

Evaluation of Duarte's Violence Intervention Prevention Program (VIP)

For

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By

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Abstract

The City of Duarte has received funding for 10 years to address juvenile crime, delinquency, and gang activity. In the last three years the city has expanded on previous iterations of the program and created Duarte's Violence Intervention Prevention (VIP) program. During this time, the City has run the core part of the program out of the Los Angeles Sheriff's Public Safety Office and has utilized staff including a crime prevention specialist, probation officers, school resource officers to other sheriff's deputies to support the program. Initially, the City Public Safety Office served approximately 20 youth annually with a \$10,000 budget from the city. In partnership with the California Board of State and Community Corrections the city has developed and expanded upon its community engagement program which now serves approximately 300 youth annually and places youth in a multitude of programs throughout the city. Using an interrupted time series analysis, I found that these efforts, and funding, have had a 57.3% impact on reducing juvenile arrests which have declined by 97% over the 10-year period. Additionally, using snowball sampling and focus groups, I was able to examine the unique impact the program had on youth attitudes towards delinquency, school, social responsibility, and collective efficacy. Essentially the City's efforts have taken what could be identified as "at-risk" youth and created a prosocial network of youth who engage in community activities and develop transferable skills that build social capital and empower youth beyond the limitations of their community. I will discuss further the policy, procedure, and practice of the program in the conclusion.

Introduction

Research that examines intervention and prevention programs to reduce juvenile delinquency have focused on specific program types such as boot camps (MacKenzie, Wilson, & Kider, 2001), cognitive-behavioral therapy (Landenberger & Lipsey, 2005), family therapy (Latimer, 2001), drug court (Wilson, Mitchell, & MacKenzie, 2006), victim-offender mediation (Nugent, Williams, & Umbreit, 2003), and multisystemic therapy (Littell, Popa, & Forsythe, 2005). These systematic reviews have found that such programs have varying levels of impact on juvenile delinquency. More recently, Lipsey examined 548 independent study samples from 361 primary research reports and found few factors were significantly related to reducing juvenile delinquency within an intervention (Lipsey 2009).

Additionally, there is even less research with targets intervention programs whose focus are Black or Latinx offenders (e.g., Wampler & Downs, 2009; Caldwell, Silver, & Strada 2010; Chung, Mulvey, & Steinberg, 2011). In this paper, I will take a mixed-method approach to examine the outcome of a ten-year intervention program Duarte Violence Intervention Prevention Program (VIP) which has been used to reduce gang violence, youth violence, and juvenile delinquency among primarily first-generation, Latinx, immigrant youth in the City of Duarte.

Literature Review

The Duarte VIP model is based on the Bronfenbrenner social ecological model which argues that child development and propensity to engage in delinquency is based on micro, meso, and macro systems of connections with others that shape behavior (Bronfenbrenner 1977). At the micro-level youth experience immediate connections with family, friends, teachers, and adult role models which socialize children to their reality. As children reach developmental milestones and become older the number of their microsystems expands and more distal relations become a larger part of the socialization process (e.g. peer groups, coaches, teachers, etc.). Finally, Bronfenbrenner made the case that children are connected to mesosystems which he defines as an interaction between two or more microsystems (1977).

One of the primary microlevel socialization agents among Latinx immigrant children is familial ties and parenting practices. This microlevel socialization can be shaped by parenting practices, family dynamics, chosen peer groups, and the way in which external organizations such as law enforcement, schools, and social service choose to label these youth (e.g., at risk, delinquent, special needs, etc.). Researchers have argued that such socialization and labeling can create pathways to assimilation which influences a youth's ability to assimilate and participate in the host society (Portes & Zhou, 1993; Waters, Tran, Kasinitz, & Mollenkopf, 2010). A great deal of research has also discussed the role that parenting and socialization to home country's cultures can play on the outcome of youth trajectories (Nguyen & Cheung, 2009; Portes & Zhou, 1993; Portes & Rumbaut, 2001). Therefore, youth are often negotiating two cultures, host and home, which can manifest itself in negative psychological and behavioral outcomes. Anecdotally, in the City of Duarte, these negative outcomes have been further impacted by a pandemic and anti-immigrant sentiment found in local and national politics.

Research has also found that immigrant parents have high expectations for their children to succeed in the host society. Research demonstrates that children's success in school and the larger social economy in the United States hinges upon their parent's ability to support and create opportunities for youth to participate (Fuligni, Witkow, & Garcia, 2005; Titzmann, Tobias, & Silbereisen, 2008; Waters et al., 2010). The research has also found that having strong family-like ties can be a protective factor against oppositional culture, delinquency, family disruption, and other negative outcomes (Portes & Zhou, 1993; Waters et al., 2010).

Peer groups can be an alternative socialization microlevel system particularly when weak family bonds exist. Peer groups provide social support, assist in the acculturation process, reinforce ethnic identity, and assist in navigating formal institutions such as schools (Bacallao & Smokowski, 2009; Waters, 1994). Recent research demonstrates that peer groups are not dichotomous (e.g., supportive or delinquent) but are more nuanced (Mikyuck & Woolard 2021). The study also showed that peer groups play a larger role in the lives of Latinx and Black youth as opposed to white youth (ibid). These peer

groups can also determine the level of acculturation, assimilation, and the development of social capital that can occur within the group members. The development of positive prosocial peer groups that reinforce strong ethnic identity and strengthen a national identity can prevent the propensity for downward assimilation (Waters 1994). Such strong social groups can also serve as a protective factor against segregated schools and socially disorganized communities which research has shown has a significant impact on youth behavioral outcomes (Parcel & Dufer, 2001; Perreira, Harris, & Lee, 2006; Moody, 2001; Crosnoe, 2005). Specifically, we see with immigrant Latinx youth a paradox in which strong familial, community, and peer groups relations can serve as a barrier to criminal behavior despite facing similar socioeconomic conditions.

DART/A-TEAM

The City of Duarte is in East Los Angeles County. The Public Safety office serves approximately 76,314 people within the Duarte city proper and the surrounding unincorporated county areas. According to the most recent census, 75% of the population is non-white, with 49% of the population identifying as Latinx, 17% Asian, and 6% Black. Almost 33% of the population identify as being foreign-born with 46% reporting speaking a language other than English at home. About 10% of the household incomes are at or below the poverty rate which is equivalent to California (11.5%) and National (11.4%) averages. The unincorporated parts of the service area also include communities served by the Los Angeles County Sheriff's Department in which 76% of the individuals are non-white; nearly 60% speak a language other than English at home; almost 18% have less than a high school education, and more than 12% of families live below the poverty level.

The city has undergone significant demographic changes over the past 20 years. Primarily longstanding Mexican American and African American residents have been displaced by arrivals of Latinx and Asian immigrants. This immigration influx has coupled with declining socioeconomic status and population which has led to many of the target areas having continuing budget constraints. These declines have been reflected in student attrition which has further decreased the resources of the city's youth. A recent study of the community's youth found that violence perception amongst students and

families is high. In fact, ethnic and economic diversity is seen as a liability; racial and class biases fed perceptions of academic quality and safety; and the risk of violence and bullying was far too great for parents in the higher socioeconomic demographics. Additionally, the study reported that gangs create an unsafe passage for students walking to school. (Claremont Evaluation Center, 2016)

Twelve years ago, the Duarte Public Safety Office began to successfully apply for extramural funding to support youth programs considering the lack of local funding to support such programs and the increases in juvenile delinquency, arrests, and gang activity witnessed in the city. Utilizing evidence-based research and measuring outcomes, the public safety office adapted and expanded its program to identify "at-risk" youth in elementary school and provide age-appropriate programming throughout the developmental life course. Currently, the program addresses the needs of targeted youth from 5 to 20 years of age.

Initially, youth are identified by contact with law enforcement, social service, school staff or faculty, or parents. These youth are referred to a team currently consisting of the Crime Prevention Specialist (Aida Torres M.S.), probation officer (Ray Abernathy), or the school resource officer (Art Valenzuela). If youth are found to need more than common support services, they are administered a psychometric intake form by the probation officer. This intake instrument measures risk and protective factors as well as self-reports of delinquent or criminal behavior. Additionally, youth are followed by a Safety committee consisting of leadership from the schools, law enforcement, social service, and youth servicing community-based organizations. The Safety Committee meets monthly to discuss general youth criminal activity and specific youth who are in crisis. The goal is to make certain the identified youth are continuing to receive the services they need. The goal of this group is to provide available and continuing wrap-around services to youth and their families to change the trajectory of youth to positive outcomes.

Discussion of DART/A-Team Leadership Model

Over the last three years, I attended several Safety Committee Meetings and worked with the schools to provide additional services to youth. Although the current leadership structure has been successful at reducing juvenile arrests. There are some challenges in communication and providing

services in the current model. These comments are to assist the city in formalizing and expanding on current efforts.

The first challenge in communication is that each of the agencies reports to the head of the school, most often represented by the Vice Principal of the high school, and there is very little time to discuss action items. I have suggested to several individuals in the leadership group that the model change from a hierarchical model to a collaborative model in which only specific youth issues are discussed where those individuals who have the power to contribute resources should attend. Often discussions were had to discuss new strategies, programs, or share data by proxies of leaders attending the meeting, and after a great deal of developing these new initiatives, these proxies were met with resistance from the actual leadership. This results in a waste of resources because necessary leaders were not at the table initially.

Next, there need to be formalized agreements between the schools, public safety, and social service agencies as appropriate. Research in juvenile delinquency demonstrates that there are several factors that push and pull youth into criminal behavior. Currently, the sharing of data regarding youth occurs in informal ways based on relationships between individual actors. Too often we see that the change in personnel and leadership such as informal relationships and activities end which results in not getting youth the services they need. To improve these agencies have formalized their relationships through data-sharing agreements, mutual use agreements, but although they exists they can still work on streamlining processes to assist youth who are in crisis, and work cross-agency to seek and apply for extramural funding. Currently, these efforts are personality-driven, require actors to move through several layers of bureaucracy, consist of redundancy, or programs that do not meet the needs of the youth. If continuing to serve the city's youth is a priority, then it needs to begin with leadership.

Finally, the City of Duarte should expand its efforts across cities. The City of Duarte has done a great job reducing juvenile delinquency and criminal activity, as well as gang activity. However, neighboring cities, serving similar demographics, are seeing an increase in youth and gang crime that Duarte has been successful at reducing. The Public Safety Office has several efforts which occur cross-

agency (e.g., homelessness, drug trafficking). Similarly, expanding efforts to reduce juvenile crime and delinquency to multiple cities would improve the Public Safety Office's ability to secure state and federal funds as well as share resources to address youth crime.

Activities of DART and the A-Team

Activities under the current grant included civic engagement, college prep classes, workforce internships, boxing, SMART moves (provided by Boys and Girls Club), ACT-SO (provided by NAACP), and tutoring, mentoring, counseling (provided by Azusa Pacific University). In addition to these efforts, the Public Safety Office team provided incentive activities such as going to the beach, hiking, movies, local colleges, museums, theme parks, and sporting activities. The goal of these programs was to provide a surplus of activities to meet a variety of needs of youth. These activities are particularly scheduled during times that research shows youth are more likely to engage in delinquency (e.g., after school, weekends, and summers). Thus, the general ethos is that youth kept busy are less likely to engage in risk-taking behavior.

However, for the youth, these programs provide a sense of identity, prosocial activities, and familial connections. Over the three-year period of the program, 28 unpaid undergraduate student interns, and 1 to 3 paid undergraduate student interns, were embedded doing tutoring, mentoring, and engaging in participatory observation. These students were trained in ethnographic research methods, took field notes, and submitted them weekly. I utilized NVivo software to analyze these field notes looking for themes.

The first theme that arose was that the DART program was seen as a place of safety and security to spend time as opposed to other efforts throughout the city. For example, several students who went to the Boys and Girls Club in which the *Smart Moves* program was being administered commented that youth were "running around" with "no supervision" and that there was not enough staff to supervise students. One intern described the activities:

The kids were arranged in three different areas. One area was a quiet area where youth are coloring, on their phone, and maybe doing homework...[another] area youth were playing games...youth were

running around outside...some had a basketball but they weren't organized...the only supervision was adults sitting behind a desk handing giving out paper if kids needed it.

Several student interns' field notes painted similar pictures of youth running around outside with little to no supervision and children running around without engagement or any type of mentorship.

Similarly, the Duarte Teen Center was another area where youth tend to congregate after school. The Duarte Teen Center is divided into different areas. A boxing gym where youth and adults work on various boxing drills on speed bags, heavy bags, and free weights. Additionally, in the middle of the gym area, a ring is often used for sparring with full protective gear. Due to the lack of space many youths are engaged in drills in front of the Teen Center including jumping rope and shadowboxing. In front of the Teen Center, these physical activities are generally broken up by other youth engaging in conversation with friends.

As one enters the Teen Center, there is a desk with several adult staff behind it. Rarely does one see these staff engaged in activity with youth; unless youth approach the desk for assistance. There is a central lobby area where youth are often quietly engaged on phones, video games, homework, or drawing. There is a game room on the left side of the building where the center has various tabletop games (e.g., pool tables, ping pong tables). A multipurpose room used for a dance group and meetings, and a computer room managed by one staff member.

Initially, student interns were stationed in the computer lab to assist with homework. In the first year of the program, Duarte youth did not utilize the student interns. Interns moving through the teen center to advertise their assistance to tutor students were also met with resistance from the youth. Most youths reported that they saw the Teen Center as a place to "hang out" and did not see it as a place to engage in structured activities. Further, like the Boys and Girls Club, the staff made little effort to engage youth in structured activities. Although student intern notes reported many occasions when youth were engaged in structured activity, youth engaged fully.

These qualitative findings are also reflected in retention rates for the programs provided by these two agencies. The Teen Center provided a boxing program funded by the grant. The boxing program

provides an open enrollment consisting of adult and youth programs working side by side. Fees to attend the program are on a sliding scale based on income. The program's activities tend to occur in the afternoon and are overseen by two to three boxing coaches. Unfortunately, the program was unable to retain youth. I examined enrollment records from month to month before COVID-19, and youth retention month to month was less than 12%.

I met with the Head Boxing Coach and Director of the Teen Center to discuss these low retention rates. They shared chief concerns that low youth retention equated to youth lacking physical ability, commitment to the program, and unwillingness to engage in contact. Additionally, from speaking with youth who participate in the program, the program's goal is to train individuals to become amateur and professional boxers. This goal, in my estimation, is cross-purpose to work with youth to develop protective factors to keep children out of trouble, and not a good match for this program. However, the teen center does operate other programs such as ACT-SO and their dance program that are better suited for this model.

The NAACP developed the ACT-SO program to allow youth to share their talents in many academic areas (e.g., speech, visual art, writing, dance). In collaboration with the Office of Public Safety, the Teen Center recruits and connects youth with adult mentors to assist youth in developing projects that are entered in a local and national competition. The national competition often occurs in another city or state and allows youth to travel. For many youth, this is their first-time experience traveling on a plane and going to a different city. The youth are scored by the community's leadership and given awards. Although this program was not funded directly by the grant, many youths participating in aspects of the grant-funded program participated in ACT-SO. Although not part of the evaluation, ACT-SO allowed the youth to be mentored, demonstrated, and awarded for their academic skills. Research on collective efficacy illustrates that successfully trying and being rewarded in specific activities will only increase the likelihood that youth will engage in those activities in the future (see Bandura). If the goal is to empower youth to develop protective factors to overcome their social ecology and acculturate to the host country,

then programs focusing on academics and building social capital should be prioritized over athletics programs.

SMART Moves is the Boys and Girls Club program funded by the grant. SMART Moves program teaches youth to engage in positive behaviors, including avoiding drugs and alcohol, fitness, nutrition, and sexual behaviors. SMART Moves is one of the *Blueprints* programs (see) and OJJDP's (Office of Juvenile Justice and Delinquency Prevention) Model Program. SMART Moves is designed to be delivered as a curriculum of over a period of multiple weeks in which consecutive lessons build on one another. The program is often given in a face-to-face classroom model. The Blueprints and OJJDP standard is that individuals receive the course as written with complete fidelity to the model to achieve full efficacy. If an agency is doing less than full fidelity to the model, then the model's effectiveness no longer applies.

Unfortunately, this is the case in this instance. Examining enrollment and attendance records of youth who attended the SMART Moves program, I found that less than 50% of youth enrolled participated in the class. Of that 50%, only 20% of youth received the program with fidelity. Again, similar to the boxing program, this program may not be a good fit, as written, for youth under the grant. One way this could be adjusted is by providing the program in an asynchronous, online programming to youth, which can be taken at their convenience or under a teacher's instruction. Post-grant period Duarte Unified School District (DUSD) partnered with APU, SAMSHA funded project wellness program which provides youth with similar instruction as SMART Moves except in an online asynchronous modality. The multi-site program is being evaluated for its efficacy.

Azusa Pacific University (APU) provided the third arm of services in terms of mentoring, tutoring, and counseling. These services were also initially faced with challenges of low participation but were course corrected to address some of these issues. Tutors consisted of APU undergraduate students fulfilling service credits. At first, tutoring was offered in the Teen Center, who sat passively in the computer room, resulting in low attendance. During COVID-19, tutoring moved online in which youth were able to schedule one-on-one appointments with undergraduate tutors. In this model, staff worked to

match students with volunteers based on the academic need of the student but also matched tutors based on gender and ethnicity. This had a slightly increased response rate. Post-COVID, we placed tutors directly in the schools and tried to compare undergraduate volunteer tutors to the school's needs based on skill set, gender, and ethnicity. These undergraduate volunteer tutors also participated in other outings with DART/A-Team. Additionally, undergraduate students began to perform workshops for Duarte's youth in subjects such as study skills, SATs, college applications, and financial aid.

This synergy was sustained after the fiscal life of the grant. APU undergraduates now tutor directly with DUSD and expand to serve all the schools and volunteer to work with the Office of Public Safety around entertainment events. If these undergraduates can contribute over ten hours a week, they are given a small stipend for their time funded by the schools. Additionally, two students who have graduated from APU have applied for and received positions as Community Service Officers, in which they will continue to work with the youth of the city. Finally, through these positive interactions, 60% of students, who graduated DUSD in 2020, have continued into university, community college, and military service seeing education as a pathway to success.

Comparably, counseling services initially saw low enrollment of youth. This was chiefly due to the stigma that many families attach to their youth receiving counseling services. We advertised services utilizing fliers and social media with increased participation to overcome these negative feelings. Equally, during this same time, the introduction of COVID and moving youth to online teaching modalities increased the need for mental health among Duarte's Youth. During and post-COVID mental health is provided telehealth. The program has continued to be sustained through a Centers for Disease Control and Prevention (CDC) two million dollar grant successfully attained by APU to assist youth who COVID has impacted.

The Office of Public Safety oversaw most of the DART/A-Team activities which the Crime Prevention Specialist predominately runs with support from the School Resource Officer and Probation Officer. DART/A-Team is led by a youth governing board in which high school-age students are voted into leadership positions and develop many of the youth's activities. A formal meeting is ran like any

other service organization meeting, including minutes, a discussion of activities and upcoming events, and a guest speaker. The Crime Prevention Specialists guide the process and discuss the request for assistance in community engagement activities (e.g., cleaning a park, picking fruit from an older adult's tree, working parking at a city event, mentoring younger youth, and volunteering at various annual city events). The elected youth council votes, plan a strategy, assigns tasks.

Additionally, with the guidance of the Crime Prevention Specialists, youth decide what programs the group will do for education and entertainment (e.g., seeing a movie, going to a museum, attending a play, ballet or musical, going to the beach, hiking). Similar to ACT-SO, the DART council empowers involved youth by allowing them to be in leadership positions, make decisions about activities, and engage in activities to assist the communities and others. Further, the youth build positive, prosocial peer groups and often help each other through challenges at home or school. In the ethnographic research, youth describe DART as "a safe place" in which staff "can be trusted."

This trust gives rise to youth sharing issues with the Crime Prevention Specialist and School Resource Officer about problems arising in the community. For example, during one focus group that I performed with the Crime Prevention Specialist, DART youth discussed some of the challenges that they were having at the high school. The problems included vaping and smoking at school, sexual harassment, bullying, and challenges with specific school staff. This allowed the Crime Prevention Specialists to bring these issues to the attention of the High School leadership and redirect resources to address some of these challenges. In the instance of vaping and smoking, the Crime Prevention Specialist could redirect some extramural funding to purchase smoke/vaping detectors at the school. Although this is a simple example I witnessed, having trust and communication with those youth at most risk to be victims of or engage in criminal activity can assist law enforcement in better managing criminal behavior through human intelligence sources.

It is essential to the Office of Public Safety that the DART program youth are not labeled as deviant, at-risk, or other negative identities common in the field. They purchase merchandise to make youth feel as though they are part of something important and provide youth a sense of belonging. One

youth described it as follows: "You know it's cool being in DART. I wear my shirt to school, and the kids are like you're in DART. I am like...[the youth nods head, and smiles with a sense of pride]."

DART has created a system in which organizations providing services to youth can identify youth who need services based on risk and needs assessment tool. Utilizing that tool, they match the youth to the available services within the community. In addition, DART provides structured activities for these youth during the main times that research shows youth to offend. Although these activities are steered by adults, they are youth-led. This gives youth a sense of identity, self-efficacy, and belonging which socialize and empower youth in prosocial groups which help acculturate these Latinx, immigrant youth to the host country and feel a sense of pride for their home country. According to the grant requirements, the City of Duarte was also required to fund external agencies which provide activities. Unfortunately, in many cases, these agencies were a mismatch for the population they served. Azusa Pacific University was able to course-correct its programming to better meet the needs of youth, but the other funded programs were less successful.

The analytical question is did the years of DART, under BSCC funding, have an impact on juvenile arrests in both the short and long term. My second question was to see if building a stronger relationship with the community had a unique impact on law enforcement clearance rates within the city. Finally, I was interested to see if these programs had an impact on adult offending.

As the City of Duarte, and DART, had received funding over the last ten years it would be difficult to parse out the short-term findings from the cumulative impact of such a long-term program. Additionally, many youths are identified and receive services from junior high school forward. Such a model does not lend itself to randomized control trials or a prep-post evaluative model. Therefore, I utilize an interrupted time series model, Auto-Regressive Integrated Moving Average, or ARIMA, Methods

In the evaluation, I utilized data from the Federal Bureau of Investigation (FBI), Uniform Crime Report (UCR), and housed at the Bureau of Justice Statistics (BJS). I examined data between 2000 and 2021 in order to effectively run statistical forecasting models. The UCR is a convenient data tool as it

contains specific and uniform definitions of arrest types and is used by a majority of law enforcement agencies across the country. Within the Los Angeles Sheriff's Department (LASD), there are specific processes of data collection and cleaning prior to it being provided to the FBI where the data goes through additional checks. Thus, each of these criminal arrests is identified by the responding officer and confirmed by an administrative sergeant to assure that it meets the statutory requirements to be included in UCR counts. I relied on these LASD and FBI internal checks for the reliability of the data.

Second, I performed a survey of youth involved in any of the programs under BSCC funding. The survey tool measured attitude toward delinquency, commitment to school, collective efficacy, social responsibility, and parental supervision. Surveys were provided online via the Google platform which is utilized by the DUSD at all levels and therefore youth were most familiar with this interface. Initially, I advertised the program via flyers posted at the school, teen center, and social media. Eventually, I utilized snowball sampling to attain survey respondents of which I attain 160 unique individuals over a three-month period the survey was made available prior to Covid.

Respondent's age ranged between 12 and 18 years old. Respondent's ethnicity included Hispanic, Latino, or Spanish (57.1%), Black or African American (16.9%), Other (9.1%), Asian (7.8%), American Indian (1.3%), and Middle Eastern (1.3%). Responded self-reported, 35.5% attended DART, 44.7% attended SMART moves, 21.1% attended the Teen Center Boxing program, and 10.5% attended the APU tutoring and mentoring program. However, youth could have attended more than one program so there may be some double-counting of individuals within programs.

Time Series Analysis

I examined juvenile arrests, adult arrests, and clearance rates reported of Part 1 crimes over a 20-year period (2000 to 2020) for Duarte and Azusa, California. This data was provided ten years before and ten years after the infusion of BSCC funding and expansion of the City of Duarte programming. Therefore, this moment of time allows us a raw opportunity to examine a city's ability to maintain public safety pre- and post-funding which also allows applying forecasting models.

As funding was awarded and continued over time, I “dummy” coded the BSCC funding (0 = no funding, 1 = funding) to account for the event. To my knowledge, there was no additional funding that targeted juvenile delinquency and crime provided to the city at this time.

Also, customary with interrupted time series we created variables for each of the pre/post periods with the pre-period being numbered consecutively (e.g., 1, 2, 3...) and continued at the annual cut-off from the focal point (e.g., 3, 6, 9, or 12 years). Similarly, the post-period has a zero weight until the corresponding quarterly cut-off point then consecutive numbers are weighed each time. Each analysis was conducted separately for each period and crime type for a total of 20 separate analyses.

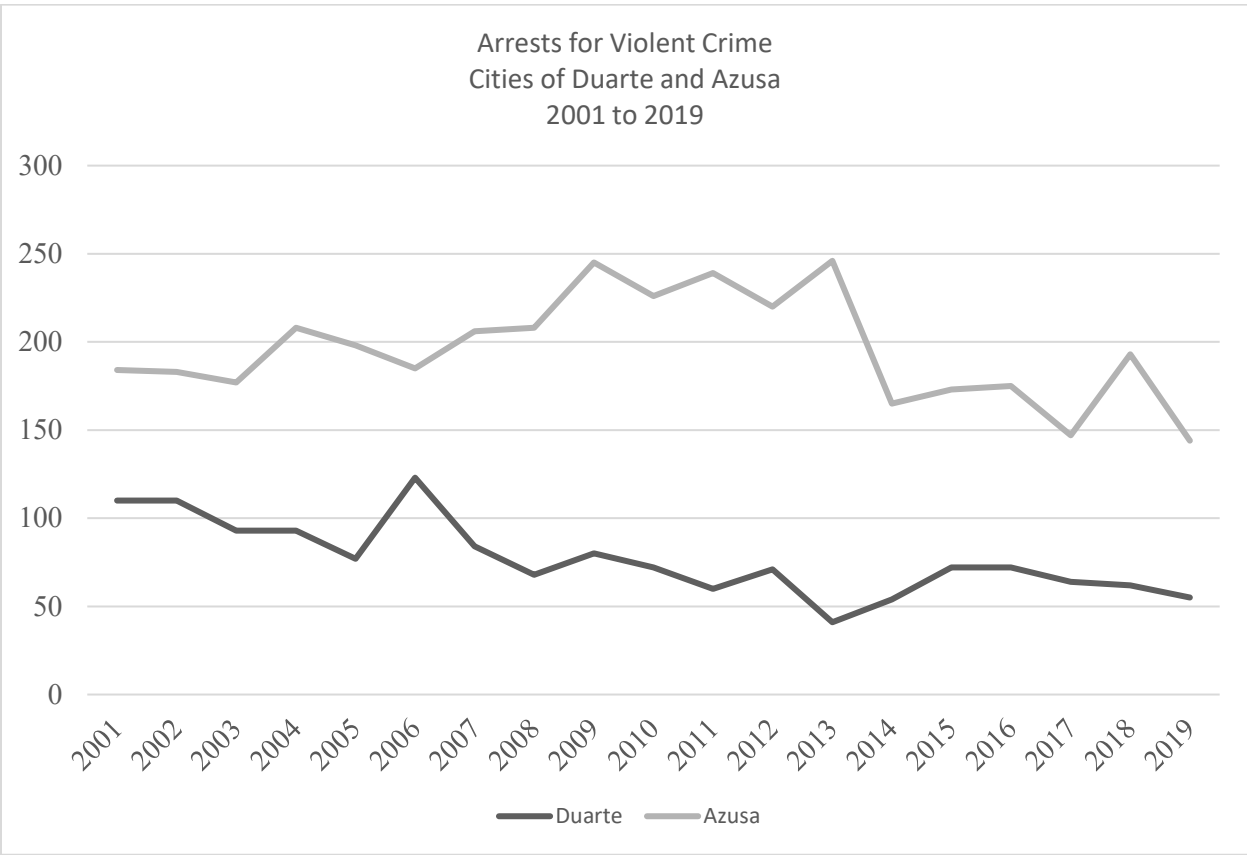
I utilize Auto-Regressive Integrative Moving Average (ARIMA) tools in Statistical Package for the Social Sciences version 28 (IBM Corp, 2021) to assess the effects of police layoffs on crime. ARIMA was developed by Box and Jenkins (1970) to create forecasts using existing historical data. It is generally identified as ARIMA (p, d, q) where p is the number of autoregressive terms, d is the number of non-seasonal differences, and q is the number of lagged forecast errors in the prediction equation. These variables use tiny integers to model patterns in the data (from 0 to 2).

I began the analysis by utilizing multiplicative seasonal decomposition to adjust for seasonal variation common in crime data. Next, we calculated for the (p, d, q) in the ARIMA. Although many statistical packages have applications to find the best fit model to the data, I chose to use the traditional autocorrelation function (ACF) and partial autocorrelation (PACF) function for each variable to determine whether additional trends existed in the model that required an adjustment of the p, d, q variables to account for the appropriate temporal lags (Shrivastav and Ekata, 2012). Although we anticipated variations in p, d, q based on crime type, weighting analysis found that in all crime types, p=0, d=1, and q=1, thus a 0,1,1 pattern was required. This model is also known as the exponential smoothing model. The exponential smoothing model uses an exponentially weighted moving average of past values on current values. This model accounts for the substantial fluctuation in crime data from year to year by using an average of the prior two years of observation that smoothed out the variation. I relied on the Box-Ljung Q-statistic to test if any of the autocorrelations were different from zero for each of the crime

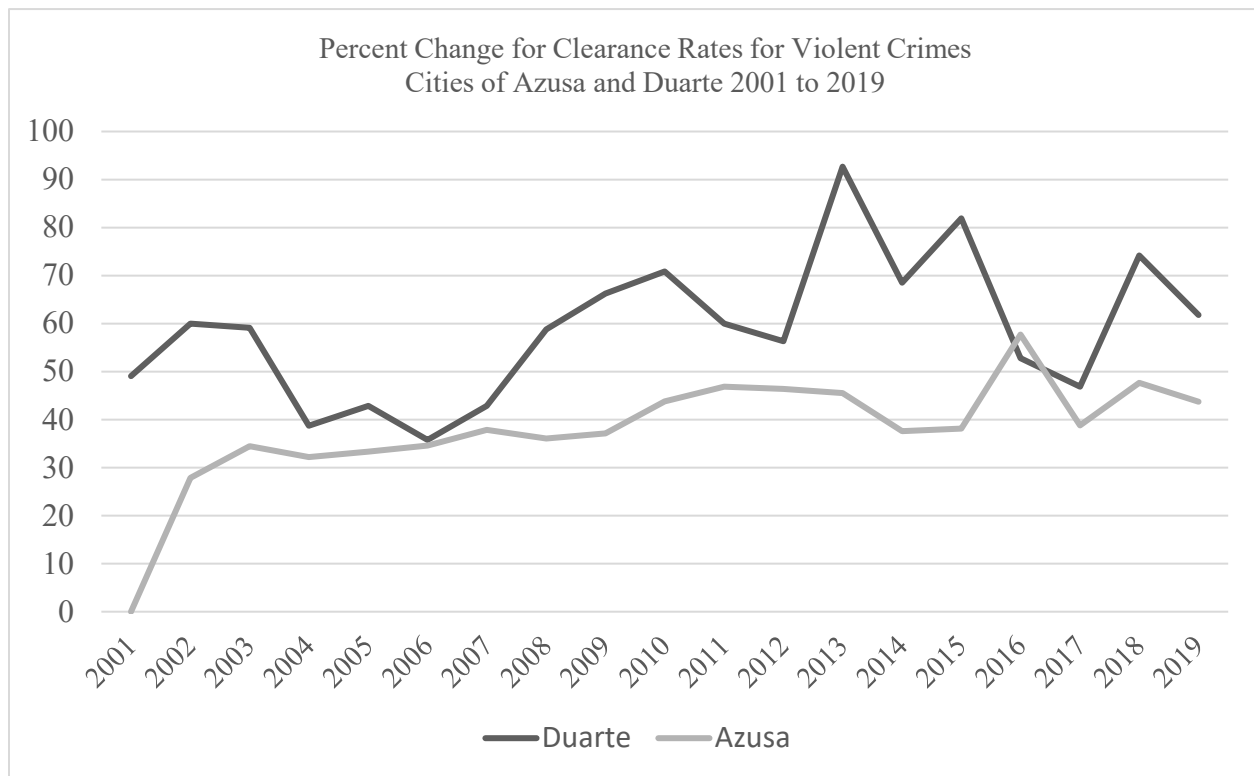
types, and no significant correlations were found (Ljung and Box, 1978). Finally, I utilized parameter estimates to calculate the change between the pre/post periods around the focal point of the infusion of funding.

Results

Arrests for adult crime in the City of Duarte have remained relatively flat particularly when compared to the control city of Azusa where crime rates are more volatile. However, as can be seen in the table below, the infusion of grant funding from BSCC in 2010 did not have statically significant impacts on Part 1 violent adult crime arrests. It also did not have an impact on Part 1 property adult crime arrests.

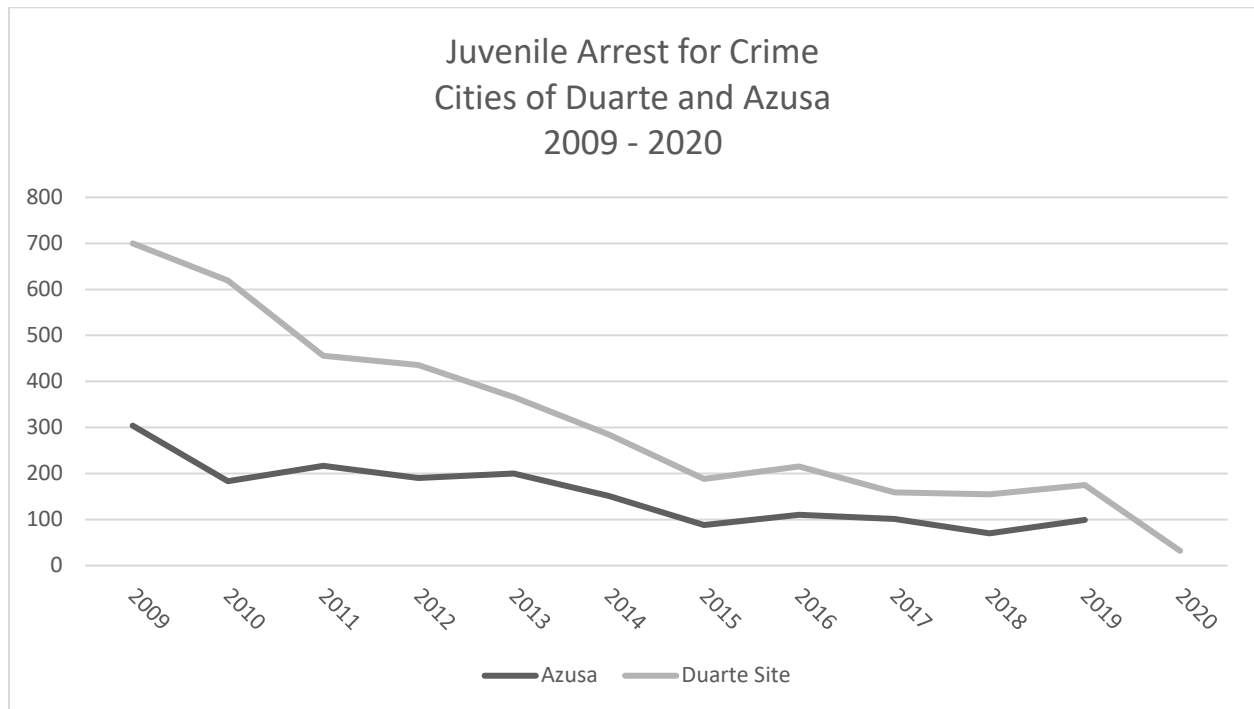


Next, I was interested in the development of the City’s intervention and prevention programs had an impact on clearance rates, law enforcement’s ability to clear crimes by apprehending a suspect. Much of law enforcement’s investigation requires human intelligence and community trust. The City’s Cal VIP program developed avenues to build trust between the youth, city officials, and law enforcement. These relationships allow the youth to speak freely with adults about possible issues occurring or about to occur in the community. Thus, with the onset of the program, there is a dramatic increase in clearance rates. Particularly when compared to the neighboring, control city in which clearance rates remain relatively flat. Interrupted time series analysis showed that the intervention efforts had a modest and statistically significant impact on these clearance rates (16%; $p < .05$).



Finally examining juvenile arrests for Part 1 crimes there is a dramatic decline in the arrests over the entire funding period there has been a 98% decline in juvenile arrests. During the last funding period, juvenile arrests declined by 62%. This compared to the control city which saw a 41% percent increase in

juvenile arrests during the last funding period. Interrupted time series analysis showed that the City of Duarte’s efforts coupled with the BSCC funding stream provided a robust and statistically significant impact on the decline in juvenile arrests. The ARIMA (0,1,1) showed that the City’s efforts had a 57.3% percent impact on Juvenile Arrests ($p < .001$).



Surveys of Program Youth

Youth who responded to the survey using the scales from the *Pittsburg Youth Study*. The first measure of attitudes towards delinquency asked questions that ranged from *It's wrong to skip school without an excuse* to *It is wrong to use a weapon, force, or strong-arm methods to get money*. Answers were on a four-point Likert scale from strongly agree to strongly disagree. A significant amount of the youth (76.1% to 92.1%) in the program strongly agreed or agreed with these statements. Additionally, as the crimes became more serious youth in the program were more likely to strongly agree with the finding. Therefore, most of the youth in the program have a strong negative attitude toward engaging in delinquency.

Questions regarding commitment to school ranged from *Schoolwork you are assigned is meaningful and important* to *The things you are learning in school are going to be important for your later life*. Respondents were less committed to school with positive answers ranging from 53.7% to 59.3% and 33.8% of respondents stated that they hated being in school. This was also reflected in the qualitative work that I did in which some respondents found school to be a dangerous place where they were bullied, sexually harassed, and had to deal with other youth engaged in delinquent behavior.

The collective efficacy scale found that less than 50% of the youth feel safe in their communities or that they can trust their neighbors. Questions in this scale ranged from *If a group of neighborhood children was skipping school and hanging out on a street corner, your neighbors would do something about it* to *People in this neighborhood can be trusted*. At least half or more of the respondents disagreed with these statements. Therefore, youth their communities as lacking collective efficacy and unable to engage adults in the community for assistance should something criminal occur.

The measure of social responsibility asked global questions about youth respond to the world. As questions were more global such as *I don't owe the world anything* and *It is hard to get ahead without breaking the law now and then*. Again, students were relatively split into these questions. The more global and vague questions students responded to positive feelings that their actions did have an impact on others. However, the more practical questions such as asking if one had to sometimes break the law to get ahead, respondents felt was necessary.

The final measurement was assessing parental supervision. Questions in this scale ranged from *My parents ask if I've gotten my homework done* to *My family has clear rules about alcohol and drug use*. On this scale, positive responses ranged from 76.9% to 88.5%. Similar to the attitudes towards delinquency scale as the questions became more serious positive response rates increased.

Discussion

Although there are several limitations to this study found that overall, the funding provided by BSCC under the Cal VIP program, and the subsequent work of the City of Duarte had a significant impact on reducing juvenile arrests while increasing law enforcement clearance rates. Although there were

several elements of the latest iteration of the City's program there is little evidence that all these elements equally contributed to these declines particularly in light of the inability of some programs to retain youth for longer than one month.

It is clear that the core element of the program DART/A-Team which has been sustained through multiple interactions of funding has been instrumental in positively impacting youth in the City of Duarte. The DART/A-Team does this by targeting youth in the most need of services; developing youth-led enrichment, community engagement, and entertaining activities; developing a pro-social youth network of primarily Latinx, immigrants who are tackling similar challenges; and developing social capital through planned activities to acculturate youth to their host country. These evidence-based elements of the program are reflected in the research to best serve the City's targeted community.

Additionally, the City of Duarte has effectively utilized funds as seed money to build and sustain relationships with institutions, such as APU, who will continue to seek other funding vehicles and work with youth after the BSCC funding ends. Such sustainability is rare in these types of programs. Finally, DART/A-Team provides a place of solace for youth who find their schools, other public places, and communities to be places to hang out or possible places that are dangerous which was reflected in both the survey and qualitative research.

Creating these safe places where the target population feels safe, efficacious, and empowered has been shown to protect against all types of risk factors. Outside of the program adults, these youth still feel a sense of belonging with each other as they navigate other parts of the world; whether that be in areas they define as dangerous, or the enrichment/community engagement program provided by the city. This creates the pro-social groups necessary to reduce juvenile crime which is often perpetrated by groups of youth engaged in criminal behavior. These group types are often seen in competition with one another to recruit youth. In order to maintain the gains of the last decade, the City of Duarte should expand and fund the core element of the program which has contributed to these significant crime reductions.

Conclusion

The City of Duarte Violence Intervention and Prevention strategy has been effective at reducing juvenile and gang crime effectively utilizing BSCC, CAL-VIP funding. During this same time, there has been a great deal of discussion at reducing funding to law enforcement agencies and having law enforcement no longer involved with the prevention and intervention of youth. Further, grant funding vehicles have changed their model so that much of the funding goes to a Community Based Organization or “evidence-based” program over the law enforcement agency itself. The City of Duarte should be a cautionary tale for those that prescribe to this ideology without evidence of its effectiveness.

Programs meant to serve youth “at risk” for committing a crime should not exclude the very agency most likely to meet said youth who will inevitably be in crises and need assistance. Research has been prolific discussing the factors that lead to youth delinquency and criminal behavior which is rarely limited to one identifying issue (e.g., bad parenting, youth’s individual psychology, neighborhood factors); therefore; addressing the issue will not simply require a singular response. Certainly, it is unwise to put the youth into a program that is not a good fit for the youth or has not been evaluated for its efficacy. Thus, the current model should not reduce the role of law enforcement agencies in assisting in intervention and prevention efforts but should see the law enforcement agency as an equal partner with the goal of improving public safety. The City of Duarte’s program can be seen as such a model which has been evaluated multiple times for its efficacy and found to have positive impacts. That said, the City should continue to fund and expand upon these core, effective, elements to include partnering with other cities, reallocating funds internally, and continuing to seek external funding.

Finally, I would be remiss if I did not say that more evaluation research is necessary to see what works and what does not. As can be seen in the City of Duarte example, elements of the program that have passed the highest levels of evaluation may not be a good fit for a host of reasons (e.g., implementation issues, demographic mismatch, etc.). Evaluation can only help programs improve and better meet the needs of the clients they serve. Therefore, BSCC, and other funding organizations, should require some level of evaluation attached to all its programming efforts.