THEFT OF AND FROM AUTOS IN PARKING FACILITIES IN CHULA VISTA, CALIFORNIA

A Final Report to the U.S. Department of Justice, Office of Community Oriented Policing Services on the Field Applications of the Problem-Oriented Guides for Police Project

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Summary

In Chula Vista, CA, a city 10 minutes from the Mexican border, auto theft and theft from auto account for 44 percent of the city's total crime index[1]. Using Ron Clarke's problem-oriented policing guide summarizing the research and effective countermeasures to auto theft and theft from auto in parking facilities as a framework[2], the Chula Vista Police Department conducted a detailed review of its vehicle crime problem, finding that ten parking lots in Chula Vista, and the adjacent parking lots to them, accounted for 22 percent of all vehicle crime in the city. The review included analysis of vehicle theft and vehicle break-ins by vehicle type, model, and year; recovery rates of stolen vehicles in the target parking lots, for all of Chula Vista, and other cities in San Diego county; rates of theft in Chula Vista's high volume auto theft parking lots; an analysis of time parked before the theft was noticed; revictimization; trend data for auto theft; monetary value of property loss; vehicle theft rates by San Diego county cities; offender interviews; lot manager interviews and environmental assessments of the lots; and an analysis of border point interventions versus parking lot interventions. The results of the analysis revealed offenders making highly rational choices in target selection and masking their crimes with the legitimate routine activity in these lots. The project results also suggest for Chula Vista (and potentially other U.S. border cities to Mexico) that border point interventions are less effective than parking lot interventions in reducing auto theft. This project also confirms the value of this particular POP guide and its step-by-step application to reducing theft of and from autos in parking facilities. [3]

Introduction

The purpose of this Field Applications POP Project, funded by the U.S. Department of Justice, Office of Community Oriented Policing Services, was fourfold: 1) assist the Chula Vista Police Department in finding more effective responses to auto theft and theft from auto in parking lots; 2) reduce vehicle crime in those lots; 3) assess the utility of the problem-oriented policing guide entitled Thefts of and from Autos in Parking Facilities (the Guide); and lastly, 4) improve the police department's capacity to routinely problem solve.[4] This paper reports findings from Chula Vista's examination of auto thefts and theft from autos in parking lots.

Chula Vista, a 50-square mile suburban community bordering the Pacific Ocean, is approximately seven miles north of the Mexican border. With a 2000 census population of approximately 173,000 residents, Chula Vista is a fast-growing, diverse community. To the south, one slip of the city of San Diego borders the south boundary of Chula Vista, resting between Chula Vista and the border to Mexico. The San Diego Police Department's Southern Division polices this part of San Diego. The city directly north of Chula Vista is National City, a small, generally high crime city with a 2000 census population of under 60,000. The vast majority of the city of San Diego sits on the northern border of National City with a 2000 census population of 1,200,000 making it the seventh largest city in the United States. Chula Vista, National City, San Diego, along with a number of other cities and unincorporated areas, comprise San Diego County, whose population in 2000 slightly exceeded 2,800,000. The county's northern border is Camp Pendleton, a Marine Corps base. North of this base is Orange County.

Chula Vista is a city of residential and commercial streets bisected by two main North-South freeways. These freeways, Interstate 5 and 805, traverse Chula Vista converging at the Mexican border. (See Appendix 1, Figure 1)

Initial site selection

The COPS Office selected the Chula Vista Police Department (CVPD) for participation in the project. In November 2001, the CVPD decided upon the problem of auto theft/theft from auto in parking facilities for examination (among the 19 guidebook problems available at that time) for several reasons. The CVPD surveyed its employees (both civilian and sworn) seeking input on the most important crime or safety problems in Chula Vista. The five problems receiving the most nominations included burglary of single-family homes, thefts of and from cars in parking facilities, drug dealing in privately owned apartment complexes, false burglar alarms, and speeding in residential areas. Mid-managers and command staff convened to discuss the importance of each of these problems, reviewing available information on trends and harms, and the utility of a POP guide to Chula Vista's specific problems. Ultimately, this group selected thefts of and from cars in parking facilities for the following reasons:

- The auto theft problem in Chula Vista appeared disproportionately high for a city of its population. As for theft from vehicles, the group believed that this too was disproportionately high, particularly since this crime is generally underreported.

- Auto theft rates rose 15 percent in 2000 through much of 2001, (while residential burglary rates declined eight percent since 1999).

- Because residential burglary rates have declined significantly since the

mid-1990s, only an estimated 240 *single-family burglaries* (the focus of the residential burglary problem-solving guide) were expected to occur in 2001; in comparison, an estimated 1280 incidents of theft of/from auto *in public lots* were expected to occur in 2001.

- Data gathered for the meeting showed that during a 3-month period in the spring of 2001, approximately nine percent of all auto thefts in the City of Chula Vista occurred in just four public lots (Wal-Mart; Target; Home Depot; and the Swap Meet lot) suggesting a good fit between this POP guide and the problem.

- The group believed that vehicle crime in lots could be reduced since lots had borders and they belonged to a person who or an entity that could exercise greater control over them.

- Previous efforts to address public lot auto theft at one lot had been very successful. Auto thefts at Chula Vista Mall were reduced nearly 40 percent between 1998 and 2001 as a result of problem-solving efforts at that location.

- Chula Vista's Uniform Crime Report (UCR) Index crimes are dominated by motor vehicle thefts and larcenies (many of the larcenies are actually thefts from vehicles). In fact, there is a perception in the County that Chula Vista is high crime because of its relatively high number of crimes. If vehicle crime could be reduced (an estimated 17 percent of the total UCR Index crimes were thefts of/from autos *in public lots*) then perhaps the perception that Chula Vista is high crime could be turned around.

Once the problem type was selected, we presented specific information from the Guide to higher-ranking members of the Department. Next, we began to gather and analyze information related to vehicle crime from the CVPD's files.

- We reviewed 2000 and 2001 data for locations that had the highest volume of auto theft and the locations that had the highest volume of vehicle burglaries.[5] We decided to use 2001 data for all further analysis, even though there were some slight differences between years 2000 and 2001, since the frequency of the thefts were great enough in a one-year time frame to discern meaningful, more recent patterns.

- For 2001, there were 1,714 auto thefts, and 1,656 vehicle burglaries in Chula Vista representing 44 percent of all Part I crimes in Chula Vista. These vehicle crimes occurred in public lots and streets and private lots and areas

Finding Meaningful Parameters

We began a search to identify the locations in Chula Vista where vehicle crimes clustered. We found that six of the nine highest volume auto theft locations in the City coincided with the highest volume auto burglary locations. We used aerial (ortho) photos of these top nine locations to allow us to visually distinguish parking lots from other types of locations. Using ArcView, the crime analyst layered parcel addresses onto the aerial photos. All of the top nine high volume locations were parking lots, however, two were apartment complex private parking lots, not public lots (the focus of the guidebook is on public lots). We skipped these two apartment complex lots and chose the next two high volume locations.

We then chose a tenth location, which requires an additional explanation. We realized that Chula Vista's five high schools had a fair amount of vehicle crime. Although no individual high school made it onto our top ten list, when grouped, their volume of vehicle crimes elevated them to number nine on our list. Because the issues at these high schools are similar, and they all have the same lot owner, the Sweetwater Union High School District, we believe that grouping these as one target site provides the benefit that CVPD would be able to present a more robust data set to the School District when offering strategies to reduce their vehicle crime problem. With the high schools as one target, we now had ten targets.

While using ArcView, we were able to see the types of properties adjacent to our target lots. Unfortunately, we found that many of our target lots were adjacent to other parking lots. We decided to add in these adjacent lots to lessen displacement opportunities. We viewed adjacent lots as probable displacement sites. By paying close attention to these lots upfront and ultimately recommending countermeasures for vehicle crime in these adjacent lots we believed we would minimize any displacement.[6]

We designated each of the groupings – our ten volume lots with their adjacent lots as one of ten target areas. We determined that if we grouped in these adjacent lots, we captured 22 percent of all vehicle crime in Chula Vista. Some of the adjacent lots were small, however, they added over 40 additional lots to our analysis. The analyst drew polygons around each of the target areas exporting the vehicle crime data from these into a database file to begin further analysis of the vehicle crimes contained in those target areas.

These ten targets accounted for 387 auto thefts and 293 vehicle burglaries – 25 percent of the city's auto thefts and 20 percent of the city's auto burglaries. While some of the target areas had only one owner and one lot address (Southwestern College), others had many owners, as well as adjacent lots with different addresses and lot owners (Broadway and Palomar).

We discovered that our target lots also had high levels of calls for service to police, as well as police initiated calls. Six out of the ten target areas were also among Chula Vista's top ten police call for service locations, indicating that these lots were not just vulnerable to vehicle crime but were generally crime and disorder magnets. Calls for service ranged from minor disputes and disturbances to violent crimes. We believe applying effective responses to vehicle crimes in our lots will also reduce many of these other police calls, as enhanced guardianship of these lots by lot owners and managers will produce a diffusion of benefits[7] over a wider array of public safety problems there. (See Appendix 1, Table 1)

Geographic distribution of targets

Initially, we could have chosen all our target lots from a more specific part of Chula Vista, such as the downtown area on the west side, as vehicle crimes are likely to concentrate in lots there.[8] However, Chula Vista's fast-growing suburban areas on the east side of town contained some of our auto theft hot spots, so we decided to use the entire city in analyzing the volume of vehicle crime.

We found that seven of the 10 target areas, and three of the five high schools in Target Area 9 were on the west side of Chula Vista. The west side of Chula Vista has an older downtown area with many businesses, although it is still predominantly residential. Calls for service and crime rates are higher in this area of the city than in the Eastern section. The largest shopping mall in Chula Vista, Target 3, is among the target areas on

the west side.

The dividing line between Chula Vista's east and west side is Interstate 805. The east side of the city contains three target areas, Southwestern Community College (Target 8), the East H Street Shopping Center (Target 1), and two of the five high schools contained in Target 9. The east side of Chula Vista is predominantly residential, dotted with recent or new housing developments and shopping areas. It is a middle- to upper income community, with substantially higher income levels than the west side.

We determined that the highest risk lots (risk rates of lots will be discussed in detail later in this paper) were generally located within one-tenth of a mile of a freeway. Medium risk lots averaged three-quarters of a mile to a freeway. The lowest risk lots of the ten targets averaged 2.5 miles to the freeway. (See Appendix 1, Figure 2)

Analysis Subcommittees

Once we developed some preliminary parameters for the project, we outlined an analysis plan, in part fashioned from the analysis questions in the problem-oriented policing guide, and in part designed to capture some of the unique qualities of border communities. We divided the analysis work into to seven groupings. From these groupings, we formed seven subcommittees and tasked each with information gathering. The subcommittees were as follows:

- Theft *of* vehicle problem in Chula Vista's target lots
- Theft *from* vehicle problem in Chula Vista's target lots
- Offenders
- Risk rates in Chula Vista's targets lots
- Environmental design and management practices in Chula Vista's target area lots
- Auto theft prosecution and auto theft insurance fraud in Chula Vista
- National comparisons for vehicle crime (other cities, including border cities)

Based on the earlier survey we administered within the CVPD, we found that more than 50 employees expressed interest in assisting on this project.[9] We shared with these employees the information gathering tasks we expected from each of the subcommittees and asked interested employees to select a subcommittee. A lieutenant, sergeant, agent or civilian manager in the CVPD chaired the subcommittees. As a first step, the subcommittee members were asked to read the POP guide, and in some cases specific research articles pertaining to their subcommittee topic. In addition, we asked that subcommittee members provide us with feedback on the POP guide and its application to Chula Vista's vehicle crime problem (project goal number 3). We also asked that subcommittee members determine, based on their reading and their policing experiences, if it would be valuable to collect any additional information beyond the tasks we initially outlined and those outlined in the Guide.

We found there was value in engaging so many Department employees in the project. Since vehicle crime represented 44 percent of all Part I crimes in Chula Vista, we believed participating employees would develop a greater understanding of Chula Vista's vehicle crime problem and become exposed to research-based approaches to reduce it (project goal number 1). We also believed involvement in a high level problem-solving project was a good method of introducing problem-solving to employees less familiar with it while it could also enhance the problem-solving skills of those employees already familiar with it (project goal number). In addition, these employees allowed us to:

- Share time-consuming information gathering tasks among a wider group of people, minimizing the burden on a single individual, for instance carrying out surveys (environmental, management practices, and offender interviews)
- Provide us with a diversity of input on tasks and response strategies
- Limit the average amount of time spent by each subcommittee member to approximately one hour per week.[10]
- Hold ourselves publicly accountable with their interest in the project
- Facilitate employee problem-solving on other crime problems (project goal number 4)

Data Gaps

It is worth noting that during the vehicle theft analysis, we encountered a series of data gaps, each needing resolution. Police departments in San Diego County (nine municipal, one county, and several college and secondary school police agencies) share a countywide computer database system. These police agencies share the same crime reporting form so that agencies can compare information across cities and the county. Each police department can access their data, as well as countywide data. A police department can look at another city's data but not export it for analysis. The gaps fell into two different categories:

1. Report writing/data entry gaps
2. Countywide data system gaps

Report writing/data entry gaps

In Chula Vista, reports of auto theft can be taken in person by an officer or a community service officer, or over the phone to a community service officer or cadet. [11] Many times, these report-takers neglected to fill out a number of the crime report boxes, particularly the time of theft discovery, and make and model information, particularly for trucks. This is not surprising, as the form is somewhat confusing in this regard. Many times, these report writers placed information about the timeframe for the auto theft in their report narratives, however, data entry operators only enter information from the cover sheet boxes not from the narrative description of the crime captured on the form's second page.

In addition, many of these officers used a street's one-hundred block address for an auto theft occurring in a lot, not realizing the importance of specifying the exact address for the lot. Each lot has a distinct address, however, officers were generally unaware of them. The reporting form also requires that officers determine and check off whether the vehicle was stolen from a) the street b) a garage c) a parking lot d) a driveway or e) other. For the most part, officers left these boxes blank, unaware of their importance in auto theft analysis. Even in those cases where one of the boxes was checked, the countywide data entry system does not have a data-field to collect this information (even though these boxes exist on the countywide form) so we could not compare the extent of Chula Vista's lot theft to other cities without looking through individual reports submitted to the county system from these other cities.

> Remedy: We pulled by hand every Chula Vista report for 2001 that was missing data or solely contained one hundred block data (as opposed to exact address). Often the narrative contained the needed information, if not, we found some other way to determine this information. We filtered out all reports that were street thefts allowing us to focus on the lots.

Among the theft *from* auto reports, we found that officers often incorrectly reported theft *of* vehicle parts, such as theft of an in-dash

car stereo, license plate, vehicle wheels or after-market body kits. Report-takers frequently reported these incorrectly as theft *from* vehicles.

Cure: Once again we hand pulled reports to determine accuracy. As it turned out, accurate labeling helped us uncover a theft of parts problem in a movie theatre lot. The amount of time moviegoers spend in the theatre guaranteed that offenders had sufficient time (once the moviegoer parked) to dismantle parts of the car unnoticed. To correct this and other reporting problems, we provided training to every Chula Vista police officer and CSO on accurately reporting vehicle crimes.[12]

Countywide data system gaps

While there are many advantages to a countywide report and data access system, we found that the system did not have sufficient data access points to adequately analyze auto theft and theft from auto problems in parking lots. For example, in examining auto theft data:

- There was no way to determine from the countywide system the entry point to the vehicle (door lock, broken window, etc.) once the vehicle was recovered.
- In the countywide system, one cannot extract arrestee names and other arrest data associated with particular locations limiting "place" analysis.
- Trucks, SUVs, vans, and motorhomes are lumped into one category in the countywide data system, all under the label "TK" making vehicle analysis difficult.
- Several vehicle makes, and a large number of vehicle models are not among the list of verified vehicles in the countywide system, as a result the system automatically alters these makes and models into the code XXXX or XXX. For instance, the makes Saturn, Kia and GMC appear as XXXX and the models Camry, Cherokee, Sephia, MR2, 240SX, RX7, Prism, Ram, and X-Terra all appear as XXX.
- In addition, vehicle recovery data is not as accurate in the countywide system because of discrepancies in agency reporting, requiring individual agencies concerned with recovery information to keep a separate database.

Cure: As a result, for much of our data we used the separate database kept by CVPD. For those county reports with missing information we hand pulled reports. For instance, we pulled every report for 2001 that the countywide system showed as XXXX or XXX in the make or model field and hand corrected the missing data. We contacted the countywide system administrator to alert her to the problem. The CVPD expects to have further discussions with the countywide system administrator to see if these other corrections can be made.

We experienced additional problems with the countywide data system when analyzing Chula Vista's theft *from* auto problem.

- The countywide system is not set up to allow data extraction on the types of property stolen from vehicles limiting any pattern analysis of this information.
- There is no data entry field (although there is a box on the actual form which officers fill out) for vehicle make and model of the vehicles burglarized.

Cure: Once again, we relied on CVPD's data systems rather than the County's

and hand pulled reports with any missing information. The CVPD will discuss these issues as well with the countywide system administrator.

Data Findings

Addressing the data gaps allowed us to develop a clearer picture of Chula Vista's vehicle crime problem. Some data offered surprises, and some confirmed hunches held by the police. These are reported below.

Chula Vista is Disproportionately Victimized by Auto Theft

Chula Vista has a higher auto theft rate than many larger cities, such as L.A., New York, Chicago, San Diego, San Antonio, and Fort Worth (among others). Some of these cities, however, may be outliers for different reasons. Comparisons to cities within Metropolitan Statistical Areas (MSAs), such as Chula Vista, also show that Chula Vista's auto theft rate is high. In 2001, MSAs had a rate of 499.1 motor vehicle thefts per 100,000 persons.[13] This is significantly lower than Chula Vista's rate of 984.0 motor vehicle thefts per 100,000.

Our National Review Subcommittee found that some of the other U.S. border cities to Mexico also had high auto theft rates. The Nogales (AZ) rate of 1035.0 and Calexico (CA) with a rate 1128.0 exceeded Chula Vista (although it was lower than the rate for San Diego P.D. Southern Division – 1589.0). McAllen (TX) had a rate of 670.0 close to several of San Diego counties cities - Escondido and La Mesa. Eagle Pass (TX), Brownsville (TX), and El Paso (TX) had rates below the average MSA rate, 424.0, 374.0, and 326.0 respectively, comparable to some of the lower rates held by cities such as Oceanside and Carlsbad in San Diego County.[14]

Auto Theft Rates in San Diego County Differ by City According to Proximity to the Border

In 2001, according to the San Diego Association of Governments, one out of every 113 registered vehicles in San Diego County was stolen. Mapping the vehicle theft rates by city shows rates by city vary. Chula Vista's analyst created a choropleth map depicting 2001 vehicle theft rates, per 1,000 population (using 2000 census data when available) for San Diego County's cities. It showed that vehicle theft rates are dramatically higher for jurisdictions closest to the border. The northernmost city in the County has a 4.17 vehicle theft rate while the southernmost area of the city (resting at the border) has a 15.89 motor vehicle theft rate per 1,000 population. Given that the county extends only 60 miles to the north of the Mexican border, we did not expect such wide variation in motor vehicle theft rates within one county. In fact, Oceanside, San Diego County's most northern city is often used as a comparison city to Chula Vista because its population size, demographics, and income levels are similar. Yet Oceanside's motor vehicle theft rate of 4.17 suggests a very different problem than Chula Vista's 9.84 motor vehicle theft rate. (See Appendix 1, Figure 3)

Vehicle crime clearance rates also show a pattern: rates decrease in cities closest to the border.[15] Nationally, motor vehicle clearance rates hover around 14 percent. Chula Vista P.D.'s motor vehicle clearance rate is 3 percent,[16] while the northern cities in the county have higher clearance rates. (See Appendix 1, Figure 4)

Analysis of vehicle theft

While analyzing the vehicle model year for vehicles stolen from our target lots we discovered an aspect of the theft market that was surprising. We did not have a luxury vehicle theft problem. The average year of

the vehicle stolen from our lots was 1990 (compared to 1992 for all vehicles stolen in Chula Vista). The most frequent vehicle year for our lots was *1988* (compared to a tie between 1991 and 2001 for all vehicles stolen in Chula Vista). This came as a surprise to CVPD officers participating in the Theft of Vehicle Subcommittee as they were convinced that recent, expensive vehicles were targeted for theft.

Harm levels, in terms of monetary loss, were also higher than suspected. In 2001, in Chula Vista, auto theft amounted to approximately $12.9 million in property loss, nearly three times the loss from all robberies, burglaries and larcenies in the City combined -- $4.4 million. These auto theft losses do not take into account compensation from insurance companies or the value if the vehicle is recovered, however, since the vehicles stolen from our lots (25 percent of all vehicles taken in Chula Vista) were predominately older vehicles the impact of the theft is more severe. Older vehicles are unlikely to be insured for theft. Premiums are costly compared to the value of the car and the deductible one pays if it is stolen.

Types of Vehicles Stolen from Our Lots

We determined that five vehicles accounted for 42 percent of the vehicles stolen from our target areas. In fact, one-third of all Camrys stolen in Chula Vista were stolen from our target lots and 30 percent of all Toyota trucks stolen in Chula Vista were stolen from our lots. (See Appendix 1, Figure 5)

We compared the five most stolen vehicles from our lots to the top ten vehicles stolen from the city and then again to those of the county. There was some overlap with our city list, however we ran into difficulty in county comparisons. The county calculates their top ten list by vehicle make, model and year. As a result, a top ten list in the county may contain eight Toyota Camrys, each of a different year. We looked at each individual city's data within the county and found a more accurate picture of the stolen vehicles by clustering certain years of makes and models. This is because models, from year to year, are often the same until there is a major design change in the vehicle. Years without design changes are not meaningful as they make little difference to an auto thief in terms of entering the vehicle or using it for parts. Once we clustered the vehicles makes/models by certain year groupings, we found that Toyota Camrys were the number one vehicle stolen for 2001 in the county, and Toyota trucks[17] were number two. For our city and our lots, the reverse was true; Toyota trucks were number one, followed by Toyota Camrys. (See Appendix 1, Figure 6)

In comparing our lot list to the national list of vehicles stolen in the year 2001, there was little match. Only Toyota Camry was on both lists. While Ford F150 Pickup appears on the national list, ours were not specifically Ford F150 pickups, we had losses for a variety of Ford pickups.

We were surprised to find that three of the top five vehicle types stolen from our target lots were trucks. We asked crime analysts in the county's other cities to determine the percentage of their stolen vehicles that were trucks. The percentages in the county ranged from 34 percent to 43 percent. The city of Chula Vista, with 43 percent, had the highest percentage of trucks stolen.

We decided to look at our truck theft problem more systematically and compare car versus truck theft recoveries. We found that recoveries of trucks stolen in Chula Vista (recovered anywhere in the U.S) -- 43 percent, were much less than recoveries of autos stolen from Chula Vista -- 69 percent. This suggested several things. First, as our auto recovery rate exceeded the national

recovery rate (62 percent), Chula Vista's auto theft problem appeared to be more of a theft for transportation and joyriding problem than our truck theft problem. Second, the market for Chula Vista's stolen trucks might be in Mexico.

Testing Theories

Based on the analysis at this point, we formulated three theories for testing. First, we believed the recovery rates for stolen vehicles in San Diego county cities closer to the border would be lower than those of the cities in the northern portion of the county. Second, specifically related to trucks, we believed truck recovery rates would be lower than auto recovery rates in San Diego County. Third, we believed truck recovery rates would decline the closer the city is to the border.

The analyst created two side by side choropleth maps of cities in the county, one of recovery rates for cars, the second of truck recovery rates. For cars, we found that recovery rates in the northern part of the county (45 to 60 minutes from the border, absent traffic) averaged between 80 to 90 percent. In the southern part of the county (10 minutes or less to the border, absent traffic), recovery rates ranged from 53 to 69 percent. For trucks, we found that recovery rates were substantially lower than auto recovery rates and dropped as one approached the border. In the northern part of the county, truck recovery rates averaged between 74 to 77 percent. In the southern part of the county, recovery rates ranged from 23 to 43 percent. (See Appendix 1, Figure 7)

Recovery rates showed other interesting patterns. In Chula Vista, when autos and trucks were combined, the recovery rate for 2001 was 58 percent. However, in our target lots, the recovery rate dropped to 45 percent. We also found that some of the target areas had higher recovery rates than others. The high schools and the college had the highest recovery rates for vehicles stolen (75 percent and 67 percent respectively) indicating theft for transportation or joyriding as the predominate motivations underlying the theft. However, seven of the ten target lots had recovery rates of 50 percent or below (four were below 37 percent) indicating theft for export or dismantling for parts. (See Appendix 1, Figure 8)

When we examined recovery rates within our targets by type of vehicle we found an even more surprising aspect of the vehicle theft problem. Within our targets, certain stolen vehicles had lower recovery rates than others. We compared recovery rates within our targets by make and model of vehicle for our top 5 vehicles stolen. We found that Nissan Sentras had a recovery rate of 63 percent, Nissan trucks had a recovery rate of 44 percent, Ford trucks had a recovery rate of 32 percent, Toyota Camrys had a recovery rate of 13 percent, and finally, Toyota trucks had a dismal recovery rate of only 9 percent. These figures indicate that Nissan Sentras thefts represent more of a theft for transportation or joyriding problem, and Toyota Camry and Toyota truck theft represent more of a theft for parts dismantling or export problem. As shells of vehicles or stripped vehicles are rarely recovered for Chula Vista's stolen vehicles, it appears clear that our Toyota truck and Toyota Camry theft problem is almost exclusively a theft for export problem. (See Appendix 1, Figure 9)

We had one remaining question. Really, *all* of San Diego County is near the Mexican border, so why do cities closest to the border have such dramatically lower recovery rates? Early on in the analysis, the Theft of Subcommittee found that the lots in Chula Vista where theft concentrated were lots where customers parked for more than a few minutes. These lots were not lots where one spends a brief amount of time in a store. We did not find theft concentrating, for instance,

at supermarkets, where access to express lanes might clip the time that parkers spend away from their car. Our lots were next to places such as swap meets, trolley stops, department stores, and a movie theatre, where parkers are almost guaranteed to spend predictably long amounts of time away from their vehicles in lots that store employees infrequently peruse.

We believed that the nature of our target lots held the answer to the question of why the cities closest to the border experienced higher auto theft rates and dramatically lower recovery rates. The Auto Theft Subcommittee pondered this question in the context of the time parkers spent on average in our target lots. We focused again on the time parked data. We had found that victims, on average, parked over an hour in our target lots before noticing their loss. For some of our top ten lots, victims parked, on average, more than three hours before noticing their loss. We also calculated the most frequent length of time before discovery of the loss, and in only three of the top ten lots were the stolen autos parked less than an hour; most had considerably higher timeframes (between one and 11 hours) before the loss was noticed.

We believe the offenders selected these particular lots because potential victims would be away from their vehicles for long periods of time, reducing offenders' risk that the victim would catch them stealing their vehicle. Not surprisingly, each of the three trolley station lots in Chula Vista were in the top ten list, as trolley lot parkers are away from their vehicles for considerable amounts of time. The results of the length of time parked pointed to rational choice theory in action.[18] Offenders weighed risk versus reward, however limited or unconscious that process was.[19]

The greater significance of the results of the length of time parked for Chula Vista's target areas soon became apparent. Vehicles stolen from these lots can be across the border -- in 10 minutes or less -- well before victims notice their loss. Pulling these findings together, it presents a vivid picture of why offenders interested in theft for export, targeted these lots: 1) these lots contained a wide choice of vehicles from which to steal; 2) these lots catered to longer parked customers, making it unlikely that offenders would be caught in the lot; 3) there are no vehicle checks at the border when entering Mexico[20] again reducing the risk of getting caught 4) even if there were checks, at this point in the theft, the vehicles would not as yet be reported stolen; 5) within 10 minutes of the theft, the vehicle would be in another country and ready for immediate resale.

The same is true for National City (12 to 15 minutes to the border) and San Diego Police Department Southern Division (1 to 9 minutes to the border). These three areas experience the greatest rates of theft as their proximity to the border creates low-risk, high reward opportunities for motivated thieves.

We should note that at the beginning of the project, Police in Chula Vista felt that export of stolen vehicles into Mexico was fueling Chula Vista's problem. As it turns out, this is partly true. It is true for certain lots and for certain types of vehicles. Police also believed that border interventions, beyond the license plate cameras, would put a stop to the flow of stolen vehicles. Our results prove otherwise. Border interventions will not reduce Chula Vista's auto theft problem, as the vehicles are not yet reported stolen when they cross into Mexico. Closing the barn door (i.e. interventions at lots where auto theft concentrates rather than the border itself) becomes the best solution for auto theft in cities closest (within 15 minutes) to the Mexican border.

Given the high auto theft rates near the border, why can't the U.S. side of the border

stop all vehicles before they enter Mexico and seek to determine if the vehicle actually belongs to the driver? We examined this alternative and believe it is wholly unworkable. Lines of stopped vehicles into Mexico would cause major traffic jams. On the Mexican side of the border all vehicles are stopped before they can enter the U.S. (except those whose owners undergo background checks and pay for express passes). The wait to enter the U.S. can be as long as three hours. Our National Review Subcommittee, in interviews with border agencies, found little interest in vehicles leaving our country, even if they were stolen vehicles. Border agencies see their mission, particularly post September 11, 2001, as national security, not local vehicle theft.

Why not simply stop all Toyota trucks and Camrys, narrowing the search for stolen vehicles to those at high risk? This too is impractical. Camrys are the most sold vehicle in the U.S., and stops would once again cause tremendous traffic jams blocking off parts of the major southbound freeway. This freeway has exits all the way down to the border to allow vehicle entry into neighborhoods adjacent to the freeway. Could we just stop Toyota trucks? They are fairly common in San Diego County. We believe if stopped at the border, an auto thief could simply say the vehicle belongs to a friend of a friend, and it would take time (probably 30 minutes or more) to sort out vehicle ownership. In that time, the vehicle is still not likely to be reported stolen.[21]

Further Analysis

During the course of the project, we examined other data to build an accurate picture of theft of and from vehicles in parking lots. This is detailed below.

Revictimization

We examined the 2001 data for revictimization in our target lots. We found that six people were repeat victims of auto theft within that year in our target lots.[22] A more robust revictimization analysis, using at least a rolling 12-month period from and before the date of the 2001 victimization would probably result in higher findings of revictimization within our target lots.[23] As well, if we had used this longer time frame and looked at revictimization beyond our target lots, in all parts of the City, we believe we would have found more significant levels of revictimization.

Offender interviews

Our Offender Subcommittee was tasked with offender analysis, including interviews of arrestees from our target lots. The Offender Subcommittee, with the assistance of the DOJ consultant, developed a 93-item interview protocol, drawn, in part, from auto theft offender interview literature.[24] We included a substantial number of questions about theft for export.[25]

The Subcommittee encountered a number of obstacles. As arrest rates for auto theft offenders in Chula Vista were low, the pool of offenders for our analysis was unlikely to produce generalizeable results. Specifically, in our target lots, only three auto thieves were arrested in all of 2001, indicative of the low risk levels offenders faced stealing from our lots.[26] Given the low rates of apprehension in our lots, the Offender Subcommittee interviewed 17 auto thieves who had been apprehended for stealing vehicles *anywhere* in Chula Vista in 2001. They may have at some point, stolen from our lots, if so, they were never apprehended for it. Fifteen of the 17 were parolees, and two were still in-custody for auto theft. The small size of this interviewed population prevents us from drawing any firm conclusions about auto thieves in Chula Vista. A more precise picture could only be drawn from a sufficient sample of *active* auto thieves, however, that type of research is beyond the scope of this project. Despite

these barriers, some interesting information was gathered.

CVPD officers administered the surveys. They found that many of the offenders liked to target parking lots since they offered so many vehicle choices in unguarded settings. Many said they took orders from "higher-ups" for specific vehicles, makes, and models. Many worked with a second person who could act as lookout. A number said they would conduct surveillance, wait for the vehicle they wanted, watch the person park and enter a store to ensure that the vehicle owner would be away from their vehicle for some period of time.

A number of the thieves also admitted taking stolen vehicles into Mexico. Some targeted older Toyotas, as *any* old Toyota ignition key opened and started the vehicle, reducing the effort[27] involved in stealing these vehicles.[28] This last finding came as a surprise to auto theft detectives who had believed that auto thieves used shaved keys. Offenders picking old Toyotas didn't even have to make the effort to shave an old key. The ease of stealing old Toyotas explains their presence on our top five list.[29]

The thieves said that parking lot cameras and active security patrols were the most likely security precautions to deter them from particular lots. Only one of our major target lots has cameras, the Chula Vista Mall. Two other smaller ones do, and this is discussed later in this paper. An earlier POP project by a CVPD sergeant at the Chula Vista Mall resulted in the installation of an extensive camera system in the Mall lots. This reduced auto theft there by 50 percent. Even with this reduction, the number of auto thefts and auto burglaries placed this lot as one of our ten target areas (Target Area 3). While measures to effectively counter parking lot auto theft go beyond cameras and patrols, these offenders identified two significant deterrence interventions suggested in the POP Guide.[30]

Risk Rates of Lots

Our Risk Rate Subcommittee made some interesting findings. The target lots with the highest volume of thefts were not necessarily those with the highest risk rate. One of our target lots, the Swap Meet, open only two days a week experienced 42 auto thefts in 2001 and two auto burglaries. We suspected that the Swap Meet would have the highest lot risk rate. This turned out to be untrue, as some of the smaller lots, open 7 days a week, even with lower volumes of theft were much riskier. When the Subcommittee took into account the volume of cars entering and exiting these lots, the number of parking spaces in these lots, the average length of time parked for these lots, and the number of days these lots were open to parking, they found that Chula Vista's trolley commuter lots had risk rates of up to ten times higher than the average of the other lots combined. Perhaps we should not have been so surprised as the trolley lots (amongst all the target lots) had the most favorable conditions for auto theft (a wide range of older vehicles, no regular security patrols, unfettered access, multiple exits, vehicle owners parked for very long periods of time, and proximity to the freeway – two minutes or less by car). (See Appendix 1, Figure 10)

Environmental Characteristics and Management Oversight of Lots

Our Environmental Subcommittee examined target lot characteristics to see if Clarke's POP Guide pinpointed characteristics that lessened theft consistent with our findings. Subcommittee members also conducted lot manager interviews. In all, they completed 46 surveys in the 10 target areas. Fifty-four percent of the worst 13 lots (accounting for 300 auto thefts in 2001) had no physical security measures in place. Forty-six percent of the worst 13 lots had no uniformed security. From the management interviews,

Subcommittee members gleaned that most lot managers had no idea of the number or frequency of auto theft and auto break-in in their lots. For the lots with the highest volume of auto theft in Chula Vista, lot managers were uninformed about the extent of the problem in their lots. Sometimes those who owned the lots did not own the stores, so customer complaints of theft (although many customers do not bother to complain to the store, they prefer to call the police) may not have filtered back to lot owners. For those lot managers who were also store managers, they were more concerned with the inside of the store – managing the business – than the parking lot.

None of the lots in Chula Vista in our ten Targets possessed the full set of countermeasures advised in the Guide to reduce vehicle crime. The full set of recommended countermeasures include an electronically armed ticket entry system with staffed exit points for ticket recovery, cameras, active security, and perimeter control. However, there are lots in some parts of the County with these countermeasures.

Approximately 7 miles north of Chula Vista in the city of San Diego there are three large shopping malls. One employs the array of countermeasures in the Guide (Horton Plaza), the other two -- Fashion Valley and Mission Valley Malls -- do not. Horton Plaza, where the parking is in a decked garage, had fewer than 10 auto thefts, while the other two malls (a mix of flat lots and garages) exceeded 150 a year in 2001.

We met with San Diego Police Southern Division auto theft detectives and shared our findings, as they experienced 1,500 stolen vehicles in a community of less than 100,000. In our discussion, we asked if there was a lot where they were surprised to find few auto thefts. The detectives mentioned Las Americas Mall, located on the last street in San Diego, abutting Mexico. The Mall is less than two minutes from the vehicle border entry into Mexico. Using the countywide crime system, we confirmed few vehicle crimes at the site and we conducted several site visits to the Mall. When the Mall added electronic ticketing-triggered gate arms, staffed exits to collect tickets, and extensive cameras and security patrols, vehicle crimes dropped to near zero.[31] This is in contrast to a mall one-half block north, which has none of these countermeasures. This second lot has an extremely high number of vehicle crimes. (See Appendix 1, Figure 11)

Our comparisons to lots with the countermeasures outlined in the Guide against those without gave weight to the value of the guide in the eyes of subcommittee members.

Action

During the course of this analysis, we determined that the countermeasures in the Guide are highly practical solutions to vehicle crime in Chula Vista's lots, particularly those lots held by the larger lot owners. For some of the smaller target area lots, where cost or lot design might preclude some of these countermeasures, Subcommittee members met and brainstormed solutions for specific lots (consistent with those outlined in the Guide). The analysis and the brainstorming session were completed in October 2002. In January 2003, Chula Vista Police began meetings with lot owners to request implementation of the Guide's countermeasures, and/or the brainstormed suggestions developed from the analysis. We briefed every patrol officer, detective, manager and command level staff on the analysis results and provided specific patrol and detective strategies for reducing the extent of vehicle crime in lots in Chula Vista. In addition, as a result of the analysis, we successfully advocated for the reinstatement of a crime analyst position for

San Diego's Regional Auto Theft Task Force. The project goal of finding more effective responses to vehicle crime in parking lots has been met, although implementation (goal number two) remains.

As for the two other goals of this project, these are addressed in the paragraphs that follow. We believe that these have been met, although it will be important for CVPD to determine as time progresses whether the impact of the project lasted beyond the close of the analysis phase of the auto theft project.

In determining the utility of this particular POP guide, one measure is its accuracy in succinctly delivering important aspects of research related to the problem. We read and reread the guide as it provided key elements in understanding vehicle crime generally, and vehicle crimes in parking facilities in particular. Initially, there were some disbelievers among the officers as to the efficacy of lot interventions. This was dispelled once our analysis was complete. Another measure of the Guide is whether we would have been able, on our own, to pinpoint the reason for high theft rates, low recovery rates, and the measures needed to turn these around. Without the Guide we would not have been able to accomplish this. The Guide served as a foundation for our work, and steered us along the way.

In terms of whether this particular auto theft project has improved the police department's capacity to routinely problem solve, the last goal, perhaps so. During the course of the project, employees developed a greater awareness of all the POP guides, and of situational crime prevention, rational choice theory and routine activity theory[32]. More important, however, has been the leadership shown in promoting problem-solving by four CVPD employees: Chief Emerson, Karin Schmerler, Lt. Don Hunter, and Nanci Plouffe. Each was involved in almost every stage of analysis of this project.

Without committed leadership, problem-solving is unlikely to occur. During the course of this project, CVPD Chief Rick Emerson strongly advocated support for problem-solving. He actively participated in the project (problem selection, presentation of analysis, presentation of analysis results to the Department, city manager, city agency administrators, and the brainstorming session). In response to this active leadership, more officers have sought out the Department's Tough on Crime Analyst and the Department's researcher in accessing information for potential POP projects. In fact, during 2002, Chief Emerson required candidates to present information from several of the POP guides (speeding, false alarms, and misuse and abuse of 911) for promotion to the rank of agent, sergeant and lieutenant, spurring discussion in the Department of these topics and the research.

Karin Schmerler, the Department's research analyst, during her relatively short tenure in CVPD, has stimulated enormous interest in problem-solving among Department employees. Also, she advocated for the Department's participation in state and federal problem-solving projects (such as this one and the state-funded bullying in schools grant). Karin was involved in all phases of the analysis of this project.

Lt. Don Hunter, as coordinator, helped drive this project within the Department, and it is clear that he will be engaged in driving problem-solving more routinely in Chula Vista. Lt. Hunter is extremely committed to and knowledgeable about problem-solving. As a champion of problem-solving he has been a key advocate in the Department for more active and analytic problem solving on the part of its employees. Lt. Hunter participated in every phase of the analysis of this project.

The contribution Tough on Crime Analyst Nanci Plouffe made to this project and in fostering problem-solving cannot be overstated. Ms. Plouffe is a premier crime analyst. Her analysis skills have ensured that the Department can engage in quality crime analysis. Perhaps in recognition of her extraordinary work on this auto theft project, Ms. Plouffe was selected to participate (with only 8 others) in the first ever, problem analysis training for crime analysts offered by the Police Foundation. Ms. Plouffe extracted all the data, crunched it, assisted in its analysis, and created all the charts.

It is worth noting that this project, and others the CVPD is engaged in (crime in budget motels, traffic collisions, bullying in schools), place the Chula Vista Police Department among cutting edge agencies engaged in higher-level problem-solving. Higher-level problem-solving requires attention to research, not just analysis, and knowledge of effective and ineffective countermeasures. The Chula Vista research analyst, a key person on the motel crime project, supervised research on crime at area motels. Because of the work she and the CVPD conducted during this project, Ms. Schmerler was enlisted to author a POP guide on motel crime. During the course of the vehicle collision project, participants read and discussed the Speeding in Residential Areas POP guide, becoming familiar with roadway conditions causing speed-related crashes. In the bullying in schools project, participants read, discussed and will be following the research outlined in the Bullying in Schools POP guide. These all are evidence, not simply of the value of individual guides, but of the use these guides can be put to in spurring higher level problem-solving.

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APPENDIX I

Figure 1: Map of San Diego County

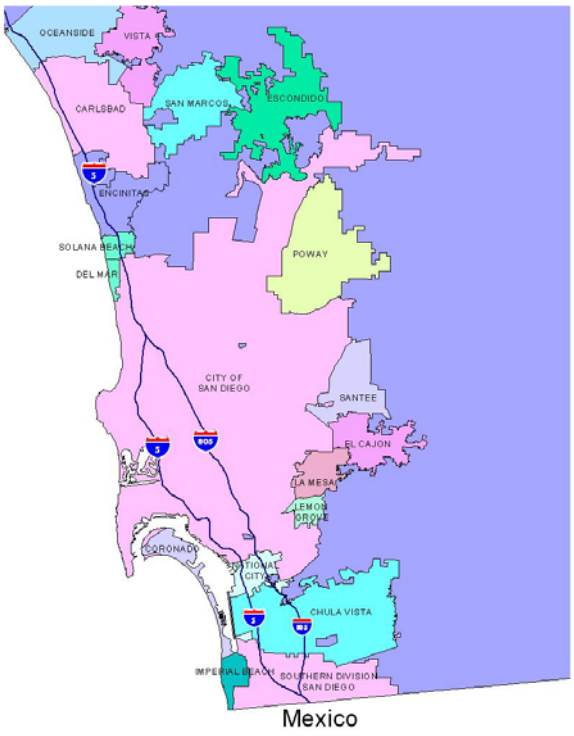


Table 1: Target Areas

Target 2001 Data	2001 Total Vehicle Crimes	Top 10 CFS Location
1. East H Shopping Center	97	
2. Broadway and Palomar	146	X
3. CV Mall	107	X
4. Walmart Shopping Center	48	X
5. Swap Meet	44	
6. E Street Trolley and nearby motel lots	41	X
7. H Street Trolley and nearby neigh. lots	122	X
8. Southwestern College	36	X
9. All High Schools	31	
10. K-Mart Shopping Center	16	
Total for the City	3,368	
Total for the Targets	680	6 of 10

Figure 2: Map of Chula Vista with Target Areas

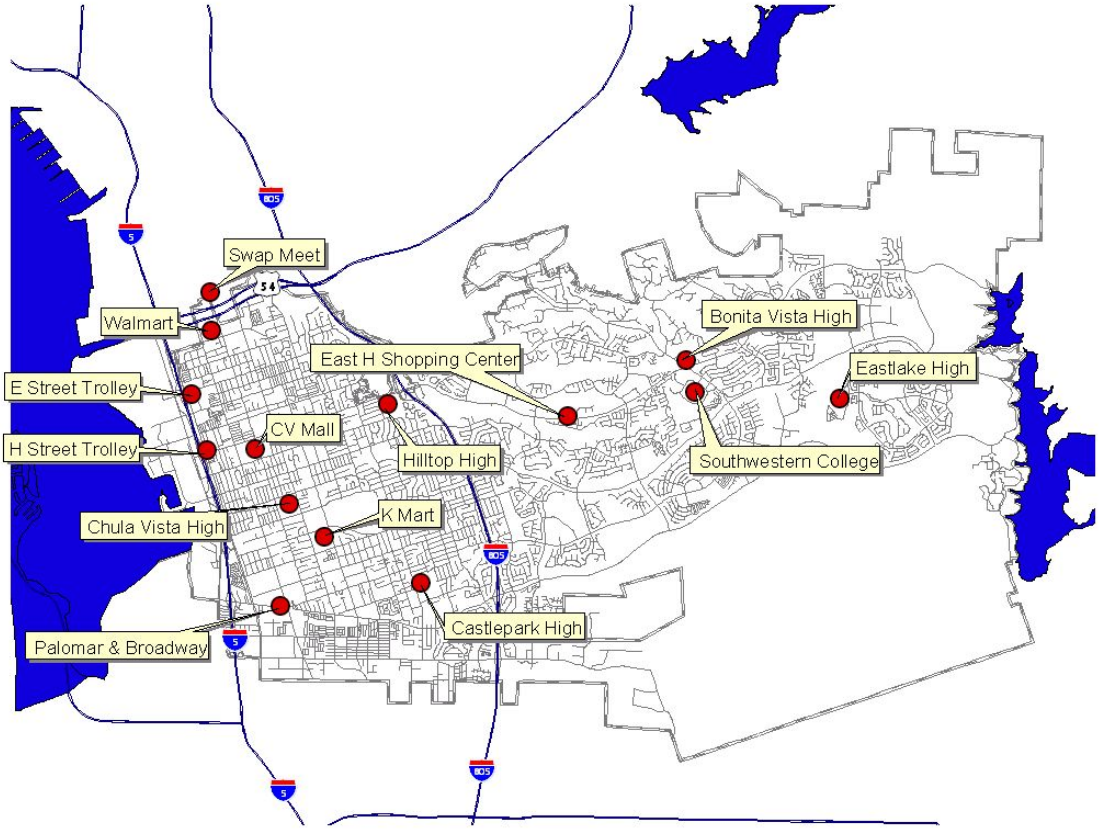


Figure 3: San Diego County Motor Vehicle Theft Rates by City (per 1,000 residents)

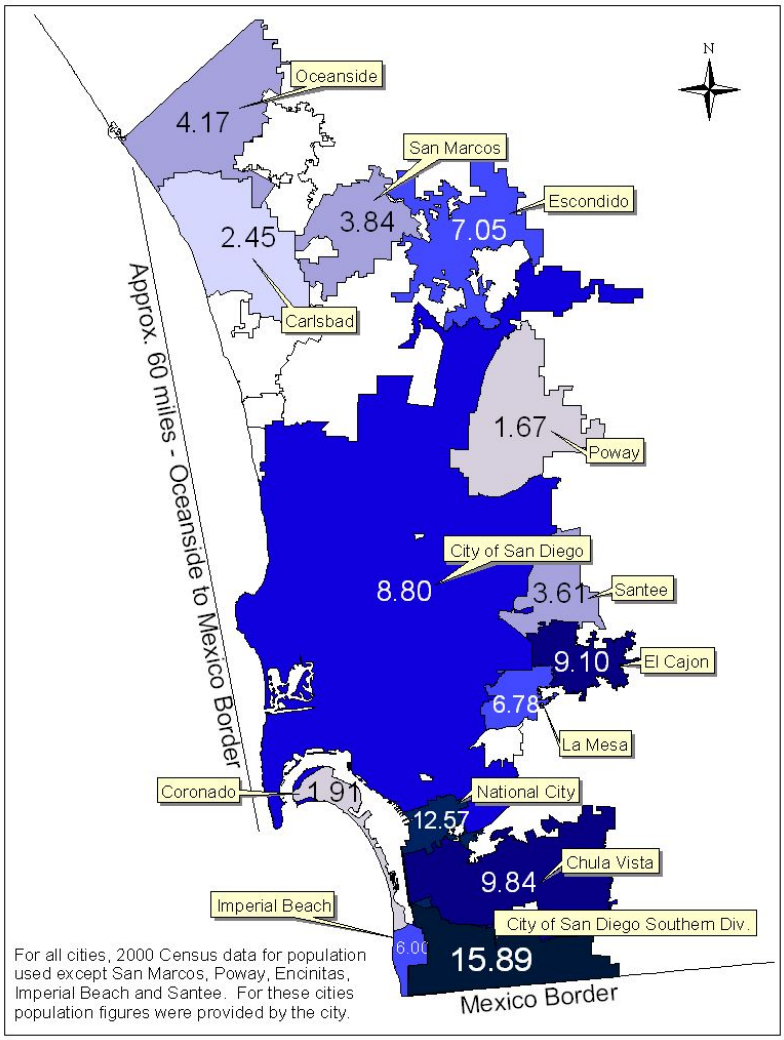


Figure 4: 2001 Clearance Rates for Auto Theft for Cities in San Diego County

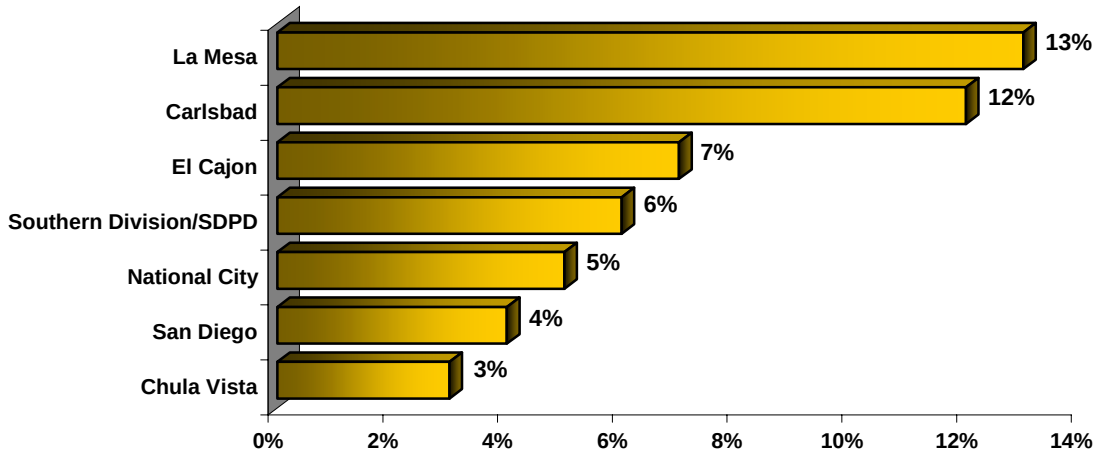


Figure 5: 5 Vehicles Accounted for 42% of Vehicles Stolen in Target Lots

Toyota Trucks	**15%**
Toyota Camrys	**8%**
Nissan Trucks	**7%**
Ford Trucks	**7%**
Nissan Sentras	**5%**

Figure 6: Clusters of Make, Model and Year for Top Ten Vehicles Stolen in San Diego County in 2001 (data from 7 San Diego County cities)

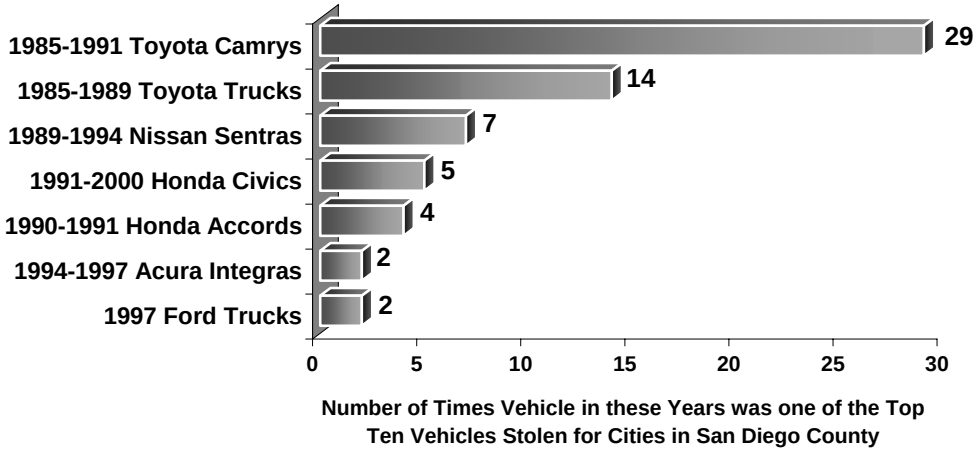


Figure 7: San Diego County Recovery Rates

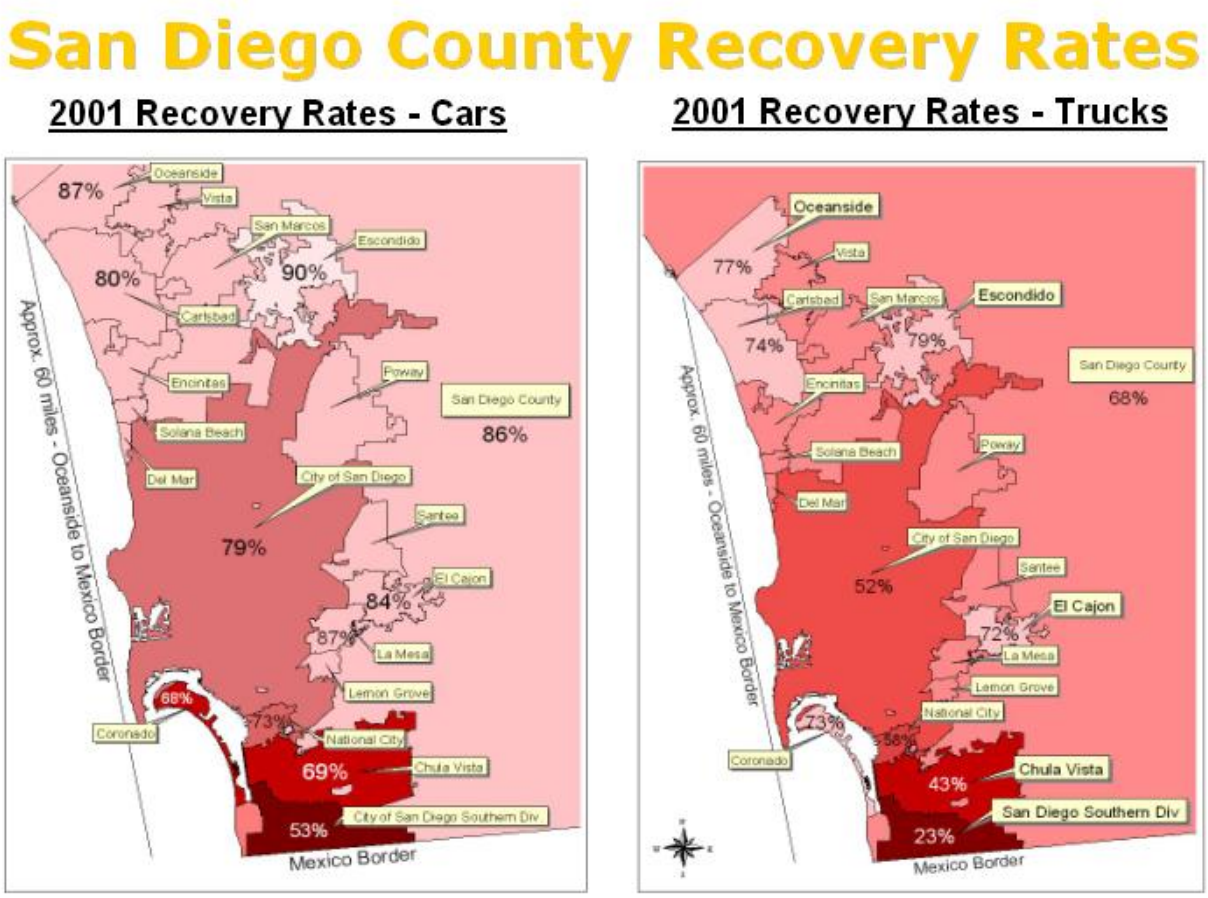


Figure 8: Recovery Rates by Target Area

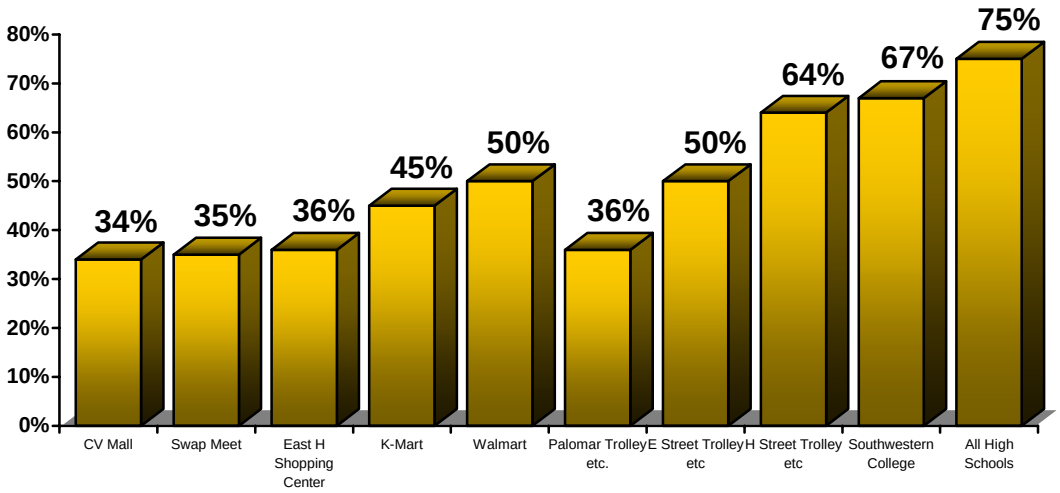


Figure 9: Chula Vista Recovery Rates

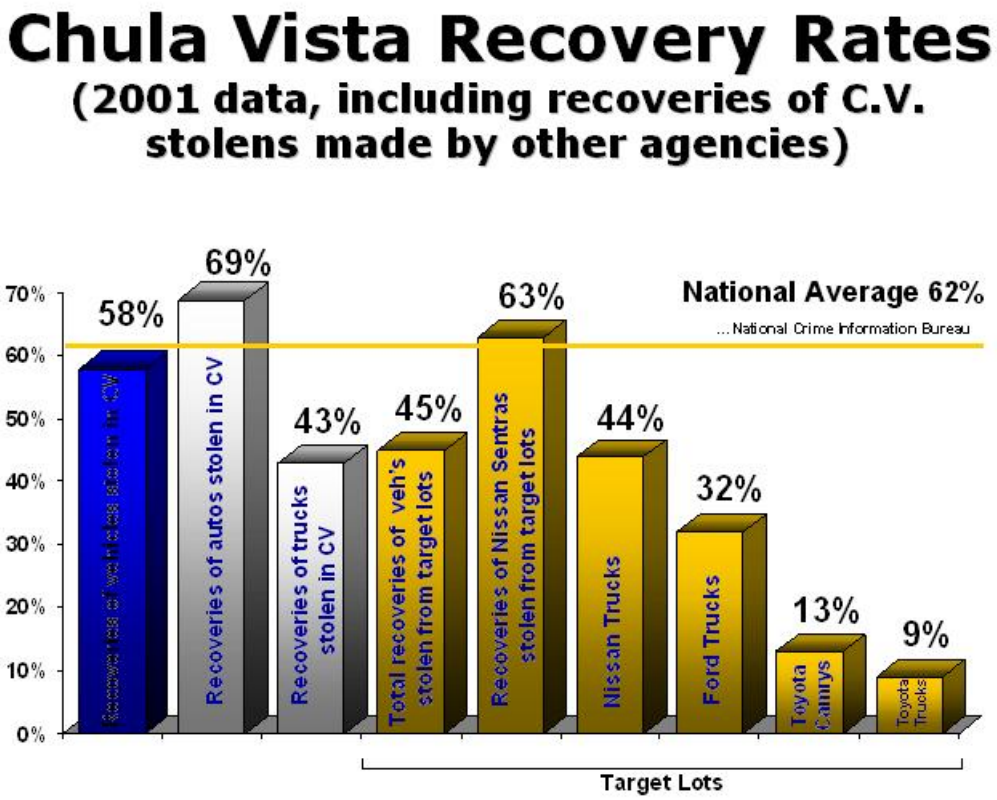


Figure 10: Trolley Lot Risk Rates vs. Average for all Lots

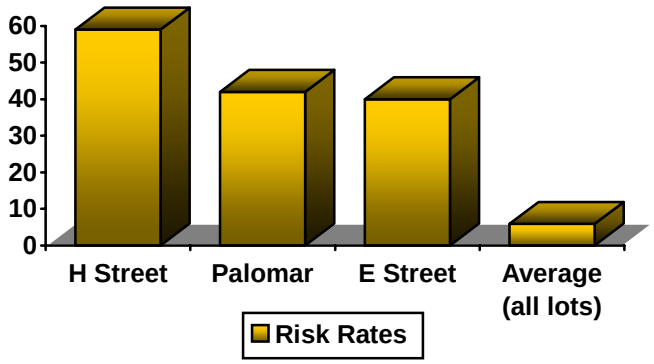
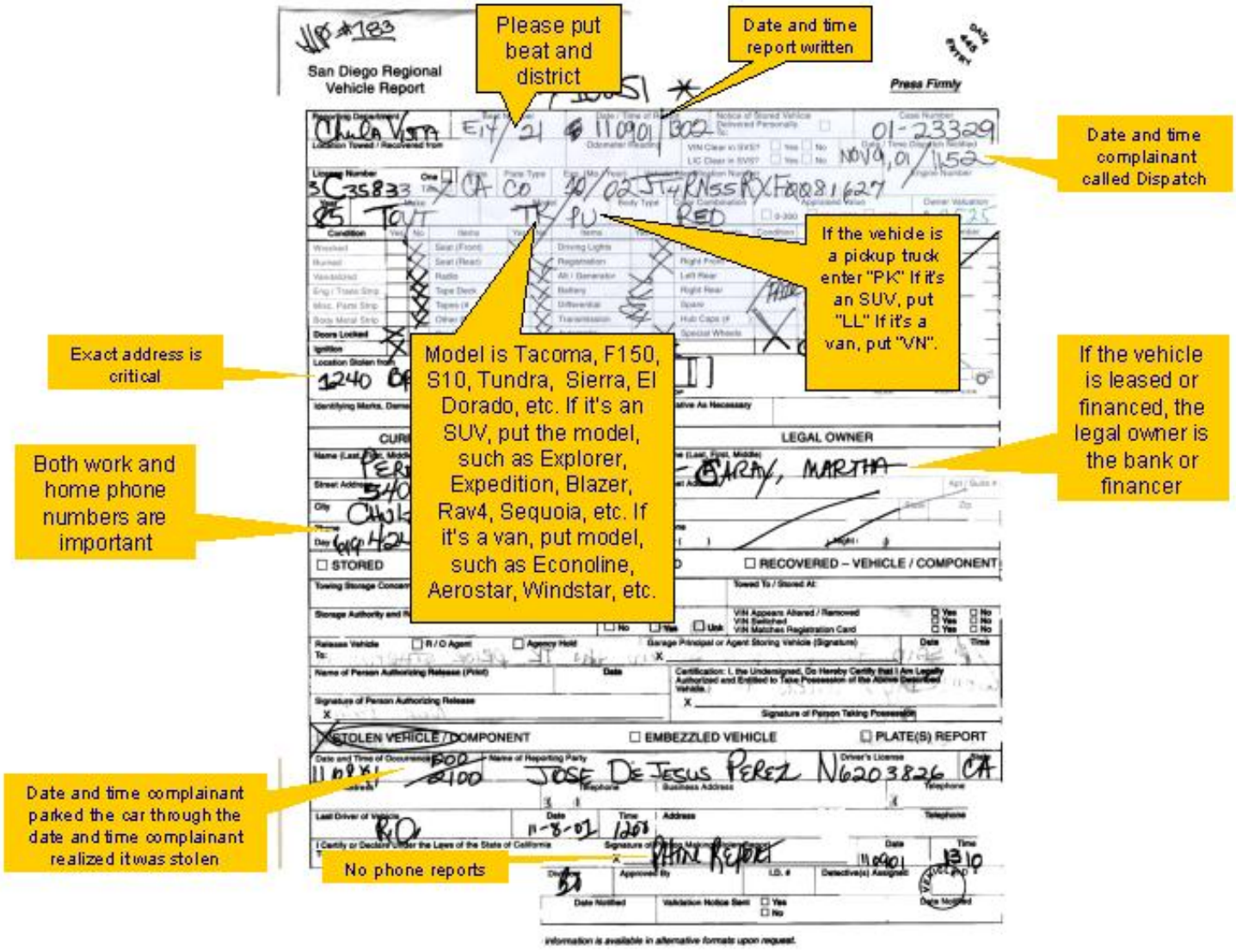


Figure 11: Entrance to Las Americas Mall – San Diego Southern Division

Figure 12: Accurate Reporting of Vehicle Crimes



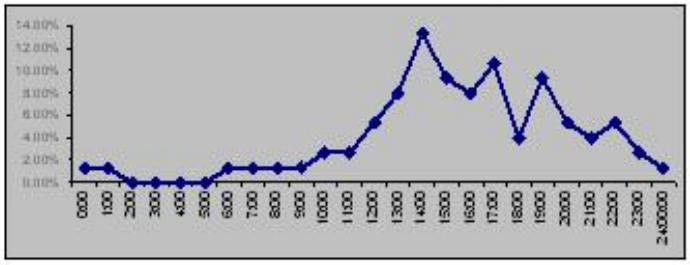
Target 4
Walmart

Auto Theft

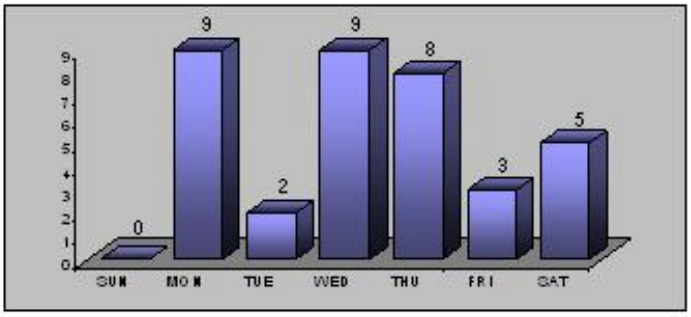
Total Vehicles Stolen: 30
% Recovered: 50%
Avg. Time at Lot: 109 min.
Avg. Vehicle Year: 1988

Top Makes/Models
Toyotas & Nissans

Auto Theft Time of Day



Auto Theft Day of Week



Vehicle Burglary

Walmart had 18 incidents predominantly between 12:00 – 20:00. The top makes include Fords and Hondas.

Most Common Lot Addresses within Target Area #4
Walmart – 75 N. Broadway
Best Buy – 59 N. Broadway

APPENDIX 2

Auto Theft / Vehicle Burglary
Offender Interview Questions

Date of Interview:____/____/____ Interviewer:_____

Interviewee ID#:_____ Interview Location:_____

Introduction: This interview will consist of questions about vehicle theft and breaking into vehicles. The information you share with me will be completely confidential and will not affect your case in any way. We're doing this just to better understand why people steal cars and break into cars.

I just want to get some background information from you:

1. Where did you grow up? (city, town, state, and country)
   _____

2. How old are you now? _____

3. Did you graduate from high school? Yes No

4. What was the last grade you completed? _____

5. Where do you live now? (exact address)
   _____

6. What's a good phone number to contact you at?
   _____

7. Do you own a car now? Yes No

8. What year, make and model? Year _____ Make_____ Model _____

9. How long have you owned it? _____

10. Are you currently employed? Yes No If yes, where (name of place and exact address of place) _____

11. Where did you last work? (name and exact address of place) Years at this place? _____

12. Where did you work before that? (name and exact address of place) Years at this place? _____

13. Where did you work before that? Years at this place? Years at this place? _____

14. Where did you work before that? Years at this place? Years at this place? _____

15. How old were you the first time you took a car? _____

16. Why did you take the car that first time? _____

17. Was this the first crime you had ever committed? Yes No
    a. Had you before that ever shoplifted? Yes No
    b. Had you ever tagged a place with graffiti? Yes No
    c. Had you ever vandalized someone's property? Yes No

18. Who taught you how to steal a car? (Not the name but type of acquaintance: older brother, uncle, friend, neighbor, etc.)

19. What was your role *in your first car theft*? Circle all that apply: lookout, driving people to the car; breaking into the car; starting the car; driving the stolen car; passenger in stolen car. Other role?

20. Who taught you how to actually *break into the car*? (Not the name but type of acquaintance: older brother, uncle, friend, neighbor, etc.)

21. We know that you were pretty good at stealing cars, what's the most number of cars you've stolen in a day? _____

22. What's the most number you've stolen in a week? _____

23. When you were active, what's the most number you'd steal in a year? _____

24. How many years were you an active car thief? _____

25. How much money, on average, did you get for a stolen vehicle or it's contents?_____

26. Did the money increase over time?

1 Yes
2 No

a. Average price you last got per stole vehicle?
_____

27. Were you working at a real or paying job when you were actively stealing? Yes No
If yes, where mostly?

28. What were the different reasons you stole or participated in stealing cars?

a. Money
b. Thrill or excitement
c. Transportation
d. To sell a car's parts
e. To strip a car
f. To commit another crime?
g. So that you could keep the car for yourself
h. To take the car so someone could claim it was stolen and they could collect the insurance money
i. Part of what the gang you were in did this
j. So it could be used to transport illegal immigrants
k. To support a drug habit
l. For any other reason? (Specify) _____

(If more than one reason) Which of these best describes why you most stole vehicles?_____

28. After how many auto thefts did you get caught stealing cars? _____

29. How old were you when you first got caught for auto theft? _____

30. Were their any sanctions or consequences imposed on you because of your arrest(s)?

31. How many times were you arrested for auto theft? _____

32. Were you ever arrested or detained for being a passenger in a stolen car? Yes No
How many times did this ever happen? _____

33. What did the officer do when you were the passenger? (Arrest you, let you go, etc.)

34. How long ago did you stop stealing cars? _____

35. What stopped you? _____

36. Did you ever steal a vehicle with somebody else?
1 Yes
2 No (If no, skip to 38)

37. When you attempted to steal a vehicle with somebody else, did each person try to break into the vehicle, or did one-person break in and the other person or people do something else?
1 All try to break in
2 One person breaks in
3 Neither breaks in (had keys)

a. What does the other person or people do?

38. Have you ever stolen… (*Read choices; circle all that apply)*
1 a car?
2 a truck?
3 a SUV (sport-utility vehicles such as Explorers, 4-Runners, Jeep Cherokees)
4 a Van?
5 a motorcycle or moped?
6 a RV? (Recreational Vehicles)
7 any other type of vehicle? (Specify)_____

39. Have you only stolen vehicles you've had the keys to?
1 Yes
2 No

a. Where did you get the key or shaved key?

b. How easy is it to get shaved keys? Describe how.

c. How often did you use keys or shaved keys?

40. What's the easiest cars, trucks and SUV's to break into and why?
a. Easiest cars _____
b. Easiest trucks _____

c. Easiest SUV's _____

41. What things did you look for when you were choosing a vehicle to steal?
How important was…..(say not, a little bit, or really each time)

	1 Not Important	2 A little bit Important	3 Really Important
a) The vehicle make? (e.g. Chrysler, Toyota, Honda, etc.) (If 2 or 3) What types of makes did you prefer to steal, and why?	1	2	3
b) The vehicle's model? (e.g., Camry, Escort, Taurus, etc.) (If 2 or 3) What types of models did you prefer to steal, and why?	1	2	3
c) The vehicle's year? (If 2 or 3) What years did you prefer to steal, and why? (Ranges ok: specify the reason why next to each year or time period)	1	2	3
d) Whether or not the vehicle has an auto theft device? (If 2 or 3), What type of devices would stop you from attempting to steal a vehicle?	1	2	3

(Read choices; circle all that apply)

1 A club
2 An alarm
3 A kill switch
4 Anything else?
(Specify)_____
5 None of the above

	1 Not Important	2 A little bit Important	3 Really Important
e) The color of the vehicle? (If 2 or 3) What color(s) did you prefer? (If 2 or 3) Why did you prefer this / these colors?	1	2	3
f) The condition of the vehicle, or extras it may have? (If 2 or 3) What things about a car did you look for?	1	2	3

(Read choices: circle all that apply)

1 Clean
2 No dents
3 Stereo system
4 CD system
5 Rims
6 Tires
7 Items in car
8 Other things? (Specify)_____

42. Did anything else about the vehicle influence whether or not you would steal it?

43. How did you find out about good places to steal cars from?

44. Did you usually go to different places to steal cars, or did you usually cruise the same location? *(Only circle one)*

1 Go to different places
2 Cruise the same locations
3 Depends (On what?)_____

45. What type of lots did you ever steal from? *(Read choices; circle all that apply)*

01 Large shopping malls
02 Movie theatres
03 Grocery stores
04 Gyms or fitness center lots
05 Restaurant/bars
06 Small strip malls
07 Park & ride lots
08 Office building lots
09 Trolley lots
10 College parking lots
11 High school lots
12 Any other types of lots
(specify)_____

a. (If more than one circled) what is your favorite type of lot to steal from?
_____

b. Why do you like to steal from this type of lot?
_____

46. Have you ever tried to steal a vehicle from an apartment complex lot?

1 Yes

2 No (If no, skip to 48)

47. Now, I'd like to find out what type of things you thought about when you were deciding whether to steal a car from an apartment complex lot.

1	2	3
Not Important	A little bit Important	Really Important

Whether the apartment complex lot has ……
(Say not, a little bit, and really each time)

6 a locked entry gate to the lot?
7 Signage at the entry saying no trespassing?
8 One way in and the same way out?
9 Lighting in the lot?
10 That the lot is in the front of the apartment complex?
11 That the lot is in the rear of the apartment complex?
12 That you know someone who lives in the apartment complex?
13 That the apartment complex lot holds a lot of cars, perhaps more than 10 cars?
14 That the lot has security patrols?

48. Did you ever try to steal a car that was parked in a public parking lot, such as a trolley lot or shopping mall lot?

1 Yes
2 No (If no, skip to question number 51)

49. Now I'd like to find out what type of things you looked for when you stole a vehicle from a public parking lot like a shopping mall lot or a trolley lot.

1	2	3
Not Important	A little bit Important	Really Important

How important is…..
(Say not, a little bit, or really each time)

a. How close the parking is to a freeway? 1 2 3
(If 2 or 3) Do you prefer lots near a freeway?

1 Yes
2 No

b. How close the parking lot is to a Mexican border? 1 2 3
(If 2or 3) Do you prefer lots near the border?

1 Yes
2 No

c. Whether or not there is a security guard in the parking lot? 1 2 3
(If 2 or 3) Do you watch where the security guard is?
(Don't read choices; only circle one)

1 Yes
2 No
3 Wouldn't steal from a lot where there is a security guard

	1 Not Important	2 A little bit Important	3 Really Important

How important is…..
(Say not, a little bit, or really each time)

d. Whether or not there are police patrols in the area? 1 2 3
(If 2 or 3) do you watch to see when police make their rounds?
1 Yes
2 No

e. The amount of lighting around the vehicle? 1 2 3
(If 2 or 3) Do you prefer cars parked away from lights?
1 Yes
2 No

f. Whether the vehicle is parked near windows in the building? 1 2 3
(If 2 or 3) Do you prefer cars parked away from windows?
1 Yes
2 No

g. The amount of traffic through the lots? 1 2 3
(If 2 or 3) Do you prefer parking lots with less traffic?
1 Yes
2 No

h. The distance of the vehicle from the building's entrance? 1 2 3
(If 2 or 3) Do you prefer vehicles parked far from the entrance?
1 Yes
2 No

i. The distance of the vehicle from the parking lot's exit? 1 2 3
(If 2 or 3) Do you prefer vehicles parked near the exit?
1 Yes
2 No

j. That there is more than one entry and exit? 1 2 3
1 Yes
2 No

k. The time of day 1 2 3
(If 2 or 3) At what time of the day did you prefer?

(Read choices; circle all that apply)

		Why?
1	Early morning (5:00-7:59 am)	_____
2	Morning (8:00-11:59 am)	_____
3	Afternoon (12:00-4:59 pm)	_____
4	Evening (5:00-11:59 pm)	_____
5	Late night (12:00-4:59 am)	_____

50. Did you look for locations with certain types of stores around them?

1 Yes, list what type of stores_____
2 No

51. When you stole cars, did you go out looking for a particular vehicle to steal or is the location more important?

1 type of vehicle
2 location is more important
3 Neither matter

52. Does video surveillance make a difference in your location selection?

1 Yes
2 No
3 It doesn't matter
4 Other

(Specify)_____

53. Thinking about shopping malls, are there any ones that are good for stealing cars?

54. Are there any stores that you knew would have a good selection of cars to steal from?

55. Rate the security (Active security patrol, surveillance cameras, design of the lot not good for stealing cars) for these particular stores, lots, and trolley lots.

	Active Security Patrols	Surveillance Cameras	Design of lot not good for stealing cars
a. Chula Vista Mall			
b. Palomar Trolley stop			
c. Walmart shopping center			

d. Swap meet
e. E Street Trolley
f. Motel lots near E Street Trolley
g. H Street Trolley
h. Apartment complex lots near H St. Trolley
i. Southwestern College
j. K-Mart Shopping Center
k. Home Depot parking lot

l. Did anything else influence you when deciding to steal a car from these type of lots?
1 Yes
2 No

What influences you?	How important is this?		
	Not imp.	A little bit imp.	Really imp.
_____	1	2	3
_____	1	2	3
_____	1	2	3

56. If I owned all the trolley and parking lots in Chula Vista, what are the best things I could due to keep cars from getting stolen?

Here's some more general questions about car theft we'd like you to answer:

57. Did you ever get orders for specific cars?
1 Yes
2 No

58. What were the most common cars, SUV's or trucks you were asked to steal?
Cars: _____
SUV's _____
Trucks _____

59. How long did it generally take you to fill an order?

60. Did you take the car somewhere to cool off? Yes No If yes, what type of place?

61. How long do you estimate it usually took you to break into a locked automobile? (No ranges; specify seconds, minutes, hours)_____Seconds / Minutes / Hours

62. How did you break into an automobile?
(Read responses; circle all that apply)
1 Take the glass off the track

2 Break the glass
3 Use a tool (e.g., knife, screwdriver, pick) in the keyhole
4 Have a key that fits
5 Cut a convertible top
6 Slim Jim
7 Some other way (Specify)_____
8 Don't break in- look for open window/ sunroofs or unlocked doors

(If more than one reason) What is the most common way you break into an automobile?_____

63. How long do you estimate that it usually took you to start an automobile?
(No ranges; specify seconds, minutes, hour)
_____Seconds / Minutes / Hours

64. How did you get an automobile to start?
(Read responses; circle all that apply)
1 Have your own set of keys that fit
2 Connect wires (hot wire)
3 Pop the ignition (includes with screwdriver)
4 Some other way (Specify)_____
(If more than one reason) What is the most common way that you get a vehicle to start?
_____

65.Have you ever tried to steal a vehicle with an alarm?
1 Yes
2 No
a. Were you able to disarm it?
1 Yes
2 No

b. Did you usually disarm it before or after it went off?
1 Before
2 After

c. How did you disarm it?

66. Have you ever tried to steal a vehicle with a club on the steering wheel?
1 Yes
2 No

a. Did you get the club off?
1 Yes
2 No

b. How did you get it off?

67. Have you ever tried to steal a vehicle with a kill switch?

1 Yes
2 No

a. Were you able to get the vehicle to start?

1 Yes
2 No

b. How did you get the vehicle to start?

68. Did you usually steal vehicles in your own neighborhood, or did you go somewhere else?

1 Own neighborhood
2 Other neighborhoods
3 Both

a. When you stole a vehicle, did you take any of the items inside the vehicle?

1 Yes
2 No

b. What items did you take?
(Read choices; circle all that apply)

1 Stereo
2 CD's/Tapes
3 Clothing items
4 Cash
5 Checkbooks or wallets
6 Cell Phones
7 Camera
9 Purse
8 Other

(Specify)_____

f. Did you ever steal cars for particular parts?

1 Yes
2 No

g. What types of parts are most common to steal from a vehicle?_____

69. If you stole the car for car parts, where did you bring the car? What type of place?

70. Have you ever done any of the following to hide the fact the vehicle is stolen?

1 Remove the Vehicle Identification Number (VIN)
2 Park the vehicle somewhere it wouldn't be found
3 Remove the license plates
4 Avoided driving on busy streets
5 Painted the vehicle another color
8 Some other steps

(Specify)_____

71. How long did you usually keep a stolen vehicle before you got rid of it?
(No ranges)

_____Minutes / Hours / Days / Weeks / Months

a. Why did you usually keep it for this amount of time?

72. Have you ever taken a stolen vehicle to Mexico?

73. Have you ever taken orders from someone in Mexico for a particular type of car? If yes, what cars are most frequently asked for?

74. If you take a car to Mexico, do you remove the license plate?

75. How easy is it to take a stolen vehicle into Mexico?

76. When you were active, how often did you do this?

77. How did you first hook up with the person in Mexico?

78. On average, how much do you get for a car you take to Mexico? Does the price change if it's a truck or an SUV?

79. Do you get more or less for the vehicle in Mexico than you would get in the U.S.?

80. Have you ever worked with any of the auto repair shops along Main Street in Chula Vista in

selling stolen vehicles or their parts?

81. How would you describe most of your clients for stolen autos? Finish these sentences.

They live mostly in _____

They work for these type of places _____

I only work for one or two people and they give me the orders for cars _____

82. How would you describe most of your clients for stolen auto parts?

They live mostly in _____

They work for these type of places _____

I only work for one or two people and they give me the orders for cars _____

I get orders from a whole bunch of different people _____

83. Have you ever stolen cars outside of Chula Vista in other cities in San Diego County? If yes, in what other cities in the county have you stolen cars from?

a. San Ysidro or South Bay
b. Imperial Beach
c. El Cajon
d. Santee or Lakeside
e. Carlsbad
f. Oceanside
g. Escondido
h. Encinitas
i. La Mesa
j. San Marcos
k. City of San Diego

84. What's your favorite city in San Diego County for stealing cars? Why?

85. What kinds of places in these other cities are best for stealing cars?

86. Where are some of the worst places in San Diego County to steal cars from? Why?

87. When you stole a car in Chula Vista, how did you usually get to the place where you were going to steal a vehicle?

(Read choices; only circle one)

1 Drive a stolen vehicle and abandon it
2 Someone drives you
3 Take a bus
4 Take a trolley
5 Walk
8 Other

(Specify)_____

88. When you were most active, how many other people did you regularly work with? What were their roles?

89. Have you ever been under the influence of drugs or alcohol when you stole a vehicle?

1 Yes
2 No

a. Which ones? *(Read choices; circle all that apply)*

1 Alcohol
2 Marijuana
3 Cocaine
4 Crack
5 Crystal Meth
6 Heroin
7 Other

(Specify)_____

b. Did you regularly use drugs when you were stealing cars?

1 Yes
2 No
3 more than 3 times a week

c. Did you help support your drug habit by stealing vehicles or stealing for selling car parts?

1 Yes
2 No

Please explain_____

90. Did you specialize in auto theft or did you commit other crimes as well?

a. What types of crimes do you commit?

91. How would you describe your race:

1 Black
2 White
3 Hispanic
4 American Indian or Alaskan Native
5 Asian or Pacific Islander
8 Other (specify)_____

91. Your sex:

1 Male
2 Female

Please include any additional comments you believe will be helpful to our project:

PARKING LOT SURVEY

Auto Theft Project

(This survey has been adapted from "The Secured Car Park Scheme," which was developed by the *Association of Chief Police Officers* ***in Great Britain. The survey was field tested by the Chula Vista Police Department (CVPD) in Chula Vista, CA.)***

Note to CVPD Staff Completing Survey: As you know, auto thefts and burglaries are a major problem for our city. The police department is trying to determine why certain parking lots/parking garages have higher auto theft and auto burglary rates than others. The information you gather will help us to better understand this problem.

PART I - Environmental Survey

Please completely fill in pages 1 and 2 of this form based on your observations of the parking lot. It should take approximately *15 minutes or less* to complete.

PART II – Business Practices Survey

Please interview the store, lot or parking garage manager to complete pages 3 and 4 of this form. You may be able to interview some managers without making an appointment, others you may need to make an appointment. It should take approximately *15 minutes or less* to complete this part of the form. *Please do not leave this form with the manager to fill in at a later date.*

In addition, we are requesting that you ask the manager to provide copies of any policies and procedures they have that address security issues in the lot. Attach these at the end of the survey

Upon completion, please return this form to Karin Schmerler.

Thank you for your help.

PART I

Date: _____ Time: _____ Store/Location Name: _____

Lot Address: _____ Target Area: _____

Completed By: _____ ID Number: _____

Boundary Control – direct/restrict pedestrian access

1.	Fencing/walls limit pedestrian access	☐ Very little ☐ Somewhat ☐ Completely ☐ Fencing/walls not present
2.	Hedges/landscaping limit pedestrian access	☐ Very little ☐ Somewhat ☐ Completely ☐ Hedges/landscaping not present

Access Control – direct/restrict vehicular access

1.	Number of vehicle entrances	_____
2.	Number of vehicle exits	_____
3.	Separate entrances/exits	☐ Yes ☐ No
4.	"One way" circulatory movement	☐ Yes ☐ No
5.	Staffed entrances/exits	☐ Yes ☐ No
	5a. How many	_____
6.	Mechanical control devices (i.e. gates, arms, key cards)	☐ Yes ☐ No
	6a. Type	☐ Electronic Gate Arm ☐ Other:_____
	6b. Number of entrances/exits controlled	_____
7.	Lockable entrances/exits	☐ Yes ☐ No
	7a. When and how often	_____
8.	"Choke points" at exits (i.e. traffic lights or stop signs requiring vehicles to stop before exiting onto street)	☐ Yes ☐ No
	8a. Type	☐ Traffic Light ☐ Stop Sign ☐ Other:_____

8b. Number of exits covered _____

Parking Control

1.	Number of parking spaces	_____		
2.	Straight row parking	☐ Yes	☐ No	
3.	Diagonal row parking (spaces at an angle)	☐ Yes	☐ No	
4.	Areas clearly marked to identify where within lot auto theft/burglary occurred	☐ Yes	☐ No	
5.	"Long stay" areas identifiable	☐ Yes	☐ No	☐ N/A

Parking Area

1.	Open parking lot	☐ Yes	☐ No
2.	Parking structure on lot	☐ Yes	☐ No
	2a. Multi-level	☐ Yes	☐ No
	2b. # of levels	_____	
3.	Signs to deter auto theft/burglary	☐ Yes	☐ No
	3a. Clearly visible	☐ Yes	☐ No
	3b. Number of signs	_____	
	3c. Sign verbiage	_____	
4.	Graffiti visible	☐ Yes	☐ No
5.	Lighting (natural and artificial) at night	☐ Well-lit	☐ Some dark areas
		☐ Many dark areas: _____	
6.	Lighting (natural and artificial) during day	☐ Well-lit	☐ Some dark areas
		☐ Many dark areas: _____	

Security Visible to Offenders

1.	On-site ***lot*** security visible during your survey	☐ Yes	☐ No

2. Method of patrol ☐ Foot ☐ Bike ☐ Car ☐ Cart
☐ Other: _____

Why do you think this lot or garage might appeal to an auto thief or burglar?

_____

_____

_____

Initial CPTED Recommendations:

_____

_____

_____

_____

PART II

Date: _____ Time: _____

Completed By: _____ ID Number: _____

Lot Contact Name: _____ Telephone: _____

Lot Contact Title: _____

Policies / Procedures / Awareness

1.	Have written policies/procedures addressing security issues in the parking area?	☐ Yes	☐ No
2.	Incident log related to parking area maintained?	☐ Yes	☐ No
3.	Is issue of auto theft or auto burglary discussed at staff meetings?	☐ Yes	☐ No
4.	Number of known auto thefts experienced last year (calendar year 2001)	_____ (estimates okay)	

5. Number of known auto burglaries experienced last year (calendar year 2001) _____ (estimates okay)

6. What are most common crime/disorder problems experienced in the parking area (i.e. auto thefts and burglaries, graffiti, etc.) and their locations within the parking area

Type	Location
_____	
_____	
_____	
_____	
_____	
_____	

Parking Lot Use

1. Average length of stay of parking customer
   ☐ <20 minutes ☐ 21-59 minutes ☐ 1 hour
   ☐ 1.5 hours ☐ 2 hours ☐ 3 hours
   ☐ Other: _____ (specify # of hours)

2. Days the lot is open for parking
   ☐ Every day ☐ Mon-Sat.
   ☐ Other: _____ (specify)

3. Hours the lot is usually open for parking
   ☐ 24 hours ☐ 1000-2100
   ☐ Other: _____ (specify)

4. Are sections of the lot marked to identify the location within lot where auto thefts/burglaries occurred?
   ☐ Yes ☐ No

Security – (if don't use security, skip to question #13)

1. On-site security ☐ Yes ☐ No
2. Method of patrol ☐ Foot ☐ Bike ☐ Car ☐ Cart ☐ Other: _____
3. Patrol procedure ☐ Random/varied ☐ Predictable/patterned
4. Do you employ uniformed ***lot*** security? ☐ Yes ☐ No
5. Does security use marked vehicles? ☐ Yes ☐ No
6. 24-hour security? ☐ Yes ☐ No

6a. Security hours _____

7. # of security personnel working ***in lot*** during busiest time _____

8. Does security patrol the parking area? ☐ Yes ☐ No

   8a. How often? _____

9. Is security responsible for other lots? ☐ Yes ☐ No

   9a. Locations _____

   _____

10. Is security responsible for patrol only? ☐ Yes ☐ No

    10a. Other activities / responsibilities _____

    _____

11. Other security measures in place ☐ Video cameras in lot

    ☐ Other: _____

12. Security Company Company name: _____

    Contact person: _____

    Phone number: _____

13. Would you be willing to implement other security measures recommended by the Police Department? ☐ Yes ☐ No ☐ Maybe

14. Who owns the lot? Company name: _____

    Contact person: _____

    Phone number: _____

Please thank the manager for assistance in making this a safer community for our residents and your customers.

[1] The crime index, as reported annually by police agencies to the FBI, consists of the following crimes, called Part I crimes: aggravated assault; auto theft; burglary; larceny; rape; robbery; and homicide. Theft from auto is contained in the larceny Part I category.

[2] Clarke 2001.
[3] This report, while submitted by Rana Sampson, represents the work of the entire Chula Vista Police Department, as the report will detail. While many people participated in extraordinary ways in this project, the efforts of a few were extensive. Whenever the pronoun "we" is used in this report, it generally refers to Nanci Plouffe (Chula Vista Police Tough on Crime Analyst), Karin Schmerler (Chula Vista Police research analyst), Lt. Don Hunter (Chula Vista Police Auto Theft Project Coordinator), and then only lastly myself (DOJ Field Applications Project Consultant to Chula Vista Police).
[4] Later in this report, we refer to these four points as project goals.
[5] In California, the penal code designation "vehicle burglaries" is the terminology used to describe theft from vehicles.
[6] While we excluded apartment complex lots from our initial targets, to minimize displacement we included apartment complex lots if they were adjacent to our lots and had a certain level of vehicle crime.
[7] In this case the type of diffusion of benefits anticipated is functional diffusion -- prevention of other crimes at the location other than those targeted (Clarke and Weisburd 1994; Barclay et al. 1996). Increasing the risks of committing one type of crime at the location could increase the risk of committing other types of crime at the location.
[8] (Clarke and Goldstein 2003).
[9] There are 226 sworn and 115 civilian employees in the Chula Vista Police Department. In the survey, in addition to nominating top crime/safety problems in Chula Vista, we asked employees if they would be willing to work on the problem(s) they nominated.
[10] Five people spent considerably more time on the project, generally between one and four days per month over a 6-month period. These were the crime analyst, the lieutenant who oversaw the project for the Department, the regional auto theft task force sergeant, the Department's research analyst, and the DOJ-funded field consultant on this project (this paper's author).
[11] In Chula Vista, Community Service Officers are paid civilian uniformed employees who fill out police reports of past crimes, including theft. Cadets are unpaid intern-equivalents.
[12] We provided training to all patrol officers on accurately reporting theft of vehicles, theft from vehicles, and theft of vehicle parts. A patrol handout we developed is attached in Appendix 1.
[13] U.S. Department of Justice, 2002.
[14] MSA rates cluster many nearby cities into one MSA. This sometimes masks high pockets of auto theft that may exist within small portions or smaller jurisdictions of the MSA. For example, in a recent year, East Point (GA) had a rate of 1,642.0, while its MSA, the Atlanta area, had a rate of 578.9. East Point's rate was significantly higher than the Phoenix MSA (1,177.5), the highest MSA rate in the country in 2001.
[15] The FBI specifically defines the term "clearance" in its Uniform Crime Reporting system. A case can be cleared if there is an arrest or exceptional clearance (when elements beyond police control preclude the placing of formal charges against the offender). Exceptional clearance is warranted when an offender is identified and there is evidence to support an arrest but one of the following reasons preclude arrest: offender dies; the victim refuses to cooperate in prosecuting an identified offender; another jurisdiction denies the extradition of the offender.
[16] One city in the northern part of the county claims a year 2001 clearance rate of 51 percent, however, we are certain that this is grossly inaccurate. It is omitted from the following graph.
[17] In the 1980s, there were two models of Toyota trucks, first the "pick-up" and later the "4-Runner". In 1993, Toyota introduced the "T100" truck. In 1995, Toyota introduced the "Tacoma" truck. In 2000, Toyota introduced the "Tundra" truck. In the 1990s, 4-Runners were modeled more as SUVs and less like trucks.
[18] (Clarke and Cornish 1985; Cornish and Clarke 1986; Cornish and Clarke 1987).
[19] (Clarke 1997).
[20] There is a license plate reader on the U.S. side of the border as you cross to Mexico. The National Review Subcommittee found that the plate reader is sometimes down -- out of service for months at a time. The plate reader is also foiled if there is plastic (even clear plastic) covering the plate or if the vehicle passes too quickly past the reader into Mexico. There is also a license plate reader upon entry into California from Mexico. Essentially, the plate readers are not anti-

theft devices, they are a system to record, sometimes inaccurately, the number of times and at what time a vehicle enters or exits the border.

[21] Members of the San Diego Regional Auto Theft Task Force informed us that in years past, local police agencies teamed with federal border agencies to conduct random stops of cars about to enter Mexico. These were highly labor intensive, created traffic jams, and produced few arrests for auto theft over the years.

[22] There is a possibility that families were victims of repeat auto theft (i.e. one family owning more than one vehicle and at least two of the vehicles are stolen). Home address data is not fully adequate for this type of analysis if your residential population frequently move, as is the case in Chula Vista. The time to conduct this analysis was beyond the scope of this project.

[23] For a fuller explanation of the time-window effect in the measurement of repeat victimization see Farrell, Sousa and Lamm Weisel 2002.

[24] We relied upon Clarke's auto theft POP guide, as well as information from Light et al. 1993.

[25] See Appendix 2 for the interview protocol.

[26] Following rational choice theory, risk of getting caught is one factor offenders' weigh. Our offenders did not just identify and choose low-risk lots, they identified and chose lots that had almost *no risk*, as evidenced by the apprehension rates. Of the 387 auto thefts from our target lots in 2001, officers apprehended only three offenders -- a clearance rate of .00775. This compares to a Chula Vista citywide auto theft clearance rate of 3 percent and a national clearance rate of around 14 percent for auto theft.

[27] The amount of perceived effort is also a factor offenders weigh under rational choice theory.

[28] The vulnerability of older Toyota door and ignition locks to "close cousin keys" is discussed in greater detail in Fleming et al.1994.

[29] There would also have to be a market for old Toyotas, and apparently there is in Mexico. For a useful discussion of the types of vehicles most likely targeted for export, see Field et al. 1991.

[30] (Clarke 2001).

[31] Las Americas Mall does not charge for parking, the ticket is simply a deterrent that increases effort and risk. All the countermeasures in place are attractively done including the kiosk exit booth, landscaping and fencing. These countermeasures also appear to have a dampening effect on other crime in the lot, as calls to police from there are fewer than at, for instance, Chula Vista Mall. Las Americas Mall security staff regard all the countermeasures in place as critical to stemming vehicle crime, although mall management appears not as well-informed. Instructions are in place to allow vehicles to exit if the parking ticket is lost. This has the potential for defeating the system once this becomes common knowledge.

[32] (Cohen and Felson 1979).