



Upstream Investments



# Upstream Investments

to Reduce Long-Range Demand for County Criminal Justice  
Strategic Plan Project #27

**Report to the Board of Supervisors  
January 11, 2010**

*"It's easier to build strong children than to fix broken men."*

*Attributed to Frederick Douglass*

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# Executive summary

*upstream from Sonoma County Juvenile Hall...*

M and his two sisters were born to a crank addicted mother and father. His maternal and paternal grandfathers were also crank dealers and addicts. M was physically abused by his parents during his childhood. In fact, his father has done prison time for domestic violence. M's mother currently still uses and deals, and has used with M. M takes medication to curb his volatility. One theory is that his hard wiring was damaged from head traumas he received as a baby due to his physical abuse.

# Executive summary

In each chapter, a reader guide in the left margin tracks the chapter sections

## Project Purpose

The 2007 Sonoma County Strategic Plan found that criminal justice costs comprise over half of the discretionary general fund and, as a percent of the total discretionary general fund, are growing. As criminal justice costs continue to rise, County funds available for other County services are diminished. To explore whether or not there are alternatives to increasing criminal justice costs, the Board of Supervisors chartered the Upstream Investments Project.

**The Board of Supervisors chartered the Upstream Investments Project to understand the antecedents to criminal behavior and to identify upstream interventions that reduce downstream criminal justice costs.**

The project purpose is fully described in Chapter 1.

## Project Activities

To meet the Charter, the Upstream Team carried out the following five activities. Each activity is briefly described in Chapter 1 and more fully described in appendices.

1. Reviewed published literature
2. Collected Sonoma County specific information
3. Invited regular input from relevant County Departments
4. Surveyed community partners
5. Conducted a Sonoma County Criminal Justice Cost Benefit Analysis

## Project Findings and Recommendations

The project activities led to findings and recommendations in four areas.

1. Evidence-based practice
2. Partnerships and collaboration
3. Investing in upstream interventions
4. Ad Hoc upstream committee

While we found that the reviewed Upstream interventions were not effective in reducing downstream County costs of criminal justice (costs only to the general fund) within a 10 year time frame, the findings and recommendations presented in this report reflect the compelling economic and moral support for upstream interventions which is found in the published literature and echoed by community partners. These findings and recommendations also recognize that the County regularly balances competing fiscal priorities and that this balance is even more difficult in this economic environment. The findings and recommendations are summarized here and fully explained and supported in Chapters 2-4.

## Area 1: Evidence-based Practice

**Finding 1a:** The social/economic and family/individual factors that contribute to criminal behavior (and other associated problems) are well documented, complex, inter-related, consistent, and generally evident early in a child's life. Poverty, racial/ethnic disparities, and community conditions are all powerful influences in a child's early life. Additionally, dysfunctional families, early anti-social behaviors in children, and negative peers can all contribute to the onset of criminal behavior. Finally, prevailing community opinion and changing public policy has increased the odds of becoming involved and staying involved in the criminal justices system, especially for men of color.

**Finding 1b:** There is solid empirical evidence that effective programs mitigate these factors. And, there are 141 early childhood and school aged programs designed for at-risk children, families and individuals that meet rigorous evaluation criteria and have been found to be effective in reducing crime and/or the factors that contribute to criminal behavior. These 141 programs provide a menu of proven upstream program options for County Departments. There are fewer published cost benefit analyses of upstream interventions so the list of programs that have been found to be both effective and cost beneficial is smaller. The following nine upstream programs are most frequently determined to be both effective and cost beneficial. The criteria used to select these nine programs is summarized in Chapter 3 and fully described in Appendix A.

1. **Nurse Family Partnership** (*prenatal and infancy nurse home visits for low-income, first-time parents and child*)
2. **Perry Pre-School** (*high quality pre-school education for disadvantaged children ages 3-4*)
3. **Strengthening Families Program** (*family skills training program for children ages 3-16*)
4. **Big Brothers / Big Sisters** (*one-to-one relationships for children and adolescents with a caring adult*)
5. **Caring School Community Program** (*elementary school program that builds student connectedness to school*)
6. **Good Behavior Game** (*classroom management strategy to reduce aggressive/disruptive behavior*)
7. **Guiding Good Choices** (*drug/antisocial behaviors prevention program for parents of students grades 4-8*)
8. **Life Skills Training** (*school-based program to prevent drug use and violence for grades 3-9*)
9. **Project Toward No Drug or Tobacco Use** (*school based drug prevention program for high school youth*)

**Recommendation 1:** Expand the County's evaluation of existing and potential Health and Human Service and Criminal Justice programs using published evidence, outcome monitoring, and cost benefit analyses.

## Area 2: Partnerships and Collaboration

**Finding 2a:** The upstream factors that contribute to criminal behavior are broader than the County's range of influence. And, an effective intervention approach requires solid and effective partnerships between service delivery providers throughout the community.

**Finding 2b:** Public and private service providers throughout the community share the County's commitment to upstream principles and are implementing evidence-based, upstream programs. There are existing and new opportunities for the County to collaborate with community partners to further upstream principles.

**Recommendation 2a:** Establish indicators that reflect upstream principles.

**Recommendation 2b:** Explore ways to coordinate and leverage the work of related County and community led initiatives.

### **Area 3: Investing in Upstream Interventions**

**Finding 3a:** Upstream interventions funded by the County will provide a very low return on investment in terms of reduced costs to general fund expenditures in the County criminal justice system (between \$0.01 and \$0.05 for every \$1.00 invested). This return would be higher by an unknown amount if savings to other County-funded programs are included.

**Finding 3b:** The preponderance of the evidence confirms that early childhood interventions yield a tremendous benefit to individuals, children and families. When targeted to at risk children and families, early childhood interventions reduce crime, substance abuse, child abuse, and welfare dependency, and they improve educational attainment, health outcomes, and income.

**Finding 3c:** Investing in early childhood interventions aligns with approaches recommended and implemented by First 5, the Innovation Council, the Mental Health Services Act, and Health Action. In the past five years, First 5 has invested \$21 million in early childhood interventions to improve the health and school readiness of children from birth to age five in Sonoma County. In 2009-2010, Sonoma County will invest \$500,000 through the Mental Health Services Act for prevention programs.

**Recommendation 3a:** Seek new funding for upstream interventions.

**Recommendation 3b:** Ensure that upstream interventions are considered in ongoing budgetary and policy decisions.

### **Area 4: Ad Hoc Upstream Board Committee**

**Finding 4:** Effective upstream approaches can effectively reduce crime and positively impact other factors that lead people to use county services, such as child abuse, substance abuse, domestic violence, teen pregnancy, poverty, and unemployment. The broad upstream principles articulated in the County Strategic Plan are well supported by the evidence presented here about the needs for and benefits of upstream approaches.

**Recommendation 4a:** Convene the Ad Hoc Upstream Board Committee to implement recommendations 1-3.

**Recommendation 4b:** Designate \$85,000 in 2009-2010 funds to support the activities of the Ad Hoc Upstream Board Committee and the implementation of Recommendations 1-4a. Authorize the Human Services Department and the County Administrator's Office to approve contracts and/or term-limited staffing consistent with the recommendations.

# Chapter 1

## Project purpose

### *upstream from Sonoma County Juvenile Hall...*

E was born to a crank addicted mother and an alcoholic father. He almost drowned more than three times while under the care of his father. Each time he had to be revived. E's father was deported and E was taken from his mother by Child Protective Services several times. He has lived at the Valley of the Moon Children's home and with family members. His mother and his sisters have had children removed and adopted out by Child Protective Services. E now has little contact with his mother. He plans to make a life with his half-sister from his father's side. E has taken medication over the years for his volatility. E has a difficult time with impulse control but he works very hard at stabilizing himself.

### *upstream from Sonoma County Juvenile Hall...*

K was raised by divorced parents. When his alcoholic and drug addicted mother had custody, she had inappropriate boundaries with him around her own bathing and dressing. As he grew, and her alcoholism worsened, she needed help with dressing and personal care. In junior high, K lived with his marijuana addicted father. K is also a daily marijuana user. K's mother is in end-stage liver failure and is still a practicing alcoholic. She often visited him at his Probation program under the influence of alcohol, and many times she was asked to leave.

# Charter

Charter

Relationship to other projects

Why crime matters

In 2005, Sonoma County’s Board of Supervisors initiated a strategic planning process to address the County’s long term challenges, including fiscal concerns. The Board noted that population growth and demographic changes will influence the future of the County. Specifically, the Board observed that a rise in the youth population, a high dropout rate, the prevalence of substance abuse, and increasing gang violence will influence the County’s prioritization process and programming needs.<sup>1</sup>

With these challenges in mind, the Board embarked on the development of a County-wide Strategic Plan to guide future expenditures and operations. Following a two year investigative process, the Board adopted the final version of the Strategic Plan in 2007. The Strategic Plan identifies criminal justice services as areas in need of immediate attention for the following reasons:

- The criminal justice system is the single largest cost to the General Fund. In 2009-2010, Justice Services comprise over half of the discretionary general fund (\$216 million) and, as a percent of the total discretionary general fund, is growing.
- Gang membership continues to grow rapidly, particularly in Latino-identified gangs. In just three years, the number of gang-conditioned sentences in Juvenile Court nearly tripled – from 145 to 385 cases between 2002 and 2005.
- Expansion of adult detention facilities represents the County’s single most significant, long-term capital expenditure in the near future. Construction of a new detention facility could cost the County \$300 million.

In order to address these issues, the Board of Supervisors chartered Strategic Plan Project #27: Upstream Investments to Reduce Long-Range Demand for County Criminal Justice. This project was charged with developing an “understanding of the antecedents to criminal behavior” and to “recommending 2-3 initiatives to reduce downstream criminal justice costs.”<sup>2</sup> To clearly define upstream in the context of this project as defined by the project charter with a sole emphasis on criminal justice costs, the Upstream Team posed the following policy question:

**What policies and initiatives should Sonoma County continue, expand or adopt in order to reduce the likelihood that an individual will commit his or her first criminal offense?**

To meet the Charter and answer the policy question, the Upstream Team carried out five activities. See the Appendices for more information about these activities.

#### Reviewed published literature

The Upstream Team conducted an extensive literature review to understand the factors that contribute to criminal behavior, to identify upstream interventions that are effective in mitigating these factors, and to develop upstream recommendations for Sonoma County. During the literature review, the Upstream Team reviewed hundreds of peer reviewed journal articles, reports published by other government entities, and documents recommended by local partners. In this report, the Upstream Team cites sources published in peer reviewed journals that are frequently cited by other authors. The Upstream Team also cites established individual and organizational experts.

#### Collected Sonoma County specific information

The Upstream Team gathered a variety of available information that provides a local illustration of the factors that contribute to criminal behavior. Additionally, the Upstream Team conducted an original analysis of Sonoma County's first time offenders -- the individuals arrested for the first time in 2008. This study included an analysis of their demographics and offense characteristics.

#### Invited regular input from relevant County Departments

The Upstream Team conducted five focus groups with a total of 52 participants employed by County Departments and local law enforcement to solicit local experience and wisdom related to the onset of criminal behavior, to identify local understanding of effective interventions to mitigate these factors, and to invite suggestions for upstream recommendations for Sonoma County. The Upstream Team also invited regular input through the Strategic Planning Criminal Justice Projects Coordinating Committee, the Health and Human Services Coordinating Committee, the Juvenile Symposium, and conversations with other relevant groups and individuals.

#### Surveyed relevant County Departments and community partners

The Upstream Team surveyed 170 individuals representing state organizations, County Departments, cities, education entities, community based organizations, and faith based organizations to invite input about factors that contribute to criminal behavior and successful upstream interventions, and to create an inventory of evidence-based upstream interventions currently implemented by the County and service providers throughout the community.

#### Conducted a Sonoma County Criminal Justice Cost Benefit Analysis

The Upstream Team conducted a cost benefit analysis related to County general fund criminal justice costs for two upstream programs.

# Relationship to other projects

Charter

This Upstream Investments project is one of three related criminal justice strategic planning projects. These three projects are essentially related to sequential periods in individuals' lives (with some areas of overlap).

## **Upstream Investments**

Led by the Human Services Department, this study focused on individuals who have not yet committed a criminal offense and was tasked with 1) understanding the factors that contribute to the onset of criminal activity, and 2) identifying effective programs that mitigate these factors before an individual commits a crime.

## **Juvenile Justice System Study**

Led by the County Administrator's Office and the Probation Department, this study was designed to 1) examine the efficiencies of the juvenile justice system and its current programs; 2) develop profile information about youthful offenders currently in the detention system to understand the population served and to identify opportunities to engage in earlier, effective intervention; 3) examine the role of the system in diverting juveniles from future involvement in the adult criminal justice system; and 4) update the population projection for the year 2035 to guide future decisions about the need to expand the juvenile hall or other step down facilities.<sup>3</sup>

## **Adult Criminal Justice Phase 2 Master Plan**

Led by County Administrator's Office and Sonoma County Justice Departments, this project was designed to 1) assess the criminal justice system as it identifies ways to improve efficiencies; 2) provide the "same justice sooner" for adult offenders; 3) identify whether there are additional programs that serve as alternatives to incarceration that the County should consider in order to make best use of its existing limited and costly detention facilities; and 3) provide updated population projections to guide in the County's decision-making about the future expansion of detention facilities.<sup>4</sup>

The difference between the Upstream Investments project and the two criminal justice projects is most clearly evident in a discussion about the factors that contribute to criminal behavior. The Upstream Investments project identifies and discusses factors that exist in an individual's life before the onset of criminal behavior. In May, 2009, the Probation Department implemented a systemic process to assess risk factors that exist in a youth or adult's life after entry to the juvenile or adult criminal justice system."<sup>5</sup> The factors identified and discussed in this Upstream Investments report and the risk factors assessed by Probation are very similar.

Relationship to other projects

Why crime matters

# Why crime matters

Charter

Crime matters to Americans.

Safety and security are important to American families. And, many Americans do not feel safe or secure. According to the Gallup Organization<sup>6</sup>, 46% of Americans are worried about being burglarized (2008), 48% avoid going places because of concern for crime (2007), 26% of parents are fearful for their child's safety at school (2009), and 43% of Americans have a gun in their home (2008). Since 1998, violent crime in the United States has declined by 18% and property crime by 20%<sup>7</sup> but Americans are still worried. Essentially every year Americans believe that there is more crime than a year ago – 67% believing so in 2008. And, even with declining crime rates, crime is still surprisingly common. The FBI reports that in 2007 alone, there was one violent crime for every 410 residents in Sonoma County and one crime of any type for every 24 residents.<sup>8</sup>

In Fiscal Year 2009-2010, criminal justice services cost \$20.3 billion federally (\$67 for every American and less than 1% of the total federal budget)<sup>9</sup>, \$11.1 billion in California (\$292 for every Californian and 11% of the state budget)<sup>10</sup>, and \$216 million in the Sonoma County General Fund (\$446 for every County resident and over half of the discretionary County budget)<sup>11</sup>. This does not include city law enforcement costs. All total, Sonoma County residents (every adult and child) spend more than \$800 in federal, state and local taxes each year for criminal justice services.

The personal cost of crime is also high. In the United States, 32% of all Black men and 17% of all Latino men will serve a prison sentence in their lifetime compared to 6% of all White men. A majority of inmates are parents – 52% of all state inmates and 63% of all federal inmates. 19% of all Black children and 10% of all White children will have an incarcerated father at some point in their childhood. These numbers jump dramatically when the father is a high school dropout – to 32% of Black children and 23% for White children. Children with a father who goes to prison experience a 22% drop in family income and a 9% increase in their likelihood of living in poverty. And, post incarceration, income opportunities are limited. 62% of all employers report they would not hire an applicant with a criminal record.<sup>12</sup>

Finally, crime is costly to victims. Marc Cohen (2000) has written extensively about the cost of crime to victims. He suggests that the costs of crime victimization to individuals includes costs related to productivity, medical, mental health, police and fire, social services, property losses, and quality of life. He estimates that the victim cost of crime (in 1993 dollars) ranges from \$3,800 for an attempted motor vehicle theft to \$60,000 for child abuse to \$71,000 for a drunk driving accident with an injury to \$87,000 for rape to \$2.9 million for murder.<sup>13</sup> In total, he estimates the victimization cost of crime in 1993 dollars at \$450 billion

Relationship to other projects

Why crime matters

– roughly \$1,731 for every American each year. Additionally, he estimates the cost of employee theft and fraud to business at \$435 billion in 1996 dollars – another \$1,687 for every American each year.

Because safety and security are important to Americans, because American governments expend large amounts on criminal justice, and because crime is costly to families, victims and business, extensive research has been conducted about the causes and costs of crime, and effective ways to reduce crime.

## Chapter 1 endnotes

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NOTE: This includes the county costs specific to Criminal Justice Departments. It does not include criminal justice related costs borne by other Departments such as Alcohol and Other Drug Services, Mental Health and administrative and fiscal support provided by, for instance, the County Administrator's Office and the Auditor's Office.

- <sup>12</sup> Raphael, S (2009, October 13-14). *Incarceration and Prison Re-entry in the U.S.* Presented to CWDA Poverty Symposium, Capital Plaza Holiday Inn Sacramento, CA.
- <sup>13</sup> Cohen, M. A. (2000). Measuring the costs and benefits of crime and justice [Abstract]. *Measurement and Analysis of Crime and Justice*, 4, 263-316. Abstract obtained from *National Institute of Justice*, July 2000, NCJ 182411, available at [http://www.ncjrs.org/criminal\\_justice2000/vol\\_4/04f.pdf](http://www.ncjrs.org/criminal_justice2000/vol_4/04f.pdf).

# Chapter 2

## Factors that contribute to criminal behavior

"There are so many things and they are all interrelated."

*Opinion expressed at Human Services Department Focus Group*

### *upstream from Sonoma County Juvenile Hall...*

D and his brother were physically abused by their father. The brothers are now doing long sentences in prison on assault charges.

### *upstream from Sonoma County Juvenile Hall...*

R was raised by his crack addicted mother who used and dealt in front of him throughout his childhood. At 17 years old, R is graduating from his Probation program. His mother is still using and cannot provide a stable home for him.

### *upstream from Sonoma County Juvenile Hall...*

P's mother had six children with six different men. None of the children knew their fathers. Child Protective Services has been involved with the family several times over the years. P's mother has a mental illness which causes her to be paranoid and fearful to talk openly with the Probation staff who work with her son. She has always received welfare. Along with one of his brothers, P awaits sentencing on attempted murder charges.

# Introduction

Introduction

Social/Economic factors

Family/Individual factors

Associated factors

The Upstream Team was charged with “understanding the antecedents to criminal behavior.”<sup>1</sup> Based on the published research about crime, and based on local experience and wisdom in Sonoma County, the Upstream Team concludes that the primary factors that contribute to the onset of criminal behavior are both societal and individual. The social and economic factors are powerful influences in families and individuals and can often pose extraordinary challenges and barriers.

**Social and economic factors**

- Poverty and racial/ethnic disparities
- Community conditions
- Public opinion, public policy, and laws

**Family and individual factors**

- Family dysfunction
- Negative peer influences
- Early antisocial behavior

Other factors, such as substance abuse and academic achievement are closely related to criminal behavior but are best understood as associated factors (rather than contributing factors) that individuals experience stemming from their social and economic experiences and their family and individual situation.

In her Forward to *America’s Cradle to Prison Pipeline* (2001), Marian Wright Edelman describes the impact of social and economic factors on the lives of children in the United States. “The United States of America is not a level playing field for all children and our nation does not value and protect all children’s lives equally. So many poor babies in rich America enter the world with multiple strikes already against them. At crucial points in their development more risks and disadvantages cumulate and converge that make a successful transition to productive adulthood significantly less likely and involvement in the criminal justice system significantly more likely.”<sup>2</sup>

This section describes the literature about the factors that contribute to and are associated with criminal behavior. This section also presents information about Sonoma County that is related to these factors.

# Poverty and racial/ethnic disparities

Introduction

Social/Economic factors

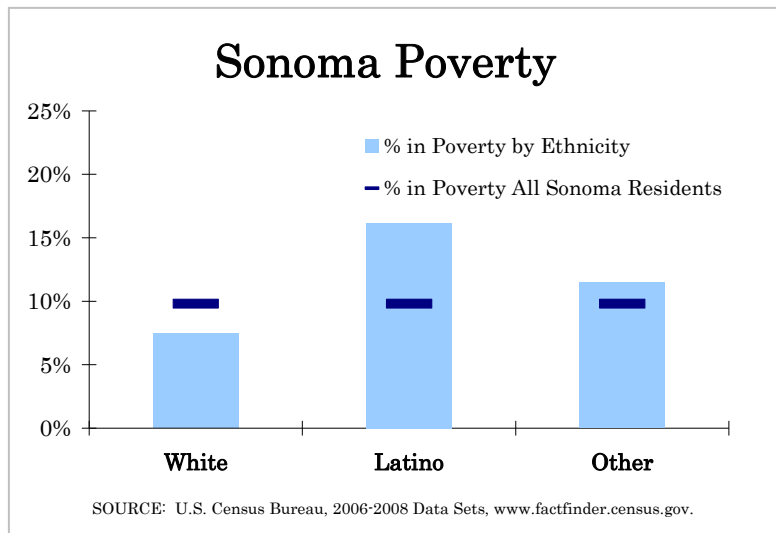
Family/Individual factors

Associated factors

Poverty and ethnicity are difficult, if not impossible, to disaggregate and are often discussed together in the literature. The Children’s Defense Fund (2001) concludes that “poverty is the largest driving force behind the Cradle to Prison Pipeline crisis, exacerbated by race.”<sup>3</sup> Benard (2004) argues that “the real enemies in the war on drugs and crime are the underlying conditions of poverty in a context of racism that closes off opportunities.”<sup>4</sup> Former Minneapolis Police Chief Bouza (1993) states that “our social and economic systems make criminal behavior inevitable. Poverty and racism are the big agenda items. Ignoring their primary role in the crime equation ... ensures a continuation of violence.”<sup>5</sup>

In 2007, Sigurd Nilsen (the Director of Education, Workforce, and Income Security Issues for the United States General Accountability Office) testified to the House Committee on Ways and Means regarding poverty in America. He reported that “economic research suggests that individuals living in poverty face an increased risk for adverse outcomes, such as poor health, criminal activity, and low participation in the workforce.” He went on to note that “the adverse outcomes that are associated with poverty tend to limit the development of skills and abilities that individuals need to contribute productively to the economy through work, and this in turn, results in low incomes.”<sup>6</sup> Benard (2004) reports that “poverty is perhaps the greatest risk factor for the development of problems.”<sup>7</sup>

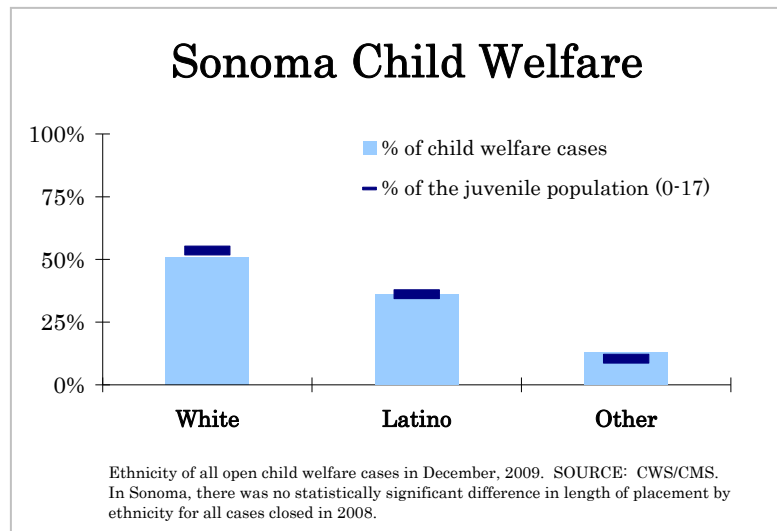
Poverty disproportionately impacts children of color. 35% of Black children and 28% of Latino children are poor, compared to 11% of White children. The median family income in 2005 was \$31,705 for Black families, \$36,403 for Hispanic families, and \$66,235 for White families. Single parent households are almost six times more likely to be poor than two-parent households. And, 56% of Black children and 29% of Latino children grow up in single-family households compared to 21% of White children.<sup>8</sup> Furthermore, the



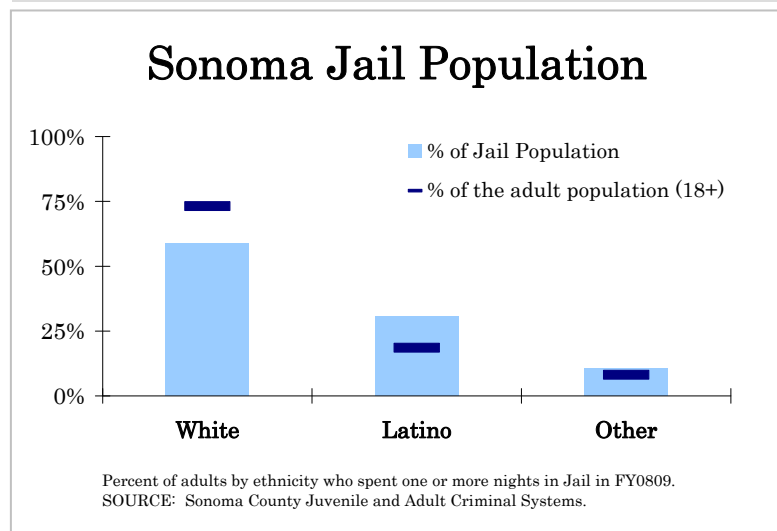
“Five years ago poverty was less of an issue. All the risk factors in the survey cut across every economic levels but they are multiplied in our most economically challenged families.”  
*Tom Joynt, Education Liaison*

trends are not promising. According to the Early Childhood Longitudinal Study by the U.S. Department of Education (2009), 51% of the infants and 46% of the toddlers in 2001 lived in households with incomes at or below the federal poverty level (\$18,310 annually for a family of 3).<sup>9</sup> Myers and Farrell (2008) summarize the literature regarding poverty and crime and conclude that “research demonstrates a clear link between juvenile crime and poverty. Low family income at age eight is associated with violence in adolescence and conviction for violent offenders. Black and Hispanic juveniles are three times more likely to live in poverty than are their White peers. And, minority youth are far more likely to experience involvement in the juvenile justice system.”<sup>10</sup> The National Longitudinal Study on Adolescent Health (1998) also found that teens whose families receive welfare are more likely to be involved in violence.<sup>11</sup>

In fact, beyond poverty, “racial disparity runs through every major system impacting children’s life chances” including health, pre-school education, child welfare systems, and education system.<sup>12</sup> Child welfare is one example. Black children are 16 percent of the child population and 32 percent of those in foster care. And, Black children remain in foster care for an average of 17 months compared to nine months for White children. White children are four times as likely to be reunited with their parents and twice as likely to be adopted compared to Black children.<sup>13</sup> Education is another example. Black children are twice as likely to be retained in a grade, three times as likely to be suspended, and 50 percent more likely to drop out of school. 13% of Black and 16% of Latino fourth graders read at grade level compared to 41% of White fourth graders.



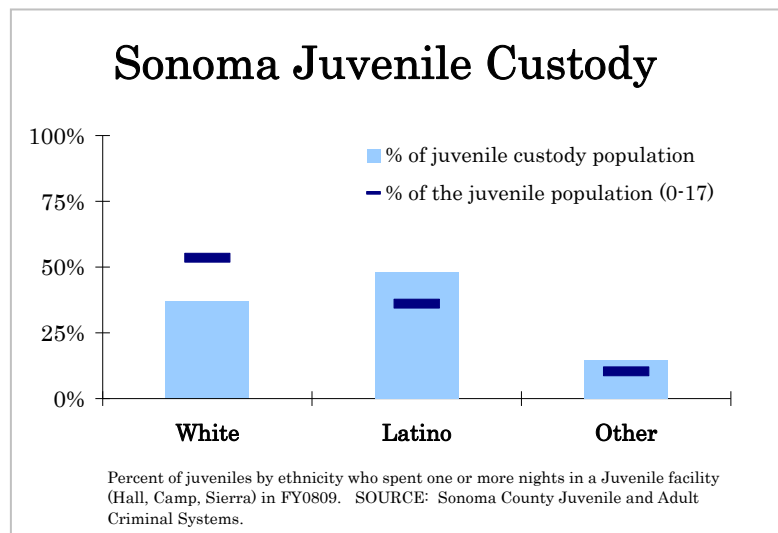
“Poverty is a stressor that can exacerbate existing family problems.”  
*Opinion expressed at Human Services Department Focus Group*



“Lack of employability skills is huge for juveniles and adults. If a person can have meaningful finances for over six months, the chances of returning to jail drop dramatically.”  
*Opinion expressed at Probation Department Focus Group*

Involvement in the criminal justice system also disproportionately impacts people of color – both adults and juveniles. While 1 in 106 adult White males is currently incarcerated, 1 in 15 adult African American males is incarcerated. 32% of African American males will spend time in prison during their lifetime compared to 17% of Latino males and 6% of White males.<sup>14</sup> In 2008, the Alameda County Health Department published a report detailing the relationships between race and crime. “Inequity is not merely a consequence of individual behavior. Complex social factors are involved, including institutional racism, a legacy of segregation and discrimination, inequitable education systems, limited economic opportunity, and cycles of poverty.” Alameda cites this example. Whites and African Americans use and sell drugs at similar rates, however the arrest and incarceration of African Americans for drug offenses happens at significantly higher rates. “African Americans comprise 14% of regular drug users, but 37% of those arrested for drug offenses and 56% of all persons in state prison for drug offenses.”<sup>15</sup>

Myers and Farrell (2008) document this racial disparity in the criminal justice system for juveniles. 754 Black youth are in custody for every 100,000 in the population compared to 348 per 100,000 for Hispanic youth and 190 per 100,000 for White youth.<sup>16</sup> Minority youth are 39 percent of the juvenile population but 60 percent of committed juveniles.<sup>17</sup> Myers and Farrell (2008) conclude that “race appears to be a risk factor for involvement in juvenile justice (and may more appropriately be considered a proxy for poverty).”<sup>18</sup>



“Sports, music, other activities used to keep kids busy. Kids used to have equal access to after school activities. Now they are just for kids whose parents can afford them.”

*Opinion expressed at Law Enforcement Focus Group*

Marian Wright Edelman (2001) summarizes the issues of poverty and race. “The most dangerous place for a child to try to grow up in America is at the intersection of poverty and race. That a Black boy born in 2001 has a 1 in 3 chance and a Latino boy a 1 in 6 chance of going to prison in their lifetimes (compared to a White boy at 1 in 17) is a national disaster.”<sup>19</sup>

# Community conditions

Introduction

Social/Economic factors

Family/Individual factors

Associated factors

Many community conditions are associated with increased crime rates. Low incomes, limited mental health resources, inadequate recreational opportunities, weapon accessibility, high unemployment, high crime rates, gang presence, poor housing, degraded physical environment, and prominent media violence have all been identified as accelerating violence and criminal behavior.<sup>20 21 22 23</sup> Generally speaking, a physical environment that leads offenders to believe that the likelihood of apprehension is small may increase the risk of criminal behavior. Examples include insufficient lighting in public areas, barriers that allow criminals to conceal their activities, and areas with no natural guardian (which could range from a homeowner to police patrols.)<sup>24</sup>

Farrington and Loeber (2000) summarize the research stating simply that “juveniles living in high-crime neighborhoods are more violent than those living in low-crime neighborhoods.”<sup>25</sup> Haines and Case (2008) discuss the “fallacy of autonomy – the misguided notion that family factors can be separated analytically from external, social influences. They continue that “risk factor research has tended to overlook and downplay neighborhood characteristics as risk factors for youth crime... However, the impact of neighborhood on offending careers of young people with low socio-economic status may be decisive. The routine adversity of life in high-crime neighborhoods may overwhelm even the best efforts of parents and families to prevent their child’s involvement in crime.”<sup>26</sup> In his report to Congress, Nilsen (2007) cites studies about the Moving-to-Opportunity experiment that found that “arrest rates were lower among young people from low-income families who were given a voucher to live in a low-poverty neighborhood as opposed to their peers who stayed in high-poverty neighborhoods.”<sup>27</sup> And, Calvert (2002) finds that adolescents living in disordered neighborhoods are more likely to engage in adolescent delinquent behavior. She suggests three possible explanations. Adolescents in disordered neighborhoods have more opportunity to interact with criminals. Social disorganization (low socioeconomic status, high population turnover, racial heterogeneity) in disordered neighborhoods decreases the ability of residents to work towards common goals. And, other intervening factors (family income, number and quality of community resources) may enhance the negative impact of living in disordered neighborhoods.<sup>28</sup>

In *Physical Environment and Crime*, Taylor (1996) suggests four approaches to improving an environment to reduce crime.<sup>29</sup> One example is improving housing design which includes reducing tall shrubs, alcoves, and blind corners, and increasing long lines of sight and multiple exit points. Another example is the Broken Window Thesis (Kelling and

Coles, 1996) which suggests that physical deterioration leads to resident fear and isolation which increases physical deterioration and encourages criminal behavior.<sup>30</sup> Kelling and Coles (1996) advocate quickly and regularly fixing small problems (broken windows, graffiti, trash) and the result will be an overall reduction in criminal behavior. New York City, Albuquerque, Lowell (Massachusetts) and the Netherlands all report success with implementing the Broken Window Thesis.<sup>31</sup>

The evidence supporting the role of community conditions in the promotion of criminal behavior is not universal. Thacher (2004) reviewed recent research and concludes that “the relationship between disorder and serious crime is modest.”<sup>32</sup>

# Opinions, policies and laws

Introduction

Social/Economic factors

Family/Individual factors

Associated factors

In 2006, the United States inmate population totaled 2.3 million. From the 1920s through the mid 1970s, the rate of incarceration per 100,000 hovered at 110. Since the 1970s, the number has increased by over 400% and currently stands at almost 500 per 100,000.<sup>33</sup> At the same time, the United States has the “lowest commitment to employment and training, as well as the distinction of being the only industrialized nation that lacks universal health care and child care, pair (both parent) leave, and adequate income supports.”<sup>34</sup>

The significant increase in the criminal justice system, and a significant factor in individual’s involvement in criminal justice, is changing public opinion and resulting public policy. Greenwood (1998) writes that “the public response to crime has been to progressively increase the rate at which criminals are sent to prison and the length of time they stay there. The 1980s saw the largest growth in the U. S. prison population since the penitentiary was invented, as legislatures around the country passed a flurry of new bills establishing mandatory minimum sentences for various crimes.”<sup>35</sup>

These public opinion and policy changes are most clearly described by Guetzkow from Harvard University. Guetzkow (2006) compares hearing testimony for ten significant welfare and criminal justice acts beginning with the Juvenile Delinquency Control Act of 1961 through the Personal Responsibility and Work Reconciliation Act of 1996. He concludes that changes in beliefs about the causes of poverty and crime have resulted in “the unprecedented expansion of the criminal justice system.”<sup>36</sup> TABLE 1 summarizes his analysis.

**TABLE 1: Summary of Common Elements of Federal Welfare and Criminal Justice Policies**

Conceptions and policies	1960s War on Poverty	1980s/1990s War on Drugs
Causes of poverty and Crime	<ul style="list-style-type: none"> <li>▪ Community breakdown</li> <li>▪ Blocked / lack of opportunities</li> <li>▪ Lack of education</li> </ul>	<ul style="list-style-type: none"> <li>▪ Family breakdown / teen pregnancy</li> <li>▪ Too much welfare</li> <li>▪ Drugs and not enough punishment</li> </ul>
Conceptions about poor and criminals	<ul style="list-style-type: none"> <li>▪ Psychological</li> <li>▪ Lack of education, skills and hope</li> </ul>	<ul style="list-style-type: none"> <li>▪ Rational</li> <li>▪ Lack of values</li> </ul>
Attributions of blame	<ul style="list-style-type: none"> <li>▪ Society is accountable</li> </ul>	<ul style="list-style-type: none"> <li>▪ Individual is responsible</li> </ul>
Interventions	<ul style="list-style-type: none"> <li>▪ Job Corps (instill education and hope)</li> <li>▪ Early Prevention (avoid labeling)</li> <li>▪ Community Action (empower communities)</li> <li>▪ Job Training (provide skills)</li> </ul>	<ul style="list-style-type: none"> <li>▪ Shock incarceration / boot camps (instill values and discipline)</li> <li>▪ Welfare cutbacks (encourage work)</li> <li>▪ Tougher penalties (deterrence and incapacitation)</li> <li>▪ Individualized welfare (impose personal responsibility)</li> <li>▪ Child support enforcement (enforce personal responsibility)</li> </ul>

Table Created by Guetzkow (2006, 33). Used with permission.

Other authors have alternately suggested that the phenomenal growth in the prison populations have resulted from “changes in illicit drug markets, the deinstitutionalization of

the mentally ill, and the declining labor market for low-skilled men.”<sup>37</sup> Raphael and Stoll (2007) modeled the impacts of these factors on prison growth and found that the collective changes in state and federal criminal justice policy since 1970 explain “80 to 85 percent of prison expansion.” For instance, since the three strikes law was implemented in California in the 1994, drug offenders in prisons and jails have increased 1,100%.<sup>38</sup> Two-thirds of those incarcerated have been for non-violent offenses, and counties that used the new law most heavily have not seen a greater decrease in crime than those that used it more sparingly.”<sup>39</sup> Raphael and Stoll (2007) echo the conclusion that the extraordinary increase in incarceration is “one of the largest policy experiments of the 20<sup>th</sup> century.”<sup>40</sup>

This changing public opinion and resulting changes in criminal

“Kids get brought into the system for behavior that schools would have managed before – for instance a pocket knife in a backpack.”

*Opinion expressed at Probation Department Focus Group*

justice policy have had a significant impact on juveniles. Myers and Farrell (2008) report that “the last 20 years have witnessed more punitive sentencing of juveniles and a 72% increase in the overall number of children in juvenile detention facilities since the early 1990s despite the lowest rate of violent crimes committed by youth in a generation.”<sup>41</sup> In fact, some authors argue that involvement in juvenile justice is itself a risk factor for ongoing criminal behavior. Bernburg and Kohn (2003) found that juvenile justice intervention during adolescence increased crime in adulthood because judicial involvement hindered academic success, increased unemployment, and introduced juveniles to negative peer influences.<sup>42</sup> Gatti, Tremblay and Vitaro (2009) found that “intervention by the juvenile justice system, is positively correlated with adult crime.” Placement in a juvenile institution “exerts by far the strongest criminogenic effect.”<sup>43</sup> They conclude that “the data reveal not only the inefficacy of the juvenile justice system but also its iatrogenic effects [negative effects caused by treatment].”<sup>44</sup> Myers and Farrell (2008) report that “while entering the juvenile justice system is the culmination of risk, detention itself has become a risk factor for continuing difficulty. Youths in the juvenile justice system have high recidivism rates, poor academic outcomes, and limited chances for success in adulthood.”<sup>45</sup> Adolescents involved in the juvenile justice system have significantly higher rates of mental disorder, including depression, than adolescents in the general population.<sup>46</sup> This is most strikingly illustrated through the evidence collected during intake at several state facilities. For example, a sample of all juveniles adjudicated and disposed in North Carolina in 2007 found that 72.7% had mental health needs.<sup>47</sup> Similarly, a 2006 sample of juvenile offenders in Hawaii found that 36% had suicidal thoughts.<sup>48</sup> Greenwood (2008) summarizes the impact on juveniles of involvement in the juvenile justice system. “There are many reasons to prevent juveniles from becoming delinquent. The most obvious reason is that delinquency puts a youth at risk for drug use and dependency, school drop-out, incarceration, injury, early pregnancy, and adult criminality. Saving youth from delinquency saves them from wasted lives. Preventing delinquency prevents the onset of adult criminal careers and thus reduces the burden of crime on its victims and on society.”<sup>49</sup>

# Family dysfunction

Introduction

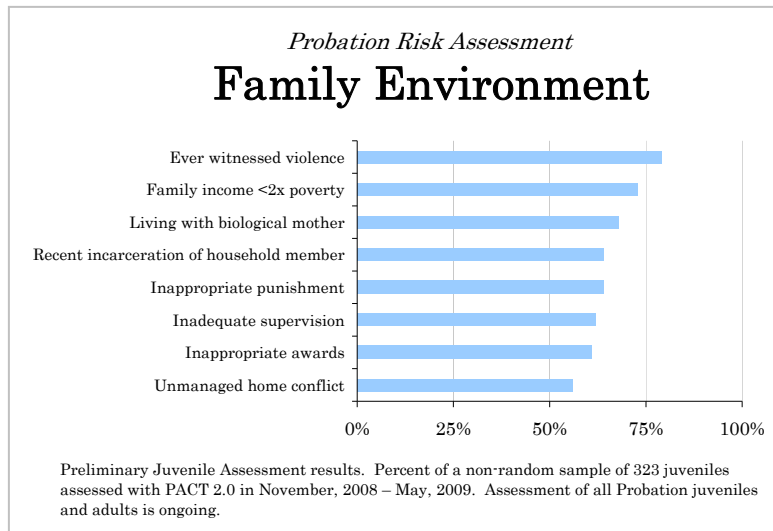
Social/Economic factors

Family/Individual factors

Associated factors

In one of the earliest reviews of the literature, Buka and Earls (1993) identified a number of family characteristics that are associated with child delinquency. They concluded that the weight of the evidence supported a link between juvenile criminal behavior and parenting practices, parental criminal record, child abuse and neglect, family discord and poor marital relations.<sup>50</sup> In a later review of the literature, Farrington and Loeber (2000) confirmed these findings reporting that “the most important family risk factors for juvenile violence are parental criminality, parental child-rearing techniques (physical discipline, poor supervision, low attachment), child maltreatment, parental conflict, disrupted families, large family size, and family poverty.”<sup>51</sup> Felitti (cited in Kilburn, 2008) has conducted one of the longest studies about Adverse Childhood Experiences (ACE) and has found that “abuse, neglect, witnessing domestic violence, growing up with alcohol or other substance abuse, mental illness, parental discord, or crime in the home” are all “pathways toward bad outcomes in adulthood.”<sup>52</sup> Finally, Keller (2002) found that in youth raised in homes with substance abusing parents, the likelihood of engaging in delinquent activity increased with the number of parent figure transitions and parenting disruptions.<sup>53</sup>

The relationship between poverty and childhood neglect and/or abuse is well-documented.<sup>54</sup> Children who live in families with incomes less than \$15,000 are 22 times more likely to be abused or neglected as those in families with incomes more than \$30,000.<sup>55</sup> Widom’s (1989) study of more than 900 children who had been abused or neglected before the age of 11 found that by the age of 20, abused children were more likely



“This is huge. This is probably your number one factor. It’s such a huge mountain to climb. Most [jail inmates] came from families with problems.”

*Opinion expressed at Probation Department Focus Group*

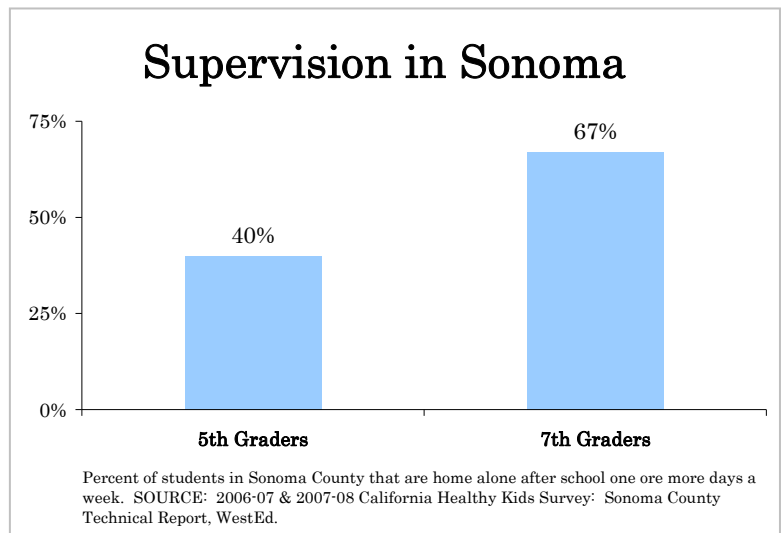
“The incidence of child abuse and neglect is itself traumatic and time spent in foster care can also be traumatic.”

*Opinion expressed at Human Services Department Focus Group*

to be arrested for juvenile and adult crime than their non-abused peers, regardless of age, gender, race, elementary school class, and place of residence.

Another study found that violent behavior among adolescents who were exposed to high levels of home violence was three times higher for girls and two times higher for boys when compared with adolescents from low violence homes.<sup>56</sup> Children do not need to be the primary target of a violent act in order for it to negatively impact their development. Multiple studies show that children who witness violence are more likely to commit violent acts as they age.<sup>57</sup> For example, witnessing violence during early childhood is associated with higher levels of delinquency by the age of 14.<sup>58</sup> A longitudinal survey conducted by the Christchurch Health and Development Study (1998) of more than 1,200 children in New Zealand found that youths who witnessed violence between their parents were more likely to commit violent and property offenses.<sup>59</sup>

The relationship between low levels of supervision and increased delinquency is so strong that actuarial risk assessments include it when determining the likelihood that an arrested juvenile will re-offend.<sup>60</sup> By the same token, having an antisocial parent is second only to the presence of conduct problems during childhood in terms of its ability to predict adult antisocial personality.<sup>61</sup>



“Parents are disconnected from what their kids are involved in. There is just no supervision. Poor behavior goes unchecked by parents.”  
*Opinion expressed at Law Enforcement Focus Group*

# Early antisocial behavior

Introduction

Social/Economic factors

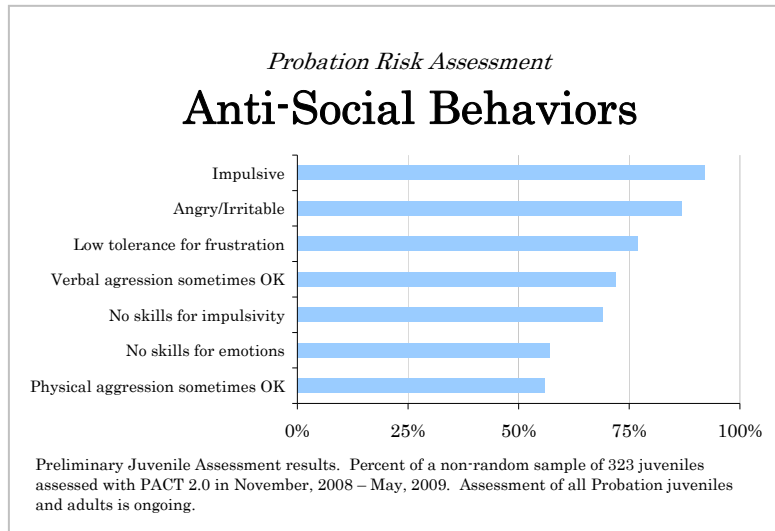
Family/Individual factors

Associated factors

The evidence is clear that early antisocial behavior is predictive of later criminal behavior. In their early review of the literature, Buka and Earls (1993) report that behavior problems, low cognitive ability, attention deficit and hyperactivity, learning disabilities, poor motor-skill development, and head injuries are all associated with increased criminal behavior.<sup>62</sup> They conclude that “the single strongest individual-level predictor of violence in adolescence and adulthood is antisocial behavior (aggression, stealing, lying, dishonesty) during late childhood and early adolescence.<sup>63</sup> In another review of the literature, Farrington and Loeber (2000) cite “hyperactivity, impulsiveness, poor behavioral control, risk taking, and attention problems” as important dimensions that predict juvenile violence.<sup>64</sup>

In addition to understanding the published literature reviews, it is useful to explore individual studies. White and colleagues (1990) report that of a host of measures, “preschool behavior problems measured at ages three and five were the best predictors of persistent antisocial outcomes in early adolescence.”<sup>65</sup> Another study found that children who displayed aggression at 42 months of age consistently displayed aggressive behaviors towards their parents and siblings as early as 17 months.<sup>66</sup> Hyperactivity and aggression in preschool have strong associations with antisocial disorders at age 11.<sup>67</sup> Physically aggressive children in elementary school are the most likely to exhibit physical violence during adolescence and adulthood.<sup>68</sup> Of note, one study which followed 230 males and 75 females from childhood to age 26 found that hyperactivity-impulsivity and early conduct problems independently and jointly do predict arrest – but only for males.<sup>69</sup>

To explain the relationship between early childhood behaviors and later criminal behavior, Farrington and Loeber (2000) propose “three developmental pathways to delinquency. The overt pathway begins with minor aggression, escalates to physical fighting, and then to juvenile violence. The covert pathway begins with frequent lying and minor



shoplifting and escalates first to property damage and then to serious nonviolent delinquency such as burglary. The authority conflict pathway begins with stubborn behavior and escalates to disobedience and defiance (such as truancy and running away).<sup>70</sup> Some researchers go so far as to state that early childhood aggression is the single best predictor of delinquency.<sup>71</sup>

Early childhood aggression is often associated with parent characteristics. It is more common in childhoods with “mothers who exhibited antisocial behaviors during their school years, mothers who started childbearing early and who smoked during pregnancy, and parents who have low income and serious problems living together.”<sup>72</sup> In a new analysis of the Early Childhood Longitudinal Study by Halle and colleagues (2009), infants and toddlers from low income families are less likely to receive positive behavior ratings.<sup>73</sup> Parental risks also include low levels of education and poor parenting skills.<sup>74</sup> Unstable parental unions are associated with increases in childhood aggression by age three, especially among Hispanics.<sup>75</sup> Similarly, a study of 4,898 children in 20 cities found that children with an incarcerated father were 44% more likely to display borderline to clinically aggressive behavior by age five than children whose father had never been incarcerated.<sup>76</sup>

Nagin and Pogarsky (1997) explore the reason that young mothers are more likely to have criminally involved children and report that it is not related to immaturity of the mother but is associated with poor parenting (neglect, poor supervision), mother’s own criminal behavior, and diminished resources (poverty and parental separation).<sup>77</sup> “The onset of early childbearing is not a cause of children’s subsequent problem behavior but rather a marker for a set of behaviors and social forces that give rise to adverse consequences for the life chances of children.”<sup>78</sup>

Finally, and unfortunately, early childhood aggression is not only a predictor of future criminal behavior, it is also a risk factor for future “alcohol and drug abuse, accidents, depression, suicide attempts, spouse abuse, and neglectful and abusive parenting.”<sup>79</sup>

# Negative peers

Introduction

Social/Economic factors

Family/Individual factors

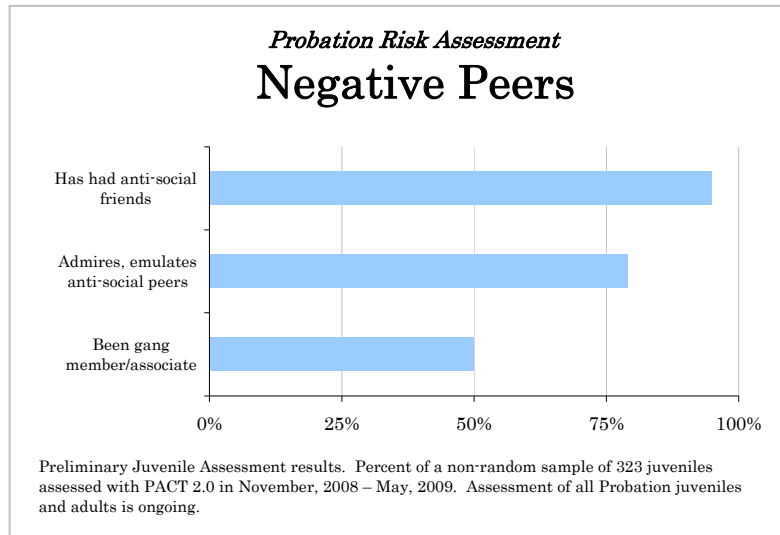
Associated factors

Association with delinquent peers increases an individual's risk for criminal activity. A 2007 risk summary of North Carolina's adjudicated juveniles found that 79% lacked positive peer relationships.<sup>80</sup> These findings were repeated in a 2006 survey of juvenile offenders in Hawaii, which found that 83% of those arrested had negative peer associations.<sup>81</sup> The causal relationship is not clear. Elliott and Menard (1996) conclude that delinquency caused delinquent peer bonding and delinquent peer bonding caused delinquency.<sup>82</sup> Interestingly, there are nuances to peer impacts.

First, research suggests that young offenders (under age 13) are more likely to co-offend.<sup>83</sup> National trends find that 40% of all juvenile offenders commit most of their crimes with others.<sup>84</sup>

Second, the type of peers makes a difference. In new study examining the impact of parents, friends, and romantic partners, Lonardo and colleagues (2009) found that the majority of delinquent juveniles have mixed peers – both deviant and non-deviant. Adolescents with anti-social romantic partners are more delinquent regardless of their friends' or parents' behaviors. The greater the number of anti-social individuals in a child's network, the more likely the child is to exhibit antisocial behavior. And, pro-social parents cannot positively impact their children if the child has both anti-social peers and romantic partners.<sup>85</sup>

Third, gang involvement is important. Farrington and Loeber (2000) cite several different studies that



“The peer environment on the internet is uncontrollable. When we were growing up, we were faced with the consequences of inappropriate language and behavior. Today it is different. Cyber anonymity is the reality.”

*Opinion expressed at Law Enforcement Chiefs Focus Group*

“70% of the kids we see are somehow gang affiliated. And, that might be low. Gang stuff runs through everything that we see.”

*Judge Raima Ballinger*

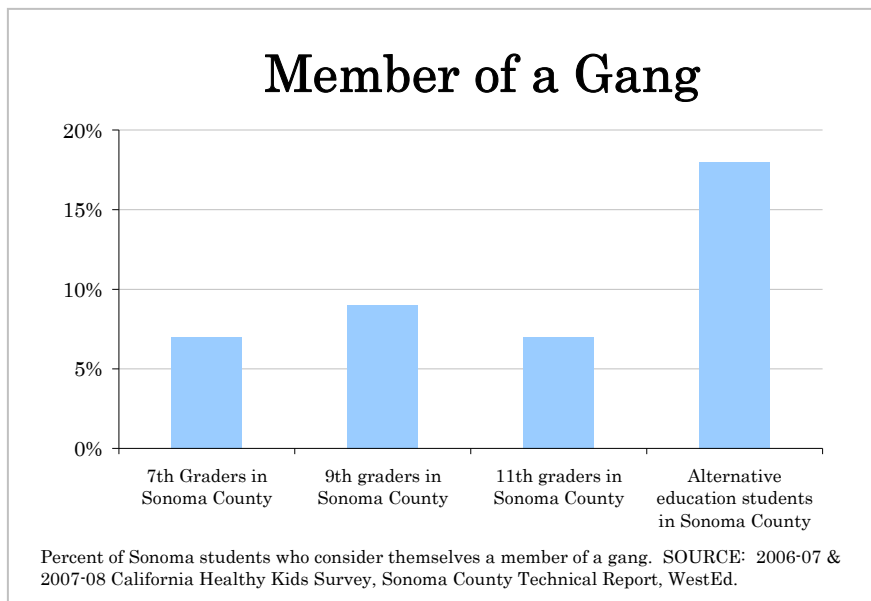
“A lot of juvenile crimes are related to gang initiation. For instance, they carry a weapon so they are accepted by the group.”

*Opinion expressed at Probation Department Focus Group*

found that juveniles in gangs are more likely to be involved in serious and violent crime and that “although representing a minority of the population, gang members are responsible for the vast majority of delinquent acts.”<sup>86</sup>

Finally, negative or low-quality peer relationships can also heighten the negative impact of other risk factors. For example, low-quality friendships and associations with antisocial peers have been shown to

increase the effect of negative parenting during childhood on conduct problems for young teens.<sup>87</sup> By the same token, positive peer friendships and associations can serve to mitigate the effects of a negative home environment.<sup>88</sup>



“In the gang culture, we see more and more parents who were raised in the gang. Grandparents and uncles in the gang. Gang membership is the norm in these families. We have the seen the familial gang involvement for a generation in other areas but it is new for Sonoma County.”  
*Opinion expressed at Law Enforcement Focus Group*

“One of the contributing factors to lasting change is changing the peer environment.”  
*Kira Kayler, Petaluma People Services*

# Associated factors

Introduction

Social/Economic factors

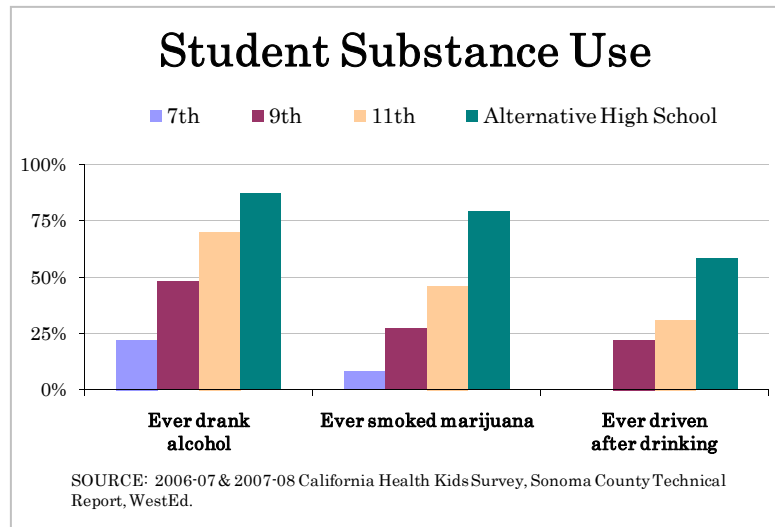
Family/Individual factors

Associated factors

Youth involved in the criminal justice system often display or experience other problems such as “mental and physical health problems, substance abuse, interpersonal difficulties, and low vocational and educational achievement.”<sup>89</sup> Most commonly, these factors are described as resulting from involvement in the criminal justice system or resulting from the factors that contribute to criminal behavior rather than risk factors for criminal behavior.

Myers and Farrell (2008) describe these conditions as associated or comorbid conditions that “serve as risk or exacerbating factors.”<sup>90</sup> They report that an estimated 50% of incarcerated youth have associated conditions. And, they characterize contact with the juvenile justice system as a risk factor for substance abuse and other health problems.<sup>91</sup>

Greenwood (2008) describes delinquency as “putting a youth at risk for drug use and dependency, school drop-out, incarceration, injury, early pregnancy, and adult criminality.”<sup>92</sup> Buka and Earls (1993), in their review of the literature regarding early predictors of delinquency and violence list a variety of family and child characteristics and neighborhood contexts and do not list academic concerns, substance abuse or mental health concerns as factors that contribute to criminal behavior. Gruenwald and Rolnick (2009) discuss the “effects of toxic stress during early childhood” as mental health problems (including depression, anxiety, alcoholism, drug abuse, and learning and memory problems) and physical health problems.<sup>93</sup> Lusane (1991) argues that “the drug problem is at its root, a crisis of economic inequality, social disintegration, misplaced priorities, and pervasive hopelessness at every level.”<sup>94</sup> Currie (1993) summarized 40 years of research and



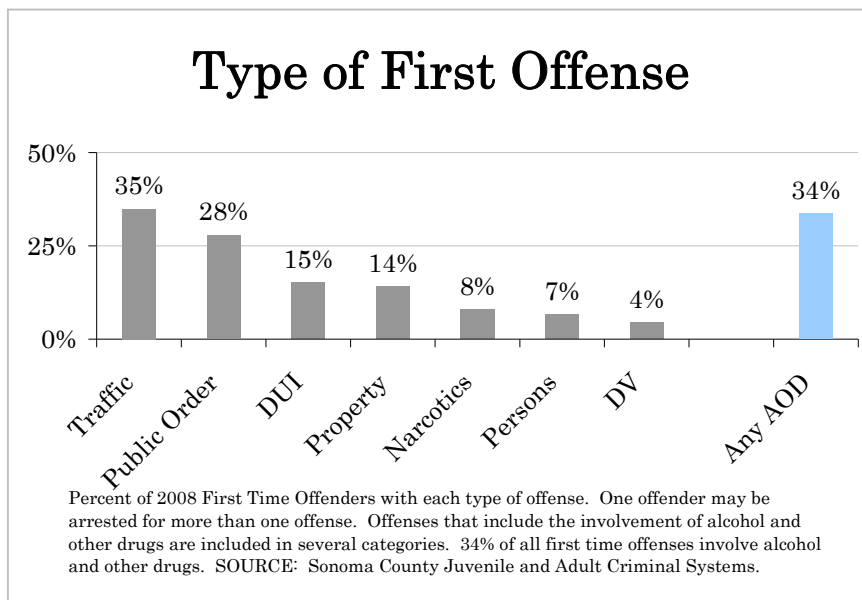
“Kids are using pot and alcohol. But that is not the original issue. The issues are depression, academic failure, inability to read or write. Substance abuse is just a way to cope.”  
*Opinion expressed at Probation Department Focus Group*

“Multi-generational drug use is an issue. When parents use drugs, it becomes internalized as a norm.”  
*Opinion expressed at Probation Department Focus Group*

“The media has normalized pot. Ward Cleaver is now Snoop Dog and he has a pot leaf on his hat.”  
*Law Enforcement*

concluded that “the entrenched drug abuse in our inner cities grows from a constellation of conditions consisting of poverty amidst a society of affluence, confinement in menial and futureless jobs, and the disintegration of family, cultural and community controls and ties in the face of poverty.”<sup>95</sup>

Although substance abuse may not be a factor that contributes to criminal behaviors, there is no doubt that it is an associated condition that often accompanies criminal behavior. A high proportion of individuals under correctional supervision have a history of substance abuse. One survey of state prison inmates found that 70% reported using drugs “regularly” at some point



“The percent of people in jail who have substance abuse issues is overwhelming.”  
*Opinion expressed at Law Enforcement Focus Group*

during their lives, and 57% had used drugs in the one month period preceding their arrest.<sup>96</sup>

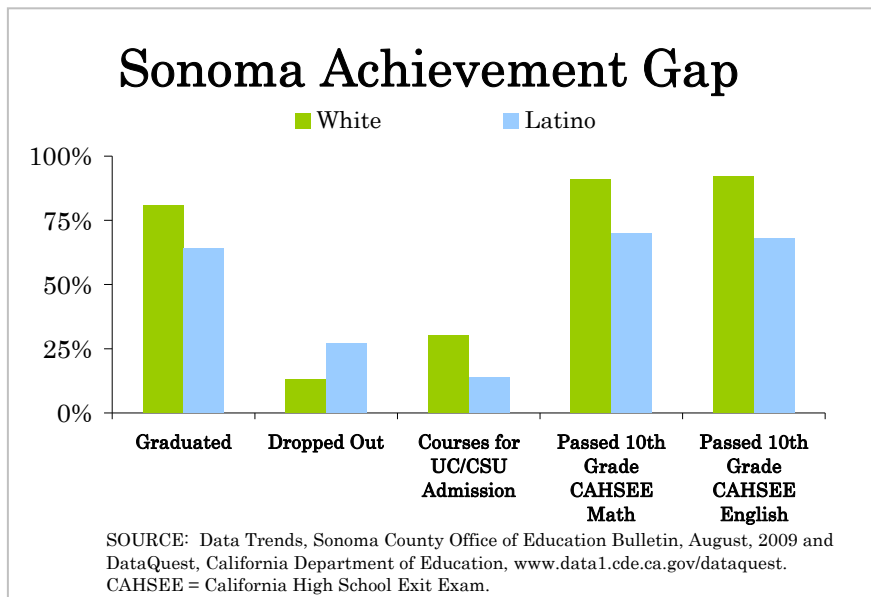
When alcohol use is included, researchers consistently find that over half of state prison inmates were using drugs or alcohol at the time they were arrested.<sup>97</sup>

Many authors discuss the relationship between academic failure and criminal behavior – not as causal but more often as correlational. Myers and Farrell (2008) summarize the literature and report that 30-50% of incarcerated juveniles have been in special education compared to 9% of the general population.<sup>98</sup> In 2003, two-thirds of adult prisoners had less than a regular high school diploma which was twice the rate for the general adult population.<sup>99</sup> Calvert (2002) discusses the “relationship between poor academic performance and delinquency.”<sup>100</sup> The Office of Juvenile Justice and Delinquency Prevention describes truancy as “an early warning sign that youth are headed for potential delinquent activity” rather than as a risk factor for criminal behavior.<sup>101</sup> Leshied (2008) found “no significant [adult criminality] outcomes were associated with school-related problems.”<sup>102</sup> However, the view that academic concerns are an associated factor with criminal behavior rather than a factor contributing to criminal behavior is not universal. Farrington and Loeber (2000) describe low school attainment as one important predictor of juvenile violence.<sup>103</sup>

As with other factors that contribute to criminal behavior, academic concerns disproportionately impact children of color. The Children’s Defense Fund (2001) summarizes the research as follows<sup>104</sup>:

- At 4<sup>th</sup> grade, 13% of Black children and 16% of Latino children read at grade level compared to 41% of White children. In math, 9% of Black children and 13% of Latino children perform at grade level compared to 39% of White children.
- 13% of Latino children and 18% of Black children have been retained a grade compared to 9% of White children.
- In junior and senior high school, 35% of Black children and 20% of Latino children are suspended or expelled compared to 15% of White children.

Cognitive disparities can begin very early in life. In a new study, Halle and her colleagues (2009) found that children from at-risk backgrounds score lower on a cognitive assessment as early as nine months and the gap in score increases as the child grows.<sup>105</sup> At-risk backgrounds included low family income, racial or ethnic minority status, home language other than English, and low maternal education. This study also found that “the more risk factors a child has, the wider the disparities across outcomes.”<sup>106</sup>



“Academic concerns are a risk factor. However, if the other areas are addressed, in many cases we have seen the academic issues improve.”  
*Kira Kayler, Petaluma People Services*

“There’s a correlation between drugs, dropping out of school, not graduating, and criminal behavior. One of the keys is preventing all three of these and making sure that kids are engaged in some fashion and motivated to go to school.”  
*Opinion expressed at Law Enforcement Chiefs Focus Group*

# Summary

Introduction

Social/Economic factors

Family/Individual factors

Associated factors

This section has reviewed the published literature about the social, economic, family and individual factors that contribute to criminal behavior. It has also reviewed published literature about several associated factors that often concurrently stem from these factors. In addition, this section has described what is known about Sonoma County demographics and services related to these factors, and illustrated the collective experience and wisdom shared by county service delivery providers.

“In my professional experience, it is the accumulation of these factors that contribute to young people getting involved in high risk behavior.”  
*Linda T. Walsh, LifeWorks*

Leschied and his colleagues (2008) have conducted the only meta-analysis<sup>107</sup> to date of 38 published longitudinal studies that followed individuals from childhood to adulthood and documented their childhood experiences. Using these studies, Leschied and his colleagues calculated the effect of childhood experience on adult criminal behavior. They found that no individual childhood experience had a strong predictive value for adult criminal behavior. And, they found that the following childhood experiences have a statistically significant medium or small predictive value for adult criminal behavior (listed from medium to small predictive value).

- **Family structure** (child welfare involvement, parental marital status)
- **Externalizing concerns** (lack of control, antisocial behavior, hyperactivity, aggression, conduct disorder)
- **Parent management** (coercive, inconsistent, lacking in supervision)
- **Adverse family environment** (witnessing family violence, child maltreatment)
- **Internalizing concerns** (depressive symptoms, anxiety)
- **Family demographics** (socio-economic status, mother’s age at birth, birth complications, parental criminal history)
- **Parent mental health**

This meta-analysis confirms that the influences of early childhood family dysfunction and early antisocial behavior have a significant and noticeable impact on adult criminal behavior. It supports the theory that the role of race/ethnicity in the demographics of those arrested for criminal behavior is better understood as a proxy for poverty. And, it confirms the associative, rather than predictive, relationship between criminal behavior and academic achievement.

Finally, it is important to note that the factors that contribute to criminal behavior are complex and interrelated. Leschied’s (2008) meta-analysis clearly shows that no one individual factor is solely predictive of adult crime. Leschied concludes that “it is the combination of factors as well as the intensity of a specific risk factor that leads to the overall potency of prediction” for adult criminal behavior.<sup>108</sup> Buka and Earls (1993) also conclude that “criminal behavior results from a complex interplay of multiple factors cascading over multiple points in the life course.”<sup>109</sup> Myers (2008) concludes that “studies to date indicate that juvenile offenders are disproportionately male, minority youth from impoverished families, poor communities, and single-parent households. These youth are at increased risk for comorbid and contributing conditions including health and dental problems, mental health disorders, and learning and developmental disabilities.”<sup>110</sup>

“Risk factors tend to be cumulative, to interact with one another, and to be mutually reinforcing. The literature talks about clusters of risk factors. This is what is important to me. No single factor is responsible for serious delinquency and violence.”

*Rita Scardaci, Department of Health Services*

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# Chapter 3

## Effective and cost beneficial upstream interventions

“It starts with families and then leads to the rest. When we see kids in junior high and high school it is almost too late. By then, things are so firmly rooted that it is difficult to change.”  
*Judge Allan Hardcastle*

### upstream from Sonoma County Juvenile Hall...

L was born to a crack addicted mother who died of an overdose just after he was born. His father was also a crack addict and was not involved in L's childhood. L was raised by his paternal aunt. L had special education needs and had difficulty getting through his Probation program. L was ultimately successful with his Probation program because of his aunt's support.

### upstream from Sonoma County Juvenile Hall...

J's alcoholic father was very physically abusive of J and died when J was 12. J turned to gangs for male attention. His mother did a great job supporting him in his Probation program. J completed his program and secured a good job. He still associates with gangs, but has not been re-arrested.

# Introduction

Introduction

The second part of the charge to the Upstream project was to “recommend 2-3 initiatives to reduce downstream criminal justice costs.” With criminal justice costs currently accounting for over half of the discretionary County general fund budget, it is prudent to explore options that may reduce the need for criminal justice services and provide the opportunity to divert saved general fund to other county services. To this end, the Upstream Team reviewed the literature about upstream interventions that are empirically shown to reduce crime and/or the factors that contribute to criminal behavior. Two main themes emerged. Ensuring protective factors for children builds resilience. And, the most effective ways to ensure protective factors and build resilience are through early childhood interventions. To identify potentially effective and cost beneficial upstream interventions for Sonoma County, the Upstream Team developed a rigorous methodology to screen potential programs and conducted a Sonoma County cost benefit analysis related to County criminal justice funding.

Effective interventions

Cost benefit

# Protective factors and resiliency

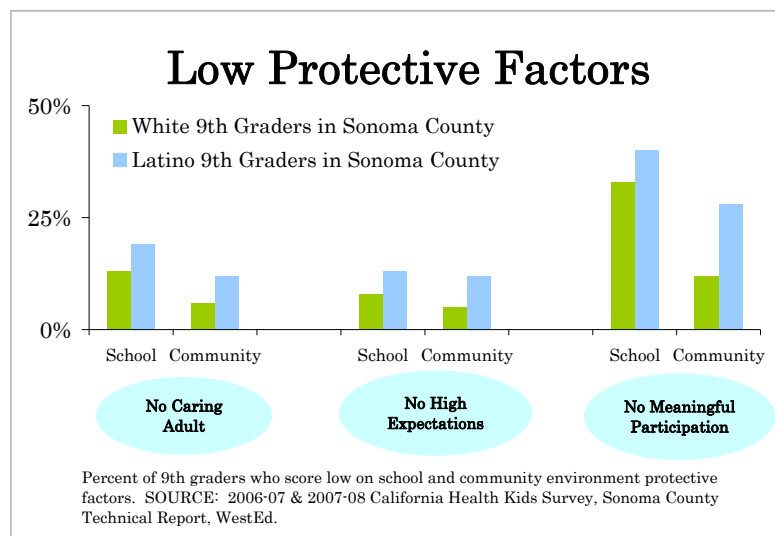
Introduction

The resiliency paradigm has long been proposed in the literature as the key to understanding how people rise above adversity. Marshall (2007) describes resilience as “a natural, innate human capacity for navigating life successfully.”<sup>1</sup> Myers discusses resilience as the “ability to remain healthy in spite of adversity and the capacity to avert negative outcomes when confronted with common risk factors.”<sup>2</sup> Bonnie Benard, the most prolific thinker and writer about protective factors and child resiliency, describes the resiliency paradigm as “a widespread conceptual shift from thinking that youth problems are the principal barrier to youth development, to thinking that youth development is the most effective strategy for the prevention of youth problems.”<sup>3</sup> William Lofquist further explains this concept. “Only when adults view and respect young people as resources from the time of their birth are we likely to create organizational and youth opportunity systems and cultures that in fact promote the well-being of young people.”<sup>4</sup>

Effective interventions

Benard synthesizes the literature on resiliency and has identified three key protective factors found in families, schools and communities that promote resiliency in children:

1. Having a caring and supportive relationship with at least one adult.
2. Communicating consistently clear and high expectations to the child.
3. Providing ample opportunities for the child to participate in and contribute meaningfully to his or her social environment.<sup>5</sup>



“I have found, over my career, that when children develop a relationship with a significant adult they are more successful. That relationship needs to last over time, and develop beyond the traditional teacher-student or principal-student relationship.”

*Bob Raines, Alexander Valley Union School District*

When children have these three key protective factors, they can develop the resiliency skills so important for life: social competence, problem-solving, autonomy, and a sense of

Cost benefit

purpose/future.<sup>6</sup> Based on the results of the National Longitudinal Study on Adolescent Health, Blum and Rinehart (1998) describe the following specific characteristics of a protective family environment. And, they conclude that although American young people have lost, on average, 10-12 hours per week of parental time (due to parental work schedules), “parents and family are still central in the lives of both younger and older teenagers and parents do make a difference in the lives of their adolescent children.”<sup>7</sup>

- Connectedness – a high degree of caring, understanding, love, being wanted, and attention
- Regularly participating in activities with a parent
- Parent presence before school, after school, at dinner and bedtime
- Lack of easy access to guns at home
- Lack of easy access to cigarettes, alcohol, and drugs at home
- No family suicide attempts or completions in the past year
- Parent disapproval of sex and use of contraception
- High parent expectations for high school and college

Benard has proposed four rationales for adopting a resiliency paradigm.

First, resiliency is more important than risks. Benard proposes that it is imperative to focus on protective factors rather than being “preoccupied with risk factors” because “solutions do not come from looking at what is missing; solutions will come by building on strengths.”<sup>8</sup> Werner and Smith (2002) summarize life-span research and conclude that “these buffers [protective factors] make a *more profound* impact on the life course of children who grow up under adverse conditions than do specific risk factors or stressful life events. They seem to transcend ethnic/social class and geographical/historical boundaries. They provide us with a corrective lens – an awareness of the self-righting tendencies that move children toward normal adult development under all but the most persistent adverse circumstances.”<sup>9</sup>

Second, a resiliency paradigm supports individual and community change. Perhaps one of the most compelling reasons to move from a risk factor to a protective factor approach is that focusing on risk factors may actually discourage success. “An enormous body of research has documented the deleterious effects of programs that label and track kids. We end up with programs that perhaps further ‘blame the victim’ and further stigmatize disenfranchised populations. The labeling process is clearly a de-motivator to change. For people to change, they have to have a sense of self-efficacy. They have to believe and hope that they have the strengths and the abilities to make positive changes.”<sup>10</sup> Haines (2008) writes that “interventions prioritizing the reduction of risk factors imply

criticism, focus on inadequacies, and harbor negative connotations.” Conversely, he writes that “interventions focusing mainly on enhancing protective factors are more positive and are likely to be more attractive to the people and neighborhoods involved.”<sup>11</sup> California educator, Herb Kohl, says about a risk factor paradigm, “I have never taught an *at-risk* student in my life. The term is racist. It defines a child as pathological, based on what he or she might do rather than on anything he or she has actually done. Rather than define children as *at-risk* it would be more effective to join with community members to eliminate poverty.”<sup>12</sup> A student with lifelong anxiety and schizoaffective disorder, who had received services based on resiliency theory, said, “When you notice that someone has the expectation that they are going to see health in you, at the center of your being, you begin to find that health yourself.”<sup>13</sup>

Third, a resiliency paradigm offers solutions. “While certainly a giant step in the right direction, the identification of risks does not necessarily provide us with a clear sense of just what strategies we need to implement to reduce the risks.”<sup>14</sup> Garnezy and Rutter (1991) agree that the goal should be to “increase our knowledge and understanding of reasons why some children are not damaged by deprivation. It is only then that we can create a protective shield that helps children withstand the multiple vicissitudes that they can expect of a stressful world.”<sup>15</sup>

Fourth, a resiliency paradigm offers hope to practitioners. Emily Dickinson writes, “I dwell in possibility.”<sup>16</sup> This attitude of possibility, according to Benard, “promotes positive intervention outcomes and prevents burnout. A risk-focused approach discourages the development of this attitude of possibility in practitioners by bogging them down in problems and deficits instead of focusing their energy on solutions and strengths.”<sup>17</sup>

# Early childhood interventions

Introduction

Academic researchers and economists agree that early childhood interventions are the most effective options to reduce entry to and long term involvement in the criminal justice system. Early childhood (from birth to kindergarten) is an extremely important time in a child's development. Robert Dugger (2007) of the Tudor Investment Corporation summarizes the literature about early childhood development as follows. "From the time of conception to the first day of kindergarten, development proceeds at a pace exceeding that of any subsequent stage of life. It is during this time that the brain undergoes its most dramatic growth, and children acquire the ability to think, speak, learn and reason. Early experiences can and do influence the physical architecture of the brain, literally shaping the neural connections in an infant's developing brain."<sup>18</sup> The factors that contribute to the onset of criminal behavior (discussed in the previous section) are all (except negative peer influences) factors that begin early in life.

Effective interventions

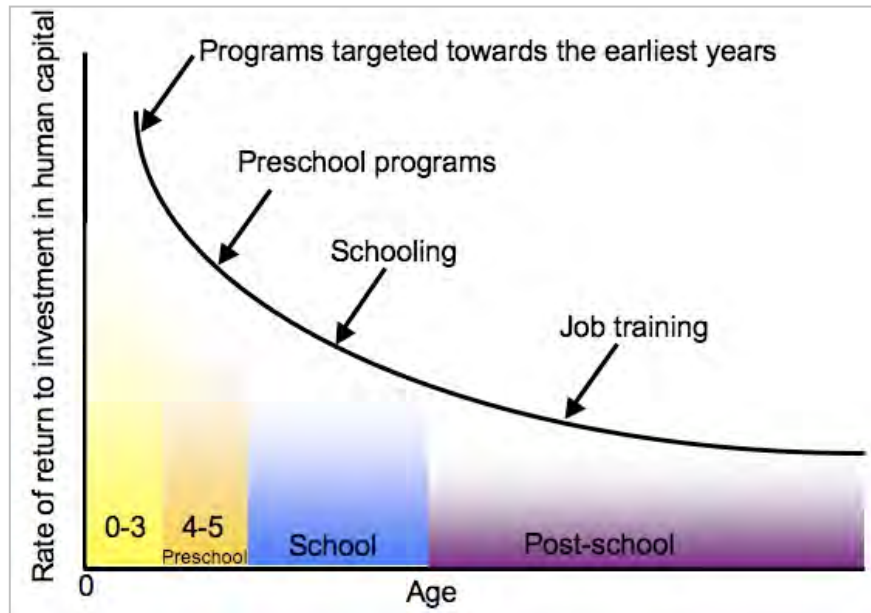
Academic researchers cite early interventions as the most important crime prevention activity. Buka and Earls (1993, Harvard University) write, "More and more evidence seems to suggest that successful efforts to curb violent behavior should begin early in a child's life. Our rationale for the focus on early childhood is not that we believe that interventions in this period offer a panacea to control violence, but rather that it is a period during which the central nervous system changes rapidly and profoundly and during which the attitudes and habits of children are formed. Our society has not yet committed itself to supporting families during this critical development period."<sup>19</sup> Tremblay (2004, University of Montreal), who specializes in brain development and disease research, writes that "because most children seem to learn to inhibit physical aggression during the preschool years, this period of life may be the most appropriate for preventive interventions."<sup>20</sup>

Cost benefit

In recent years, economists have also acknowledged the effectiveness of early childhood interventions. "An increasing chorus of Fortune 500 CEOs, Federal Reserve Bank analysts, Nobel Prize-winning economists, and other business and economic leaders have led the call to increase public investments in early childhood."<sup>21</sup> Perhaps one of the most comprehensive economic discussions of the effects of early childhood interventions has been developed by Nobel Laureate in Economics, James Heckman from the University of Chicago. His "Heckman Curve" is widely referenced in discussions about early childhood interventions. Heckman (2007) explains his theory. "Many major economic and social problems, such as crime, teenage pregnancy, dropping out of high school and adverse health conditions can be

traced to low levels of skills and ability in the population. Ability gaps between the advantaged and disadvantaged show up early in the life of the child. Life cycle skill formation is dynamic in nature. Skill begets skill; motivation begets motivation. If a child is not motivated or stimulated to learn and engage early on in life, the more likely it is that when the child becomes an adult

Heckman Curve



[he/she] will fail in social and economic life. The longer we wait to intervene in the life cycle of the child, the more costly it is to remediate.”<sup>22</sup>

Other economists agree with Heckman. Kilburn and Karoly (2008), senior economists with the RAND Corporation, conclude that “investing in human capital formation early in the life cycle is likely to be more efficient than mitigating disadvantage at older ages. Indeed, research on attempts to provide remedial human capital investments for adults in the form of job training, for example, have often concluded that these efforts have been largely unsuccessful.”<sup>23</sup> Dugger (2007), an economist and the Managing Director of the Tudor Investment Corporation writes that “the economic literature is unmistakable. Dollars invested in early childhood development yield extraordinary returns and pay big dividends to society including increased skill in the workforce, improved health, and reduced crime. A key difference between early childhood investments and investments at primary and secondary education levels is the potential for compounding. That is, enhancing early childhood development appears to improve a child’s ability to learn at later stages.”<sup>24</sup> Martin (2009), an Assistant Professor of Economics and Public Policy at the University of Alaska, in a study commissioned by the Alaska Senate, found that “programs that prevent future crime by helping very young at risk children are the most effective.”<sup>25</sup> And, Temple (2007), an Associate Professor in Public Affairs at the University of Minnesota, explains that “the main attractions of preschool programs appear to be their potential for prevention of future labor force and crime problems for participants and the associated reduction in social costs.”<sup>26</sup>

The promise of early intervention programs is great. In fact, Karoly (2005) reports that “it is plausible that [early childhood intervention] programs may improve outcomes for descendants [children and grandchildren] of participants.”<sup>27</sup> However, even with this promise, early childhood interventions cannot fully overcome the difficult circumstances in which many children are raised. Karoly reminds us that “the improved outcomes realized by participation in targeted early intervention programs are typically not large enough to fully compensate for the disadvantages those children face. While early intervention programs can improve outcomes over what they otherwise would have been, they typically do not fully close the gap between the disadvantaged children they serve and their more advantaged peers.”<sup>28</sup> And, policy makers recognize the tension between investing in early interventions for the future and managing immediate problems today. “While the [early intervention] approach is proactive and pre-emptive, it must be in addition to, not instead of, the more reactive ‘fire-fighting’ needed for specific immediate problems. Synchronizing the foundational elements of an early intervention menu with mainstream provision is vital. Without tying the mega-spending mainstream programs into the culture, consciousness and planning of early intervention, they will continue on auto-pilot and underachieve. A key underlying assumption guiding this work is that mainstream providers make a contribution towards a genuinely comprehensive early intervention strategy in their locality.”<sup>29</sup>

Littleton, Colorado is a good example of a community that has developed a community-wide commitment to upstream principles. Within a month of the Columbine High School tragedy, the Greater Littleton Youth Initiative was formed with the mission of providing a supportive environment, reducing risk factors and increasing protective factors, increasing support for effective programs, and building community involvement. This all volunteer organization, supported with financial and in-kind donations from a variety of private and public entities, has implemented and is evaluating a package of six Blueprint programs: Nurse Family Partnership, Incredible Years, Big Brothers/Big Sisters, Life skills Training, Functional Family Therapy, and Bully-Proofing Your School.<sup>30</sup> Kay Wilmesher, the program manager, reports, “What makes our collaboration so unique and strong is that we are focused on implementing and sustaining effective Blueprint programs. Our program is well embedded in the community, particularly with our politicians and decisions makers.”<sup>31</sup>

# Effective upstream interventions for Sonoma County

Introduction

The Upstream Investments Project was chartered by the Sonoma County Board of Supervisors with “recommending 2-3 initiatives to reduce downstream criminal justice costs.”<sup>32</sup> To meet this charter, the Upstream Team articulated the following criteria that a program must meet to be considered by Sonoma County as an effective upstream program. These criteria were approved by the County Administrator on December 18, 2008.

## **Evidence based**

- No evidence of substantial risk of harm and the weight of the evidence supports the practice.
- Replicability (for instance with an implementation book or manual).
- At least one published randomized controlled trial finding the practice to be superior to a comparison.
- Sustained effect of at least six months.

## **Target population**

- Individuals who have not yet been arrested for a criminal offense.

## **Effect**

- Proven to reduce the likelihood that an individual will commit a first offense; OR
- Proven to reduce the presence of one or more of the social, economic, family, or individual factors that contribute to criminal behavior.

## **Savings**

- Promises savings to discretionary County General Fund that are greater than or equal to the costs of implementation within 10 years of inception.

In addition to early childhood interventions, many programs have been developed and implemented that are designed to reduce the likelihood that an individual will become involved in the criminal justice system. To identify promising programs for Sonoma County consideration, the Upstream Team synthesized the results of meta-analyses conducted by the following nine organizations. These nine organizations used evaluation criteria in their meta-analyses that were substantially similar to those selected by Sonoma County (and listed above). See Appendix A for more details about the evaluation criteria used by these organizations.

1. Washington State Institute for Public Policy
2. Office of Juvenile Justice and Delinquency Prevention
3. RAND Corporation
4. Interagency Working Group on Youth Programs
5. Center for the Study and Prevention of Violence, University of Colorado
6. Substance Abuse & Mental Health Services Administration
7. Association for the Advancement of Evidence-Based Practice
8. Office of the Surgeon General
9. Promising Practices Network

Effective interventions

Cost benefit

These nine organizations have reviewed hundreds of programs that are designed for individuals who have not yet committed a criminal offense and are implemented across the life cycle from ages birth to 18. (The nine organizations did not necessarily evaluate the same programs.) All nine organizations evaluated programs to determine if they are effective in reducing crime and/or mitigating the factors that contribute to criminal behavior. Three of the organizations also analyzed the cost benefit of the programs that they found to be effective. Of the hundreds of upstream programs evaluated by these nine organizations, 141 are identified by at least one of the nine organizations as effective in reducing crime or reducing the factors that contribute to crime. NOTE: Programs that are solely designed for and effective in reducing substance abuse, mental disorders, and academic concerns are not included in this meta-analysis. See Appendix A for a complete list of the 141 programs.

The following nine programs are listed as cost beneficial by at least one of the reviewing organizations and as effective by enough other reviewing organizations to total five reviewing organizations. In other words, a majority of the nine reviewing organizations endorse these nine programs. See Appendix D for a full description of each program.

1. **Nurse Family Partnership**  
*(prenatal and infancy nurse home visits for low-income, first-time parents and child)*
2. **Perry Pre-School**  
*(high quality pre-school education for disadvantaged children ages 3-4)*
3. **Strengthening Families Program**  
*(family skills training program for children ages 3-16)*
4. **Big Brothers / Big Sisters**  
*(one-to-one relationships for children and adolescents with a caring adult)*
5. **Caring School Community Program**  
*(elementary school program that builds student connectedness to school)*
6. **Good Behavior Game**  
*(classroom management strategy to reduce aggressive/disruptive behavior)*
7. **Guiding Good Choices**  
*(drug/antisocial behaviors prevention program for parents of students grades 4-8)*
8. **Life Skills Training**  
*(school-based program to prevent drug use and violence for grades 3-9)*
9. **Project Toward No Drug or Tobacco Use**  
*(school based drug prevention program for high school youth)*

The Upstream Team also conducted a local inventory to identify which of the 141 programs listed as effective by at least one of the nine reviewing organizations are currently implemented in Sonoma County. The Upstream Team surveyed 170 state offices, county and city departments, education entities, and community and faith based organizations. 50% responded to the survey. In the survey, organizations were asked to identify which evidence-based programs they currently implement.

Organizations listed 71 current programs that they identify as evidence-based. These programs are listed in Appendix C. Of these 71 programs, the following 16 are listed as effective in the meta-analyses conducted by one or more of the nine reviewing organizations. For a full description of the inventory process, refer to Appendix C. When evidence based programs are implemented, it is critically important that they be monitored to assure they are being implemented with fidelity to the model. When fidelity is demonstrated, the results that the program has been demonstrated to achieve can be expected. The Upstream Team did not evaluate these local implementations for fidelity to the model.

**TABLE 2: Evidence Based Upstream Programs Currently Implemented in Sonoma County**

<b>Program</b>	<b>Implementing Organization</b>
1. Nurse Family Partnership	<ul style="list-style-type: none"> <li>▪ First 5</li> </ul>
2. Parent-Child Interaction Therapy (PCIT)	<ul style="list-style-type: none"> <li>▪ Early Learning Institute</li> <li>▪ Family Services Agency</li> <li>▪ Southwest Community Health Center</li> </ul>
3. Incredible Years	<ul style="list-style-type: none"> <li>▪ Kid Street Learning Center</li> </ul>
4. Perry Preschool	<ul style="list-style-type: none"> <li>▪ Waugh School District</li> </ul>
5. Second Step Violence Prevention	<ul style="list-style-type: none"> <li>▪ Alexander Valley Union School District</li> <li>▪ Sonoma County Office of Education</li> <li>▪ Bennett Valley Union School District</li> </ul>
6. Strengthening Families Program	<ul style="list-style-type: none"> <li>▪ Kid Street Learning Center</li> </ul>
7. Big Brothers/Big Sisters	<ul style="list-style-type: none"> <li>▪ Big Brothers / Big Sisters of the North Bay</li> </ul>
8. Boys and Girls Club	<ul style="list-style-type: none"> <li>▪ Greater Santa Rosa</li> <li>▪ Sonoma Valley</li> <li>▪ Cloverdale</li> <li>▪ Healdsburg</li> <li>▪ Petaluma</li> <li>▪ Rohnert Park</li> <li>▪ Windsor</li> </ul>
9. Brief Strategic Family Therapy (BSFT)	<ul style="list-style-type: none"> <li>▪ Social Advocates for Youth</li> </ul>
10. Early Risers Skills for Success	<ul style="list-style-type: none"> <li>▪ West County Community Services in collaboration with Guerneville and Monte Rio K-8</li> </ul>
11. Families in Action	<ul style="list-style-type: none"> <li>▪ Petaluma People Services Center</li> </ul>
12. Gang Resistance Education and Training (G.R.E.A.T.)	<ul style="list-style-type: none"> <li>▪ District Attorney's Office</li> </ul>
13. Life Skills Training	<ul style="list-style-type: none"> <li>▪ Bennett Valley Union School District</li> <li>▪ Mark West Charter School</li> <li>▪ North Valley School</li> <li>▪ Olivet School</li> <li>▪ Sonoma County Board of Education</li> <li>▪ Kid Street Learning Center</li> <li>▪ LifeWorks of Sonoma County</li> <li>▪ VINES</li> </ul>
14. Project ALERT	<ul style="list-style-type: none"> <li>▪ Mark West Charter School</li> </ul>
15. Trauma-Focused Cognitive Behavioral Therapy	<ul style="list-style-type: none"> <li>▪ California Parenting Institute</li> <li>▪ Early Learning Institute</li> <li>▪ Family Services Agency</li> <li>▪ Sonoma County Department of Health Services – Maternal Child and Adolescent Health</li> </ul>
16. Triple P (Positive Parenting Project)	<ul style="list-style-type: none"> <li>▪ North Valley School</li> <li>▪ Sonoma County Board of Education</li> <li>▪ First 5</li> <li>▪ Kid Street Learning Center</li> <li>▪ LifeWorks of Sonoma County</li> <li>▪ Family Service Agency of Sonoma County</li> <li>▪ California Parenting Institute</li> <li>▪ Community Action Partnership</li> <li>▪ Jewish Family and Children's Services</li> <li>▪ Early Learning Institute</li> <li>▪ The Living Room</li> <li>▪ Petaluma People Services Center</li> </ul>

# Cost benefit of upstream interventions

Introduction

In addition to the research describing the effectiveness of early childhood interventions in reducing the onset of criminal behavior, recent cost benefit analyses also document the cost benefit of early childhood interventions. “Unlike a decade ago, scientific support for the benefits of preschool programs is strong. A major conclusion from these findings for early childhood policy is that for the first time a critical mass of evidence exists that preschool programs have comparatively high levels of cost-effectiveness.”<sup>33</sup> This section discusses published analyses of the financial benefits of early childhood programs. The next section discusses a Sonoma County cost benefit analysis.

Kilburn (2008) lists the following outcomes and governmental monetary benefits attributed to early childhood programs<sup>34</sup>.

**TABLE 3: Outcomes and Monetary Benefits of Early Childhood Interventions**

Child Outcome Affected	Monetary Benefits (or Costs) to Government
Reduced child maltreatment	Lower costs to child welfare system
Reduced child accidents and injuries	Lower costs to emergency room visits and other public health care costs
Reduced incidence of teen childbearing	Lower costs for public health care system and social welfare programs
Reduced grade repetition	Fewer years spent in K-12 education
Reduced use of special education	Lower costs for special education
Increased high school graduation rate	(More years spent in K-12 education)
Increased college attendance	(More years spent in postsecondary education)
Increased labor force participation and earnings in adulthood	Increased tax revenue
Reduced use of welfare and other means-tested programs	Reduced administrative costs for social welfare programs; reduced welfare-program transfer payments
Reduced crime and contact with criminal justice system	Lower costs for criminal justice system
Reduced incidence of smoking and substance abuse	Lower costs for public health care system and from premature death
Improve pregnancy outcomes	Lower medical costs due to fewer low birth weight babies

SOURCE: Kilburn and Karoly (2008). *The economics of early childhood policy: What the dismal science has to say about investing in children*. RAND Corporation, p. 13.

Rolnick and Grunewald (2003) from the Federal Reserve Bank of Minnesota agree with the conclusion that early childhood interventions are cost effective. “These findings move early childhood policy from being strictly a social-service policy arena and philanthropic endeavor that might benefit only participating children and families to also being considered an economic-development strategy. Increasingly, alongside the reports of building new stadiums, technology corridors, or transportation improvement, policymakers have information about the potential labor force development, workforce development, regional development, and public returns from early childhood program.”<sup>35</sup>

Effective interventions

Cost benefit

Most cost benefit analyses about early childhood investments compare the cost of the investment to the reduction in future government services costs and/or the increase in future tax earning. Some cost benefit analyses also incorporate the benefit of reduced costs for victims of crime. Some analyses include benefits to the program recipient such as increased earning. Greenwood (1996) also compares the costs of early child interventions to other crime reduction practices. He concludes that early parent training and graduation incentives are both more cost effective than the “high-profile, widely endorsed incarceration alternative – California’s three-strikes law.”<sup>36</sup> TABLE 4 summarizes the published cost benefit for each of the 9 upstream programs identified in this report as having a preponderance of evidence supporting their effectiveness and their cost benefit.

**TABLE 4: Published Cost Benefits of Effective Upstream Interventions**

<b>Effective Upstream Program</b>	<b>Effect on Crime</b>	<b>Benefit Cost Ratio</b>	<b>Costs included</b>	<b>Source</b>
1. <b>Nurse Family Partnership</b> <i>(prenatal and infancy nurse home visits for low-income, first-time parents and child)</i>	-35.9% for mothers  -18.8% for children	\$2.88 per \$1 expended	Crime, substance abuse, education, teen pregnancy, teen suicide, child abuse or neglect, domestic violence	WSIPP
		\$1.47 per \$1.00 expended for each mother  \$16.62 per \$1.00 expended for each child	Police, court, jail, prison, crime victims	WSIPP
		\$5.70 per \$1.00 expended for high risk sample  \$1.26 per \$1.00 expended for low risk sample	Child care, child maltreatment, child accidents and injuries, education, employment, social welfare, crime, smoking and substance abuse	RAND
		\$3.60 per \$1.00 expended for each mother  \$17.30 per \$1.00 expended for each child	Criminal justice, crime victims	AAEBP
2. <b>Perry Pre-School</b> <i>(high quality pre-school education for disadvantaged children ages 3-4)</i>	-16.2%	\$8.74 per \$1.00 expended through early adulthood  \$17.07 per \$1.00 expended through middle adulthood	Child care, child maltreatment, child accidents and injuries, education, employment, social welfare, crime, smoking and substance abuse	RAND
3. <b>Guiding Good Choices</b> <i>(drug/antisocial behaviors prevention program for parents of students grades 4-8)</i>	-7.1%	\$11.07 per \$1.00 expended	Education, crime, substance abuse, child abuse and neglect, teen pregnancy, and public assistance	WSIPP

**TABLE 4: Published Cost Benefits of Effective Upstream Interventions (continued)**

<b>Effective Upstream Program</b>	<b>Effect on Crime</b>	<b>Benefit Cost Ratio</b>	<b>Costs included</b>	<b>Source</b>
4. <b>Strengthening Families Program</b> <i>(family skills training program for children ages 3-16)</i>	none published	\$7.82 per \$1.00 expended	Crime, substance abuse, education, teen pregnancy, teen suicide, child abuse or neglect, domestic violence	WSIPP
5. <b>Big Brothers / Big Sisters</b> <i>(one-to-one relationships for children and adolescents with a caring adult)</i>	none published	\$1.01 per \$1.00 expended (for all funding sources) \$3.28 per \$1.00 expended (for taxpayer funding sources)	Crime, substance abuse, education, teen pregnancy, teen suicide, child abuse or neglect, domestic violence	WSIPP
6. <b>Caring School Community Program</b> <i>(elementary school programs that builds student connectedness to school)</i>	none published	\$28.42 per \$1.00 expended	Education, crime, substance abuse, child abuse and neglect, teen pregnancy, and public assistance	WSIPP
7. <b>Good Behavior Game</b> <i>(classroom management strategy to reduce aggressive/disruptive behavior)</i>	none published	\$25.92 per \$1.00 expended	Education, crime, substance abuse, child abuse and neglect, teen pregnancy, and public assistance	WSIPP
8. <b>Life Skills Training</b> <i>(school-based program to prevent drug use and violence for grades 3-9)</i>	none published	\$25.61 per \$1.00 expended	Education, crime, substance abuse, child abuse and neglect, teen pregnancy, and public assistance	WSIPP
9. <b>Project Toward No Drug (or Tobacco) Use</b> <i>(school based drug prevention program for high school youth)</i>	none published	\$55.84 per \$1.00 expended	Education, crime, substance abuse, child abuse and neglect, teen pregnancy, and public assistance	WSIPP

NOTE: The three organizations listed as a Source in this table have published cost benefit analyses of upstream interventions. WSIPP = Washington State Institute for Public Policy; RAND = RAND Corporation; AAEBP = Association for the Advancement of Evidence-Based Practice

# Cost benefit for Sonoma County

Introduction

While the literature is clear that upstream interventions can provide an overall cost benefit when including a variety of funding sources and benefits, the Upstream Team specifically analyzed whether or not a cost benefit could be achieved for county general fund dollars related to criminal justice costs. The Upstream Team convened a Technical Team to conduct a County Criminal Justice Cost Benefit Analysis. Sonoma County greatly benefited from and appreciates the free technical assistance provided by Mike Wilson of the Oregon Criminal Justice Commission. Mike Wilson is a nationally recognized expert in criminal justice cost benefit analyses and guided the Sonoma County Technical Team to ensure a comprehensive, accurate, and reasonable analysis.

## Sonoma County Criminal Justice Cost Benefit Analysis Technical Team

**County Administrator's Office** (Terri Saunders)  
**District Attorney** (Christine Cook, Karen Martin)  
**Department of Health Services** (Jennie Tasheff)  
**Human Services Department** (Caryn Henkel, Marla Stuart)  
**Information Systems Department** (Kim Gilmore)  
**Probation**, (Carl Vanden Heuvel)  
**Public Defender** (John Abrahams)  
**Sheriff's Office** (Dennis Jaques, Heidi Keith, Jill Hale)

Effective interventions

This section summarizes the results of the Sonoma County Criminal Justice Cost Benefit Analysis. For a complete description of the cost benefit analysis, see Appendix E (page 107). This cost benefit analysis consisted of the following four steps.

### Step 1: The Technical Team determined the County cost of crime.

The Sheriff's Office, Probation, the Public Defender, the District Attorney, and the County Administrator's Office each submitted the total 2008-2009 criminal justice costs. The Information Systems Department provided the number of criminal justice events for 2008-2009. The Upstream Team calculated the 2008-2009 cost of crime for Sonoma County. For example, in 2008-2009, each felony arrest of an adult cost Sonoma County an average of \$9,612 and each felony arrest of a juvenile cost Sonoma County an average of \$12,644. Each felony arrest also results in \$4,199 in costs to victims. For more details about County costs for crime, see TABLE 5 and 6 on pages 49-50.

### Step 2: The Technical Team selected two Upstream programs to test.

To develop a cost benefit model for Sonoma County, the Upstream Team selected two widely regarded early childhood intervention programs for analysis: Nurse Family

Cost benefit

Partnership and Perry Preschool. These programs have published effects on crime (which is necessary to calculate crime that would be avoided by the program). For each program, the Technical Team calculated the Sonoma County cost to implement the program, the number of eligible individuals in Sonoma County each year, and the eligibility criteria. The Nurse Family Partnership reduces crime by 35.9% for each mother served, and 18.8% for each child served. Perry Preschool reduces crime by 16.2% for each child served. See details in TABLE 9 on page 52.

Step 3: The Technical Team calculated a 12 year cost of crime.

The Information Systems Department (ISD) developed a database of the 4,435 individuals ages 0-24 (juveniles and young adults) who were arrested for the first time in 1996-1997 and lived in Sonoma County at the time of their first arrest. 73% of this sample are male and 33% are Latino. The average age of first arrest for this sample is 18. For each of these 4,435 individuals, ISD captured every subsequent Sonoma County criminal justice involvement from 1996-1997 through 2007-2008 (12 years). 57% of these individuals were arrested again after their first arrest. On average, these repeat offenders were rearrested 7.8 times in 12 years. On average and over 12 years, these 4,435 first time offenders cost Sonoma County criminal justice services \$17,398 (in 2008 dollars) in county funds. See TABLES 7 and 8 on page 51 for more details.

Step 4: The Technical Team developed a cost benefit model.

Using the information from steps 1-3, the Technical Team developed a cost benefit model and analyzed the cost benefit of the two selected upstream interventions. Essentially, the cost benefit analysis uses the following formula:

Cost of the Upstream Program per person served	<b>MINUS</b>	Cost of the crime avoided per person served by the Upstream Program	<b>EQUALS</b>	Per person cost benefit to Sonoma County for criminal justice services per \$1.00 expended
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If the County funded these two upstream programs, Sonoma County would undoubtedly provide an overall benefit to the children and families served. But it does not appear that the County would financially benefit related solely to criminal justice costs of the General Fund. In fact, the return per \$1.00 invested by Sonoma County would only range from 1¢ to 5¢ per individual served. The factors that influence the rate of return on upstream investments are the cost of the upstream program, the probability that a served individual would, in the future, incur criminal justice costs, the effectiveness of the program in reducing crime, the number of years before the return can be expected, and the discount rate (a rate used to determine the present value of future dollars). If Sonoma County were to obtain other funding for these three upstream programs, this analysis projects that Sonoma County could avoid approximately \$750,000 in criminal justice general fund costs over 30 years for the Nurse Family Partnership and \$1.1 million in criminal justice costs over

26 years for Perry Preschool. Cost benefits for upstream interventions accrue over many years because the individuals served are very young. TABLE 9 on page 52 describes this analysis for these two upstream programs tested.

NOTE: Although not cost beneficial to the Sonoma County general fund under these narrow criteria, the benefits to families, individuals and community are great. This cost benefit analysis was much more narrow than published analyses because this project was specifically focused on exploring the impact of upstream interventions on County general fund criminal justice costs. The \$750,000 in 30 years does not incorporate savings for other County services such as cash aid, Food Stamps, child welfare, or substance abuse services. Nor does it incorporate the benefits of creating an environment for the future economic productivity of these families and individuals. It also does not include funds provided by state, federal and other sources. And, it only includes two of the nine upstream programs with a preponderance of evidence for effectiveness and it only includes Sonoma County General Fund for criminal justice services. As an analysis template, this model can now be expanded to include other upstream and criminal justice programs (including existing and new juvenile and adult diversion programs) and Sonoma County costs for other services related to crime and the factors that contribute to crime such as cash aid, Food Stamps, child welfare, and substance abuse.

**TABLE 5: Sonoma County Average Cost per Criminal Justice Event in FY0809** (Does not include non-County funding sources)

Sonoma County Cost Category	Adult		Juvenile	
	Felony	Non-Felony	Felony	Non-Felony
<b>Sheriff's Office</b>				
▪ Sheriff arrest and investigation (per arrest)	\$3,836	\$459	\$3,836	\$459
▪ Jail Booking (per booking)	\$431	\$431	\$0	\$0
▪ Jail cost (per day)	\$147	\$147	\$0	\$0
<b>Probation</b>				
▪ Juvenile Hall Intake (per intake)	\$0	\$0	\$586	\$586
▪ Probation pre-sentence investigation (per investigation)	\$1,030	\$1,030	\$848	\$848
▪ Juvenile Hall cost (per day)	\$0	\$0	\$453	\$453
▪ Probation Camp (per day)	\$0	\$0	\$263	\$263
▪ Sierra Youth Center (per day)	\$0	\$0	\$272	\$272
▪ Probation (per day)	\$6	\$6	\$16	\$16
<b>District Attorney</b>				
▪ District Attorney Prosecution (per prosecution)	\$1,886	\$187	\$2,129	\$2,129
▪ Victim Costs (per arrest)	\$4,199		\$4,199	
<b>Public Defender</b>				
▪ Public Defender Defense (per defense)	\$1,736	\$297	\$1,107	\$1,107
▪ Conflict Counsel Defense (per defense)	\$2,008	\$406	\$455	\$455

NOTE 1: This reflects costs for Sonoma County General Fund for listed criminal justice services. This does not include costs born by state, federal and other funding sources. And, it does not include the County costs for other services related to crime and/or the factors that contribute to crime such as child welfare, substance abuse, cash aid, and Food Stamps.

NOTE 2: This is the cost per event. For instance, it is accurate to state that “On average, it costs Sonoma County \$1,886 for each District Attorney prosecution of an adult felony.” This is an average (mean) cost for each event.

**TABLE 6: Sonoma County Average Cost per Arrest in FY0809** (Does not include non-County funding sources)

Sonoma County Cost Category	Adult		Juvenile	
	Felony	Non-Felony	Felony	Non-Felony
<b>Sheriff's Office</b>				
▪ Sheriff arrest and investigation (per arrest)	\$3,836	\$459	\$3,836	\$459
▪ Jail Booking (per arrest)	\$431	\$431	\$0	\$0
▪ Jail (13 days per arrest * average cost per day)	\$1,917	\$1,917	\$0	\$0
<b>Probation</b>				
▪ Juvenile Hall Intake (per arrest)	\$0	\$0	\$586	\$586
▪ Probation pre-sentence investigation (per arrest)	\$198	\$0	\$975	\$0
▪ Juvenile Hall (9 days per arrest * average cost per day)	\$0	\$0	\$4,328	\$4,328
▪ Probation Camp (2 days per arrest * average cost per day)	\$0	\$0	\$518	\$518
▪ Sierra Youth Center (1 days per arrest * average cost per day)	\$0	\$0	\$405	\$405
▪ Probation (64 days per arrest * average cost per day)	\$216	\$216	\$759	\$759
<b>District Attorney</b>				
▪ District Attorney Prosecution (per arrest)	\$1,605	\$165	\$334	\$334
▪ Victim Costs (per arrest)	\$4,199		\$4,199	
<b>Public Defender</b>				
▪ Public Defender Defense (per arrest)	\$1,083	\$125	\$355	\$355
▪ Conflict Counsel Defense (per arrest)	\$327	\$24	\$548	\$548
<b>2008-2009 Average Sonoma County Cost per Arrest</b> (without victim costs)	<b>\$9,613</b>	<b>\$3,338</b>	<b>\$12,644</b>	<b>\$8,293</b>
<b>2008-2009 Average Sonoma County Cost per Arrest</b> (with victim costs)	<b>\$13,812</b>	<b>\$3,338</b>	<b>\$16,843</b>	<b>\$8,293</b>

NOTE 1: This reflects costs for Sonoma County General Fund for listed criminal justice services. This does not include costs born by state, federal and other funding sources. And, it does not include the County costs for other services related to crime and/or the factors that contribute to crime such as child welfare, substance abuse, cash aid, and Food Stamps.

NOTE 2: This is the cost per arrest. For instance, it is accurate to state that "Each time we arrest a juvenile for a felony, it will cost Sonoma County an average of \$12,644." This is an average (mean) cost for each event.

**TABLE 7: 1996-1997 Cohort – Number/Percent of Individuals with First Arrest**

Year	Adult				Juvenile				Any Arrest	
	Non-Felony		Felony		Non-Felony		Felony			
	#	%	#	%	#	%	#	%	#	%
0. First Arrest	2,084	47.0%	442	10.0%	1,640	37.0%	269	6.1%	4,435	100%

NOTE: On average, a first arrest costs \$4,168 in 2008 dollars for Sonoma County’s criminal justice services funded by County general fund. See Appendix E for more details.

**TABLE 8: 1996-1997 Cohort – Number/Percent of Individuals with Subsequent Arrests**

Year	Adult				Juvenile				Any Arrest	
	Non-Felony		Felony		Non-Felony		Felony			
	#	%	#	%	#	%	#	%	#	%
1. 1996-1997	424	9.6%	144	3.2%	331	7.5%	105	2.4%	889	20.0%
2. 1997-1998	511	11.5%	214	4.8%	369	8.3%	113	2.5%	1004	22.6%
3. 1998-1999	488	11.0%	175	3.9%	254	5.7%	73	1.6%	854	19.3%
4. 1999-2000	466	10.5%	180	4.1%	128	2.9%	47	1.1%	723	16.3%
5. 2000-2001	423	9.5%	179	4.0%	97	2.2%	25	0.6%	631	14.2%
6. 2001-2002	398	9.0%	183	4.1%	31	0.7%	11	0.2%	528	11.9%
7. 2002-2003	379	8.5%	189	4.3%	15	0.3%	5	0.1%	498	11.2%
8. 2003-2004	359	8.1%	181	4.1%	3	0.1%	2	0.0%	470	10.6%
9. 2004-2005	317	7.1%	146	3.3%	0	0.0%	0	0.0%	405	9.1%
10. 2005-2006	297	6.7%	161	3.6%	1	0.0%	0	0.0%	401	9.0%
11. 2006-2007	291	6.6%	137	3.1%	0	0.0%	0	0.0%	371	8.4%
12. 2007-2008	287	6.5%	116	2.6%	0	0.0%	0	0.0%	367	8.3%
<b>One or more arrests in 12 years</b>	1998	45.1%	1084	24.4%	757	17.1%	306	6.9%	2542	57.3%

NOTE: 2,542 (57.3%) of the 4,435 first time offenders ages 0-24 who lived in Sonoma County in 1996-1997 were re-arrested at least once in the following 12 years. They were re-arrested an average of 7.8 times in 12 years. On average, these 7.8 re-arrests cost \$13,230 in 2008 over 12 years for Sonoma County’s criminal justice services funded by County General Fund. See Appendix E for more details.

**TABLE 9: Projected Sonoma County Avoided Costs from General Fund for Criminal Justice if Program is Implemented for 12 Years**

1	2	3	4	5	6
Program	Sonoma County criminal justice costs avoided per \$1.00 expended	Sonoma County victim costs avoided per individual served	Years projected past year of service delivery	Total Sonoma County criminal justice costs avoided after 12 years of implementation	Total Sonoma County victim costs avoided after 12 years of implementation
Nurse Family Partnership: Child	5¢	\$14	30	\$351,932	\$251,814
Nurse Family Partnership: Mother	3¢	\$27	12	\$402,166	\$480,857
Perry Preschool	1¢	\$12	26	\$1,056,111	\$529,452

NOTE 1: Sonoma County criminal justice costs avoided (column 5) assumes that the program was completely funded by outside funds (state, federal, grant, foundation, etc.).

NOTE 2: Sonoma County criminal justice costs avoided (column 5) does not include Victim Costs Avoided (column 6).

NOTE 3: The factors that influence the rate of return on upstream investments are the cost of the upstream program, the probability that a served individual would, in the future, incur criminal justice costs, the effectiveness of the program in reducing crime, the number of years before the return can be expected, and the discount rate (a rate used to determine the present value of future dollars).

NOTE 4: See Appendix E for more details.

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# Chapter 4

## Findings and recommendations

“Criminal justice will ultimately benefit in terms of workload when we invest upstream. It’s amazing that the county is showing this kind of strategic approach and wisdom. As preventive programs are cut, then kids get in trouble. There is more crime and people forget that the preventive programs were cut. Increased law enforcement involvement in kids’ lives is the end result of cutting too many of the preventive programs. People forget that.”

*Opinion expressed at Law Enforcement Chiefs Focus Group*

### *Upstream from Sonoma County Juvenile Hall...*

S’s father lost touch with him when he was a baby. S’s mother had four more children with an abusive husband and paid little attention to S. When S turned to gangs to meet his needs for attention, and ended up in a Probation program, his mother did not visit often or participate with the program. S decided to contact his estranged father and ended up moving in with him when he completed his Probation program. S continues to associate with gangs.

### *Upstream from Sonoma County Juvenile Hall...*

C received a lot of physical abuse at the hand of his drug-dealing, drug- cartel father. His father was deported for drug dealing three years ago. C has been on medication for three years for depression. His mother works hard to make ends meet. After working through the trauma of his abuse in counseling, C has re-connected with his father in Mexico.

# Introduction

Introduction

Evidence-based practice

Partnerships

Investing in upstream

Ad Hoc committee

This Upstream Investments Project activities led to findings and recommendations in four areas. While we found that the reviewed Upstream interventions were not effective in reducing downstream County costs of criminal justice (costs only to the general fund) within a 10 year time frame, the findings and recommendations presented in this report reflect the compelling economic and moral support for upstream interventions which is found in the published literature and echoed by community partners. These findings and recommendations also recognize that the County regularly balances competing fiscal priorities and that this balance is even more difficult in this economic environment.

## Area 1: Evidence-based practice

Recommendation 1: Expand the County's evaluation of existing and potential Health and Human Service and Criminal Justice programs using published evidence, outcome monitoring, and cost benefit analyses.

## Area 2: Partnerships and collaboration

Recommendation 2a: Establish indicators that reflect upstream principles.

Recommendation 2b: Explore ways to coordinate and leverage the work of related County and community led initiatives.

## Area 3: Investing in upstream interventions

Recommendation 3a: Seek new funding for upstream interventions.

Recommendation 3b: Ensure that upstream interventions are considered in ongoing budgetary and policy decisions.

## Area 4: Ad Hoc upstream committee

Recommendation 4a: Convene the Ad Hoc Upstream Board Committee to implement recommendations 1-3.

Recommendation 4b: Designate \$85,000 in 2009-2010 funds to support the activities of the Ad Hoc Upstream Board Committee and the implementation of Recommendations 1-4a. Authorize the Human Services Department and the County Administrator's Office to approve contracts and/or term-limited staffing consistent with the recommendations.

This chapter thoroughly explains the project findings and each recommendation.

# Area 1: Evidence-based practice

Introduction

Evidence-based practice

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## Finding 1a

The social/economic and family/individual factors that contribute to criminal behavior (and other associated problems) are well documented, complex, inter-related, consistent, and generally evident early in a child's life. Poverty, racial/ethnic disparities, and community conditions are all powerful influences in a child's early life. Additionally, dysfunctional families, early anti-social behaviors in children, and negative peers can all contribute to the onset of criminal behavior. Finally, prevailing community opinion and changing public policy has increased the odds of becoming involved and staying involved in the criminal justices system, especially for men of color.

## Finding 1b

There is solid empirical evidence that effective programs mitigate these factors. And, there are 141 early childhood and school aged programs designed for at-risk children, families and individuals that meet rigorous evaluation criteria and have been found to be effective in reducing crime and/or the factors that contribute to criminal behavior. These 141 programs provide a menu of proven upstream program options for County Departments. There are fewer published cost benefit analyses of upstream interventions so the list of programs that have been found to be both effective and cost beneficial is smaller. The following nine upstream programs are most frequently determined to be both effective and cost beneficial. The criteria used to select these nine programs is summarized in Chapter 3 and fully described in Appendix A.

1. Nurse Family Partnership
2. Perry Pre-School
3. Strengthening Families Program
4. Big Brothers / Big Sisters
5. Caring School Community Program
6. Good Behavior Game
7. Guiding Good Choices
8. Life Skills Training
9. Project Toward No Drug or Tobacco Use

## Recommendation 1: Expand the County's evaluation of existing and potential Health and Human Service and Criminal Justice programs using published evidence, outcome monitoring, and cost benefit analyses.

The County should commit to regularly using the existing evaluation skill base and to developing, as necessary, new skills within County Departments. Implementing this recommendation will increase the credibility of County Department decisions and recommendations about program funding and implementation. Furthermore, the County should expand technical assistance, training, and data-sharing provided by County Departments to partner organizations.

### Published Evidence

Whenever possible, the County should adopt programs that have peer-reviewed and published evaluation results. When such empirical evidence is unavailable, the County should consider programs with solid logic models and innovative approaches on a pilot basis.

### Outcome Monitoring

Whenever possible, the County should identify the target populations for existing and proposed programs, specify the anticipated measurable outcomes, and develop logic models describing how programs achieve the outcomes.

### Cost Benefit Analyses

Whenever possible, the County should conduct and use cost benefit analysis (comparisons of the fiscal benefits of a program to the costs of implementing the program) and/or cost effectiveness analyses (comparisons of the cost of different approaches to achieve similar outcomes). Whenever possible, the County should adopt programs that promise positive cost benefits and/or cost effectiveness for the County. At times it may be appropriate to consider adopting programs that do not appear to promise positive cost benefits and/or cost effectiveness for the County, but do for other community entities (for instance, school districts, cities, healthcare providers, businesses). As one next step, the County should expand the cost benefit analysis conducted for this project to include upstream program benefits to other County Departments (such as Health and Human Services). This cost benefit model could also be expanded to examine upstream program benefits to other community entities and to examine the cost benefit to criminal justice of existing and new juvenile and adult criminal justice programs.

## Related Published Literature

Many of the authors cited in this report recommend adherence to evidence based practice as described in this recommendation. Greenwood (2008) writes extensively about evidence based practice. He reports that “only rarely does a jurisdiction take delinquency prevention seriously enough to measure the outcome of its efforts.” He suggests that “the evidence-based approach has to be adopted agency-wide. It cannot take root and flourish within just one part of the organization while other units continue as usual.”<sup>1</sup> Finally, he describes the results of failing to pursue evidence-based practice. “With more than ten years of solid evidence now available regarding what does and does not work in preventing juvenile delinquency, jurisdictions should be adopting an evidence-based approach (although only about 5 percent of youth who should be eligible for evidence-based programs actually participate in one). Taking this approach will prevent wasted lives, save tax-payer dollars, and protect communities from unnecessary crime victimization.”<sup>2</sup> Wolfe (2005) also laments that “all too frequently those with creative ideas for intervention overlook evaluation or are unwilling to spend the resources necessary for an evaluation that would establish the success of the program.”<sup>3</sup> And, Mason and Prior (2008) propose that the most effective approach to reducing criminal and anti-social behavior is to use a “Theory of Change” framework which first identifies desired outcomes and then identifies strategies, rationales and activities to achieve these outcomes. “Stakeholders make explicit their theories of *what* (outcome) they hope to achieve, *how* (action) they expect to achieve them and *why* (rationale) the proposed actions should deliver intended outcomes.”<sup>4</sup> This process is very similar to the process of developing a logic model.

From an economist perspective, Kilburn (2008) suggests five policy-decision rules: need based, outcome based, effectiveness based, cost-saving based, and marginal net benefit based. Each of these rules, which provide a framework for selecting optimal services, assumes the availability and use of data. Aos (2004) writes that “the main policy implications of his (cost benefit) findings are straightforward and analogous to any sound investment strategy. To ensure the best possible returns, invest in research-proven ‘blue chip’ program, avoid spending money on programs where there is little evidence of effectiveness, keep abreast of the latest research, evaluate currently funded programs, and implement programs with fidelity.” Myers (2008) suggest that a national and state strategy is necessary to “ensure that agencies have the guidance, resources, and data necessary to select best practices, monitor outcomes, and alter intervention as necessary.” This national and state coordinated approach promotes improved data collection, evidence-based practices and empirical validation, and cost-benefit analyses. Myers admits her proposal is a “radical systems-level change.”<sup>5</sup>

Additionally, the Federal government is emphasizing effective program evaluation. In an October 2009 memo, Peter Orszag, the Director of the Office of Management of Budget (OMB), announced a three part initiative to expand the federal commitment to evaluating the outcomes and the cost of federal programs.<sup>6</sup>

“It is great to see the upstream efforts. We support the effort. It would be great to start building capacity among agencies to provide more science based strategies. At the same time, it is important for us to also look at culture and diversity and our track record with the community in evaluating implementation.”

*Vince Harper, Community Action Partnership*

“We use sound evidence-based practices and our therapists provide a source of clinical knowledge to increase their effectiveness with clients.”

*Linda T. Walsh, LifeWorks of Sonoma County*

“We have so many programs. Is it true that we don’t have enough for kids in Sonoma County? Or, are we not getting the right kids in the programs? Or, maybe the programs aren’t doing the right things – maybe we need to use our resources better. People do want to do the right thing in our community.”

*Opinion expressed in Law Enforcement Chiefs Focus Group*

“It would be helpful for this project to lay out some acceptable protocols for sharing of information to help reduce multiple agencies at the same or cross purposes serving the same individuals.”

*Diana Klein, Jewish Family and Children’s Services*

# Area 2: Partnerships and collaboration

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Ad Hoc committee

## Finding 2a

The upstream factors that contribute to criminal behavior are broader than the County's range of influence. And, an effective intervention approach requires solid and effective partnerships between service delivery providers throughout the community.

## Finding 2b

Public and private service providers throughout the community share the County's commitment to upstream principles and are implementing evidence-based, upstream programs. There are existing and new opportunities for the County to collaborate with community partners to further upstream principles.

## Recommendation 2a: Establish indicators that reflect upstream principles.

Coordinate the selection, regular reporting of, and commitment to impacting indicators that reflect the factors that contribute to criminal behavior and other key health, human service and criminal justice outcomes throughout the County and the wider community. This may include social conditions that shape people's lives such as poverty, educational achievement, community conditions, and the economic environment.

## Recommendation 2b: Explore ways to coordinate and leverage the work of related County and community led initiatives.

Many initiatives exist within the County and the wider community with goals and activities that overlap with upstream goals of improving the early opportunities of community members. To maximize the County contribution to these initiatives, the County should map the relationships between these initiatives and strategically manage County involvement. These existing initiatives include (but are not limited to):

### County Administrator's Office

1. Adult Criminal Justice Phase 2 Master Plan
2. Juvenile Justice System Study
3. Performance Management Strategic Planning Project

### Economic Development Board

4. Innovation Council

### General Services

5. Comprehensive Capital Facilities Plan

### Department of Health Services

6. Changing Demographics Strategic Planning Project
7. First 5
8. Health Action
9. Mental Health Services Act (Proposition 63)
10. Methamphetamine Task Force

### Human Services Commission

11. Prevent Child Abuse Sonoma

### Information Systems Department

12. Information Systems Data Sharing Capacity

### Workforce Investment Board

13. English Language Learners
14. Green Industry
15. Job Link Employment Services
16. Youth Programs

### Community Led Initiatives

1. Business Education Leadership Committee
2. Measure O Mayor's Gang Prevention Task Force
3. Sonoma County Alliance
4. United Way's Community Engagement Initiative

In addition, there may be other County or community activities that are Upstream in nature and that may be appropriate for inclusion (for instance, some of the time-limited projects funded by the American Recovery and Reinvestment Act of 2009 and some ongoing services provided by County Departments such as Food Stamps).

## Related Published Literature

In the literature, the need for coordination between organizations is promoted because “lack of communication, coordination and proximity among agencies serving children and families creates a bureaucratic obstacle course of protocols and prerequisites that virtually assures service gaps, duplication, and ineffective outcomes.”<sup>7</sup> Similarly, the benefits of community-wide collaboration commonly identified in the literature are improved program effectiveness, reduced costs of duplicated and fragmented interventions, and increases in nurturing and supportive relationships between service providers.<sup>8</sup> Benard (2004) writes that “it has become increasingly clear to the prevention field that collaborative, community-wide efforts are essential if we are to actually create the positive, supportive, and nurturing environments that will, in turn, discourage alcohol and drug abuse and other social problems like teen pregnancy, child abuse, delinquency, school failure, and dropping out. These problems are not only interrelated but share common roots that lie in the community. The responsibility therefore in addressing these problems falls to the community as a whole and not only to a few institutes of the community such as the family and the school.”<sup>9</sup> Community-wide collaboration for upstream principles is not new. In 1996, Lieberman (Emeritus Professor at Columbia University and Senior Scholar at The Carnegie Foundation) wrote that “none of us, no matter what our position, has the answers to the complex problems we face. The more people work together, the more we have the possibility of better understanding these complex problems and acting on them in an atmosphere of trust and mutual respect.”<sup>10</sup>

“Early intervention at the 0-5 year old level, is an extremely effective modality, and we would love to be involved in any efforts to implement additional programming as related to the arena of child care and development programs.”

*Carol Simmons, Sonoma County Child Care Planning Council*

“This is welcome news and I look forward to joining the conversation and follow up.

*Tom Joynt, Education Liaison (SCOE, Human Services, Court)*

“Participation in efforts like the Children’s Mental Health Partnership encourage coordination and collaboration. These efforts can help reduce costs and can help the multiple use of services for children.”

*Diana Klein, Jewish Family and Children’s Services*

# Area 3: Investing in upstream interventions

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Ad Hoc committee

## **Finding 3a**

Upstream interventions funded by the County will provide a very low return on investment in terms of reduced costs to the County criminal justice system (between \$0.01 and \$0.05 for every \$1.00 invested). This return would be higher by an unknown amount if savings to other County-funded programs are included.

## **Finding 3b**

The preponderance of the evidence confirms that early childhood interventions yield a tremendous benefit to individuals, children and families. When targeted to at-risk children and families, early childhood interventions reduce crime, substance abuse, child abuse, and welfare dependency, and they improve educational attainment, health outcomes, and income.

## **Finding 3c**

Investing in early childhood interventions aligns with approaches recommended and implemented by First 5, the Innovation Council, the Mental Health Services Act, and Health Action. In the past five years, First 5 has invested \$21 million in early childhood interventions to improve the health and school readiness of children from birth to age five in Sonoma County. In 2009-2010, Sonoma County will invest \$500,000 through the Mental Health Services Act for prevention programs.

## **Recommendation 3a: Seek new funding for upstream interventions.**

The preponderance of evidence provided in this report supports the effectiveness and fiscal benefit of intervening early to strengthen families, support the healthy development of children, reduce the incidence and cost of initial and recurrent crime and mitigate the factors that contribute to and are associated with criminal behavior and result in use of other county health and human services. Although it does not appear to be cost beneficial specifically related to County funded criminal justice costs for Sonoma County to solely fund upstream programs, the Upstream Team recommends that Sonoma County use the evidence in this report to seek new funding (state, federal, foundation, and other funding sources) for evidence-based upstream initiatives. For instance, both the House and Senate health care reform bills include competitive funding for evidence-based home visiting programs.

## **Recommendation 3b: Ensure that upstream interventions are considered in ongoing budgetary and policy decisions.**

The County should ensure that considerations for upstream interventions continue to be included in budget and policy discussions for the General Fund, other county discretionary funding, and the spending plans for state and federal allocations related to criminal justice and other relevant county services.

## Related Published Literature

Writing for the RAND Corporation and representing an economist perspective, Kilburn (2008) clearly articulates the rationale for early childhood investments. “Previous arguments for public support of early childhood programs focused on equity, promoting individual well-being, and spillover benefits to the rest of society. Cost benefit analysis have provided evidence that early childhood programs have the potential to save government money in the long run. These findings moved early childhood policy from being strictly a social-service policy and philanthropic endeavor to an economic-development strategy. Economic research promotes a reorientation of child and human services toward investment and prevention, in contrast to the current approach of attempting to ‘treat’ poor outcomes that manifest themselves later in the life cycle. Shifting toward a paradigm in which resources are invested in early human capital might produce better outcomes, save taxpayers money, and improve the quality of life for the people in whom we as a society invest.”<sup>11</sup>

Other writers support investments in early childhood intervention from a moral and ethical perspective. Marion Wright Edelman, writing for the Children’s Defense Fund, passionately argues the point. “States spend on average nearly three times as much per prisoner as per public school pupil. In some states, the growth of prison costs exceeds the growth in higher education spending. What a wrongheaded investment policy. We call for a fundamental paradigm shift in child policy and practice away from the too frequent first choice of punishment and incarceration to prevention and early intervention and sustained child investment. Right now, the only thing our rich nation will guarantee every child is a jail or detention cell after s/he gets into trouble, fails in school, becomes a child parent or explodes in rage from undiagnosed and untreated health and mental health, neglect and abuse problems.”<sup>12</sup> Benard (2004) agrees. “While a humane criminal justice system and a comprehensive client-centered treatment system would certainly help transform the lives of those already involved in drugs or crime, it is neither sensible, cost-effective, nor humane to keep pulling bodies out downriver when we could prevent their falling in upriver.”<sup>13</sup>

Finally, some writers acknowledge the political and fiscal difficulties of transitioning more resources to early childhood interventions. Currie describes the political challenge. “We are reluctant to come to grips with the causes, in part because the task is both long-term and enormously challenging. It entails nothing less than altering an entire process of social development – one that has excluded millions of Americans from a productive and respected role in our common life, eroded the strengths of families and communities, and blighted the prospects of an entire generation.”<sup>14</sup> Greenwood discusses the fiscal challenge. “Most of the savings from effective prevention programs accrue to the state in the form of lower corrections costs. If some of these anticipated savings are not passed down to the local entities that must fund the programs, they may have trouble competing for scarce local funding against better-established programs. Some sites have solved this problem by working with state licensing officials to ensure adequate funding and reimbursement rates from Medicaid, Mental Health or other federally subsidized funding streams.”<sup>15</sup> Fiscal difficulties are clearly acknowledged in the 2007 County Strategic Plan. “While we believe that prevention and early intervention are the most cost-effective ways to address an array of community needs, the fiscal requirements for addressing the County’s acute health, human service, law enforcement, and infrastructure needs leave few resources available for these ‘upstream strategies’ under current fiscal conditions and trends.”<sup>16</sup>

“With our current state budget crisis, drastic cuts will make it difficult to continue much of this work.”

*Pam Carpenter, Mark West Charter School*

“Early intervention is very important. Court ordered programs are useless. Teens can hold their breath for 50 hours of community service but what do they get out of it? It is presently a revolving door.”

*Linda Conklin, Kid Street Learning Center*

# Area 4: Ad-hoc upstream committee

Introduction

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## **Finding 4**

Effective upstream approaches can effectively reduce crime and positively impact other factors that lead people to use county services, such as child abuse, substance abuse, domestic violence, teen pregnancy, poverty, and unemployment. The broad upstream principles articulated in the County Strategic Plan are well supported by the evidence presented here about the needs for and benefits of upstream approaches.

## **Recommendation 4a: Convene the Ad Hoc Upstream Board Committee to determine how to best implement recommendations 1-3.**

At the October 27, 2009 Board meeting, the Sonoma County Board of Supervisors approved an Ad Hoc Upstream Board Committee to continue implementing the full scope of upstream principles articulated in the Strategic Plan. This ongoing work should be balanced with available County resources and other projects. The Upstream Team recommends the following membership for this Ad Hoc Upstream Board Committee and these individuals have agreed to serve.

### Board Liaisons

Supervisor Mike Kerns  
Supervisor Shirlee Zane

### Owner

Jo Weber, Human Services Department

### Community Partners

Barbara Hughes, Community Foundation  
Carl Wong, Sonoma County Office of Education  
Carol Simmons, Child Care Planning Council  
Walter Collins, United Way  
Non-Profit representative (to be nominated by the Non-Profit community)

### Department Heads

Ben Stone, Economic Development  
Bill Cogbill, Sheriff's Office  
Bob Ochs, Probation  
John Abrahams, Public Defender  
Julie Paik, Child Support Services  
Kathleen Kane, Community Development Commission  
Ken Hightower, Information Systems Department  
Mary Burns, Regional Parks  
Rita Scardaci, Department of Health Services  
Stephen Passalacqua, District Attorney  
Steven Woodside, County Counsel  
To be determined, County Administrator

Each committee member can delegate participation in this Ad-Hoc Committee or recommend the addition of other members from their staff. The committee may also convene short-term sub-committees (maybe with additional members) as necessary for specific projects.

## **Recommendation 4b: Designate \$85,000 in available 2009-2010 CalWORKs funds to support the activities of the Ad Hoc Upstream Board Committee and the implementation of Recommendations 1-4a. Authorize the Human Services Department and the County Administrator's Office to approve contracts and/or term-limited staffing consistent with the recommendations.**

Due to the current fiscal environment, County Departments are stretched thin. It will not be possible to add project coordination to the workload of existing staff. To meet the vision reflected in these recommendations and make real progress towards ensuring a healthy childhood for all children and success opportunities for all families, the County should provide adequate resources for the Ad Hoc Board Committee. Working with the County Administrator's Office, Jo Weber will assess the need for ongoing project support in 2010-2011.

### **Related Published Literature**

Community-wide change, like the change recommended here, requires visionary leadership and long-lasting commitment. “Behind every successful change is a sense of vision, often beginning with a single person who, in turn, inspires others to share his or her dream.”<sup>17</sup> The AdHoc Upstream Committee will provide the vision and commitment that will be required for success.

“We have great opportunities to create great social change here. And, we must take advantage of it. It is not only an opportunity, but our obligation because we cannot continue to send our children and youth through a criminal justice system that may result in a lifetime of relationship with that criminal justice system.”

*Christine Castillo, United Against Sexual Assault of Sonoma County*

## Chapter 4 endnotes

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- <sup>9</sup> Benard.
- <sup>10</sup> Lieberman, A. (1986). Collaborative work. *Educational Leadership*, 43, (n5), 6. (ERIC Document Reproduction Service No. EJ334196)
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- <sup>13</sup> Benard, 56.
- <sup>14</sup> Currie (in Bernard, 56)
- <sup>15</sup> Greenwood, 203.
- <sup>16</sup> County of Sonoma. (2007, December 11). *County of Sonoma Strategic Plan*, 6. Santa Rosa, CA: Sonoma County.
- <sup>17</sup> Benard, 19.

# Appendices

**APPENDIX A: Meta-Review of the effective and cost beneficial upstream programs**

Many programs have been developed and implemented that are designed to reduce the likelihood that an individual will become involved in the criminal justice system. The Upstream Team was charged with “recommending 2-3 initiatives to reduce downstream criminal justice costs.” To identify promising programs for Sonoma County consideration, the Upstream Team did the following:

- A. Articulated criteria for consideration by Sonoma County. These criteria were approved by the CAO on December 18, 2008. See TABLE 10 on page 66 for the list of criteria selected by Sonoma County.
- B. Identified organizations that have conducted and published meta-analyses of upstream programs.
- C. Selected nine organizations whose analysis criteria were substantially similar to those selected by Sonoma County. See TABLE 10 on page 66 for a comparison of the analysis criteria for each organization. See TABLE 11 on page 67 for the source of each meta-analysis.

Organizations that conducted evaluations of effectiveness AND cost benefit

- 1. Washington Institute for Public Policy (WSIPP)
- 2. Association for the Advancement of Evidence-Based Practice (AAEBP)
- 3. RAND Corporation (RAND)

Organizations that conducted evaluations of effectiveness (but not cost benefit)

- 4. Interagency Working Group on Youth Programs (FYI)
- 5. Center for the Study and Prevention of Violence, University of Colorado (Blueprints)
- 6. Office of Juvenile Justice and Delinquency Prevention (OJJDP)
- 7. Substance Abuse & Mental Health Services Administration (SAMHSA)
- 8. Office of the Surgeon General (Surgeon General)
- 9. Promising Practices Network (PPN)

- D. Compared the effective programs identified by each of the nine organizations. See TABLES 12-15 on pages 68-80 for a comparison of the 141 programs identified as effective (in reducing crime and/or reducing the factors that contribute to crime) by one or more of the nine organizations. The following nine programs are listed as cost beneficial by at least one of the reviewing organizations and as effective by enough other reviewing organizations to total five reviewing organizations (a majority). NOTE: Because substance abuse and academic achievement are not identified in this report as factors that contribute to criminal behavior, programs that are solely designed to or have been shown to solely impact substance abuse or academic achievement are not included in this review.

	<u>Currently Implemented in Sonoma County</u>
1. Nurse Family Partnership	✓
2. Perry Pre-School	✓
3. Strengthening Families Program	✓
4. Big Brothers / Big Sisters	✓
5. Caring School Community Program	
6. Good Behavior Game	
7. Guiding Good Choices	
8. Life Skills Training	✓
9. Project Toward No Drug or Tobacco Use	✓

- E. Identified (to the extent possible) which of the 141 programs identified as effective by the nine organizations are currently being implemented in Sonoma County. See ✓ above and TABLES 12-15 on pages 68-80 and TABLE 16 on pages 81-82 for details.

**TABLE 10: Criteria for being selected by Sonoma County as an effective upstream program**

	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness					
	WSIPP	AAEBP	RAND	FindYouthInfo	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN
<b>Sonoma County Minimum Criteria for Consideration</b>									
<b>Evidence base</b>									
▪ No evidence of substantial risk of harm and weight of the evidence supports the practice.							X		
▪ Replicability (for instance with an implementation book or manual).	X	X		X	X	X	X		
▪ 1 published randomized controlled trial finding the practice to be superior to a comparison.	X	X	X	X	X	X	X	X	X
▪ Sustained effect of at least six months.		X	X		X			X	X
<b>Target population</b>									
▪ Individuals who have not yet been arrested for a criminal offense.	X	X	X	X	X	X	X	X	X
<b>Effect</b>									
▪ Proven to reduce the likelihood that an individual will commit a first offense.	X	X		X	X	X	X	X	X
▪ Proven to reduce the presence of one or more factors that contribute to criminal behavior.	X	X	X	X	X	X	X	X	X
<b>Savings</b>									
▪ Promises savings that are greater than or equal to the costs of implementation within 10 years of inception.	X	X	X						

**NOTES**

1. The Sonoma County evidence based criteria were adapted from the California Evidence Based Clearinghouse for Child Welfare.
2. **X** indicates that the organization had a selection criteria that was substantially similar to the Sonoma County criteria developed for the Upstream Project. For instance, the Promising Practice Network requires a “study design with a convincing comparison group including randomized-control trial or some quasi-experimental design.” This is considered substantially similar to the Sonoma County criteria.

**TABLE 11: Sources**

<b>Organization</b>	<b>Source(s)</b>
1. Washington Institute for Public Policy (WSIPP)	<ul style="list-style-type: none"> <li>▪ Benefit-Cost Analysis of Early Intervention Programs Presentation (2005). Steve Aos.</li> <li>▪ Evidence-Based Public Policy Options to Reduce Future Prison Construction, Criminal Justice Costs, and Crime Rates (2006). Steve Aos, Marna Miller, Elizabeth Drake.</li> <li>▪ Evidence-Based Public Policy Options to Reduce Crime and Criminal Justice Costs: Implications in Washington State (2009). Elizabeth Drake, Steve Aos, Marna Miller.</li> </ul>
2. Association for the Advancement of Evidence-Based Practice (AAEBP)	<ul style="list-style-type: none"> <li>▪ Prevention and Intervention Programs for Juvenile Offenders (2008). Peter Greenwood.</li> </ul>
3. RAND Corporation (RAND)	<ul style="list-style-type: none"> <li>▪ Early childhood interventions: proven results, future promise (2005). Lynn Karoly, Rebecca Kilburn, Jill Cannon</li> </ul>
<p>4. Interagency Working Group on Youth programs (FYI)</p> <p>FindYouthInfo (FYI) is designed to help youth-serving organizations to plan, implement, and participate in effective programs for youth. It is managed by the Interagency Working Group on Youth Programs which is comprised of 12 Federal agencies that support programs and services focusing on youth.</p>	<ul style="list-style-type: none"> <li>▪ <a href="http://www.findyouthinfo.gov">www.findyouthinfo.gov</a></li> </ul>
5. Center for the Study and Prevention of Violence, University of Colorado (Blueprints)	<ul style="list-style-type: none"> <li>▪ Blueprints for Violence (<a href="http://www.colorado.edu/cspv/blueprints/">www.colorado.edu/cspv/blueprints/</a>).</li> </ul>
6. U.S. Department of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention (OJJDP)	<ul style="list-style-type: none"> <li>▪ Model Programs Guide (<a href="http://www2.dsgonline.com/mpg">www2.dsgonline.com/mpg</a>)</li> </ul>
7. U.S. Department of Health & Human Services, Substance Abuse & Mental Health Services Administration (SAMHSA)	<ul style="list-style-type: none"> <li>▪ SAMHSA’s National Registry of Evidence-Based Programs and Practices (<a href="http://www.nrepp.samhsa.gov">www.nrepp.samhsa.gov</a>).</li> </ul>
8. U.S. Department of Health & Human Services, Office of the Surgeon General (Surgeon General)	<ul style="list-style-type: none"> <li>▪ Youth violence: A Report of the Surgeon General (2001).</li> </ul>
9. Promising Practices Network (PPN)	<ul style="list-style-type: none"> <li>▪ <a href="http://www.promisingpractices.net">www.promisingpractices.net</a></li> </ul>

**TABLE 12: Effective Programs -- Infant and Toddler (ages 0-3)**

- \$CJ** Programs that are cost neutral or cost beneficial related specifically to criminal justice costs (and also to the factors that contribute to crime).
- \$RF** Programs that are cost neutral or cost beneficial related to the factors that contribute to crime (poverty, race, community conditions, dysfunctional families, early anti-social or aggressive behaviors, negative peers).
- ✓ Programs that are effective (but either not cost beneficial or cost benefit information is not included in the analysis).
- Shaded** A program is listed as cost beneficial and effective by at least one reviewing organization and as effective by enough other reviewing organizations to total five reviewing organizations (a majority) who endorse the program.
- Notes Tables are organized by child age. Some programs could appear on more than one table. In such cases, the program is listed on the table that represents the youngest age for which the program is targeted. These tables include specific programs. Categories of programs that are effective are not included. For instance, high school graduation is considered effective as a category and is not listed here. Quantum Opportunities Program increases graduation rates and is included here.

Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
1. Comprehensive Child Development Program			✓							
2. Elmira Prenatal/Early Infancy Project		✓								
3. Even Start	✓									
4. Healthy Families America	✓			✓		✓			✓	
5. Healthy Start									✓	
6. Infant Health and Development Program (IHDP)			✓						✓	
7. Nurse Family Partnership	\$CJ	\$CJ	\$RF	✓	✓	✓	✓	✓	✓	X
8. Parent-Child Assistance Program				✓		✓				
9. Parent Child Development Center				✓		✓		✓		
10. Parent Child Home Program	✓									
11. Parent-Child Interaction Therapy (PCIT)	\$RF							✓		X
12. Partners with Families and Children (Spokane)							✓			
13. Project Link				✓		✓				

**TABLE 13: Effective Programs – Early Childhood (ages 3-5)**

- \$CJ** Programs that are cost neutral or cost beneficial related specifically to criminal justice costs (and also to the factors that contribute to crime).
- \$RF** Programs that are cost neutral or cost beneficial related to the factors that contribute to crime (poverty, race, community conditions, dysfunctional families, early anti-social or aggressive behaviors, negative peers).
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Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEIBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
14. Smart Start									✓	
15. Abecedarian			\$RF	✓					✓	
16. AI's Pals				✓		✓	✓			
17. Chicago Child-Parent Centers				✓		✓			✓	
18. DARE to Be You			✓	✓		✓	✓		✓	
19. Early Head Start			✓						✓	
20. Early Training Project (ETP)		\$RF	✓							
21. Father/Male Involvement Preschool Teacher Education Program									✓	
22. Focus on Families				✓		✓				
23. Head Start			✓							
24. Home Instruction Program for Preschool Youngsters (HIPPY)	\$RF		\$RF							
25. Incredible Years (IYS)			✓	✓	✓	✓	✓	✓	✓	X
26. Parents as Teachers	\$RF		✓	✓					✓	
27. Parenting Wisely				✓			✓			
28. Perry Preschool	\$CJ	\$CJ	\$RF	✓	✓	✓		✓	✓	X

**TABLE 13: Effective Programs – Early Childhood (ages 3-5)**

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Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEIBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
29. Promoting Alternative Thinking Strategies (PATHS)				✓	✓	✓	✓	✓		
30. Second Step Violence Prevention				✓		✓	✓		✓	X
31. Strengthening Families Program	\$RF			✓	✓	✓	✓	✓		X
32. Syracuse FDRP			✓	✓		✓		✓	✓	

**TABLE 14: Effective Programs -- School Age (5-18)**

- \$CJ** Programs that are cost neutral or cost beneficial related specifically to criminal justice costs (and also to the factors that contribute to crime).
- \$RF** Programs that are cost neutral or cost beneficial related to the factors that contribute to crime (poverty, race, community conditions, dysfunctional families, early anti-social or aggressive behaviors, negative peers).
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Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
33. Academic Tutoring and Social Skills Training				✓		✓				
34. Adolescent Sibling Pregnancy Prevention Program	✓									
35. Adolescent Transitions Program	\$RF			✓		✓				
36. Aggressors, Victims and Bystanders: Thinking and Acting to Prevent Violence							✓			
37. All Stars	\$RF			✓			✓			
38. American Indian Life Skills Development				✓		✓				
39. Behavioral Monitoring and Reinforcement Program (formerly known as Preventive Intervention)					✓					
40. Big Brothers/Big Sisters (BBBS)	\$RF			✓	✓	✓			✓	X
41. Boys and Girls Club				✓		✓				X
42. Brief Strategic Family Therapy (BSFT)		✓		✓	✓	✓	✓			X
43. Building Assets – Reducing Risks (BARR)							✓			

**TABLE 14: Effective Programs – School Age (5-18)**

- \$CJ** Programs that are cost neutral or cost beneficial related specifically to criminal justice costs (and also to the factors that contribute to crime).
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Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEIBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
44. Career Beginnings				✓		✓				
45. Caring School Community Program (formerly Child Development Project)	\$RF			✓		✓	✓		✓	
46. CASASTART (Striving Together to Achieve Rewarding Tomorrows)				✓	✓	✓	✓	✓	✓	
47. Chicago Alternative Policing Strategy (CAPS)				✓		✓				
48. Child of Divorce Intervention Program (CODIP)				✓		✓				
49. Child Sexual Abuse Prevention: Teacher Training Workshop									✓	
50. Class Wide Peer Tutoring									✓	
51. Cognitive Behavioral Intervention for Trauma in Schools (CBITS)				✓		✓			✓	
52. Cognitive Relaxation Coping Skills									✓	
53. Communities that Care					✓					

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Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEIBP	RAND	FYI	Blueprints	OJJD	SAMHSA	Surgeon General	PPN	
54. Community Trials Intervention to Reduce High-Risk Drinking				✓		✓				
55. Comprehensive Gang Model				✓		✓				
56. Consistency Management & Cooperative Discipline				✓		✓				
57. Coping Power Program				✓		✓				
58. Creating Lasting Family Connections				✓		✓			✓	
59. Direct Instruction									✓	
60. Early Risers Skills for Success				✓		✓	✓			X
61. Family Behavior Therapy							✓			
62. Family Matters	\$RF			✓		✓				
63. Families and Schools Together (FAST or Fast Track)				✓	✓	✓	✓	✓		
64. Families in Action				✓		✓				X
65. First Step to Success				✓		✓				
66. Gang Resistance Education and Training (G.R.E.A.T.)						✓			✓	X

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	WSIPP	AEEBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
67. Girls Inc. Friendly PEERsuasion				✓		✓				
68. Good Behavior Game	\$RF			✓	✓	✓		✓		
69. Growing Healthy				✓		✓				
70. Guiding Good Choices	\$RF			✓	✓	✓			✓	
71. I Have a Dream									✓	
72. I Can Problem Solve (ICPS)				✓	✓	✓		✓		
73. Job Corps						✓				
74. Kansas City Gun Experiment				✓		✓				
75. Keep a Clear Mind (KACM)				✓		✓				
76. Life Skills Training	\$RF	✓			✓	✓	✓	✓	✓	X
77. Linking the Interests of Families and Teachers (LIFT)				✓	✓	✓		✓		
78. Lions Quest Skills for Adolescence				✓		✓	✓			
79. Midwestern Prevention Project				✓	✓	✓		✓		
80. Montreal Longitudinal Study/Preventive Treatment Program				✓	✓	✓		✓		
81. Multidimensional Family Therapy				✓		✓	✓			

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	WSIPP	AAEBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
82. Not-On-Tobacco (N-O-T)				✓		✓				
83. Olweus Bullying Prevention Program		✓		✓	✓	✓		✓		
84. Parenting With Love and Limits				✓		✓	✓			
85. Parents Fair Share									✓	
86. Partners in Reading									✓	
87. PeaceBuilders				✓		✓				
88. Peaceful Alternatives to Tough Situations (PATTs)							✓			
89. Peacemakers Program				✓		✓				
90. Positive Action				✓		✓	✓			
91. Postponing Sexual Involvement / Human Sexuality Educations Series	✓								✓	
92. Preparing for the Drug-Free Years								✓		
93. Preventive Intervention								✓		
94. Project ALERT	<b>\$RF</b>			✓		✓			✓	<b>X</b>
95. Project STAR (Students Taught Awareness and Resistance)	<b>\$RF</b>			✓					✓	

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	WSIPP	AAEIBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
96. Project STATUS		✓								
97. Project Toward No Drug (or Tobacco) Use	\$RF			✓	✓	✓	✓			
98. Project TRUST									✓	
99. Prolonged Exposure Therapy				✓		✓				
100. Quantum Opportunities Program								✓	✓	
101. Raising Healthy Children Program					✓					
102. Reaching Educators, Children and Parents (RECAP)									✓	
103. Reducing the Risk	✓								✓	
104. Residential Student Assistance Program				✓		✓				
105. Resolving Conflict Creatively Program (RCCP)				✓		✓				
106. Responding in Peaceful and Positive Ways (RIPP)				✓		✓	✓			
107. Richmond Comprehensive Homicide Initiative				✓		✓				

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Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEIBP	RAND	FYI	Blueprints	OJJD	SAMHSA	Surgeon General	PPN	
108. Schools and Families Educating Children (SAFE Children)				✓		✓	✓		✓	
109. Safe Dates				✓		✓	✓			
110. San Diego County Breaking Cycles				✓		✓				
111. School Transitional Environmental Program (STEP)		✓		✓		✓		✓		
112. School Violence Prevention Demonstration Program				✓		✓				
113. Seattle Social Development Project (also known as SOAR)	\$RF				✓			✓	✓	
114. Self Center (School Linked Reproductive Health Services)									✓	
115. Sembrando Salud				✓		✓				
116. SMART Team (Students Managing Anger and Resolution Together)				✓		✓	✓			
117. Social Competence Promotion Program for Young Adolescents				✓		✓				

**TABLE 14: Effective Programs – School Age (5-18)**

**\$CJ** Programs that are cost neutral or cost beneficial related specifically to criminal justice costs (and also to the factors that contribute to crime).

**\$RF** Programs that are cost neutral or cost beneficial related to the factors that contribute to crime (poverty, race, community conditions, dysfunctional families, early anti-social or aggressive behaviors, negative peers).

✓ Programs that are effective (but either not cost beneficial or cost benefit information is not included in the analysis).

**Shaded** A program is listed as cost beneficial and effective by at least one reviewing organization and as effective by enough other reviewing organizations to total five reviewing organizations (a majority) who endorse the program.

Notes Tables are organized by child age. Some programs could appear on more than one table. In such cases, the program is listed on the table that represents the youngest age for which the program is targeted. These tables include specific programs. Categories of programs that are effective are not included. For instance, high school graduation is considered effective as a category and is not listed here. Quantum Opportunities Program increases graduation rates and is included here.

Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
118. Social Decision Making / Problem Solving				✓					✓	
119. STARS (Start Taking Alcohol Risks Seriously)	✓			✓		✓				
120. Staying Connected with Your Teen				✓		✓				
121. Steps to Respect: A Bullying Prevention Program				✓		✓				
122. Storytelling for Empowerment							✓			
123. Student Achievement Guarantee in Education (SAGE)									✓	
124. Success for All				✓		✓				
125. Success in Stages				✓		✓	✓			
126. Teaching Students to be Peacemakers							✓			
127. Teams-Games-Tournaments Alcohol Prevention				✓		✓				
128. Teen Outreach Program	<b>\$RF</b>			✓		✓			✓	
129. Teen Talk	✓								✓	

**TABLE 14: Effective Programs – School Age (5-18)**

- \$CJ** Programs that are cost neutral or cost beneficial related specifically to criminal justice costs (and also to the factors that contribute to crime).
- \$RF** Programs that are cost neutral or cost beneficial related to the factors that contribute to crime (poverty, race, community conditions, dysfunctional families, early anti-social or aggressive behaviors, negative peers).
- ✓ Programs that are effective (but either not cost beneficial or cost benefit information is not included in the analysis).
- Shaded** A program is listed as cost beneficial and effective by at least one reviewing organization and as effective by enough other reviewing organizations to total five reviewing organizations (a majority) who endorse the program.
- Notes** Tables are organized by child age. Some programs could appear on more than one table. In such cases, the program is listed on the table that represents the youngest age for which the program is targeted. These tables include specific programs. Categories of programs that are effective are not included. For instance, high school graduation is considered effective as a category and is not listed here. Quantum Opportunities Program increases graduation rates and is included here.

Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
130. Too Good for Drugs/Violence				✓		✓	✓			
131. Trauma-Focused Cognitive Behavioral Therapy				✓		✓				X
132. Tri-Agency Resource Gang Enforcement Team				✓		✓				
133. Triple P (Population Level)					✓					X
134. Who Do You Tell?									✓	
135. Wraparound Milwaukee				✓						
136. Yale Child Welfare Project								✓		

**TABLE 15: Effective Programs – Adult (Age 18+)**

- \$CJ** Programs that are cost neutral or cost beneficial related specifically to criminal justice costs (and also to the factors that contribute to crime).
- \$RF** Programs that are cost neutral or cost beneficial related to the factors that contribute to crime (poverty, race, community conditions, dysfunctional families, early anti-social or aggressive behaviors, negative peers).
- ✓ Programs that are effective (but either not cost beneficial or cost benefit information is not included in the analysis).
- Shaded** A program is listed as cost beneficial and effective by at least one reviewing organization and as effective by enough other reviewing organizations to total five reviewing organizations (a majority) who endorse the program.
- Notes** Tables are organized by child age. Some programs could appear on more than one table. In such cases, the program is listed on the table that represents the youngest age for which the program is targeted. These tables include specific programs. Categories of programs that are effective are not included. For instance, high school graduation is considered effective as a category and is not listed here. Quantum Opportunities Program increases graduation rates and is included here.

Program	Evaluated for Cost Benefit and Effectiveness			Evaluated for Effectiveness						Currently Implemented in Sonoma County
	WSIPP	AAEIBP	RAND	FYI	Blueprints	OJJDP	SAMHSA	Surgeon General	PPN	
137. Brief Couples Therapy for Alcoholism and Drug Abuse							✓			
138. Modified Therapeutic Community for Person with Co-Occurring Disorders							✓			
139. TCU (Texas Christian University) Mapping-Enhanced Counseling							✓			
140. Trauma Affect Regulation: Guide for Education and Therapy (TARGET)							✓			
141. Trauma Recovery and Empowerment Model (TREM)							✓			

**TABLE 16: Effective Programs (as identified by one of the nine organizations) currently implemented in Sonoma County of Sonoma**

The Upstream Team sent a survey to 170 local individuals representing state organizations, County Departments, cities, education entities, community based organizations, and faith based organizations. 85 organizations responded (50%) and reported implementing 70 evidence based programs. Of these 71 programs, the 16 listed below are identified as effective by at least one of the nine reviewing organizations used in this report (see Tables 12-15 above).

<b>Program (numbered to match TABLES 12-15 above)</b>	<b>Implementing Organization within Sonoma County</b>
7. Nurse Family Partnership	<ul style="list-style-type: none"> <li>▪ First 5</li> </ul>
11. Parent-Child Interaction Therapy (PCIT)	<ul style="list-style-type: none"> <li>▪ Early Learning Institute</li> <li>▪ Family Services Agency</li> <li>▪ Southwest Community Health Center</li> </ul>
25. Incredible Years	<ul style="list-style-type: none"> <li>▪ Kid Street Learning Center</li> </ul>
28. Perry PreSchool	<ul style="list-style-type: none"> <li>▪ Waugh School District</li> </ul>
30. Second Step Violence Prevention	<ul style="list-style-type: none"> <li>▪ Alexander Valley Union School District</li> <li>▪ Sonoma County Office of Education</li> <li>▪ Bennett Valley Union School District</li> </ul>
31. Strengthening Families Program	<ul style="list-style-type: none"> <li>▪ Kid Street Learning Center</li> </ul>
40. Big Brothers/Big Sisters	<ul style="list-style-type: none"> <li>▪ Big Brothers / Big Sisters of the North Bay</li> </ul>
41. Boys and Girls Club	<ul style="list-style-type: none"> <li>▪ Greater Santa Rosa</li> <li>▪ Sonoma Valley</li> <li>▪ Cloverdale</li> <li>▪ Healdsburg</li> <li>▪ Petaluma</li> <li>▪ Rohnert Park</li> <li>▪ Windsor</li> </ul>
42. Brief Strategic Family Therapy (BSFT)	<ul style="list-style-type: none"> <li>▪ Social Advocates for Youth</li> </ul>
60. Early Risers Skills for Success	<ul style="list-style-type: none"> <li>▪ West County Community Services in collaboration with Guerneville and Monte Rio K-8</li> </ul>
64. Families in Action	<ul style="list-style-type: none"> <li>▪ Petaluma People Services Center</li> </ul>
66. Gang Resistance Education and Training (G.R.E.A.T.)	<ul style="list-style-type: none"> <li>▪ District Attorney</li> </ul>
76. Life Skills Training	<ul style="list-style-type: none"> <li>▪ Bennett Valley Union School District</li> <li>▪ Mark West Charter School</li> <li>▪ North Valley School</li> <li>▪ Olivet School</li> <li>▪ Sonoma County Board of Education</li> <li>▪ Kid Street Learning Center</li> <li>▪ LifeWorks of Sonoma County</li> <li>▪ VINES</li> </ul>
94. Project ALERT	<ul style="list-style-type: none"> <li>▪ Mark West Charter School</li> </ul>

Program (numbered to match TABLES 12-15 above)	Implementing Organization within Sonoma County
131. Trauma-Focused Cognitive Behavioral Therapy	<ul style="list-style-type: none"> <li>▪ California Parenting Institute</li> <li>▪ Early Learning Institute</li> <li>▪ Family Services Agency</li> <li>▪ Sonoma County Department of Health Services – Maternal Child and Adolescent Health</li> </ul>
133. Triple P (Positive Parenting Project)	<ul style="list-style-type: none"> <li>▪ North Valley School</li> <li>▪ Sonoma County Board of Education</li> <li>▪ First 5</li> <li>▪ Kid Street Learning Center</li> <li>▪ LifeWorks of Sonoma County</li> <li>▪ Family Service Agency of Sonoma County</li> <li>▪ California Parenting Institute</li> <li>▪ Community Action Partnership</li> <li>▪ Jewish Family and Children’s Services</li> <li>▪ Early Learning Institute</li> <li>▪ The Living Room</li> <li>▪ Petaluma People Services Center</li> </ul>

## **APPENDIX B: Description of nine effective and cost beneficial upstream programs**

### **Nurse-Family Partnership**

Nurse-Family Partnership (NFP) is a prenatal and infancy nurse home visitation program that aims to improve the health, well-being, and self-sufficiency of low-income, first-time parents and their children. NFP was founded on concepts of human ecology, self-efficacy, and human attachment. Its program activities are designed to link families with needed health and human services, promote good decisionmaking about personal development, assist families in making healthy choices during pregnancy and providing proper care to their children, and help women build supportive relationships with families and friends. Nurses follow a detailed, visit-by-visit guide that provides information on tracking dietary intake; reducing cigarette, alcohol, and illegal drug use; identifying symptoms of pregnancy complications and signs of children's illnesses; communicating with health care professionals; promoting parent-child interactions; creating safe households; and considering educational and career options. Program objectives include decreased substance use, improved maternal economic self-sufficiency, fewer subsequent unintended pregnancies, reduced child abuse and neglect, and improved school readiness of the children. Individual programs serve a minimum of 100-200 families and are supported by 4-8 trained registered nurse home visitors (each carrying a caseload of 25 families), a nurse supervisor, and administrative support. Nurse home visits begin early in pregnancy and continue until the child's second birthday. The frequency of home visits changes with the stages of pregnancy and infancy and is adapted to the mother's needs, with a maximum of 13 visits occurring during pregnancy and 47 occurring after the child's birth.

### **Contact Information**

#### **Web site(s):**

<http://www.nursefamilypartnership.org>

#### **For information about implementation:**

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Denver, CO 80203  
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#### **For information about studies:**

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Phone: (303) 724-2892  
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## **Perry Pre-School**

The Perry Preschool Program provides high-quality education for disadvantaged children ages 3 to 4 to improve their capacity for future success in school and in life. The intervention breaks the link between childhood poverty and school failure by promoting young children's intellectual, social, and physical development. By increasing academic success, the Perry Preschool Program is also able to improve employment opportunities and wages and to decrease crime, teenage pregnancy, and welfare use.

The program consists of a 30-week school year. During that year there is a daily 2½-hour classroom session and a weekly 1½-hour home visit. The home visits are a way to involve the mother in the educational process and enable her to provide her child with support. They also serve to extend what the child has learned in school to the home. Teachers organize group meetings of mothers and father with children in the program.

The curriculum was originally called the *Cognitive-Oriented Curriculum* but is currently named the *High/Scope Curriculum*. It emphasizes an open approach to learning; children are active participants. There is a consistent daily routine within the classroom, which involves a plan–do–review sequence of learning activities. Everything within the Perry Preschool Program has a theoretical justification of how to work with children. Children are encouraged to engage in play activities that involve making choices and solving problems that contribute to their intellectual, social, and physical development.

### **Contact Information**

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<http://www.highscope.org>

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## **Strengthening Families Program**

The Strengthening Families Program (SFP) is a family skills training program designed to increase resilience and reduce risk factors for behavioral, emotional, academic, and social problems in children 3-16 years old. SFP comprises three life-skills courses delivered in 14 weekly, 2-hour sessions. The Parenting Skills sessions are designed to help parents learn to increase desired behaviors in children by using attention and rewards, clear communication, effective discipline, substance use education, problem solving, and limit setting. The Children's Life Skills sessions are designed to help children learn effective communication, understand their feelings, improve social and problem-solving skills, resist peer pressure, understand the consequences of substance use, and comply with parental rules. In the Family Life Skills sessions, families engage in structured family activities, practice therapeutic child play, conduct family meetings, learn communication skills, practice effective discipline, reinforce positive behaviors in each other, and plan family activities together. Participation in ongoing family support groups and booster sessions is encouraged to increase generalization and the use of skills learned.

## **Contact Information**

### **Web site(s):**

<http://www.strengtheningfamiliesprogram.org>

### **For information about implementation or studies:**

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## **Big Brothers / Big Sisters**

Big Brothers Big Sisters (BBBS) is a federation of more than 420 agencies that serve children and adolescents. The basic concept of the BBBS program is not to ameliorate specific problems, but to provide support in all aspects of young people's lives through a professionally supported one-to-one relationship with a caring adult. In the community-based traditional program the volunteer mentor commits substantial time to the youth, meeting for about 4 hours, two to four times a month, for at least 1 year. During their time together, the mentor and youth engage in developmentally appropriate activities that include walking; visiting a library; washing the car; playing catch; grocery shopping; watching television; attending a play, movie, school activity, or sporting event; or just hanging out and sharing thoughts. According to Grossman and Garry (1997), "Such activities enhance communication skills, develop relationship skills, and support positive decision-making."

Over the past 10 years, BBBS has added a school-based program in which volunteers meet with their Little Brother or Little Sister weekly for an hour. Together they play educational games, work on homework or crafts, or just talk.

Although individual agencies may customize their programs to fit specific needs, the integrity of the program is protected through a national infrastructure that oversees recruitment, screening, matching, and supervision. The screening and matching process provides an opportunity to select adults who are most likely to be successful mentors and match them with adolescents who share a common belief system. Staff supervision and support are critical to ensuring that mentor and mentee meet regularly to build positive relationships.

### **Web site(s):**

<http://www.bbbsa.org>

### **Contact Information**

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E-mail: [national@bbbsa.org](mailto:national@bbbsa.org)

## **Caring School Community**

Caring School Community (CSC), formerly called the Child Development Project, is a universal elementary school (K-6) improvement program aimed at promoting positive youth development. The program is designed to create a caring school environment characterized by kind and supportive relationships and collaboration among students, staff, and parents. The CSC model is consistent with research-based practices for increasing student achievement as well as the theoretical and empirical literature supporting the benefits of a caring classroom community in meeting students' needs for emotional and physical safety, supportive relationships, autonomy, and sense of competence. By creating a caring school community, the program seeks to promote prosocial values, increase academic motivation and achievement, and prevent drug use, violence, and delinquency. CSC has four components designed to be implemented over the course of the school year: (1) Class Meeting Lessons, which provide teachers and students with a forum to get to know one another and make decisions that affect classroom climate; (2) Cross-Age Buddies, which help build caring cross-age relationships; (3) Homeside Activities, which foster communication at home and link school learning with home experiences and perspectives; and (4) Schoolwide Community-Building Activities, which link students, parents, teachers, and other adults in the school. Schoolwide implementation of CSC is recommended because the program builds connections beyond the classroom.

### **Contact Information**

#### **Web site(s):**

<http://www.devstu.org/csc/videos/index.shtml>

#### **For information about implementation:**

Customer Service Department  
Developmental Studies Center  
2000 Embarcadero, Suite 305  
Oakland, CA 94606-5300  
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## **Good Behavior Game**

The Good Behavior Game (GBG) is a classroom management strategy designed to improve aggressive/disruptive classroom behavior and prevent later criminality. The program is universal and can be applied to general populations of early elementary school children, although the most significant results have been found for children demonstrating early high-risk behavior. It is implemented when children are in early elementary grades to provide them with the skills they need to respond to later, possibly negative, life experiences and societal influences.

GBG improves teachers' ability to define tasks, set rules, and discipline students and allows students to work in teams in which each individual is responsible to the rest of the group. Before the game begins, teachers clearly specify those disruptive behaviors (e.g., verbal and physical disruptions, noncompliance) that, if displayed, will result in a team's receiving a checkmark on the board. By the end of the game, teams that have not exceeded the maximum number of marks are rewarded, while teams that exceed this standard receive no rewards. Eventually, the teacher begins the game with no warning and at different periods during the day, so students are always monitoring their behavior and conforming to expectations.

## **Contact Information**

### **Web site(s):**

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## **Guiding Good Choices**

Guiding Good Choices (GGC) is a drug use prevention program that provides parents of children in grades 4 through 8 (9 to 14 years old) with the knowledge and skills needed to guide their children through early adolescence. It seeks to strengthen and clarify family expectations for behavior, enhance the conditions that promote bonding within the family, and teach skills that allow children to resist drug use successfully. GGC is based on research that shows that consistent, positive parental involvement is important to helping children resist substance use and other antisocial behaviors. Formerly known as Preparing for the Drug Free Years, this program was revised in 2003 with more family activities and exercises. The current intervention is a five-session curriculum that addresses preventing substance abuse in the family, setting clear family expectations regarding drugs and alcohol, avoiding trouble, managing family conflict, and strengthening family bonds. Sessions are interactive and skill based, with opportunities for parents to practice new skills and receive feedback, and use video-based vignettes to demonstrate parenting skills. Families also receive a Family Guide containing family activities, discussion topics, skill-building exercises, and information on positive parenting.

### **Contact Information**

#### **Web site(s):**

<http://www.channing-bete.com/ggc>

#### **For information about implementation:**

Channing Bete Company  
One Community Place  
South Deerfield, MA 01373  
Phone: (877) 896-8532  
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E-mail: [custsvcs@channing-bete.com](mailto:custsvcs@channing-bete.com)

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## **LifeSkills Training (LST)**

LifeSkills Training (LST) is a school-based program that aims to prevent alcohol, tobacco, and marijuana use and violence by targeting the major social and psychological factors that promote the initiation of substance use and other risky behaviors. LST is based on both the social influence and competence enhancement models of prevention. Consistent with this theoretical framework, LST addresses multiple risk and protective factors and teaches personal and social skills that build resilience and help youth navigate developmental tasks, including the skills necessary to understand and resist prodrug influences. LST is designed to provide information relevant to the important life transitions that adolescents and young teens face, using culturally sensitive and developmentally and age-appropriate language and content. Facilitated discussion, structured small group activities, and role-playing scenarios are used to stimulate participation and promote the acquisition of skills. Separate LST programs are offered for elementary school (grades 3-6), middle school (grades 6-9), and high school (grades 9-12); the research studies and outcomes reviewed for this summary involved middle school students.

## **Contact Information**

### **Web site(s):**

<http://www.lifeskillstraining.com>

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## **Project Towards No Drug Abuse**

Project Towards No Drug Abuse (Project TND) is a drug use prevention program for high school youth. The current version of the curriculum is designed to help students develop self-control and communication skills, acquire resources that help them resist drug use, improve decisionmaking strategies, and develop the motivation to not use drugs. It is packaged in 12 40-minute interactive sessions to be taught by teachers or health educators. The TND curriculum was developed for high-risk students in continuation or alternative high schools. It has also been tested among traditional high school students.

### **Contact Information**

#### **Web site(s):**

<http://tnd.usc.edu>

#### **For information about implementation:**

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## Appendix C: Inventory of existing evidence-based upstream programs

### Purpose

The purpose of this analysis was to identify evidence-based programs designed to mitigate the factors that contribute to criminal behavior that are currently implemented in Sonoma County.

### Methodology

On June 4, 2009 Jo Weber, the Upstream Sponsor, sent an e-mail to 139 individuals inviting them to complete a survey via SurveyMonkey and to forward the survey to others that may be interested. Ultimately, 170 organizations received the survey. A follow-up e-mail was sent by Jo Weber on June 15, 2009. During the first week of July, reminder phone calls were made to all organizations that had not yet completed the survey. The results of the survey were analyzed using quantitative and qualitative analysis techniques.

### Responses

The survey was sent to organizations representing state, county, and city departments, education entities, and community and faith based organizations. TABLE 17 (below) represents the responses to the survey for each category. A complete list of the 170 organizations that received the survey is listed in TABLES 17 and 18 on pages 93-95

**TABLE 17: Survey Response Rate**

Category	Invited to participate	Responded	Did Not Respond
State Organizations	9	3 (33%)	6 (67%)
County Departments	9	8 (89%)	1 (11%)
Cities	9	2 (22%)	7 (78%)
Education entities	55	32 (58%)	23 (42%)
Community based organizations	78	36 (46%)	42 (54%)
Faith based organizations	10	4 (40%)	6 (60%)
<b>TOTAL</b>	<b>170</b>	<b>85 (50%)</b>	<b>84 (50%)</b>

### Findings: Risk Factors

The Upstream Team identified factors which, if present, increase the likelihood that an individual will become involved in the criminal justice system. Survey respondents were invited to comment on these factors.

### Findings: Evidence-Based Practice

The Upstream Team considered, but rejected, inventorying every upstream program that may be currently offered in Sonoma County. Instead, the Upstream Team decided to only inventory existing upstream programs that are evidence-based. In this survey, organizations were asked to identify which evidence-based programs they currently implement. Organizations listed 71 evidence-based programs that they currently implement. These programs are listed in TABLE 19 on pages 96-98. 16 of these programs are listed in the nine meta-analyses of effective upstream programs (Appendix A).

### Findings: Funding

With this survey, the Upstream Team sought to identify roughly how much funding is currently being devoted to evidence-based upstream programs throughout the county. These survey questions did not yield useful information and, therefore, are not reported here.

**TABLE 18: Organizations that Received the Upstream Inventory and How They Responded**

Category	Responded	Did Not Respond
<b>State Organizations</b>	<ol style="list-style-type: none"> <li>1. Board on Developmental Disabilities</li> <li>2. California Department of Social Services (Adoptions Services Bureau, Rohnert Park)</li> <li>3. Santa Rosa Junior College (Independent Living Education)</li> </ol>	<ol style="list-style-type: none"> <li>1. California Conservation Corps</li> <li>2. California State Parks</li> <li>3. Job Corp</li> <li>4. North Bay Regional Center</li> <li>5. Sonoma State University</li> <li>6. Superior Court of California</li> </ol>
<b>County Departments</b>	<ol style="list-style-type: none"> <li>1. Community Development Commission</li> <li>2. Department of Child Support</li> <li>3. Department of Health Services</li> <li>4. First 5 Sonoma County</li> <li>5. Human Services Department</li> <li>6. Probation</li> <li>7. Regional Parks Department</li> <li>8. Sheriff's Office</li> </ol>	<ol style="list-style-type: none"> <li>1. Sonoma County Library</li> </ol>
<b>Cities</b>	<ol style="list-style-type: none"> <li>1. City of Healdsburg (Police Department)</li> <li>2. City of Santa Rosa (Police Department)</li> </ol>	<ol style="list-style-type: none"> <li>1. City of Cloverdale</li> <li>2. City of Cotati</li> <li>3. City of Petaluma</li> <li>4. City of Rohnert Park</li> <li>5. City of Sebastopol</li> <li>6. City of Sonoma</li> <li>7. City of Windsor</li> </ol>
<b>Education Entities</b>	<ol style="list-style-type: none"> <li>1. Alexander Valley Union School District</li> <li>2. Arts &amp; Ethics Academy</li> <li>3. Bellevue Union School District               <ol style="list-style-type: none"> <li>4. Bellevue Elementary School</li> </ol> </li> <li>5. Bennett Valley Union School District</li> <li>6. North Valley School</li> <li>7. Cloverdale Unified School District               <ol style="list-style-type: none"> <li>8. Cloverdale High School</li> </ol> </li> <li>9. Cotati Rohnert Park Unified School District</li> <li>10. Liberty School District</li> <li>11. Mark West Charter School (representing Mark West Union School District)</li> <li>12. Oak Grove Union School District</li> <li>13. Willowside Middle School</li> <li>Petaluma City Schools</li> </ol>	<ol style="list-style-type: none"> <li>1. Cinnabar School District</li> <li>2. Dunham School District</li> <li>3. Forrest Union School District</li> <li>4. Fort Ross School District</li> <li>5. Geyserville Unified School District</li> <li>6. Gravenstein Union School District</li> <li>7. Guerneville School District</li> <li>8. Harmony Union School District</li> <li>9. Healdsburg Unified School District</li> <li>10. Horicon School District</li> <li>11. Kashia School District</li> <li>12. Kenwood School District</li> <li>13. Laguna Joint School District</li> <li>14. Monte Rio Union School District</li> <li>15. Old Adobe Union School District</li> </ol>

**TABLE 18: Organizations that Received the Upstream Inventory and How They Responded (continued)**

Category	Responded	Did Not Respond
<b>Education Entities</b> (continued)	14. McDowell Elementary School 15. McKinley School 16. Petaluma Adult School 17. Petaluma High School Piner-Olivet Union School District 18. Olivet Elementary School 19. Rincon Valley Union School District 20. Roseland School District 21. Santa Rosa City Schools 22. Montgomery High School 23. Santa Rosa Charter School 24. Santa Rosa High School 25. Sebastopol Union School District 26. Sonoma County Board of Education 27. Sonoma County Office of Education 28. Sonoma Valley Unified School District 29. Sonoma Valley Adult School 30. Waugh School District 31. West Sonoma County Union High School District 32. El Molino High School	16. Point Arena Union School District 17. Shoreline Unified School District 18. Twin Hills Union School District 19. Two Rock Union School District 20. Union Joint School District 21. Wilmar Union School District 22. Windsor Unified School District 23. Wright School District
<b>Community Based Organizations</b>	1. Big Brothers Big Sisters of the North Bay 2. Boys & Girls Clubs of Greater Santa Rosa 3. Boys & Girls Clubs of Sonoma Valley 4. Center for Social and Environmental Stewardship 5. Chrysalis Counseling Services for Women 6. Committee on the Shelterless (COTS) 7. Community Action Partnership of Sonoma County 8. Community Child Care Council of Sonoma County 9. Court Appointed Special Advocates (CASA) 10. Drug Abuse Alternatives Center (DAAC) 11. Easter Seals Northern California 12. Family Service Agency of Sonoma County 13. Girl Scouts of Northern California-North Coast 14. Goodwill Industries of Redwood Empire 15. Jewish Family and Children's Services 16. Kid Street Learning Center 17. Life Pregnancy Services	1. Advocacy Resource Center Disability Services 2. Aspira Foster and Family Services 3. Birthright of Petaluma 4. Boys and Girls Clubs (Cloverdale, Healdsburg, Petaluma, Rohnert Park, Windsor) 5. California Childcare Resources and Referral 6. California Human Development Corporation 7. California Mentor Foundation 8. California Parenting Institute (CPI) 9. Christian Counseling of Sonoma County 10. Community Alliance for Special Education 11. Community Matters 12. Community Support Network 13. DeMeo Teen Club 14. EVOLVE Institute for Violence Prevention

**TABLE 18: Organizations that Received the Upstream Inventory and How They Responded (continued)**

Category	Responded	Did Not Respond
<b>Community Based Organizations</b> (continued)	18. LifeWorks of Sonoma County 19. Lomi Psychotherapy Clinic 20. MATRIX Parent Network & Resource Center 21. NAMI Sonoma County 22. North Bay Vietnam Veterans of California Resource Center 23. North County Community Services 24. Petaluma People Services Center 25. Positive Images 26. Pregnancy Counseling Center 27. Psych Strategies 28. RECOURSE Mediation Services 29. Redwood Community Health Coalition 30. Routes For Youth 31. Social Advocates for Youth 32. Sonoma County Child Care Planning Council 33. The Living Room Center 34. United Against Sexual Assault of Sonoma County 35. Valley of the Moon Teen Center 36. VINES 36. West County Community Services	15. Face to Face 16. Filipino American Community Center 17. Florez Youth Insight 18. Friends in Sonoma Helping (FISH) 19. Grandparents Parenting Again 20. Latino Service Providers 21. Legal Aid of Sonoma County 22. Loyola Counseling Institute 23. NAACP 24. New Direction Adolescent Services 25. Non-Violent Alternatives 26. Partners for Adoption 27. Planned Parenthood Golden Gate 28. Recovery House 29. Redwood Empire Chinese Association 30. Russian River Counselors 31. Santa Rosa Treatment Program 32. Sonoma County Associates for Youth Development 33. Sonoma County Indian Health Project 34. Sonoma County legal Services Foundation 35. Sonoma Overnight Shelter 36. Sunny Hills Adolescent Treatment 37. Volunteer Center of Sonoma County 38. Women’s Recovery Services 39. YMCA 40. YouthBuild 42. YWCA
<b>Faith Based Organizations</b>	1. Catholic Charities of the Diocese of Santa Rosa 2. Interfaith Shelter Network 3. Redwood Gospel Mission 4. Victory Outreach	1. Good Samaritan Community Church 2. Redwood Covenant Church 3. Salvation Army Corps Community Center 4. Santa Rosa Victory Outreach 5. St. Eugene’s Cathedral 6. St. Vincent De Paul Society

**TABLE 19: Currently implemented programs reported to be evidence-based by responding organizations**

<b>Program Name</b> (does not include generic program approaches)	<b>Organization(s) Currently Implementing</b>
1. Adlerian Positive Discipline	▪ Santa Rosa Charter School
2. After School and Summer Gang Prevention Program	▪ Boys & Girls Clubs of Greater Santa Rosa
3. Aggression Replacement Therapy (A.R.T.)	▪ North Valley School
4. Alternative Education Program	▪ Sonoma County Board of Education
5. Anger Management classes	▪ Social Advocates for Youth
6. BEST ((Building Effective Skills Together)	▪ Bellevue Union School District ▪ Bennett Valley Union School District ▪ Santa Rosa City Schools
7. Boys Council	▪ Social Advocates for Youth
8. Brief Strategic Therapy	▪ Social Advocates for Youth
9. CAPP, TAPP, DTAPP	▪ United Against Sexual Assault of Sonoma County
10. Career Development	▪ Sonoma County Office of Education
11. CARES (Comprehensive Approaches to Raising Educational Standards)	▪ Sonoma County Child Care Planning Council
12. Challenge Days	▪ Petaluma High School
13. Character Based Literacy Project	▪ Sonoma County Office of Education
14. Chestnut Hill-Bloomington Outpatient and Intensive Outpatient Programs	▪ Drug Abuse Alternatives Center
15. Choices for Change	▪ LifeWorks of Sonoma County
16. Cognitive Behavioral Therapy	▪ Social Advocates for Youth
17. Community Service Program Alternative	▪ Mark West Charter School
18. Court Referred Teen Program	▪ Kid Street Learning Center
19. Dialectical Behavioral Therapy (DBT)	▪ North Valley School
20. El Puente (The Bridge)	▪ LifeWorks of Sonoma County
21. Employment Workshop	▪ Probation
22. Families in Action for Parents of Teens	▪ Petaluma People Services Center
23. Families in Action for Teens	▪ Petaluma Peoples Services Center
24. Family Education Center	▪ LifeWorks of Sonoma County
25. Family Strengthening Program	▪ Kid Street Learning Center

**TABLE 19: Currently implemented programs reported to be evidence-based by responding organizations (continued)**

<b>Program Name</b> (does not include generic program approaches)	<b>Organization(s) Currently Implementing</b>
26. Food Stamps	▪ Human Services Department
27. Functional Family Therapy (FFT)	▪ Social Advocates for Youth
28. Gang Resistance And Prevention	▪ Boys & Girls Clubs of Sonoma Valley
29. Gateway to Quality	▪ Sonoma County Child Care Planning Council
30. Girls' Circle	▪ Petaluma People Services Center ▪ West County Community Services ▪ Social Advocates for Youth ▪ United Against Sexual Assault of Sonoma County
31. Girls on the Run	▪ Boys & Girls Clubs of Sonoma Valley
32. Healthy Relationships	▪ United Against Sexual Assault of Sonoma County
33. High Point	▪ Bellevue Union School District
34. Hip Hope	▪ Family Service Agency of Sonoma County
35. Human Interaction Courses	▪ Petaluma High School
36. Kids In Control	▪ Boys & Girls Clubs of Sonoma Valley
37. KIDS Project	▪ West County Community Services
38. Language!	▪ Santa Rosa City Schools
39. MyStrength	▪ United Against Sexual Assault of Sonoma County
40. Padres Unidos/Parent Project	▪ Community Action Partnership of Sonoma County
41. Parent Intern Program	▪ Kid Street Learning Center
42. Parent Project classes	▪ Social Advocates for Youth
43. Parents Speak-up Campaign	▪ VINES
44. Pathways to Self Discovery and Change	▪ Drug Abuse Alternatives Center
45. PIP (Primary Intervention Program)	▪ Bennett Valley Union School District
46. Power Hour	▪ Boys & Girls Clubs of Sonoma Valley
47. Professional Learning Communities	▪ Santa Rosa City Schools
48. Project Alert	▪ Mark West Charter School
49. Project SUCCESS	▪ West County Community Services ▪ Sonoma County Office of Education ▪ Petaluma People Services Center
50. Regional Occupational Programs	▪ Sonoma County Board of Education

**TABLE 19: Currently implemented programs reported to be evidence-based by responding organizations (continued)**

<b>Program Name</b> (does not include generic program approaches)	<b>Organization(s) Currently Implementing</b>
51. Response to Intervention (RtI);	▪ Santa Rosa City Schools
52. Restorative Conferencing;	▪ West County Community Services
53. Restorative Justice	▪ Cloverdale Unified School District
54. Risking Connection by Trauma Research, Education and Training (Treati, Inc.)	▪ North Valley School
55. ROP Classes	▪ Sonoma County Office of Education
56. Safe School Ambassadors	▪ Bellevue Union School District ▪ Mark West Charter School ▪ Bellevue Elementary School ▪ Santa Rosa High School
57. SCANS Skills	▪ North Valley School
58. School-Based Counseling Program	▪ LifeWorks of Sonoma County
59. Second Step	▪ Alexander Valley Union School District ▪ Sonoma County Office of Education ▪ Bennett Valley Union School District
60. SMART Moves	▪ Boys & Girls Clubs of Sonoma Valley
61. Sports Club	▪ Boys & Girls Clubs of Sonoma Valley
62. Student Assistance Program	▪ Petaluma High School
63. Student Support Team Meetings	▪ Mark West Charter School
64. TASC Starting Point	▪ Probation
65. The Consultation Project	▪ Jewish Family and Children's Services
66. Therapeutic Classrooms	▪ Sonoma County Office of Education
67. Thinking for Good	▪ Social Advocates for Youth
68. Toolbox Project-12 Tools for Living (Collin, Dunn)	▪ North Valley School ▪ Oak Grove Union School District ▪ Alexander Valley Union School District
69. Transitions@LifeWorks	▪ LifeWorks of Sonoma County
70. Triple Play	▪ Boys & Girls Clubs of Sonoma Valley
71. Victor Training in Therapeutic Intervention (VTTI)	▪ North Valley School

## Appendix D: Analysis of Sonoma County's first time offenders

### Purpose

The purpose of this analysis was to develop a profile of individuals entering the Sonoma County criminal justice system for the first time (first-time offenders), and to identify the Sonoma County prominent high risk populations that may benefit from upstream interventions.

This analysis of Sonoma County's first time offenders answers the following research questions:

1. What are the demographics of first-time offenders in Sonoma County?
2. Are these demographics different from the general County population? If so, in what ways?

### Methodology

Sonoma County Information Systems Department (ISD) produced a data sample from the Juvenile and Adult Criminal Systems that identified, as first time offenders, all individuals that were arrested, for the first time, during the period beginning January 1, 2008 and ending December 31, 2008. ISD identified any adult from the sample (using date of birth and name) who had, at any point in the history of Juvenile and Adult Criminal Systems, an entry as a juvenile. This database included:

1. Unique Person Key (juvenile and adult)
2. Race
3. Gender
4. Date of Birth
5. Current school
6. Residence city at time of arrest
7. Offense date
8. Offense description
9. Offense category
10. Offense severity

Using arresting offense information, three "flags" were created to better identify arresting offenses that may be related to the factors that contribute to criminal behavior.

- The **Alcohol and Other Drugs Flag** included arresting offenses such as DUI, drinking in prohibited areas, and possession of a controlled substance.
- The **Child Abuse Flag** included offenses such as willful cruelty and endangerment with the possibility of injury or death.
- The **Gang Flag** included arresting offenses such as fighting in public with the gang enhancement, and participation in a street gang.

The list of all offenses included for the alcohol and other drugs flag is available upon request. The Gang Flag and the Child Abuse Flag are not reported here because the information used to create these flags was incomplete and, ultimately, under-represented these issues.

### Data Limitations

Inherent in the information used for this analysis are the following limitations.

- **First Time Offender Status**  
If an individual was previously arrested in a location outside of Sonoma County, he or she is not actually a first time offender but, he or she would appear to be a first time offender in this analysis. Records of previous offenses outside of the County are not available.

- **No Measurement Regarding Length of Residency in County**  
There is no available electronic information about first time offender’s length of residency in the County. As a result, there is no way to know if an individual would have actually been living in Sonoma County at a time in his/her life to benefit from an upstream intervention.
- **Arresting versus Filed Offenses**  
There are three distinct ways to classify an offense: arresting offenses (the initial charges), filed offenses (the charges filed against an offender), and convicted charges (the charges for which the offender is actually convicted). This report focuses exclusively on arresting offenses. There are several potential pitfalls to this method: (1) the severity of filed charges may be upgraded or downgraded from the arresting offense, depending on the evidence; (2) some arresting offenses may be dropped entirely; and (3) the portfolio of filed charges may include offenses not previously identified by the arresting officer. The Upstream Team elected to focus primarily on arresting information because of the perceived value of first impressions. An officer’s first impression of a situation can reveal areas of vulnerability even if the act does not, in the end, rise to the level of a criminal offense. For example, if an individual is arrested on charges of child abuse which are later dropped, it is possible that the family is still fragile and in need of further support services to prevent future incidents.

**Analysis**

The Upstream Team conducted a comprehensive analysis of this information and shared draft findings with the Health and Human Services Coordinating Committee, the Criminal Justice Strategic Plan Coordinating Committee, and the Juvenile Symposium.

**Results**

The following information about first time offenders is presented here.

- County of residence at time of first time arrest
- Demographics for first offenders
- Offenses committed by first time offenders
- Differences in offenses committed by first time offenders by Age, Gender and Race/Ethnicity

There is no statistically significant pattern to the following: offenses by day of the week, month of the year, season of the year, and city. Therefore, these analyses are not reported. Current school information was missing for 30% of the juveniles in the database and therefore, school information is not reported.

Results: County of Residence

In 2008, 23,876 different people were arrested in Sonoma County. Of these, 11,407 people were arrested for the first time. 47.8% of all individuals arrested in Sonoma County in 2008 were first time arrests. Of the individuals arrested for the first time, 8,522 (74.7%) lived in Sonoma County at the time of arrest. In this report, only these 8,522 individuals are included in the results because the County has limited ability to influence the actions of individuals who live outside the County.

**TABLS 20: County of residence at time of arrest**

	#	%
• Sonoma County	8,522	74.7%
• Contiguous County (Mendocino, Lake, Napa, Marin)	821	7.2%
• Other County	1,856	16.3%
• Address missing	208	1.8%

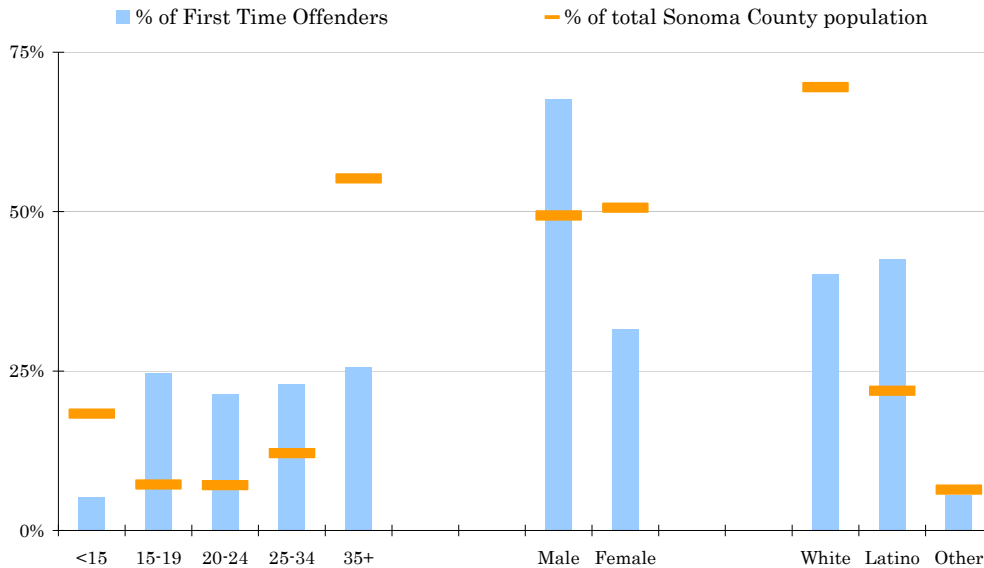
**Results: Demographics**

Males, Latinos and young people are significantly over-represented as first time offenders. TABLE 21 describes the demographics of Sonoma County’s first time offenders. Column A describes the demographics of first time offenders. Column B describes the demographics of all county residents. Column A/B (A divided by B) demonstrates the percent of the total county population that was arrested for a first time offense in 2008. Statistical analysis available upon request.

**TABLE 21: First Time Offender Demographics**

	A. First Time Offenders		B. Total Population		A/B
	#	%	#	%	
<b>Census Age</b>					
• Under 15	441	5.2%	84,739	18.3%	.5%
• 15-19	2,107	24.7%	33,601	7.2%	6.3%
• 20-24	1,818	21.3%	33,030	7.1%	5.5%
• 25-34	1,957	23.0%	55,881	12.1%	3.5%
• 35-44	1,027	12.1%	64,640	13.9%	1.6%
• 44-54	702	8.2%	74,684	16.1%	1.0%
• 55+	450	5.3%	116,969	25.2%	.4%
• Missing	20	.2%			
<b>Grouped Age</b>			Not available in these groupings		
• 0-17 (juvenile)	1,369	16.1%			
• 18-25 (young adult)	3,291	38.6%			
• 26+ (adult)	3,842	45.1%			
<b>Gender</b>					
• Female	2,697	31.6%	234,476	50.6%	1.2%
• Male	5,768	67.7%	229,068	49.4%	2.5%
• Missing	57	.7%			
<b>Race</b>					
• White	3,426	40.2%	322,267	69.5%	1.1%
• Latino	3,631	42.6%	101,295	21.9%	3.6%
• Other	469	5.5%	29,055	8.6%	1.6%
• Missing	996	11.7%			

Sonoma County  
**First Time Offender Demographics**



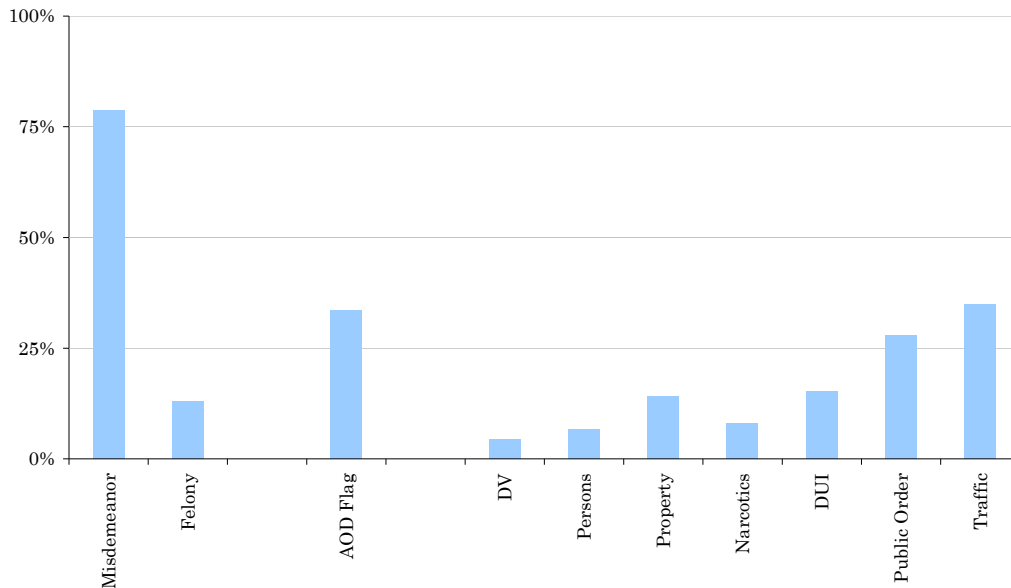
Results: Offenses committed by first time offenders

The majority of offenses committed by first time offenders are misdemeanors and 34% involved alcohol or drugs. Sonoma County’s Juvenile and Adult Criminal Systems hard-codes arresting offenses into one of eight mutually exclusive offense categories (developed with David Bennett during the 2007 Corrections Master Plan). TABLE 22 describes this information about first time offenses. The eight offense categories are listed in order of severity:

**TABLE 22: First Time Offense Demographics**

	A. First Time Offenders	
	#	%
<b>Most Severe Arresting Offense</b>		
• Infraction	38	.4%
• Misdemeanor	6,710	78.7%
• Felony	1,107	13.0%
• Missing	667	7.9%
<b>Arresting offense flag</b>		
• Alcohol and other drugs	2,865	33.6%
<b>Arresting Offense Categories</b>		
• Domestic violence	377	4.4%
• Crimes against other persons (all person-to-person crimes <i>except for</i> domestic violence)	561	6.6%
• Crimes against property	1,203	14.1%
• Narcotics (any drug-related activities, including possession of drug paraphernalia but not including crimes involving alcohol)	680	8.0%
• Driving under the influence	1,292	15.2%
• Public order (any crime that involves disturbing the peace – which may include those that involve alcohol -- or violating an ordinance such as fish and game violations)	2,376	27.9%
• Traffic offenses (all vehicular offenses <i>except for</i> driving under the influence)	2,978	34.9%
• Uncategorized	104	1.2%

Sonoma County  
**First Time Offenses**



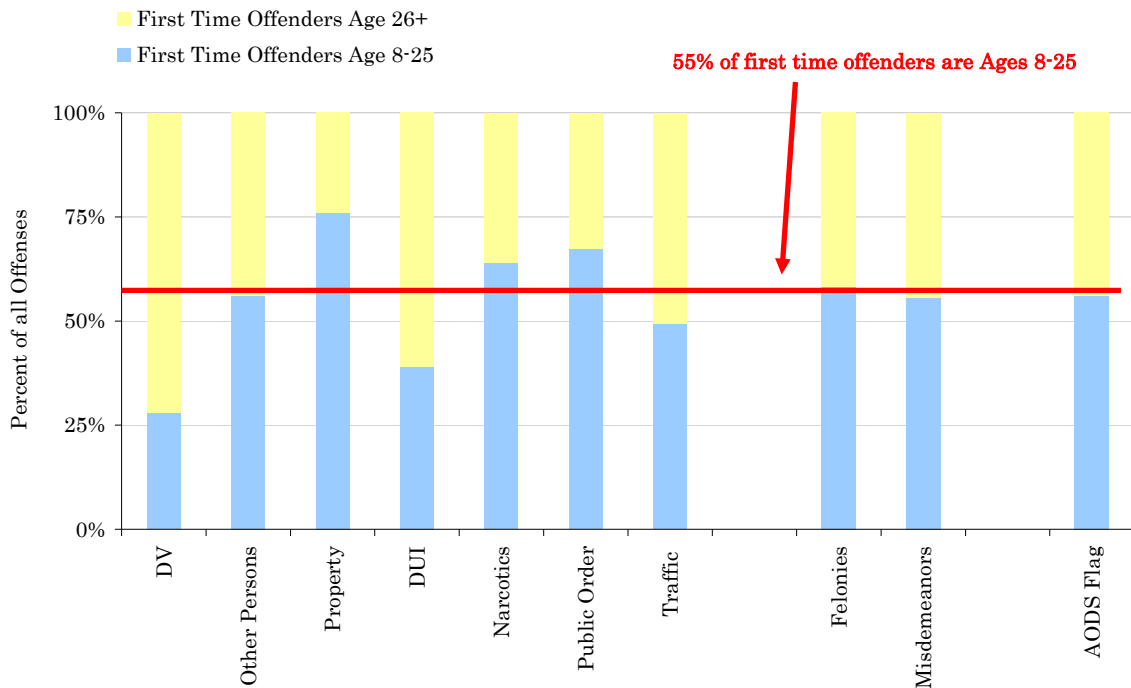
Results: Differences by Age

Young people (up to age 25), are more likely than other ages to be arrested for property, narcotics and public order offenses. An Analysis of Variance was conducted for each comparison to evaluate the probability that the observed difference is statistically significant. *P* values less than .03 suggest that there is less than a 3% probability that the observed difference does not hold true for all first time offenders. In this analysis, the sample is very large and virtually all observed differences between groups, even seemingly small differences, are statistically significant.

**TABLE 23: First Time Offenses by Age**

	0-17 (Juvenile)		18-25 (Young Adult)		26+ (Adult)		<i>p</i>
	#	%	#	%	#	%	
<b>Most Severe Offense</b>							
• Felony	267	19.8%	377	11.6%	463	12.1%	.00
• Misdemeanor	1,012	75.2%	2,719	83.4%	2,975	77.9%	
• Infraction	10	.7%	15	.5%	13	.3%	
• Missing	57	4.2%	151	4.6%	367	9.6%	
<b>Offense Category</b>							
• Domestic Violence	12	.9%	94	2.9%	271	7.1%	.00
• Crimes Against Others	174	12.7%	138	4.2%	247	6.4%	.00
• Crimes Against Property	521	38.1%	390	11.9%	290	7.6%	.00
• DUI	26	1.9%	476	14.5%	790	20.6%	.00
• Narcotics	136	9.9%	300	9.1%	244	6.4%	.00
• Public Order	605	44.2%	995	30.2%	774	20.2%	.00
• Traffic Offenses	54	3.9%	1,418	43.1%	1,505	39.2%	.00
• Uncategorized	8	.6%	35	1.1%	61	1.6%	.01
<b>Arresting Offense Flag</b>							
• Alcohol and Other Drug Flag	426	31.1%	1,178	35.8%	1,261	32.8%	.00

Sonoma County  
**First Time Offenses by Age**



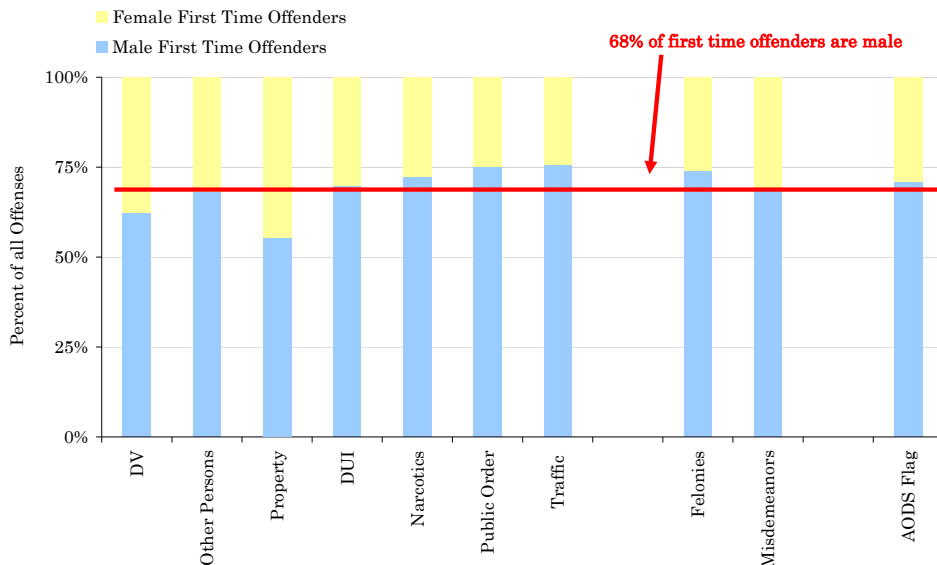
**Results: Differences by Gender**

Although more first time offenders are male than female, the types of first time offenses that males and females are arrested for are very similar. Males are slightly less likely to be arrested for a property offense. A t-test was conducted for each comparison to evaluate the probability that the observed difference is statistically significant. *P* values less than .03 suggest that there is less than a 3% probability that the observed difference does not hold true for all first time offenders. In this analysis, the sample is very large and virtually all observed differences between groups, even seemingly small differences, are statistically significant.

**TABLE 24: First Time Offenses by Gender**

	Female		Male		<i>p</i>
	#	%	#	%	
<b>Age Category</b>					
• 0-17 (Juvenile)	485	18.0%	884	15.4%	.00
• 18-25 (Young Adult)	879	32.7%	2,389	41.5%	
• 26+ (Adult)	1,325	49.3%	2,483	43.1%	
<b>Race</b>					
• White	1,296	56.7%	2,130	70.7%	.00
• Latino	835	36.5%	2,795	53.4%	
• African American	61	2.7%	159	3.0%	
• Asian	65	2.8%	103	2.0%	
• Native American	7	.3%	12	.2%	
• Other	22	1.0%	39	.7%	
<b>Most Severe Offense</b>					
• Felony	287	10.7%	811	14.2%	.00
• Misdemeanor	2,099	78.4%	4,573	80.2%	
• Infraction	8	.3%	28	.5%	
• Missing	284	10.6%	292	5.1%	
<b>Offense Category</b>					
• Domestic Violence	140	5.2%	230	4.0%	.01
• Crimes Against Other Persons	175	6.5%	377	6.5%	.94
• Crimes Against Property	531	19.7%	657	11.4%	.00
• DUI	390	14.5%	902	15.6%	.17
• Narcotics	189	7.0%	490	8.5%	.02
• Public Order	585	21.7%	1,776	30.8%	.00
• Traffic Offenses	722	26.8%	2,250	39.0%	.00
• Uncategorized	22	.8%	82	1.4%	.02
<b>Arresting Offense Flag</b>					
▪ Alcohol and Other Drug Flag	836	31%	2,027	35.2%	.00

Sonoma County  
**First Time Offenses by Gender**



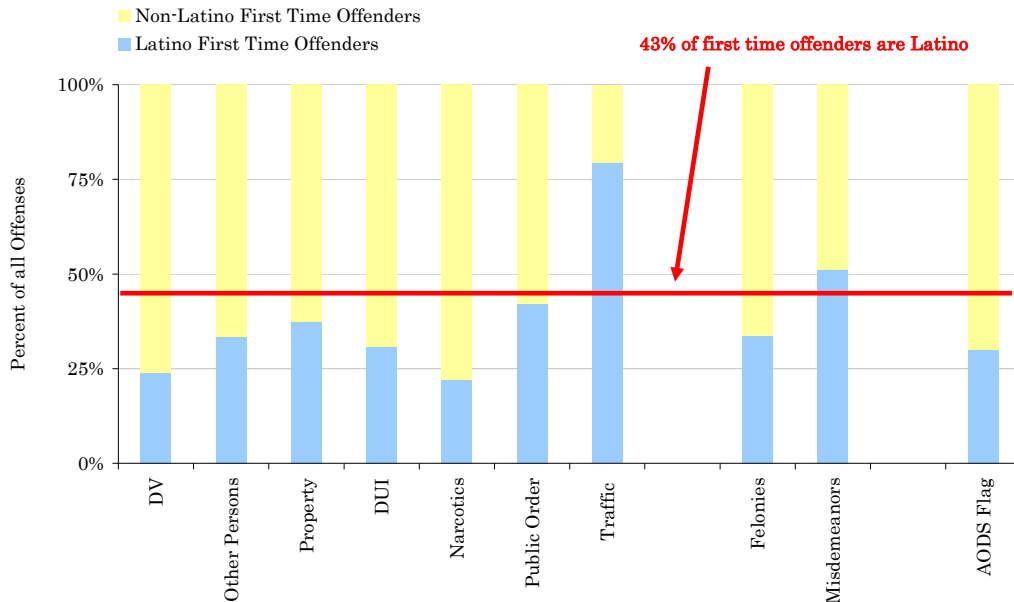
**Results: Differences by Race/Ethnicity**

Latino residents are more likely than other residents to be arrested for the first time for a traffic offense. In discussions with the law enforcement community, it seems reasonable to assume that Latino’s have a greater likelihood of being arrested for a traffic offenses because undocumented non-citizens are not eligible for a driver’s license. An analysis of variance was conducted for each comparison to evaluate the probability that the observed difference is statistically significant. *P* values less than .03 suggest that there is less than a 3% probability that the observed difference does not hold true for all first time offenders. In this analysis, the sample is very large and virtually all observed differences between groups, even seemingly small differences, are statistically significant.

**TABLE 25: First Time Offenses by Race/Ethnicity**

	White		Latino		Other		p
	#	%	#	%	#	%	
<b>Age Category</b>							
• 0-17 (Juvenile)	665	19.4%	475	13.1%	94	20.0%	.00
• 18-25 (Young Adult)	1,221	35.7%	1,586	43.7%	165	35.2%	
• 26+ (Adult)	1,536	44.9%	1,567	43.2%	210	44.8%	
<b>Most Severe Offense</b>							
• Felony	614	18.0%	363	10.1%	99	21.5%	.00
• Misdemeanor	2,721	79.9%	3,198	89.1%	350	75.9%	
• Infraction	18	.5%	7	.2%	2	.4%	
• Missing	52	1.5%	20	.6%	10	2.2%	
<b>Offense Category</b>							
• Domestic Violence	231	6.8%	86	2.4%	44	9.4%	.00
• Crimes Against Others	287	8.4%	176	4.8%	64	13.6%	.00
• Crimes Against Property	597	17.5%	412	11.3%	96	20.5%	.00
• DUI	817	23.9%	389	10.7%	62	13.2%	.00
• Narcotics	459	13.4%	143	3.9%	44	9.4%	.00
• Public Order	1,126	32.9%	914	25.2%	129	27.5%	.00
• Traffic Offenses	484	14.1%	2,276	62.7%	108	23.0%	.00
• Uncategorized	41	1.2%	48	1.3%	4	.9%	.00
<b>Arresting Offense Flag</b>							
▪ Alcohol and other Drug Flag	1,735	50.8%	806	22.2%	154	32.8%	.00

Sonoma County  
**First Time Offenses by Race/Ethnicity**



## Appendix E: Upstream interventions cost benefit for Sonoma County criminal justice funding

### Purpose

The purpose of this analysis was to determine what programs promise savings for the county general fund for criminal justice costs that are greater than or equal to the costs borne by the County general fund for criminal justice costs.

This analysis answers the following research questions:

1. What is the cost of crime for Sonoma County?
2. What is the cost per participant for each considered upstream program?
3. What rate of crime reduction is achieved for each considered upstream program?
4. What is the cost benefit of each considered upstream program?

### Methodology

The Upstream Team coordinated the design and implementation of a customized cost-benefit analysis.

#### Individuals involved

Marla Stuart coordinated this analysis for the Upstream Team including building the cost benefit model. The Criminal Justice Strategic Plan Coordinating Committee provided cross-Department input and guidance, ensured a shared ownership of the analysis process and the results, reviewed the analysis results, assisted in identifying and addressing challenges, and delegated staff to assist. These delegated staff served as a Technical Team who identified and submitted necessary information and reviewed the model logic and results.

#### Stepwise Implementation

This analysis was implemented in a stepwise process. For this report, data about criminal justice costs, offense rates and sentence information, and upstream program costs (for two programs) was collected. Using this information, the cost benefit model was developed, tested, and evaluated. The Upstream Team recommends that this model now be expanded to include other County costs (child welfare, alcohol and other drugs, etc.), additional upstream programs, and juvenile and adult criminal justice programs. The Ad Hoc Upstream Committee may decide to also expand this analysis to include costs that are external to the County (education, city law enforcement, state and federal costs, etc.). The Upstream Team also recommends that similar cost benefit analysis be applied (whenever possible) to other existing and new County programs.

#### Customized approach

The Upstream Team considered using existing, published cost-benefit models and/or contracting the analysis. However, the Upstream Team decided to develop and implement a customized cost-benefit model for the following reasons.

*Consistency:* Some Upstream programs of interest to Sonoma County have published evidence about fiscal benefits. Others do not. There is no single cost-benefit methodology that includes all programs of interest to Sonoma County. Replicating existing and different cost-benefit methodologies would require different inputs for each analysis and would produce results in different formats. Additionally, for programs without a published cost benefit analysis, Sonoma County would be required to develop a custom model. This lack of consistency between the different analyses would hinder easy and accurate comparison of upstream program benefits for Sonoma County.

*Applicability:* The Washington Institute for Public Policy (WSIPP) has developed and extensively published a complex cost-benefit analysis of 130 of criminal justice programs including seven prevention programs. Two programs of interest to the Upstream Team, Nurse Family Partnership and Seattle Social Development Project, are included in this analysis.

Because this model is widely published, the Upstream Team carefully evaluated the value of replicating the WSIPP for Sonoma County.

- Marla Stuart interviewed Elizabeth Drake, one of the model developers from WSIPP.
- Marla Stuart interviewed individuals from three states (Alaska, Oregon, New York) whose legislatures have requested and funded a replication of the WSIPP model.
- Marla Stuart and Don Schwartz convened an ad hoc group to deconstruct the WSIPP model.

Based on this evaluation, the Upstream Team concluded that replicating the WSIPP model did not meet Sonoma County’s objectives for the following reasons. Furthermore, it is likely that replicating any other existing cost-benefit methodology would pose the same limitations.

- The WSIPP model was designed to answer policy questions posed by the Washington Legislature which are not exactly equivalent to the questions of interest to Sonoma County.
- Criminal justice systems are unique. The criminal justice processes inherent in any model developed by another jurisdiction are unlikely to represent Sonoma processes.
- The WSIPP model requires extensive and very specific input data which Sonoma County may not have and which may not be of interest to Sonoma County.
- The WSIPP model is extremely complex. It would be difficult for Sonoma County to fully understand and explain the model’s assumptions which could lead to inaccurate conclusions.

*Replicability:* The Upstream Team was not aware of a replicable cost-benefit methodology currently used by any County Department. And, a cost-benefit analysis methodology has not yet been developed by the Juvenile and Adult Criminal Justice Master Plan projects. The Upstream Team had the opportunity to develop a cost-benefit methodology that may be useful within the county beyond the scope of the Upstream project.

## **Analysis and Results**

This analysis of upstream interventions benefit to County criminal justice costs consisted of the following four steps.

1. The Technical Team determined the County cost of crime.
2. The Technical Team selected two Upstream programs to test.
3. The Technical Team calculated a 12-year cost of crime.
4. The Technical Team developed a cost benefit model.

### Step 1: The Technical Team determined the County cost of crime.

The Sheriff’s Office, Probation, the Public Defender, the District Attorney, and the County Administrator’s Office each submitted total 2006-2007, 2007-2008, 2008-2009 criminal justice costs. The Information Systems Department (ISD) provided the number of criminal justice events for each fiscal year. The Upstream Team calculated cost of crime for Sonoma County for each fiscal year. The Technical Team originally thought that averaging three years of costs would provide a reasonable cost and would limit the influence of unusual costs. However, upon examination of the three fiscal years, the Technical Team decided that there were no unusual costs and that averaging three years actually resulted in an unreasonably low cost of crime. Therefore, this report only includes criminal justice costs for 2008-2009. The Sonoma County cost of crime is presented in TABLES 5 and 6 on pages 109-110 and on pages 49-50 in the report.

**TABLE 5: Sonoma County Average Cost per Criminal Justice Event in FY0809** (Does not include non-County funding sources)

Sonoma County Cost Category	Adult		Juvenile	
	Felony	Non-Felony	Felony	Non-Felony
<b>Sheriff's Office</b>				
▪ Sheriff arrest and investigation (per arrest)	\$3,836	\$459	\$3,836	\$459
▪ Jail Booking (per booking)	\$431	\$431	\$0	\$0
▪ Jail cost (per day)	\$147	\$147	\$0	\$0
<b>Probation</b>				
▪ Juvenile Hall Intake (per intake)	\$0	\$0	\$586	\$586
▪ Probation pre-sentence investigation (per investigation)	\$1,030	\$1,030	\$848	\$848
▪ Juvenile Hall cost (per day)	\$0	\$0	\$453	\$453
▪ Probation Camp (per day)	\$0	\$0	\$263	\$263
▪ Sierra Youth Center (per day)	\$0	\$0	\$272	\$272
▪ Probation (per day)	\$6	\$6	\$16	\$16
<b>District Attorney</b>				
▪ District Attorney Prosecution (per prosecution)	\$1,886	\$187	\$2,129	\$2,129
▪ Victim Costs (per arrest)	\$4,199		\$4,199	
<b>Public Defender</b>				
▪ Public Defender Defense (per defense)	\$1,736	\$297	\$1,107	\$1,107
▪ Conflict Counsel Defense (per defense)	\$2,008	\$406	\$455	\$455

NOTE 1: This reflects costs for Sonoma County General Fund for listed criminal justice services. This does not include costs born by state, federal and other funding sources. And, it does not include the County costs for other services related to crime and/or the factors that contribute to crime such as child welfare, substance abuse, cash aid, and Food Stamps.

NOTE 2: This is the cost per event. For instance, it is accurate to state that "On average, it costs Sonoma County \$1,886 for each District Attorney prosecution of an adult felony." This is an average (mean) cost for each event.

**TABLE 6: Sonoma County Average Cost per Arrest in FY0809** (Does not include non-County funding sources)

Sonoma County Cost Category	Adult		Juvenile	
	Felony	Non-Felony	Felony	Non-Felony
<b>Sheriff's Office</b>				
▪ Sheriff arrest and investigation (per arrest)	\$3,836	\$459	\$3,836	\$459
▪ Jail Booking (per arrest)	\$431	\$431	\$0	\$0
▪ Jail (13 days per arrest * average cost per day)	\$1,917	\$1,917	\$0	\$0
<b>Probation</b>				
▪ Juvenile Hall Intake (per arrest)	\$0	\$0	\$586	\$586
▪ Probation pre-sentence investigation (per arrest)	\$198	\$0	\$975	\$0
▪ Juvenile Hall (9 days per arrest * average cost per day)	\$0	\$0	\$4,328	\$4,328
▪ Probation Camp (2 days per arrest * average cost per day)	\$0	\$0	\$518	\$518
▪ Sierra Youth Center (1 days per arrest * average cost per day)	\$0	\$0	\$405	\$405
▪ Probation (64 days per arrest * average cost per day)	\$216	\$216	\$759	\$759
<b>District Attorney</b>				
▪ District Attorney Prosecution (per arrest)	\$1,605	\$165	\$334	\$334
▪ Victim Costs (per arrest)	\$4,199		\$4,199	
<b>Public Defender</b>				
▪ Public Defender Defense (per arrest)	\$1,083	\$125	\$355	\$355
▪ Conflict Counsel Defense (per arrest)	\$327	\$24	\$548	\$548
<b>2008-2009 Average Sonoma County Cost per Arrest</b> (without victim costs)	<b>\$9,613</b>	<b>\$3,338</b>	<b>\$12,644</b>	<b>\$8,293</b>
<b>2008-2009 Average Sonoma County Cost per Arrest</b> (with victim costs)	<b>\$13,812</b>	<b>\$3,338</b>	<b>\$16,843</b>	<b>\$8,293</b>

NOTE 1: This reflects costs for Sonoma County General Fund for listed criminal justice services. This does not include costs born by state, federal and other funding sources. And, it does not include the County costs for other services related to crime and/or the factors that contribute to crime such as child welfare, substance abuse, cash aid, and Food Stamps.

NOTE 2: This is the cost per arrest. For instance, it is accurate to state that "Each time we arrest a juvenile for a felony, it will cost Sonoma County an average of \$12,644." This is an average (mean) cost for each event.

**Step 2: The Technical Team selected two Upstream programs to test.**

To develop and test a cost benefit model for Sonoma County, the Upstream Team selected two widely regarded early childhood intervention programs for this initial analysis: Nurse Family Partnership and Perry Preschool. For each program, the Technical Team calculated the Sonoma County cost to implement the program, the number of eligible individuals in Sonoma County each year for 12 years, the eligibility criteria, and, for each program, found the published impact on crime (known as the effect size). More information about this part of the analysis is available upon request.

**Step 3: The Technical Team calculated a 12-year cost of crime.**

The Information Systems Department (ISD) developed a database of the 4,435 individuals ages 0-24 (juveniles and young adults) who were arrested for the first time in 1996-1997 and lived in Sonoma County at the time of their first arrest. 73% of this sample are male and 33% are Latino. The average age of first arrest for this sample is 18. For each of these 4,435 individuals, ISD captured every subsequent Sonoma County criminal justice involvement from 1996-1997 through 2007-2008 over 12 years. 57% of these individuals were arrested again after their first arrest. On average, these repeat offenders were rearrested 7.8 times in 12 years. On average and over 12 years, these 4,435 first time offenders cost Sonoma County criminal justice services \$17,398 (in 2008 dollars) in county funds. See TABLES 7-8 (below and on page 51 of the report) for details. More information about this part of the analysis is available upon request.

**TABLE 7: 1996-1997 Cohort – Number/Percent of Individuals with First Arrest**

Year	Adult				Juvenile				Any Arrest	
	Non-Felony		Felony		Non-Felony		Felony			
	#	%	#	%	#	%	#	%	#	%
0. First Arrest	2,084	47.0%	442	10.0%	1,640	37.0%	269	6.1%	4,435	100%

NOTE: On average, a first arrest costs \$4,168 in 2008 dollars for Sonoma County’s criminal justice services funded by County general fund.

**TABLE 8: 1996-1997 Cohort – Number/Percent of Individuals with Subsequent Arrests**

Year	Adult				Juvenile				Any Arrest	
	Non-Felony		Felony		Non-Felony		Felony			
	#	%	#	%	#	%	#	%	#	%
1. 1996-1997	424	9.6%	144	3.2%	331	7.5%	105	2.4%	889	20.0%
2. 1997-1998	511	11.5%	214	4.8%	369	8.3%	113	2.5%	1004	22.6%
3. 1998-1999	488	11.0%	175	3.9%	254	5.7%	73	1.6%	854	19.3%
4. 1999-2000	466	10.5%	180	4.1%	128	2.9%	47	1.1%	723	16.3%
5. 2000-2001	423	9.5%	179	4.0%	97	2.2%	25	0.6%	631	14.2%
6. 2001-2002	398	9.0%	183	4.1%	31	0.7%	11	0.2%	528	11.9%
7. 2002-2003	379	8.5%	189	4.3%	15	0.3%	5	0.1%	498	11.2%
8. 2003-2004	359	8.1%	181	4.1%	3	0.1%	2	0.0%	470	10.6%
9. 2004-2005	317	7.1%	146	3.3%	0	0.0%	0	0.0%	405	9.1%
10. 2005-2006	297	6.7%	161	3.6%	1	0.0%	0	0.0%	401	9.0%
11. 2006-2007	291	6.6%	137	3.1%	0	0.0%	0	0.0%	371	8.4%
12. 2007-2008	287	6.5%	116	2.6%	0	0.0%	0	0.0%	367	8.3%
<b>One or more arrests in 12 years</b>	1998	45.1%	1084	24.4%	757	17.1%	306	6.9%	2542	57.3%

NOTE: 2,542 (57.3%) of the 4,435 first time offenders ages 0-24 who lived in Sonoma County in 1996-1997 were re-arrested at least once in the following 12 years. They were re-arrested an average of 7.8 times in 12 years. On average, these 7.8 re-arrests cost \$13,230 in 2008 over 12 years for Sonoma County’s criminal justice services funded by County General Fund.

**TABLE 26: Number of Subsequent Arrests in 12 Years**

Number of Arrests	# of individuals	% of 4,435	
0	1,893	42.7%	42.7%
1	733	16.5%	41.6%
2	430	9.7%	
3	303	6.8%	
4	218	4.9%	
5	160	3.6%	
6-10	434	9.8%	15.7%
11-20	234	5.3%	
21-30	28	0.6%	
31+	2	0.0%	

**TABLE 27: Average Sonoma County Criminal Justice Cost Per Person**

Year	As an Adult	As a Juvenile	All Arrests
First Arrest	\$1,577	\$2,591	\$4,168
1996-97	\$882	\$832	\$1,714
1997-98	\$1,300	\$786	\$2,086
1998-99	\$1,058	\$555	\$1,613
1999-00	\$953	\$403	\$1,356
2000-01	\$892	\$334	\$1,226
2001-02	\$841	\$95	\$936
2002-03	\$887	\$94	\$981
2003-04	\$841	\$40	\$881
2004-05	\$687	\$0	\$687
2005-06	\$643	\$1	\$644
2006-07	\$608	\$0	\$608
<b>Average Total 12 year cost</b>	<b>\$11,667</b>	<b>\$5,731</b>	<b>\$17,398</b>

NOTE: The District Attorney inadvertently originally submitted costs from all funding sources. When discovered, the DA quickly submitted County only costs. The correction in the DA costs was made in the analysis for TABLES 5 and 6 on pages 110-111. However, the cost correction has not yet been made in the analysis for this TABLE. This correction will make a very small difference in the costs reported here. The correction should be made when the cost benefit analysis continues.

Step 4: The Technical Team developed a cost benefit model.

Using the information from steps 1-3, the Technical Team developed a cost benefit model and analyzed the cost benefit of the two selected upstream interventions. This model is built in Excel and is available for review. Essentially, the cost benefit analysis uses the following formula:

Cost of the Upstream Program per person served	MINUS	Cost of the crime avoided per person served by the Upstream Program	EQUALS	Per person cost benefit to Sonoma County for criminal justice services per \$1.00 expended
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The results of this initial Sonoma County cost benefit analysis are listed in TABLE 9 (page 114 and page 52 in the report). Before reviewing the results, it is important to understand the following issues that were considered by the Technical Team in developing the model.

*Risk Factor:* In Sonoma County, 5.3% of all juveniles and young adults ages 10-24 are arrested each year for the first time. The individuals that will be served by the Upstream programs are at greater risk for criminal involvement than the general population. Therefore, the probability of committing a crime in Sonoma County (for the whole population) is increased by a factor of 1.74. This is the risk factor used in the WSIPP cost benefit analysis. Sonoma County has no information to suggest that a different risk factor would be more appropriate.

*Decay Rate:* Some researchers hypothesize that the effect of a program diminishes as time passes. They recommend building a decay rate into a cost benefit analysis. However, service providers of the Nurse Family Partnership in California believe that the effect of their program increases over time. The Technical Team elected to build in a decay rate of .00 because it was controversial. However, since the model was built, the Upstream Team has reviewed more information that suggests that a

decay rate is reasonable. In any future Sonoma County cost benefit analysis, a decay rate should be used.

*Discount Rate:* When projecting benefits into the future, it is necessary to account for the decline of the dollar each year. Dollars spent today are worth less in the future. Using a discount rate essentially projects the impact of inflation. A discount rate of .03 is applied to the annual costs avoided for each year projected in this model.

*Out Migration:* Some people who receive upstream interventions will move away from Sonoma County before they reach an age when they may commit a criminal offense. Sonoma County will not benefit in reduced criminal justice costs for these individuals. The Technical Team did not account for migration in this analysis. As the model continues to be developed for Sonoma County, an out-migration rate should be included.

*Marginal or average costs:* The Technical Team elected to use average costs in the model. Average costs are the total costs in 2008-2009 divided by the number of events in 2008-2009. For instance, the Juvenile Hall costs are calculated by taking the total Hall costs divided by the number of juveniles in the hall. Alternately, the Technical Team could have used the marginal costs. For the Juvenile Hall, marginal costs would be the total costs in 2008-2009 divided by the maximum occupancy of the Hall. The Technical Team decided that average costs were a more accurate representation of the real costs borne by criminal justice departments.

*Capital improvements:* Sonoma County does not owe debt on any criminal justice facilities. Therefore, there are no capital debt costs included in this analysis. Additionally, this cost benefit analysis does not include the cost of future capital improvements such as building more jail space. The criminal justice costs avoided by the two upstream programs modeled assume that criminal justice costs will remain the same for 30 years.

*Projecting crime reductions:* Projecting reduced crime requires knowledge about typical crime patterns in a locality. Recidivism patterns are influenced by local arrest, prosecution, and sentencing practices. WSIPP selected a cohort of offenders in Washington and tracked their recidivism patterns for 30 years. Consequently, WSIPP was able to project reductions in recidivism for 30 years into the future. In Sonoma County, the Technical Team elected to build the cost benefit model using the cohort of all first time offenders in 1996-1997 because there was agreement that the computerized data was not fully complete until then. ISD produced data about these offender's recidivism patterns through 2007-2008 (12 years). Arrests in 2009 were not included because many would not yet have a completed prosecution. Consequently, Sonoma County can project recidivism rates for 12 years into the future.

*Projecting cost reductions:* Each crime has an associated cost. For Sonoma County, the costs are borne by the Sheriff's Office, the District Attorney, the Public Defender, and Probation. As with recidivism rates, costs are influenced by local arrest, prosecution, and sentencing practices. WSIPP modeled recidivism based on following a cohort of offenders for 30 years. But, they modeled costs based on more recent patterns in criminal justice practices. This required collecting data about another cohort of offenders. Sonoma County decided to model crime reduction and cost reduction using the same 1996-1997 cohort. The Criminal Justice Strategic Plan Coordinating Committee felt that arrest, prosecution and sentencing practices have not changed enough in the past 12 years to warrant the added effort required to develop a second cohort.

### **For more information**

Direct questions about this analysis to:

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Sonoma County Human Services Department

707.565.5849 or mstuart@schsd.org

**TABLE 9: Projected Sonoma County Avoided Costs from General Fund for Criminal Justice if Program is Implemented for 12 Years**

1	2	3	4	5	6
Program	Sonoma County criminal justice costs avoided per \$1.00 expended	Sonoma County victim costs avoided per individual served	Years projected past year of service delivery	Total Sonoma County criminal justice costs avoided after 12 years of implementation	Total Sonoma County victim costs avoided after 12 years of implementation
Nurse Family Partnership: Child	5¢	\$14	30	\$351,932	\$251,814
Nurse Family Partnership: Mother	3¢	\$27	12	\$402,166	\$480,857
Perry Preschool	1¢	\$12	26	\$1,056,111	\$529,452

NOTE 1: Sonoma County criminal justice costs avoided (column 5) assumes that the program was completely funded by outside funds (state, federal, grant, foundation, etc.).

NOTE 2: Sonoma County criminal justice costs avoided (column 5) does not include Victim Costs Avoided (column 6).

NOTE 3: The factors that influence the rate of return on upstream investments are the cost of the upstream program, the probability that a served individual would, in the future, incur criminal justice costs, the effectiveness of the program in reducing crime, the number of years before the return can be expected, and the discount rate (a rate used to determine the present value of future dollars).

## **Appendix F: Upstream investments project input process**

### **Purpose**

To conduct a thorough and rigorous analysis of upstream options, and to ensure that recommendation were locally relevant, the Upstream Team incorporated many opportunities for partners to provide input reflecting local knowledge, experience and wisdom. These opportunities to provide input are described here and summarized in TABLE 26 on page 116.

### **Focus Group Methodology**

The Upstream Team hosted five formal focus groups. Focus group participants responded to the following three questions:

1. What are the factors that contribute to criminal behavior?
2. What works to reduce the likelihood that a juvenile or adult will commit his/her first crime?
3. What upstream programs currently exist in Sonoma County?
4. What published sources do you suggest the Upstream Team consider?

The focus groups were recorded and transcripts prepared. Marla Stuart conducted a content analysis with the transcripts to identify common themes. These common themes were used by the Upstream Team to ensure that the report content, format, and tone are reflective of local opinions. Individual comments that reflect common themes are quoted in the report.

### **Meetings Methodology**

During the 18 months of this project, the Upstream Team provided regular updates to two standing committees: Strategic Planning Criminal Justice Projects Coordinating Committee and the Health and Human Services Coordinating Committee. Each group reviewed draft reports of the Upstream Team analysis and provided suggestions for improvement. These suggestions were used by the Upstream Team to ensure that the report reflected the opinions of relevant Sonoma County Departments.

### **Individual Conversations Methodology**

Members of the Upstream Team held many formal interviews and informal conversations and e-mail communications with interested County staff (including regular communication with the County Administrator's Office) and community partners. These conversations helped the Upstream Team to ensure that the recommendations are practical in the broad context of County operations.

**TABLE 28: Summary of Upstream Interventions Project Input Opportunities**

		Upstream Team	Health and Human Services Coordinating Committee	Strategic Planning Criminal Justice Projects Coordinating Committee	Cost Benefit Analysis Technical Team	Juvenile Symposium	Upstream Focus Group	Upstream Survey	Individual Communications (verbal, e-mail, or meeting)
<b>County Departments</b>	- Community Development Commission		X	X				X	
	- County Administrators Office	X	X	X	X	X			X
	- County Counsel			X					
	- Department of Child Support		X			X		X	X
	- Department of Health Services	X	X	X	X	X	X	X	X
	- District Attorney			X	X	X			X
	- Human Services Department	X	X	X	X	X	X	X	X
	- Information Systems (ISD)			X	X	X			X
	- Probation	X		X	X	X	X	X	X
	- Methamphetamine Task Force	X	X				X	X	X
	- First 5	X	X			X	X	X	X
	- Human Services Commission						X	X	X
	- Regional Parks Department							X	X
	- Sheriff's Office				X	X	X	X	X
<b>Other Government Partners</b>	- All Cities in Sonoma County (with a focus on Law Enforcement and Parks and Recreation)						X	X	
	- Mayor's Gang Prevention Task Force							X	X
	- All School Districts in Sonoma County							X	X
	- Juvenile Court					X			X
	- Sonoma County Office of Education	X				X		X	X
	- Nine (9) other Government Partners (see full list in Appendix C)							X	
<b>Other</b>	- 88 community and faith-based organizations (see full list in Appendix C)							X	X



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