

**EVALUATING POTENTIAL SECONDARY EFFECTS OF ADULT CABARETS
AND VIDEO/BOOKSTORES IN TOLEDO, OHIO:
A STUDY OF CALLS FOR SERVICE TO THE POLICE**

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Executive Summary

In order to test the assumption that adult cabarets, adult book/video stores and other adult businesses are associated with negative secondary effects, an extensive and detailed empirical study of criminal activity in and around these businesses in Toledo, Ohio was undertaken utilizing crime event data provided by the Police Department. We ask: Does the presence of an adult cabaret, adult video/bookstore or other adult business in a neighborhood increase the occurrence of crime in Toledo?

To answer this question we first considered the entire city using census block groups (roughly speaking “neighborhoods”) as the unit of study. We found that after controlling for variables used by criminologists and found to be related to criminal activity, the presence of adult cabarets, video/bookstores or other adult businesses in the neighborhood was unrelated to crime incidents when the control variables were considered, no matter what type of crime event we studied.

Second, we also examined crime events at the addresses of the adult businesses themselves. We found that the adult businesses were not the primary source of crime events or (“hotspots” of crime activity) in the neighborhood in which they were located. Often these businesses were either ranked relatively low as sources of crime activity in the neighborhood or actually showed zero crime events.

Third, we examined crime events in a before-after design. Crime incidents in the area 250, 500, and 1000 feet around three adult cabarets that had closed were compared to control areas six months before and after the closing of the cabarets. We found no evidence of crime change before or after the cabaret closings. Instead, the crime patterns around the adult businesses often mirrored the crime trends in the control areas.

We conclude that there is no support for the City of Toledo’s theory that adult businesses produce adverse secondary effects. The results of our study show that adult businesses are not associated with crime events.

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THE SUPREME COURT AND THE ASSUMPTION
OF NEGATIVE SECONDARY EFFECTS OF
ADULT BUSINESSES

Since 1976, the United States Supreme Court has decided a series of cases focusing on whether the Free Speech clause of the First Amendment allows cities and states to enact legislation controlling the location of “adult” businesses (*See e.g., Young v. American Mini Theatres, Inc.*, 427 U.S. 50 (1976); *City of Renton v Playtime Theatres Inc.*, 475 U.S. 41 (1986). “Zoning” regulations (e.g., laws or ordinances that, for example, prevent a sex-related business from operating within a certain number of feet from residences, schools and houses of worship, or a given distance from one-another) have been predicated on the notion that municipalities have a substantial interest in combating so-called “negative secondary effects” on the areas surrounding adult businesses. These secondary effects are generally said to include alleged increases in crime, decreases in property values, and other indicators of neighborhood deterioration in the areas surrounding “adult” businesses. Typically, communities have either conducted their own investigations of potential secondary effects or have relied on studies, reports or other materials utilized by other cities or localities.

The rationale for the secondary effects doctrine was most completely laid out in *Renton v. Playtime Theatres, Inc.*, in 1986. In *Renton* the Supreme Court considered the validity of a Renton, Washington, municipal ordinance that prohibited any adult theater from locating within 1,000 feet of any residential zone, family dwelling, church, park or school. The Court’s analysis of the ordinance proceeded in three steps. First, the Court

found that the Renton ordinance did not ban adult theaters altogether, but merely required that they be a certain distance from so-called sensitive locations. The ordinance, the Court said, was properly considered to be a time, place and manner regulation. The Court next considered whether the ordinance was content neutral or content based. If the regulation were content based, it would be considered presumptively invalid and subject to the “strict scrutiny” standard. The Court held, however, that the ordinance was not aimed at the content of the films shown at adult theaters, but rather at the secondary effects of such theaters on the surrounding community, namely at crime rates, property values, and the quality of the city’s neighborhoods. Given this finding, the Court stated that the ordinance would be upheld so long as the City of Renton showed that its ordinance was designed to serve a substantial government interest, such as a reducing crime rates or maintaining property values.

Most recently (in 2002), a plurality of the Supreme Court (Justice O’Connor joined by the Chief Justice, Justice Scalia and Justice Thomas), with Justice Kennedy’s concurrence, added an important methodological caveat concerning the evidence necessary to validate the assumption that adult businesses cause secondary effects. The Court warned in *City of Los Angeles v. Alameda Books., et al.* that:

“This is not to say that a municipality can get away with shoddy data or reasoning. The municipality’s evidence must fairly support its rationale for its ordinance. If plaintiffs fail to cast direct doubt on this rationale, either by demonstrating that the municipality’s evidence does not support its rationale or by furnishing evidence that disputes the municipality’s factual findings, the municipality meets the Renton standard. If plaintiffs succeed in casting doubt on a municipality’s rationale in either manner, the burden shifts back to the municipality to supplement the record with evidence renewing support for a theory that justifies its ordinance.”

The purpose of the present study is to conduct the type of empirical analysis in the city of Toledo that avoids both the collection of “shoddy data” and the use of (shoddy) “reasoning” as demanded in *Alameda Books*. We ask whether a relationship, in fact, exists between adult businesses and negative secondary effects. Further, this evidence is obtained in accordance with established methodological procedures so as to insure a high level of scientific reliability.

THE TOLEDO ORDINANCE AND ITS JUSTIFICATION

Recently, the City of Toledo, Ohio passed Ordinance No. 2 –03 amending the section of its Municipal Code provisions pertaining to sexually-oriented business so as to require all nude and semi-nude performances to take place on a stage at least six feet from patrons, a prohibition on tipping performers, and a prohibition of contact between performers and patrons. It appears that the city primarily relied upon of land use “studies” imported from other communities as justification for the amendments. These included among others: Phoenix, Arizona (1979), St. Paul, Minnesota (1978); Minneapolis, (1980); Garden Grove, CA (1991), Los Angeles CA, (1977), Whittier, CA (1978), Indianapolis, Indiana (1984), Cleveland, Ohio (1977), Okalahoma City, Okalahoma (1986), Amarillo, Texas (1977), Austin, Texas (1986), Houston, Texas (1983), and the State of Minnesota, Report of the Attorney General’s Working Group (1989).

The reports relied on by the City, in our opinion, do not adhere to professional standards of scientific inquiry necessary in order to insure methodological integrity and thus study reliability and validity. Further, the authors of several of the studies themselves often admit that they do not find evidence of adverse secondary effects

associated with adult businesses; yet, the City ignores these admissions. Finally, many of the so-called studies are not empirical investigations of secondary effects at all but rehashes of other cities efforts at collecting evidence or reports from city officials concerning zoning laws or other legal alternatives available to municipalities.

These conclusions are based on the peer-reviewed published paper entitled: Governmental Regulation of “Adult” Businesses Through Zoning and Anti-Nudity Ordinances; Debunking the Legal Myth of Negative Secondary Effects, *Paul, et al.*, Communication Law & Policy, Vol. 6, No. 2, Spring, 2001, pp. 355-391. In this paper we examined over 100 reports and “studies” of secondary effects undertaken by municipalities in the United States. We engaged in a detailed examination of the methodological flaws in the “Top Ten” studies cited by municipalities.

The studies relied upon by Toledo and other communities throughout the country do not adhere to professional standards of scientific inquiry, and nearly all failed to meet the basic assumptions necessary for methodological validity. Those studies that are scientifically credible demonstrate either no negative secondary effects associated with adult businesses, or a reversal of the presumed negative effects.

Specifically, in *Paul* we develop list of criteria that we believe are critical in order for evidence of adverse secondary effects to be reliable. As we note in “*Paul*”, studies of secondary effects should be examined in order to determine whether they answer or violate the following principles: (1) “Compared to what?” (2) “Is this just a one-time fluke?” (3) “Is crime measured according to a reliable source?” and “did the government go looking for more crime to justify its legislation?” and (4) “Did the investigators talk

only to people who would give them answers they wanted to hear?” These criteria are neither difficult nor cumbersome to apply, nor are they novel in nature.

One source of reliable information that could have provided the City of Toledo with a reasonable basis for concluding that sexually oriented business/establishments are related to adverse secondary effects would have been obtained by systematically collecting police call-for-service information and adhering to the minimal methodological standards outlined above for a study of such data as described in *Paul*. This information was not gathered and properly analyzed, however.

Instead, the City of Toledo also relied on a study conducted by Duncan Associates and Cooper of sex businesses in the City of Toledo entitled “Survey, Findings and Recommendations of Sexually Oriented Businesses -- Toledo, the “Toledo Sex Business Report.” Dated August 26, 2002

Reliance on the Duncan (Kelly) and Cooper analysis of police reports generated only for the adult business addresses without obtaining comparison addresses in other areas or of other businesses violated the criteria outlined in *Paul*. The crime reports were not compared to crime incidents in demographically similar control areas or for other businesses. It is impossible therefore to determine if crime levels in the areas immediately surrounding adult businesses are higher, lower or the same as crime levels as areas around other comparable businesses in the community. Second, there was no attempt to examine the crime incidents for a sufficient period of time before or after openings or closings of adult businesses in Toledo in order to eliminate one-time flukes in crime incident trends. Further, no reliable means of obtaining the opinions of real

estate agents was undertaken. Consequently, the City of Toledo had no reasonable basis for enacting the adult ordinance based on the information before it.

THE PRESENT STUDY

The only reliable information that could have provided the City of Toledo with a reasonable basis for concluding that adult businesses are related to adverse secondary effects of crime would have been obtained by systematically collecting police call-for-service (CFS) information and adhering to the minimal methodological standards outlined above in *Paul* for a study of such data. The research reported here is designed to rectify these problems and address the questions of whether and to what extent, if any, adult cabarets and bookstores contribute to increased crime in the environment close to the facilities.

In the present study we ask three related questions concerning secondary crime effects in Toledo. The first question is: Once variables identified by criminologists to be related to crime events have been statistically controlled, does the presence of an adult cabaret, bookstore or other adult business in a census block group or “neighborhood” increase the occurrence of crime? We then ask: Within the block group or neighborhood surrounding the adult business, is crime clustered at the adult business? Finally, we examined crime events in a localized area surrounding three adult businesses in a before-after design. In this portion of the study crime events in the area surrounding three adult cabarets that had either closed or altered their operations so as not to offer adult entertainment were compared to control areas before and after the closing/alteration of the cabarets. We ask: is there are significant change in crime events before and after the

closing or alteration of the adult business relative to control areas measured during the same period?

Focus On Sex Crimes

The crime events we examine in this study include crimes against person, crimes against property, drug related crimes, minor offenses and sex crimes. The secondary effects doctrine is unclear about exactly why crimes such as commercial burglary, vehicle theft, larceny or other forms of serious property crime are important indicators of adverse secondary effects from adult businesses. While, it is possible to theorize that robbery may be a likely secondary effect of an adult business in a neighborhood because of the availability of customers who may be carrying cash, there is no logical connection between other serious property crimes and the presence of adult businesses in a neighborhood.

It is especially important, however, to investigate the impact of adult businesses in a community on the occurrence of sex crimes. In fact, concern about the possibility of sex crime adverse secondary effects is replete within the cannon of work on adverse secondary effects. Among the most frequently cited studies it is sex crimes that are hypothesized to be affected by adult businesses. Authors of these studies in other communities have specifically searched for or hypothesized effects on variables such as sexual assault, rape and prostitution. (See Indianapolis, 1984; Phoenix, Arizona; Austin Texas also cited by the City of Toledo).

For example, the authors of the often-cited Phoenix Study (1979) make the following statement (pg 3):

“In this study we will show that there is a relationship between arrests for sexual crimes and locations of adults businesses. This relation will correlate with

concerns that have been expressed by residents of nearby residential neighborhoods of the nature of crimes associated with adult businesses. Sex crimes appear to generate substantial fears for the safety of children, women and neighborhoods in general. The association with adult businesses generates negative images (as well as real or potential hazards) and results in lowering of the desirability and livability of an impacted neighborhood.”

To take another example: The authors of the Austin study assert (pg 15):

“This evaluation focuses on three questions. First is the incidence of crime, particularly sexually related crime, higher in areas surrounding adult business sites than in similar areas without adult business sites? Second, is the incidence of crime, particularly sexually related crime, higher in areas having more than one adult business than in areas having a single adult business?”

In summary, while perhaps not the only crime type that needs to be examined it is essential that crimes such as rape, sexual assault and prostitution not be ignored in a secondary effects analysis. Failure to find a greater occurrence of sex crimes may be interpreted as serious challenge to the assumption that adult businesses engender adverse secondary effects as concern about these effects forms the heart of the presumed effects caused by adult businesses. In contrast, there is no special concern with burglary or vehicle theft in the secondary effects literature and these crimes are arguably theoretically irrelevant to any secondary effects study.

CASTING DOUBT ON THE CITY’S RATIONALE THROUGH HYPOTHESIS TESTING AND CALCULATING AN ERROR RATE

The City of Toledo has advanced a rationale for Ordinance No.- 03. This rationale is the theory that adult businesses are associated with adverse secondary effects such as crime. If this theory is true then we should be able to find evidence that fairly supports this rationale. The question is: How do we know when the evidence we have accumulated is a reliable indication of whether or not secondary effects are present?

As noted by criminal justice researchers (c.f. Dr. Terry A. Danner Chair, Department of Criminology Saint Leo University, Criminogenic Impact Analysis: Peek-A-Boo Lounge of Bradenton, 5412 14th Street West, Bradenton, FL and Temptations II 3824 U.S. 41 North Palmetto):

“...It is a standard and accepted practice among the community of behavioral and social science researchers for all attempts to establish the validity of an assumed causal connection between two variables of interest (in this case the existence of an adult cabaret and local crime volumes) to begin with a *null hypothesis* (Maxfield and Babbie, 1995). Because many social variables appear to be connected but in fact are not, the methodology of proving causal connections between socially relevant phenomena (for example, yearly changes in the national unemployment rate and yearly changes in the national burglary rate) has been developed into a set of conservative techniques that begin by assuming no causal connection until such a linkage can be adequately proven. This approach is somewhat analogous to the “presumption of innocence” doctrine in criminal prosecution. That is, to conduct research objectively, the researcher must begin the analysis of data by assuming that there is no actual linkage between the phenomena under consideration until clear and convincing evidence is found to allow for the rejection of the null hypothesis” (pp.3-4)

The null hypotheses with which our research in Toledo begins is that there is no causal connection between adult cabaret, video/book stores and other adult businesses and crime incident volumes in the neighborhood in which they are located or in the areas immediately surrounding them.

The only method available to test this hypothesis and reasonably determine whether the city’s rationale is fairly supported its rationale is through the collection of empirical evidence of crime events and a calculation of an error rate with which to evaluate the relationship between crime events and adult businesses. The calculation of an error rate allows us to distinguish spurious findings from true findings. Employing such a procedure holds the evaluation of the city’s rationale to some standard beyond mere guesswork.

DATA AND METHODS

Overview

The methodological approach taken here involves three procedures. First, the calls for service to the City of Toledo Police Department across all of the census block groups in Toledo as defined by the 2000 United States Census Bureau are examined. Second, we hone in on the adult businesses within the census block group. Finally, we examine the areas surrounding three businesses that were closed or shifted their operations so as to not include adult entertainment.

The first strategy is to measure the presence or absence of other community features identified at the census block group level, city-wide, that may be related to criminal activity and then, once these factors are statistically controlled, examine the impact of the presence of an adult business on crime activity. These variables will be entered into a statistical analysis and will be permitted to explain as much variability in crime activity as possible. A term will then be entered for the presence or absence of an adult cabaret and an adult video/bookstore in the neighborhood.

Secondly, we follow up the citywide “neighborhood” analyses with a more focused “hotspot” analysis within the block group. This a more focused analysis by specific address allows us to determine if the adult businesses have required special attention from the police or if other addresses in the immediate vicinity are more often the source of police attention.

Thirdly, we engage in a before-after analysis wherein we examined crime incidents before and after several adult business closings. We compare the change or

lack thereof before and after the closings with control areas selected from the surrounding neighborhoods.

Using Census Block Groups for Analysis

The U.S. Census Bureau keeps track of geographic boundaries for tabulation purposes. In addition to political boundaries, such as states, counties and cities, the Census Bureau also creates census geography so that census data can be tabulated to smaller units. In this study we utilize the Census Bureau's geographic boundaries.

Tracts are a relatively permanent statistical subdivision of a county delineated by a local committee of census data users for the purpose of presenting census data. Census tract boundaries normally follow visible features, but may follow governmental unit boundaries and other non-visible features, and they always nest within counties. Census tracts are designed to be relatively homogenous units with respect to population characteristics, economic status, and living conditions at the time the users established them. They usually contain 1,500 to 8,000 people. There are approximately 66,000 tracts nationwide.

Our units of analysis are Census Block Groups located within these census tracts. Block Groups are a combination of census blocks that are adjacent to one another and are a subdivision of census tracts and thus considerably smaller than tracts. Block groups generally contain between 600 and 3000 people and are made up of on average 40 census blocks. There are about 211,000 block groups nationwide. There are 347 Block Groups in Toledo.

Employing census units such as Block Groups as the unit of analysis in a study is a well established methodological practice in the secondary effects research literature.

We employ this unit because we feel that it is an accurate gauge of the general neighborhood.

In fact, similar (but larger) census units have been employed by other secondary effects studies that are, unlike most, methodologically sound. These studies, the St. Paul, 1978 study and the Minneapolis, 1980 study are cited by the City of Toledo as a rationale for its ordinance.

The 1978 St. Paul study represents one of the most methodologically sound of all of the empirical research relied upon by municipalities across the country. (Ironically, the St. Paul study does not claim to have found any support for the existence of a relationship between sexually oriented adult entertainment businesses and negative secondary effects.) In this study the researchers examined all 76-census tracts within the St. Paul region. The authors compared all tracts containing adult entertainment establishments with all of those that did not.

In their report on the Minneapolis, 1980 study entitled: “An Analysis of the Relationship between Adult Entertainment Establishments, Crime, and Housing Values, undertaken by the Minnesota Crime Prevention Center and the U.S. Department of Justice, National Institute of Justice, (pgs 1-2) the authors employ census tract as a unit of analysis. The authors state:

“The study looks at all adult entertainment establishments...It examines their relationship to neighborhood deterioration as measured by crime and housing values. For this part of the study, “neighborhoods” are defined as census tracts. ...The research questions involve establishing whether or not there is an association between adult entertainment and neighborhood deterioration at the census tract level...” (Emphasis added).

The census tract is in fact often a larger geographic unit of analysis than we employ in the present study of Toledo. We prefer the Block Group as a unit of analysis. The census block group is geographically smaller and is arguably more likely to reflect closer neighborhood boundaries than the census tract but it is not as narrowly defined as the smallest unit, census block.

Block Group Level U.S. Census Demographic Information

The 2000 United States Census measures general demographic characteristics of each block group. These variables include, among others, measures of population, sex and age, race, relationships in household, household type measured at the block level. These demographic characteristics are used to control for social features in the environment that may co-vary with the frequency of crime incidents.

Our analysis strategy will first entail entering these census variables into a statistical analysis to control for the effects of these characteristics on crime incidents. After we control for demographic features, we then examine the relative contribution of the presence of an alcohol selling “private club” in the neighborhood. Finally, after we have controlled for this variable, we then examine the impact of having an adult cabaret and or an adult video/bookstore in the block group area on crime incidents.

Locating the Adult Cabarets, Adult Book/video Stores and Alcohol Serving Establishments with Geographic Mapping Software

A comprehensive list of adult cabarets, adult video/bookstores and other adult businesses was obtained from the City of Toledo. The establishments that were examined in the study are presented in **Table 1 - Table 3**.

The geographic information system computer program Maptitude was then used to locate the Census Block Group within Census Tract for each. **Figure 1** illustrates the

city of Toledo as delineated by census block group. **Figures 2-4** illustrate the location of the adult business by type and by census block group.

We obtained a comprehensive list of private club alcohol serving licensees in Toledo who were issued licenses to sell alcoholic beverages by the Ohio Department of Commerce, Division of Liquor Control. These business addresses were also located within the census block groups. **Figure 5** illustrates the location of these alcoholic beverage private clubs within the city of Toledo delineated by census block group.

Measuring Crime and Disorder Incidents

For the analyses below we rely on crime incident report data collected by the City of Toledo Police Department Computer Automated Dispatch (CAD). These data were obtained from Chief Navarro. This included records of dispatches or calls for service (CFS) that were either police-initiated or calls from the public from January 1, 1998 to December 31, 2002--five years. Each record contained the date, time, location of the call and the disposition of the call.

Justification for using CFS. We employ calls for service in this study for four reasons: 1) The use of these indicators of crime is compatible with criminology research; 2) Studies of secondary effects relied on by the City of Toledo have also employed this measure. It is possible, therefore, to directly compare the findings of the present study to these studies; 3) CFS are known to be consistent with victimization data; 4) The Justice Department endorses their use as indicators of criminal activity.

Research published in the criminology literature use CFS or incident data as indicators of criminal activity. One leading example is an article entitled: "Furthering the Integration of Routine Activity and Social Disorganization Theories: Small Units of

Analysis and the Study of Street Robbery as a Diffusion Process," Criminology, Vol. 38(2), May 2000, pp. 489-523, by William R. Smith, Sharon Glave Frazee, and Elizabeth

L. Davison. The authors report the following:

“Data for this project consist of tax data, 1990 Census Bureau data, and 1993 police department crime-incident data for a midsized southeastern U.S. city. The number of street robbery incidents per face block reported to the police is the dependent variable analyzed in this study. . . .Incidents (calls for service) of street robbery were obtained from police crime incident data.”

The journal Criminology is the most well respected journal in the field. What is published there is vetted by leading national and international experts in the field of criminology.

Further, the most frequently cited secondary effects reports by other communities and cited by the City of Toledo use as evidence of secondary effects incident data based on calls for service (CFS). The Indianapolis study, for example, is the most frequently cited study in the secondary effects literature. In a section entitled “Crime Incidence” the authors report (pg 15): “The Data Processing Unit of the Indianapolis Police Department performed two computer runs of their ‘Incidence Files’ (footnote 1) in August of 1983 at the request of the City Division of Planning. The resultant printouts detailed all reported incidents to which the police had been dispatched in the Control Areas and the Study Areas during the years 1978, 1979, 1980, 1981, and 1982. Data were assembled from these printouts on a year-by-year, area-by-area basis. They were grouped by Major Crimes (footnote 2) and Sex-Related Crimes. (Footnote 3).” Footnote 1 reads: “The Incidence File is computerized listing of all reports made by police after initial investigation of an incident to which they were dispatched. It, therefore, provides a more reliable indication of crime incidence than the computerized ‘Police Run’ file which logs police dispatches based on preliminary information on the incidents. Footnote 2 reads: Criminal Homicide, Rape, Robbery, Aggravated Assault, Residence Burglary, Non-residence Burglary, Larceny and Vehicle Theft. Footnote 3 reads: Rape, Indecent Exposure, Obscene Conduct, Child Molestation, Adult Molestation and Commercial Sex.

The Whittier study, relied on by the City uses CFS (pg 6-7):

“The police department has compiled from the daily logs for the two, four year periods, 1970-1973 and 1974-1977, the number of incidents of 38 types of criminal activity.”

Likewise, the Austin Study, cited by the City of Toledo uses CFS data as indicators of adverse secondary effects (pg 16):

“The study collected data for 45 serious criminal offenses, termed part 1 crimes by the Uniform Crime Report, and 21 sexually related criminal offenses. ...The data collected represents calls to the Austin Police Department from January 1, 1984 through December 31, 1985. Crime rates are expressed as the number of reported incidents per 1000 area residents.”

Further, the Fulton Police County, a study vetted by the 11th Circuit Court U.S. of Appeals, contains the following description of the data utilized in the study:

“The statistical information included in this study was obtained through the Fulton County Police Departments [*sic*] computerized incident and calls for service reporting program. Each call for police assistance, if taken over 911 enhance, is captured by a communication assisted dispatch (CAD) system. This information is available on every address in Unincorporated Fulton County where the police department is dispatched. Each report that is generated from a police call for service is identified with a departmental case number that is unique to that reported incident. (It should be noted that a police report is not generated for every call for service, and that officer initiated calls are not captured on the CAD system).”

Finally, the Newport News, Virginia study also employs this common measure of crime incidents in its secondary effects investigation (pg 8):

“Of the more than 100 dispatch codes for different types of police calls for service, the Police department identified 32 dispatch codes for incidents that would impact an adjoining business or residential area.” Emphasis added).

Using official records such as CFS is also consistent with victimization data.

Smith et al write: “Using police data to measure crime has well-known limitations. However, previous research has shown that using official records usually produces results consistent with victimization data (Bastian, 1993; Blumstein et al., 1991; Byrne and Sampson, 1986; McDowall and Loftin, 1992). For full citations to these articles see:

“Furthering the Integration of Routine Activity and Social Disorganization Theories: Small Units of Analysis and the Study of Street Robbery as a Diffusion Process,” Criminology, Vol. 38(2), May 2000, pp. 489-523, by William R. Smith, Sharon Glave Frazee, and Elizabeth L. Davison.

There is another reason that CFSs are appropriate for use in secondary effects research. The Department of Justice has formally called for more data relying on calls for service for use in The National Incident-Based Reporting System. The U.S. Department of Justice is replacing its long-established Uniform Crime Reporting (UCR) system with the more comprehensive National Incident-Based Reporting System (NIBRS). While the UCR monitors only a limited number of index crimes and, with the exception of homicides, gathers few details on each crime event, NIBRS collects a wide range of information on victims, offenders, and circumstances for a greatly increased variety of offenses. Offenses tracked in NIBRS include violent crimes (e.g., homicide, assault, rape, robbery), property crimes (e.g., theft, arson, vandalism, fraud, embezzlement), and crimes against society (e.g., drug offenses, gambling, prostitution). Moreover, NIBRS collects information on multiple victims, multiple offenders, and multiple crimes that may be part of the same episode.

Under the new system, as with the old, local law enforcement personnel compile information on crimes coming to their attention, and this information is aggregated in turn at the State and national levels. For a crime to be counted in the system, it simply needs to be reported and investigated. It is not necessary that an incident be cleared or an arrest made, although unfounded reports are deleted from the record.

In this study we employ only the calls for service for which a report or arrest is made. Further, traffic accidents, burglar alarms, the majority of which are false are also excluded. Following the City of Toledo's consultants report we also eliminated domestic violence calls for comparability. This reduced the number of calls for service we examined significantly to 109,043.

Table 4 displays a breakdown of these crime incidents by crime type. These include: crimes against persons, crimes against property, sex-related crimes, drug offenses, and other minor offenses. As can be seen from the table, crimes against property comprise the large majority of incidents (47,547), minor offenses the next most frequent category (32,959), and crimes against persons the third most frequent crime incident (26,132). Sex crimes and drug crimes comprise only a small portion of the crime incidents.

Tables 5 - 8 display a break down of incident types within the categories delineated above. As can be seen from the table multiple crime event subtypes were grouped within each super ordinate category. For example, the crimes against person variable was composed of assault, fights, robbery, aggravated assault, stabbing, and shooting. The sex-related crime incident variable included rape, sexual assault, obscene conduct and prostitution. **Table 9** displays the police call categories by code type that were eliminated from the analyses.

Locating the Crime Incident Calls for Service by Address

The crime incident data were then plotted by address in Toledo using Maptitude GIS software. Initially, an attempt was made to plot all calls based upon the street name and address using the "very strict" location criterion option (only those addresses for

which an exact street name and number match to those stored in the Maptitude software are plotted). This resulted in the plotting of roughly 90% of all calls for service. Using the “normal” criterion that allows for some misspelling of street names by the police the remaining addresses were plotted allowing for an additional 8% plotting rate. The remaining 2% of the calls was not plotted.

RESULTS

Predicting Crime Incidents in Toledo Using Neighborhood Features, Demographic Variables, Social Disorganization Variables, Alcohol Establishments and the Presence of Adult Businesses

The analysis reported below was designed to answer the question: Once we have controlled for characteristics of the immediate “neighborhood” (census block group) known to be related to crime and community disorder, what is the effect of the presence of an adult cabaret or an adult video/bookstore in a census block group on crime events? This comprehensive form of analysis is necessary to insure that once other sources of variability in crime incidents, known from past research, are statistically controlled the effect of the adult business as a source of crime and disorder in the area may manifest itself.

Several variables investigated by others have been found to be important as predictors of crime activity. These include measures of population density, racial composition, and neighborhood characteristics. These social variables have been examined on the basis of the theory that a local area’s population age structure (especially the presence of young adults), and its race/ethnic composition can affect both the size of the pool of motivated crime offenders and the presence of suitable targets for predatory crimes. Variables that have been investigated and have been found to be most important

as predictors of crime activity include measures of racial composition (number of African Americans and racial heterogeneity), family structure (as measured by number of single-parent households, female headed households), economic composition (as measured family income), and the presence of motivated offenders, primarily males between the ages of 18 and 25 and socioeconomic status as measured by level of education (see, e.g., Miethe & Meier, 1994).¹

In addition, it is necessary to control for neighborhood business and housing characteristics that may contribute to social disorganization such as the presence of vacant houses and lots and rental housing units and measures of neighborhood integration such as number of owner occupied housing units. Specific land uses are not only important in themselves but they also operate in interaction with variables that are indicative of social disorganization. The presence of alcohol serving establishments or bars identifies areas that might be particularly attractive for potential offenders (Roncek and Maier, 1991; Sherman et al., 1989; Stark, 1987).

The list of population, general demographic characteristics, social disorganization variables and alcohol serving private club establishments measured at the census block group level included in the analyses appears immediately below.

Variable Group 1

POPULATION
AREA

Variable Group 2

MEDIAN_AGE OF POPULATION
NUMBER OF NONWHITES
FEMALE HEAD OF HOUSEHOLD, NO HUSBAND
MARRIED HOUSEHOLD FAMILIES

¹ Miethe, T. D., & Meier, R. F. (1994). Crime and Its Social Context: Toward an Integrated Theory of Offenders, Victims, and Situations. Albany, NY: State University of New York Press.

MEDIAN AGE

Variable Group 3

HOUSEHOLD MEDIAN INCOME

OWNER OCCUPIED HOUSING UNIT VALUE-MEDIAN

FAMILIES BELOW POVERTY LEVEL

ADULTS (25+) WITH LESS THAN 9TH GRADE EDUCATION

PERCENT OF ADULTS (25+) WITH BACHELOR'S DEGREE OR HIGHER

Variable Group 4

HOUSE HOLD UNITS VACANT

OCCUPIED HOUSEHOLDS-OWNER OCCUPIED

Variable Group 5

NUMBER OF ALCOHOL SERVING PRIVATE CLUBS

Variable Group 6

PRESENCE OF ADULT BOOKS AND VIDEOS

PRESENCE OF ADULT CABARETS

PRESENCE OF OTHER ADULT BUSINESSES

Once the demographic and social disorganization variables are statistically controlled, the effect of the variables measuring the presence or absence of adult cabarets, adult video/bookstores and other adult businesses (variable group 6) in the block group is examined.

Natural Log Transformation of the Crime Incident Variables

Most of the 347 census block groups included in this analysis had at least one property, person, or minor crime. To account for census block groups with zero incidents in these three crime categories, we added a 1 to each census block group before the natural log transformation. Sex and drug crimes, however, have much lower frequencies as compared to other three crime categories. Further, more than one third of the census block groups in Toledo had zero sex related incidents, more than half of the census block groups have zero drug related incidents. This suggests that adding 1 count of incident to

each census block group before natural log transformation will not adequately reduce the skewness of the distribution of these two crime variables. Thus, for these two crime categories, a natural log was performed on the actual incident counts (i.e., we did not add 1 incident to each block group). This procedure effectively eliminated block groups with zero sex or drug crimes from the regressions for sex and drug crimes by treating all zeros as missing data.

A model in which the dependent variable is logged, and the independent variables are not logged, is sometimes called a log-lin model. The slope coefficient or “b” in log-lin models measures the proportional or relative change in the dependent variable given an absolute change of one unit of the independent variable. Multiplying the coefficient (the relative change in the dependent variable) by 100 yields the percentage change in the dependent variable for an absolute change of one unit of the independent variable. In general, we will simply report the statistically significant findings below without reference to the unit change interpretation.

Zero-Order Correlations

The zero-order correlations between the variables listed above and the number of calls for service to the police and the logged crime events were computed. These correlations are displayed in **Table 10**. There are two notable features of the pattern of correlations. First, the pattern of correlations closely corresponds to what would be expected given the variables investigated by others that have been found to be important as predictors of crime activities. There are large and reliable positive correlations between crime events and demographic characteristics of block groups such as number of female-headed households and number of non-whites in the population. Likewise there

are statistically significant negative associations between variables such as the number of crime incidents and the percent of persons in the population with a bachelor's degree or higher and with crime number of incidents and median age of the block group population. This stable pattern indicates that the dataset is suitable for the statistical modeling involving these variables we undertake below.

The second notable aspect of the pattern of correlations is the high degree of association between the frequency of property, person and minor crime events and low association between these crime types and sex and drug related crime. This redundancy between property, person and minor offenses suggests that the statistical models that are developed for each of these types of crime are not statistically independent of one another. Ideally, these crime variables could be combined or one could substitute for another. However, they will be analyzed separately because they have been traditionally handled that way and because multivariate analyses involving several dependent variables may obscure interpretability.

There is also a relatively low association between drug-related and sex-related crime incidents and between these crime incidents with other crimes. This implies that drug and sex-related crimes are fundamentally different forms of criminal activity than property and person crime activities as well as fundamentally different from one another. This justifies an approach whereby we examine these crime types independently from one another below.

Hierarchical Regression Analyses

A series of hierarchical multiple regression analyses were conducted at the census block group level, for those block groups with crimes against person, crimes against

property, sex crimes, drug related crimes and minor offenses. The population, demographic and social disorganization variables were entered into the regression equation in the first four blocks. The alcohol serving private club predictor variable (adult business cabarets that were private clubs were eliminated from this stage) was then entered into the equation. This was followed by a block measuring the presence or absence of an adult bookstore, adult cabarets and other adult businesses. **Table 11-15** displays the results of these regressions.

The logic of interpretation for the results of the analyses described below is as follows: The City of Toledo has advanced a rationale for its Ordinance, the theory that adult businesses are associated with adverse secondary effects such as crime. If this theory is true then we should be able to find evidence that fairly supports this rationale.

The question is: How do we know when the evidence we have accumulated is a reliable indication of whether or not secondary effects are present? The only method available to test this hypothesis and reasonably determine whether the city's rationale is fairly supported is by obtaining an estimate of the relationship between the presence of an adult business and calculating an error rate for that estimate. The calculation of an error rate allows us to distinguish spurious findings from true findings.

Technically, the error term is merely a measure of how much deviation each observation has from the central tendency of the observations. If we do not find "statistically significant effects" this means that these deviations are very large, or "bouncing" all over the place. This large deviation from the average will produce a large error. The rule of thumb is that generally speaking, if the absolute value of a "b" is twice or more the size of the associated standard error, then the b is assumed to be reliable. If

this criterion is not met then the "effect" is said to be unreliable. This reliability or unreliability is expressed as a "statistically significant" or "nonsignificant" finding. In the regression analyses results described below we note which findings are reliable and which are not reliable by noting whether or not they are statistically significant.

Property crimes as dependent variable. **Table 11** displays the results of the hierarchical regression analysis employing crimes against property incidents as an outcome variable. The model accounts for 57 percent of the variability in these crime incidents across census block groups.

The first variable cluster measuring population and geographic area accounted for three-percent of the variability. Inspection of the statistically significant ($p < .05$) Betas (the standardized "b" coefficients that allow for comparability across variables) for the block of variables added to the model showed and this variance was accounted for by the population variable. The greater the population in a block group the greater the number of crime incidents.

The addition of the demographic variables set added another 35 percent to the explanatory power of the model. Inspection of the statistically significant coefficients for the block of variables added to the model revealed that once population and geographic area are controlled, the presence of nonwhite persons, female headed households with no husband, and the number of married household families were significant predictors of crime events. The direction of the relationships indicated that the more female headed households the more crime and the more family married households the less crime. Contrary to expectation, the larger the number of non-whites in the population, the less the number of crime incidents. This coefficient changed directions from the original

zero-order correlation and may signal some degree of multicollinearity (high association with other predictor variables in the equation). Median age of the population was not significant.

The addition of the next block of variables contributed 18 percentage points to the model's explanatory power. Coefficients for household median income, owner occupied housing unit value-median, adults (25 years and older) with less than 9th grade education, and percent of adults (25 years and older) with bachelor's degree or higher were all in the expected direction. The variable measuring the number of families below poverty level in the block group was not significant.

The block measuring the housing variables was statistically significant and contributed an additional one-percent to the model. The coefficients for homeowner vacancy rate house and occupied households-owner occupied were marginally significant and in the expected direction.

The addition of the single variable measuring alcohol-serving establishments was statistically significant and added approximately 2 percent to the model's predictive power. The direction of the Beta coefficient indicated that the presence of alcohol serving establishments was associated with a greater number of crime events.

Finally, the variable group measuring the presence of an adult cabaret, the presence of an adult video/bookstore and other adult businesses added no statistically significant predictive power to the model.

Person crimes as dependent variable. **Table 12** displays the results of the hierarchical regression analysis employing crimes against person incidents as an outcome

variable. The model accounts for 73 percent of the variability in these crime incidents across census block groups.

The first variable cluster measuring population and geographic area accounted for three-percent of the variability. Inspection of the statistically significant ($p < .05$) Beta coefficients for the block of variables added to the model showed and this variance was accounted for by the population variable. The greater the population in a block group the greater the number of crime incidents.

The addition of the demographic variables set added another 50 percent to the explanatory power of the model. Inspection of the statistically significant coefficients for the block of variables added to the model revealed that once population and geographic area are controlled, the presence of nonwhite persons, female headed households with no husband, the number of married household families and median age of the population were significant predictors of crime events. The direction of the relationships indicated that the more female headed households the more crime, the more family married households the less crime and the higher the median age of the population the few the crime incidents. Contrary to expectations, the larger the number of non-whites in the population, the less crime. This coefficient changed directions from the original zero-order correlation and may signal some degree of multicollinearity (high association with other predictor variables in the equation).

The addition of the next block of variables contributed 16 percentage points to the model's explanatory power. Coefficients for household median income, owner occupied housing unit value-median, adults (25 years and older) with less than 9th grade education, and percent of adults (25 years and older) with bachelor's degree or higher were all in the

expected direction. The variable measuring the number of families below poverty level variable was nonsignificant.

The block measuring the housing variables was statistically significant and contributed an additional three-percent to the model. The coefficient for homeowner vacancy rate house was significant whereas the occupied households-owner occupied variable was only marginally significant. Both coefficients were in the expected direction.

The addition of the single variable measuring alcohol-serving establishments added approximately one-percent to the model's predictive power. The direction of the Beta coefficient indicated that the presence of alcohol serving establishments was associated with a greater number of crime events.

Finally, the variable group measuring the presence of an adult cabaret, the presence of an adult video/bookstore and other adult businesses added no statistically significant predictive power to the model.

Sex crimes as dependent variable. **Table 13** displays the results of the hierarchical regression analysis employing sex crime incidents as an outcome variable. The model accounts for 47 percent of the variability in these crime incidents across census block groups.

The first variable cluster measuring population and geographic area accounted for six-percent of the variability. Inspection of the statistically significant ($p < .05$) Beta coefficients for the block of variables added to the model showed this variance was accounted for by the population variable. The greater the population in a block group the greater the number of crime incidents.

The addition of the demographic variables set added another 30 percent to the explanatory power of the model. Inspection of the statistically significant coefficients for the block of variables added to the model revealed that once population and geographic area are controlled, the presence of nonwhite persons, female headed households with no husband, and the number of married household families were significant predictors of crime events. The direction of the relationships indicated that the more female headed households the more crime and the more family married households the less crime. Contrary to expectation, the larger the number of non-whites in the population, the less crime. This coefficient changed directions from the original zero-order correlation and may signal some degree of multicollinearity (high association with other predictor variables in the equation). The median age of population was nonsignificant.

The addition of the next block of variables contributed six percentage points to the model's explanatory power. Only the coefficient for the adults (25 years and older) with less than 9th grade education variable was significant.

The block measuring the housing variables was statistically significant and contributed an additional five-percent to the model. Only the coefficients for homeowner vacancy rate was significant and in the expected direction.

The addition of the single variable measuring alcohol-serving establishments added approximately two-percent to the model's predictive power. The direction of the Beta coefficient indicated that the presence of alcohol serving establishments was associated with a greater number of sex crime events.

Finally, the variable group measuring the presence of an adult cabaret, the presence of an adult video/bookstore and other adult businesses added no statistically significant predictive power to the model.

Drug related crimes as dependent variable. **Table 14** displays the results of the hierarchical regression analysis employing sex crime incidents as an outcome variable. The model accounts for 37 percent of the variability in these crime incidents across census block groups.

The first variable cluster measuring population and geographic area accounted for six-percent of the variability. Inspection of the statistically significant ($p < .05$) Beta coefficients for the block of variables added to the model showed this variance was accounted for by the area variable. The smaller the geographical area comprised by a block group the greater the number of drug crime incidents. This is an indication that drug crimes incidents occur primarily in smaller, inner city locations.

The addition of the demographic variables set added another 26 percent to the explanatory power of the model. Inspection of the statistically significant coefficients for the block of variables added to the model revealed that once population and geographic area are controlled, the number of married household families were significant predictors of drug crime events. The direction of the relationships indicated that the more family married households the less drug crime. All other coefficients were nonsignificant.

The addition of the next block of variables contributed two-percentage points to the model's explanatory power. None of the coefficients were individually significant.

The block measuring the housing variables was statistically significant and contributed an additional 10 percent to the model. Only the coefficients for homeowner vacancy rate was significant and in the expected direction.

The addition of the single variable measuring alcohol serving establishments added one-percent to the model's predictive power. The Beta coefficients indicated that the presence of alcohol serving establishments was only marginally associated with a greater number of drug crime events.

Finally, the variable group measuring the presence of an adult cabaret, the presence of an adult video/bookstore and other adult businesses added no statistically significant predictive power to the model.

Minor offenses as dependent variable. **Table 15** displays the results of the hierarchical regression analysis employing crimes against person incidents as an outcome variable. The model accounts for 67 percent of the variability in these crime incidents across census block groups.

The first variable cluster measuring population and geographic area accounted for three-percent of the variability. Inspection of the statistically significant ($p < .05$) Beta coefficients for the block of variables added to the model showed and this variance was accounted for by the population variable. The greater the population in a block group the greater the number of crime incidents.

The addition of the demographic variables set added another 45 percent to the explanatory power of the model. Inspection of the statistically significant coefficients for the block of variables added to the model revealed that once population and geographic area are controlled, the presence of nonwhite persons, female headed households with no

husband, the number of married household families and median age of the population were significant predictors of crime events.

The direction of the relationships indicated that the more female headed households the more crime, the more family married households the less crime and the higher the median age of the population the fewer the crime incidents. Contrary to expectations, the larger the number of non-whites in the population, the less crime. This coefficient changed directions from the original zero-order correlation and may signal some degree of multicollinearity (high association with other predictor variables in the equation).

The addition of the next block of variables contributed 18 percentage points to the model's explanatory power. Coefficients for household median income, owner occupied housing unit value-median, adults (25 years and older) with less than 9th grade education was in the expected direction. The percent of adults (25 years and older) with bachelor's degree or higher and the families below poverty level variables were nonsignificant.

The block measuring the housing variables was statistically significant and contributed an additional two-percent to the model. The coefficient for homeowner vacancy rate house was significant whereas the occupied households-owner occupied variable was only marginally significant. Both coefficients were in the expected direction.

The addition of the single variable measuring alcohol-serving establishments added approximately one-percent to the model's predictive power. The direction of the Beta coefficient indicated that the presence of alcohol serving establishments was associated with a greater number of minor offense events.

Finally, the variable group measuring the presence of an adult cabaret, the presence of an adult video/bookstore and other adult businesses added no statistically significant predictive power to the model.

Summary of hierarchical regression analyses. The general interpretation of the analyses above suggests the following: Crime events in the neighborhoods of Toledo such as crimes against property, persons and minor offenses are not associated with the presence of adult businesses. Instead, these crime events are a function of other neighborhood characteristics.

The more densely packed the population, generally the more property, person and minor crime events in Toledo. Social disorganization features are also important. The greater the number of female headed households, the greater the number of crime events. While, the greater the number of family married households in a neighborhood, the lower the crime. The age of population often makes a difference as well. Generally, the older the population, the fewer the number of crime events. Indicators of socioeconomic status are also critical for understanding neighborhood crime events in Toledo. Lower median house prices and the presence of undereducated adults are associated with more crime events. Housing characteristics were also important, most notably the presence of vacant housing units in the neighborhood. Finally, certain businesses in the neighborhood are also important predictors of crime vents. Here, the presence of alcohol-serving establishments in a neighborhood has a consistent relationship with these events the more alcohol serving establishments, the more crime events. Crime events such as crimes against property, persons and minor offenses are not, however, associated with the presence of adult businesses in the neighborhoods of Toledo.

Overall, we do less well explaining drug related and sex crime incidents. However, these crime types are also not associated with the presence of adult businesses in the neighborhoods of Toledo.

It is important to reiterate here that as with the other crime types we found no relationship between the presence of an adult business in the neighborhood and sex crimes.

A visual illustration of the lack of association between the occurrence of sex crimes and adult businesses in Toledo may be found in **Figure 6**. It is evident from the figure that sex crimes are clustered within certain areas or “pockets” of Toledo. Our regression analyses above suggest that these pockets of sex crime incidents are neighborhoods (census block groups) defined by five features: 1) The population is more densely packed, 2) there are proportionately more female headed households with no husband, 3) the number of married household families is comparatively lower, 4) there are proportionately more adults (25 years and older) with less than 9th grade education, and 5) there is a proportionately higher homeowner vacancy rate than the city average.

Again, while these demographic and social disorganization variables are useful for locating sex related crime; these pockets of sex crime incidents are not associated with the presence of adult businesses. Sex crime incidents, as noted above are most closely related to the concerns of other municipalities and are arguably the logical negative secondary effects arising from the presence of an adult business. A finding of no association between these crime events and the presence of an adult business casts serious doubt on the City of Toledo’s theory that adult businesses are associated with adverse secondary effects.

Examining Crime Incidents at the Adult Locations Themselves

While adult business effects on crime events are not noticeable at the neighborhood level, they may be present at the individual address level. In other words more focused address analyses may reveal that while neighborhoods with adult businesses had no greater crime event frequency, on average than the rest of the City of Toledo, within neighborhood the adult businesses were the primary source of crime activity.

A “hotspot” analysis was conducted to test this possibility. The hotspot methodology used in the present study follows that employed in the Garden Grove study (1991) cited by the City of Toledo as justification for the current ordinance. This study was an attempt to determine if adult businesses in the City of Garden Grove constituted a public safety hazard. The authors undertake a “hotspot” analysis (page 23) by listing the relative rank of adult business addresses versus other business addresses in the immediately surrounding area.

In **Tables 16-17** we display the results of a “hotspot” analysis for the City of Toledo. In the tables we provide the number of dispatches resulting in a report or arrest to the specific adult bookstore address, the percentage attributable to the adult business address and the rank of the bookstore address relative to other addresses in the block group (neighborhood).

The method devised in the Garden Grove Study involves comparing specific adult business addresses with the remaining neighborhood in terms of percentage of crime and the relative ranks of addresses. In the study, for example, crimes from seven adult businesses located on Garden Grove Boulevard in the city of Garden Grove CA. The

authors then calculated the percentage crime accounted for by the adult address among all crime on Garden Grove Boulevard. They reasoned if the adult business accounted for 10-25 percent of crimes in a neighborhood they constituted a significant source of crime events. They also computed the relative ranking of the adult business address among all addresses on Garden Grove Boulevard. They concluded that because three to five of the six adult businesses were found at the top ten “hotspots” this finding further bolstered their conclusion that these businesses were a significant source of crime.

Using the percentage and ranking method employed in the Garden Grove Study it can be readily seen that the adult businesses are a very small source crime of crime events in Toledo. As is shown in Table 16, the majority of the adult business addresses do not even rise to the level of one-percent of crime events in the neighborhood. Several cannot be ranked because there are zero crime events at their address. These businesses do not constitute either a serious or significant public safety hazard. Those addresses that constitute a greater hazard in each of the block groups than the adult business or businesses may be found in **Table 17**.

The two exceptions to this general finding appear to be Adult Video/Woodville News, which ranks first in its neighborhood with eight crime incidents a contribution of 4.7 percent of crime incidents to the neighborhood total, and the 135 S. Byrne Road Cluster.

A closer examination of the Byrne Road cluster. The South Byrne cluster contains five businesses. All but one is an adult business and all share a common address: Love Boutique, Déjà vu, Chang Mi Health Spa, Pleasure Palace and the Field House (a bar/night club that does not include adult entertainment).

Kelly and Cooper in their consultant's report submitted to the City of Toledo and relied up as justification for the current ordinance indicated that there were 131 "police contact" with this address from January 1999 through March 31, 2002. Our analyses reveals that there were only 50 crime incidents attributed to this common address—far less than the count relied on by the City as justification for the ordinance. The discrepancy is due to the fact that Kelly and Cooper failed to remove police contacts for which there was no report or arrest from their analyses.

Further, Kelly and Cooper did not compare the South Byrne cluster address to the rest of the neighborhood. Instead, they compared the number of incidents at the South Byrne address to the total number of incidents for all adult businesses (arriving at a figure of 40 percent). Had they made the neighborhood comparison they would have concluded that the South Byrne Cluster address accounts for less than 10 percent (8.1 percent) of the crime incidents in the neighborhood and is not the first-ranked location for crime events in that block group.

Attribution of the CFS to the adult businesses in the cluster is further hampered by the fact that it is impossible in the current data set to disentangle how many of the reports or arrests were due to the Field House, a bar that does not include adult entertainment. Making the conservative assumption that there is an equally divided distribution of crime events between the five businesses and allowing for 40 incidents to be attributed to the adult businesses, this amounts to less than 2 incidents per adult business, per year, across the five-year study period.

Further, these incidents are not sex related but appear to be the result of several businesses being cluster together, rather than the specific nature of the businesses. The

incident type and frequency for the 135 S. Byrne Rd. cluster of businesses is listed immediately below. While there are incidents involving disorder, fights and assaults over the five-year period, not a single incident is sex related.

135 S. Byrne Rd.

<i>Incident Type</i>	<i>Frequency</i>	<i>Percent</i>
DISORDER	15	30
FIGHT	12	24
ASLT	12	24
MENACE	6	12
ROBCOM	2	4
SHOT	2	4
DRUNK	1	2
Total	50	100

In summary, viewed in light of the criterion established by the authors of the Garden Grove study the South Byrne cluster is not a significant source of crime events in the neighborhood, and it is far less of a problem address than mistakenly claimed to be by Kelly and Cooper. What crime incidents do occur there have nothing to do with the secondary effects logically related to adult businesses, that is sex crimes.

Overall summary of hotspot analyses. Overall, the more focused analysis by specific address allows us to determine if the adult businesses have required special attention from the police or if other addresses in the immediate vicinity are more often the source of police attention. We may conclude that other addresses in the neighborhood are far more likely to require police attention compared to adult businesses.

Examining Crime Incidents Within 250, 500 and 1000 Feet Areas Surrounding Adult Businesses Before and After Business Closing or an Alteration

The “hotspot” methodology described above and used in the present study follows that employed in the Garden Grove study cited by the City of Toledo. However, as the authors of this study correctly point out in their study a “hotspot” analysis may be useful,

but it tells us nothing about whether the adult businesses examined in their study caused adverse secondary effects. The authors note on page 24: “Of course, one can argue that the relationship is noncausal or spurious; that these businesses simply moved into a neighborhood that happened to already have a high crime rate.” In order to examine the possibility of causality they undertake a quasi-experimental, before--after design. We employ a similar design in this portion of the present study. This method is employed to answer the question: Once an adult business is closed, or discontinues adult entertainment does the crime incident rate fall in the post closure period? If we do not detect an effect for closing/alteration in the months following closing, doubt is cast on the theory that adult businesses or the nature of their entertainment is responsible for crime events in the local vicinity.

Description of the method. The hierarchical regression approach employed above is actually a simple variation of the so-called “static group comparison.” This design is diagrammed as:

Adult Business Area	X	Crime (impact)
Control Area	.	Crime (control)

The X in this diagram represents the presence of an adult business in the impact area – but not in the control area. The hypothetical secondary effect is estimated as the difference of the two crime measures:

$$\text{Secondary Effect} = \text{Crime (Impact)} - \text{Crime (Control)}$$

If the impact and control areas are identical in every respect (demographic characteristics, housing characteristics) except the presence of an adult business, the secondary effect estimate is valid. If the two areas differ in any relevant way, on the

other hand, the secondary effect estimate is not as informative as it could be. The “static group comparison” design is strengthened considerably when a before-after contrast is added. Using the same notation this design looks as follows:

Adult Area	Crime (Impact, Before)	X	Crime (Impact, After)
Control Area	Crime (Impact Before)	.	Crime (Impact, After)

The hypothetical secondary effect is now estimated as the before-after difference in the impact area.

$$\text{Secondary Effect} = \text{Crime (Impact, After)} - \text{Crime (Impact, Before)}$$

The analogous difference for the control area serves as a benchmark for assessing the validity and significance of the secondary effect. The superiority of the before-design over the “static group comparison” design lies in the nature of their control comparisons. Over short time periods, say one or two years, impact and control areas are likely to remain stable in relevant ways. If the stability assumption holds, before-after differences are immune to the garden-variety validity threats that plague static impact-control differences. If change scores are standardized – as percent changes, before-after secondary effect estimates are relatively robust to minor differences between impact and control areas. Whether the stability assumption holds or not, however, or whether change scores can be easily standardized, before-after designs are inherently stronger than “static group comparison” designs.

Application of before-after design to three adult businesses in Toledo. On July 4, 2002 three exotic dance clubs--Club Chablis, Ecstasy Club and Hot Shotz--were closed by the Toledo Commissioner of Building Inspection for zoning ordinance violations. One business remained closed; the two remaining businesses shifted their operations so

as to comply with applicable zoning, which does not include adult entertainment. For these businesses we examined crime incidents before and after closing or alteration of operations.

The time period examined in these analyses included 180 days before closing/alteration (January 5, 2002-July 3, 2002) and 180 days after closing/alteration (July 5, 2002-December 31, 2002) for each of the three adult businesses. (We could not extend our analyses beyond this period due to the fact that our data set included crime events through December 31, 2002 only.) In these analyses we compare the crime event change, or lack thereof, before and after the closing/alterations with control areas selected from the surrounding neighborhoods. The areas for both control and adult comparisons included 250, 500 and 1000 feet. If we fail to detect an effect for closing/alteration in the months following closing, in this before-after comparison doubt is cast on the theory that adult businesses or the nature of their entertainment is responsible for crime events in the local vicinity.

Figure 7 illustrates the adult and control areas for the analysis involving Club Chablis. A 1000-foot circle is drawn around the adult location and three control locations are arrayed in adjacent areas within the census block group.

Table 18 displays the crime event counts for the adult and control areas, before and after closing/alteration for Club Chablis. The total crime event count before and after closing/alteration is identical—eight incidents. Control area 1, on the other hand, increased from 11 to 18, while control areas 3 and 4 remained relatively constant. In the 180 days before closing there were zero crime incidents within the 250-foot area surrounding the business, after closing this rose to a single incident. We may conclude

that closing/alteration of Club Chablis appeared to have little impact on secondary effects in the form of crime incidents in immediate vicinity of that adult business.

Figure 8 illustrates the adult and control areas for the analysis involving Club Ecstasy. A 1000-foot circle is drawn around the adult location and four control locations are arrayed in adjacent areas within the census block group.

Table 19 displays the crime event counts for the adult and control areas, before and after closing for Club Ecstasy. Crime events decreased from 26 to 16 events or a decrease of 38-percent. However, two of the control areas experienced the same decline. Control area 1 declined from 17 to 11 incidents or a 35-percent decline, while Control area 2 declined from 16 to 11 incidents or 32 percent decline. Control areas 3 and 4 showed an increase in crime incidents. If the area impacted by the adult business followed the general trend suggested by control areas 1 and 2 the decline in crime events was due to general forces affecting all three areas and is not endemic to the adult business closing. The stability of the control areas 3 and 4 compared to the decline in the area surrounding the adult business may suggest a crime event decline following closing/alteration. Unfortunately, no unambiguous interpretation is possible here.

Figure 9 illustrates the adult and control areas for the analysis involving Club Hot Shotz. A 1000-foot circle is drawn around the adult location and three control locations are arrayed in adjacent areas.

Table 19 displays the crime event counts for the adult and control areas, before and after closing for Hot Shotz. Crime events remained stable, did not decrease as would be expected. The control areas showed similar stability. Interpretation is clear; there is no effect for closing.

Summary of before-after analyses. We may conclude that in two of the three cases closing/alteration appeared to have little impact on secondary effects in the form of crime incidents in immediate vicinity of that adult business. The findings for the third case indicate that an effect was just as unlikely as likely. It is doubtful, therefore that closing or altering these adult businesses resulted in any meaningful decrease in crime incidents in the six months following closing/alteration. Since we did not detect an unambiguous effect for closing/alteration in the months following closing, doubt is cast on the theory that adult businesses or the nature of their entertainment is responsible for crime events in the local vicinity of these three adult businesses.

SUMMARY AND CONCLUSIONS

In order to test the assumption that adult cabarets, video/bookstores and other adult businesses are associated with negative secondary effects, an extensive and detailed empirical study of criminal activity in and around these businesses in Toledo was undertaken utilizing data provided by the Toledo Police Department. We employed a series of increasingly narrow foci -- ranging from an analysis of Toledo as a whole using census block groups (neighborhoods) as the unit of analysis to an address-specific analysis of police activity --in order to test the assumption that adult cabarets and bookstores had a deleterious effect on the areas around them in terms of increased crime. We also compared crime events in the 250, 500 and 1000 foot area surrounding three adult cabarets before and after the closing or alteration of the businesses so as to not include adult entertainment with control areas. This analysis allowed us to test the assumption that closing these businesses would be associated with decreases in crime events.

Summary of Findings

We are able to account for crime events in Toledo with a high level of accuracy using variables found by other researchers to be related to crime. The demographic and social disorganization variables, including the presence of an alcohol beverage-serving establishment in the block group accounts largely for this explanatory power. The presence of an adult cabaret, an adult bookstore or other adult business in the census block group was unrelated to crime incidents when these other variables were considered. Our models do less well, overall, in predicting sex crimes. However, adult cabarets, adult video/bookstores and other adult businesses are not associated with these crimes.

From these analyses we are able to reliably conclude that once we control for variables related to crime there is not a relationship between the presence of an adult cabaret video bookstore or other adult business in a neighborhood and crime events. The more focused address-specific analyses confirmed this conclusion. Only one to three-percent, and in many cases zero percent, of the crime activity in block group or neighborhood of the adult video/bookstore is due to police dispatches to the adult businesses themselves. This is further indication that adult cabarets, adult video/bookstores and other adult businesses are not associated with crime compared to other addresses in the neighborhood. Finally, before-after analysis suggested that it is doubtful that closing or altering these adult businesses resulted in any meaningful decrease in crime incidents in the six months following closing/alteration. This finding further cast doubt on the theory that adult businesses or the nature of their entertainment is responsible for crime events in the local vicinity of these three adult businesses.

In summary, we found no evidence of negative effects in the form of crime including sex crimes, stemming from the adult cabarets or video/bookstores in Toledo. The evidence collected here shows that adult businesses in Toledo do not produce crime effects. Failure to find a greater occurrence of secondary effects for adult businesses is as serious challenge to the assumption that these businesses engender adverse secondary effects.

Tables

Table 1: Adult cabarets in Toledo, OH.

Business Names	Address
Club Chablis	5405 N Detroit Ave
Deja Vu	135 S Byrne Rd
Platinum Showgirls	5801 Telegraph Rd #24
Scarlett's	5765 Telegraph Rd
Club Ecstasy	5038 Lewis Ave.
Hot Shotz	3835 N. Detroit Ave
Velvet Rope	4635 N. Detroit Ave

Table 2: Adult videos and bookstores in Toledo, OH.

Business Name	Address
Adult Pleasures	4404 N. Detroit Ave
Adult Videos	3107 W. Alexis Road
Adult Videos/Woodville News	1634 Woodville Road
Adult Videos/G&L Videos/Jolly Trolley	5070 Telegraph Road
Adult Videos/G&L Videos	1124 N. Reynolds Road
Adult Zone	5661 Telegraph Road
Pleasure Palace/Adult Book Store	135 S. Byrne Road
Reyn-dor News/Toledo Adult Book Store	1002 N. Reynolds Road
Westwood Art Theater & Adult Videos	1602 Sylvania Ave

Table 3: Other adult oriented businesses in Toledo, OH.

Business Name	Business Type	Address
Lorains	Massages	5661 Telegraph Rd
Chang Mi Health Spa	Massages	135 S. Byrne Road
Rainbow Spa	Massages	5205 Telegraph Road
Suns Health Spa	Massages	1722 W. Laskey Ave
Diplomat	Bath house	1313 Summit St.
Kim's Lingerie Modeling	Lingerie Modeling	5070 Telegraph ave
Snapshots	Nude photography	5701 Benore Road

Table 4: Breakdown of calls for service for which a report or an arrest is made in Toledo.

	Frequency	Percent
PERSON	26132	9.88%
PROPERTY	47574	18.00%
SEX	1699	0.64%
DRUG	679	0.26%
MINOR	32959	12.47%
EXCLUDED	155322	58.75%
	264365	100.00%

Table 5: Breakdown of person crimes for which a report or an arrest is made in Toledo.

	<i>Frequency</i>	<i>Percent</i>
<i>ASLT</i>	13501	51.70
<i>FIGHT</i>	6583	25.20
<i>ROBCIT</i>	2748	10.50
<i>ROBCOM</i>	1290	4.90
<i>AGASLT</i>	646	2.50
<i>STAB</i>	624	2.40
<i>SHOT</i>	344	1.30
<i>ROBALM</i>	284	1.10
<i>ROBFIN</i>	67	0.30
<i>ROBBERY</i>	44	0.20
<i>HOMICIDE</i>	1	0.00
Total	26132	100

Table 6: Breakdown of property crimes for which a report or an arrest is made in Toledo.

	<i>Frequency</i>	<i>Percent</i>
<i>BURGRES</i>	20986	44.10
<i>THEFT</i>	8802	18.50
<i>PROPERTY</i>	5938	12.50
<i>SHOPLIFT</i>	4290	9.00
<i>BURGCOM</i>	4038	8.50
<i>THEFTMV</i>	1418	3.00
<i>TAMPERMV</i>	1021	2.10
<i>VEHTHEFT</i>	700	1.50
<i>PURTHEFT</i>	269	0.60
<i>ARSON</i>	112	0.20
Total	47574	100

Table 7: Breakdown of sex crimes for which a report or an arrest is made in Toledo.

	<i>Frequency</i>	<i>Percent</i>
<i>RAPE</i>	571	33.60
<i>SEXASLT</i>	503	29.60
<i>OBSCENE</i>	377	22.20
<i>PROST</i>	248	14.60
Total	1699	100

Table 8: Breakdown of minor crimes for which a report or an arrest is made in Toledo.

	<i>Frequency</i>	<i>Percent</i>
MENACE	16368	49.70
DISORDER	7830	23.80
SUSPER	4025	12.20
HARASS	1809	5.50
SHOTFD	954	2.90
NOISE	653	2.00
TRESPASS	375	1.10
DRUNK	373	1.10
GUNSHOT	295	0.90
PROWLER	203	0.60
DUI	74	0.20
Total	32959	100

Table 9: Excluded incident types by codes in Toledo.

BACKUP	HEART	SCHOOLSP
BADCKS	HELPOFF	SCREAMS
BLKWATCH	HOSTAGE	SEIZ
BOMBTHRT	HRACC	SMOKE
BURGALM	HRINJ	SPECIAL
BURGALMC	INVESTI	SPEED
BURGALMR	JUMPER	SPURS
BURGCOR	JUVPROB	STALKING
CAPS	KIDNAP	STRUCT
CDCOM	KP	SUICIDE
CDMV	LABOR	SUSMV
CDPUBLIC	LOITER	TAGTOW
CDRES	MARIJVIO	TARTA
CHECKDS	MC	TEST
CITYVIO	MEDICAL	TPURS
CIVDISOR	MEETCOMP	TRANS
CKADULT	MENTAL	TRANSDS
CKJUV	MOLEST	UNC
CKPROP	MSPERSON	UUMV
CKSAFETY	NEIGHBOR	VEHCK
CLDABUSE	NOTIFY	VEHREC
CUSDISP	OD	VTO
DEADBODY	OPENDOOR	WALKRIDE
DISMV	OPPS	WALKTHRU
DOMARG	OUTDOOR	WARRANT
DOMVIO	PARADE	WASH
EMERG	PERDOWN	WATER
ESCORTM	PERSWANT	WATERRES
EXTRICAT	POP	WC
FIRE	PPNO	WEAPONS
FOLLOWUP	PURTHEFT	
FORGERY	PUZZLE	
GAMBLING	RANGE	
GB	RIVERRES	
HAZARD	ROADBLK	
HAZMAT	RRE	

Table 10: Pearson correlations among variables used in regression analysis.

		logged property	logged person	logged sex	logged drug	logged minor
logged property	Pearson Correlation	1.000	0.908	0.673	0.323	0.940
	<i>Sig. (2-tailed)</i>		0.000	0.000	0.000	0.000
logged person	Pearson Correlation	0.908	1.000	0.705	0.480	0.960
	<i>Sig. (2-tailed)</i>	0.000		0.000	0.000	0.000
logged sex	Pearson Correlation	0.673	0.705	1.000	0.413	0.708
	<i>Sig. (2-tailed)</i>	0.000	0.000		0.000	0.000
logged drug	Pearson Correlation	0.323	0.480	0.413	1.000	0.440
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000		0.000
logged minor	Pearson Correlation	0.940	0.960	0.708	0.440	1.000
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.000	
AREA	Pearson Correlation	0.107	0.004	0.160	-0.184	0.027
	<i>Sig. (2-tailed)</i>	0.048	0.944	0.008	0.015	0.622
Population	Pearson Correlation	0.225	0.170	0.255	-0.092	0.220
	<i>Sig. (2-tailed)</i>	0.000	0.002	0.000	0.227	0.000
Non-white	Pearson Correlation	0.376	0.449	0.322	0.406	0.413
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.000	0.000
Female head of household, no Husband	Pearson Correlation	0.507	0.581	0.484	0.280	0.575
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.000	0.000
Married household families	Pearson Correlation	-0.154	-0.275	-0.075	-0.346	-0.199
	<i>Sig. (2-tailed)</i>	0.004	0.000	0.217	0.000	0.000
Median Age	Pearson Correlation	-0.220	-0.350	-0.256	-0.219	-0.315
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.004	0.000
Household median income	Pearson Correlation	-0.504	-0.621	-0.394	-0.460	-0.570
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.000	0.000
Median housing unit value (owner occupied)	Pearson Correlation	-0.490	-0.584	-0.319	-0.292	-0.544
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.000	0.000
Below poverty families	Pearson Correlation	0.452	0.557	0.475	0.311	0.536
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.000	0.000
Adults (25+) with lower than 9th grade level	Pearson Correlation	0.449	0.485	0.425	0.183	0.488
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.016	0.000
Percent of adult (25+) with bachelor's degree or higher	Pearson Correlation	-0.479	-0.618	-0.313	-0.201	-0.582
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.008	0.000
Vacant housing units	Pearson Correlation	0.501	0.591	0.559	0.482	0.570
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.000	0.000
Owner occupied housing units	Pearson Correlation	-0.157	-0.277	-0.122	-0.328	-0.200
	<i>Sig. (2-tailed)</i>	0.003	0.000	0.043	0.000	0.000
Alcohol serving private and night clubs	Pearson Correlation	0.335	0.305	0.293	0.099	0.309
	<i>Sig. (2-tailed)</i>	0.000	0.000	0.000	0.196	0.000
Adult books and videos	Pearson Correlation	0.064	0.065	0.034	-0.035	0.064
	<i>Sig. (2-tailed)</i>	0.237	0.226	0.580	0.652	0.234
Adult Cabarets	Pearson Correlation	0.108	0.073	0.043	-0.094	0.089
	<i>Sig. (2-tailed)</i>	0.045	0.175	0.481	0.218	0.101
Other adult oriented businesses	Pearson Correlation	0.075	0.069	0.103	-0.049	0.070
	<i>Sig. (2-tailed)</i>	0.165	0.202	0.089	0.521	0.196

Table 11: Results of hierarchical regression using natural logged property crimes as dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.180 ^a	.032	.027	1.1129	.032	5.598	2	335	.004
2	.615 ^b	.378	.367	.8974	.346	46.055	4	331	.000
3	.750 ^c	.562	.547	.7591	.184	27.315	5	326	.000
4	.758 ^d	.574	.557	.7509	.012	4.587	2	324	.011
5	.768 ^e	.590	.572	.7380	.016	12.433	1	323	.000
6	.769 ^f	.592	.570	.7395	.002	.569	3	320	.635

a. Predictors: (Constant), Population, AREA

b. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married

c. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income

d. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied

e. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs

f. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs, Adult Books and Videos, Adult Cabarets, Other Adult Oriented Businesses

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
		1	(Constant)	4.102			.147	
	AREA	.248	.244	.059	1.017	.310	-.232	.728
	Population	3.749E-04	.000	.148	2.530	.012	.000	.001
2	(Constant)	4.388	.356		12.326	.000	3.688	5.089
	AREA	.765	.202	.183	3.781	.000	.367	1.163
	Population	1.102E-03	.000	.435	4.111	.000	.001	.002
	NON White	-6.25E-04	.000	-.161	-2.199	.029	-.001	.000
	HH_Female, No Husband	8.960E-03	.002	.354	4.136	.000	.005	.013
	HH_Family Married	-7.41E-03	.001	-.639	-6.416	.000	-.010	-.005
	Median Age	-1.22E-02	.009	-.075	-1.314	.190	-.030	.006
3	(Constant)	5.512	.360		15.290	.000	4.803	6.221
	AREA	.783	.173	.188	4.530	.000	.443	1.123
	Population	6.054E-04	.000	.239	2.221	.027	.000	.001
	NON White	-3.19E-04	.000	-.082	-1.228	.220	-.001	.000
	HH_Female, No Husband	4.870E-03	.003	.192	1.673	.095	-.001	.011
	HH_Family Married	-1.01E-03	.001	-.087	-.764	.446	-.004	.002
	Median Age	-6.22E-03	.009	-.038	-.726	.468	-.023	.011
	HH_Median income	-2.46E-05	.000	-.332	-4.156	.000	.000	.000
	Sp own-occ_Value: Median	-1.30E-05	.000	-.474	-6.040	.000	.000	.000
	Below pov lev: Families	-3.78E-03	.002	-.120	-1.535	.126	-.009	.001
	25+ <9th grade	4.142E-03	.002	.096	2.060	.040	.000	.008
	25+ % bachelor's degree or highe	1.158E-02	.005	.151	2.135	.034	.001	.022
4	(Constant)	5.356	.361		14.855	.000	4.647	6.066
	AREA	.740	.173	.177	4.274	.000	.399	1.080
	Population	4.479E-04	.000	.177	1.627	.105	.000	.001
	NON White	-3.62E-04	.000	-.093	-1.374	.170	-.001	.000
	HH_Female, No Husband	6.198E-03	.003	.245	2.128	.034	.000	.012
	HH_Family Married	1.817E-03	.002	.157	.978	.329	-.002	.005
	Median Age	-2.91E-03	.009	-.018	-.333	.739	-.020	.014
	HH_Median income	-1.90E-05	.000	-.256	-3.088	.002	.000	.000
	Sp own-occ_Value: Median	-1.42E-05	.000	-.516	-6.270	.000	.000	.000
	Below pov lev: Families	-5.04E-03	.002	-.160	-2.038	.042	-.010	.000
	25+ <9th grade	3.775E-03	.002	.088	1.887	.060	.000	.008
	25+ % bachelor's degree or highe	1.021E-02	.005	.133	1.894	.059	.000	.021
	HU_Vacant	3.820E-03	.002	.094	1.871	.062	.000	.008
	OccHU_Owner Occupied	-1.96E-03	.001	-.229	-1.954	.052	-.004	.000
5	(Constant)	5.161	.359		14.387	.000	4.455	5.867
	AREA	.508	.182	.122	2.789	.006	.150	.867
	Population	4.560E-04	.000	.180	1.685	.093	.000	.001
	NON White	-3.09E-04	.000	-.079	-1.189	.235	-.001	.000
	HH_Female, No Husband	5.866E-03	.003	.231	2.048	.041	.000	.012
	HH_Family Married	1.237E-03	.002	.107	.675	.500	-.002	.005
	Median Age	-4.31E-04	.009	-.003	-.050	.960	-.017	.017
	HH_Median income	-1.64E-05	.000	-.221	-2.689	.008	.000	.000
	Sp own-occ_Value: Median	-1.39E-05	.000	-.504	-6.225	.000	.000	.000
	Below pov lev: Families	-4.09E-03	.002	-.130	-1.671	.096	-.009	.001
	25+ <9th grade	3.576E-03	.002	.083	1.818	.070	.000	.007
	25+ % bachelor's degree or highe	9.095E-03	.005	.118	1.714	.087	-.001	.020
	HU_Vacant	2.937E-03	.002	.072	1.453	.147	-.001	.007
	OccHU_Owner Occupied	-1.64E-03	.001	-.191	-1.653	.099	-.004	.000
	Alcohol Serving Clubs	.114	.032	.145	3.526	.000	.050	.177
6	(Constant)	5.165	.361		14.292	.000	4.454	5.877
	AREA	.469	.188	.112	2.497	.013	.099	.838
	Population	4.630E-04	.000	.183	1.706	.089	.000	.001
	NON White	-3.11E-04	.000	-.080	-1.193	.234	-.001	.000
	HH_Female, No Husband	5.913E-03	.003	.233	2.039	.042	.000	.012
	HH_Family Married	1.206E-03	.002	.104	.654	.513	-.002	.005
	Median Age	-8.84E-04	.009	-.005	-.102	.919	-.018	.016
	HH_Median income	-1.65E-05	.000	-.222	-2.686	.008	.000	.000
	Sp own-occ_Value: Median	-1.38E-05	.000	-.503	-6.195	.000	.000	.000
	Below pov lev: Families	-4.10E-03	.002	-.130	-1.668	.096	-.009	.001
	25+ <9th grade	3.567E-03	.002	.083	1.806	.072	.000	.007
	25+ % bachelor's degree or highe	9.472E-03	.005	.123	1.779	.076	-.001	.020
	HU_Vacant	3.060E-03	.002	.075	1.505	.133	-.001	.007
	OccHU_Owner Occupied	-1.62E-03	.001	-.189	-1.629	.104	-.004	.000
	Alcohol Serving Clubs	.109	.033	.139	3.257	.001	.043	.175
	Adult Books and Videos	-.100	.262	-.017	-.383	.702	-.615	.415
	Adult Cabarets	.429	.331	.054	1.296	.196	-.222	1.079
	Other Adult Oriented Businesses	-2.68E-02	.223	-.006	-.120	.904	-.466	.412

a. Dependent Variable: LOG_PROP

Table 12: Results of hierarchical regression using natural logged person crimes as dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.126 ^a	.016	.010	1.2804	.016	2.713	2	335	.068
2	.724 ^b	.524	.515	.8962	.508	88.208	4	331	.000
3	.829 ^c	.687	.676	.7320	.163	34.032	5	326	.000
4	.845 ^d	.714	.702	.7020	.027	15.225	2	324	.000
5	.853 ^e	.727	.715	.6866	.013	15.725	1	323	.000
6	.853 ^f	.728	.714	.6883	.001	.463	3	320	.708

a. Predictors: (Constant), Population, AREA

b. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married

c. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income

d. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied

e. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs

f. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs, Adult Books and Videos, Adult Cabarets, Other Adult Oriented Businesses

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	3.473	.169		20.607	.000	3.142	3.805	
	AREA	-.190	.281	-.040	-.678	.498	-.743	.362	
	Population	3.947E-04	.000	.137	2.315	.021	.000	.001	
2	(Constant)	4.111	.356		11.564	.000	3.412	4.811	
	AREA	.543	.202	.114	2.686	.008	.145	.940	
	Population	1.229E-03	.000	.425	4.591	.000	.001	.002	
	NON White	-.729E-04	.000	-.164	-2.571	.011	-.001	.000	
	HH_Female, No Husband	1.225E-02	.002	.424	5.660	.000	.008	.017	
	HH_Family Married	-.937E-03	.001	-.708	-8.115	.000	-.012	-.007	
	Median Age	-.238E-02	.009	-.129	-2.576	.010	-.042	-.006	
3	(Constant)	5.277	.348		15.181	.000	4.593	5.961	
	AREA	.473	.167	.099	2.838	.005	.145	.801	
	Population	8.573E-04	.000	.297	3.261	.001	.000	.001	
	NON White	-.145E-04	.000	-.033	-.579	.563	-.001	.000	
	HH_Female, No Husband	3.605E-03	.003	.125	1.284	.200	-.002	.009	
	HH_Family Married	-.287E-03	.001	-.217	-2.240	.026	-.005	.000	
	Median Age	-.213E-02	.008	-.116	-2.578	.010	-.038	-.005	
	HH_Median income	-.238E-05	.000	-.281	-4.162	.000	.000	.000	
	Sp own-occ_Value: Median	-.743E-06	.000	-.237	-3.569	.000	.000	.000	
	Below pov lev: Families	-.125E-03	.002	-.035	-.528	.598	-.006	.003	
	25+ <9th grade	4.806E-03	.002	.098	2.480	.014	.001	.009	
	25+ % bachelor's degree or higher	-.100E-02	.005	-.114	-1.915	.056	-.020	.000	
	4	(Constant)	5.001	.337		14.837	.000	4.338	5.665
		AREA	.364	.162	.076	2.250	.025	.046	.682
Population		5.696E-04	.000	.197	2.213	.028	.000	.001	
NON White		-.313E-04	.000	-.071	-1.271	.205	-.001	.000	
HH_Female, No Husband		5.680E-03	.003	.196	2.086	.038	.000	.011	
HH_Family Married		3.594E-05	.002	.003	.021	.984	-.003	.003	
Median Age		-.193E-02	.008	-.104	-2.356	.019	-.035	-.003	
HH_Median income		-.158E-05	.000	-.187	-2.749	.006	.000	.000	
Sp own-occ_Value: Median		-.813E-06	.000	-.259	-3.843	.000	.000	.000	
Below pov lev: Families		-.338E-03	.002	-.094	-1.463	.144	-.008	.001	
25+ <9th grade		3.895E-03	.002	.079	2.083	.038	.000	.008	
25+ % bachelor's degree or higher		-.120E-02	.005	-.137	-2.382	.018	-.022	-.002	
HU_Vacant		8.948E-03	.002	.193	4.688	.000	.005	.013	
OcchU_Owner Occupied		-.179E-03	.001	-.183	-1.904	.058	-.004	.000	
5	(Constant)	4.797	.334		14.374	.000	4.140	5.453	
	AREA	.122	.170	.026	.719	.473	-.212	.456	
	Population	5.780E-04	.000	.200	2.296	.022	.000	.001	
	NON White	-.257E-04	.000	-.058	-1.065	.287	-.001	.000	
	HH_Female, No Husband	5.332E-03	.003	.184	2.001	.046	.000	.011	
	HH_Family Married	-.571E-04	.002	-.043	-.335	.738	-.004	.003	
	Median Age	-.167E-02	.008	-.090	-2.078	.039	-.032	-.001	
	HH_Median income	-.131E-05	.000	-.155	-2.306	.022	.000	.000	
	Sp own-occ_Value: Median	-.779E-06	.000	-.248	-3.758	.000	.000	.000	
	Below pov lev: Families	-.239E-03	.002	-.066	-1.048	.295	-.007	.002	
	25+ <9th grade	3.687E-03	.002	.075	2.015	.045	.000	.007	
	25+ % bachelor's degree or higher	-.132E-02	.005	-.150	-2.667	.008	-.023	-.003	
	HU_Vacant	8.024E-03	.002	.173	4.266	.000	.004	.012	
	OcchU_Owner Occupied	-.145E-03	.001	-.148	-1.571	.117	-.003	.000	
Alcohol Serving Clubs	.119	.030	.133	3.966	.000	.060	.178		
6	(Constant)	4.792	.336		14.245	.000	4.130	5.454	
	AREA	7.483E-02	.175	.016	.428	.669	-.269	.419	
	Population	5.893E-04	.000	.204	2.333	.020	.000	.001	
	NON White	-.254E-04	.000	-.057	-1.046	.296	-.001	.000	
	HH_Female, No Husband	5.298E-03	.003	.183	1.963	.051	.000	.011	
	HH_Family Married	-.607E-04	.002	-.046	-.354	.724	-.004	.003	
	Median Age	-.168E-02	.008	-.091	-2.085	.038	-.033	-.001	
	HH_Median income	-.132E-05	.000	-.156	-2.316	.021	.000	.000	
	Sp own-occ_Value: Median	-.772E-06	.000	-.246	-3.711	.000	.000	.000	
	Below pov lev: Families	-.232E-03	.002	-.064	-1.013	.312	-.007	.002	
	25+ <9th grade	3.728E-03	.002	.076	2.028	.043	.000	.007	
	25+ % bachelor's degree or higher	-.129E-02	.005	-.147	-2.604	.010	-.023	-.003	
	HU_Vacant	8.076E-03	.002	.174	4.268	.000	.004	.012	
	OcchU_Owner Occupied	-.143E-03	.001	-.146	-1.544	.124	-.003	.000	
Alcohol Serving Clubs	.113	.031	.126	3.629	.000	.052	.174		
Adult Books and Videos	5.280E-02	.244	.008	.217	.829	-.427	.532		
Adult Cabarets	.286	.308	.032	.929	.354	-.320	.891		
Other Adult Oriented Businesses	1.185E-02	.208	.002	.057	.954	-.396	.420		

a. Dependent Variable: LOG_PER

Table 13: Results of hierarchical regression using natural logged sex crimes as dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.252 ^a	.063	.057	.8592	.063	9.152	2	270	.000
2	.603 ^b	.364	.350	.7134	.300	31.415	4	266	.000
3	.649 ^c	.422	.397	.6867	.058	5.202	5	261	.000
4	.690 ^d	.477	.450	.6557	.055	13.647	2	259	.000
5	.706 ^e	.498	.471	.6433	.022	11.122	1	258	.001
6	.708 ^f	.501	.468	.6450	.003	.533	3	255	.660

a. Predictors: (Constant), Population, AREA

b. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married

c. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, HH_Median income, Sp own-occ _Value: Median, Below pov lev: Families

d. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, HH_Median income, Sp own-occ _Value: Median, Below pov lev: Families, HU_Vacant, OccHU_Owner Occupied

e. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, HH_Median income, Sp own-occ _Value: Median, Below pov lev: Families, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs

f. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, HH_Median income, Sp own-occ _Value: Median, Below pov lev: Families, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs, Adult Books and Videos, Adult Cabarets, Other Adult Oriented Businesses

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	.936	.125		7.507	.000	.691	1.182	
	AREA	.240	.197	.077	1.220	.224	-.147	.627	
	Population	4.114E-04	.000	.213	3.350	.001	.000	.001	
2	(Constant)	.973	.317		3.067	.002	.348	1.597	
	AREA	.512	.166	.165	3.076	.002	.184	.839	
	Population	1.635E-03	.000	.845	5.121	.000	.001	.002	
	NON White	-6.48E-04	.000	-.224	-2.693	.008	-.001	.000	
	HH_Female, No Husband	4.369E-03	.002	.225	2.038	.043	.000	.009	
	HH_Family Married	-8.27E-03	.001	-.898	-6.185	.000	-.011	-.006	
	Median Age	-7.30E-03	.009	-.053	-.853	.394	-.024	.010	
	Median	1.171	.378		3.099	.002	.427	1.916	
3	AREA	.469	.162	.151	2.898	.004	.150	.788	
	Population	1.588E-03	.000	.821	4.076	.000	.001	.002	
	NON White	-4.61E-04	.000	-.159	-1.835	.068	-.001	.000	
	HH_Female, No Husband	1.152E-03	.003	.059	.374	.709	-.005	.007	
	HH_Family Married	-6.66E-03	.002	-.724	-3.727	.000	-.010	-.003	
	Median Age	-7.89E-03	.009	-.057	-.864	.389	-.026	.010	
	HH_Median income	-5.16E-07	.000	-.007	-.073	.942	.000	.000	
	Sp own-occ_Value: Median	-2.59E-06	.000	-.094	-1.035	.302	.000	.000	
	Below pov lev: Families	1.057E-04	.002	.004	.043	.966	-.005	.005	
	25+ <9th grade	4.653E-03	.002	.141	2.281	.023	.001	.009	
	25+ % bachelor's degree or high	-1.08E-02	.007	-.135	-1.645	.101	-.024	.002	
	4	(Constant)	.848	.366		2.315	.021	.127	1.569
		AREA	.391	.156	.126	2.502	.013	.083	.699
		Population	6.326E-04	.000	.327	1.510	.132	.000	.001
NON White		-6.41E-04	.000	-.221	-2.602	.010	-.001	.000	
HH_Female, No Husband		5.922E-03	.003	.305	1.905	.058	.000	.012	
HH_Family Married		-1.78E-03	.002	-.194	-.735	.463	-.007	.003	
Median Age		-6.62E-03	.009	-.048	-.733	.464	-.024	.011	
HH_Median income		7.718E-06	.000	.100	1.105	.270	.000	.000	
Sp own-occ_Value: Median		-2.74E-06	.000	-1.00	-1.067	.287	.000	.000	
Below pov lev: Families		-1.49E-03	.002	-.063	-.623	.534	-.006	.003	
25+ <9th grade		4.943E-03	.002	.149	2.532	.012	.001	.009	
25+ % bachelor's degree or high		-1.00E-02	.006	-.125	-1.590	.113	-.022	.002	
HU_Vacant		9.742E-03	.002	.315	4.835	.000	.006	.014	
OcCHU_Owner Occupied		-1.54E-03	.001	-.227	-1.566	.118	-.003	.000	
5	(Constant)	.681	.363		1.877	.062	-.033	1.395	
	AREA	.182	.166	.059	1.099	.273	-.144	.508	
	Population	6.257E-04	.000	.323	1.523	.129	.000	.001	
	NON White	-6.11E-04	.000	-.211	-2.527	.012	-.001	.000	
	HH_Female, No Husband	5.864E-03	.003	.302	1.922	.056	.000	.012	
	HH_Family Married	-2.31E-03	.002	-.251	-.969	.334	-.007	.002	
	Median Age	-4.79E-03	.009	-.035	-.540	.590	-.022	.013	
	HH_Median income	1.025E-05	.000	.133	1.487	.138	.000	.000	
	Sp own-occ_Value: Median	-2.60E-06	.000	-.094	-1.032	.303	.000	.000	
	Below pov lev: Families	-7.26E-04	.002	-.031	-.309	.757	-.005	.004	
	25+ <9th grade	4.855E-03	.002	.147	2.535	.012	.001	.009	
	25+ % bachelor's degree or high	-1.06E-02	.006	-.132	-1.716	.087	-.023	.002	
	HU_Vacant	9.029E-03	.002	.292	4.542	.000	.005	.013	
	OcCHU_Owner Occupied	-1.23E-03	.001	-.181	-1.266	.207	-.003	.001	
Alcohol Serving Clubs	9.662E-02	.029	.170	3.335	.001	.040	.154		
6	(Constant)	.719	.365		1.969	.050	.000	1.439	
	AREA	.168	.171	.054	.979	.328	-.169	.505	
	Population	6.526E-04	.000	.337	1.579	.116	.000	.001	
	NON White	-5.81E-04	.000	-.201	-2.385	.018	-.001	.000	
	HH_Female, No Husband	5.239E-03	.003	.270	1.690	.092	-.001	.011	
	HH_Family Married	-2.26E-03	.002	-.245	-.942	.347	-.007	.002	
	Median Age	-5.63E-03	.009	-.041	-.629	.530	-.023	.012	
	HH_Median income	9.957E-06	.000	.129	1.439	.151	.000	.000	
	Sp own-occ_Value: Median	-2.62E-06	.000	-.095	-1.038	.300	.000	.000	
	Below pov lev: Families	-5.12E-04	.002	-.022	-.217	.829	-.005	.004	
	25+ <9th grade	4.999E-03	.002	.151	2.598	.010	.001	.009	
	25+ % bachelor's degree or high	-1.04E-02	.006	-.130	-1.681	.094	-.023	.002	
	HU_Vacant	9.132E-03	.002	.296	4.571	.000	.005	.013	
	OcCHU_Owner Occupied	-1.24E-03	.001	-.184	-1.277	.203	-.003	.001	
	Alcohol Serving Clubs	8.740E-02	.030	.153	2.906	.004	.028	.147	
	Adult Books and Videos	-.152	.229	-.037	-.663	.508	-.603	.299	
	Adult Cabarets	2.202E-02	.290	.004	.076	.940	-.550	.594	
	Other Adult Oriented Businesses	.237	.196	.071	1.215	.226	-.148	.622	

a. Dependent Variable: LOG_SEX

Table 14: Results of hierarchical regression using natural logged drug crimes as dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.186 ^a	.035	.023	.4131	.035	3.060	2	170	.049
2	.542 ^b	.294	.269	.3575	.260	15.261	4	166	.000
3	.556 ^c	.310	.262	.3590	.015	.717	5	161	.612
4	.643 ^d	.414	.366	.3329	.104	14.111	2	159	.000
5	.651 ^e	.424	.373	.3311	.010	2.756	1	158	.099
6	.654 ^f	.428	.365	.3331	.004	.367	3	155	.777

a. Predictors: (Constant), Population, AREA

b. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married

c. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, HH_Median income, Sp own-occ _Value: Median, Below pov lev: Families

d. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, HH_Median income, Sp own-occ _Value: Median, Below pov lev: Families, HU_Vacant, OccHU_Owner Occupied

e. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, HH_Median income, Sp own-occ _Value: Median, Below pov lev: Families, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs

f. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, HH_Median income, Sp own-occ _Value: Median, Below pov lev: Families, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs, Adult Books and Videos, Adult Cabarets, Other Adult Oriented Businesses

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	.498	.072		6.912	.000		.640	
	AREA	-.254	.118	-.174	-2.149	.033	-.488	-.021	
	Population	-2.55E-05	.000	-.030	-.367	.714	.000	.000	
2	(Constant)	.310	.225		1.379	.170	-.134	.753	
	AREA	-7.54E-02	.108	-.052	-.701	.484	-.288	.137	
	Population	5.816E-04	.000	.676	2.811	.006	.000	.001	
	NON White	2.363E-04	.000	.187	1.689	.093	.000	.001	
	HH_Female, No Husband	-8.26E-04	.001	-.093	-.648	.518	-.003	.002	
	HH_Family Married	-3.65E-03	.001	-.864	-3.974	.000	-.005	-.002	
	Median Age	6.119E-04	.006	.008	.098	.922	-.012	.013	
3	(Constant)	.441	.285		1.550	.123	-.121	1.003	
	AREA	-9.50E-02	.109	-.065	-.869	.386	-.311	.121	
	Population	5.200E-04	.000	.604	1.903	.059	.000	.001	
	NON White	3.338E-04	.000	.264	2.129	.035	.000	.001	
	HH_Female, No Husband	-2.38E-03	.002	-.267	-1.241	.216	-.006	.001	
	HH_Family Married	-2.78E-03	.001	-.658	-2.138	.034	-.005	.000	
	Median Age	1.460E-03	.007	.020	.199	.843	-.013	.016	
	HH_Median income	-4.63E-06	.000	-.114	-.934	.352	.000	.000	
	Sp own-occ_Value: Median	-9.05E-09	.000	-.001	-.005	.996	.000	.000	
	Below pov lev: Families	1.279E-03	.002	.116	.815	.416	-.002	.004	
	25+ <9th grade	-3.13E-04	.001	-.021	-.243	.809	-.003	.002	
	25+ % bachelor's degree or highe	-2.89E-03	.005	-.066	-.595	.553	-.012	.007	
	4	(Constant)	.265	.267		.992	.323	-.263	.792
		AREA	-.151	.102	-.103	-1.484	.140	-.352	.050
Population		-2.13E-04	.000	-.248	-.701	.484	-.001	.000	
NON White		2.796E-04	.000	.221	1.831	.069	.000	.001	
HH_Female, No Husband		1.424E-04	.002	.016	.076	.940	-.004	.004	
HH_Family Married		-4.99E-04	.002	-.118	-.281	.779	-.004	.003	
Median Age		-4.21E-03	.007	-.057	-.603	.547	-.018	.010	
HH_Median income		1.043E-06	.000	.026	.209	.835	.000	.000	
Sp own-occ_Value: Median		2.092E-06	.000	.142	1.156	.249	.000	.000	
Below pov lev: Families		1.154E-03	.001	.104	.792	.430	-.002	.004	
25+ <9th grade		6.000E-04	.001	.041	.493	.623	-.002	.003	
25+ % bachelor's degree or highe		-3.97E-03	.005	-.090	-.878	.381	-.013	.005	
HU_Vacant		6.483E-03	.001	.468	5.303	.000	.004	.009	
OcchU_Owner Occupied		5.724E-05	.001	.019	.084	.933	-.001	.001	
5	(Constant)	.253	.266		.952	.343	-.272	.778	
	AREA	-.218	.109	-.149	-2.002	.047	-.434	-.003	
	Population	-2.50E-04	.000	-.290	-.825	.411	-.001	.000	
	NON White	2.986E-04	.000	.236	1.961	.052	.000	.001	
	HH_Female, No Husband	1.437E-04	.002	.016	.077	.939	-.004	.004	
	HH_Family Married	-3.79E-04	.002	-.090	-.214	.831	-.004	.003	
	Median Age	-4.00E-03	.007	-.054	-.576	.565	-.018	.010	
	HH_Median income	1.326E-06	.000	.033	.267	.790	.000	.000	
	Sp own-occ_Value: Median	1.898E-06	.000	.129	1.052	.294	.000	.000	
	Below pov lev: Families	1.305E-03	.001	.118	.898	.371	-.002	.004	
	25+ <9th grade	5.994E-04	.001	.041	.495	.621	-.002	.003	
	25+ % bachelor's degree or highe	-3.79E-03	.004	-.086	-.843	.400	-.013	.005	
	HU_Vacant	6.269E-03	.001	.452	5.128	.000	.004	.009	
	OcchU_Owner Occupied	1.139E-04	.001	.037	.169	.866	-.001	.001	
Alcohol Serving Clubs	2.759E-02	.017	.115	1.660	.099	-.005	.060		
6	(Constant)	.231	.269		.859	.392	-.300	.762	
	AREA	-.250	.117	-.171	-2.128	.035	-.482	-.018	
	Population	-2.55E-04	.000	-.296	-.832	.407	-.001	.000	
	NON White	2.918E-04	.000	.231	1.899	.059	.000	.001	
	HH_Female, No Husband	3.438E-04	.002	.039	.180	.857	-.003	.004	
	HH_Family Married	-3.79E-04	.002	-.090	-.213	.832	-.004	.003	
	Median Age	-3.46E-03	.007	-.047	-.492	.624	-.017	.010	
	HH_Median income	1.423E-06	.000	.035	.285	.776	.000	.000	
	Sp own-occ_Value: Median	1.862E-06	.000	.127	1.026	.307	.000	.000	
	Below pov lev: Families	1.295E-03	.001	.117	.882	.379	-.002	.004	
	25+ <9th grade	5.343E-04	.001	.037	.437	.662	-.002	.003	
	25+ % bachelor's degree or highe	-3.70E-03	.005	-.084	-.815	.416	-.013	.005	
	HU_Vacant	6.217E-03	.001	.449	5.040	.000	.004	.009	
	OcchU_Owner Occupied	1.170E-04	.001	.038	.172	.864	-.001	.001	
Alcohol Serving Clubs	3.117E-02	.017	.130	1.784	.076	-.003	.066		
Adult Books and Videos	9.936E-02	.131	.062	.760	.448	-.159	.358		
Adult Cabarets	5.269E-02	.157	.025	.335	.738	-.258	.363		
Other Adult Oriented Businesses	-.108	.108	-.083	-.997	.320	-.322	.106		

a. Dependent Variable: LOG_DRUG

Table 15: Results of hierarchical regression using natural logged minor offenses as dependent variable.

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.165 ^a	.027	.021	.4852	.027	4.697	2	335	.010
2	.690 ^b	.476	.466	.3584	.448	70.750	4	331	.000
3	.810 ^c	.655	.644	.2927	.180	34.023	5	326	.000
4	.823 ^d	.677	.664	.2841	.022	11.040	2	324	.000
5	.830 ^e	.690	.676	.2791	.012	12.809	1	323	.000
6	.832 ^f	.692	.676	.2794	.002	.749	3	320	.523

a. Predictors: (Constant), Population, AREA

b. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married

c. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income

d. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied

e. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs

f. Predictors: (Constant), Population, AREA, Median Age, NON White, HH_Female, No Husband, HH_Family Married, 25+ <9th grade, 25+ % bachelor's degree or highe, Sp own-occ _Value: Median, Below pov lev: Families, HH_Median income, HU_Vacant, OccHU_Owner Occupied, Alcohol Serving Clubs, Adult Books and Videos, Adult Cabarets, Other Adult Oriented Businesses

Coefficients ^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B		
		B	Std. Error	Beta			Lower Bound	Upper Bound	
1	(Constant)	1.637	.064		25.637	.000			
	AREA	-5.24E-02	.106	-.029	-.492	.623	-.262	.157	
	Population	1.921E-04	.000	.174	2.975	.003	.000	.000	
2	(Constant)	1.900	.142		13.363	.000	1.620	2.179	
	AREA	.214	.081	.118	2.647	.009	.055	.373	
	Population	4.531E-04	.000	.411	4.231	.000	.000	.001	
	NON White	-3.39E-04	.000	-.200	-2.988	.003	-.001	.000	
	HH_Female, No Husband	4.882E-03	.001	.443	5.642	.000	.003	.007	
	HH_Family Married	-3.21E-03	.000	-.638	-6.965	.000	-.004	-.002	
	Median Age	-9.54E-03	.004	-.136	-2.583	.010	-.017	-.002	
3	(Constant)	2.412	.139		17.353	.000	2.139	2.686	
	AREA	.193	.067	.107	2.902	.004	.062	.325	
	Population	2.495E-04	.000	.226	2.373	.018	.000	.000	
	NON White	-1.36E-04	.000	-.081	-1.360	.175	.000	.000	
	HH_Female, No Husband	1.877E-03	.001	.170	1.672	.095	.000	.004	
	HH_Family Married	-3.96E-04	.001	-.079	-.773	.440	-.001	.001	
	Median Age	-8.83E-03	.003	-.126	-2.673	.008	-.015	-.002	
	HH_Median income	-1.09E-05	.000	-.336	-4.754	.000	.000	.000	
	Sp own-occ_Value: Median	-3.59E-06	.000	-.300	-4.317	.000	.000	.000	
	Below pov lev: Families	-7.99E-04	.001	-.058	-.841	.401	-.003	.001	
	25+ <9th grade	2.247E-03	.001	.120	2.899	.004	.001	.004	
	25+_% bachelor's degree or highe	-7.85E-04	.002	-.024	-.375	.708	-.005	.003	
	4	(Constant)	2.318	.136		16.990	.000	2.049	2.586
		AREA	.154	.065	.085	2.354	.019	.025	.283
Population		1.504E-04	.000	.136	1.444	.150	.000	.000	
NON White		-1.99E-04	.000	-.118	-1.999	.046	.000	.000	
HH_Female, No Husband		2.572E-03	.001	.233	2.334	.020	.000	.005	
HH_Family Married		4.751E-04	.001	.094	.676	.499	-.001	.002	
Median Age		-8.36E-03	.003	-.119	-2.527	.012	-.015	-.002	
HH_Median income		-8.26E-06	.000	-.256	-3.539	.000	.000	.000	
Sp own-occ_Value: Median		-3.76E-06	.000	-.314	-4.384	.000	.000	.000	
Below pov lev: Families		-1.52E-03	.001	-.111	-1.626	.105	-.003	.000	
25+ <9th grade		1.920E-03	.001	.103	2.536	.012	.000	.003	
25+_% bachelor's degree or highe		-1.44E-03	.002	-.043	-.705	.481	-.005	.003	
HU_Vacant		3.195E-03	.001	.181	4.136	.000	.002	.005	
OcCHU_Owner Occupied		-5.13E-04	.000	-.137	-1.349	.178	-.001	.000	
5	(Constant)	2.243	.136		16.535	.000	1.976	2.510	
	AREA	6.537E-02	.069	.036	.948	.344	-.070	.201	
	Population	1.535E-04	.000	.139	1.500	.135	.000	.000	
	NON White	-1.79E-04	.000	-.106	-1.822	.069	.000	.000	
	HH_Female, No Husband	2.444E-03	.001	.222	2.257	.025	.000	.005	
	HH_Family Married	2.524E-04	.001	.050	.364	.716	-.001	.002	
	Median Age	-7.41E-03	.003	-.105	-2.272	.024	-.014	-.001	
	HH_Median income	-7.25E-06	.000	-.225	-3.140	.002	.000	.000	
	Sp own-occ_Value: Median	-3.63E-06	.000	-.303	-4.308	.000	.000	.000	
	Below pov lev: Families	-1.16E-03	.001	-.084	-1.250	.212	-.003	.001	
	25+ <9th grade	1.843E-03	.001	.099	2.479	.014	.000	.003	
	25+_% bachelor's degree or highe	-1.86E-03	.002	-.056	-.929	.354	-.006	.002	
	HU_Vacant	2.856E-03	.001	.162	3.735	.000	.001	.004	
	OcCHU_Owner Occupied	-3.88E-04	.000	-.104	-1.036	.301	-.001	.000	
Alcohol Serving Clubs	4.362E-02	.012	.128	3.579	.000	.020	.068		
6	(Constant)	2.243	.137		16.429	.000	1.975	2.512	
	AREA	4.319E-02	.071	.024	.609	.543	-.096	.183	
	Population	1.583E-04	.000	.144	1.544	.124	.000	.000	
	NON White	-1.78E-04	.000	-.105	-1.804	.072	.000	.000	
	HH_Female, No Husband	2.432E-03	.001	.221	2.220	.027	.000	.005	
	HH_Family Married	2.396E-04	.001	.048	.344	.731	-.001	.002	
	Median Age	-7.56E-03	.003	-.108	-2.310	.022	-.014	-.001	
	HH_Median income	-7.30E-06	.000	-.226	-3.153	.002	.000	.000	
	Sp own-occ_Value: Median	-3.60E-06	.000	-.301	-4.270	.000	.000	.000	
	Below pov lev: Families	-1.13E-03	.001	-.083	-1.222	.222	-.003	.001	
	25+ <9th grade	1.857E-03	.001	.099	2.488	.013	.000	.003	
	25+_% bachelor's degree or highe	-1.70E-03	.002	-.051	-.847	.397	-.006	.002	
	HU_Vacant	2.901E-03	.001	.164	3.776	.000	.001	.004	
	OcCHU_Owner Occupied	-3.80E-04	.000	-.102	-1.010	.313	-.001	.000	
	Alcohol Serving Clubs	4.064E-02	.013	.119	3.219	.001	.016	.065	
	Adult Books and Videos	-1.03E-02	.099	-.004	-.105	.917	-.205	.184	
	Adult Cabarets	.173	.125	.050	1.381	.168	-.073	.418	
Other Adult Oriented Businesses	4.259E-03	.084	.002	.051	.960	-.161	.170		

a. Dependent Variable: LOG_MINR

Table 16: The number of dispatches resulting in a report or arrest to the specific adult business address, the percentage attributable to the adult business address and the rank of the bookstore address relative to other addresses in the block group (neighborhood).

Business Name	Rank in Block Group	Frequency	Percent of Total in Block Group
ADULT VIDEO/WOODVILLE NEWS	1	8	4.7
135 S BYRNE RD CLUSTER	2	50	8.1
PLATINUM SHOWGIRLS	3	31	3.8
REYN-DOR NEWS AND VIDEO	4	10	2
VELVET ROPE	5	4	3.5
SCARLETT'S	9	10	1.7
5070 TELEGRAPH RD	18	6	1
ADULT VIDEOS	20	4	1
ADULT VIDEOS/JOLLY TROLLEY	22	4	0.8
ADULT ZONE	25	4	0.7
CLUB ECSTASY	27	2	1.3
WESTWOOD ART THEATRE	31	2	1
SNAPSHOT	41	1	0.4
CLUB CHABLIS	42	4	0.5
HOT SHOTZ	44	1	0.4
RAINBOW SPA	121	1	0.2
ADULT PLEASURE	N/R	0	0
DIPLOMAT	N/R	0	0
SUN'S HEALTH SPA	N/R	0	0

Table 17: Results of a “hot spot” analysis within each block groups containing adult businesses.

Rank	Address	Frequency	Percent
1	3425 NEBRASKA AV	89	14.4
2	135 S BYRNE RD CLUSTER	50	8.1
3	3019 NEBRASKA AV	47	7.6
4	7 WENZ RD	21	3.4
5	3117 NEBRASKA AV	19	3.1
6	3601 HILL AV #LOT	14	2.3
7	N BYRNE RD & HILL	11	1.8
8	69 TIFFANY SQUARE	11	1.8
9	4401 HILL AV	9	1.5
10	HILL AV & WENZ	9	1.5
11	S BYRNE RD & HILL	8	1.3
12	3503 HILL AV	8	1.3
13	N BYRNE RD & HI	8	1.3
14	HILL AV & WENZ RD	7	1.1
15	3350 HILL AV	7	1.1
Total		620	

Rank	Address	Frequency	Percent
1	2757 TREMAINSVILL	21	5.3
2	2710 TREMAINSVILL	12	3
3	2663 TREMAINSVILL	11	2.8
4	2661 TREMAINSVILL	11	2.8
5	W ALEXIS RD & DOU	10	2.5
6	3071 TREMAINSVILL	9	2.3
7	2841 TREMAINSVILL	8	2
8	3045 W ALEXIS RD	8	2
9	W LASKEY RD & TRE	7	1.8
10	2669 TREMAINSVILL	7	1.8
11	DOUGLAS RD & W	7	1.8
12	2665 TREMAINSVILL	7	1.8
13	5211 DOUGLAS RD #	6	1.5
14	5321 AMSDEN AV	6	1.5
15	3073 TREMAINSVILL	6	1.5
20	ADULT VIDEOS	4	1
Total		399	

Rank	Address	Frequency	Percent
1	3632 N DETROIT AV	24	9.5
2	4500 N DETROIT AV	16	6.3
3	384 PHILLIPS AV	11	4.3
4	N DETROIT AV &	10	4
5	3959 LAGRANGE ST	8	3.2
6	3928 CANADA SOUTH	8	3.2
7	3833 N DETROIT AV	7	2.8
8	4015 SCHLEY ST	7	2.8
9	358 PHILLIPS AV #	6	2.4
10	4404 N DETROIT AV	5	2
11	N DETROIT AV & PH	5	2
12	322 MATZINGER RD	5	2
13	123 GRADOLPH ST	4	1.6
14	CANADA SOUTHERN A	4	1.6
15	3922 IMLAY ST	3	1.2
44	HOT SHOTZ	1	0.4
N/R	ADULT PLEASURE	0	0
Total		253	

Rank	Address	Frequency	Percent
1	5042 LEWIS AV	24	16.1
2	5315 LEWIS AV #LO	15	10.1
3	5342 LEWIS AV	11	7.4
4	719 CUSTER DR	4	2.7
5	938 W LASKEY RD	4	2.7
6	5064 LEWIS AV	4	2.7
7	919 WAYBRIDGE RD	3	2
8	5245 LEWIS AV	3	2
9	723 NORTHGATE PW	3	2
10	CUSTER DR & LEW	3	2
11	808 CLOVERDALE RD	3	2
12	824 WAYBRIDGE RD	2	1.3
13	CUSTER DR & LEWIS	2	1.3
14	5204 LEWIS AV .	2	1.3
15	801 NORTHGATE PW	2	1.3
27	CLUB ECSTASY	2	1.3
Total		149	

Rank	Address	Frequency	Percent
1	DORR ST & N REY	14	2.8
2	5200 HARROUN RD ,	12	2.4
3	1610 WESTLAND GAR	10	2
4	REYN-DOR NEWS AND VIDEO	10	2
5	5409 DORR ST	10	2
6	5160 DORR ST	10	2
7	HILL AV & N REYNO	9	1.8
8	519 N REYNOLDS RD	9	1.8
9	1207 N REYNOLDS R	8	1.6
10	541 N REYNOLDS RD	8	1.6
11	5539 NEBRASKA AV	8	1.6
12	DORR ST & N REYNO	8	1.6
13	DORR ST & N HOL	7	1.4
14	2 N REYNOLDS RD	6	1.2
15	1217 VANDERBILT R	6	1.2
22	ADULT VIDEOS/JOLLY TROLLEY	4	0.8
Total		498	

Rank	Address	Frequency	Percent
1	201 KNAPP ST	22	4.7
2	835 VINTON ST	12	2.5
3	222 S SUMMIT ST	10	2.1
4	18 CITY PARK AV #	10	2.1
5	525 N ERIE	10	2.1
6	175 S SUMMIT ST	10	2.1
7	1983 N SUMMIT ST	10	2.1
8	340 BROADWAY ST	9	1.9
9	415 EMERALD AV	9	1.9
10	539 BROADWAY ST	8	1.7
11	35 CITY PARK AV	7	1.5
12	614 HARRISON ST	7	1.5
13	519 OLIVER ST	7	1.5
14	1943 N SUMMIT ST	7	1.5
15	207 KNAPP ST	6	1.3
16	615 STANTON ST	6	1.3
N/R	DIPLOMAT	0	0
Total		472	

Rank	Address	Frequency	Percent
1	5860 LEWIS AV	36	4.4
2	343 NEW TOWNE SQU	33	4.1
3	PLATINUM SHOWGIRLS	31	3.8
4	W ALEXIS RD & L	27	3.3
5	W ALEXIS RD & LEW	25	3.1
6	925 W ALEXIS RD	21	2.6
7	309 W ALEXIS RD	19	2.3
8	445 E ALEXIS RD	16	2
9	5821 N DETROIT AV	16	2
10	821 W ALEXIS RD	16	2
11	20 E ALEXIS RD	15	1.8
12	W ALEXIS RD & TEL	13	1.6
13	5829 LEWIS AV	12	1.5
14	1002 W ALEXIS RD	12	1.5
15	610 W ALEXIS RD #	11	1.4
42	CLUB CHABLIS	4	0.5
Total		812	

Rank	Address	Frequency	Percent
1	4500 N DETROIT AV	16	14.2
2	4747 N DETROIT AV	11	9.7
3	39 W GRAMERCY AV	6	5.3
4	4843 N DETROIT AV	6	5.3
5	VELVET ROPE	4	3.5
6	223 CALIFORNIA BL	4	3.5
7	111 PASADENA BL	3	2.7
8	W GRAMERCY AV &	3	2.7
9	23 W CAPISTRANO A	3	2.7
10	62 PASADENA BL	3	2.7
11	4848 N DETROIT AV	3	2.7
12	19 W CAPISTRANO A	2	1.8
13	19 E POINSETTA AV	2	1.8
14	4837 N DETROIT AV	2	1.8
15	207 PASADENA BL	2	1.8
Total		113	

Rank	Address	Frequency	Percent
1	1500 E ALEXIS RD	82	32.4
2	5820 HAGMAN RD	24	9.5
3	1535 E ALEXIS RD	11	4.3
4	E ALEXIS RD & H	11	4.3
5	1212 E ALEXIS RD	7	2.8
6	5960 HAGMAN RD	7	2.8
7	1565 E ALEXIS RD	6	2.4
8	920 MATZINGER RD	5	2
9	1560 E ALEXIS RD	5	2
10	E ALEXIS RD & HAG	4	1.6
11	1500 E ALEXIS	4	1.6
12	1525 E ALEXIS RD	3	1.2
13	6226 AMERICAN RD	3	1.2
14	E ALEXIS RD & BEN	3	1.2
15	812 MATZINGER RD	3	1.2
41	SNAPSHOT	1	0.4
Total		253	

Rank	Address	Frequency	Percent
1	1619 W SYLVANIA A	13	6.8
2	JACKMAN RD & W SY	8	4.2
3	JACKMAN RD & W	7	3.6
4	4020 JACKMAN RD	6	3.1
5	4302 JACKMAN RD	5	2.6
6	1601 W SYLVANIA A	5	2.6
7	1583 W SYLVANIA A	4	2.1
8	4043 JACKMAN RD	4	2.1
9	4517 COMMONWEALTH	4	2.1
10	1644 SHADY DR	3	1.6
11	1641 W SYLVANIA A	3	1.6
12	1626 ELEANOR AV	3	1.6
13	4336 BERWICK AV #	3	1.6
14	4228 JACKMAN RD	3	1.6
15	ELEANOR AV & JACK	3	1.6
31	WESTWOOD ART THEATRE	2	1
Total		192	

Rank	Address	Frequency	Percent
1	5331 BENNETT RD	135	22.7
2	5725 SILVERSIDE D	54	9.1
3	5801 TELEGRAPH RD	31	5.2
4	5331 BENNETT RD .	25	4.2
5	5722 TELEGRAPH RD	24	4
6	309 W ALEXIS RD	19	3.2
7	W ALEXIS RD & TEL	13	2.2
8	5133 TELEGRAPH RD	11	1.8
9	SCARLETT'S	10	1.7
10	429 W ALEXIS RD	9	1.5
11	5710 TELEGRAPH RD	9	1.5
12	5742 BENNETT RD #	9	1.5
13	310 W ALEXIS RD	9	1.5
14	410 W ALEXIS RD #	8	1.3
15	434 W ALEXIS RD #	8	1.3
18	5070 TELEGRAPH RD	6	1
25	ADULT ZONE	4	0.7
121	RAINBOW SPA	1	0.2
N/R	SUN'S HEALTH SPA	0	0
Total		596	

Rank	Address	Frequency	Percent
1	ADULT VIDEO/WOODVILLE NEWS	8	4.7
2	1404 FREEDOM ST	5	3
3	1604 HIRZEL ST	5	3
4	1506 HIRZEL ST #A	5	3
5	1426 HIRZEL ST #B	5	3
6	1605 FREEDOM ST	4	2.4
7	1621 FREEDOM ST #	4	2.4
8	1417 FREEDOM ST	4	2.4
9	1508 HIRZEL ST #A	4	2.4
10	1508 FREEDOM ST	3	1.8
11	LIBERTY ST & WHIT	3	1.8
12	1505 HIRZEL ST	3	1.8
13	1540 FREEDOM ST	3	1.8
14	1535 ALBERT ST	3	1.8
15	1616 ALBERT ST	3	1.8
Total		169	

Table 18: Crime event counts in adult and control areas, before and after closing of Club Chablis.

Club Chablis								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	0	1	5	6	0	1	1	2
<i>person</i>	0	0	0	0	1	0	1	2
<i>sex</i>	0	0	0	0	0	0	0	0
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	1	1	2	0	2	2	4
total	0	2	6	8	1	3	4	8

Club Chablis Control 1								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	1	0	2	3	0	3	3	6
<i>person</i>	0	2	1	3	2	1	2	5
<i>sex</i>	0	0	1	1	1	1	0	2
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	0	4	4	0	2	3	5
total	1	2	8	11	3	7	8	18

Club Chablis Control 2								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	0	0	2	2	1	0	0	1
<i>person</i>	0	1	0	1	0	0	0	0
<i>sex</i>	0	0	0	0	1	0	0	1
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	0	0	0	1	0	0	1
total	0	1	2	3	3	0	0	3

Club Chablis Control 3								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	0	0	0	0	0	0	0	0
<i>person</i>	0	0	2	2	0	0	2	2
<i>sex</i>	0	0	0	0	0	0	0	0
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	0	0	0	0	0	2	2
total	0	0	2	2	0	0	4	4

Table 19: Crime event counts in adult and control areas, before and after closing of Club Ecstasy.

Club Ecstasy								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	3	3	10	16	3	2	6	11
<i>person</i>	2	0	1	3	0	1	0	1
<i>sex</i>	0	0	0	0	0	0	1	1
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	1	1	5	7	0	0	3	3
total	6	4	16	26	3	3	10	16

Club Ecstasy Control 1								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	1	1	9	11	0	0	4	4
<i>person</i>	0	2	0	2	0	0	3	3
<i>sex</i>	0	0	0	0	0	1	0	1
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	1	3	4	0	1	2	3
total	1	4	12	17	0	2	9	11

Club Ecstasy Control 2								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	3	1	3	7	0	0	6	6
<i>person</i>	2	1	1	4	2	0	2	4
<i>sex</i>	1	0	0	1	0	0	0	0
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	1	3	4	0	0	1	1
total	6	3	7	16	2	0	9	11

Club Ecstasy Control 3								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	2	3	8	13	5	2	9	16
<i>person</i>	1	2	3	6	1	4	4	9
<i>sex</i>	0	0	1	1	0	1	0	1
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	1	1	12	14	2	2	10	14
total	4	6	24	34	8	9	23	40

Club Ecstasy Control 4								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	3	4	6	13	5	6	5	16
<i>person</i>	0	0	3	3	0	2	2	4
<i>sex</i>	0	0	0	0	0	0	0	0
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	3	6	9	0	5	7	12
total	3	7	15	25	5	13	14	32

Table 20: Crime event counts in adult and control areas, before and after closing of Hot Shotz.

Hot Shotz								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	3	0	3	6	1	1	4	6
<i>person</i>	0	0	2	2	2	2	1	5
<i>sex</i>	0	0	0	0	0	0	0	0
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	1	0	3	4	0	0	3	3
total	4	0	8	12	3	3	8	14

Hot Shotz Control 1								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	0	3	19	22	0	3	17	20
<i>person</i>	0	0	7	7	0	0	10	10
<i>sex</i>	0	0	1	1	0	0	1	1
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	0	12	12	0	1	17	18
total	0	3	39	42	0	4	45	49

Hot Shotz Control 2								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	0	0	0	0	0	0	1	1
<i>person</i>	0	0	0	0	0	0	0	0
<i>sex</i>	0	0	0	0	0	0	0	0
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	0	0	0	0	1	1	2
total	0	0	0	0	0	1	2	3

Hot Shotz Control 3								
	180 days pre-closure (1/5/02--7/3/02)				180 days post-closure (7/5/02--12/31/02)			
	250ft	500ft	1000ft	total	250ft	500ft	1000ft	total
<i>property</i>	1	5	12	18	2	7	17	26
<i>person</i>	11	3	6	20	3	2	5	10
<i>sex</i>	0	0	0	0	0	0	0	0
<i>drug</i>	0	0	0	0	0	0	0	0
<i>minor</i>	0	2	8	10	2	4	8	14
total	12	10	26	48	7	13	30	50

Figures

Figure 1: City of Toledo delineated by census block group.

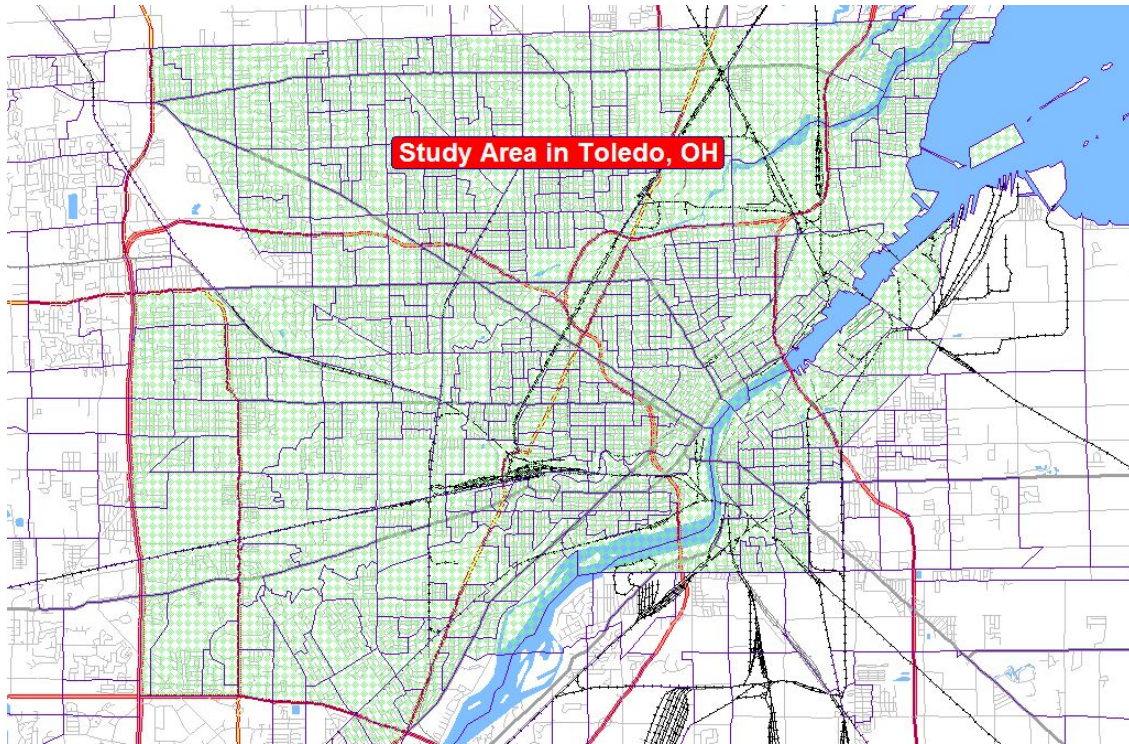


Figure 2: location of the adult cabarets in Toledo delineated by census block group.

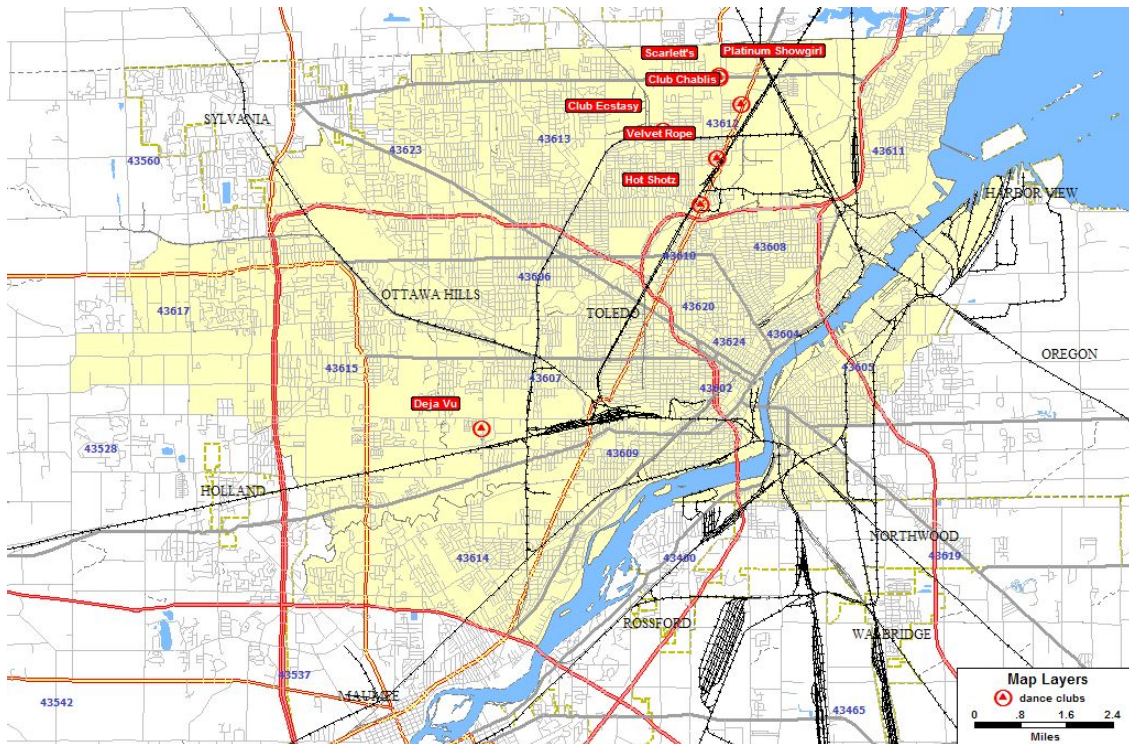


Figure 3: location of the adult video/bookstores in Toledo delineated by census block group.

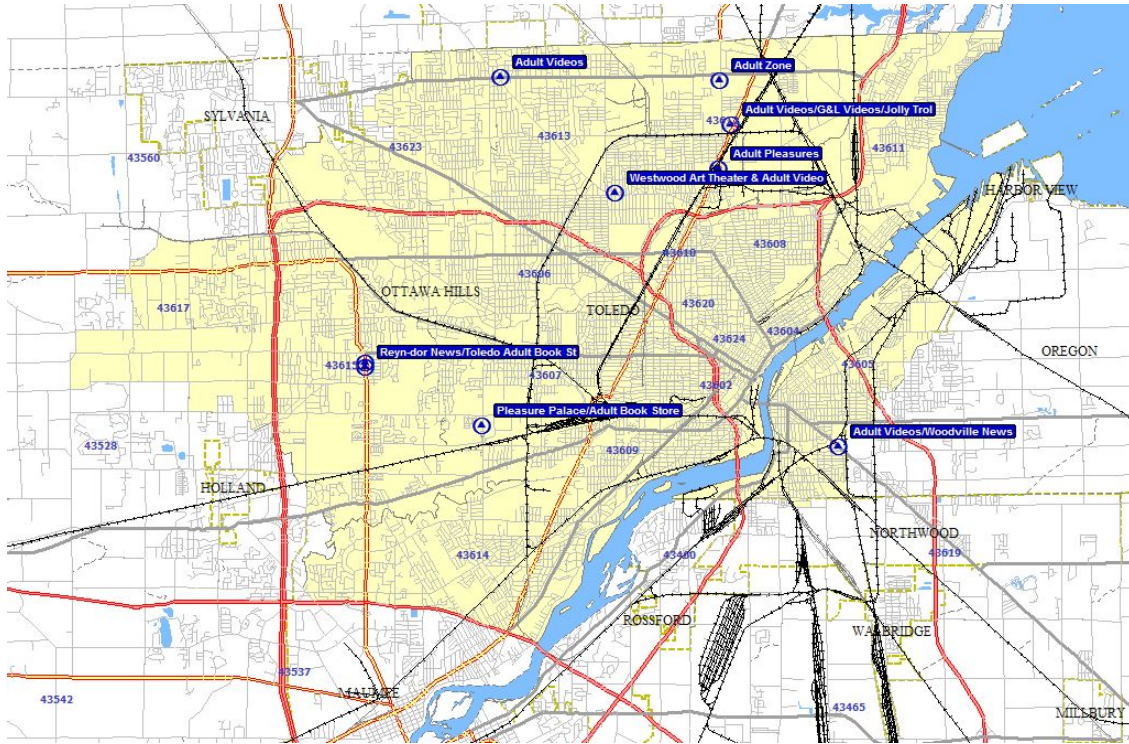


Figure 4: location of other adult businesses in Toledo delineated by census block group.

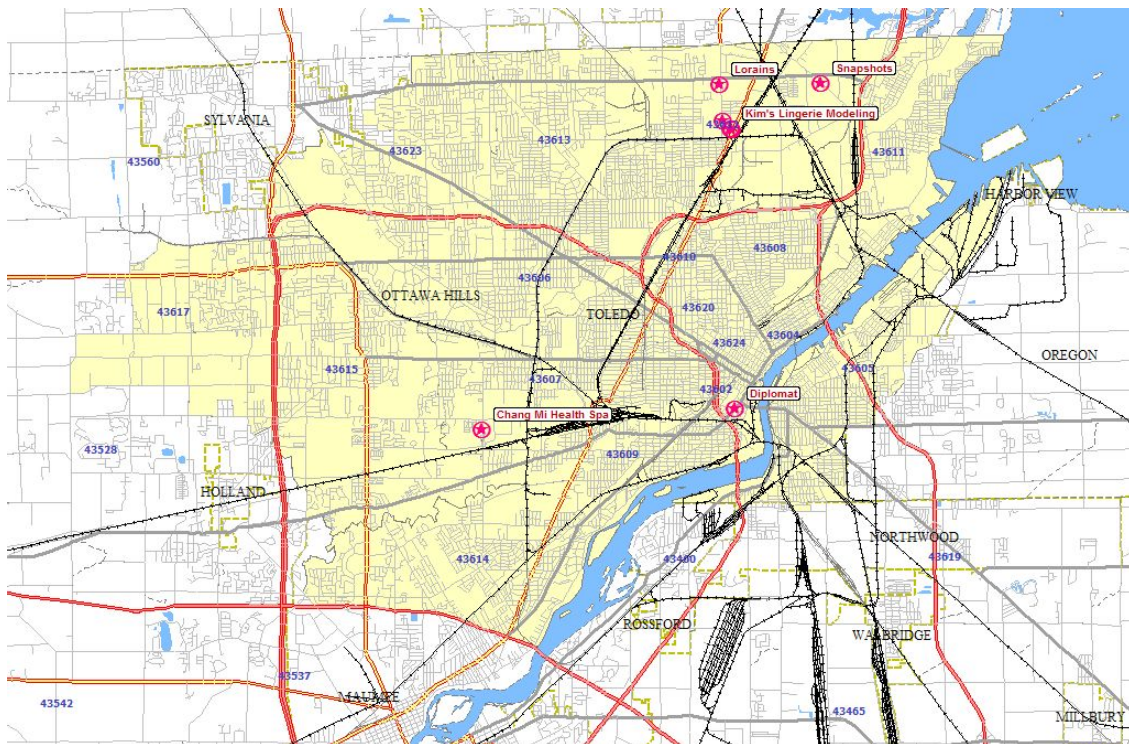


Figure 5: locations of alcoholic beverage serving private clubs within the city of Toledo delineated by census block group.

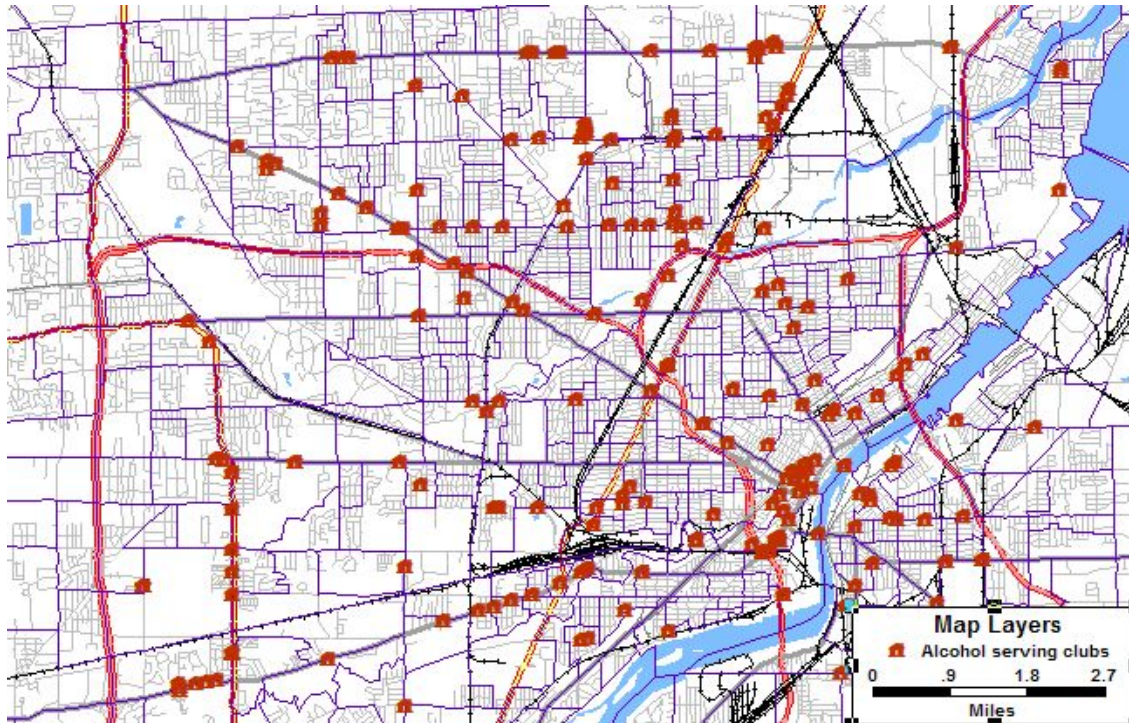


Figure 6: locations of adult businesses and sex crime occurrence within the city of Toledo.

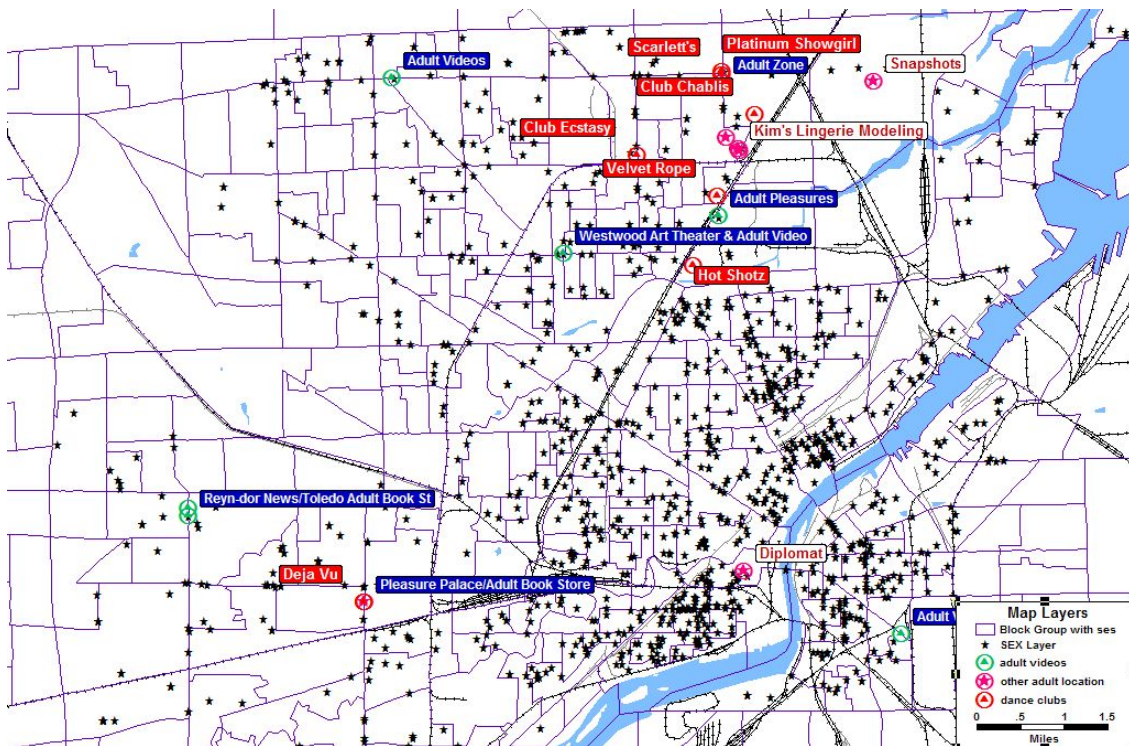


Figure 7. Club Chablis and control areas.

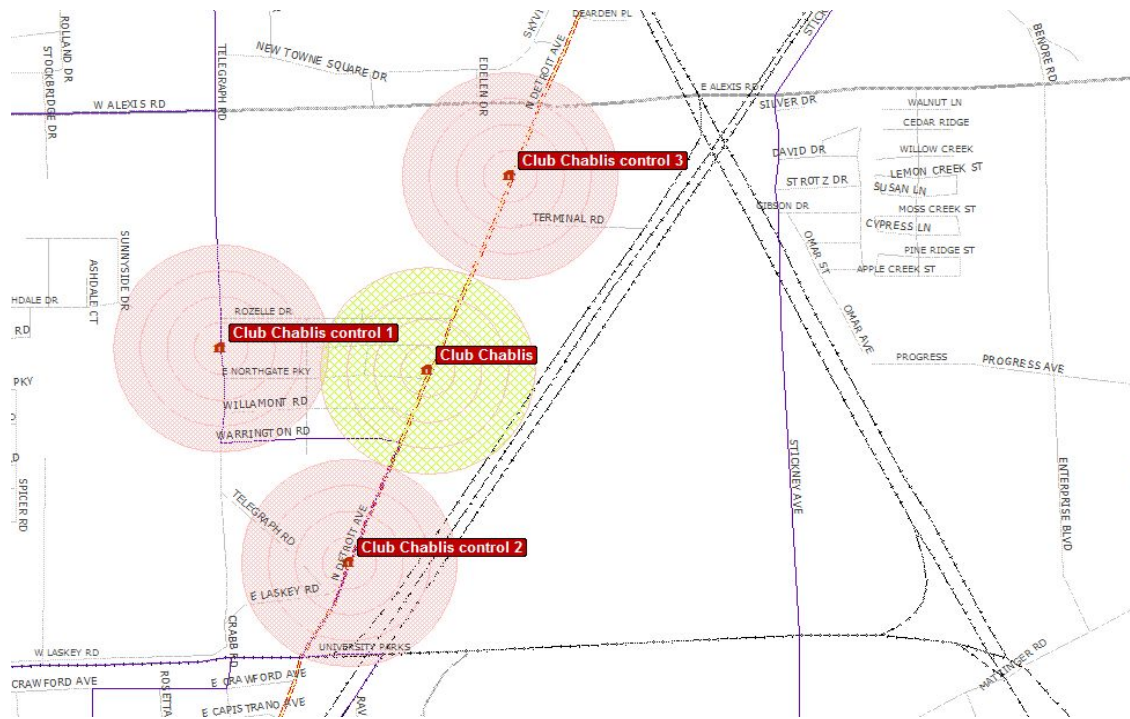


Figure 8: Club Ecstasy and control areas.

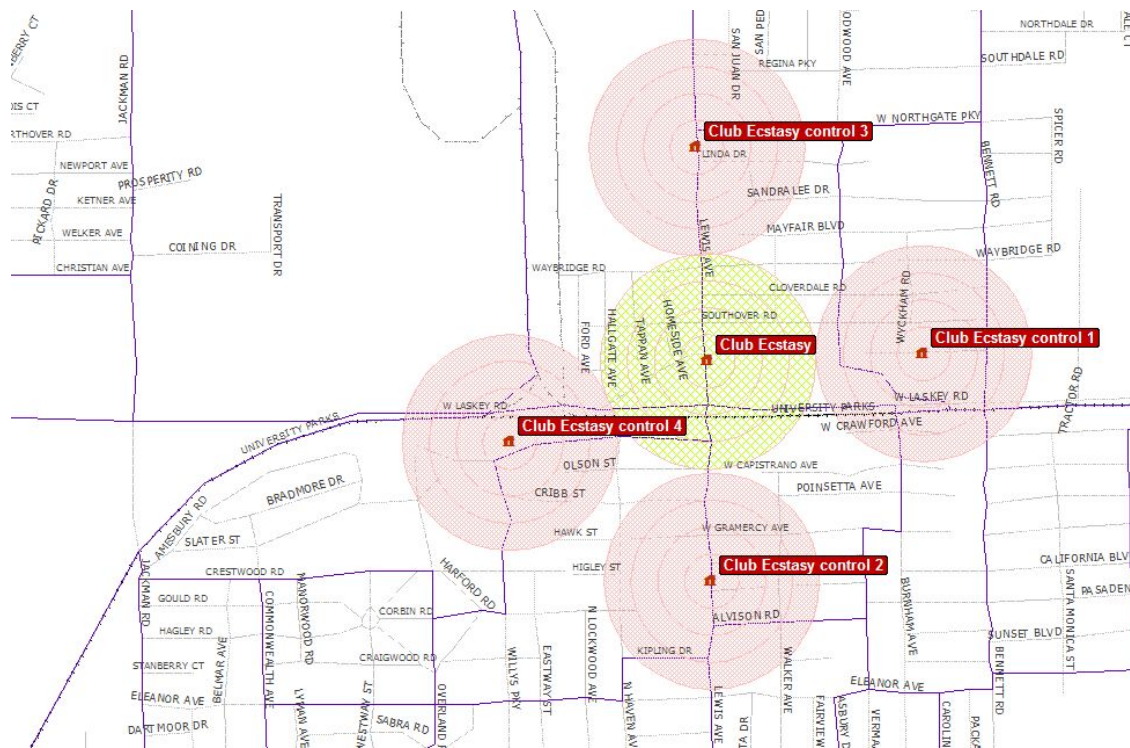


Figure 9: Hot Shotz and control areas.

