 2005, the National Governors Association (NGA) Task Force on High School Graduation Rate Data published its report. The lead recommendation was for all sate to adopt and begin immediately taking steps toward implementing a standard four-year adjusted cohort graduation rate consistent with that proposed by the states to adopt NCES Panel. ${ }^{5}$

A common definition of high school graduation rates is the percentage of students entering $9^{\text {th }}$ 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

[^2]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. ${ }^{6}$

Such limitations make it impossible to calculate the numbers of students who graduate, transfer, or drop out of school in a four-year period. We need longitudinal student data systems that can overcome these limitations.

In order give a somewhat clear picture of what has been going on in Ventra County we extracted the information for high school cohort graduation based on the definition discussed earlier and made a comparison in graduation rate among various ethnicities in the County from year 2009-10 to 2012-2013, for which data from California Department of Education was available.

High School Graduation Rates in in Cohorts in Total and Across Ethnicities in Ventura County
Between 2009-2010 to 2012-13

| Race/Ethnicity | Year 2009-2010 | Year 2010-2011 | Year 2011-2012 | Year 2012-2013 |
| :--- | :---: | :---: | :---: | :---: |
| Overall <br> Graduation Rate | 79.2 | 81.5 | 82.7 | 82.4 |
| Hispanic or Latino <br> of any race | 69.9 | 72.6 | 74.9 | 74.3 |
| American Indian <br> or Alaska Native | 84.2 | 70.4 | 82.5 | 80.3 |
| Asian | 92.0 | 91.5 | 89.8 | 96.1 |
| Pacific Islander | 91.7 | 91.7 | 95.9 | 73.7 |
| Filipino | 90.7 | 80.8 | 75.4 | 95.4 |
| African American | 78.2 | 90.2 | 90.6 | 81.3 |
| White not <br> Hispanic | 87.6 | 87.0 | 88.6 | 89.8 |
| Two or More <br> Races | 78.8 |  | 88.3 |  |

Source: California Department of Education, Data Reporting Office, 2014

The above table shows a significant improvement in high school graduation rate in Ventura Country during the last five years. The improvement occurred in the overall rate of graduation and also across various ethnicities. There is however a considerable gap between students from different ethnicities. We observe the same improvement within the nation. According to a recent study by Richard Murnane and Ashley Inman (2013) after 30 years of stagnation, high school graduation rates increased by 6

[^3]percentage points between 2000 and 2010, while the black-white and Hispanic-white graduation rate gap narrowed to 8.1 and 8.5 percentage points, respectively. ${ }^{7}$

Students who drop out of high school not only earn less 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. Some uncertainties include whether a student returns to school after dropping out and, if they do, what the highest level of education is that they eventually attain. Such uncertainties make it difficult to estimate the long-term economic consequences of dropping out of high school. This difficulty led the National Education Longitudinal Study to investigate the subsequent educational attainment and earnings of a nationally representative sample of students who were tracked from the time they were eighth-graders in 1988 through 2000, when most of the respondents were 26 years old. ${ }^{8}$ The calculation is presented in the following chart.

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

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

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

[^4]The study clearly shows that those who "ever dropped out of high school" ended up earning much less in every single category considered. The study shows that only $1 \%$ of those who ever drop out managed to receive a Bachelor's degree, as opposed to $38 \%$ of those who never drop out of high school.

The economic cost of dropping out of school is not limited to the inability to earn a higher income. They face a much higher rate of unemployment, live shorter, and have greater dependency 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 on medical advances. They are so convinced about the finding of their study that they make the following assertion. ${ }^{9}$
"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. Spending large sums of money on such advances at the expense of social change may be jeopardizing public health"

The following information provides a much better understanding of the importance of higher education that begins with obtaining high school diploma. The information reported have primary been taken from Trends in Education Series published by the CollegeBoard in 2013.

Unemployment Rates Among Individuals Ages 25 and Older, by Education Level, 1992-2012, Selected Years

| Year | Unemployment Rate |  |  |  |  | BA/HS <br> Unemployment Rate Ratio |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: |
|  | Less than a High School Diploma | High School Diploma | Some College, № Degree | Associate Degree | Bachelor's Degree or Higher |  |
| 1992 | 11.5\% | 6.8\% | 6.0\% | 4.8\% | 3.2\% | 0.46 |
| 1997 | 8.1\% | 4.3\% | 3.5\% | 2.7\% | 2.0\% | 0.47 |
| 2002 | 8.4\% | 5.3\% | 4.8\% | 4.0\% | 2.9\% | 0.55 |
| 2007 | 7.1\% | 4.4\% | 3.8\% | 3.0\% | 2.0\% | 0.46 |
| 2010 | 14.9\% | 10.3\% | 9.2\% | 7.0\% | 4.7\% | 0.46 |
| 2012 | 12.4\% | 8.3\% | 7.7\% | 6.2\% | 4.0\% | 0.48 |

SOURCE: Bureau of Labor Statistics, 2013b.

[^5]The above chart shows that rate of unemployment changes drastically with level of educational attainment. The table shows that in the midst of recent economic crisis the level of unemployment among people with a college degree was around what is considered as natural rate of unemployment in the nation, which people with less that high school diploma suffered from a rate nearly three times of the rate among people with a college degree.

Family Income Quintiles of Adult Children, by Education and Parents' Family Income Quintile, 2000 to 2008


Four-Year College Graduate Adult Children


## Source: Pew Charitable Trusts, 2012, Also can be found in Sandy Baum, Jenifer Ma, and Kathleen

## Payea, "Education Pays", College Board, Trend in Education Series, 2013

The above two charts depict a predictable pattern that shows parents with higher education are likely to end up have children with education and end up being in a much higher level of income.


SOURCE: U.S. Census Bureau, 2011d, Table C-3.

The above chart shows multiple issues in our society that need to be understood in forming public policy and or appreciating the enormity of the good that organizations such as Boys \& Girls Clubs bring to our communities. Family structure plays an important role in the economic and social status of our children. A third of our children nationwide live with single parents. The overwhelming majority of children living with single parents live with their mothers (at a ratio of 3.5 times). Indeed nationwide almost a quarter of our children live with their mothers in single parents' households. Nearly half of the children living below $100 \%$ poverty level ( $47 \%$ ) live with their mothers. Educational attainment is the most important
factor that can bring families out of poverty in a significant way despite the negative impact of family structure (living with single parents or with both parents).

Percentage of Individuals Ages 25 and Older Living in Households Participating in Selected Public Assistance Programs, by Education Level, 2011


SOURCES: U.S. Census Bureau, 2012a; calculations by the authors.

The above charts shows the high cost of assistance to families in deed and it is abundantly clear that the level of need for assistance is in direct relationship to level of education.

FIGURE 1.16A
Smoking Rates Among Individuals Ages 25 and Older, by Education Level, 1940-2012

Less than a High School Diploma

- High School Diploma ev*e* Some College or Associate Degree
$60 \%$ Bachelor's Degree or Higher


NOTE: Data for 2001 through 2005 are three-year moving averages.
SOURCES: de Walque, 2004; National Center for Health Statistics, 2002-2013; calculations by the authors.

Developing unhealthy living style is shown to be directly related to level of information that people have and the information in itself is related to the level of education. The above chart shows that smoking is directly related to the level of educational attainment. There is a major gap between college degree or not less than high school diploma.

Exercise Rates Among Individuals Ages 25 and Older, by Age and Education
Level, 2012
Vigorous LightModerate


SOURCES: National Center for Health Statistics, 2013; calculations by the authors.

Paying attention to one's health is also directly related to educational level. In all age categories doing exercise and having higher educational attainment are strongly correlated. The chart also shows that
younger generation has greater appreciation for exercise. Nonetheless, the higher the level of educational attainment, the higher is the tendency to exercise.

Obesity Rates Among Children and Adolescents Ages 2 to 19, by Gender and Highest Household Education Level, 1988-1994 and 2007-2010

*For boys from households with at least a bachelor's degree, the variation within the group in 1988-1994 is too large to generate a reliable estimate.

NOTE: Obesity is defined as a BMI at or above the 95th percentile for children of the same gender and age in months, based on the 2000 CDC growth charts for the United States.
SOURCE: National Center for Health Statistics, 2011a, Figure 25.

Obesity is one of the most health threats that our society is facing. The rate of obesity has been going up in all age categories. Its rise among younger generation brings enormous concern for the health of our future generation of adults. The above chart shows that the rate increases significantly in relation to level of educational attainment. The lower the level of educational attainment, higher is the level of obesity. This is true of both genders.

Understanding of Political Issues Among Individuals Ages 25 and Older, 2012


SOURCE: National Opinion Research Center, 2013, 2012 Experiment Topic Module.

Educational attainment is directly related to the level of engagement and attention to the political issues of our society. More than $50 \%$ of people without a high school diploma have little or no knowledge of political issues in our societies. This is an alarming rate and the cost of it is having uninformed people in the community and the negative impact of it on the level of participation in bringing the conditions for improvement in public policy decision making system and people's participation in a positive manner for its improvement.

The above information clearly proves the following points:

- Higher educational attainment, which starts with receiving a high school diploma reduces the level of unemployment among individuals and families.
- Higher educational attainment reduces the level of dependency on government assistance and thus reduces the need for tax revenue and brings greater tax reduction in an economy.
- Higher educational attainment brings about development of health habits, such as reduction of smoking, eagerness to exercise, and become less overweight or obese.
- Higher educational attainment brings greater political awareness and thus may bring about a better public policy development and more efficiently run governments.

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 estimation of a reliable rate of dropouts both at the state and county level. Unfortunately our existing database and sampling method would not give us the needed information and therefore we concentrated on a partial calculation of the cost of not completing high school.

The pattern of dropout in Ventura County presents a significant level of challenges for the county as a whole. The following table shows the trend of changes overall and across various ethnicities and races.

## Dropout Rates in in Cohorts in Total and Across Ethnicities in Ventura County Between 2009-2010 to 2012-13

| Race/Ethnicity | Year 2009-2010 | Year 2010-2011 | Year 2011-2012 | Year 2012-2013 |
| :--- | :---: | :---: | :---: | :---: |
| Overall Dropout <br> Rate | 13.2 | 11.7 | 10.7 | 10.7 |
| Hispanic or Latino <br> of any race | 18.5 | 17.2 | 15.4 | 15.2 |
| American Indian <br> or Alaska Native | 6.9 | 16.0 | 9.5 | 14.5 |
| Asian | 5.6 | 5.7 | 6.2 | 2.0 |
| Pacific Islander | 6.3 | 6.5 | 2.9 | 21.1 |
| Filipino | 4.9 | 14.0 | 6.0 | 3.4 |
| African American | 14.4 | 6.2 | 8.6 | 11.7 |
| White not <br> Hispanic | 8.3 | 9.0 | 6.7 |  |
| Two or More <br> Races | 14.1 |  | 6.3 |  |

## Source: California Department of Education, Data Reporting Office, 2014

The level of dropout overall remained steady with some significant reduction from the outset of using cohort to measure the rate of dropout and graduation. The somewhat drastic change in a few entities to some extent is due to the small size of the group and therefore any changes in few may make a more pronounced change in the overall rate. There is however a significant difference in the dropout rates among different ethnicities.

Unfortunately, there is no available longitudinal data set to calculate the rate of high school dropout among those who attended the Boys \& Girls Clubs in Ventura County from $9^{\text {th }}$ to $12^{\text {th }}$ grade. Instead we used the rate of passing the California High School Exit Exam (CHSEE) as an indicator of how many students among the senior class of the Boys \& Girls Clubs passed their test compared with the county
and other areas that have similar demographics with those who attend the club. This strategy is sensible because we do have the necessary data regarding the high school exit exam status of seniors attending the boys and girls clubs.

In order to make a comparison between the county's CAHSEE data and the one related to the Boys \& Girls Clubs, we had to find the status of seniors and their rate of success in passing the California High School Exit Exam. The situation is further complicated since such exam can be taken by students who are not in their senior year but feel that they can take it. Taking the latter consideration would make a close comparison between our calculation and the ones for the county and the district more difficult and uneven. Nonetheless, our attention was focused on comparing the rate of success in passing the exit exam between seniors attending the club and seniors in the larger similar and comparable community.

We therefore distributed a survey administered to all seniors and students who are in the $10^{\text {th }}$ grades and higher across the various club locations.

This led to a survey of 45 high school $10^{\text {th }}$ grades to seniors. In order to filter this information and find out how seniors and other students who are likely to have taken high school graduation exams, we have run several cross tables of the data and found the following information.

About $50 \%$ of the respondents which included $10^{\text {th }}$ and $11^{\text {th }}$ grades passed CHSEE. In answering the question about whether they passed CHSEE all the $12^{\text {th }}$ graders who answered this question, $95 \%$ were either passed the CHESEE or have plan to take and pass it. One person out of 18 remained unsure. Indeed out of said that they took and passed it. A large number of others also reported that they passed it too. Out of 34 who responded to this question of being sure that they graduate from high school four altogether from a group of 34 responded that they are sure they will pass. Putting all together and giving the unsure the possibility of passing or not at the change of $50 \%$ in going either way, it was logical to take the percentage of high school graduation at a rate of 97.0\%.

In order to calculate the relevant economic impacts, the study emphasized finding the difference between the rate of high school students passing the CAHSEE amongst club members and amongst the general population of Ventura County high school students. It is important to note that the way in which our rate is calculated based on the survey of seniors is different with the way the rate of high school students passing the California High School Exit Exam is calculated. Nonetheless, the latter two are compatible, when one considers the overall rate of success in the district or the county over the entire
year. One more difference needs to be considered; there is a difference in the year of calculation. The county rate is taken from the existing published data for the academic year 2012-2013 (the latest for which data is available) and our survey is based on the ongoing 2013-2014 academic year. Nevertheless, there is no strong reason to believe there is any anomaly in the two years which would make their comparison incompatible.

Before discussing the final calculations regarding the economic impacts of improved rates of high school graduation, it is important to learn more about club members' academic intensions and long-term aspirations. Such attitudes will shape the future success and economic contribution of these individuals to their communities.


Source: Survey of $10^{\text {th }}$ to $12^{\text {th }}$ graders attending Boys \& Girls Clubs in Ventura County during academic year of 2013-2014

A majority of respondents (64.3\%) indicate that they plan to take the SAT exam. This is a good sign since the SAT is an important component of direct admissions to a four-year university program. It is important to note that an additional $31.0 \%$ of seniors were not sure whether they would or would not take the SAT while only $4.8 \%$ were not planning to take the exam.


Source: Survey of $10^{\text {th }}$ to $12^{\text {th }}$ graders attending Boys \& Girls Clubs in Ventura County during academic year of 2013-2014

One of the most promising findings from the survey of senior attitudes and sentiments is the very strong belief amongst seniors in the program that they will attend college. $85.2 \%$ of the respondents indicate that they plan to attend college eventually after completing high school. The remaining $15.8 \%$ were not sure and no one indicated that they do not intend to attend college after graduating from high school.

What the above exhibit shows is not just a wish, the following chart shows that overwhelming majority of students who completed the survey has taken steps to reach their objectives.


Source: Survey of $10^{\text {th }}$ to $12^{\text {th }}$ graders attending Boys \& Girls Clubs in Ventura County during academic year of 2013-2014

The above chart shows that a little less than half ( $44.4 \%$ ) of the respondents have taken college tours. $35.6 \%$ have attended career fairs. Some $26.7 \%$ are attending SAT preparation and indeed by comparing this result with an earlier chart, it become that a significant proportion of those who want to take tha SAT prep class have already doing it.


Source: Survey of $10^{\text {th }}$ to $12^{\text {th }}$ graders attending Boys \& Girls Clubs in Ventura County during academic year of 2013-2014

To get more detail on the college ambitions of these students, we asked about their specific plans. Some $64.6 \%$ said that they would like to attend college (some $38.6 \%$ are planning to go to the $4^{\text {th }}$ year college and the remaining $25 \%$ to junior college). $2.3 \%$ were attending college already. Some $15.9 \%$ would want to get a job and attend college. Only $9.1 \%$ did not know what they want to do. This is a remarkable result from a group of young people at such young age.

The last four exhibits indicate that the overwhelming majority of the students from $10^{\text {th }}$ to $12^{\text {th }}$ grades surveyed consider college as the next step in their lives. The findings among these members of the Boys \& Girls Clubs in Ventura County surveyed are very different with their peer groups in the districts.

After considering the sentiments of those students attending the club, we can now begin to calculate the economic impact of higher high school graduation among the seniors attending the Boys \& Girls

Clubs in Ventura County and their peer group. We began by taking the difference between the rate obtained from our survey and the countywide rates released by the California Department of Education.

Using a rate of $82.4 \%{ }^{10}$ as the rate of success to pass California High School Exit Exam and $97 \%$ as the success rate amongst seniors attending the Boys \& Girls Clubs, we found a difference of $14.6 \%$.

We then looked at the estimated number of high school members according to the reports of the clubs in Ventura County. Based on such calculation we found that collectively there are 307 members. ${ }^{11}$ Based on such calculation the increase in the number of additional high school graduates because of attending the clubs countywide is estimated to be 48 students.

We considered the 45 additional graduates an outcome of attending the clubs and benefiting from the program and the environment that are more conducive to higher academic achievements and attention to future plans of attending college and being successful in their future professional lives. ${ }^{12}$

In order to calculate the economic impact we looked at the earning potential of people who graduate with a high school diploma, or have a degree or enter the labor force without a high school diploma. The calculation is based on the studies conducted for the State of California and some of the assumptions that we made based on our survey. The study tried to base its calculation on modest and conservative assumptions rather than other assumptions that could be considered too optimistic.

According to the latest available information published by the US Census we have the following annual compensation for people with different educational attainments.

[^6]Figure 2.


Source: U.S. Census Bureau, American Community Survey, 2006-2008.

The above chart shows that there a considerable difference in the median income annual earnings among people with a high school diploma and those without. In reality we have shown that a significant proportion of the club members are going to attend university and become people with a college degree and thus earn far more than a high school graduates. But based on mere comparison of high school graduates and those without, there is still a considerable gap in earning. The other equally important issue is that people with high school diploma are more likely to be full time employee year around, which suggest the possibility of higher earnings during the year.

In order to calculate the additional income earned by higher high school graduation we needed the Synthetic life-work earning of the additional high school graduates in year 2013-2014. The best data is the one produced by the Census Bureau through American Household survey and their analysis for estimating the overall life time earnings of people according to their educational attainment. Such information is not produced very often. The latest available data was based on 2006-2008 American

Community Survey based on 2008 level of prices. The data provides this information for different gender and across various ethnicity and race. The alternative was a study carried out by Kantrowitz (2007).

## Figure 1

Synthetic Work-Life Earnings Estimates for Full-Time Year-Round Workers by Educational Attainment, 2005


## Source: Mark Kantrowitz (2007), The Value of Higher Education, Journal of Student Financial Aid, Vol.

 37, Issue 1The above chart shows a big gap between the life-work earning of a person with High School diploma and one without. The difference in 2005 dollars is $\$ 430,000$. Converting this into 2013 dollar by using an inflation rate of $2.5 \%$ will bring the difference to a total of $\$ 521,793$. That is for one additional comparative high school graduates. Multiplying it by 45 bring about a total additional life-work additional income of 23.5 Million Dollars in 2013 level of prices (2013 Dollars).

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

| Percentage of <br> Students Passing <br> CAHSEE in Ventura <br> County | Percentage of <br> Sample of Seniors <br> Attending clubs | Additional Number <br> of Students Passing <br> CAHSEE in clubs in <br> Comparison | Total synthetic life- <br> work income made Due <br> to Higher High School <br> Graduation for one <br> person based on 2013 <br> Dollars | Total work-life <br> increment in earning <br> due to higher rate of <br> passing CAHSEE of all <br> Club members |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{8 2 . 4 \%}$ |  | $\mathbf{4 5}$ | $\mathbf{\$ 5 2 1 , 7 9 3}$ | $\mathbf{\$ 2 3 , 4 8 0 , 6 8 0}$ |

Sources: Survey of $10^{\text {th }}$ to 12 tht graders for the Boys and Girls Clubs in Ventura County, Mark
Kantrowitz (2007), and California Department of Education. Kantrowitz (2007), and California Department of Education.

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

The United States of America has the highest teen birth rate among all the industrialized countries in the world. Teen pregnancy results in serious education and health problems for 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.

|  | Adolescent birth rate | Pregnancies per 1000 | Births per 1000 | Abortion ratio | Abortions per 1000 |
| ---: | :---: | :---: | :---: | :---: | :---: |
| Australia | 15.5 |  |  |  | 14.2 |
| Canada | 14.1 | 27.4 | 13.6 | 50.4 | 13.7 |
| Denmark | 4.5 |  |  |  | 15.2 |
| France | 11.9 | 10.3 | 3.5 | 66.0 | 17.4 |
| Germany | 8.2 |  |  |  | 6.1 |
| Italy | 6.5 |  |  |  | 10.0 |
| Japan | 4.6 |  |  |  | 9.2 |
| Netherlands | 9.3 |  |  |  | 9.7 |
| Norway | 9.5 |  |  |  | 16.2 |
| Sweden | 5.9 | 28.4 | 2.7 | 83.5 | 20.8 |
| United Kingdom | 25.1 | 52.8 | 34.8 | 48.3 | 14.2 |
| United States | 34.2 |  |  | 36.0 | 19.6 |

Source: Annual number of births to women 15 to 19 years of age per 1,000 women, for 2011 or most recent year. United Nations Statistics: See the following URL http://internationalcomparisons.org/intl comp files/sheet010.htm

The above chart shows that United States continues to have the highest level of teen pregnancy among the twelve western industrialized and developed countries.

According to recent reports, teen births have decreased; however, it continues to be a significant problem in California. In a 2006 report from the California Commission on the Status of Women, 83\% of teen births happen to low income families and two out of three are Latinos. Many of these young women have lower educational attainment and $70 \%$ of them are school dropouts.

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. ${ }^{13}$ 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 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.

[^7]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 $21^{\text {st }}$ 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. ${ }^{14}$ 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 $13 \% .{ }^{15}$ The same

[^8]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. ${ }^{16}$

In total, the sources of short and long-term costs for the families of teen parents are as follows: ${ }^{17}$

- 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 Ventura County 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 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. ${ }^{18}$

[^9]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. ${ }^{19}$ 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 2003)

[^10]Using a similarly thorough methodology, Maynard calculated the economic costs for society. This analysis considered the impact of teenage pregnancy on other stakeholders beyond the taxpayer. Considerations in this part of the analysis included "estimated changes in earnings of teen mothers, fathers, and children when they reached early adulthood, and privately paid medical costs" (Constantine 2003).

The results of the analysis conducted found that the annual costs per 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 \$126,358"

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 \$126,358 in 2014 dollars; in annual terms, this is \$9,719 per year.

In order to calculate the return on investing in teenage members of the clubs through reduction of teen pregnancy and thus teen birth we used two separate sources to find the rate of teen pregnancy among teenage female members of the clubs during the current academic year. We asked the management of the clubs if they had any information on any teen members of their clubs becoming pregnant in year 2012-2013 in the respective questionnaire. The outcome was that no one reported any pregnancy in teenage years. We therefore considered the rate of pregnancy of zero for the clubs and thus placed a rate of zero for the teen birth for the teenage female club members.

According to the latest data available Kidsdata (2014) the rate of teen births for Ventura County in 2012 was 23.3 per 1000 women in ages of 15 to 19 . Comparing the prevailing rate of zero among the club members we estimated that the clubs bring a reduction of 23.2 per 1000 female club members in that age category.

According to the final reports of clubs through in-house surveys the total number of youth served by the clubs is over 15000 and about $45 \%$ of the members are female and the remaining $55 \%$ are male. We
used the proportion of male to female and calculated the total number of female between ages of 15 to 19 years of age based on individual report of the clubs and that brought about an estimate of 756 female teenagers in that age categories among all the club members. Using this number of applying the saving rate of 23.2 per 1000 teenage in the ages of 15 to 19 countywide allowed us to estimate that been a members of the club brings a total of 18 teenage who are saved from the life of teenage motherhood. WE used this number and made the following calculation that can be seen in the following table.

| Approximate number of teenage girls between ages of 15 and 19 attending the Boys \& Girls Clubs | Rate of teen childbirth in a comparative community in lives per thousand | Rate of teen childbirth among girls ages 13 to 19 who attend the Boys \& Girls Clubs | Total number of reduction in teen childbirth due to positive influence of clubs | Estimated cost of teen birth to taxpayers and society | Total costs saved to tax payers due to positive influence of clubs |
| :---: | :---: | :---: | :---: | :---: | :---: |
| 756 | 23.2 | 0.00 | 18 | \$126,358 | \$2,274,444 |

## 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: ${ }^{20}$

[^11]- 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.
- 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.

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

The above diagram illustrates that the rate of crime spikes upwards dramatically with the highest rate of violent juvenile crimes occurring when 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 order to have a good estimate for the cost of crimes and in particular the cost of juvenile crime, we had to find information that would allow us to calculate such cost in a comprehensive manner. This brought us to use the existing estimates which was available in 2009.

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. ${ }^{21}$ 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 $\$ 35,113,844,000$ ( $\$ 35.1$

[^12]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. ${ }^{22}$

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.

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.

[^13]

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. ${ }^{23}$ 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 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

[^14]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. Indeed despite the reduction in percentage of crimes over years the cost of crimes has not been going down. ${ }^{24}$ Using a more conservative annual rate increase of $10 \%$, the estimated cost per youth arrested in 2010-2011 will amount to \$67,319.

In order to find out the impact of the Boys \& Girls Clubs in Ventura County 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 Ventura County. Based on the survey and cross tabulation of parents' responses and calculation of number of kids represented by the total number of responses by the parents and number of kids per responding parent and percentage of children from age of 10 , we estimated a an arrest rate of $0.5 \%$ (or 5 per 1000) which is much lower compared with the prevailing rate of juvenile arrest in the control group within the county. According to the latest available rate in Ventura County in 2012 the rate of juvenile arrest for the ages of 10 to 17 has been 17.0 per thousand within the county. One has to bear in mind that the rates of arrests differ greatly among the cities within the county. The following chart shows the rate of arrests per thousand youth of ages 10 to 17 within the county.

[^15]

Source: California Dept. of Justice, 2014: http://oag.ca.gov/crime/cjsc/stats/arrests
As the chart shows the rate of arrests vary among different cities. It is important to note that arrests are divided into three categories of arrest. They are Felony, Misdemeanors, and Status Offences. The rates shown in the above graph brings the rate of all the three together per 1000 of youth living in the mentioned geographic locations. Fillmore and Oxnard have the overall total rate of arrest within the county.

It is important to note that rate of crimes and particularly Felony crimes declined substantially in recent years. The following chart shows such decline over a decade. The chart shows that with some difference, the rate of Felony arrests have been in decline both in the State of California and Ventura County since 2008. It is interesting to note that despite the fairly stable rate of Felony arrest within the state, the rate has been on the rise in Ventura County from 2003 to 2008. The rate of change in Ventura County has been quite significant during the recent years.

## Rate of Juvenile Felony Arrests in Ventura County and State of california From 2003 to 2012



Source: KidsData.org (California Dept. of Justice), http://www.kidsdata.org/topic/165/juvenilearrestrate/table\#fmt=1098\&loc=2,363\&tf=67,64,46,37,16,10,9,8,7,6

In order to relate the rate of overall arrest to the cost of crime we used the following logic model. WE assumed that the cost of juvenile can be linked to the level of arrest made in an area. It is true that some of the arrests do not go much further and the youth arrest will be released and the cost will not occur much further. However, some of those arrested will go further and the cost of such cases will escalate much further. However, it is logical to divide the total cost per arrest and consider it as the expected cost of criminal justice system in dealing with juvenile crimes.

Based on the foregoing logic we calculated the differential rate between the clubs and the county as the basis of finding how attending clubs (three times a week or more frequently) may reduce the cost of criminal justice system and thus taxpayers through reduction in rate of arrest. Based on our earlier calculation the rate of arrest among those attending the clubs were 5 per 1000 youth and the latest rate available for the county (in 2012) was 44.27 per 1000. This suggests a saving rate of 39.27 (i.e. 44.27 $5.0=39.27$ ). We need to bear in mind that the cost has been calculated on the expected cost per arrest and indeed falling into trap of lawlessness at young age has a much higher cost to the person, which has not been factored in in our calculation directly.

Based on the information received from the clubs through their in-house information, we calculated that in total we have 8301 youth between the ages of 10 to 17 . We used this estimate to calculate the
total amount of cost saving through reduction of possible criminal acts by the members of the boys and Girls clubs compared with their control group with the county. The details of calculation can be found in the footnote. ${ }^{25}$ The estimation shows that attending clubs may have saved 320 youth 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.

| Total number of <br> Juvenile saved from <br> Arrest | Difference in rate of <br> arrest within the clubs <br> compared with the <br> control group in the <br> county | Expected cost of crimes in <br> California per arrest | Total saving per year due to <br> impact of clubs |
| :--- | :--- | :--- | :--- |
| $\mathbf{3 2 0}$ | $\mathbf{3 9 . 2 7}$ pet 1000 <br> youth | $\mathbf{\$ 6 7 , 3 1 9}$ | $\mathbf{\$ 2 1 , 5 4 2 , 0 8 0}$ |

Source: Author's calculation, California Department of Justice

We need to bear in mind that this cost is an underestimation of the total cost of criminal justice system the actual cost over time is much higher. This can be better understood when we look at the other cost items that are very realistic but are not included in the costs of the criminal justice system. These costs, according to the Legislative Analyst's Office, include:

- Medical cost: Paid by victims, families, businesses and government because of injuries suffered due to crime.

[^16]- Stolen and damaged property resulting from crime: In the NCVS, victims reported that their property was either stolen or damaged in 95 percent of property crimes and 18 percent 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 percent 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 of the matter is that no one can really estimate the exact costs listed above as they may change from case to case. Therefore it should be easily accepted that saving 320 juveniles from possible arrests has a monetary value of many times over the estimate provided in this study.

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 Ventura County 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:

DO YOU FEEL SAFE WHEN YOU ARE AT THE CLUB?


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 (80.8\%) feel safe at the very least most of the time with the majority (59.1\%) feel safe always. Indeed only a small fraction of $4.2 \%$ never feels safe when they are in the environment of the clubs. 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 Ventura County 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 (76.9\%) indicate that they like the adults working at the Clubs at least most of the time with a proportion of just over $50 \%$ ( $50.4 \%$ ) 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.

The positive, safe, and nurturing environment of Boys \& Girls Clubs throughout Ventura County saves the taxpayers nearly 21.5 million dollars in reduced criminal justice system spending.

## 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 2009). 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 2009). 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. 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 2009). 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". 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 threepart 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 2007)

Such research demonstrates that youth participating in organized athletic programs at Boys \& Girls Clubs not only develop better fitness skills and habits, but are likely to be more fit later in life. Such longlasting 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 2009). For instance, the study calculated that a 100-kcal reduction in caloric intake across the country would reduce national medical expenditures by $\$ 58$ billion while a more extreme 500-kcal reduction would reduce such expenditures by $\$ 111$ billion. It is clear, therefore, that by helping 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.

HOW LONG DO YOU SPEND DOING SPORTS OR OTHER PHYSICAL ACTIVITY EACH DAY THAT YOU ARE IN IN THE CLUB?


A majority of survey respondents (70.1\%) exercise for at least 30 minutes a day while at Boys \& Girls Clubs. More than a third of the participants (almost 4 out of 10 ) $36.1 \%$ spend an hour or more exercising when they are in the club environment. 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. $61.0 \%$ believe this statement to be true while an additional $27.4 \%$ are uncertain. Only $11.5 \%$ of Club members do not believe that physical activities at the Clubs are making them more fit.

We used the percentage of those who agreed with the statement to find out how many of the 15000 plus youth who are served by the clubs feel that their exercise within the clubs are helping them with staying fit.
"With 9183 youth feeling fit and 7331 feeling that they are reaching or maintaining a healthy weight through participation in the activities of Boys \& Girls Clubs in Ventura, 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 20.4\% 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.


The information presented in the above chart comes as an important step taken by all the clubs to help in reduction of what is clearly emerging as a devastating development for the health of our community and our children. The following chart can present the problem of being overweight or obese among our children in various locations of the county most vividly.


Source: California Department of Education, 2011-2012

The following chart shows that in many of our communities the overwhelming majority of our children are in the danger of leading a life with multiple health and emotional problems of being overweight or obese. The following graph shed more lights on the same issue.


Source: California Department of Education, 2011-2012

The picture is very clear and it explicitly shows that the danger of being obese or over weight has a very strong correlation to the economic status of our children. It is vitally important to bear in mind that Boys \& Girls Clubs in Ventura County provide the greatest coverage for the same group of children. Having breakfast proved to have positive impact on the students' ability to learn and the following chart shows that such ability again is directly correlated to the economic status of the children and where they live and go to school.


Source: Kidsdata.org; 2014
http://www.kidsdata.org/data/topic/table.aspx?loc=2\%2C363\%2C1615\%2C1617\%2C1618\%2C1619\%2C16 20\%2c1621\%2c1623\%2c1625\%2c1626\%2c1627\%2c1628\%2c1629\%2c1631\%2c1632\%2c1633\%2c1634\% 2c1636\&wested=1\&embed=standard\&ind=304

Proper nutrition over the course of life can prevent may disses such as osteoporosis, dental problems, high cholesterol, and high blood pressure. ${ }^{26}$ Eating breakfast can promote proper nutrition. Children who have breakfast are more likely to have healthful diet and engage in physical activities. This can help them maintain a healthy weight, improve their memory, mood, and school attendance. ${ }^{27}$

The fact that all Boys \& Girls Clubs in Ventura County provide nutrition for the kids in their club houses show a very strong adherence to a very important and highly effective policy for health of our children.

In order to calculate the positive impact of physical activities within Boys \& Girls Clubs in Ventura County we added the total percentages of those who reached a healthy weight and managed to maintain it. This came to a sum of $48.7 \%$. Applying this ratio to the total number of registered members who participated in Club programs will result in a total sum of 7331 youths who stated that through physical

[^17]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 Club members <br> who attended the Boys \& Girls <br> Clubs' programs in Ventura <br> County | Percentage of Club members who <br> have maintained or reached a <br> healthy weight through <br> participation in the physical <br> activities during the last six months <br> at their Club | Estimated number of Club <br> members who have reached <br> or maintained a healthy <br> in physical activities at their <br> Club |
| :---: | :---: | :---: |
| $\mathbf{2 3 7 , 5 4 4}$ | $\mathbf{4 8 . 7 \%}$ |  |

With 7331 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.

According the latest available data, underage drinking cost California taxpayers $\$ 6.8$ billion in 2010. We do not have any source of information for the portion of this cost that is placed for the incidences of underage drinking in Ventura County. Therefore we use the same source and apply the cost in terms of per juvenile in California to the county as well. 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 $\$ 1921$ at 2013 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 (at 2010 level of prices).


Source: Pacific Institute for Research and Evaluation, 2010.

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

|  |  |
| :--- | ---: |
| Problems | Total Costs (in millions) |
| 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 | $\$ 305.3$ |
| Total | $\mathbf{\$ 6 , 7 7 9 . 4}$ |

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 $21 .{ }^{28}$

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 ${ }^{29}$

- $56.6 \%$ 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. ${ }^{30}$

- 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.

[^18]- 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. ${ }^{31}$ 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 $9^{\text {th }}$ 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 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. ${ }^{32}$

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

[^19]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. ${ }^{33}$

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

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

Heavy users typically engage in polydrug use, which is defined as using two or more substances (excluding tobacco) at the same time in the past six months (e.g., alcohol and marijuana). Polydrug use is considered particularly risky because of the possible synergistic interactions that may result when

[^20]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. ${ }^{34}$

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.

In order to relate the cost of underage drinking to our study, we compared the findings of our survey in order to estimate the economic benefit of attending the Boys \& Girls Clubs in Ventura County with regard to reduction of the cost of substance abuse. We used the latest available findings for the state of

[^21]California based on the CDC's latest findings. The following charts show some of the most important findings from our survey.


The outcome presented by this graph shows that $11.0 \%$ of the respondents said they had one or more drinks during the last 30 days and $89 \%$ said that they did not have any drink of alcohol in the last 30 days. We made a comparison between the reply from our club members and those answered the same question given to them by the California Department of Education. The latest available information was for 2008-2010 surveys. The results of the survey are given for $9^{\text {th }}, 10^{\text {th }}$ and $11^{\text {th }}$ graders. We used the data and found the overall rate of response based in calculating the weighted rate of average response. ${ }^{35}$ The rate countywide was $75 \%$ who said that they did not have any drink in the last 30 days and this shows that $25 \%$ of the respondents did have a drink of alcoholic beverages. This shows a gap of $14 \%$ between the respondents of Boys \& Girls Clubs in Ventura County and their peers within the county.

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

[^22]

Our survey shows that $7.8 \%$ of survey respondents had at least one occasion of binge drinking during the last 30 days, whereas based on the report for the Ventura County this rate $84 \%$. This means that the rate of those who never had any experience of binge drinking in the clubs were almost half of their peers within the county.

These comparisons clearly indicated that the behavior of Club members is far better than the findings for the county as a whole. We made the countywide 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 $5.3 \%$ of the respondents had smoked at least one day during the last 30 days. According to our calculation based on the available data for the peer groups in Ventura County, 9.0\% of the youth smoked during the last 30 days, again a ration of close to twice as the youth surveyed within the clubs.

We also 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 countywide.


The above chart shows that 91.9\% of Club members have never tried marijuana. The response rate within the county was much higher. The ration among the peer countywide was $72 \%$. This indicate that about $8 \%$ of the respondents in the club ever smoked marijuana in their life time as opposed to 28\% countywide.

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

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 Ventura County. 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 county. In all of these cases, the ratio of Club members' abuse rate was around $50 \%$ of the state level. Indeed in the case of drug abuse the ration is even lower than half. We therefore argue that youth who do not participate in Club programs are twice as likely to incur economic costs to their community due to substance abuse as are youth who participate in their local Clubs programs.

As shown earlier the average cost of underage drinking per year for each youth equals to $\mathbf{\$ 1 , 9 2 1}$ in 2013 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 $\$ 960.5$ per person, in the age group of 10 to 20 years old. ${ }^{36}$ This suggests a savings of $\$ 960.5$ per youth 10 to 20 years of age as the positive economic impact of the clubs in the county as a whole.

The total number of Club members in this age category (for the Clubs we added the number of Club members from age 10 year and older) was about 8301. Bearing in mind that only $98.3 \%$ 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 $8301 \times 0.983=8160$ youth. Using a savings of $\$ 960.5$ per youth in this age category, we calculated total positive savings of $\$ 7,837,680$ due to programs offered at Boys \& Girls Clubs in Ventura County.

[^23]| Cost of underage <br> drinking per youth <br> aged 10 to 20 in <br> California | Cost of underage <br> drinking based on <br> our findings per <br> Club members in <br> the same age group | Savings per youth <br> of the same age <br> category due to <br>  <br> Girls Clubs in <br> Ventura County | Total number <br> of club <br> members <br> between ages <br> 10 and higher <br> in Ventura <br> County | Total savings due to <br> better youth <br> behavior and habits <br> regarding underage <br> drinking among Club <br> members |
| :---: | :---: | :---: | :---: | :---: |
| $\mathbf{\$ 1 9 2 1}$ | $\mathbf{\$ 9 6 0 . 5}$ | $\mathbf{\$ 9 6 0 . 5}$ | $\mathbf{8 1 6 0}$ | $\mathbf{\$ 7 , 8 3 7 , 6 8 0}$ |

Ideally, we need to add the savings derived 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 more appropriate 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 Ventura County 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

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

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

As the data from surveys distributed to parents demonstrates, the clubs serve working parents who are likely to need after school supervision for their children. The vast majority (79.3\%) have a full-time job while an additional $11.6 \%$ of parents have one or more part-time jobs. This shows that $90.9 \%$ of the parents work in order to provide for their families.

By allowing parents to leave their children in a safe, supervised environment, the clubs are enabling parents to be more productive members of the community. The clubs, subsequently, must receive the necessary recognition for the positive impact this has had on the community. In order to better understand and quantify this benefit, the survey distributed to parents included several questions designed to understand the role the clubs has in allowing them to work or further their education.

The first question from the survey which we will consider asked parents whether sending their child(ren) to the clubs "enabled me [them] to keep my [their] job." The strong wording of this question was specifically designed to get as clear as possible about the direct relationship attending the club has on the parent's ability to keep their job. The results are as follows:


The above chart shows that having the Boys \& Girls clubs in Ventura Country makes it much easier to keep their jobs. However, this does not tell us if having the club is a vital element for them to be able to keep their jobs. The next question goes much further.


The survey responses indicate that 48.8\% of parents strongly agree while an additional $35.0 \%$ 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 $48.8 \%$ \% who strongly agreed with the statement. Due to their strong agreement, it is reasonable to assume that without the clubs these individuals would not be able to keep their work. Based on this, we will calculate the monetary benefit created by having these parents remain in the workforce

We asked the parents about their level of income (salary and wages) and we received the following information.


We used the data presented in the table to calculate an average individual income level for the group as a whole. ${ }^{37}$ This calculation allowed us to estimate the average income of individual responding to the survey to be $\$ 28,467$.

The next step in this analysis is to consider the number of parents who receive this benefit. Based on inhouse questionnaires we have 15054 kids who are served by the clubs. The parents' survey helped us to

[^24]calculate that rate of children per household attending the clubs is about 1.45 children per parent attending the clubs. Using these numbers we calculated the total number of families within the county to be 10367 (15054/1.45). We used the data we obtained or calculated to find the total annual earning that is estimated to become possible because of the clubs and the assistance they offer parents.

| Total number of <br> families served by <br> the Boys and Girls <br> Clubs in Ventura <br> County | Percentage of <br> families that at <br> least one member <br> believes that <br> sending their <br> children was the <br> reason for him/her <br> to be able to work <br> and keep a job | Total number of <br> parents who have <br> directly benefited <br> through keeping <br> their jobs and <br> being able to <br> work. | Average per <br> annum gain from <br> keeping an <br> average job by <br> parents of club <br> members | Total annual <br> additional <br> earnings to <br> families of <br> members because <br> of sending their <br> children to Boys <br> and Girls clubs in <br> Ventura County |
| :--- | :--- | :--- | :--- | :--- |
| $\mathbf{1 0 3 6 7}$ | $\mathbf{4 8 . 8 \%}$ | $\mathbf{5 0 5 9}$ | $\mathbf{\$ 2 8 , \mathbf { 4 6 7 }}$ | $\mathbf{\$ 1 4 4 , 0 1 4 , 5 5 3}$ |

By enabling 5059 parents to work and earn on average $\$ 28,467$ a year, the Boys \& Girls Clubs in Ventura County are enabling these parents to generate $\$ 144,014,553$ in additional annual earnings for their families. This is a tremendous service that sustains a great deal of economic activity across the county. Without the clubs, these parents would be unable to earn this income.

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 the after-school hours, others are pursuing a higher degree or certificate that will help them with their career. Such education will ultimately allow them to become more productive members of the workforce. Without the clubs, this improved

[^25]productivity would not be possible. As such, the parent survey included the following question designed to understand how many parents derive this benefit from the clubs:


The above chart shows that $51.3 \%$ of parents agree or strongly agree that sending their children to the Boys \& Girls Clubs made it easier for them to go back to school. The next chart shows that a significant proportion of such parents have already embraced the opportunity and are attending school to upgrade their education and skills, which can help them to earn more and help their family further.


According to parent respondents, $19.7 \%$ agree while an additional $15.6 \%$ strongly agree that it is because of the clubs that they are "attending school to receive a higher degree or certificate that will
help me [them] with my [their] career." The following table summarizes the positive impact of the opportunity to pursue further education:

| Total number of <br> families served by the a <br> Boys \& Girls Clubs in <br> Ventura County | Percentage of families that at least <br> one member believes that sending <br> their children was the reason for <br> him/her to be able to study and <br> upgrade his/her skill | Total number of parents who have <br> directly benefited through <br> upgrading their skills |
| :--- | :--- | :--- |
| $\mathbf{1 0 3 6 7}$ | $\mathbf{1 5 . 6 \%}$ | $\mathbf{1 , 6 1 7}$ |

Based on the survey results, 1,617 parents are able to pursue further education or certification that will help them further their career. Unfortunately, existing research does not exist that can help develop an estimate of the value of this adult education for these parents. As such, an exact monetary value cannot be determined. However, it is clear that the benefit is likely to be significant simply by reexamining the value of higher education that has been discussed earlier in this report.

## Figure 1

Synthetic Work-Life Earnings Estimates
for Full-Time Year-Round Workers by Educational Attainment, 2005


Source: Mark Kantrowitz (2007), The Value of Higher Education, Journal of Student Financial Aid, Vol. 37, Issue 1

As data from the above table shows for every level of higher education, an individual earns significantly more over the course of a lifetime. For instance, if a parent who is able to earn an Associate's degree as a result of sending their children to the Boys \& Girls Clubs in Ventura County, their lifetime earnings will increase from $\$ 1.92$ million to $\$ 2.74$ million on average. Although we are not able to put an exact value on this benefit, Census data suggests that the benefit is very significant indeed.

## 3.2) Economic Impact of Clubs' Expenditures on Increasing Regional

## Production and Creating Jobs

While other sections focus on the economic impact generated by the social interventions of the Boys \& Girls Clubs, this section will focus on the impact of the clubs' operating and capital expenditure budgets in the region measured in terms of output and employment.

Economic impact studies require a large amount of data to capture all the economic changes that an institution can bring to a community. The first set of data for this purpose consists of information that presents the direct flow of resources from an institution to the community. This includes budgetary and capital expenditures of the institution in the community. The second and equally important component of the economic impact of an institution is comprised of the flow of resources to that specific community that would have not be coming to that community if the concerned institution was not in existence. This component will include the impact of resources that are generated as byproducts of the institution in question.

We constructed an Input-Output model to calculate the economic impacts of the Boys and Girls Clubs across the county. The principal purpose of using an input-output framework is to analyze the interdependence of industries and various economic entities and organizations in an economy through market based transactions. Input-Output analysis can provide important and timely information on the interrelationships in a regional economy and the impacts of changes on that economy.

We chose IMPLAN (Impact Analyses for Planning) to identify and measure the economic impact of the agency. ${ }^{39}$ IMPLAN employs a regional social accounting system and can be used to generate a set of balanced economic/social accounts and multipliers. The social accounting system is an extension of input-output analysis. Input-output analysis has been expanded beyond market-based transaction accounting to include non-market financial flows by using a Social Accounting Matrix (SAM framework).

[^26]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.

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/state by club employees and others who receive income because of their work in relation to the activities of the institution as a whole.

Using this model, we calculated the explicit economic impacts of the Clubs' annual budgetary and capital expenditure, and volunteers' work through increased regional income and jobs on the regional levels. In order to generate the relevant findings, we collected data regarding the Clubs' regular and capital expenditures through questionnaires distributed to and completed by Club managers in addition to financial statements provided by the management to our research team for analysis. For all institutions, we used the most recent readily available full fiscal year budget. Based on this review of financial information, the total budget for operational expenditures of all the participating Clubs was found to be $\$ 14,481,497$ based on the latest available information (2013-2014. In addition, the Clubs spent $\$ 152,200$ on capital expenditures.

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

| Regional (Countywide) Economic Impact of Budgetary and Capital Expenditures of Boys \& Girls Clubs in Ventura County |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: |
| Impact Type | Employment | Labor Income | Total Value-Added | Output |
| Direct Effect | 274.2 | 7,427,556.9 | 8,400,957.1 | 14,603,256.7 |
| Indirect Effect | 28.5 | 1,253,028.6 | 2,401,822.0 | 3,958,667.8 |
| Induced Effect | 38.2 | 1,725,733.5 | 3,345,923.8 | 5,270,825.9 |
| Total Effect | 340.9 | 10,406,319.0 | 14,148,720.0 | 23,832,750.3 |

## 3.3) Economic Impact of Volunteer Labor

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

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

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

We gathered information about various participating Clubs and that showed that in total, there are an impressive total number of 1753 volunteers which include both groups and individuals throughout the year. According to the information we received and our estimates together the clubs enjoy from

A total of 28567 hours of volunteers work which amounts to 14 full time jobs, if they were paid employees. This level of cooperation and assistance by individuals and groups is noteworthy. This shows
the high level of community dedication and commitment to the Boys \& Girls Clubs throughout the county.

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

| Economic Impact of Volunteers' Work From Boys \& Girls Clubs in Ventura County |  |  |  |  |  |
| :--- | ---: | ---: | ---: | ---: | :---: |
| Impact Type | Employment | Labor Income | Total Value-Added | Output |  |
| Direct Effect | 14.0 | $377,867.8$ | $427,140.9$ | $741,485.5$ |  |
| Indirect Effect | 1.4 | $63,493.9$ | $121,999.6$ | $201,000.2$ |  |
| Induced Effect | 1.9 | $87,745.4$ | 170,124 | $267,996.7$ |  |
| Total Effect | 17.4 | $529,116.9$ | $719,264.9$ | $1,210,482.4$ |  |

The above table shows that as the result of volunteer work in the Boys \& Girls Clubs in Ventura County, $\$ 1,210,482$ will be created and added to the region's economy. It is important to realize that although volunteers do not ask for compensation but their work will allow the Boys \& Girls Clubs function and in the process it creates jobs for others whose opportunity to work depends on the work of volunteers.

Finally we add all the segments and that shows that in total the operations of the Boys \& Girls Clubs within the county generate a total of $\mathbf{\$ 2 5}, \mathbf{0 4 3} \mathbf{2 3 3}$ for the region (countywide). In the process 355 jobs are created or maintained, out of which 67 jobs are created in other sectors as the indirect and induced impact of the economic activities of the clubs. This in itself show a remarkable economic presence of the clubs and their positive pay off for the county as a whole.

## 4) Qualitative Findings from Surveys

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

## 4.1) Results of Club Members' Survey

### 4.1.1) Demographic Data

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


The sample of respondents appeared to be almost equally distributed between boys and girls. The clubs information shows a higher proportion of boys than girls in most clubs. We should also remember that only those who were eight years old or older were asked to fill out this survey.

## WHAT IS YOUR ETHNICITY?



The majority of club members (43.8\%) are Hispanic. In addition, the second most represented groups are whites who compose $30.6 \%$ of the clubs' members. The remainders of club members are evenly split between African Americans, Native Americans, Asian/Pacific Islanders, and those who identify as "other."


Those who took the survey had to be third grade or higher. The chart shows that there were a significant proportion of adolescents and teens among the respondents. However it is quite likely that the sample underrepresented the proportion of older members of the clubs.

HOW LONG HAVE YOU BEEN ATTENDING THE CLUB?


The above chart show nearly $70 \%$ of the respondents have been attending the clubs more than a year and nearly 50\% of them have been going to their Boys \& Girls Clubs two or more years and nearly 30\% for longer than three years.


The above chart shows that $98.3 \%$ of the respondents attend the clubs at least three times a week. Some $87.5 \%$ attend the clubs every day.

### 4.1.2) Program Attendance and Activities

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


The programs at the Boys \& Girls Clubs seem to be doing a great job of satisfying the "needs" of Club members. About a third of the members ( $32.2 \%$ ) believe that the programs always help with their needs, while an additional third (26.7\%) believe this to be true most of the time. In total, $56.9 \%$, or almost 6 out of 10 members, believe that their needs are met always or most of the time by their participation in the Club activities. Only 10.3 \% believed that the Clubs never help them with their needs.


Club members indicate a very positive attitude towards participation in programs of the Boys \& Girls Clubs. The majority (66.5\%) like the programs in which they participate at least most of the time. An additional $27.8 \%$ like participating in the programs sometimes while only $5.7 \%$ never enjoy their participation.


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

This program is particularly important in the context of this study since it contributes to the academic achievement of Club members, thereby contributing to the economic benefits of the higher high school graduation rates discussed in Section Three of this report. As such, the success of Power Hour is critical. Fortunately, the majority of members surveyed (70.5\%) of respondents like the tutoring program either always or most of the time. ${ }^{40}$ Amongst this group, it is important to note that only $6.2 \%$ never like the tutoring program. ${ }^{41}$ Setting aside the percentage of those who do not participate in the program, the percentage of those who participate in the program and find the staff helpful always or most of time reaches 74.5\%.

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

[^27]
# WHICH PROGRAM DO YOU ATTEND AT THE CLUB? 



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

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


The above chart shows that the majority of participants (61.0\%) think that participation in sports and physical activities helps them to become more physically fit. A large group of $27.4 \%$ was not sure and only $11.5 \%$ said that such participation does not help them to become more physically fit.


The outcome presented in the above chart is important as it indicates that 48.7\% of respondents believe that through participating in the Clubs' physical activities, they reached or maintained a healthy weight. The remaining $51.3 \%$ do not know and no one rejects the idea that there is no positive impact from being engaged in physical activities.


The above chart examines the question of the impact of physical activities further. This charts shows that some $39.6 \%$ feel healthy as a result of participating in the physical activities of the Clubs. 38.5\% felt energetic, and $33.5 \%$ felt happier. Some $22.7 \%$ felt more relaxed and only $9.4 \%$ said that they feel nothing special.


Regular exercise is pivotal for maintaining physical fitness and health. The outcome of the members' survey shows that $70.1 \%$ of respondents spend more than 30 minutes on physical activities when they are in the Club. Some $36.1 \%$ spend an hour or more doing physical activities.

### 4.1.3) Attendance Record in Clubs and School

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


The vast majority of Club members have strong attendance records. $71.9 \%$ of respondents indicated that they anticipate missing 5 days or less of school. This is a remarkable record. $88.5 \%$ missed school less than 10 days during the year. Only $4.7 \%$ anticipated missing more than 25 days of school.


We also asked students whether their strong attendance recrods are related to the fact that they attend the Boys \& Girls Clubs regularly. The majority of respondents ( $58.5 \%$ or six out of ten) believe that their regular attendance at the Clubs accounts for their good attendance records in regular day school.

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

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

Some 8 out 10 respondents ( $80.8 \%$ ) feel safe (always or most of the time) when they are in the Clubs. Another $15.0 \%$ feels safe sometimes. Only $4.2 \%$ never feel safe when they attend the Clubs.

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


More than half some $51.7 \%$ indicated that they would always recommend the Club to their friends, while an additional $37.2 \%$ would recommend the program sometimes. Only $11.1 \%$ of Club members would never recommend the program to their friends. As such, it would seem that over 9 out of 10 Club members are generally satisfied with the services they receive at Boys \& Girls Clubs in Ventura County.

## 4.2) Results from Parents' Survey

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

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

### 4.2.1) Demographic Information

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


The vast majority of respondents ( $74.7 \%$ ) are females. This indicates that the survey represents the thoughts and opinions of the mothers and grandmothers of Club members for the most part.

AGE


The largest proportion of parents ( $44.5 \%$ ) is between the ages of 30 and 39 . The second most represented age group is those between the ages of 40 and 49 ( $34.3 \%$ ). As such, the survey results seem to indicate the opinions of middle-aged parents for the most part. There is, however, a significant percentage of younger parents between the ages of 20 to 29 (12.0\%).


The highest proportion of respondents (54.9) is Hispanic while the second most represented group is White, which composes 32.4 of the parents. The ethnic make-up of parents based on this survey is similar to the ethnic make-up of Club members determined in the Club member survey.


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


Economically disadvantaged young people are eligible through a national program to receive free lunches. By understanding the proportion of those served by the Clubs who receive free lunches, it is possible to learn something about the economic profile of those families served. The results are quite telling. According to the parent surveys, $56.6 \%$ of Club members receive free lunches when they are in
school. This data indicates that the Boys \& Girls Clubs in Ventura County provide a great contribution to serving an economically disadvantaged group.


The above chart shows that majority of the children (58.0\%) receive free snack and supper at the Clubs. This is an important contribution to the family that helps them to feed their children.


Another important demographic consideration is the level of education attained by parents. Education and earnings are closely related as discussed in earlier sections of the report. Survey results indicate that the educational background of parents is very diverse. The largest portion of parents has some college
education (26.2\%). The second largest groups are those with a high school diploma or GED (19.9\%). 18.9\% have completed college and some $16.5 \%$ have earned graduate or professional degree. Some $18.6 \%$ of parents surveyed do not have a high school diploma.

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

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


The highest proportion of families (63\%) have one child in the Boys \& Girls Clubs. 31.1\% have two, $4.8 \%$ have three and the remaining $1.2 \%$ of families have four or more. For those with multiple children at the Clubs, the need for the service is amplified since the cost and difficulty of supervising multiple children after school can become significant. As such, the need for the Clubs is particularly acute for the significant proportion of families with multiple children.


Almost 9 out of 10 parents ( $89.8 \%$ ) report sending their children to the after-school program almost every day while an additional $5.5 \%$ report sending their children to the program at least three days per week.


When determining the level of dependence these families have on the Clubs, it is important to understand the source of the challenges that the families face with school-age child care. By far, the greatest challenge for all these families is the cost of care. Some $55.2 \%$ of families served by the Clubs consider the cost of care as the greatest challenge they face. As such, programs such as the Boys \& Girls Clubs that provide high-quality cost-effective services are critical to the community. Quality of care,
summer care, flexible schedules, transportaion are other challenges that parents face in taking care of their school-age children.


The degree to which many families depend on the Boys \& Girls Clubs is further demonstrated by the fact that $93.7 \%$ of parents indicate that the Club is the only program to which they can send their children. Without the Clubs, it is unclear what these families would do. Parents would either have to modify their own work schedules or these children would be without proper supervision; either scenario would be troubling.


One reason that many families must rely exclusively on the Clubs for after-school care is the fact that other programs and private services are cost-prohibitive. According to the parents survey more than half of the paremts (52.7\%) cannot afford any other program.


The parent survey also asked parents why they need the Boys \& Girls Clubs. There is widespread agreement on the reason. More than three quarters of the parents (86.8\%) report that they need the Clubs since their children are at a "safe place when they are at work." This response shows that this asset allows parents to be productive members of the community by allowing them to attend to their work. Without the after-school program, such parents would likely have to work less; this would be bad for families since they would lose income, and this would be bad for the community since it loses productive workers. Other reasons, such as having a place for their children to benefit from the tutoring
program ( $70.0 \%$ ), and to have access to exercise and enjoy enrichment programs and learn to build character and have positive civic engagement are of significant importance.

### 4.2.3) Safety

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


Almost all parents (96.7\%) 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. Club management should be proud of this outcome.

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

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

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


Social skills and the ability to make friends are critical to leading an emotionally healthy life. There is widespread consensus amongst parents that Club attendance has allowed their children to better acquire friends. Specifically, $87.7 \%$ of parents either agree or strongly agree that their children have developed this skill set since joining the Clubs.


Self-confidence is another important key to happiness. Yet again, Club attendance has made children more confident in themselves, according to parents. 88.9\% of parents agree or strongly agree that their children have become more confident in themselves since going to the Clubs.


In addition to their relationships with their friends, interactions with parents and others in the family can be quite telling indicators of a child's emotional wellbeing. According to a vast majority of parents (78.1\%), Club members have shown a greater ability to get along in their families since attending the Clubs.


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

The data is encouraging. The majority of parents (64.3\%) indicate that their children are more interested in volunteer work since participating in the Boys \& Girls Clubs. Some $24.4 \%$ were not sure and only $11.3 \%$ disagreed or strongly disagreed with such an assessment.

### 4.2.4.2) Academic Achievement and Promise



According to the results of the survey, parents report that their children have improved performance in school since attending the Boys \& Girls Clubs. Specifically, 78.8\% of parents either agree or strongly agree that they have observed this pattern. Only 7.0\% 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. $75.7 \%$ of parents have observed their children showing them completed homework more often since attending the Boys \& Girls Clubs.


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


Many of the academic improvements parents have observed in their children are also corroborated by improved grades. Grades are a particularly objective measure of Club member performance and indicative of long term prospects. The data is similarly impressive in this regard. The majority of parents (70.3\%) have observed that their children's grades have improved since attending the Boys \& Girls Clubs. Only $10.7 \%$ of parents disagreeed about whether such an improvement has occurred.

### 4.2.4.3) Health and Nutrition

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


Parents generally report that their children have made better choices when it comes to choosing foods and drinks since attending the Boys \& Girls Clubs. The majority of respondents (61.5\%) agrees or strongly agrees that their children made better food choices. Such decision-making skills are critical in ensuring that youth eat nutritious food that is conducive to their long-term health.


The vast majority of parent respondents (77.7\%) agree or strongly agree that their children have shown more interest in regular physical exerecise since attending the Boys \& Girls Clubs. This is a signficant
finding since physical activity not only staves off obesity but it can help improve youths in other ways, from developing better functioning cardiovascular systems to having greater emotional confidence.


Doing regular exercise for a certain period of time during a day is highly desirable and recommended by many government-funded programs. Some $69.9 \%$ of parents agreed or strongly agreed that their children spend an hour or longer exercising during each day when they are in the Club environment. Physical exercise has a variety of benefits, from improved cardiovascular health to reduced levels of stress. One particularly important benefit of exercise is that it can help Club members reach a healthy weight level. Given the fact that many youths face the problems of being overweight and obese, any program that can help students lose weight is beneficial.


It must be noted that $38.9 \%$ of parents indicated that their children did not need to lose weight and they have healthy 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 $61.1 \%$ of children may be in need of losing weight based on the responses of parents. For these children, the services provided by the Clubs are particularly important.

A majority of parents of those who had children with possible existing or potential weight problems (50.0\%) indicate that it is true or sort of true that their children are becoming less overweight as a result of physical exercise. However, as a proportion of those who are potentially overweight, some $82.0 \%$ of parents indicate that their children are making progress towards reaching a healthy weight as a result of regular exercise.

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

### 4.2.5) Information on Students' Academic Achievement and Aspirations

Beyond the direct impact of Club attendance on students' academic achievement, the survey also asked parents to give more general information on their children's academic achievements and objectives. Such information can be used to learn more about the children served by the Boys \& Girls Clubs.


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

The vast majority of parents (93.1\%) agreed or strongly agreed that their child attends school regularly and has good attendance. This data is very promising and shows that many children in the program are attending school regularly and not falling behind in their classes.


There can be a variety of reasons for the strong attendance records reported by parents. As such, the survey attempted to determine the influence of the Clubs on regular school attendance. More than three out of five parent respondents (63.6\%) indicated that they agreed or strongly agreed that one of the important reasons that their children attend school regularly is their membership and attendance in the Boys \& Girls Clubs. This question shows the vital role the Clubs play in providing a positive academic influence on their Club members.


Having ambitions and goals can help motivate children academically. One indicator of ambition can be whether or not a child talks about pursuing higher education beyond high school. A vast majority of parents (90.1\%) agree or strongly agree that their children discuss these goals and their importance.


The vast majority of parent respondents (87.6\%) agreed or strongly agreed that their children believe they will attend college after graduating from high school. This data further corroborates the fact that children of these parents have high academic ambitions.

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

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[^0]:    ${ }^{1}$ For more information see Center for Disease Control (CDC). (2010), Youth Risk Behavior Surveillance System (YRBSS).

[^1]:    ${ }^{2}$ 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 2,080 hours of work in a year. For instance, a parttime employee only working 1,040 hours in the year would only count as " 0.5 " in this model.

[^2]:    ${ }^{3}$ For more information see "What is California's High School Graduation Rate?, by Russell W. Rumberger (2007), California Dropout Research Project, UC Santa Barbara.
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[^4]:    ${ }^{7}$ See Richard J. Murnane (2013), Graduation on the Rise, Education Next, FALL 2013 / VOL. 13, NO. 4 http://educationnext.org/graduations-on-the-rise/
    ${ }^{8}$ See Susan Rotermund (2007), California dropout project, UC Santa Barbara Gervirtz Graduate School of Education:, Statistical Brief \# 5.

[^5]:    ${ }^{9}$ See Steven H. Woolf et al (2007), gi6.9ving everyone the he16.0alth of educated: An examination of whether social change would save more lives than med5.6ical advances T5.7he American Journal of Public Health, Vol.97. No. 4. 6.1

[^6]:    ${ }^{10}$ We have to bear in mind that the actual rate of high school graduation for a cohort with the exact demographic make-up would have been lower since the ethnic structure of the students attending the Boys \& Girls Clubs in Ventura County have a higher percentage of students with ethnicities that have a lower rate of success in graduating from high school. Nonetheless we used the county rate instead of a calculated equivalence in order to avoid inaccuracy and underestimation.
    ${ }^{11}$ Among the clubs we have Boys and Girls Clubs of Greater Oxnard and Port Hueneme and Boys \& Girls Club of Greater Ventura who reported having $4 \%$ and $1 \%$ members who are in the 12 ht grades in 2013-3014. From the members survey we found that $98.3 \%$ of the members attend clubs every day or at least three times during the week. These are the target group who go to the club often enough in order to enjoy and benefit from their attendance. We then used the total number of members served and found the number of students who attend the clubs and are in $12^{\text {th }}$ grades. This led us to the calculation of 307 members.
    ${ }^{12}$ There is valid argument that what other circumstances may have contributed to a higher rate of success among the club attendees. A number of such arguments are equally applicable to all other similar studies.

[^7]:    ${ }^{13}$ 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

[^8]:    ${ }^{14}$ 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.
    ${ }^{15} \mathrm{Ibid}$.

[^9]:    ${ }^{16}$ 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.
    ${ }^{17}$ http://www.vahealth.org/teenpregnancyprevention/
    ${ }^{18}$ 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

[^10]:    ${ }^{19}$ We also looked at a number of other studies for searching the latest information on teen pregnancy and childbearing. To arrive at a long term cot over the life time see the following: http://www.health.state.nm.us/phd/fp/teen_pregnancy.htm
    http://www.thenationalcampaign.org/costs/pdf/states/california/fact-sheet.pdf
    http://www.usa.gov/Topics/Reference Shelf/Data.shtml
    http://usasearch.gov/search?v\%3Aproject=firstgov-web\&query=Economic+cost+of+teen+birth
    http://www.health.state.nm.us/phd/fp/economic impact06.htm
    http://info.sen.ca.gov/pub/07-08/bill/asm/ab 1501-1550/ab 1511 cfa 20070602170429 asm floor.html http://women.ca.gov/UserFiles/922.FinalPublicPolicyAgenda.pdf
    http://www.thenationalcampaign.org/costs/tables.aspx

[^11]:    ${ }^{20}$ California's Criminal Justice System: A Primer, Legislative Analyst's Office (LAO) California Nonpartisan Fiscal and Policy Advisor.

[^12]:    ${ }^{21}$ For more information see State of California Department of Justice: http://ag.ca.gov/cjsc/pubs.php\#crimeCAUS

[^13]:    ${ }^{22}$ A $13 \%$ increase in cost per arrest over a year shows a cost escalation far in excess of any other state public spending.

[^14]:    ${ }^{23}$ See http://ag.ca.gov/cisc/pubs.php\#crimeCAUS

[^15]:    ${ }^{24}$ See Haapanan et al (2009), Issues for California Specific E, State of California Department of Correction and Rehabilitation, Center for Public Policy, US Davis: http://www.cdcr.ca.gov/adult research branch/Research Documents/CDCR\%20Interim\%20Report\%20Cost\%20of \%20Crime\%20Project\%2010-31-09.pdf

[^16]:    ${ }^{25}$ The total estimates for the corresponding age group is 8301 and we know that based on the members' survey $98.3 \%$ of them attend the clubs at least three times a week (the target group who are likely to receive the full benefits of attending the BGC ). The differential rate between arrest with the club and the control group was 5.54 per 1000 youth. This will lead to the following calculation: $8301 \times 0.983 \times 0.03927=320$ youth saved from being arrested.

[^17]:    ${ }^{26}$ For more information see BreakfastFrist http://www.breakfastfirst.org/pdfs/HealthAndAcademicBenefits.pdf
    ${ }^{27}$ For more information see Center for Disease Control and Prevention (2008), Nutrition facts., http://www.cdc.gov/HealthyYouth/nutrition/facts.htm

[^18]:    ${ }^{28}$ 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.
    ${ }^{29}$ For more information see Center for Disease Control (CDC). (2010), Youth Risk Behavior Surveillance System (YRBSS).
    ${ }^{30}$ Miller, TR, Levy, DT, Spicer, RS, \& Taylor, DM. (2007), Societal costs of underage drinking Journal of Studies on Alcohol, 67(4) 519-528.

[^19]:    ${ }^{31}$ Pacific Institute for Research and Evaluation, 2010
    ${ }^{32}$ 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

[^20]:    ${ }^{33}$ See Ellickson et al., "Does Alcohol Advertising Promote Adolescent Drinking? .... Associations Between Drug Use and Deviant Behavior in Teenagers, 1996

[^21]:    ${ }^{34}$ For more information see
    http://en.wikipedia.org/wiki/Diagnostic and Statistical Manual of Mental Disorders

[^22]:    ${ }^{35}$ For more information see California Healthy Kids Survey, Ventura County Secondary 2009-2011 Main Report.

[^23]:    ${ }^{36}$ 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.

[^24]:    ${ }^{37}$ We eliminated the percentage of those who declined to answer and adjusted the rate of responses accordingly.

[^25]:    ${ }^{38}$ In order to calculate the number of parents we calculated the average number of children sent by parents to the club. This average was based on the response of parents to a survey question asking them how many children they had in the clubs.

[^26]:    ${ }^{39}$ 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.

[^27]:    ${ }^{40}$ This calculation does not exclude the $5.3 \%$ who do not participate in the program. With their exclusion the percentage of those who always or most of the time like will go up even more.
    ${ }^{41}$ This percentage was not adjusted for those who do not participate in the program

