PART II: CRIME-RELATED SECONDARY EFFECTS

SECONDARY EFFECTS OF "OFF-SITE" SEXUALLY-ORIENTED BUSINESSES

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1. INTRODUCTION

Can a government, through its zoning and licensing codes, regulate sexually-oriented businesses (hereafter, "SOBs") that sell sexually explicit material strictly for off-site use? The answer to this question involves issues of law, social science theory, and empirical evidence. The Texas City Attorneys Association has retained us to collect and analyze data relevant to this question and then, relying on our expertise in criminology, planning, and statistics, to formulate an answer to the question. This report describes the research that we conducted to answer the question.

As a matter of law, expressive activities that occur inside SOBs enjoy a degree of First Amendment protection.[19] Nevertheless, the U.S. Supreme Court and the lower federal courts have ruled that governments may regulate SOBs so long as the regulation is aimed at mitigating potential adverse "secondary effects," such as ambient noise, blight, property values, and crime.[20]

To enact an SOB ordinance, a government must collect evidence to show that the businesses are associated with negative secondary effects. Studies conducted by governments over the last three decades find that SOBs do have significant secondary effects. Most of these studies assume that the distinct SOB subclasses – cabarets, bookstores, arcades, *etc.* – have identical secondary effects, however. Whether warranted or not, this assumption has become legally problematic.

To illustrate the problem, suppose that each distinct SOB subclass has a unique "average" secondary effect. This implies that one of the subclasses would have the lowest secondary effect of any subclass. The secondary effects of this subclass might conceivably be sufficiently *de minimus* as to fall below the Constitutional threshold where a government could regulate its operation. Alternatively, if the effect falls just above the threshold, the business model might be "tweaked" to force its secondary effects below the threshold.

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[19] *See, e.g., City of Erie v. Pap's A.M.*, 529 U.S. 277, 319 (2000), where Justice O'Connor stated, "nude dancing still receives First Amendment protection, even if that protection lies only in the 'outer ambit' of that Amendment."

[20] *See. e.g., City of Renton v. Playtime Theaters, Inc.* 475 U.S. 41 (1986) where zoning to control the location of adult businesses was upheld.

What might this "bullet-proof" SOB subclass look like? Common sense suggests that it would be a store that sells adult merchandise for off-site use. Customers drive to the SOB; park; enter; purchase; exit; and drive away. Except for the merchandise purchased, this commercial activity is indistinguishable from the activities that occur at convenience stores, dry cleaners, and libraries. Common sense argues then, that the secondary effects associated with off-site SOBs are likely to be no larger than the analogous effects associated with convenience stores, dry cleaners, and libraries.

Adult book and video stores have made this common sense argument and some courts have found it persuasive. Like many common sense arguments, this one ignores theoretically relevant differences between SOBs and other businesses. In fact, the relevant criminological theory allows for qualitative differences among the subclasses. Controlling for these differences, however, the same criminological theory predicts that *all SOB subclasses will have large, significant secondary effects*. The empirical evidence corroborates the theoretical prediction.

This report begins with a discussion of the evolution of the secondary effects doctrine. We then describe the criminological theory of secondary effects, demonstrating the applicability of the theory to both on-site and off-site SOBs and, finally, report the growing body of empirical evidence that corroborates the theory. Readers who are familiar with the legal doctrine may skip to Section 2. Other readers will benefit from our introduction to the secondary effects doctrine.

2. EVOLUTION OF THE SECONDARY EFFECTS DOCTRINE[21]

Although the court decisions that motivate this report were published in 2002 and 2003, both rest on an evolving body of law that begins thirty years earlier. In the late 1960s, Boston's city planners proposed to concentrate the city's SOBs in a single small district. This proposal had two theoretical advantages. First, it would keep vice activity out of the city's other districts. Second, it would allow the police to focus resources on a small area, thereby reducing the risk of crimes associated with vice. By the early 1970s, the failure of Boston's "combat zone" experiment was obvious (Skogan, 1992; Garnett, 2005).

2.1 YOUNG V. AMERICAN MINI-THEATRES

At about this time, Detroit consulted with social scientists and real estate experts on the question of whether SOBs should be allowed to locate near other SOBs. The experts agreed that dispersing SOBs would mitigate their secondary effects. Relying on expert opinions, Detroit enacted an ordinance that set minimum distances between SOB sites.[22] Forced to relocate, several existing SOBs challenged the Constitutionality of the Detroit ordinance. Borrowing from the vocabulary of antitrust cases, the U.S. Supreme Court ruled in *Young v. American Mini-Theatres*[23] that governments could enact SOB ordinances so long as the ordinances were aimed at mitigating adverse secondary effects. By this test, the Court upheld the Detroit ordinance.

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[21] This section is based on a paper presented in Atlanta, GA on November, 14th, 2007 at the annual meeting of the American Society for Criminology: "Do 'off-site' adult businesses have secondary effects? Legal doctrine, social theory, and empirical evidence." Richard McCleary and Alan C. Weinstein

[22] *American Mini-Theatres, Inc. v. Gribbs*, 518 F.2d 1014 (1975) at 1018.

[23] *Young v. American Mini-Theatres, Inc.*, 427 U.S. 50 (1976).

2.2 CITY OF RENTON V. PLAYTIME THEATRES, INC.

Although *Young* required that regulations be based on secondary effects evidence, it said nothing about the quantity or quality of the evidence. These questions were addressed ten years later in *City of Renton v. Playtime Theatres, Inc.*[24]. In the early 1980s, Renton, WA enacted a zoning ordinance that in many respects resembled the ordinance challenged in *Young*. Since Renton had no SOBs, it could not base its ordinance on local studies and so looked to a Washington Supreme Court opinion reviewing studies from nearby Seattle.[25] A year later, two theaters located in a prohibited district began to show X-rated films. In the ensuing challenge, the Supreme Court ruled that the ordinance complied with the *Young* standard in that its sole purpose was the mitigation of secondary effects. On the evidentiary issue raised in the challenge, Justice Rehnquist wrote:

> The First Amendment does not require a city, before enacting such an ordinance, to conduct new studies or produce evidence independent of that already generated by other cities, so long as whatever evidence the city relies upon is reasonably believed to be relevant to the problem that the city addresses.[26]

Renton legitimized the practice of basing a local ordinance on secondary effects studies from other communities. *Renton* also set a reliability threshold, albeit a low one, for the government's secondary effects evidence. The evidence must be "reasonably believed to be relevant."

2.3 CITY OF LOS ANGELES V. ALAMEDA BOOKS, INC.

The Supreme Court revisited this issue sixteen years later. In 1977, Los Angeles conducted a comprehensive secondary effects study. The study found, among other things, that concentrations of SOBs were associated with high ambient crime rates. Based on this finding, Los Angeles enacted an ordinance requiring SOBs to be separated by a minimum distance. The ordinance was amended in 1983 to prevent SOBs from evading the minimum distance rule by merging into a single entity. Instead of requiring minimum distances between adult *businesses*, the amended ordinance required minimum distances between distinct adult entertainment *activities*. SOBs that combined on-site coin-operated video viewing booths with sales of videos for off-site use were prohibited.[27] These multiple-activity SOBs were forced to segregate their on-site and off-site activities.

In 1995, two multiple-activity SOBs challenged the amended ordinance. Since the 1977 study said nothing about the secondary effects of combining multiple activities under one roof, they argued that Los Angeles had no evidence that multiple-activity SOBs were associated with secondary effects. The federal District Court agreed and the Ninth Circuit Court affirmed.[28] But the U.S. Supreme Court took a different view.

As often happens in First Amendment cases, the Supreme Court's decision in *City of Los Angeles v. Alameda Books, Inc.*[29] did not produce a clear majority holding. Because the 1977 Los

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[24] *City of Renton v. Playtime Theatres, Inc.*, 475 U.S. 41 (1986).

[25] *See Northend Cinema, Inc. v. Seattle*, 90 Wash.2d 709, 585 P.2d 1153 (1978).

[26] *Id.* at 51-52.

[27] In *City of Los Angeles v. Alameda Books, Inc.*, 535 U.S. 425 (2002), Justice Souter characterizes this model as "commercially natural, if not universal."

[28] *Alameda Books, Inc. v. City of Los Angeles*, 222 F.3d 719 (9th Cir. 2000).

[29] *City of Los Angeles v. Alameda Books, Inc.*, 535 U.S. 425 (2002).

Angeles study had not investigated the effects of multiple-activities under one roof, the Ninth Circuit found that the evidence for the amended ordinance did not meet the *Renton* threshold.[30]

While acknowledging the limitations of the 1977 study, Justice O'Connor argued that Los Angeles could infer from its study that concentrations of adult *activities* would also be associated with secondary effects and, thus, that Los Angeles had complied with *Renton*'s evidentiary standard. Justice O'Connor's opinion criticized the Ninth Circuit for imposing too high a bar for cities that seek merely to address the secondary effects of SOBs. The Ninth Circuit found that the 1977 study did not provide reasonable support for the 1983 amendment because the study focused on the secondary effects associated with concentrations of SOBs rather than concentrations of activities within a single SOB. While acknowledging that the city's 1977 study did not assess whether multiple SOBs operating under one roof were associated with an increase in secondary effects, Justice O'Connor argued that the city could infer that a concentration of activities, no less than a concentration of SOBs, would be associated with an increase in negative secondary effects. She then criticized the Ninth Circuit for implicitly requiring that the city must not merely provide reasonable support for a theory that justifies its ordinance, but also prove that its theory is the only plausible one.[31]

Justice O'Connor then stated what evidentiary standard a city would need to meet. After noting that in *Renton* the Court "held that a municipality may rely on any evidence that is 'reasonably believed to be relevant' for demonstrating a connection between speech and a substantial independent government interest," Justice O'Connor wrote:

> This is not to say that a municipality can get away with shoddy data or reasoning. The municipality's evidence must fairly support the municipality's 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 standard set forth in *Renton*. 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.[32]

Applying this test to the case at hand, Justice O'Connor concluded that, given the early stage of the litigation, the city had complied with the evidentiary requirement of *Renton*.

Justice Kennedy wrote a lengthy concurring opinion to express concern that "the plurality's application of *Renton* might constitute a subtle expansion" of what is permitted under that case.[33] Justice Kennedy contended that this case raised two evidentiary questions for the Court. "First, what proposition does a city need to advance in order to sustain a secondary-effects ordinance? Second, how much evidence is required to support the proposition?"[34] He argued that the plurality answered only the second question, and while he believed that answer was correct, in his view more attention needed to be paid to the first. The critical inquiry that Justice Kennedy believes the plurality "skips" is "how speech will fare under the city's ordinance." In his view, shared by Justice Souter's dissenting opinion, a "city may not assert that it will reduce secondary effects by reducing speech in the same proportion." In short, "[t]he rationale of the

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[30] 222 F. 3rd at 727-728.

[31] 535 U.S. at 436-37.

[32] *Id.* at 438-39.

[33] *Id.* at 445.

[34] *Id.*

ordinance must be that it will suppress secondary effects and not by suppressing speech."[35] Applying this first step to the ordinance in this case, Justice Kennedy argued that it would have one of two effects when applied to an SOB offering two adult activities under one roof: one of the activities must move. Since the latter of these effects cannot lawfully be the rationale for the ordinance – *i.e.*, the city cannot lawfully seek to reduce the amount of secondary effects merely be reducing the number of SOBs – the city's rationale must be that affected businesses will relocate rather than close and that the resulting dispersion of businesses will reduce secondary effects but not substantially diminish the number of businesses.[36]

Having identified the city's "proposition," Justice Kennedy next asked whether the city had presented sufficient evidence to support that proposition. In line with the plurality, Justice Kennedy argued for significant deference to local government fact-finding in making this inquiry. Citing *Renton* and *Young*, he contended that cities "must have latitude to experiment at least at the outset, and that very little evidence is required." He also cautioned that "[a]s a general matter, courts should not be in the business of second-guessing the fact-bound empirical assessments of city planners," noting: "The Los Angeles City Council knows the streets of Los Angeles better than we do. It is entitled to rely on that knowledge; and if its inference appears reasonable, we should not say there is no basis for that conclusion."[37] Here, Justice Kennedy found that, for purposes of surviving a motion for summary judgment, the city's proposition is supported by both its 1977 study and "common experience" and that the 1983 ordinance was reasonably likely to reduce secondary effects substantially while reducing the number of SOBs very little.[38]

In a dissenting opinion, Justice Souter, joined in part by Justice Breyer, argued that imposing stricter evidentiary standards on governments would guard against potential abuses Justice Souter was concerned about what he viewed as the significant risk that courts will approve ordinances that are effectively regulating speech based on government's distaste for the viewpoint being expressed.[39] "Adult speech refers not merely to sexually explicit content, but to speech reflecting a favorable view of being explicit about sex and a favorable view of the practices it depicts; a restriction on adult content is thus also a restriction turning on a particular viewpoint, of which the government may disapprove."[40] For Justice Souter, the risk of viewpoint discrimination may be addressed by imposing on government a requirement that it demonstrate empirically "that the effects exist, that they are caused by the expressive activity subject to the zoning, and that the zoning can be expected either to ameliorate them or to enhance the capacity of the government to combat them (say, by concentrating them in one area), without suppressing the expressive activity itself."[41]

Justice Souter claimed that his call for empirical evidence did not impose a Herculean task on government; rather, the harms allegedly caused by SOBs "can be shown by police reports, crime statistics, and studies of market value, all of which are within a municipality's capacity or available from the distilled experiences of comparable communities."[42] He also noted that the need for "independent

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[35] *Id.* at 449-50.

[36] *Id.* at 450-51.

[37] *Id.* at 451-52.

[38] *Id.* at 452-53.

[39] *Id.* at 457.

[40] *Id.*

[41] *Id.*

[42] *Id.*

proof" can vary with the proposition that needs to be established and thus "zoning can be supported by common experience when there is no reason to question it."[43] In the final section of his dissent, which Justice Breyer did not join, Justice Souter applied this standard to the case at hand and argued that the city offered neither a rationale nor evidence to support the proposition that an adult bookstore combined with video booths would produce the claimed secondary effects.[44]

Although *Alameda Books* reaffirmed *Renton* in crucial respects, thereby supporting governments, the plurality described exactly how an SOB could challenge government regulations:

> This is not to say that a municipality can get away with shoddy data or reasoning. The municipality's evidence must fairly support the municipality's 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 standard set forth in *Renton*. 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.[45]

In the wake of *Alameda Books*, SOBs use the approach spelled out by the plurality to challenge ordinances. Most challenges fail. If a regulation has a plausible rationale and if it is supported by at least some evidence, the courts continue to show substantial deference to legislatures.[46]

2.4 POST-ALAMEDA BOOKS CHALLENGES

Following *Alameda Books*, SOBs began to challenge the relevance of the secondary effects evidence relied upon by governments. These challenges fall into two categories. The first alleges that the large body of secondary effect studies relied upon by governments has ignored some idiosyncratic feature of the local environment. In 2004, for example, an off-site SOB in rural Kansas used criminological theory to argue that the sparsely-populated rural environment precluded the possibility of secondary effects. And since the local government had not studied this issue prior to enactment, the ordinance should be struck down.

Rejecting this argument, the trial court granted the defendant's summary judgment motion. On appeal, however, in *Abilene Retail #30 v. Dickinson County*, the Tenth Circuit agreed with the plaintiff's interpretation of criminological theory:

> All of the studies relied upon by the Board examine the secondary effects of sexually oriented businesses located in urban environments; none examine businesses situated in an entirely rural

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[43] *Id.* at 458-59.

[44] *Id.* at 461-64.

[45] *Id.* at 438-39.

[46] *See, e.g., G.M.Enterprises, Inc. v. Town of St. Joseph, WI*, 350 F.3d 631 (7th Cir. 2003), *cert. denied*, 125 S.Ct. 49 (2004); *Giovani Carandola, Ltd. v. Fox*, 396 F. Supp. 2d 630 (M.D.N.C. 2005); *Abilene Retail #30, Inc. v. Board of Commissioners of Dickinson Cty.*, 402 F.Supp.2d 1285 (D. Kan. 2005); but also see *R.V.S., L.L.C. v. City of Rockford*, 361 F.3d 402 (7th Cir. 2004)(finding it unreasonable for city officials to believe that secondary effects were associated with a business where dancers performed wearing fully opaque clothing over the pubic area, buttocks and breasts when the city had no evidence of secondary effects associated with such businesses and plaintiff's two experts testified no studies demonstrated adverse secondary effects from such businesses; nor did the experts believe such effects could be found).

> area. To hold that legislators may reasonably rely on those studies to regulate a single adult bookstore, located on a highway pullout far from any business or residential area within the County would be to abdicate our "independent judgment" entirely. Such a holding would require complete deference to a local government's reliance on prepackaged secondary effects studies from other jurisdictions to regulate any single sexually oriented business of any type, located in any setting [47]

Because the SOB was located in an isolated rural area, and because the County had no evidence to suggest that rural SOBs would have secondary effects, the Tenth Circuit reversed the summary judgment and remanded the case for trial.

The second category of challenges alleges that the secondary effects studies relied upon by the government have ignored salient differences among distinct SOB subclasses. In *Encore Videos, Inc. v. City of San Antonio,*[48] an ordinance classified off-site book and video stores as SOBs if their inventories included 20 percent adult material. Citing *Alameda Books*, an off-site SOB challenged the ordinance's theoretical rationale and supporting evidence. Agreeing, the Fifth Circuit found that San Antonio had relied on studies that either excluded off-site SOBs or, otherwise, had not distinguished between the effects of the on-site and off-site subclasses. In the Court's view, moreover, the city's theoretical rationale for ignoring the differences between on-site and off-site SOBs was weak.

> Off-site businesses differ from on-site ones, because it is only reasonable to assume that the former are less likely to create harmful secondary effects because of the fact that consumers of pornography are not as likely to linger in the area and engage in public alcohol consumption and other undesirable activities.[49]

Other factors influenced the decision, of course, and the recent Fifth Circuit decision in *H and A Land Corp. vs. City of Kennedale*[50] clarifies *Encore Videos*. For present purposes, however, we end with the Court's foray into criminological theory. Though compelling from a common sense perspective, this theory ignores the relevant criminological theory of secondary effects.

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[47] *Abilene Retail #30, Inc. v. Board of Commissions of Dickinson County, Kansas*, 492 F.3d 1164, 1175 (10th Cir. 2007).

[48] 330 F.3d 288 (5th Cir. 2003), *cert. denied*, 540 U.S. 982 (2003), and opinion clarified, 352 F.3d 938 (5th Cir. 2003).

[49] *Id.* at 294-95.

[50] *H and A Land Corp. v. City of Kennedale*, 480 F. 3d 336 (5th Cir. 2007).

3. THE CRIMINOLOGICAL THEORY OF SECONDARY EFFECTS

It is a *scientific fact* that SOBs, as a class, pose large, statistically significant ambient public safety hazards. The public safety hazard is realized not only in terms of "victimless" crimes (prostitution, drugs, *etc.*) but, also, in terms of the "serious" crimes (assault, robbery, *etc.*) and "opportunistic" crimes (vandalism, trespass *etc.*) that are associated with vice.

Table 3 - Secondary Effect Studies Relied on by Legislatures

Los Angeles, CA	1977	Times Square, NY	1994
Whittier, CA	1978	Newport News, VA	1996
St. Paul, MN	1978	Dallas, TX	1997
Phoenix, AZ	1979	San Diego, CA	2002
Minneapolis, MN	1980	Greensboro, NC	2003
Indianapolis, IN	1984	Centralia, WA	2003
Austin, TX	1986	Daytona Beach, FL	2004
El Paso, TX	1986	Montrose, IL	2005
Garden Grove, CA	1991	Sioux City, IA	2006
Manhattan, NY	1994	Palm Beach County, FL	2007

We call the SOB-crime relationship a "*scientific fact*" because, first, it is predicted by a strong scientific theory; and second, because the theoretical prediction has been corroborated empirically. On the second point, Table 3 lists 20 empirical studies whose findings corroborate the claim that SOBs pose large, significant ambient public safety hazards. The remarkable range of time-frames, locations, and circumstances represented by these studies suggests that the consensus finding is general and robust.

3.1 THE ROUTINE ACTIVITY THEORY OF "HOTSPOTS"

The consensus finding of this literature becomes *scientific fact* when it is interpreted in the context of a scientific theory. In this instance, the SOB-crime relationship is predicted by the central "organizing theory" of modern scientific criminology. The so-called routine activity theory[51] answers the what-when-where questions of victimization risk. As applied to "hotspots of predatory crime," such as SOB sites, the theory holds that ambient crime risk, generally defined as the number of crimes within 500-1000 feet of a site, with the product of four risk factors. This can be written as:

[51] This theory is due to Cohen and Felson (1979; Felson and Cohen, 1980; Felson, 1998). The routine activity theory is one of the most validated theories in modern social science. In 2005 alone, according to the *Social Science Citation Index*, the 1979 Cohen-Felson article was cited 621 times. The "hotspot" application of the theory is due to Sherman, Gartin, and Buerger (1989) and to Brantingham and Brantingham (1981; 1993).

$$\textit{Ambient Crime Risk} = \frac{\textit{N of Targets} \times \textit{Average Value}}{\textit{Police Presence}} \times \textit{Offenders}$$

An increase (or decrease) in the number of targets at the site or in their average value yields an increase (or decrease) in ambient crime risk. An increase (or decrease) in police presence, on the other hand, yields a decrease (or increase) in ambient crime risk.

3.1.1 Targets

SOB sites are crime hotspots because they attract potential victims, or targets, from wide catchment areas. SOB sites are no different in that respect than tourist attractions (Dimanche and Lepetic, 1999; Danner, 2003) and sporting events (Corcoran, Wilson and Ware, 2003; Westcott, 2006). Compared to the targets found at these better known hotspots, however, the targets found at SOBs are exceptionally attractive to offenders. This reflects the presumed characteristics of SOB patrons. The patrons do not ordinarily live in the neighborhood but travel long distances to the site.[52] They are disproportionately male, open to vice overtures, and carry cash. Most important of all, when victimized, they are reluctant to involve the police. From the offender's perspective, they are "perfect" victims.

3.1.2 Offenders

The crime-vice connection has been a popular plot device for at least 250 years. John Gay's *Beggar's Opera* (1728), for example, describes the relationship between MacHeath, a predatory criminal, and the vice ring composed of Peachum, Lucy, and Jenny. This popular view is reinforced by the empirical literature on criminal lifestyles and thought processes. The earliest and best-known study (Shaw, 1930; Snodgrass, 1982) describes the life of "Stanley," a delinquent who lives with a prostitute and preys on her clients.

This routine activity theory of hotspots assumes a pool of rational offenders who move freely from site to site, choosing to work the most attractive site available. These offenders lack legitimate means of livelihood and devote substantial time to illegitimate activities; they are "professional thieves" by Sutherland's (1937) definition. Otherwise, they are a heterogeneous group. Some are vice purveyors who dabble in crime. Others are predatory criminals who promise vice to lure and lull their victims. Despite their heterogeneity, the offenders share a rational decision-making calculus that draws them to SOB sites.

3.1.3 Target value

Criminological thinking has changed little in the 75 years since Shaw's (1930) *Jack-Roller*. To document the rational choices of predatory criminals, Wright and Decker (1997) interviewed 86 active armed robbers. Asked to describe a perfect victim, all mentioned victims involved in vice, either as sellers or buyers. Three of the armed robbers worked as prostitutes:

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[52] In 1990, as part of an investigation, Garden Grove, CA police officers ran registration checks on motor vehicles parked at SOBs. Virtually all of the vehicles were registered to addresses outside Garden Grove. The 1986 Austin, TX study arrived at the same finding. More recently, the Effingham County, IL Sheriff's Department ran registration checks on motor vehicles parked at an SOB in the Village of Montrose. Except for employees' vehicles, all were from outside the county.

> From their perspective, the ideal robbery target was a married man in search of an illicit sexual adventure; he would be disinclined to make a police report for fear of exposing his own deviance (p. 69).

The rational calculus described by these prostitute-robbers echoes the descriptions of other predators (see Bennett and Wright, 1984; Feeney, 1986; Fleisher, 1995; Katz, 1988, 1991; Shover, 1996).

3.1.4 Police presence

Controlling for the quantity and value of the targets at a site, rational offenders choose sites with the lowest level of visible police presence. In strictly physical terms, increasing (or decreasing) the number of police physically on or near a site reduces (or increases) ambient risk. However, police presence can also be virtual, through remote camera surveillance and similar processes.

Whether physical or virtual, the *effectiveness* of police presence can be affected – for better or worse – by broadly defined environmental factors. For example, due to the reduced effectiveness of conventional patrolling after dark, crime risk rises at night, peaking around the time that taverns close. Darkness has a lesser effect on other policing strategies, which raises the general principle of *optimizing* the effectiveness of police presence. One theoretical reason why SOB subclasses might have qualitatively different ambient risks is that they have different optimal policing strategies.

3.2 *What Does Criminological Theory Say About Subclasses?*

In lawsuits, SOB plaintiffs have argued that their narrowly-defined SOB subclass is exempt from criminological theory. But in fact, the relevant criminological theory applies to all subclasses. To the extent that two SOB subclasses draw similar patrons from similarly wide catchment areas, theory predicts similar ambient crime risks. Put simply, similar causes (the presence of many high-value targets and low levels of police presence) have similar effects (*i.e.*, high ambient crime risk). This theoretical expectation is consistent with the data. Although the theory applies identically to all SOB subclasses, at the same time, it allows for qualitative differences among the subclasses.

In some instances, subclass-specific risks arise because the defining property of the subclass implies (or creates) idiosyncratic opportunities (or risks) for particular types of crime. Compared to the complementary subclass, for example, SOBs that serve alcohol present idiosyncratic opportunities for non-instrumental crimes, especially simple assault, disorderly conduct, *etc.* SOBs that provide on-premise entertainment present idiosyncratic opportunities for vice crime, customer-employee assault, *etc.* Criminologists call this etiological crime category "opportunistic." There are many obvious examples and SOB regulations often treat subclasses differently because their ambient opportunity structures are different.

Qualitative differences also arise when the defining property of the subclass compromises the effectiveness of common policing strategies. Policing SOBs that offer on-site entertainment (adult cabarets, peep shows, *etc.*) may require that police officers inspect the interior premises, for example. Because this places officers at risk of injury, policing on-site SOBs requires specially trained and equipped officers, prior intelligence, specialized backup manpower, and other resources. Because potential offenders can wait inside the premises without arousing suspicion, moreover, routine drive-by patrols to "show the flag" are less effective.

The optimal policing strategies for two subclasses are sometimes incompatible or even mutually exclusive. To illustrate, an optimal policing strategy for SOBs that do not offer on-site entertainment, such as adult video and book stores, often involves neighborhood patrols by uniformed officers in marked cars. Visibility is a key element of this strategy. For peep shows and adult cabarets, on the

other hand, the optimal policing strategy often involves boots-on-the-ground deployments of plainclothes officers and unmarked cars. Invisibility is a key element of this strategy. Obviously, neighborhood patrols by plainclothes officers driving unmarked cars would defeat a major purpose of drive-by patrols; likewise, sending uniformed officers into an adult cabaret would be an inefficient method of control and might pose a physical danger to the officers, patrons, and employees. As a general rule, distinct SOB subclasses may require distinct policing strategies to mitigate ambient crime risks.

To some extent, differences among the optimal policing strategies for SOB subclasses amount to differences in cost. In many (but certainly not all) instances, the least expensive policing strategy involves drive-by patrols by uniformed officers in marked cars. Beyond the deterrent value of visible drive-by patrols, patrol officers can keep watch for known offenders and suspicious activity. When potential problems are spotted, the patrol officers can forward the information to a specialized unit or, if necessary, handle it on the spot, requesting backup resources only as needed.[53] It is important to realize, nevertheless, that the implementation of a policing strategy is determined in large part by local exigencies.

3.3 THE THEORETICAL ROLE OF ALCOHOL

Proximity to alcohol is a key component of the criminological theory of secondary effects. Alcohol aggravates an SOB's already-high ambient crime risk by lowering the inhibitions and clouding the judgments of the SOB's patrons. In effect, alcohol makes the soft targets found at the SOB site considerably softer. The available data corroborate this theoretical expectation in all respects. Predatory criminals prefer inebriated victims,[54] *e.g.*, and SOBs that serve alcohol or that are located near liquor-serving businesses pose accordingly larger and qualitatively different ambient public safety hazards.[55] Governments rely on this consistent finding of crime-related secondary effect studies as a rationale for limiting nudity in liquor-serving businesses.

3.4 THE CRIMINOLOGICAL THEORY OF MITIGATION STRATEGIES

The routine activity theory points to strategies for mitigating the crime-related secondary effects of SOBs. In principle, the effects of a mitigation strategy can be *direct* or *indirect*. *Direct* effects are typically realized through *direct* manipulation of the risk factors to reduce ambient risk. *Indirect* effects are realized by making the risk factors more efficient. In practice, of course, some of the strategies are expensive or otherwise impractical. We begin with one of the most expensive, least practical mitigation strategies.

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[53] See, e.g., National Research Council (2004).

[54] See, *e.g.*, Wright and Decker (1997, p. 87): "[E]ach of (the armed robbers) expressed a preference for intoxicated victims, who were viewed as good targets because they were in no condition to fight back." (p. 70); "Several [armed robbers] said that they usually chose victims who appeared to be intoxicated because, as one put it, 'Drunks never know what hit them.'"

[55] A 1991 study of Garden Grove, California by McCleary and Meeker found a large, significant increase on ambient crime risk when an alcohol-serving establishment opened within 500 feet (*ca.* one city block) of an SOB. Secondary effect studies in Greensboro (2003) and Daytona Beach (2004) found that alcohol-serving SOBs had larger secondary effects than retail alcohol outlets. These studies are reviewed in Section 2.

3.4.1 Increasing the level of police presence

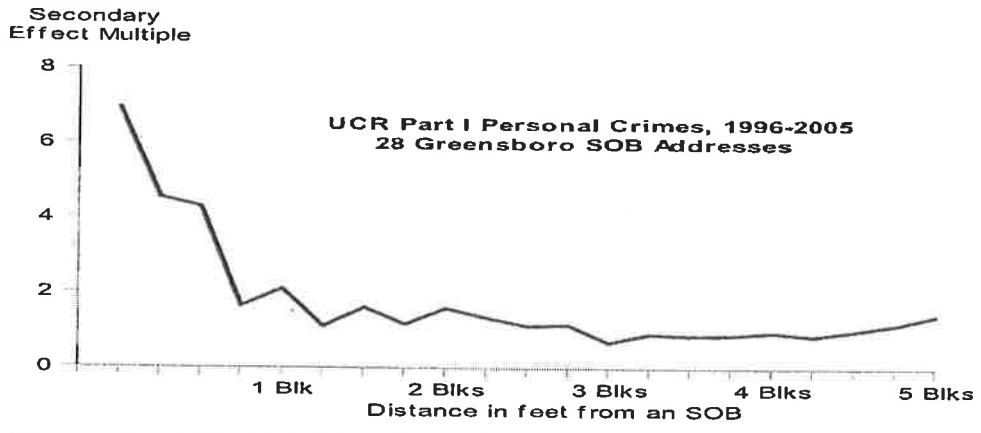
The simplest, surest way to mitigate ambient crime risk is to assign more police to SOB neighborhoods. Although the relationship between police presence and ambient crime risk is complicated and complex, criminologists generally accept the aphorism: "more police, less crime."[56] Unfortunately, this simplest, surest mitigation strategy is expensive and impractical. From the government's perspective, increasing the number of police patrols in a neighborhood is prohibitively expensive. From the perspective of the SOB and its patrons, police presence can be highly intrusive, bordering on "harassment."

In principle, fixed levels of police presence can be made more effective by fine-tuning *status quo* policing strategies. Police patrols can be made more visible, *e.g.*, by using uniformed officers in marked vehicles instead of plain-clothes officers in unmarked vehicles. Most police departments have already optimized their strategies, however. Police effectiveness can also be enhanced by incorporating rational enforcement policies into SOB codes. Several examples are described in subsequent sections.

3.4.2 Distancing SOB sites from sensitive uses

Reducing the density of targets in an SOB neighborhood is a more economical, practical mitigation strategy. As a rule, the most problematic secondary effects are associated with dense concentrations of SOBs (*e.g.*, Boston's "combat zone" model). Accordingly, many governments require minimum distances between SOB sites (*e.g.*, the Detroit model). In addition to reducing per-site target density, thereby reducing aggregate risk, this model minimizes many obstacles to routine policing.

Figure 3.4.2 - Robbery Risk by Distance from an SOB



[56] See, *e.g.*, Levitt (1997, p. 270): "Increases in police are shown to substantially reduce violent crime but have a smaller impact on property crime. The null hypothesis that the marginal social benefit of reduced crime equals the costs of hiring additional police cannot be rejected." Some "victimless" vice crimes are an exception to the rule, of course.

Figure 3.4.2 demonstrates the rationale for a related mitigation strategy.[57] The vertical axis of this "risk-distance function" is calibrated in units of Part I personal crime (homicide, aggravated assault, robbery, and rape) risk, relative to the neighborhood risk, for 28 Greensboro SOBs from 1996-2005. The horizontal axis is calibrated in distance from an SOB. The unit of distance is a city block which, in the Greensboro neighborhoods from which these data are taken, is approximately 400 feet.

Suppose that a person exits a building five city blocks (*i.e.*, 2,000 feet) from an SOB. As this person walks toward the SOB, his or her victimization risk rises. For the first few blocks, the risk increments are modest; thereafter, the risk increments grow large. At two blocks from the SOB, the person's risk is double what it was at start of the five-block walk. At one-half block, the risk is six times higher. If the person walks away from the SOB site, his or her victimization risk falls until, at a distance of three blocks from the site, the risk decrements are imperceptible.

Governments can take advantage of the risk-distance relationship plotted in Figure 3.4.2 by setting minimum distances between SOBs and other sensitive land uses. SOB patrons have no choice but to "run the gauntlet." The victims of some ambient crime incidents are not SOB patrons, however, but rather, are neighborhood residents and by-passers. By setting minimum distances between SOBs and the land uses frequented by these people, the government mitigates the SOB's ambient crime risk secondary effect.[58]

3.4.3 Limiting the hours of operation

Another economical and practical strategy for mitigating the ambient crime risk of SOBs is to limit the hours of operation. Criminological theory reduces to the aphorism, "more targets, more crime." And in the overnight hours when businesses close and people go home, the crime rate drops. While the crime *rate* drops, however, the *per-target* risk rises. When a business stays open around-the-clock, its victimization risk rises steadily after sundown, peaking in the early morning. Darkness softens a target, increasing its appeal to predatory criminals.

Several mechanisms operate here but the most salient is that routine policing is more difficult and less effective in darkness. When bars and taverns close, police resources are stretched thinner yet, making soft targets even softer. Governments typically mitigate this risk by closing high-risk public places (playgrounds, beaches, parks, *etc.*) from dawn to dusk; by imposing curfews on high-risk persons (teen-agers, parolees, *etc.*); and by limiting the operation of high-risk businesses (bars, SOBs, *etc.*) during times of acute risk. Not surprisingly, this theoretical prediction is confirmed by the empirical evidence.

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[57] McPherson and Silloway (1980) used crude risk-distance functions, such as the one plotted in Figure 3.4.2, to demonstrate that Minneapolis SOBs were point sources of ambient crime victimization risk. Statistically adjusted risk-distance functions are used in Sections 4.3 and 5.2 below.

[58] We are often asked to specify a distance sufficient to fully mitigate an SOB's ambient crime risk. The correct answer to this question – "As far as possible" – is not helpful. Although the risk-distance function plotted in Figure 3.4.2 seems to answer this question, remember that it is the *average* of 28 SOB sites. By definition, some sites are "better," some "worse." Planners must assume a worst case scenario but, then, must balance this assumption with practical (and legal) considerations.

3.4.4 "Hardening" SOB sites[59]

In principle, ordinances can mitigate ambient crime risk requiring SOBs to "harden" their properties. Mandating outdoor lighting, parking lot surveillance cameras, and anti-"cruising" structures illustrate strategies for hardening the site's exterior. This list of exterior hardening options is short, unfortunately; and although the effectiveness of exterior hardening strategies depends to some extent on local circumstances and conditions, there is little evidence that any of the typical options can mitigate ambient crime risk.

Regulating the interior configurations of SOBs, in contrast, has a stronger rationale in criminological theory. Interior hardening strategies are often less costly moreover, more practical, and in theory, more effective. Three widely used strategies illustrate the general principle:

- Ordinances that eliminate interior blind spots
- Ordinances that prohibit closed viewing booths
- Ordinances that restrict entertainers to raised stage areas

Each of these strategies reduces the risk of on-premise victimization of patrons and employees.[60] In some respects, the risk reduction mechanism is obvious. Removing blind spots and opening up closed booths obviously reduces the opportunity for lewd behavior, *e.g.* Though less obvious, to the extent that patron-on-patron, patron-on-employee, and employee-on-patron confrontations are precipitated by lewd behavior, these strategies also reduce the risk of assault.

The risk of patron-on-patron, patron-on-employee, and employee-on-patron crime is most acute inside SOBs that feature live entertainment; and of course, alcohol aggravates the risk. The risk can be mitigated by separating patrons and entertainers. Ideally, separation is achieved by mandated structures, such as raised stages. By creating a tangible "wall" between employees and patrons, raised stages reduce unintentional (or intentional) "touching," thereby reducing the risk of patron-on-employee and employee-on-patron crime.

3.4.5 Police officer safety

While assaults on police officers are rare, they are among the most serious crimes that occur inside SOBs. In theory, moreover, they are preventable. The risk of assault begins when officers enter the SOB and continues until they leave. Mitigation strategies aim at minimizing the number of times officers must enter SOBs and, having entered, the amount of time they must spend inside. Strategies that focus on the latter factor are more practical.

Police officers enter SOBs either in response to a reported crime incident or to inspect the premises as part of routine enforcement. By reducing the risk of the on-premise crime incidents, the interior target-hardening strategies described in the preceding section reduce the number of times that officers must enter SOBs to respond to reported incidents. Otherwise, there are few options for reducing the number of times that officers must enter SOBs. Notwithstanding the risk to officers, routine inspection can be an effective mitigation strategy. By focusing attention on SOB sites, routine

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[59] The classic statement on "hardening" is Newman (1973).

[60] The strategies also facilitate routine enforcement while minimizing the risk of injury to police officers. Those topics will be discussed separately in the next section.

inspection reduces ambient risk through a complex set of pathways referred to, collectively, as "broken windows."[61]

Regardless of how officers come to be inside an SOB, any strategy that minimizes the amount of time spent inside reduces the risk of injury. Ordinances aimed at improving interior visibility illustrate these strategies. In many instances, officers can accomplish their purpose with a quick visual inspection. If the interior of the SOB is well lit and obstacle-free, the inspection can be completed by one officer in a minute or two. If the interior is dark and/or labyrinthine, the same inspection may require two (or more) officers for a longer period of time.

In SOBs that feature live entertainment, a raised stage reduces the risk of injury to police officers through the same mechanism. If an ordinance mandates, say, a six-foot distance between patrons and entertainers, absent a raised stage, enforcing (and/or detecting willful violations of) the ordinance may require that several plainclothes officers spend an hour or more inside. With a raised stage, on the other hand, a comparable level enforcement and detection of violations can be accomplished with shorter, more superficial inspections. Raised stages also facilitate self-enforcement. Ensuring that patrons and entertainers comply with a distance rule, absent a raised stage, demands constant attention and keen judgment by the SOB. A raised stage facilitates self-enforcement by the SOB, thereby reducing the risk of patron-patron and employee-patron confrontations.

3.4.6 Tailoring regulations to fit local needs

The ideal SOB ordinance marries low compliance costs for the SOB to low enforcement costs for the government. To some extent, compliance and enforcement costs depend on local circumstances and conditions and these often dictate differences in codes and/or enforcement strategies. A code or strategy that is optimal for one set of circumstances may be less than optimal for another. If a local variation is aimed at rationalizing regulation and optimizing mitigation, it should be encouraged.

By definition, local conditions are too numerous to list. Nevertheless, the principle is straightforward. Legislatures adapt and modify codes to take advantage of local idiosyncrasies. In most instances, modifications are designed to facilitate compliance and minimize enforcement costs. Toward that end, legislatures often consult local enforcement officers and, to the extent possible and appropriate, incorporate the views of experts into the regulations.

3.5 *But Does the Theory Apply to the Off-site Subclass?*

The consensus finding of the secondary effects literature, represented by the studies listed in Table 3, rests on a strong criminological theory. The theory predicts that a diligent, informed search will find a secondary effect. Absent the theoretical prediction, no one would have thought to look for secondary effects around SOBs. If someone accidentally stumbled upon a secondary effect, moreover, absent the theoretical prediction, the isolated finding would be interpreted as a trivial curiosity. Conversely, given the theoretical prediction, a legitimate *null* finding would reject the theory or, at least, would require a modification of the theory.

When a theory has been corroborated over a sufficiently wide range of times, places, and circumstances, its predictions can be used in lieu of the facts. To illustrate, suppose that City X

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[61]The best known statement of this effect is Wilson and Kelling (1982). Wilson and Kelling argue persuasively that police visibility in a neighborhood can have a greater impact on victimization risk than police activities that target crime *per se*. Modern police methods are based on this theory.

conducts a study and finds that its SOBs pose a significant public safety hazard. City Y would like to conduct its own study but cannot because it has no SOBs. In lieu of conducting its own study, City Y can assume that it *would have found* the same facts that City X *found*. City Y's inductive inference is defensible because SOBs in both City X and City Y – or in any other city, for that matter – generate secondary effects through causal factors outlined in Section 2.1. In short, "similar causes have similar effects."

Continuing this hypothetical exercise, suppose that an entrepreneur invents a *novel* SOB subclass. Since City X conducted its study prior to the invention, the entrepreneur might argue that the study's secondary effects finding is *irrelevant* to the novel subclass. If the causal factors outlined in Section 2.1 do not apply to the novel SOB subclass, the entrepreneur's argument is valid. *If the novel subclass attracts "soft-target" patrons to its site*, on the other hand, no matter how novel the SOB may be in other respects, it will have the same secondary effects that other subclasses have.[62] Since off-site SOBs attract "soft-target" patrons, of course, criminological theory leads us to expect secondary effects for the subclass.

The typical off-site SOB is a store that sells sexually explicit books and/or DVDs, along with miscellaneous adult merchandise, exclusively for off-site use. Off-site SOBs offer no on-site entertainment of any sort, and in particular, have no coin-operated DVD viewing booths. In 2002, Justice Souter speculated that DVD sales and DVD viewing booths were inseparable parts of the "commercially natural, if not universal" SOB model.[63] Five years later, pure off-site SOBs are found in most metropolitan areas and, more recently, along rural stretches of the interstate highway system. Justice Souter would be surprised.

Some off-site SOBs were created by removing booths from on-site SOBs. These SOBs tend to be older and smaller, sometimes with less than 1,000 square feet of floor space. Newer off-site SOBs were designed without booths. Some have over 5,000 square feet of floor space, stocked with every imaginable type of adult merchandise. Some sell non-adult merchandise, such as lingerie and erotic clothing, alongside the standard adult items. None offers on-site entertainment of any sort, of course.

Compared to the older "commercially natural" on-site SOBs, the newer off-site SOBs have a very different "look and feel." This superficial difference might suggest that they are safer places than the older on-site subclass and, indeed, off-site SOBs have claimed exactly this. In light of the contrary predictions of criminological theory, off-site SOBs have challenged the theory. These challenges have made two claims. First, off-site SOBs attract a different sort of patron – women and couples. Second, lacking on-site entertainment, off-site patrons spend very little time in the SOB neighborhood.

3.5.1 Our patrons are *not* "disproportionately male"[64]

SOB plaintiffs have argued that a significant proportion of their patrons are women and, thus, that the criminological theory outlined in this section does not apply to them. The predicate of this argument is implausible for on-site SOBs; data show that women constitute trivially small proportions

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[62] We are often asked whether businesses that sell sexually explicit merchandise over the internet would have secondary effects. Perhaps; but because these businesses would not attract patrons to a physical site, any secondary effects would not be caused by the factors described in the criminological theory described in this section.

[63] *City of Los Angeles v. Alameda Books, Inc.* 535 U.S. 425 (2002).

[64] This section is based on McCleary and Tewksbury (2008).

of the patrons of cabarets, theaters, and peepshows.[65] The predicate is more plausible for off-site SOBs. At present, women appear to constitute 20-25 percent of the patrons at off-site SOB. As gender roles evolve and as more off-site SOBs begin to advertise and sell merchandise nominally intended for women, this proportion may grow.[66] No matter how large the proportion, however, if the off-site SOB also attracts male patrons, the criminological theory of secondary effects will apply to this SOB subclass.

To investigate gender phenomena, researchers recorded 729 patron-entrances at sixteen off-site SOBs in southern California over a two-year period. These sixteen sites were selected from a list of sites in three southern California counties because they shared five properties: (1) each sold sexually-explicit DVDs, aimed primarily at heterosexual audiences; (2) each sold other adult-themed merchandise; (3) each was open 24 hours; (4) each had a relatively high traffic flow, suggesting a profitable business; and (5) none had on-site viewing booths. Sites that lacked any of these properties were excluded from the study sample.

Table 3.5.1 - Sixteen Off-Site SOBs: 729 Patrons in 85 Hours

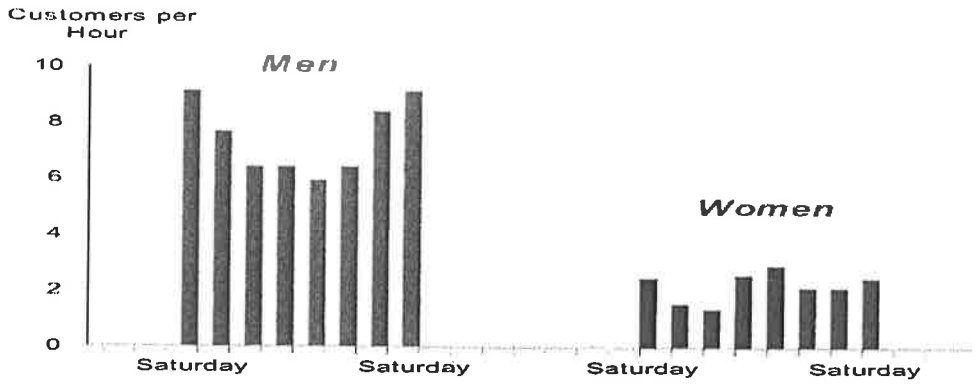
	Men		*Women*		*Proportion Women*
Alone	393	70.6 %	28	16.3 %	6.6 %
Same sex groups	116	20.8 %	86	48.8 %	42.6 %
Mixed sex groups	16	2.9 %	26	15.1 %	38.1 %
Couples	32	5.5 %	32	18.6 %	50.0 %

Table 3.5.1 reports one salient difference between male and female patrons. Of the 729 patrons who entered the SOBs, 172 (23.6 percent) were women. The proportion of women varies significantly by the manner of entry, however. Whereas most of the male patrons entered *alone* (70.6 percent), relatively few female patrons entered alone (16.3 percent). Nearly one-half (48.8 percent) of the women who entered were accompanied by other women. Another one-third entered in the company of a male partner (18.6 percent couples) or as part of a mixed male-female group (15.1 percent). This preferred method of entrance is consistent with the ethnographic literature on social deviance.

[65] Fisher, Hall and Hall (1998) report that less than three percent of the patrons of an adult cabaret are women. Ethnographic studies of adult theatres (Douglas and Tewksbury, 2008) and (Tewksbury, 1993) lead to similar estimates.

[66] See the case study of a "lingerie boutique" in Section 4.1.

Figure 3.5.1a - Entrances by Day of the Week for Men and Women

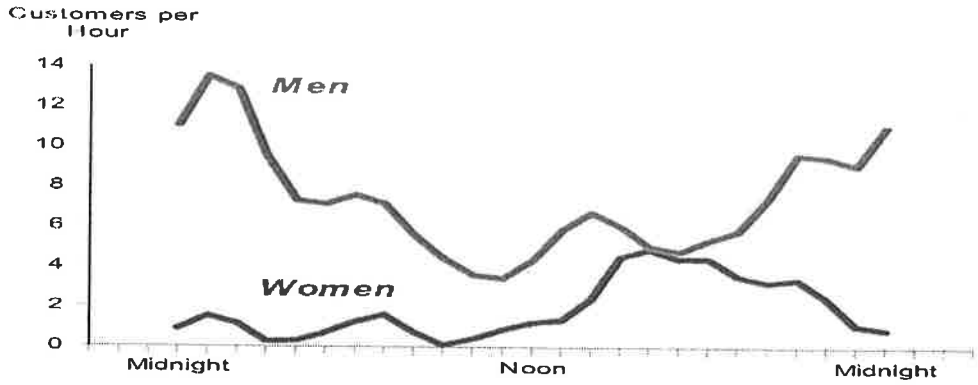


Figures 3.5.1a-b reports another salient difference between male and female patrons. In addition to their aversion to entering the SOB alone, compared to men, women's entrances occur at distinctly different days of the week and hours of the day. The vertical axes in these figures are calibrated in *entrances per hour* for men and women. The horizontal axes are calibrated in *day-of-the-week* (Figure 3.5.1a) and *hour-of-the-day* (Figure 3.5.1b). To facilitate interpretation, the weekly and daily cycles for men (in red) and women (in blue) were "smoothed" by three-day and three-hour moving averages.

The weekly cycle for male patrons exhibits a single dramatic Friday-Saturday-Sunday peak that accounts for roughly one-half (53.3 percent) of the weekly entrances by men. The weekly cycle for female patrons, in contrast, exhibits a weekend peak on Friday and a midweek peak on Tuesday. Neither peak is as dramatic as the single weekend peak for men. Indeed, it might be more accurate to say that the weekly cycle for women is distinguished by a two-day lull on Sundays and Mondays.

The hourly cycles for men and women, plotted in Figure 3.5.1b, reveal analogous gender differences. Whereas entrances by men peak shortly after midnight, entrances by women peak at five in the afternoon. The "night owls," consisting largely of men, are a significant proportion of the total patronage. More than one-fifth (22.8 percent) of the male patrons enter between midnight and three in the morning. Women enter sporadically during this period; women make up only a small proportion of the "night owls." Women prefer the late afternoon and early evening hours. Nearly half (46.7 percent) of the entrances by women occur between four and seven in the evening. Between five and six P.M., women and men enter at the same hourly rate.

Figure 3.5.1b- Entrances by Time of the Day for Men and Women



The gender differences plotted in Figures 3.5.1a-b can be interpreted to mean that men and women are very different sorts of patrons. Another interpretation, however, is that the nature of the off-site SOB changes, with respect to criminological theory, depending on the time of day. During late afternoon and evening hours, off-site SOBs are gender neutral that is; but after dark and continuing into the early morning, they are largely a male-dominated realm.

As a final note, the presence of a significant number of females at an SOB site can be a risk factor. If the SOB advertises the presence of unattached females at the site, *e.g.*, male patrons are attracted to the site. To attract unattached female patrons, SOBs have offered lingerie gifts; and SOBs have claimed in their advertising that their patrons include unattached females, especially exotic or nude entertainers and dancers.

3.5.2 Stigma and anonymity at off-site SOBs

Critics of the prevailing criminological theory argue that the "average" patron of an off-site SOB drives up, runs in, makes a purchase, runs out, and drives off. Although this "average" behavior may have common sense, it is inconsistent with the data. In an ethnographic study of an off-site SOB, Hefley (2007) reports that patrons spend significant periods of time in the immediate vicinity of the site. Some wait outside until the business is empty. Others "case" the business on multiple occasions before deciding to enter. Some patrons park their cars a block or more away and walk to the store. These "average" behaviors attract criminal predators to the site, creating the ambient public safety hazard predicted by the criminological theory of secondary effects.

When visiting SOBs it is common practice for patrons to enter the vicinity of the business and wait (sometimes significant periods of time) before entering the business. Donnelly's (1981) ethnographic study of two "adult cinemas" demonstrated that patrons frequently park near the SOBs and wait to enter until either no others are in the vicinity to see them enter, or enter when several others are entering, in an effort to maintain their anonymity and not be seen/recognized by others in the vicinity. As Donnelly (1981) explains, "With the exception of the large "groups" ... all patrons engage, to a greater or lesser degree, in hiding behavior" (p. 260) as they enter and leave the establishment. Others, including Hefley (2007) who studied an off-site SOB, have shown that some patrons actively modify their appearances (or, use "disguises") so as to manage the stigma they associate with being identified entering a SOB. In summary, Donnelly (1981), drawing on his own research and that of Karp (1973) and Sundholm (1973) concludes that "patrons prefer to main an extremely low-profile, and *do not wish to be seen at all.*" (pp. 241-242, emphasis in original).

The desire to remain anonymous and essentially invisible in the vicinity of SOBs is related to both a concern about stigmatization from observers, and concerns for safety. As made clear by Delph (1978, p. 29), for men who seek out sexual stimulation and encounters in any type of public location, their primary "concern is erotic fun without stigmatization." Avoiding notice and identification are key to such men. Concerns about safety, however, also include recognition that SOBs are hotspots for many forms of violent offenses. So too, however, are many SOBs locations of, or located very close to, sites of other forms of vice and criminal activity.

In a study of the pornography industry, Potter (1986) concluded that "Observations of the retail pornography trade make it abundantly clear that an overlap exists between porn and other forms of vice. Retail porn outlets in our sample also provide prostitution and gambling services, and in some cases drugs." Similarly, Stein's (1990, p. 78) 9.5 months working as a clerk in one adult bookstore revealed that "it was not uncommon for the bookstore to be used also as a referral agency" for a wide range of illicit services. As a result, patrons wishing to simply access sexually explicit merchandise or visual experiences may feel threatened by others in the environment who are perceived to be dangerous and purveyors of undesired goods and services.

Once they enter, patrons typically remain inside the SOB for short periods of time, almost always for less than one hour. When purchasing merchandise, patrons enter, browse, make a selection, pay, and then leave in short order. At peepshows, theaters, and other on-site SOBs, patrons stay inside the SOB for slightly longer periods of time, of course, but rarely for periods in excess of an hour.

The "hiding" activities that patrons demonstrate upon arrival and during entry to SOBs are continued once they are in the establishment. Patrons have consistently been shown to avoid eye contact, conversation, or being physically close to other patrons while in such establishments. This has been shown for off-site SOBs (Douglas and Tewksbury, 2008; Stein, 1990; Tewksbury, 1990, 1993), video arcades/peepshows (Douglas and Tewksbury, 2008; Stein, 1990; Sundholm, 1973; Tewksbury, 1990, 1993; Weatherford, 1986) and adult cinemas (Donnelly, 1981; Douglas and Tewksbury, 2008; Stein, 1990). Communications that occur between patrons in such locations are almost always brief, superficial/incidental and frequently nonverbal. Furthermore, for many patrons of SOBs, there is a sense of stigmatization perceived when the individual recognizes that they are being observed or "seen" in the establishment. Berkowitz (2006) documents that as a female patron in a retail SOB her observation of male patrons lead to men apparently feeling uncomfortable and that some "felt the need to escape the embarrassment of being labeled a pervert by exiting the establishment empty-handed" (p. 594).

Hiding and attempts to "manage and negotiate the shame that is associated with being a patron" (Berkowitz, 2006, p. 594) often includes efforts to keep others from knowing what a patron purchases. Berkowitz (2006, p. 595) explains that in her observations of one retail SOB, "many solo male patrons appeared timid and sometimes even uneasy. Many spoke in a low volume so that other patrons would not hear them when they were conversing with the store clerk. Finally, much of the time, the body language and nonverbal communication that these solo male patrons used hinted of awkwardness, in that their backs were hunched over, their eyes were wandering, and their arms were sometimes crossed directly in front of them."

Clearly, many patrons of SOBs demonstrate concerns about being identified and subsequently stigmatized if seen in or near SOBs. A recent anecdote illustrates this behavior, unfortunately in this instance, with dire consequences (Bourgeois, 2007). On the evening of March 1, 2007, a man parked his car in a dark lot several hundred feet away from *Dreamer's*, an off-site SOB in Kennedale, Texas.

Returning to his car, the man was confronted by a robber and was shot. Though seriously injured, the victim survived.

Although a legislature would not want to rely on anecdotal evidence alone, anecdotes of this sort constitute legitimate secondary effects evidence.[67] In addition to its corroborative value, however, this particular anecdote has some legal relevance. The off-site SOB in this incident, *Dreamer's*, was a plaintiff in *H and A Land Corp.*[68] One week prior to the shooting incident, a panel of the Fifth Circuit Court of Appeals clarified its earlier *Encore Videos* decision by concluding that a city's governing body had sufficient evidence to believe that off-site SOBs caused adverse secondary effects.[69]

3.6 CONCLUDING REMARKS: CRIMINOLOGICAL THEORY

The legal debate over crime-related secondary effects ignores the crucial role of criminological theory. *Without exception*, criminological theory predicts that SOBs will generate ambient public safety hazards. Plaintiffs' witnesses produce study after study to show that SOBs have *no* crime-related secondary effects or, sometimes, that SOBs have salutary public safety impacts on their neighborhoods. We will discuss the details of these studies at a later point. For present purposes, the criminological theory described in the preceding section is internally consistent and compelling – it makes sense in other words. As it turns out, the theory also agrees with the data.

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[67] See, *e.g.*, *World Wide Video of Washington, Inc. v. City of Spokane*, 368 F. 3d 1186, 1195-96 (9th Cir. 2004) ("Anecdotal evidence and reported experience can be as telling as statistical data and can serve as a legitimate basis for finding negative secondary effects ...").

[68] *H and A Land Corp. v. City of Kennedale, TX*, 480 F.3d 336 No. 05-11474 (5th Cir. 2007).

[69] *Id.*

4. OFF-SITE CASE STUDIES

The popular theories proposed by plaintiffs to explain why off-site SOBs might *not* have secondary effects are superficially plausible. Weighed against the formal criminological theory, however, the popular theories are found wanting. To the extent that off-site SOBs attract high-value, "soft-target" patrons to their neighborhoods, strong criminological theory predicts that off-site SOBs will generate the same crime-related secondary effect expected for on-site SOBs. The theory allows for qualitative differences, of course, but with respect to theoretical causes, there are no differences between the two complementary subclasses.

Nevertheless, until recently, the theoretical prediction was uncorroborated. Although off-site SOBs have been around since the advent of home video-tape players, researchers had not thought to question the relevance of criminological theory. Indeed, because the causes implicated by criminological theory were common to all SOB subclasses, researchers assumed that subclass distinctions were irrelevant. In line with this assumption, most of the secondary effect studies listed in Table 3 did not report separate effect estimates for each subclass. It was enough to report that *all* subclasses had adverse crime-related secondary effects.

The 1991 Garden Grove study is typical in that respect.[70] The SOBs studied in Garden Grove included at least one off-site SOB. Because the study found that *each* of the SOBs posed large ambient public safety hazards, one can infer by syllogism that off-site SOBs had adverse effects. The Fifth Circuit decision in *Encore Videos* noted explicitly, however, that the Garden Grove report did not report subclass-specific effects.

Following *Encore Videos*, government-sponsored studies have tried, where possible, to report specific effects for the off-site subclass. Given the relevant strong theory, the subclass-specific effects hold no surprises. The case studies reviewed in this section are typical in the sense that all corroborate the theoretical expectation. In addition, each illustrates an important aspect of the phenomenon.

- The subject of the first case study is an off-site SOB that characterized itself as a "lingerie boutique," catering primarily to couples and women. The evidence suggests that this self-characterization was, at worst, an exaggeration. Nevertheless, the data demonstrate a large, significant secondary effect following the opening of the SOB.
- The subject of the second case study is an off-site SOB located in a rural village with a population of 250 people. The SOB drew cross-country travelers, including big-rig truckers, off the interstate highway with predictable consequences. The analysis of this case study is complicated by the idiosyncrasies of the terrain. For example, where does one find a "comparable" village for a control?
- The third case study compares risk-distance functions (See Figure 3.4.2) for multiple-activity on-site SOBs – video arcades that sell merchandise – and off-site SOBs in Los Angeles. The risk-distance functions demonstrate that, like SOBs generally, off-site SOBs are point-sources of neighborhood victimization risk.

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[70] McCleary and Meeker (1991).

4.1 SIOUX CITY, 2006[71]

SOBs are nothing new to Sioux City, Iowa. Two had operated without incident in the city's older downtown area for decades. Although both sold sexually explicit DVDs, most of their revenue came from coin-operated viewing booths. Strictly speaking, both belonged to the on-site SOB subclass that Justice Souter characterized as the "commercially natural, if not universal" model. In terms of "look and feel," the two businesses were indistinguishable from on-site SOBs in larger cities.

In March, 2004, a third SOB opened in Sioux City. Unlike the two existing on-site SOBs, *Dr. John's* had no viewing booths. It was located in a newer area of the city and lacked the garish appearance associated with SOBs generally and, in particular, with Sioux City's two existing SOBs. During subsequent litigation, the trial judge commented on this fact:

> [T]he first impression of the store is a far cry from the first image that most people would likely have of an "adult book store" or "sex shop." There is nothing seedy about the neighborhood, store building, or store front. In fact, from a quick drive-by, one would likely assume that the business was a rather upscale retail store for women's clothing and accessories. There are no "adult" signs or banners proclaiming "peep shows," "live entertainment booths," "XXX movies," "live models," "adult massage," or any of the other tasteless come-ons all too familiar from adult entertainment stores that exist in virtually every American city of any size and which one may find scattered along interstates and highways even in rural America.[72]

The trial judge's drive-by impression may overstate the point. Few passers-by would mistake *Dr. John's* for anything other than what it was.

Regardless of its look and feel *Dr. John's* was located in a prohibited zone. When Sioux City attempted to enforce its zoning code, *Dr. John's* sued, arguing that off-site SOBs lacked the typical crime-related secondary effects associated with SOBs. To counter this argument, Sioux City produced police reports of incidents occurring within 500 feet of *Dr. John's* during the four years between January 1st, 2002 and December 31st, 2005. For purposes of quasi-experimental control, reports of incidents occurring with 500 feet of a nearby motel were also retrieved.

To control plausible threats to internal and statistical conclusion validity, the City collected analogous police incident reports for an adjacent control area, a 500-foot circle centered on a non-SOB. Because the two circles are tangent to each other and face the same thoroughfare, they have similar traffic flows. And because they have similar mixes of businesses and similar incident rates, their underlying ambient crime risks are similar. Because the underlying risk factors are identical in the two circles, any effect found in one of the circles should be found in the other as well. But that was not the case.

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[71] This case study is based on McCleary and Weinstein (2007).

[72] *Doctor John's, Inc. v. City of Sioux City, IA.*, 389 F.Supp.2d 1096, 1103 (N.D. Iowa 2005), quoting from court's ruling on plaintiff's motion for preliminary injunction.

Table 4.1 - Total Crime Before and After the Opening of *Dr. Johns*

	Before		*After*			
Total Incidents	***N***	***Rate***	***N***	***Rate***	***After/Before***	***Ratio***
Dr. John's	17	7.8	41	22.4	2.86	
Control	44	20.3	46	25.1	1.24	2.31
	Before		*After*			
"Victimless" Excluded	***N***	***Rate***	***N***	***Rate***	***After/Before***	***Ratio***
Dr. John's	12	5.5	31	16.9	3.08	
Control	26	12.0	32	17.5	1.46	2.11

The first row of Table 4.1 breaks down total incidents for the 793 days before and 668 days after the SOB opened. In the *Dr. John's* circle, the annual crime rate rose from 7.8 to 22.4 incidents per year, an increase of approximately 190 percent. Crime in the control circle rose as well but the increase was more modest. The rise from 20.3 to 25.1 incidents per year amounts to a 25 percent increase. Based on a crude comparison of these rates, *Dr. John's* appears to pose an ambient victimization risk.

To test whether the effect might be a chance fluctuation, we take advantage of the fact that crime incidents in the two circles are not different than Poisson (Haight, 1967: 94-95). Under a Poisson hypothesis, the after/before odds for the *Dr. John's* and control circles, reported in Table 3, are distributed as unit-mean log-Normal variables. The ratio of the two odds, also distributed as unit-mean log-Normal, is the maximum-likelihood estimate of the secondary effect. Since the value of the odds ratio is 2.31, compared to the control circle, ambient crime rose by 131 percent after *Dr. John's* opened for business. Because an effect estimate of this magnitude or larger occurs by chance with probability smaller than 0.01, the null hypothesis is rejected.

The second set of rows in Table 4.1 reports the analogous breakdown with "victimless" crime incidents excluded. If the opening of *Dr. John's* lead to heightened police surveillance, it is possible that the before-after effect is a simple "instrumentation" artifact. Indeed, in a critique of the 1977 Los Angeles secondary effects study relied upon in *Alameda Books*, Paul, Linz and Shafer cite this possibility:

> Although the findings of this study suggested high levels of criminal activity within these clusters, any implication that this is connected to the presence of adult businesses is invalidated by the fact that the researchers admitted to "stepped up" surveillance within these areas. Put simply, the police most likely found greater amounts of crime in the adult establishment areas because they were trying harder to find it.[73]

[73] P. 379, "Government regulation of 'adult' businesses through zoning and anti-nudity ordinances: de-bunking the legal myth of negative secondary effects." *Communication Law and Policy*, 2001, 6:355-391.

Whereas this explanation might be plausible for prostitution, drugs, and other "victimless" vice crimes, it is implausible for homicide, robbery, and the other "street" crimes reported in the 1977 Los Angeles study. On the contrary, heightened police surveillance will reduce the victimization risk of these crimes. So if the *instrumentation* hypothesis is plausible, the secondary effect should vanish when "victimless" crimes are excluded. As reported in Table 4.1, excluding "victimless" crimes from the estimate leads to the same conclusion.

4.1.1 Is it a "lingerie boutique" or is it a SOB?

The evidence suggests that, at worst, the self-characterization of *Dr. John's* as a "lingerie boutique" is an exaggeration. When this case study began in early 2006, one quadrant of the SOB's total floor space walled off with high display racks to create a separate room. The merchandise displayed in this room consists of DVDs and magazines and toys or devices, all of which was sexually explicit as that term was defined. The walls created a private room for patrons who wanted to browse and, at the same time, hid the sexually explicit merchandise from customers who might be offended. The merchandise displayed outside this room consisted of lingerie, swimwear, and other erotic (but not necessarily sexually explicit) items.

The walled-in room where sexually explicit merchandise was displayed was larger than 1,500 square feet.[74] The area outside this room, where no sexually explicit items were displayed, was about the same size. Although no door separated the two areas, and although patrons could move between the areas at will, the configuration gave the sense of two separated areas, only one of which met the City's SOB definitions. The City defined an SOB either in terms of 40 percent of floor space devoted to sexually explicit merchandise; or 40 percent of the inventory devoted to sexually explicit merchandise.

The fluid nature of the floor space complicates this criterion. In terms of merchandise, on the other hand, *Dr. John's* was clearly an SOB. Table 4.1.1 reports an inventory of *Dr. John's* stock completed in the first week of January, 2006. The retail value of the sexually explicit merchandise displayed in the 1,500 square-feet room $558,302.99, or approximately 50 percent of the total inventory. By the stock criterion, on the other hand, *Dr. John's* is an SOB.

Table 4.1.1 - Stock inventory for Dr. John's

	Count		*Retail Value*	
DVDs / Books	10,630	19.3%	395,809.39	35.0%
Toys / Devices / Novelties	32,469	58.8%	331,605.03	29.4%
Lingerie, Swimwear, etc.	12,109	21.9%	403,469.99	35.4%
Total	55,208		$1,130,884.41	

Even if *Dr. John's* passed the display-space and stock criteria, it would have been judged an SOB by the fact that it promotes itself as an SOB through its signage and website. Both give the same prominent note to DVDs and toys that is given to lingerie, telling more or less the same story as the inventory mix reported in Table 4.1.1. While one can buy the same merchandise at *Dr. John's* that is

[74] To put this in perspective, the combined floor space of Sioux City's two on-site SOBs was less than 1,500 square feet, booths excluded.

found at, say, *Victoria's Secret*; one can also buy the sexually explicit merchandise found at Sioux City's two on-site SOBs.

4.1.2 Dr. John's patrons

To estimate the characteristics of *Dr. John's* clientele, an automatic surveillance camera was set up to take still-shots at three-second intervals of customers entering *Dr. John's*.[75] The cumulative record was reviewed by Irvine graduate students. Entrances by gender were recorded for 14.5 hours. Of the 180 customers who entered *Dr. John's*, 118 (65.6 percent) were males and 62 (34.4 percent) were females.

Table 4.1.2 reports a more instructive breakdown. Some customers entered *Dr. John's* in groups. Customers who entered singly were most likely to be male. Customers who entered in same-sex or different-sex groups, on the other hand, were as likely to be female as male. The male-female ratio was 50:50 for couples by definition. Excluding couples, the 132 customers who entered *Dr. John's* singly or in groups remains disproportionately and, roughly, by the same 2:1 male-female ratio.

Table 4.1.2 - Customers by sex and group

	Singles	Same-Sex Groups	Mixed-Sex Groups	Couples	
Males	**64**	**16**	**9**	**29**	**118**
Females	**11**	**13**	**9**	**29**	**62**
	75	**29**	**18**	**58**	**180**

Except for the smaller numbers, the distribution of entrances reported in Table 4.1.2 is consistent with the distributions plotted in Figures 3.5.1a-b. Although many off-site SOBs have some success at attracting women and couples, the SOBs remain a male-dominated realm.

4.2 MONTROSE, 2003[76]

The relevance of the government's secondary effects evidence can be challenged through either of two arguments. The first is predicated on the fact that the evidence has ignored some *relevant* difference among distinct SOB subclasses. Challenges by off-site SOBs illustrate this argument. The second is predicated on the fact that the evidence has ignored some idiosyncratic (but nevertheless *relevant*) local condition. In 2004, an SOB in rural Kansas used criminological theory to argue that the sparsely-populated rural environment precluded the possibility of secondary effects. And since the local government had not studied this issue prior to enactment, the ordinance should be struck down.

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[75] The camera surveillance was conducted by Richard Matousek, a private investigator retained by the City.

[76] This case study is based on "Rural hotspots: the case of adult businesses." *Criminal Justice Policy Review*, 2008, 19:1-11.

Rejecting this argument, the trial court granted the defendant's summary judgment motion. On appeal, however, in *Abilene Retail*,[77] the Tenth Circuit agreed with the plaintiff's interpretation of criminological theory:

> All of the studies relied upon by the Board examine the secondary effects of sexually oriented businesses located in urban environments; none examine businesses situated in an entirely rural area. To hold that legislators may reasonably rely on those studies to regulate a single adult bookstore, located on a highway pullout far from any business or residential area within the County would be to abdicate out "independent judgment" entirely. Such a holding would require complete deference to a local government's reliance on prepackaged secondary effects studies from other jurisdictions to regulate any single sexually oriented business of any type, located in any setting.[78]

Because the SOB was located in an isolated rural area, and because the County had no evidence to suggest that rural SOBs would have secondary effects, the Tenth Circuit reversed the summary judgment and remanded the case for trial.

Ignoring the question of *relevance*, the argument's predicate is correct. Because most criminological research is conducted in urban areas, criminological theories do not *necessarily* generalize to rural areas. In fact, it is entirely possible that some obscure criminological theory might not generalize to rural areas and populations. But the relevant routine activity theory of hotspots, outlined in Section 2 above, generalizes to any accessible area, urban, suburban, or rural. This is corroborated by a recent case study. When an SOB opens on an interstate highway off-ramp in a sparsely populated rural community, ambient crime risk rises precipitously, turning the community into a rural "hotspot of predatory crime."

An unincorporated village of 250 residents, Montrose, Illinois is located on I-70 midway between St. Louis and Indianapolis. I-70 separates Montrose's residential dwellings from its businesses: a convenience store-gas station, a motel, and for a short period, a tavern. Other than gas and lodging, cross-country travelers had no reason to exit I-70 at Montrose prior to February, 2003. In that month, the *Lion's Den* opened on a service road within 750 feet of the I-70 off-ramp. A large, elevated sign let I-70 travelers know that X-rated videos, books, and novelties could be purchased "24/7." The store was successful by all accounts.

The residents of Montrose did not welcome the new business. Unlike the village's other businesses, the *Lion's Den* was located on the residential side of I-70. Complaining that the store disrupted their idyllic life-style, villagers picketed the site on several occasions. Traffic was a chronic complaint. The narrow gravel access road connecting the site to I-70 could not support the weight of big-rig trucks; it soon fell into disrepair. The *Lion's Den* offered to build a new, larger access road from I-70 to its site. But fearing an even larger volume of traffic, the villagers declined the offer.

Like all Illinois villages, Montrose had no SOB ordinances. The *Lion's Den* was located within 1,000 feet of a public park, however, in violation of an Illinois statute. When the State moved to enforce its statute, the *Lion's Den* sued, arguing that "off-site" SOBs could not generate the public safety hazards associated with adult cabarets, video arcades and other on-site SOBs. The trial in *State v. The Lion's Den, et al.* lasted four days. The court upheld the statute and, in July, 2005, the Montrose *Lion's Den* closed its doors.

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[77] *Abilene Retail #30, Inc. v. Board of Commissions of Dickinson County, Kansas*, 492 F.3d 1164, 1175 (10th Cir. 2007).

[78] *Id.* at 1175.

Table 4.2 - Crime-Related Secondary Effects of a Rural Off-Site SOB

	Open		*Closed*				
					Log Effect	*B*	*t*
Property Crimes	23	9.54	15	7.20			
Personal Crimes	3	1.24	5	2.40	Constant	-3.267	-17.60
All Other Crimes	28	11.61	9	4.32	Open	0.475	2.06
Total Crimes	54	22.39	29	13.92		$e^{0.475}$. 1.61	

At the trial, the State presented evidence of the *Lion's Den*'s adverse impact on the surrounding area: sexually explicit litter and decreased use of the nearby park. Neither party presented local crime data, however. Table 4.2 reports data bearing on this issue. During the 1,642-day period beginning January 1st, 2002, the Effingham County Sheriff's Office recorded 83 crime incidents in the Village. The most common incidents involved the theft or destruction of property. Incidents of disorder and indecency, traffic-related incidents, and alcohol-drug offenses were nearly as common. But incidents involving danger or harm to persons (robbery, assault, *etc.*) were rare.

The columns labeled "Open" and "Closed" in Table 4.2 break the incidents down into an 881-day segment in which the *Lion's Den* was open and a 761-day segment in which it was closed. Crime rates are 22.39 and 13.92 total incidents per year for the "Open" and "Closed" segments. From these raw rates, it appears that crime risk in Montrose rose when the *Lion's Den* opened and fell when the *Lion's Den* closed. The magnitude of the effect is proportional to the exponentiated effect estimate reported in Table 4.2 ($e^{0.475} = 1.61$). The crime rate in Montrose was 61 percent higher while the Lion's Den was open.

Could the effect be due to chance? That is unlikely. The effect estimate reported in Table 4.2 is statistically significant at the conventional 95 percent confidence level. Could the effect be due a coincidental increase in the frequency of patrols the Effingham County Sheriff? That too is unlikely. Whereas heightened surveillance can exaggerate "victimless" crime rates, heightened surveillance would *not* produce higher rates of serious crime and, while the *Lion's Den* was open, crime in the Village grew more "serious," including two armed robberies, one committed by a gang of four men wearing ski masks and armed with shotguns. Both armed robberies were committed at site of the *Lion's Den*, moreover, and were the only robberies recorded in the Village's modern history.

The timing of the crime incidents reinforces this point. While the *Lion's Den* was closed, Montrose's modal crime incidents were "drive-off" thefts from the Village's gasoline station and vandalism at the Village's motel. Most of these incidents occurred in daylight and required no immediate response from the Sheriff's Office; and because the businesses were separated from residences by I-70, the modal incidents attracted little attention. While the *Lion's Den* was open, on the other hand, a majority of incidents occurred at night and demanded immediate response; as more incidents began to occur on the residential side of I-70, crime became more noticeable to Village residents.

The Tenth Circuit may not have found the Montrose results relevant to *Abilene Retail*. Every case study is unique in some respect, after all; and although the U.S. Census Bureau considers both Effingham County, Illinois and Dickinson County, Kansas to be "rural," the Tenth Circuit may have focused on idiosyncratic, legally relevant factors. Nevertheless, the case study results demonstrate that, whether urban, suburban, or rural, hotspots are hotspots. Whether the area is urban, suburban, or rural,

SOBs attract patrons from wide catchment areas. Because these patrons are disproportionately male, open to vice overtures, and reluctant to report victimizations, their presence attracts offenders, generating ambient victimization risk – a hotspot of predatory crime. This theoretical mechanism operates identically in rural, suburban, and urban areas but, because rural areas ordinarily have lower levels of visible police presence, rural hotspots may be riskier than their suburban and urban counterparts.

Solving the problem by allocating more police to rural areas is politically unfeasible. Governments allocate public safety resources across regions on utilitarian grounds. Per capita allocations have the greatest impact on per capita crime rates. This poses an obstacle to rural problem-oriented policing, of course, but it is a rational policy for a government. Because the targets attracted to the rural hotspot live outside the jurisdiction, and because victimizations are under-reported, ignoring the hotspot is a more realistic strategy.

The future is unclear. The relocation of adult businesses to rural areas parallels the post-war "flight" of inner-cities families. From the perspective of adult business proprietors, the urban environment has become hostile. Zoning codes force adult businesses into "ghettos" where their operations are strictly regulated and where competition with other adult businesses is fierce. Rural areas have few regulations, on the other hand, and little competition; access to interstate highway traffic is a bonus. As urban environments become more hostile, more adult businesses will relocate to rural areas, forcing state and county governments into policy decisions.

4.3 ALAMEDA BOOKS *REDUX: LOS ANGELES, 2008*

In 1977, the City of Los Angeles conducted a comprehensive secondary effects study[79] that found, among other things, an association between ambient crime and SOB concentrations. Based on this finding, Los Angeles required a minimum distance between SOB sites. When SOBs began to evade the minimum distance rule by merging, the City amended its ordinance to require minimum distances between distinct *activities*. The amendment forced "commercially natural if not universal" SOBs to segregate DVD sales from viewing booths.

In 1995, two affected SOBs challenged the amended ordinance. Because the 1977 study did not address the secondary effects of combining multiple activities under one roof, it was argued that Los Angeles had no evidence that multiple-activity businesses generated secondary effects. The trial court agreed and the Ninth Circuit affirmed. The U.S. Supreme Court reversed, reaffirming *Renton* and allowing that a government could infer, from the findings of the1977 study, that concentrations of distinct *activities* – in particular, DVD sales and viewing booths on the same site – generated secondary effects. In a complicated split decision, the Court remanded the case for trial.

In 2006, the City of Los Angeles retained McCleary to examine the secondary effects rationale for the amended ordinance. Would dividing a multiple-activity SOB into single-activity SOBs, as required by the amended ordinance, yield a reduction in ambient crime risk? Ideally, this question could be addressed by finding a member of the "commercially natural if not universal" SOB subclass that had been divided into discrete units that sold DVDs (but had no booths) and that operated coin-operated viewing booths (but did not sell DVDs). If the amended ordinance had a legitimate rationale, one would expect the ambient risk for the multiple-activity SOB to be greater than the sum of the risks for its constituent single-activity SOBs.

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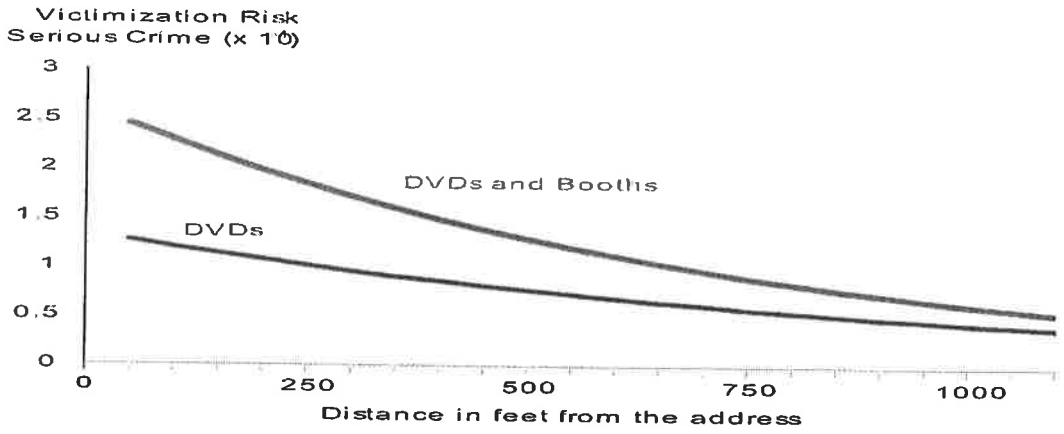
[79] City of Los Angeles Department of City Planning (1977), cited in *Alameda Books* at 429.

Figure 4.3 - Risk by Distance from the Site, UCR "Serious" Crime



Unfortunately, there were no ideal "natural experiments" of this sort to be found in Los Angeles. Alternatively, using the same logical argument, one could compare the ambient crime risks for multiple-activity SOBs – which we will call "bookstore-arcades" – to the ambient risks for single-activity "bookstores" and "arcades." Since there were no *pure* arcades[80] in Los Angeles, however, only part of this alternative design could be implemented. Though less than the ideal – which is almost always true – the partial design tells us much about the phenomenon.

Figure 4.3 plots the risk-distance functions for twelve bookstore-arcades (in red) and seven bookstores (in blue). The vertical axis is calibrated in annual UCR Part I ("serious") crime incidents (homicide, aggravated assault, robbery, rape, burglary, theft, auto theft, and arson) per square mile. The horizontal axis is calibrated in distance from the site. As Figure 4.3 shows, both SOB subclasses are risky places. Since both risk-distance functions are statistically significant at the conventional 95 percent confidence level, both SOB subclasses have secondary effects. Compared to bookstores, however, bookstore-arcades are riskier at all distances and the difference between the two functions is significant.

4.4 CONCLUDING REMARKS

Some subclass specific risks arise because the defining characteristic of the subclass creates idiosyncratic opportunities for particular types of crime. Other subclass-specific risks arise when the defining characteristic of the subclass compromises the effectiveness of common policing strategies. The relatively higher ambient risks of bookstore-arcades accrue from both sources. Nevertheless, the failure of economical policing strategies is the greater problem. The optimal policing strategy for SOBs with viewing booths requires that police inspect the interior, placing officers at risk of injury. Accordingly, policing this subclass requires special training and equipment, prior intelligence, backup manpower, and other resources.

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[80] SOB arcades that sell *no* adult merchandise whatsoever are rare. But there are many that derive very little revenue from the same of adult merchandise.

Absent viewing booths, the optimal policing strategy rests heavily on routine drive-by patrols. Since the ambient risk function for this subclass can cover a several-block area (see Figure 4.3), drive-by patrols is an efficient way to provide a visible police presence to the neighborhood. Visibility is *per se* a deterrent. Routine patrols can keep watch for known offenders and suspicious activity. When problems are spotted, the routine patrol can forward the information to a specialized unit or, if necessary, handle it on the spot, requesting backup resources only as needed. Needless to say, neighborhood patrols by plainclothes officers in unmarked cars would be inefficient. Whereas visibility is central to policing SOB bookstores, the presence of viewing booths requires invisible (plainclothes) police presence inside the SOB. The optimal policing strategies of the two subclasses are incompatible.

Criminological theory is clear on the threshold question of whether off-site SOBs are exempt. They are not. As it turns out, moreover, the Fifth Circuit had not intended its *Encore Videos* decision to be interpreted as a comment on applicability of criminological theory. Four years later, the Fifth Circuit upheld a Kennedale, Texas ordinance aimed at off-site SOBs.[81] Unlike the San Antonio ordinance under challenge in *Encore Videos*, the Kennedale ordinance relied on studies of off-site SOBs. The Court took the opportunity, furthermore, to clarify the short note in *Encore Videos* that had been misinterpreted as questioning the applicability of criminological theory.[82]

On March 1st, 2007, exactly one week after the Fifth Circuit's *H and A Land Corp.* decision, a man parked his car in a dark lot near an off-site SOB in Kennedale, Texas. Returning to his car, the man was confronted by a robber and shot (Bourgeois, 2007). Though seriously injured, he survived. Governments would not want to rely on anecdotal evidence alone. Nevertheless, anecdotes of this sort constitute legitimate secondary effects evidence.[83] In addition to its corroborative value, this particular anecdote has some legal relevance because the off-site SOB was a plaintiff in *H and A Land Corp.*

[81] *H and A Land Corp. v. City of Kennedale, TX.*, 480 F. 3d 336 (5th Cir. 2007).

[82] *Id.* at 340

[83] See, *e.g.*, *World Wide Video of Washington, Inc. v. City of Spokane*, 368 F.3d 1186, 1195-96 (9th Cir. 2004) ("Anecdotal evidence and reported experience can be as telling as statistical data and can serve as a legitimate basis for finding negative secondary effects ...").

5. SAN ANTONIO

In early 2006, several Texas cities were evaluated as candidates for an intensive case study. Due to its historical role in the off-site/on-site controversy, San Antonio was the leading candidate. As information on the candidate cities accumulated, San Antonio's advantages grew more apparent. It had several off-site and on-site SOBs, for example; and although all of the candidate cities had reasonably reliable machine-readable crime incident data, San Antonio's city attorney was particularly supportive of the case study concept. In the final analysis, San Antonio offered the strongest mix of data, design, and resources.

Another factor arguing for San Antonio was the publication, in early 2006, of a secondary effects study based on San Antonio data. Using a cross-sectional quasi-experimental design that had been used in Greensboro (Linz and Yao, 2003) and Daytona Beach (Linz, Fisher, and Yao, 2004), Enriquez, Cancino and Varano (2006)[84] found that:

> After controlling for socioeconomic and demographic community characteristics associated with social disorganization, ... the empirical evidence tempers the San Antonio City Council's contention that the presence of [SOBs] produces crime. Instead, the results point to weak institutions, namely alcohol outlets and community characteristics associated with social disorganization theory as causes and correlates of crime (p. 34).

Critics of the quasi-experimental design used by Enriquez, Cancino, and Varano note that it is strongly biased in favor of the null finding. This bias might explain why the design has become a favorite of SOB plaintiffs. We will expand on this issue in the following sections.

5.1 THE ENRIQUEZ-CANCINO-VARANO NULL FINDING

To test whether SOBs have any secondary effects whatsoever, Enriquez, Cancino, and Varano regress *per capita* crime rates for San Antonio "neighborhoods" (Census Block Groups) on nine "social disorganization" variables.[85] After statistically adjusting for the effects of these variables, Enriquez, Cancino, and Varano compare the crime rates in neighborhoods with and without "human display establishments" (SOBs). Because the R^2 statistic associated with the difference was not significant at the conventional 95 percent confidence level, Enriquez, Cancino, and Varano concluded that the difference is *null* – that SOBs have no statistically significant crime-related secondary effects. To investigate the validity of this conclusion, we attempted to replicate their analysis. Although we could not reproduce their results exactly, the results of our reanalysis are consistent with their results in one important respect.[86] Nevertheless, our results support a very different conclusion.

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[84] Roger Enriquez is assistant professor of criminal justice, University of Texas, San Antonio; Jeffery M. Cancino is associate professor of criminal justice at Texas State University, San Marcos. Sean P. Varano is assistant professor of criminal justice at Northeastern University.

[85] As proposed by Shaw and McKay (1942), the theory of social disorganization holds that neighborhoods with low residential stability will have high rates of delinquency and *vice versa*. The theory draws heavily from grand sociological theory (*e.g.*, Tönnies, 1963[1887]; Durkheim, 1964[1893]) and from the early Chicago school experience.

[86] At a minimum, replication would require the arithmetic means and variances of all variables as well as the covariances among variables. These "sufficient statistics" are ordinarily published along with results. Although

Table 5.1 - Effect Estimates, *Per Capita* Total Crime

	Effect	$\alpha < p$	*Effect*	$\alpha < p$
Constant	361.5		-447.2	
Renter Occupied Housing	-81.3	.05	-181.9	.54
Latinos	-134.9	.0001	407.4	.05
Blacks	-41.0	.53	232.5	.24
Divorced	-416.0	.002	2778.4	.00
Median Household Income	-2.7	—	-4.0	.15
Vacant Housing	86.5	.37	3446.8	.001
15-29 Year Old Males	-428.1	.01	-678.9	.0001
Female-Headed Households	62.0	.16	1339.3	.14
Alcohol Establishments	**15.2**	**.00001**	**189.7**	**.12**
Adult Display Establishments (SOBs)	**73.5**	**.20**	**1976.2**	**.0001**

Table 5.1 reports a side-by-side comparison of the results reported by Enriquez, Cancino, and Varano (in red; taken from Table 7, pp. 33-4) and the results of our replication (in blue). The columns labeled "Effect" give the unstandardized effect estimates (*per capita* crime rates). The columns labeled "$\alpha < p$" give the corresponding significance levels. By convention, any effect estimate with a probability smaller than $\alpha < 0.05$ is statistically significant. The last row of Table 5.1, which reports effect estimates and significance levels for "alcohol establishment" and "adult display establishment (SOB) neighborhoods, tells the story.

- In terms of *per capita* total crime, Enriquez, Cancino, and Varano find that the effect of "adult display establishments" is nearly five times larger than the analogous effects of "alcohol establishments" ($73.5/15.2 \approx 4.8$). But since the corresponding probability ($\alpha=0.2$) is larger than 0.05, the five-fold effect is not statistically significant.
- The replication finds that the effect of "adult display establishments" is more than ten times larger than the analogous effect of "alcohol establishments" ($1976.2/189.7 \approx 10.4$). Since the corresponding probability ($\alpha=0.0001$) is smaller than 0.05, moreover, the ten-fold effect is not statistically significant.

In purely *substantive* terms, the original analysis and our replication produce consistent results. Neighborhoods with "adult display establishments (SOBs)" have higher *per capita* crime rates than "alcohol establishment" neighborhoods. Whether the effect ratio is five-fold or ten-fold, it is *substantively* large.

In purely *statistical* terms, on the other hand, the original analysis and our replication produce *discrepant* results. Whereas in the original analysis, the substantively large difference in *per capita* crime rates is *not* statistically significant ($\alpha=0.2$), in our reanalysis, the difference is *highly* significant

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Enriquez, Cancino, and Varano (2006) did not publish these data, they offered "Other tables and models are available on request" (fn. 80, p. 20). The authors have ignored two requests for their statistics.

(α=0.0001). Which statistical result is more credible? Leaving this question unanswered for the present, Enriquez, Cancino, and Varano interpret the statistical size of their effect to mean that San Antonio SOBs have no crime-related secondary effects; and this has clear legal implications:

> According to the plurality test in *Alameda*, the present study would certainly cast "direct doubt" on the rationale or evidence used to support the adoption of the San Antonio ordinance. This would then shift the burden back to the municipality. However, it is not clear what evidence a court would require from a municipality to justify the ordinance. (pp. 34-5)

But in fact, the fragile null finding reported by Enriquez, Cancino, and Varano is *not* sufficient to "cast direct" doubt on the factual predicate of San Antonio's ordinance. Indeed, what Enriquez, Cancino, and Varano characterize as a null finding is, by the most widely accepted conventions of statistical hypothesis testing, an *inconclusive* finding. We will return to this point after reporting the results of our San Antonio analysis.

5.2 THE RESULTS OF OUR SAN ANTONIO CASE STUDY

Table 5.2 lists the addresses of fourteen SOBs that were open for business in the City of San Antonio during the five-year period between January, 2002 and December, 2006. All fourteen SOBs sell videos and other adult merchandise for off-site use. The first three sites (in blue) also operate on-site viewing booths, however; they are "on-site" SOBs. The next eleven sites (in red) do not operate on-site viewing booths; they are "off-site" SOBs. The list of SOB sites (Table 5.2) was developed from searches of internet sources and licensing databases, and from consultations with City of San Antonio officials.

Each of the fourteen sites was visited at least once between January, 2006 and May, 2008. Many of the sites were visited on several occasions during that period. Each site visit included inspections of the surrounding neighborhoods, informal interviews with employees and patrons of the SOBs where possible, and sometimes, interviews with neighbors. Although we cannot be certain that the fourteen sites listed in Table 5.2 is exhaustive, the list is as complete as possible and representative of the SOBs in San Antonio.

Table 5.2 - Fourteen San Antonio SOBs

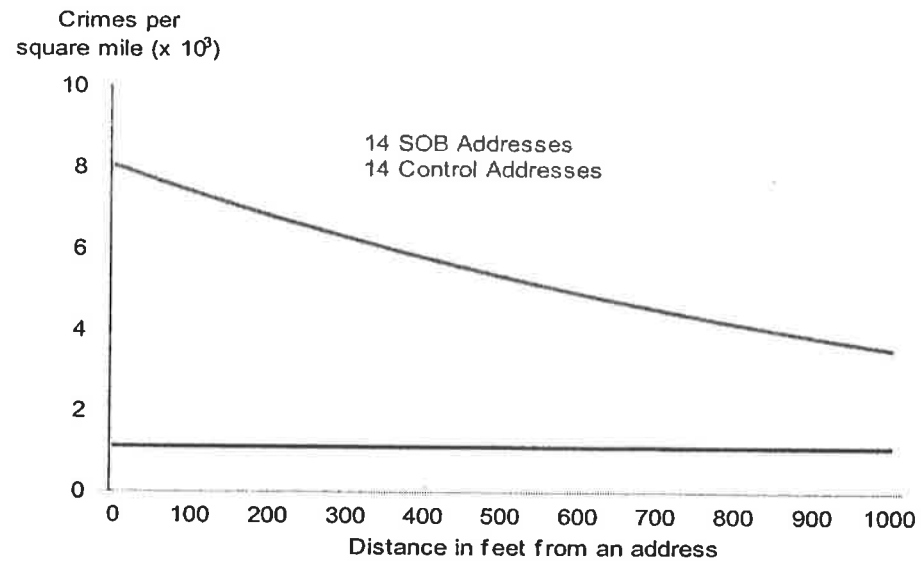
		2000 U.S. Census	
	Address	***Tract***	***Block Group***
Adult Video MegaPlexx	9405 I 35 N	1212032	2
Body Language	8071 Culebra Rd	1719113	3
Adult Video MegaPlexx	11827 San Pedro Ave	1913022	2
Venus	3848 Culebra Rd	1805043	3
Texxxas Nights	6305 Wurzbach Rd	1807024	4
Zebraz	1608 N Main	1108005	5
Broadway News	2202 Broadway St	1110003	3
Apollo News	2376 Austin Hwy	1205025	5
Encore Video - 1031[87]	1031 NE 410	1210001	1
Leather and Lace Video	2525 NE 410	1212043	3
Temptations	8373 Culebra Rd	1719111	1
Shades of Love	300 West Bitters	1917002	2
Pop-in-go Video Superstores	7121 90 W	1616002	2
Pop-in-go Video Superstores	3655 Fredericksburg Rd	1802013	3

To measure the hypothetical crime-related secondary effects of the fourteen SOBs, we collected official crime data from the San Antonio Police Department. The dataset that was released to us included all crime incidents recorded in the City of San Antonio between January, 2002 and December, 2006. During this five-year period, the San Antonio Police Department recorded the locations of 457,603 incidents. All but 2,866 of those were successfully matched to San Antonio addresses, for a match rate of 99.4 percent. A 70 percent match rate is the norm for geocoding. The extraordinarily high match rate in this study is due in part to the geocoding system used by the San Antonio Police Department. Although each crime incident was coded with a modified NIBRS descriptor (U.S. Department of Justice, 2000), for analytic purposes, the incidents were collapsed into three broad categories: personal crime incidents, property crime incidents, and all other crime incidents. We report the results for total crime only.

One shortcoming of the statistical model used by Enriquez, Cancino, and Varano (2006) is that the land area of their "neighborhoods" (*i.e.*, Census Block Groups) is too large to capture the secondary effects of SOBs. Whereas the ambient crime risk emanating from an SOB point-source is optimally detectable in a 500-foot circle around the site (see Figure 3.4.2) – an area of approximately 0.028 square miles – the median San Antonio Census Block Group covers an area of 0.24 square miles. This factor-of-nine disparity generates a profound bias in favor of the null finding. When smaller, more appropriate areal units are analyzed, however, large, significant crime-related secondary effects emerge.

[87] The plaintiff "Encore Videos" in the Fifth Circuit decision is "Zebraz."

Figure 5.2 - Risk-Distance Functions for Fourteen San Antonio SOB Sites



To illustrate, Figure 5.2 plots total crime risk-distance functions for fourteen SOBs (in red) and fourteen randomly selected control sites (in blue). The fourteen control sites were drawn at random from the set of San Antonio addresses in the 2000 U.S. Census tracts where SOBs are located. Although there are (literally) thousands of potential control addresses in the complete set, a random sample of fourteen addresses balances the design, thereby optimizing its interpretability.

The technical details of Figure 5.2, including the calculation and interpretation of the numbers (*i.e.*, "Crimes per square mile x 10^3"), are described separately in Section 6 below. For present purposes, ignoring these technical details, several points emerge from the risk-distance functions.

- In terms of total crime, SOBs are risky places. As one moves toward an average SOB, victimization risk (defined loosely, as the probability of becoming a crime victim) rises. As one moves away, victimization risk diminishes.
- The risk-distance function for control addresses (in black) is relatively flat. No matter how near or far one might be from the average control site, victimization risk remains constant.
- At any distance, ambient victimization risk is significantly lower for control addresses compared to SOB addresses. This relationship holds for distances greater than 1,000 feet, approximately two long city blocks.

Although it is possible in principle to estimate distinct risk-distance functions for off-site and on-site SOBs, the difference between the two risk-distance functions is not statistically significant at the conventional 95 percent confidence level. Our inability to estimate distinct functions is due in part to the relatively small number of on-site SOBs (three *vs.* eleven off-site SOBs) and to the proximity of one off-site SOB to an on-site SOB. Tests of statistical significance are a technical topic that will be covered in Section 6 below.

5.3 THE "DIRECT DOUBT" CONTROVERSY[88]

Finding that the difference in *per capita* crime rates between SOB and non-SOB control neighborhoods is *not* statistically significant, Enriquez, Cancino, and Varano argue that the null finding "casts 'direct doubt' on the rationale or evidence used to support the adoption of the San Antonio ordinance." Of course, any investigator who *wants* to produce a null finding can do so, quite simply, by using the "weakest" possible quasi-experimental design. To guard against the potential abuse, rigidly enforced methodological rules require the investigator to demonstrate that a design is sufficiently "powerful" to support the null finding. Otherwise, the finding is judged to be *inconclusive*.

The "statistical power" of a quasi-experimental design is best illustrated by the distinction between the *substantive* and *statistical* size of a secondary effect. In terms of *per capita* total crime, Enriquez, Cancino, and Varano found that the effect for San Antonio's "human display establishments" was 4.84 times larger than the analogous effect for "alcohol establishments." Most residents of San Antonio – including the City Council and Police Department – would call this effect *substantively* large. Nevertheless, the effect is *statistically* small – not significant at the conventional 95 percent confidence level. Ignoring the effect's substantive size, Enriquez, Cancino, and Varano argue that *statistically* small effect are "not different than zero." And if an effect is "not different than zero," then perhaps it "is zero." And if the effect "is zero," then it casts "direct doubt" on the evidentiary basis of the San Antonio ordinance.

Of course, this argument ignores the methodological rules of statistical hypothesis testing. Figure 5.3a summarizes these rules by analogy to a jury trial. Suppose that an SOB stands accused of posing an ambient crime risk. After hearing the evidence, the jury can convict, acquit, or hang. If the jury convicts, there is a small (but non-zero) probability that the jury convicted an innocent SOB; *i.e.*, a false-positive (or "Type I" or "α-type") error. If the jury acquits, on the other hand, there is a small (but non-zero) probability that the jury acquitted a guilty SOB; *i.e.*, a false negative (or "Type II" or "β-type") error. Finally, if the jury hangs, there was no decision and, hence, no possibility of error.

Figure 5.3a - Jury Trials and Hypothesis Tests

	But in Reality, the Defendant is ...	
	Guilty	**Not Guilty**
The Jury Convicts	95% Confidence	5% False Positives
The Jury Hangs	?	?
The Jury Acquits	20% False Negatives	80% Power

In real-world courtrooms, the probabilities of false-positive and false-negative verdicts are unknown. Courts enforce strict procedural rules to minimize these probabilities but we can only guess

[88] This section is based on McCleary and Meeker (2006).

at their values. In statistical hypothesis testing, on the other hand, rigid convention sets the values at five percent for false-positives and twenty percent for false negatives.[89] Adopting these same values, to convict, the jury must be 95 percent *certain* of the SOB's guilt. To acquit, the jury must be 80 percent *certain* of the SOB's innocence. To ground the 95 and 80 percent certainty levels, we could try each case in front of a large number of independent juries. To convict, 95 percent of the juries would have to return the same guilty verdict; in the case of an acquittal, 80 percent would return the same not guilty verdict.

Correct and incorrect decisions are painted blue and red respectively in Figure 5.3a. Five percent of all convictions are false-positives and 20 percent of all acquittals are false-negatives. When the levels of certainty are too low to support conviction *or* acquittal, of course, the jury hangs. Non-decisions, painted yellow in Figure 5.3, depend on factors such as the strength of evidence, credibility of witnesses, and so forth. So as not waste a jury's time, the prosecutor doesn't bring obviously weak cases to trial. Likewise, faced with strong evidence of guilt, the defense counsel seeks a plea bargain in order to avoid trial.

The analogy to statistical hypothesis testing is nearly perfect. The researcher considers two complementary hypotheses. The SOB either has secondary effects; or alternatively, the SOB does not have secondary effects. Based on the magnitude of the expected and estimated effects, the researcher then accepts one of the two hypotheses.

- If the false-positive rate for the estimated effect is smaller than five percent, the hypothetical secondary effect is accepted with 95 percent *confidence*. The SOB has a large, significant secondary effect.

If the false-positive rate is larger than five percent, researcher does not automatically accept the alternative hypothesis but, rather, conducts a second test.

- If the false-negative rate for the expected effect is smaller than twenty percent, the alternative hypothesis is accepted with 80 percent *power*. The SOB does not have a secondary effect.

But lacking *both* 95 percent confidence *and* 80 percent power, neither hypothesis is accepted; *the results are inconclusive*. Since inconclusive results invariably arise from weak research designs, and since the relative strength of a design is known *a priori*, inconclusive results should be rare. But in fact, many of the secondary effects studies sponsored by SOB plaintiffs – and in particular, the study by Enriquez, Cancino, and Varano – have inconclusive results.

Finding a *substantively* large but *statistically* small effect, Enriquez, Cancino, and Varano argue that no secondary effect exists. A mundane analogy reveals the fallacy in this argument. If I cannot find my car keys, I might conclude that my car keys do not exist. But although this may be true, it may also be true – and it is certainly more likely – that I did not look hard enough for my car keys.[90].

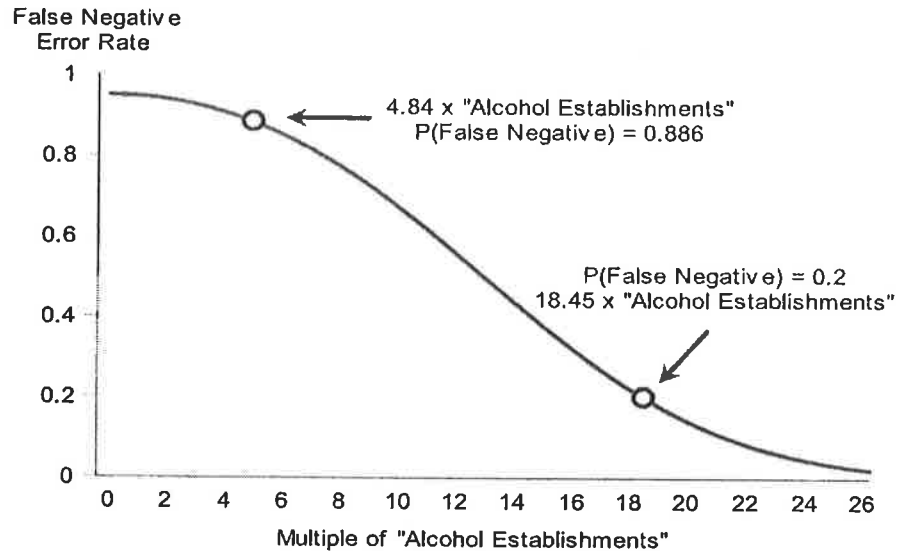
---

[89] The most comprehensive authority on this issue is Kendall and Stuart (1979, chapter 22). This authority requires a strong background in mathematics, however. Cohen (1988, pp. 3-4) and Lipsey (1990, pp. 38-40) set the conventional false-positive and false-negative rates at α=.05 and β=.2, respectively. These rates can be set lower, of course. The convention also sets the ratio of false-positives to false-negatives at 4:1, implying that false-positives are "four times worse than" false-negatives. The 4:1 convention dates back at least to Neyman and Pearson (1928). It reflects a view that science should be conservative. In this instance, for example, the 4:1 convention works in favor of the SOB. When actual decision error costs are known, the actual ratio is used.

[90] Newton made this point with his aphorism "*Negativa non Probanda*" which translates roughly as "Finding nothing proves nothing."

As it turns out, Enriquez, Cancino, and Varano did not "look hard enough" for a secondary effect in San Antonio. The false-negative error rates plotted in Figure 5.3b were calculated from Table 7 (pp. 33-4) of Enriquez, Cancino, and Varano (2006). The horizontal and vertical axes are calibrated respectively in multiples of the "alcohol establishments" effect and the corresponding false-negative error rate. The false-negative rate for the 4.84 multiple reported by Enriquez, Cancino, and Varano is 0.886. What this means, put simply, is that the null finding is most likely (88.6 percent) an artifact of the study's weak quasi-experimental design. Whereas Enriquez, Cancino, and Varano interpret their null finding as evidence that San Antonio SOBs do *not* have secondary effects, the low complementary probability (11.4 percent) raises grave doubts about the validity of this interpretation.

Figure 5.3b - False-negative Rates for the San Antonio Study



How substantively large would the secondary effect have to be before it could be detected with the conventional statistical power level of 80 percent? As shown, the secondary effect of "human display establishments" would have to be 18.45 times larger than the analogous effect of "alcohol establishments" before it could be detected with conventional statistical power. Given the unacceptably low power of their quasi-experimental design, it is not surprising that Enriquez, Cancino, and Varano were unable to find significant secondary effects. Given the low power of their design, that would have been a miracle.

Figure 5.3b has clear implications for challenging an ordinance under *Alameda Books*. "Quick and dirty" secondary effect studies – which is to say, studies with unacceptably low levels of statistical power – are biased in favor of the null finding. If investigators can circumvent the methodological rules, casting "direct doubt" on an evidentiary record is a simple, sure exercise. Anyone with a modest research background can design a study so as to guarantee a statistically insignificant result. Science guards against such abuses by requiring that investigators publish false-negative rates; or alternatively, as in this case, data sufficient for skeptics to calculate the false-negative rate.

5.4 CONCLUDING REMARKS

The mathematics of statistical hypothesis testing is so demanding that few social scientists understand the concepts or their importance to research.[91] The conventional 80 percent power level was proposed and adopted in the 1920s when statistical hypothesis testing was in its infancy. The convention has survived for eighty years because it serves two useful, crucial functions.

- Anyone with a modest background in research methods can design a study in a way that favors – or even guarantees – a null finding. The convention minimizes abuses by malicious investigators.
- Haphazardly designed "quick and dirty" studies favor the null finding. The convention minimizes the impact of spurious findings generated by naive (but benign) investigators.

Lay audiences, who must rely on common sense, cannot always distinguish between weak and strong designs or between benign and malicious investigators. Scientific conventions guard against both abuses. In this particular instance, the 80 percent power convention allows the lay audience to trust the validity of a null finding.

Recognizing the conventions, crime-related secondary effect studies can be assigned to one of three categories: studies that report secondary effects with 95 percent *confidence*; studies that report null findings with 80 percent *power*; and studies that are *inconclusive*. All of studies listed in Table 3 above either report large, significant secondary effects or else are *inconclusive*. No studies report null findings with the conventional 80 percent power. This reinforces a statement made earlier: It is a *scientific fact* that SOBs pose large, significant ambient crime risks.

[91] *E.g.*, Cohen (1992, p. 155): "I attributed this disregard of power to the inaccessibility of a meager and mathematically difficult literature..."

2. **Single-Family Home:** If located within 500 feet, how would the listed land use potentially affect the market value of a Single-Family Home? *All responses should be based on your best professional opinion as an appraiser working in normalized or balanced market atmosphere*					3. At what distance would there be **No Measurable Impact** on the Single-Family Home's market value?			4. Would a **concentration (2 or more uses within a couple of blocks)** have additional impact on the Single-Family Home's market value?		
	Positive Impact	No Impact	Negative Impact	No Opinion	Greater than 500 feet but less than 1/4 mile	Greater than 5-Min. Walk (greater than 1/4 mile)	Greater than 10-Min. Walk (greater than 1/2 mile)	Yes Additional Impact	No Additional Impact	No Opinion
Adult Media & Video Store (retail sales only)										
Bar (no live entertainment)										
Coffee Shop										
Convenience Store (beer/wine)										
Elementary School										
Gentleman's Club/Strip Club										
Grocery Store										
High Voltage Power Lines										
Homeless Shelter										
Landfill										
Lingerie & Adult Novelties Store										
Lounge (with live entertainment)										
Neighborhood Playground										
Pawn Shop										
Package Liquor Store										
Religious Institution										
Video Peep Booth Business										

You are halfway – Please keep going ... Your responses are important to us!

5. Community Shopping Center:
If located <u>within 500 feet</u>, how would the listed land use <u>potentially</u> affect the Community Shopping Center's **market value?**

All responses should be based on your best professional opinion as an appraiser working in normalized or balanced market atmosphere

	Positive Impact	No Impact	Negative Impact	No Opinion
Adult Media & Video Store (retail sales only)	○	○	○	○
Bar (no live entertainment)	○	○	○	○
Elementary School	○	○	○	○
Gentleman's Club/Strip Club	○	○	○	○
High Voltage Power Lines	○	○	○	○
Homeless Shelter	○	○	○	○
Landfill	○	○	○	○
Lingerie & Adult Novelties Store	○	○	○	○
Lounge (with live entertainment)	○	○	○	○
Neighborhood Playground	○	○	○	○
Pawn Shop	○	○	○	○
Package Liquor Store	○	○	○	○
Religious Institution	○	○	○	○
Video Peep Booth Business	○	○	○	○

6. At what distance would there be **<u>No Measurable Impact</u>** on the Community Shopping Center's market value?

Greater than 500 feet but less than 1/4 mile	Greater than 5-Min. Walk (greater than 1/4 mile)	Greater than 10-Min. Walk (greater than 1/2 mile)
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○

7. Would a **<u>concentration (2 or more uses within a couple of blocks)</u>** have additional impact on the Community Shopping Center's market value?

<u>Yes</u> <u>Additional</u> Impact	**<u>No</u>** <u>Additional</u> Impact	No Opinion
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○
○	○	○

	Always	Sometimes	Never	No Opinion
8. Would a retail business open **AFTER 11 PM** have a negative impact on the market value of **Single-Family Homes** located within a 5-minute walk (1500 feet)?	○	○	○	○
9. If you indicated certain land uses had negative impacts on the market value of a **Single-Family Home**, would **bright, animated, or garish lighting or graphics** increase the negative impact?	○	○	○	○

10. Do you believe that your personal, moral or ethical beliefs have affected your responses to any of the questions in this survey?	**Yes**	○	**No**	○

11. How many years of real estate appraisal experience do you have?

○	1 – 9 years	○	10 – 19 years	○	20 – 29 years	○	30 + years

12. In Which Counties Are Your General Locations of Practice? – **You May Select up to Two Locations**

○	Bell	○	Ellis	○	Hidalgo	○	Randall
○	Bexar	○	Denton	○	Jefferson	○	Smith
○	Brazoria	○	El Paso	○	Johnson	○	Tarrant
○	Bowie	○	Fort Bend	○	Lubbock	○	Taylor
○	Brazos	○	Galveston	○	McLennan	○	Tom Green
○	Cameron	○	Grayson	○	Midland	○	Travis
○	Collin	○	Gregg	○	Montgomery	○	Victoria
○	Comal	○	Guadalupe	○	Nueces	○	Webb
○	Dallas	○	Harris	○	Parker	○	Wichita
○	Ector	○	Hays	○	Potter	○	Williamson
						○	Other County

13. In what Zip Code is your PRIMARY office?

14. **Comments?** Provide other comments regarding the potential impact land uses may have on the market value of a single-family home or community shopping center. (Maximum 200 words)

Type answer here.

Survey Results:

Survey tabulation should be completed by the end of the year. IF you would like a copy of the results, please provide your email address below. Again, your responses to this survey are kept confidential. If you have provided an email address, the email addresses will be entered into a separate data base then deleted from the completed survey.

Survey Results? Please provide email address.

We Thank YOU for taking the time to respond to this very important survey of land uses that have the potential to impact market values!

Submit Reset

Questions or Comments? Email Us ...

Shawn Wilson, MAI: shawn@shawnwilsonconsulting.com
Eric Damian Kelly, FAICP: eric@duncanplan.com
Connie B. Cooper, FAICP: ccconniecooper@cs.com

Property Information

- Ways to pay your real estate taxes

NOTE: Our online payment system cannot accept an amount less than a full installment.

Click here to search for your next parcel

View Parcel on Interactive Map
Purchase Tax Parcel Map(s)

Parcel Number	Parcel Address	Billing Address
05-02-203-017		COUNTY OF DUPAGE
	22W126 VALLEY VIEW DR	C/O STATES ATTORNEY
	GLEN ELLYN, 60137	503 N COUNTY FARM RD WHEATON IL 60187

Current Tax Information is not available for the parcel number provided.
Please call the County Treasurer at (630) 407-5900 for more information.

* PENALTY OF 1.5% PER MONTH APPLIES IF PAID AFTER THE DUE DATES.

Prior Year 2016 Taxes

Installment	Base Tax Amount	Paid Date
First	$1,650.08	TAXES SOLD
Second	$1,650.08	TAXES SOLD

Prior Year 2015 Taxes

Installment	Base Tax Amount	Paid Date
First	$1,637.93	TAXES SOLD
Second	$1,637.93	TAXES SOLD

Prior Year 2014 Taxes

Installment	Base Tax Amount	Paid Date
First	$1,797.81	SUBSEQUENT TAX SALE
Second	$1,797.81	SUBSEQUENT TAX SALE